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Barriers and facilitating factors in access to health services in Greece

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Overall coordination and guidance for the study has been ensured by the Division of Health Systems and Public Health of WHO Regional Office for Europe, under the leadership of Hans Kluge, Divisional Director. The support of the local WHO Programme Management Team in Athens – represented by Wim Van Lerberghe, Senior Adviser on Primary Health Care and Health Systems, and Silviu Domente, Health Systems Analyst – in the design of the study and their fruitful discussions with researchers are gratefully acknowledged. Thanks also to Anastacia Alves Romaidis and Aspasia Kotsari from the WHO Programme Management Team in Athens who provided administrative and logistical support at all stages.

As an external expert with relevant experience and practical skills in applying the Tanahashi framework, Stela Bivol, Director for Programmes, Center for Health Policies and Studies, Republic of Moldova was invited to support the national team in the initial stage, through practical guidance on the methodology and process. Charalampos Economou, Associate Professor of Health Policy, Panteion University was the senior local expert who liaised with Stela Bivol, coordinated the study and wrote the final report. Antonis Kostas managed all the technical work regarding the desk review; the Scientific Society for Social Cohesion and Development, headed by Theodoros Sakellaropoulos, managed the qualitative component of the study. The qualitative research coordinator was Daria Lazarescu and the interviewers were Eugenia Bellou, Mary Bouga, Magdalene Dosopoulou, Monica Kehagia, Bill Lolis, Georgia Passa and Mary Skourti.

The participation of the many key informants and focus group participants whose ideas have informed this report is also gratefully acknowledged.

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Abbreviations

ATLAS	National Social Insurance Registry
COPD	chronic obstructive pulmonary disease
DYPE	health region administration
EDOEAP	Single Organization for Subsidiary Health Insurance of Journalists
EKAPTY	National Evaluation Centre of Quality and Technology in Health
EKAV	National Centre for Emergency Care
EKPY	Integrated Health Care Regulation (of EOPYY)
ELSTAT	Hellenic Statistical Authority
EOPYY	National Organization for the Provision of Health Services
ESY	national health system
ESPA	National Strategic Reference Framework
ETAA	Unified Fund for Independent Employees
ETAP-MME	Unified Insurance Fund for Media Employees
GDP	gross domestic product
GP	general practitioner
HTA	health technology assessment
ICU	intensive care unit
IKA	Social Insurance Institute
IMF	International Monetary Fund
KEPA	disability certifying centre
MOU	Memorandum of Understanding
MRI	magnetic resonance imaging
NGO	nongovernmental organization
OAED	Manpower Employment Organization
OAEE	Social Insurance Organization for the Self-Employed
OECD	Organisation for Economic Co-operation and Development
OGA	Agricultural Insurance Organization
OOP payments	out-of-pocket payments
OPAD	Civil Servants Health Insurance Fund
PCR	polymerase chain reaction
PEDY	National Primary Health-Care Network
PeSY	regional health authority
PESYP	regional health and welfare authority
PHC	primary health care
TAYTEKO	Insurance Fund for Bank and Utility Company Employees
TB	tuberculosis
UNESCO	United Nations *Educational, Scientific and Cultural Organization*

1. INTRODUCTION: AN OVERVIEW

1.1 Economic, social and health effects of Greek structural adjustment programme

In 2010, the Greek economy entered a deep structural and multifaceted crisis, the main features of which are a large fiscal deficit, huge public debt and continuous erosion of the country's competitive position. In order to address the problem, the Greek government requested the European Union (EU) and the International Monetary Fund (IMF) to activate a support mechanism; adopted a strict income policy; increased direct and indirect taxes; enhanced flexibility in the labour market; and cut public expenses.

The situation is summarized in the figures in Table 1. At current prices, gross domestic product (GDP) declined from €242.1 billion in 2008 to €182.4 billion in 2013. The real economy has been in recession since 2009 and GDP contracted by 4.7% in 2010, 8.2% in 2011, 6.5% in 2012 and 6.1% in 2013. This was due not only to a sharp drop in investment, but also falls in public and private consumption. The debt-to-GDP ratio has continued to rise: from 109.3% in 2008 to 174.9% in 2013. The deficit remains high, reaching 12.2% of GDP in 2013. In addition, compensation per employee declined by 2.6% in 2010, 2.3% in 2011, 2% in 2012 and 7.1% in 2013 (ELSTAT, 2015a).

Negative effects can also be observed at societal level, as all social indicators have deteriorated (ELSTAT, 2015b). The recession spread across all sectors of activity, impacting negatively on employment and causing an increase in the rate of unemployment which climbed to 27.5% in 2013. The same year, 28% of the Greek population was at risk of poverty; 35.7% was at risk of poverty or social exclusion; and 37.3% faced material deprivation, with an enforced lack of at least three out of nine categories of basic goods and services. Inequality of income distribution also increased as the income quintile share ratio (S80/S20) rose from 5.9 in 2008 to 6.6 in 2013. The percentage of the population able to afford adequate heating of their dwellings decreased from 76% in 2008 to 38.1% in 2013.

Table 1. Economic and social indicators, Greece, 2008–2013

	2008	2009	2010	2011	2012	2013
GDP at current prices (€ billions)	242.1	237.4	226.2	207.8	194.2	182.4
GDP growth % (at current prices)	4.0	-1.9	-4.7	-8.2	-6.5	-6.1
Public consumption (% change)	-2.1	1.6	-4.3	-6.6	-5.0	-6.5
Private consumption (% change)	3.0	-1.0	-7.1	-10.6	-7.8	-2.0
Gross fixed capital formation (% change)	-6.6	-13.2	-20.9	-16.8	-28.7	-9.5
Government gross debt (% of GDP)	109.3	126.8	146.0	171.3	156.9*	174.9
Government deficit (% of GDP)	-9.9	-15.2	-11.1	-10.1	-8.6	-12.2
Compensation per employee (% change)	3.3	3.2	-2.6	-2.3	-2.0	-7.1
Employment rate	48.9	48.3	46.7	43.3	39.5	37.7
Total unemployment rate (%)	7.8	9.6	12.7	17.9	24.4	27.5
Long-term unemployed (%)	47.1	40.4	44.6	49.3	59.1	67.1
Population at-risk-of-poverty rate (%) before social transfers	23.3	22.7	23.8	24.8	26.8	28.0
Population at-risk-of-poverty rate (%) after social transfers	20.1	19.7	20.1	21.4	23.1	23.1
Population at-risk-of-poverty or social exclusion rate (%)	28.1	27.6	27.7	31.0	34.6	35.7
Income quintile share ratio (S80/S20)	5.9	5.8	5.6	6.0	6.6	6.6
Material deprivation (% of the population)	21.8	23.0	24.1	28.4	33.7	37.3
Households (%) with resources to heat homes	76.0	73.5	73.1	72.1	55.7	38.1

*Includes debt reduction under the private sector involvement (PSI) initiative.
Sources: ELSTAT, 2015a and 2015b.

A lack of timely and relevant data makes it difficult to quantify the health effects of the Greek economic crisis and of the government policies introduced in response.Yet negative trends are indicated by some preliminary evidence from targeted studies concerning self-reported health (Zavras et al., 2013; Vandoros et al., 2013); mental health (Economou, Madianos et al., 2013a and 2013b); infectious diseases (Bonovas & Nikolopoulos, 2012; Paraskevis et al., 2013); stillbirths (Vlachadis & Kornarou, 2013) and suicides (Branas et al., 2015; Rachiotis et al., 2015).

1.2 Reductions in public health spending

From 2010 until at least February 2015, when a new government was elected, the Greek government continued to implement a health reform programme with the objective of keeping public health expenditure at or below 6% of GDP. Dictated by the Government's overall austerity policy, in practice this health policy has led to the deepest depression of the health economy. Between 2009 and 2013 (the latest year for which data are currently available), total health expenditures dropped by 31.9% (from €23.2 billion to €15.8 billion). These cuts were driven by a reduction in public spending and, especially, social security funds' spending on health (Table 2).

Table 2. Total health expenditures (€ million), Greece, 2009–2013

	2009	10/09 %	2010	11/10 %	2011	12/11 %	2012	13/12 %	2013
General government	6 115.4	5.9	6 475.4	-35.1	4 202.2	20.1	5 046.4	-8.8	4 603.1
Social security funds	9 982.8	-8.8	9 106.1	-1.3	8 986.1	-29.2	6 361.4	-14.8	5 417.8
Total public expenditures	16 098.2	-3.2	15 581.5	-15.4	13 188.3	-13.5	11 407.8	-12.2	10 020.9
Private insurance	433.8	23.7	536.6	-0.4	534.2	-1.6	525.7	-5.8	495.1
Private payments	6 592.3	-7.8	6 078.0	-4.2	5 823.8	-12.1	5 118.9	0.04	5 121.2
Total private expenditures	7 026.1	-5.9	6 614.6	-3.9	6 358.0	-11.2	5 644.6	-0.5	5 616.3
Other expenditures (church, NGOs etc)	52.6	39.2	73.2	-28.4	52.4	2.1	53.5	160.4	139.3
Total health expenditures	23 176.9	-3.9	22 269.3	-12.0	19 598.7	-12.7	17 105.9	-7.8	15 776.5

Source: ELSTAT, 2015c.

There have been consistent reductions not only in total current health expenditure but also in the public share of that expenditure. Current private health expenditures also decreased, but increased as a percentage of total health expenditure. This was mainly due to an increase in private insurance (Table 3). However, out-of-pocket (OOP) payments remain the major component of private health expenditures.

Table 3. Current health expenditures (percentage contribution by sector), Greece, 2009–2013

	2009	2010	2011	2012	2013
General government	26.4	29.1	21.4	29.5	29.2
Social security funds	43.1	40.9	45.9	37.2	34.3
Total public current expenditures	69.5	70.0	67.3	66.7	63.5
Private insurance	1.9	2.4	2.7	3.1	3.1
Private payments	28.4	27.3	29.7	29.9	32.5
Total private current expenditures	30.3	29.7	32.4	33.0	35.6
Other expenditures (church, NGOs etc)	0.2	0.4	0.3	0.3	0.3

Source: ELSTAT, 2015c.

1.3 Reductions in population's coverage with health-care services

In 2011, the health-care sector of all major social insurance funds covering salaried employees; agricultural workers; the self-employed; civil servants; sailors and merchant seamen; and banking and utility company employees formed a single health-care insurance fund. The National Organization for the Provision of Health Services (EOPYY) acts as a unique buyer of medicines, ambulatory and hospital services for all those insured, thus acquiring greater bargaining power with suppliers.

Following the merger, the benefit packages of the various social health insurance funds were standardized and unified to provide the same reimbursable services. A basic characteristic of the unified package is a reduction in benefits to which those insured are entitled. For example, some expensive examinations that had been covered, even partially – including polymerase chain reaction (PCR) tests and tests in case of thrombophilia – were removed from the EOPYY benefit package and must now be compensated on an OOP basis. In addition, restrictions in entitlement were introduced in relation to childbirth, air therapy, balneotherapy, thalassaemia, logotherapy and nephropathy. Moreover, introduction of a negative list for medicines in 2012 resulted in the withdrawal of reimbursement status for various drugs. Under the terms of the Memorandum of Understanding (MoU), this negative list should be updated twice a year. The over-the-counter drug list introduced in the same year comprises many medicines that had been reimbursed (e.g. some pain relief medicines) but must now be paid for out of pocket (Economou, Kaitelidou et al., 2014 & 2015).

In 2011, user charges in public hospital and health centre outpatient departments were increased from €3 to €5.[1] Since 2014, an extra €1 has been charged for each prescription issued by the national health system (ESY). A €25 patient fee for admission to a state hospital was applied from 1 January 2014 but soon revoked due to strong reactions from health-care professionals and the opposition party. It is planned to replace this with 10 cents extra tax on cigarettes.

In 2013, copayments were increased for pharmaceuticals for specific diseases including Alzheimer's, dementia, epilepsy, type 2 diabetes (from 0% to 10%), coronary heart disease, hyperlipidaemia, both psoriatic and rheumatoid arthritis, chronic obstructive pulmonary disease (COPD), osteoporosis and Paget's, Crohn disease and liver cirrhosis (from 10% to 25%). Furthermore, the total number of medicines for which a 25% cost-sharing arrangement was imposed was also increased. As a result, the average copayment rate for medicines increased from 13.3% in the first and second month of 2012 to 18% in the corresponding period of 2013. Monthly expenditure for households increased on average from €36.3 million in 2012 to €38.2 million in 2013 (for the same periods over the two years), despite the price reductions (Siskou, Kaitelidou, Litsa et al., 2014).

In an effort to cut costs further and combat excessive prescribing among doctors, a ceiling to the monthly amount prescribed by a doctor was set in January 2014 (at 80% of the last year's prescription budget). The measure was unpopular as patients were obliged to refer to several doctors in order to find one who had not reached their prescription limit. As a result, exceptions were introduced for some doctors – including those working in public hospitals, in retirement homes and in nongovernmental organizations (NGOs) (Economou, Kaitelidou et al., 2014 & 2015).

[1] Joint Ministerial Decision No. A3(g)/GP/oik.23754 of 1 April 2015 abolished the €5 charge for visits to outpatient departments of public hospitals and health centres.

1.4 Problem of access to health-care services for vulnerable groups

Most of the aforementioned measures are horizontal, not means-tested, and consequently impose higher burdens on those who are least well off. The imposition of public health spending restrictions (to no more than 6% of GDP) and the simultaneous decline in GDP (since 2009, with further decreases forecast in the next few years) means that the public health sector is called upon to meet the increasing needs of the population with decreasing financial resources. This has negative effects, especially for middle- and low-income households that lack the disposable income to buy private health services. As a consequence, the increasing self-reported unmet needs for examinations are no surprise. Table 4 provides information on the proportion of people reporting unmet needs for medical examination due to high costs, long waiting lists or low proximity, based on EU Statistics on Income and Living Conditions (EU-SILC) data.

Table 4. Self-reported unmet needs for medical examination,* 2008–2013

	2008	2009	2010	2011	2012	2013
Total population	5.4	5.5	5.5	7.5	8.0	9.0
By income quintile						
1st quintile	8.7	11.2	9.2	11.6	11.6	14.9
2nd quintile	7.1	7.4	6.7	9.8	9.6	11.5
3rd quintile	6.1	4.6	5.9	7.6	9.2	9.6
4th quintile	3.4	2.7	3.2	4.8	4.7	7.8
5th quintile	1.8	1.7	2.2	3.6	4.8	1.1
By labour status						
Employed	3.3	2.8	3.1	4.7	5.6	6.1
Unemployed	8.6	7.5	9.4	11.3	10.8	11.7
Retired	7.6	7.8	7.3	10.2	9.4	11.3
Other inactive	5.9	7.3	6.3	6.9	8.1	9.6

*Too expensive/too far/long waiting lists.

Source: Eurostat, 2015a.

The data presented enable three conclusions to be drawn for the Greek population. First, during the period 2008–2013 the percentage of the population reporting unmet needs for medical examination due to high costs, low proximity or long waiting lists increased from 5.4% to 9%. Second, unmet care needs are more likely to be reported by people with low incomes than people with high incomes. Furthermore, the gap between the first and the fifth quintile has widened. Third, labour status is a significant determinant of access to health care in Greece: the percentage of unemployed

people who report problems with access is almost twice the percentage of those employed. This raises serious questions for health-care coverage given the very high unemployment rate in the country.

According to the National Social Insurance Registry (ATLAS), approximately 2.5 million of the population has no insurance coverage for health care. Economic crisis contributed to these unfavourable trends, having a dual effect on households and the health sector due to changes in both budgets and resource availability. A decline in household income exposed a number of vulnerabilities through household interaction with the health sector. Unemployment and declining real wages led to reductions in health insurance coverage; diminished household income and lack of health insurance resulted in significant declines in health services utilization. Furthermore, the economic downturn impacted resources available to health services as the government reduced the level of spending due to tightened fiscal constraints and increased user fees.

In February 2014 the Greek Parliament passed new legislation for primary health care (PHC), establishing a National Primary Health-Care Network (PEDY) coordinated by the health regional administrations (DYPEs). The latter have jurisdiction over all PHC facilities of EOPYY, rural health centres and their surgeries, and the few urban health centres. The aim is that these structures function for 24 hours a day, seven days a week. In addition, the law provides for the establishment of a referral system based on family general practitioners (GPs). The first article of the law states that "primary health care services are provided to all citizens equally, independently of their economic, social and labour status, via a universal, integrated and decentralized network" (Law No. 4238 of 17 February 2014).

Furthermore, two joint ministerial decisions (No. Y4a/GP/oik.48985 of 5 June 2014 and No. GP/oik.56432 of 28 June 2014) were issued by the Minister of Finance, Health, and Labour and the Minister of Social Insurance and Welfare in June 2014. These set out the entitlements of all uninsured Greek citizens and legal residents of the country who lack social or private health insurance; are not eligible for poverty booklets (see section 3.2.2.2); or have lost their insurance rights due to inability to pay social insurance contributions. They, and their dependants, are covered for:

a. inpatient care free of charge, at the expense of public hospital budgets, provided that they have received a referral from a doctor of the PEDY or an outpatient department of a public hospital and the special three-member medical committee which will be set up in each hospital, certifying the patient's need for hospitalization;

b. pharmaceuticals at the expense of the state budget, provided that they are prescribed by a doctor of the PEDY or of a public hospital – however, beneficiaries are required to pay the copayments that apply for the insured.

Although the aforementioned legislation is expected to have positive effects, four issues have to be considered (Economou, Kaitelidou et al., 2014). First, the referral system based on family GPs has not yet been implemented. Second, the stigmatizing procedure for accessing hospital services, given that a specific committee must certify the need for hospitalization of uninsured patients, but not the insured population. Third, the legislative requirement that uninsured people pay the same copayments for pharmaceuticals as those insured – with potential negative effects for those in difficult economic situations. Last but not least, at the time of writing the Ministry of Health has not clarified how public hospitals should implement the ministerial decision on hospitalization of the uninsured. As a consequence, uninsured people seeking hospital services face serious unjustified administrative barriers in access to health care due to their differentiated treatment by different public hospitals that conflicts with the new legislation.[2]

1.5 Mandate and structure of the report

On 18 July 2013, the Greek Ministry of Health and the WHO Regional Office for Europe signed a Contribution Agreement for the provision of technical assistance in implementing efficient and effective reforms in the Greek health-care system. One key element of the WHO-supported activities relates to evidence generation regarding access to health care of vulnerable groups. WHO Regional Office for Europe is directly involved in the process through its technical units in Copenhagen – Division of Information, Evidence, Research and Innovation; Division of Health Systems and Public Health – and the local Programme Management Team, with the involvement of external and local experts and institutions. The first phase of the study has been completed, comprising literature, legislation and services reviews and development of policy options for unemployed people.[3]

[2] One newspaper article describes how two journalists contacted seven public hospitals, pretending to be uninsured and asking for information about the necessary supporting documents and procedure to be hospitalized free of charge. The answers they received varied widely (Kaitanidi & Devetzoglou, 2014).

[3] Economou C et. al. (2014). Access to health care for vulnerable groups in Greece, unpublished report prepared for WHO Regional Office, Athens.

The current report is the product of the second phase, comprising a desk review and a qualitative survey to identify barriers and facilitating factors in vulnerable groups' access to services, using the Tanahashi framework. In light of the above, the report aims to:

a. explore the barriers and facilitating factors in access to health services in Greece, with a specific focus on barriers experienced by socially excluded populations and other vulnerable/high risk groups;

b. review the impact of the 2014 legislation on poor and uninsured people.

The report is presented in five chapters. Chapter one contains the introduction and gives a brief overview of the present situation in Greece concerning the economic and social effects of the crisis and the structural adjustment programme imposed by the Troika;[4] trends in health financing; coverage for health care and access to services; and recent legislative initiatives to confront the problem of the 2.5 million people without insurance rights for health. Chapter two provides background on the framework to the study, including the method of the desk review. An explanation of the Tanahashi framework delineates what is addressed in each of its five domains (availability coverage, accessibility coverage, acceptability coverage, contact coverage, effective coverage), and how their application in analysis can help to identify opportunities for health-system strengthening towards the achievement of universal coverage with equity. Chapter three highlights the main findings from the desk review. Chapter four highlights the main findings of qualitative research based on informant interviews and focus group discussions with various population groups. Finally, chapter five summarizes the findings and identifies potential areas for future policy development and research.

[4] Representatives of Greece's official lenders: European Union (EU), European Central Bank (ECB) and IMF.

2. METHODOLOGY OF THE STUDY

2.1 Tanahashi framework

In Organisation for Economic Co-operation and Development (OECD) and EU countries, one basic goal of health policy-making and health-systems functioning is adequate access to essential health-care services for all people, based on need rather than ability and willingness to pay. This principle is affirmed in constitutional statements, legislation and official policy documents. As a consequence, measurement of equity of access to health services is a core component of health system performance assessments (Allin, Hernández-Quevedo & Masseria, 2009; Hernández-Quevedo & Papanicolas, 2013; OECD, 2004a).

Improved access to effective health-care interventions may not be the most important determinant of health, especially for vulnerable and disadvantaged social groups.Yet it can be argued that it makes a very significant contribution to the reduction of health inequalities given that poor health outcomes are often associated with gaps in gaining timely and adequate access to effective and good-quality health care (Paterson & Judge, 2002). Considering health's role in human life and freedom, access to health care cannot be seen in isolation, concerning only health. Rather, as Sen indicates, it must address the issue of fairness and justice in social arrangements (Sen, 2004).

The notion of effective universal coverage underpins the research and analysis of findings of the present report, using the definition given in World Health Assembly Resolutions WHA58.33 and WHA64.9, and in the World Health Reports of 2010 (WHO, 2010a) and 2013 (WHO, 2013). It is a twofold aspiration: (i) to ensure that health-financing systems evolve so as to avoid significant direct payments at the point of delivery and include a method for prepayment of financial contributions for health care and services as well as a mechanism to pool risks among the population in order to avoiding catastrophic health-care expenditure and impoverishment of individuals as a result of seeking the care needed; (ii) to aim for affordable universal coverage and

access for all citizens on the basis of equity and solidarity, so as to provide an adequate scope of health care and services and level of costs covered, as well as comprehensive and affordable preventive services through strengthening of equitable and sustainable financial resource budgeting. Similarly, United Nations Resolution A/67/L36 on universal health coverage, adopted 12 December 2012, urges governments to move towards providing all people with access to affordable, quality health-care services. It recognizes the role of health in achieving international development goals and calls for countries, civil society and international organizations to include universal health coverage in the international development agenda.

Having defined effective universal coverage, the next step is to develop a framework for monitoring, assessing and analysing the delivery of health interventions to those who need them, in order to clarify the interrelationships between notions of access; demand for care; utilization; and coverage. There have been many different efforts to develop such a conceptual framework (Shengelia et al., 2005; Boerma et al., 2014). In recent years, WHO has used the Tanahashi model to ascertain coverage and identify barriers and facilitators in accessing health services. This recognizes five different aspects of coverage, which could be analysed when trying to determine problems preventing achievement of universal coverage: (i) availability; (ii) accessibility; (iii) acceptability; (iv) contact; and (v) effective coverage (Tanahashi, 1978). Fig.1 highlights the relationships between these domains.

Availability coverage shows the proportion of people for whom sufficient human and material resources (e.g. technologies, facilities, drugs etc) have been available – the ratio of resources to the total population in need.

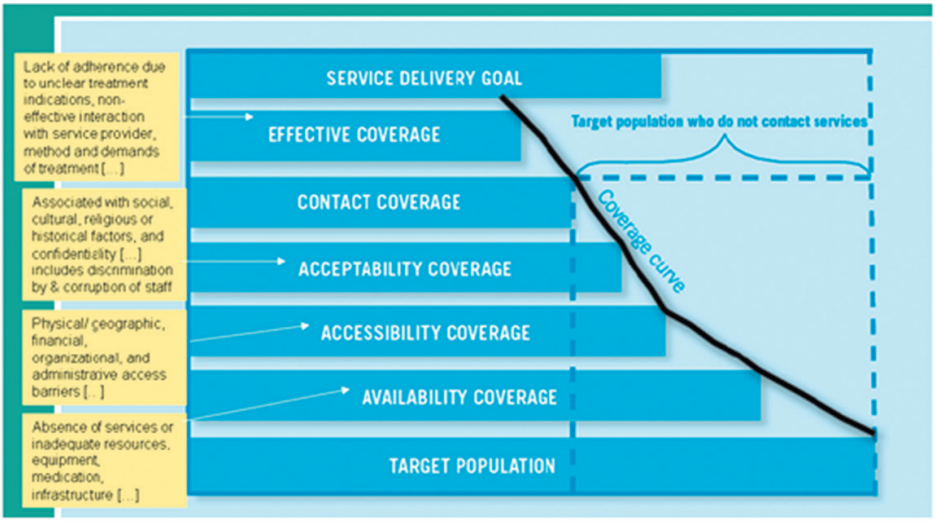
Accessibility coverage refers to the proportion of people for whom health services are accessible in terms of their location, distance or travel time. This includes not only physical access and travel facilities but also affordability (e.g. financial barriers to access such as user fees, catastrophic health expenditures, transport costs).

Acceptability coverage is the proportion of people for whom health services and programmes are acceptable in terms of culture, beliefs, religion, gender or age, for example. This also includes affordability in relation to people's perceptions of the value of health services and expected costs.

Contact coverage is the proportion of the population that has used health services and has contacted a health service provider. Continuity of access is a crucial component of this dimension.

Effective coverage is the proportion of people who have received successful interventions (e.g. accurate diagnostic tests, evidence-based treatment, adherence to prescribed treatment etc).

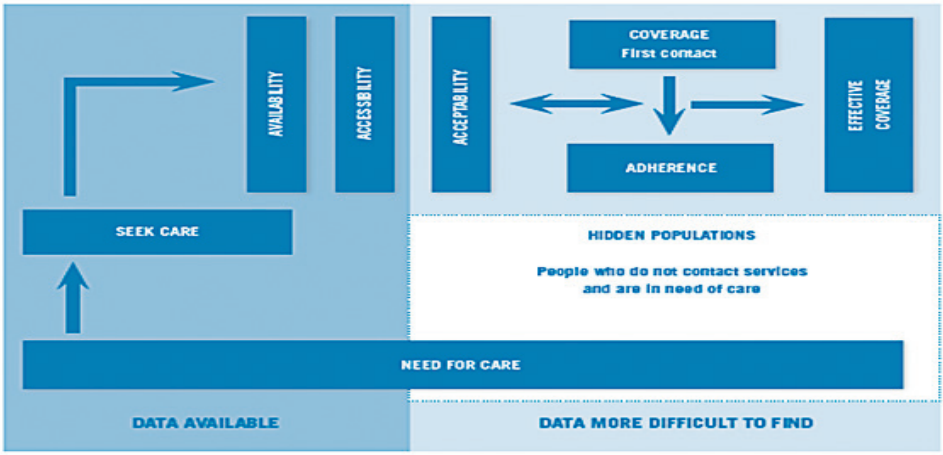
Fig. 1. Tanahashi framework for effective coverage with health services



Source: WHO Regional Office for Europe, 2012.

In implementing Tanahashi's model to evaluate delivery of health services, health policy-makers can adopt a step-by-step approach: identifying hidden groups with unmet needs in each stage. This allows assessment of a health system's capacity to achieve effective coverage by evaluating both the nominal capacity (proportion of target population that could theoretically be provided with coverage) and the effective coverage (proportion of target population that uses services of sufficient quality). As shown in Fig.1, Tanahashi proposed examining the slope of the curve between each stage of coverage to assess the relative size of coverage loss between each stage. A flatter curve indicates a larger loss of health-system efficiency, highlighting an area in the process of service provision that should be prioritized. He refers to this loss of efficiency as a bottleneck in the health system. An indicative demonstration of this perspective is illustrated in Fig.2.

Fig. 2. Revealing hidden population groups by analysing effective coverage of the health system



Source: WHO, 2010b.

Under adverse economic and social conditions, more than 2.5 million of the Greek population lack social insurance coverage for health care and more than 35% of the population are at risk of poverty or social exclusion. In this context, use of the Tanahashi model can help policy-makers to assess the performance of the health system in the period preceding the current economic downturn; the impact of the crisis; and the reforms implemented in the Greek health sector during the last five years. In turn, this can inform their efforts to address bottlenecks in the operation of health services and to develop strategies to expand coverage to uninsured people and vulnerable social groups. With this in mind, the two components of the present study – desk review and qualitative survey – are structured according to the framework proposed by Tanahashi.

2.2 Desk review

The purpose of the desk review was to examine the literature produced between 2000 and 2014 concerning the barriers and facilitators in accessing health services in Greece. Research of the relevant publications took place from October 2014 to February 2015 and was conducted electronically at specific agencies in Greece (e.g. Ministry of Health). Research was also conducted in international and national organizations associated with this specific subject (e.g. WHO, OECD, National School of Public Health).

The electronic research included the following key terms: health, health services, health care, access, equity, quality, satisfaction, barrier, obstacle, Greece. Research included review of local and international public health journals (e.g. *Archives of Hellenic Medicine*, *Health Science Journal*, *Journal of Psychiatric and Mental Health Nursing*, *Rostrum of Asclepius*, *Health Policy*, *The International Journal of Health Planning and Management*). Grey literature, surveys, working papers, presentations at scientific meetings, master's theses and doctoral dissertations in the areas of public health, health policy and health-care administration have also been researched.

2.3 Qualitative research

The qualitative research had a threefold objective.

1. To identify the barriers and facilitating factors to health care being experienced and perceived by socially excluded populations and characterize these in relation to availability, accessibility, acceptability, contact and effective coverage using the Tanahashi framework.

2. To identify the perceptions of socially excluded populations and health-care providers and managers regarding the impact of the economic crisis and health reforms on coverage with health services.

3. To highlight opportunities to improve equity in access to quality health services.

The sampling was designed to cover representatives of both providers and users of health services. The sample of key informants was designed to include a range of health managers from national and regional levels, as well as urban and rural outpatient and inpatient health services. The sample of users of health services was designed to cover key groups not covered by health insurance prior to the recent legislative amendments, explicitly targeted by the legislation and likely to experience health-system access barriers related to accessibility, availability, acceptability, contact and effective coverage. In addition, quotas were determined for those interviewed individually in order to ensure a range of experiences depending on sex (at least 40% men), age (50% under 49 years) and use of health services (50% have used any level of health care in the past six months and 10–20% are beneficiaries eligible for health insurance under social protection law).

Focus groups were organized to enable further exploration of the meanings of the survey. By enabling participants to agree or disagree with each other, the focus groups provided insights into how a group of users of health services thinks about an issue, and the inconsistencies and variations within a particular community in terms of their beliefs, experiences and practices. Each focus group was guided by a moderator who introduced topics for discussion and encouraged participation in a lively and natural discussion. The moderator was assisted by another researcher who noted non-verbal details and other observations during the session.

Data were collected via semi-structured individual interviews by a team of experienced qualitative researchers from the Scientific Society for Social Cohesion and Development. All interviews were audio-recorded, transcribed verbatim, translated into English, coded initially for emerging core descriptive content and then further refined in an iterative process of data coding, charting and interpretation. Key areas of interview discussion included assessment of access to health care at national level and in the interviewee's health facility; major changes in access to care in the past five years; knowledge of legislative amendments designed to increase coverage of poor and excluded people; and changes to practices and their implementation.

The qualitative data were collected over a two-month period. Seven interviewers conducted the fieldwork for the qualitative interviews and focus groups between November 2014 and January 2015. Each interviewer is a social science researcher with experience in qualitative researching. A total of 39 participants were interviewed within six focus groups comprising: (i) long-term unemployed; (ii) young unemployed; (iii) protected members; (iv) working poor; (v) immigrants; and (vi) users of various insurance providers.

The study included 62 in-depth interviews, of which 24 were with experts and 38 were with users and non-users of health-care services. The 24 expert informants comprised: three high/mid-level managers from the Ministry of Health; three EOPYY officials; two general managers of district-level hospitals; two health-centre managers; two rural GPs; two pathologists from small urban areas; an NGO service provider; two pharmacists – one urban, one rural; a director of a health district; a Medical Association representative; a PEDY pathologist; a physician in private practice; a director of a hospital nursing service; a director of a hospital pharmaceutical service; and a director of a hospital medical service. The 38 users and non-users of health services comprised: three long-term unemployed; four young unemployed; four protected members; four working poor; four farmers; four immigrants; two people with hypertension; three people with diabetes; two people with asthma; one person with thalassaemia; two people in dialysis; two people with non-psychotic mental illness; one person with

tuberculosis (TB); one person insured with the Social Security Institute (IKA); and one person with a double bypass.

The interview guide raised some challenges. Although interviewees found the length of the interview acceptable and the content understandable, some felt that the process of returning to earlier comments was repetitious. Some focus groups needed specific questions. For example, in the case of lack of insurance, questions related to the use of private medical services; in the case of long-term unemployed patients, questions related to strategies for coping with lack of social services coverage. Emphasis has been given to the last visit to a doctor because some respondents referred to cases from several years ago. There was also a trend to describe more hospitalizations and fewer cases of PHC and lab tests. Differentiated questions for patients with chronic disease were vital. Language barriers caused some difficulties in interviews with immigrants but some questions were generally not easily understood (i.e. those related to most recent government measures to minimize the impacts of social challenges in respect of access to health services).

Recruitment of, and contact with, respondents was also difficult. This was partly due to the timing of the fieldwork (end of year/Christmas holidays) which created difficulties in contacting respondents (ministry experts and health-service users). Interviewers also experienced many cancellations as it was very difficult to schedule meetings convenient for all potential focus group participants. This was also true for the individual interviews with experts and with users and non-users of health-care services.

It was also very difficult to identify people with chronic diseases (mainly people with thalassaemia, mental illness and TB) as health-care providers could not offer relevant data due to restrictions concerning patient privacy. In some cases it was impossible to conduct in-depth interviews with patients with thalassaemia, TB or nephropathy as willing participants could not be found. For example, of only two people with thalassaemia identified, only one wanted to cooperate. Both users and non-users of health-care services showed high rates of refusal to participate in focus groups and interviews. The reasons given were diverse and included lack of interest; doubt that the situation might change; doubt that they can influence changes; and lack of time.

Many experts were not very responsive and many were keen to emphasize that their opinions expressed in the study are personal, not official, and the result of experience gained over the years. The reference letter supplied by WHO was essential for ensuring participation in the study (especially among ministry experts and hospital

administrators). It was very difficult to conduct interviews with experts from the Ministry of Health as, although most did not directly refuse to participate in the study, many meetings were cancelled or missed. In particular, two planned interviews in the Ministry (economic department) could not be conducted. Also, many of these experts were poorly informed on the subject.

For the qualitative research, local context meant that the vulnerable groups identified as suffering most from losing health insurance coverage have distinct features: living in Athens or in small urban and rural areas. Therefore, to ensure equal participation and representation for people outside the city, focus groups were conducted with people recruited in Athens and individual interviews were held with people outside Athens, based on selection criteria and established quotas.

The survey also had to address several other issues.

- Respondents often referred to other people's experiences, finding it difficult to confine themselves to their own experience. Also reference periods were very diverse, ranging from several days to several years.

- Questions about changes that occurred in the last semester (July 2014) – amendments to the law on compulsory health insurance – caused difficulty for most participants as they were unaware of such developments.

- Immigrants did not always understand the questions and it was necessary to explain the meaning of the discussion.

- Uninsured people knew little about the rights of insured people.

- Going to the doctor was perceived as a need only for those who had a health problem so initially some participants said that they had not been to a doctor in recent years. However, it later became apparent that they had used medical services such as blood tests, precautionary check-ups, medical certification.

The interviews also presented some problems. Recruitment was more difficult in some cases than in others and caused delays. In order to enhance access to experts, the Scientific Society for Social Cohesion and Development (EPEKSA) requested that WHO provide a reference letter for interviewers to use, especially for experts from public entities. Several levels of permission were requested and potential interviewees asked for questions to be submitted in advance. Some experts were distressed by parallel activities, interventions or sounds (e.g. phone ringing). Some experts noted the vital

importance of respecting their confidentiality and expressed hopes that participation in the present study will not negatively impact on their careers. One focus group participant left in the middle of a discussion, stating that he was homeless and had thought that participation would have helped him to find a solution to his problems. Having realized that this was not feasible, he had no interest in the specific issue.

3. FINDINGS OF THE DESK REVIEW

This chapter provides a description of the main findings from the desk review regarding barriers and facilitators to access, by each level of health-services coverage, according to the Tanahashi approach. Over 200 sources were viewed but, as expected, there were very limited data concerning the recent legislation to expand health-services coverage to the uninsured population and vulnerable groups.

3.1 Availability coverage

This section presents an analysis of available physical and human resources in the Greek health-care system and their regional allocation. Data were collected by the Hellenic Statistical Authority (ELSTAT). The desk review did not identify adequate data on the availability of disease-specific services. Also, data on the availability of promotion and prevention services appear to be quite limited. Accordingly, this desk review focuses on the availability and distribution of health facilities and the availability of human resources within the health-care system. The statistics collected by ELSTAT and the desk review show the existence of significant inequalities in the allocation of physicians, dentists and nurses among the different geographical regions of the country. In combination with unequal regional allocation of beds, these contribute to inequalities in access to services.

3.1.1 Infrastructure

The Greek health-care system is strongly hospital-centred. In 2011 there were 314 hospitals, of which 141 were public and 173 were private. Public hospitals include ESY hospitals, university hospitals and hospitals with special status (e.g. military or prison hospitals). All have outpatient departments, operating on a rotational basis. Private hospitals are profit-making organizations, usually formed as limited liability companies. According to the type of services they offer, Greek hospitals are categorized as either general or specialized. The former include departments of medicine; surgery; paediatrics; and obstetrics and gynaecology, supported by imaging and pathology services. They range from big general hospitals in large urban areas and district hospitals located in the main administrative district, to small hospitals in semi-urban areas and towns. Specialized hospitals are referral centres for a single specialty (e.g. obstetrics, paediatric care, cardiology, psychiatry). Hospitals linked to the country's medical schools offer the most complex and technologically sophisticated services (Economou, 2010; Economou & Giorno, 2009). Table 5 presents hospital configuration in Greece by legal form of ownership and geographical region. A gradual but steady decline in private hospitals is observed between 2001 and 2010, one reason being the low reimbursement rates for hospitalization under public social insurance.

Table 5. Hospitals by legal form of ownership and geographical region, 2000–2011

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GREECE												
Total	337	336	326	327	319	317	317	313	316	313	310	314
Public	140	139	141	142	141	141	141	140	140	142	141	141
Private	197	197	185	185	178	176	176	173	176	171	169	173
ATTICA												
Total	109	111	109	109	105	103	103	103	103	102	102	106
Public	41	41	42	42	41	41	41	41	41	42	42	42
Private	68	70	67	67	64	62	62	62	62	60	60	64
CENTRAL GREECE												
Total	27	27	26	25	25	25	25	25	24	24	24	23
Public	13	13	13	13	13	13	13	13	13	13	13	13
Private	14	14	13	12	12	12	12	12	11	11	11	10
PELOPONNESE												
Total	33	32	31	31	29	29	29	29	29	29	29	28
Public	19	18	18	18	18	18	18	18	18	18	18	18
Private	14	14	13	13	11	11	11	11	11	11	11	10
IONIAN ISLANDS												
Total	8	7	7	7	7	7	7	7	7	6	6	6
Public	6	6	6	6	6	6	6	6	6	6	6	6
Private	2	1	1	1	1	1	1	1	1	0	0	0
EPIRUS												
Total	7	7	7	7	7	7	7	7	7	7	7	7
Public	5	5	5	5	5	5	5	5	5	5	5	5
Private	2	2	2	2	2	2	2	2	2	2	2	2
THESSALY												
Total	36	37	36	36	38	38	37	35	38	37	36	37
Public	5	5	5	5	5	5	5	5	5	5	5	5
Private	31	32	31	31	33	33	32	30	33	32	31	32
MACEDONIA												
Total	76	74	69	70	67	67	67	67	69	69	68	68
Public	28	28	28	28	28	28	28	28	28	29	28	28
Private	48	46	41	42	39	39	39	39	41	40	40	40
THRACE												
Total	7	7	8	8	8	8	8	6	6	6	5	7
Public	4	4	5	5	5	5	5	4	4	4	4	4
Private	3	3	3	3	3	3	3	2	2	2	1	3
AEGEAN ISLANDS												
Total	14	14	14	15	15	15	16	16	15	15	15	15
Public	10	10	10	11	11	11	11	11	11	11	11	11
Private	4	4	4	4	4	4	5	5	4	4	4	4
CRETE												
Total	20	20	19	19	18	18	18	18	18	18	18	17
Public	9	9	9	9	9	9	9	9	9	9	9	9
Private	11	11	10	10	9	9	9	9	9	9	9	8

Source: ELSTAT, 2015d.

Although the number of hospitals declined during the 2000s, numbers of both public and private hospital beds increased. Approximately 70% of beds are in the public sector and 30% in the private sector (Table 6). The majority of private beds are in small or medium-sized general, obstetric/gynaecological or psychiatric clinics with capacities of fewer than 100 beds, low patient occupancy and low staffing rates for all types of personnel. They are mainly contracted with EOPYY, offering services of moderate quality to insured people. A second category of private beds is found in a small number of prestigious high-cost hospitals with 150–400 beds, mainly in Athens and Thessaloniki, offering high-quality services to private patients and patients with private insurance (Kondilis, Gavana et al., 2011; Maniou & Iakovidou, 2009). One basic characteristic of the private sector is its high degree of concentration, with fewer private hospitals holding more and more of the market share (Boutsioli, 2007).

Table 6. Hospital beds by legal form of ownership and geographical region, 2000–2011

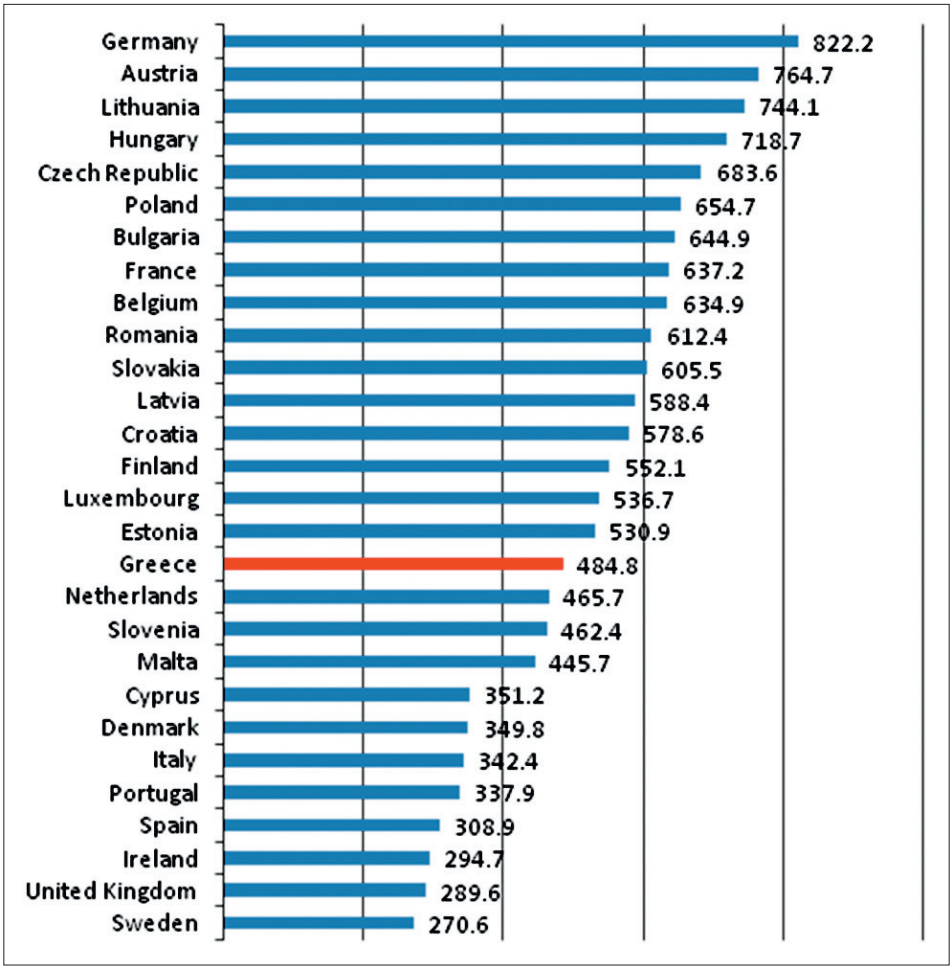
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GREECE												
Total	***51 500***	***52 276***	***51 781***	***51 762***	***51 871***	***52 511***	***53 701***	***53 888***	***53 652***	***54 704***	***54 012***	***53 773***
Public	35 730	36 186	36 142	35 814	35 808	36 554	37 053	37 574	37 027	38 115	37 900	36 822
Private	15 770	16 090	15 639	15 948	16 063	15 957	16 648	16 314	16625	16 589	16 112	16 951
ATTICA												
Total	***22 235***	***23 003***	***22 924***	***22 464***	***22 486***	***22 312***	***22 615***	***22 652***	***22 442***	***23 036***	***22908***	***23 290***
Public	14 249	14 749	14 800	14 294	14 472	14 573	14 824	14 824	14 595	15173	15 111	15 146
Private	7 986	8 254	8 124	8 170	8 014	7 739	7 791	7828	7847	7 863	7 797	8 144
CENTRAL GREECE												
Total	***2 255***	***2195***	***2 181***	***2 107***	***2 173***	***2 263***	***2 335***	***2 385***	***2 347***	***2 351***	***2 305***	***2 256***
Public	1 701	1 620	1 635	1 630	1 696	1 747	1 819	1 820	1 859	1 863	1817	1 794
Private	554	575	546	477	477	516	516	565	488	488	488	462
PELOPONNESE												
Total	***3 433***	***3 458***	***3 383***	***3 483***	***3 387***	***3 582***	***3 578***	***3 663***	***3 635***	***3 704***	***3 574***	***3 537***
Public	2 972	3008	2 988	3 091	3 078	3 256	3 246	3 336	3 312	3 374	3266	3089
Private	461	450	395	392	309	326	332	327	323	330	308	448
IONIAN ISLANDS												
Total	***942***	***968***	***987***	***979***	***987***	***983***	***978***	***1 098***	***749***	***753***	***736***	***742***
Public	882	918	937	929	937	933	928	1 048	699	753	736	742
Private	60	50	50	50	50	50	50	50	50	0	0	0
EPIRUS												
Total	***1 442***	***1 514***	***1 411***	***1 418***	***1 535***	***1 678***	***1 670***	***1 634***	***1 702***	***1 703***	***1696***	***1 670***
Public	1 402	1 469	1 381	1 388	1 505	1 648	1 640	1 604	1672	1673	1 666	1 640
Private	40	45	30	30	30	30	30	30	30	30	30	30
THESSALY												
Total	***2 926***	***3 004***	***3 066***	***3 236***	***3 381***	***3 276***	***3 931***	***3 808***	***3 957***	***4 094***	***4063***	***4 218***
Public	1 248	1 126	1 344	1 469	1 451	1 447	1 611	1 830	1 846	1 865	1876	1 833
Private	1 678	1 878	1 722	1 767	1 930	1 829	2 320	1978	2 111	2229	2 187	2 385
MACEDONIA												
Total	***12 225***	***12 119***	***11818***	***12 172***	***12 092***	***12 372***	***12 390***	***12 508***	***12 784***	***12763***	***12 432***	***12 482***
Public	7 956	7 868	7758	7 780	7 495	7556	7 521	7 698	7 713	7826	7810	7 789
Private	4269	4 251	4060	4 392	4 597	4816	4 869	4 810	5 071	4 937	4 622	4 693
THRACE												
Total	***1 023***	***998***	***1029***	***1 034***	***1 187***	***1 238***	***1 242***	***1 215***	***1 221***	***1223***	***1 206***	***1 340***
Public	967	942	967	972	1 125	1 176	1 180	1 168	1 175	1177	1 191	1 155
Private	56	56	62	62	62	62	62	47	46	46	15	185
AEGEAN ISLANDS												
Total	***2 009***	***2 028***	***1927***	***1 839***	***1 731***	***1 941***	***2 121***	***2102***	***1947***	***2 184***	***2183***	***1 469***
Public	1 904	1 923	1832	1 744	1 636	1 846	1 917	1 900	1765	1993	1 993	1 278
Private	105	105	95	95	95	95	204	202	182	191	190	191
CRETE												
Total	***3 010***	***2989***	***3055***	***3 030***	***2 912***	***2 866***	***2 841***	***2823***	***2868***	***2 893***	***2 909***	***2 769***
Public	2 449	2 463	2500	2 517	2 413	2372	2 367	2346	2391	2 418	2 434	2 356
Private	561	526	555	513	499	494	474	477	477	475	475	413

Source: ELSTAT, 2015d.

It is remarkable that about 43% of the total number of hospital beds in the country is located in Attica. This region comprises 35% of the Greek population and Athens, the capital city. Macedonia (includes Thessaloniki, the second largest city in Greece) has the second-highest proportion: 23% of total beds.

In comparisons of hospital beds per 100 000 population Greece ranks 17th among EU countries, below the EU average (Fig. 3).

Fig. 3. Hospital beds per 100 000 population, EU countries, 2011



Source: Eurostat, 2015b.

In July 2011, the Minister of Health announced a restructuring of the public hospital sector. According to the plan, the number of public hospital beds would be reduced to 33 000 and the number of clinics and specialist units would go down from 2000 to fewer than 1700, with 330 merging and another 40 being moved, in an effort to increase efficiency. Public hospitals' own management boards would be replaced by a total of 83 councils responsible for administration of all the hospitals; and the number of directors and deputy directors reduced from 175 to 145 (Ministry of Health and Social Solidarity, 2011a). It was estimated that these changes would save €150 million by 2015. Furthermore, 500 public hospital beds would be set aside for priority use by the clients of private insurance companies.

Ambulatory care in Greece is delivered by a mix of public and private health service providers. Until recently, there were four main structures (Economou, 2010; Economou & Giorno, 2009).

1. Ambulatory care provided through the ESY: including the National Centre for Emergency Care (EKAV), rural health centres and their health surgeries, as well as public hospital outpatient departments.

2. Ambulatory care provided through social insurance funds: including health centres owned and operated by specific insurance funds. For example, IKA had a vast network of approximately 350 polyclinics staffed by doctors and nurses.

3. Ambulatory care offered through local authorities and NGOs: including clinics and welfare services offered free-of-charge by municipalities and civil society organizations. These services were limited in scope, covering only a narrow range of care, and used primarily by uninsured people and (particularly) by migrants.

4. Ambulatory care provided by the private sector: including medical offices, laboratories, diagnostic centres and outpatient medical consultations at private-sector hospitals. These services are financed by direct payments or private insurance; some were also under contract to public sickness funds.

After 2010, the first and second of the aforementioned structures were combined, while the role of the third structure was expanded (Economou, 2012a; Economou, Kaitelidou et al., 2014 & 2015). More precisely, a major restructuring of ambulatory care was introduced in 2011: under Law 3918/2011 the health-care sectors of all social insurance funds formed EOPYY to act as a unique buyer of medicines and health-care services for all insured people. In addition, all ambulatory-care networks operated by the sickness funds were merged in EOPYY. As a consequence, EOPYY became the sole purchaser of health services as well as an ambulatory-care provider.

In 2014, the Greek Parliament passed new PHC legislation (Law 4238/2014) establishing PEDY, coordinated by the DYPEs. All EOPYY ambulatory-care facilities, rural health centres and their surgeries are now under the jurisdiction of DYPEs with the aim that these structures function for 24 hours a day, seven days a week. In addition, the Law provides for the establishment of a referral system based on family GPs. Concerning the services provided by local authorities and NGOs, it can be argued that – with demand increasing and the public health system deteriorating – there is a growing role for municipalities, NGOs (through community clinics and pharmacies) and other unofficial networks of health professionals and volunteers set up to help poor and uninsured patients. These contribute significantly to retention of access to a basic set of medical services among poor and unemployed people. A network of around 40 community clinics operates across Greece, providing mostly primary health services and medications free of charge to people unable or ineligible to use the public services (Economou, Kaitelidou et al., 2014).

Ambulatory care in rural and semi-urban areas is mostly delivered by a network of 193 health centres staffed with GPs and specialists (paediatricians, gynaecologists, orthopaedists, ophthalmologists, urologists, dentists, general surgeons, psychologists, radiologists, physiotherapists, microbiologists, nurses, midwives, social workers). In addition, approximately 1650 health surgeries (EOPYY, 2015a) administratively linked to health centres are staffed with publicly employed doctors and medical graduates. The latter are required to spend at least one year in a rural area upon graduation and prior to enrolling for medical specialization. The number of available doctors in each health centre depends on the characteristics of the catchment area (e.g. size, economic growth, epidemiological profile, access to hospital). Each health centre covers the health needs of approximately 10 000 to 30 000 people, operating on a 24-hour basis. Table 7 presents the number and regional allocation of health centres and health-centre beds.

Table 7. Health centres and health-centre beds by geographical region, 2000–2011

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GREECE												
Health centres	180	185	188	187	189	190	190	190	191	191	193	193
Health-centre beds	1104	1116	1115	1101	1091	1025	1010	999	1014	1004	1017	1007
ATTICA												
Health centres	0	0	0	0	0	0	0	0	0	0	0	0
Health-centre beds	0	0	0	0	0	0	0	0	0	0	0	0
CENTRAL GREECE												
Health centres	35	35	35	35	35	35	35	35	35	35	35	35
Health-centre beds	220	221	221	221	221	181	180	180	181	181	174	173
PELOPONNESE												
Health centres	29	30	31	31	32	32	32	32	32	32	32	33
Health-centre beds	189	194	194	194	187	183	175	170	171	171	178	178
IONIAN ISLANDS												
Health centres	6	7	7	7	7	8	8	8	8	8	8	8
Health-centre beds	37	42	42	42	38	38	38	50	37	37	37	37
EPIRUS												
Health centres	14	14	16	16	16	16	16	16	16	16	16	16
Health-centre beds	76	76	80	77	83	74	80	77	77	80	78	78
THESSALY												
Health centres	17	17	17	17	17	17	17	17	17	17	17	17
Health-centre beds	108	105	105	105	102	102	101	104	104	103	103	103
MACEDONIA												
Health centres	41	42	42	42	42	42	42	42	42	42	43	42
Health-centre beds	218	215	214	210	209	206	206	200	205	200	204	200
THRACE												
Health centres	8	8	8	8	8	8	8	8	8	8	9	9
Health-centre beds	46	45	45	45	44	44	38	35	40	33	41	41
AEGEAN ISLANDS												
Health centres	16	18	18	17	18	18	18	18	19	19	19	19
Health-centre beds	111	119	115	108	112	103	98	102	105	105	112	110
CRETE												
Health centres	14	14	14	14	14	14	14	14	14	14	14	14
Health-centre beds	99	99	99	99	95	94	94	94	94	94	90	87

Source: ELSTAT, 2015d.

In addition to public ambulatory-care services, there are more than 22 000 private practices, over 13 000 private dental practices and approximately 3527 private diagnostic centres (Table 8). Most are equipped with high-quality and expensive medical technology. The majority of private facilities are located in Athens (1st DYPE) and Thessaloniki (4th DYPE) – urban areas. EOPYY contracts private practices, laboratories and diagnostic centres to provide health-care services to its beneficiaries. They also provide services directly to patients on a fee-for-service basis, covered by OOP payments or private insurance. Rehabilitation services and services for elderly people are predominantly offered by the private sector.

Table 8. Private diagnostic centres, medical practices and dental practices by DYPE, 2012

DYPE	Total facilities	Diagnostic centres	Medical practices	Dental practices
1st	17 491	1 262	10 076	6 153
2nd	2 493	283	1 383	827
3rd	949	83	581	285
4th	7 832	636	4 603	2 593
5th	4 026	421	2 335	1 270
6th	4 859	633	2 664	1 562
7th	1 844	209	1 038	597
TOTAL	**39 494**	**3 527**	**22 680**	**13 287**

Source: Health Map (EOPYY, 2015a).

Medicinal products are dispensed to citizens exclusively by private pharmacies. The terms and conditions for the establishment and operation of a pharmacy are included in the current pharmaceutical legislation (Law 3457/2006), with compliance supervised by the Ministry of Health. Licences to practice pharmacy are awarded by the Central Health Council (KESY); licences to establish a pharmacy are granted by the prefectural administration of the region. Population restrictions limit the number of licences: municipalities and municipal or communal regions with up to 1500 inhabitants are eligible for only one pharmacy licence; those with populations of 1501 and over are granted an extra licence for each additional 1500 inhabitants. Pharmacies are also required to meet siting restrictions of: (a) at least 100 metres apart in municipalities and municipal or communal districts with up to 5000 inhabitants; (b) at least 180 metres apart in municipalities and municipal or communal districts with populations of 5001 to 100 000; (c) at least 200 metres apart in municipalities and municipal or communal districts with populations of 100 001 to 200 000; (d) at least 250 metres apart in municipalities and municipal or communal

districts with populations of 200 001 and over. The data presented in Table 9 show a marked increase in the number of pharmacies in all geographical regions of the country, 37.5% are established in Attica.

Table 9. Pharmacies by geographical region, 2004–2011

	2004	2005	2006	2007	2008	2009	2010	2011
GREECE	9211	9321	9606	9472	10265	10458	10760	11315
MACEDONIA & THRACE	2320	2361	2476	2538	2750	2840	2876	2993
THESSALONIA	655	658	725	721	750	778	785	810
EPIRUS	235	232	288	292	294	311	324	331
IONIAN ISLANDS	152	157	158	167	168	178	179	186
CENTRAL GREECE	482	497	558	575	580	601	630	711
PELOPONNESE	775	806	811	815	860	837	935	1022
ATTICA	3809	3816	3776	3536	4006	4008	4100	4241
AEGEAN ISLANDS	341	343	342	343	351	387	410	494
CRETE	442	451	472	485	506	518	521	527

Source: ELSTAT, 2015d.

The availability of CT scanners, magnetic resonance imaging (MRI) and mammography units has increased rapidly, as shown by data presented in Table 10. Most are installed in the ambulatory sector and especially in privately owned diagnostic centres and clinics; only a minority are found in public hospitals and many of these are very old (OECD, 2014a; Boutsioli, 2010; Tountas et al., 2010). According to the results of a study conducted in 2007, real coverage indices of 131 ESY hospitals were 44% for CT scanners and only 8% for MRI units. For 98 ESY general hospitals the coverage was 59% for CT scanners and 10% for MRIs (Markou, Bamidis, Niakas, 2007). This situation is illustrated by the data presented in Table 11. In 2011, only 74 CT scanners and 15 MRI units were located in public hospitals.

Table 10. Diagnostic imaging equipment, 2005–2013

		2005	2006	2007	2008	2009	2010	2013
CT scanners, total	Number	280	294	324	344	381	388	385
	Per million population	25.24	26.42	29.02	30.75	34.06	34.79	33.89
CT scanners in hospitals	Number	..	..	..	..	124	176	187
	Per million population	..	..	..	..	11.08	15.78	16.46
CT scanners in ambulatory sector	Number	..	..	..	..	257	212	198
	Per million population	..	..	..	..	22.97	19.01	17.43
MRI units, total	Number	147	182	200	220	245	255	266
	Per million population	13.25	16.36	17.92	19.67	21.9	22.86	23.41
MRI units in hospitals	Number	..	..	..	..	72	78	78
	Per million population	..	..	..	..	6.44	6.99	6.87
MRI units in ambulatory sector	Number	..	..	..	..	173	177	188
	Per million population	..	..	..	..	15.46	15.87	16.55
Mammography units, total	Number	405	437	479	505	554	632	657
	Per million population	36.51	39.27	42.91	45.14	49.52	56.66	57.83
Mammography units in hospitals	Number	..	..	..	..	155	165	175
	Per million population	..	..	..	..	13.86	14.79	15.4
Mammography unit, in ambulatory sector	Number	..	..	..	..	399	467	482
	Per million population	..	..	..	..	35.67	41.87	42.43

Source: OECD.Stat, 2015.

Table 11. Diagnostic imaging by DYPE, 2011

DYPE	CT scanners	MRI units
1st	11	4
2nd	10	1
3rd	10	2
4th	11	1
5th	8	2
6th	18	4
7th	6	1
Total	**74**	**15**

Source: Ministry of Health and Social Solidarity, 2011a.

Among EU countries, Greece has the second highest number of MRI units (after Italy), and the highest number of CT scanners per capita (Figs. 4 and 5). This is the result of an uncontrollable supply of expensive biomedical technology in the private sector, as a consequence of the absence of a coherent strategy for introducing biomedical equipment. Technologies have been installed without standards or formal consideration of needs, without control of appropriateness and quantity, and without performance monitoring of the equipment (Liaropoulos & Kaitelidou 2000; Liaropoulos, Kaitelidou & Pappous, 2004; Relakis & Maniadakis, 2010). No formal initiative, plan, project or official body for health technology assessment (HTA) in Greece was established until 2010, although the country participated in European EUR-ASSESS and European Collaboration for Health Technology Assessment (ECHTA) programmes[5] (Kaitelidou, 2006; Morfonios et al., 2013).

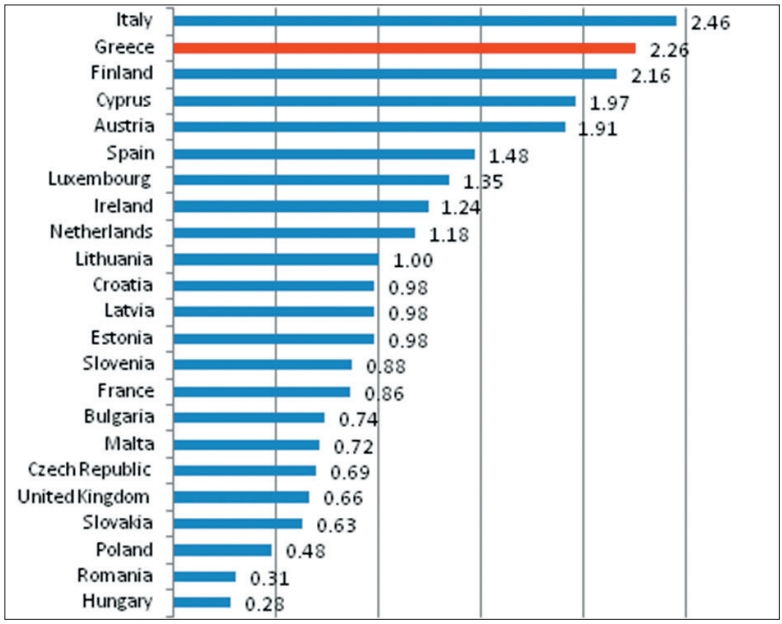
Some of this gap is filled by the National Evaluation Centre of Quality and Technology in Health (EKAPTY) established in 2011. Its functions include ISO certification and certification of CE marking on medical devices; inspection and testing of devices; and development of digital infrastructures for supporting public health procurements (registry of technical specifications and registry of medical devices).[6] However, it is debatable whether such functions correspond with the definition of HTA adopted by WHO.[7] EKAPTY's role is limited to economic and technical issues rather than ethical and social evaluation of health technology.

5 Similarly, HTA is not institutionalized in the Greek pharmaceutical sector (Armataki et al., 2014).

6 See http://www.ekapty.gr/

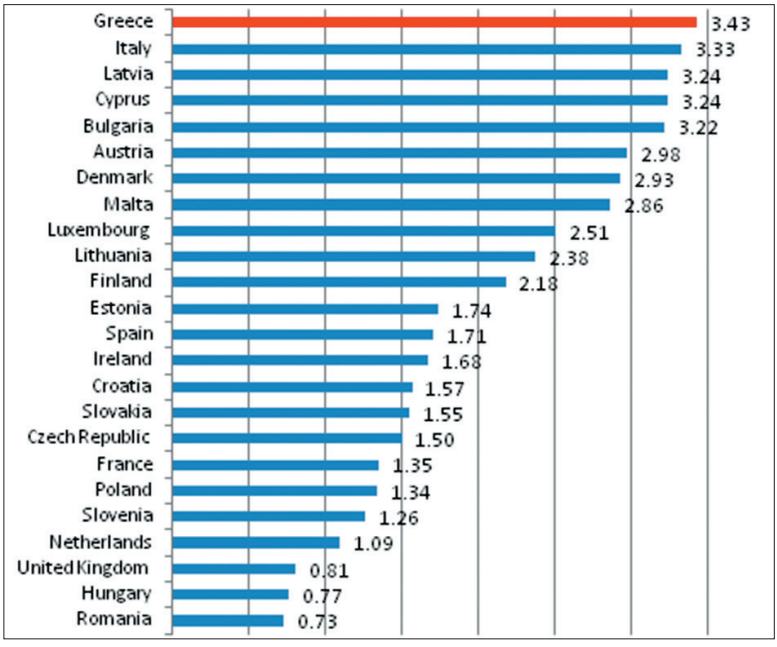
7 "Health technology assessment refers to the systematic evaluation of properties, effects, and/or impacts of health technology. It is a multidisciplinary process to evaluate the social, economic, organizational and ethical issues of a health intervention or health technology. The main purpose of conducting an assessment is to inform a policy decision making. Considering the definition of health technology, as the application of organized knowledge and skills in the form of medicines, medical devices, vaccines, procedures and systems developed to solve a health problem and improve quality of life." (WHO, 2015)

Fig. 4. MRI units per 100 000 population, EU countries, 2012



Source: Eurostat, 2015c.

Fig. 5. CT scanners per 100 000 population, EU countries, 2012



Source: Eurostat, 2015c.

In 2010, the Ministry of Health issued a ministerial decree to control the diffusion of CT and MRI scanners. One of the main criteria concerning the purchase of imaging equipment in the private sector was based on a minimum threshold of population density (20 000 for mammography units, 30 000 for CT scanners, 40 000 for MRIs) (Ministerial Decision No. DYG2/GPoik.154949 of 10 December 2010). However, this criterion was withdrawn by Ministerial Decision No. GP/OIK.92211 of 4 October 2013. This will probably return the ESY to a not-so-distant past when there were no specific legal provisions for the control and allocation of health technology, raising serious concerns about the negative medical, social and economic implications of uncontrollable use of biotechnology (patients receiving increased levels of radiation, supply-induced demand, high burden for health budgets) (Morfonios et al., 2011).

3.1.2 Human resources

As can be seen from Table 12, there was a substantial increase (46.9%) in the number of practising physicians in Greece between 2000 and 2011. The corresponding rates were 25.6% for nurses, 17.4% for dentists and 26.7% for pharmacists. Table 12 also shows the ratio of health professionals per 1000 population. A steady increase in the number of practising physicians can be observed, mainly due to an increase in specialists. The ratio of nurses to inhabitants has also increased, while the ratios of dentists and pharmacists have remained almost stable.

Table 12. Professionally active physicians, nurses, midwives, dentists and pharmacists in Greece, 2000–2011

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
PHYSICIANS												
Number	47 251	47 944	50 347	52 225	53 943	55 556	59 599	62 795	67 795	69 030	69 265	69 435
Per 1000 population	4.33	4.38	4.58	4.74	4.88	5.01	5.36	5.57	6.06	6.17	6.21	6.24
NURSES												
Number	29 704	32 068	36 063	36 319	36 133	36 666	35 797	35 658	36 197	37 306	n/a	n/a
Per 1000 population	2.72	2.93	3.28	3.3	3.27	3.31	3.22	3.19	3.24	3.33	n/a	n/a
MIDWIVES												
Number	2 264	2 368	2 343	2 404	2 526	2 507	2 293	2 573	2 583	2 626	n/a	n/a
Per 1000 population	0.21	0.22	0.21	0.22	0.23	0.23	0.21	0.23	0.23	0.23	n/a	n/a
DENTISTS												
Number	12 362	12 394	13 107	13 079	13 316	13 438	14 180	14 429	14 689	14 774	14 661	14 518
Per 1000 population	1.13	1.13	1.19	1.19	1.2	1.21	1.27	1.29	1.31	1.32	1.31	1.31
PHARMACISTS												
Number	n/a	n/a	n/a	n/a	9 461	9 571	9 837	9 802	10 595	10 788	11 160	11 987
Per 1000 population	n/a	n/a	n/a	n/a	0.86	0.86	0.88	0.88	0.95	0.96	1	1.08

Note: n/a: not available. *Source*: OECD.Stat, 2015.

It is remarkable that 49% of physicians and 47% of dentists are active in Attica. The second highest rates are in Macedonia, at 19% and 20% respectively (Table 13).

Table 13. Physicians and dentists by geographical region, 2000–2013

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
GREECE														
Physicians	47 251	47 944	50 347	52 225	53 943	55 556	59 599	62 207	67 795	69 030	69 265	69 435	69 215	68 886
Dentists	12 362	12 394	13 107	13 079	13 316	13 438	14 180	14 429	14 689	14 774	14 661	14 518	14 208	13 911
ATTICA														
Physicians	21 468	22 604	23 384	24 150	24 926	25 814	27 507	28 846	33 882	34 654	34 082	34 274	34 177	33 722
Dentists	5 920	6 231	6 700	6 501	6 644	6 678	6 907	6 980	7 077	7 143	7 138	7 072	6 860	6 588
CENTRAL GREECE														
Physicians	2 796	1 943	1 939	2 031	2 165	2 145	2 323	2 565	2 571	2 518	2 418	2 449	2 444	2 389
Dentists	888	596	584	597	590	600	638	658	707	691	664	679	681	666
PELOPONNESE														
Physicians	3 699	3 790	3 874	4 022	4 182	4 246	4 696	4 774	4 719	4 951	5 297	5 341	5 287	5 221
Dentists	831	876	899	914	938	968	1 023	1 033	1 043	1 044	1 022	1 042	1 033	1 025
IONIAN ISLANDS														
Physicians	686	657	683	706	729	735	894	928	908	897	888	854	851	939
Dentists	125	121	122	129	133	138	158	163	165	163	164	172	169	180
EPIRUS														
Physicians	1 445	1 503	1 612	1 690	1 715	1 776	1 954	2 060	2 100	2 155	2 101	1 982	2 020	2 041
Dentists	326	327	321	343	318	329	355	361	361	367	352	355	345	350
THESSALY														
Physicians	1 997	2 264	2 647	2 562	2 780	2 816	3 289	3 286	3 388	3 533	3 553	3 554	3 523	3 578
Dentists	665	686	695	718	742	749	806	835	830	858	856	835	819	823
MACEDONIA														
Physicians	10 149	10 008	10 601	10 711	11 138	11 636	12 302	12 784	12 849	12 960	13 181	13 230	13 154	13 321
Dentists	2 510	2 401	2614	2 712	2 737	2 734	2 948	2 980	3072	3 088	3 038	2917	2 870	2 852
THRACE														
Physicians	1 111	1 113	1 273	1 293	1 434	1 503	1 686	1 732	1 809	1 786	1 968	2 005	1 977	1 959
Dentists	252	262	268	270	260	272	303	310	326	327	334	327	318	312
AEGEAN ISLANDS														
Physicians	1 286	1 364	1 555	1 747	1 840	1 855	1 678	1 881	1 743	1 769	1 898	1 924	1 930	1 853
Dentists	349	361	367	334	392	383	427	440	445	430	430	456	458	458
CRETE														
Physicians	2614	2 698	2 779	3 313	3 034	3 030	3 270	3 351	3 826	3 807	3 879	3 822	3852	3 863
Dentists	496	533	537	561	562	587	615	669	663	663	663	663	655	657

Source: ELSTAT, 2015d.

Another characteristic of Greek human resources for health is the predominance of specialist medical practitioners alongside a relative limited number of GPs (Table 14).

Table 14. Physicians by specialty, 2013

Specialty	Number	% of total
TOTAL	**68 886**	**100**
Without speciality	24 633	35.76
Internal medicine	4 383	6.36
Bacteriology–Haematology	3 665	5.32
Paediatrics	3 326	4.83
Orthopaedics	3 314	4.81
Cardiology	3 092	4.49
Obstetrics–Gynaecology	2 862	4.15
Surgery	2 754	4
Neurology–Psychiatristy	2 692	3.91
Radiology–Radiotherapy	2 466	3.58
General medicine	2 461	3.57
Ophthalmology	2 051	2.98
Anaesthesiology	1 888	2.74
TB–Pneumonology	1 488	2.16
Otorhinolaryngology	1 299	1.89
Dermatology–Veneriology	1 193	1.73
Other specialties	1 083	1.57
Urology	1 059	1.54
Pathology–Cytology	837	1.22
Gastroenterology	745	1.08
Neurosurgery–Plastic surgery	744	1.08
Endocrinology	624	0.91
Nephrology	561	0.81
Rheumatology	322	0.47
Nuclear medicine	259	0.38
Medical jurisprudence	85	0.12

Source: ELSTAT, 2015d.

The total number of hospital personnel increased by 17% over the period from 2000 to 2011. Within this, doctors' numbers increased by 19% and nurses by 20% (Table 15).

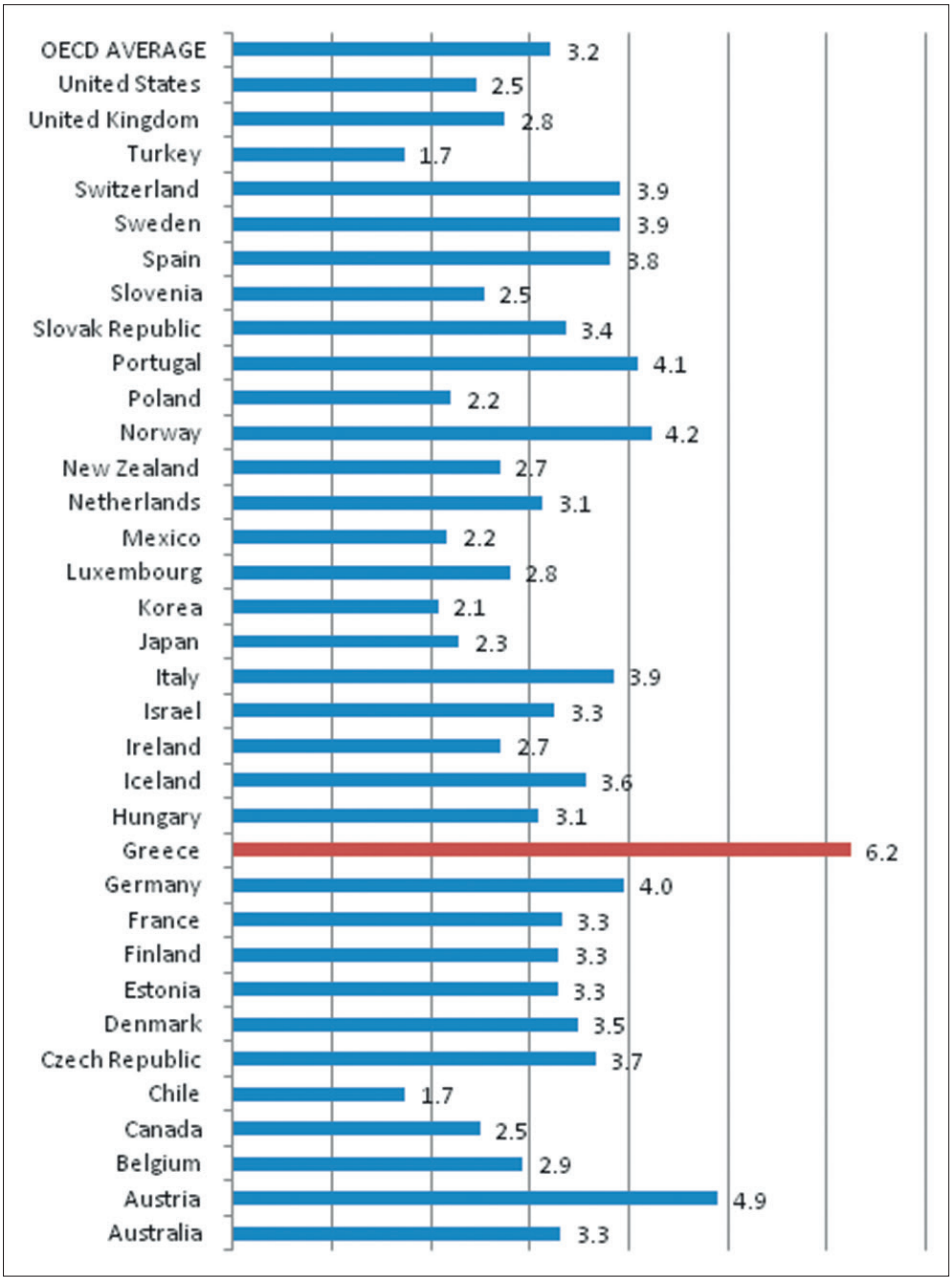
Table 15. Hospital personnel, 2000–2011

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Doctors	23 486	24424	23597	24227	24728	25573	25495	25965	26063	27386	26929	28021
Nurses	33 869	35732	37776	38786	38766	37493	36434	36241	37061	37905	40542	40732
Midwives	2 264	2368	2343	2404	2526	2507	2293	2573	2583	2626	2518	2632
Health visitors	411	384	407	433	468	420	649	485	475	530	564	544
Other	5 585	5271	5790	5645	5591	6503	8460	8658	8427	8345	5438	5044
TOTAL	65 615	68179	69913	71495	72079	72496	73331	73922	74609	76 792	75991	76973

Source: ELSTAT, 2015d.

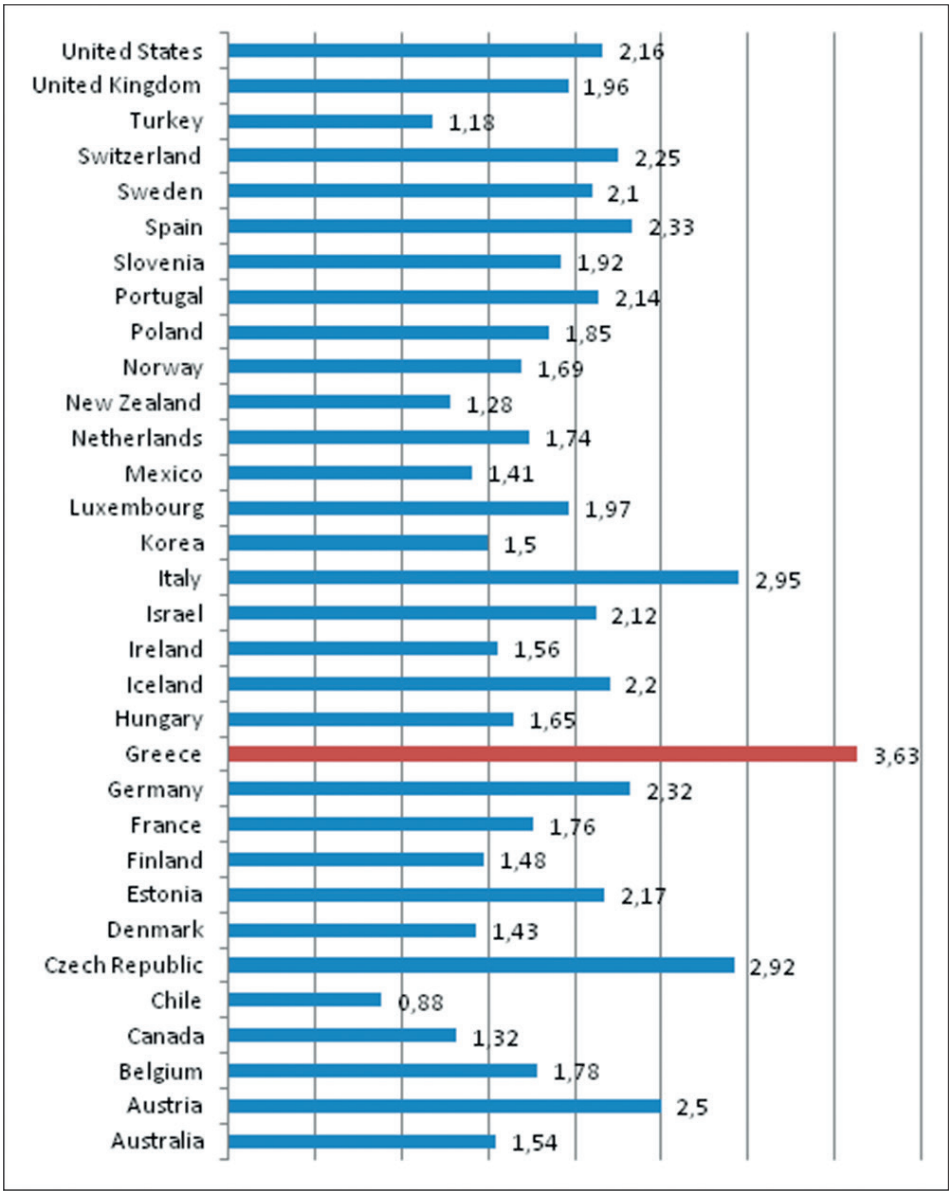
Amongst OECD countries, Greece has the highest number of physicians per 1000 people (Fig. 6). However, while the number of specialists per 1000 inhabitants is the highest in the OECD (Fig. 7), the number of GPs is the lowest (Fig. 8). It is indicative that a study using a sample of 591 students from four of the seven Greek medical schools, reported that the vast majority of students wish to specialize (97.6%), while very few favour general practice (1.7%) (Avgerinos et al., 2006). The reasons for this striking difference between the numbers of GPs and specialists could be related to four issues. First, the absence of a sound tradition of general practice as a medical specialty in the Greek health-care system: introduced in Presidential Edict 80/1985 in order to staff the newly established rural health centres. Second, the hospital-oriented health-care system, the power of hospital doctors and an absence of political will to reform the system according to the Alma Ata Declaration and Ottawa Charter have not enabled the development of an integrated PHC network based on GPs as gate-keepers. Third, GPs in Greece are perceived to have lower social status than specialists. Fourth, and last but not least, the prospect of earning higher incomes has influenced graduate doctors to choose other specialties before general practice (Economou, 2010).

Fig. 6. Doctors per 1000 population, OECD countries, 2012



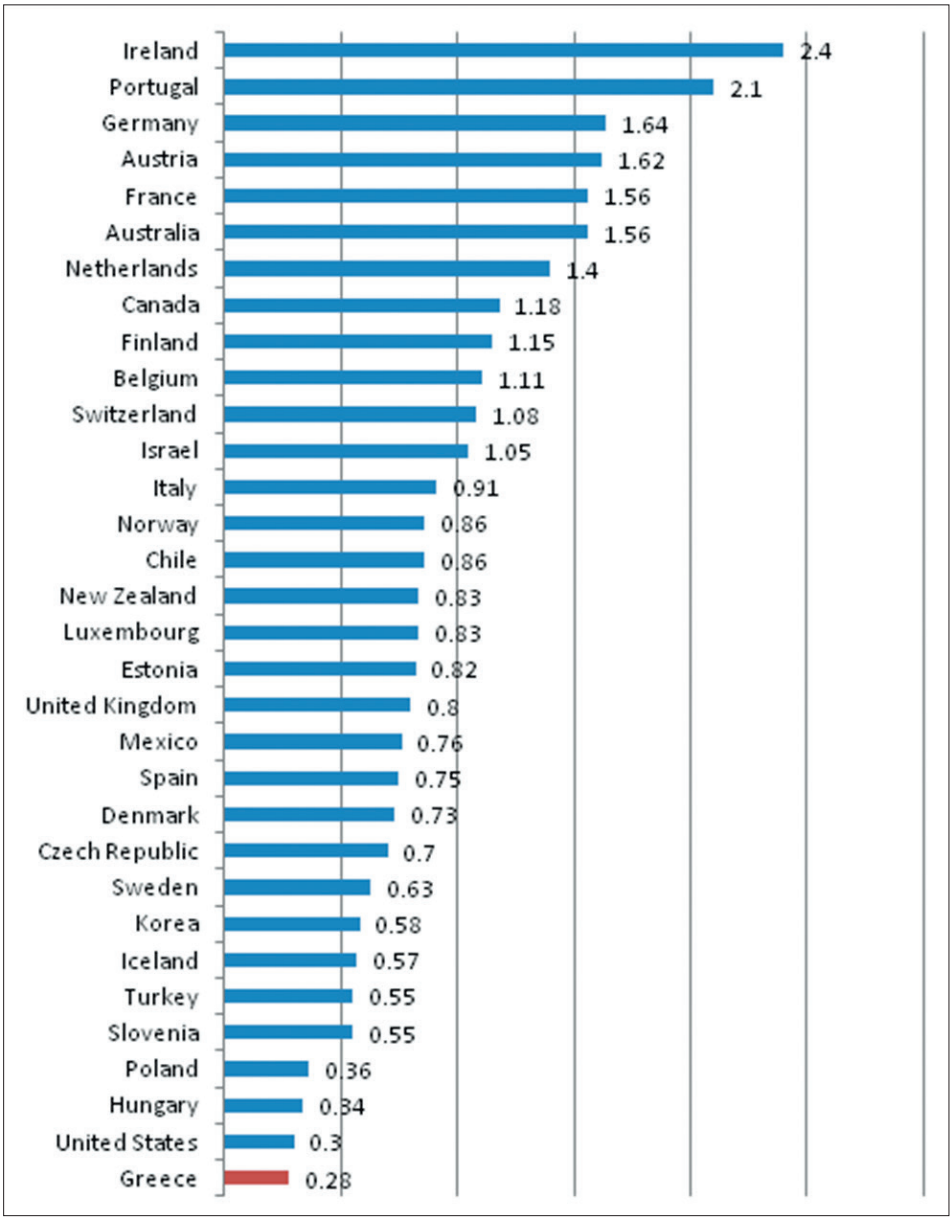
Source: OECD, 2014b.

Fig. 7. Specialist medical practitioners per 1000 population, OECD countries, 2012



Source: OECD.Stat, 2015.

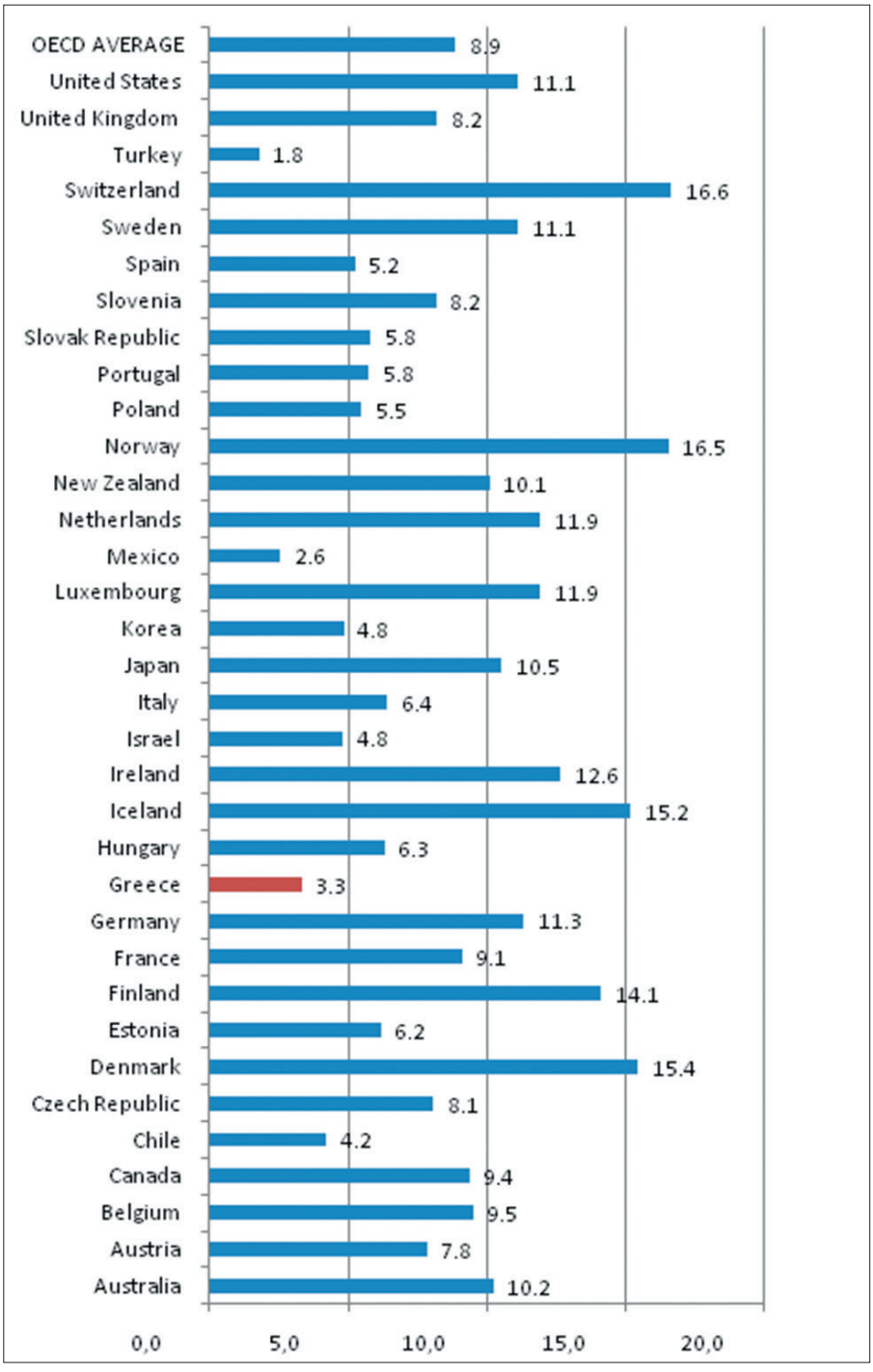
Fig. 8. Generalist medical practitioners per 1000 population, OECD countries, 2012



Source: OECD.Stat, 2015.

Conversely, although the ratio of nurses to inhabitants has increased at a moderate rate, Greece has the third lowest density of nurses (3.3 per 1 000 population) in OECD countries after Turkey (1.8) and Mexico (2.6) (Fig. 9).

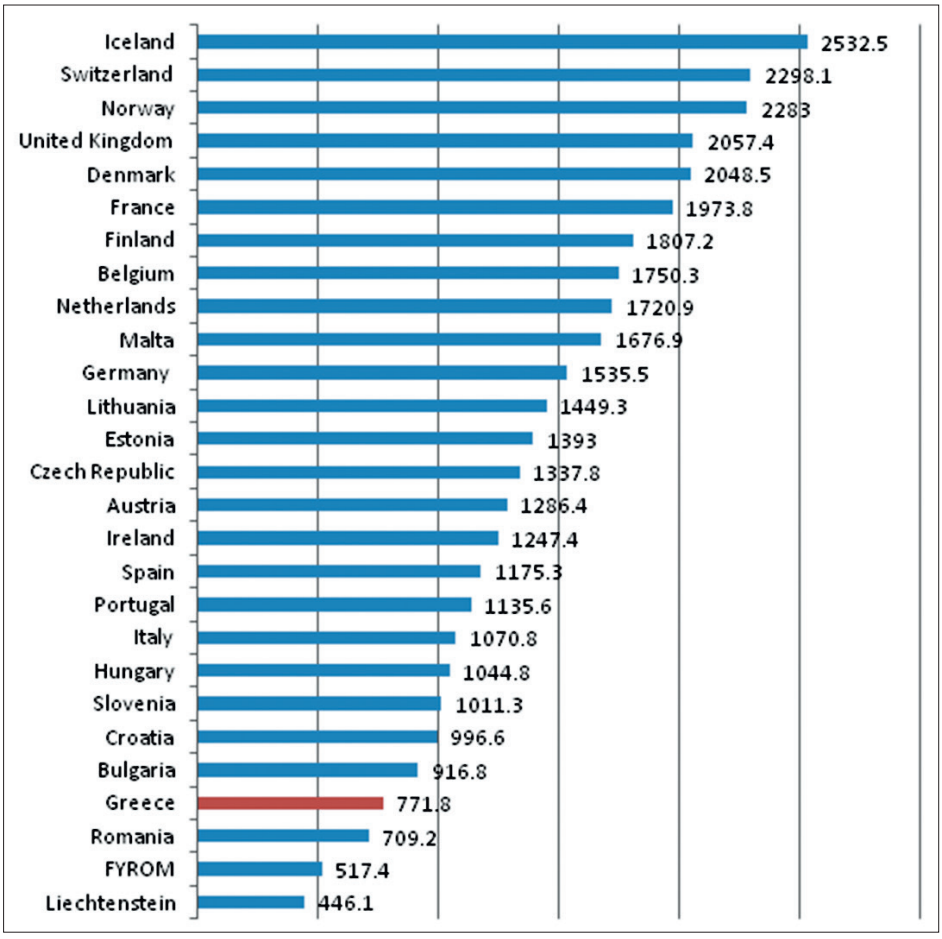
Fig. 9. Nurses per 1000 population, OECD countries, 2012



Source: OECD, 2014b.

Notwithstanding the fact that hospital personnel numbers increased during the period 2000–2011 (see Table 15), Greece still compares unfavourably with other European countries: with the fourth lowest rate of health personnel employed in hospitals (Fig.10). If Greece had a well-developed integrated PHC system, this could be a positive sign that the ESY is community oriented. However, given that the ESY is hospital oriented – focusing on interventional medicine rather than prevention and PHC (as mentioned in section 3.1.1) – the low rate of hospital-employed personnel should be cause for concern. It may be a sign of understaffing, a problem highlighted by many studies (Kaitelidou, Mladovsky et al., 2012; Polyzos & Yfantopoulos, 2000; Skroumpelos, Daglas et al., 2012).

Fig. 10. Health personnel employed in hospitals per 100 000 population, European countries, 2011



Source: Eurostat, 2015d.

The problem may be further aggravated by increasing emigration of the most highly skilled health-care personnel due to the economic crisis, resulting in brain drain. In October 2013, the Athens Medical Association stated that almost 7000 doctors of all specialties left Athens between 2008 and 2013 (EnetEnglish, 2013).

Such evidence shows clearly that medical demography is not managed satisfactorily and that the lack of a specific policy on human resources for health creates imbalances in service provisions (Economou & Giorno, 2009; Maroudias, 2000). Also, no mechanism to monitor and evaluate staffing of health services has been established (Marouli et al., 2002). The number of trained health-care professionals depends more on the financial resources of the Ministry of Education than on concerns for balancing supply and demand of medical services. This results in substantial imbalances as health-care human resources numbers are not matched to either population or health system needs (Kaitelidou, Mladovsky et al., 2012; Polyzos & Yfantopoulos, 2000). For example, in international comparisons, Greece shows a very high proportion of practising doctors in the total population, but a very low proportion of nurses. Nurses' relatively unattractive pay constitutes a serious impediment to boosting these numbers. Moreover, the number of GPs is very low in relation to specialists, even though public health outcomes would likely benefit from many GPs rather than many specialists (Souliotis, Golna & Dritsas, 2006). This indicates that there is no centrally planned ratio between GPs and specialists; between the various specialties; or between medical and nursing personnel (Malliarou, Karathanasi & Sarafis, 2008).

Besides quantitative imbalances, the qualitative characteristics of Greek health-care personnel should be considered given that they play a significant role in the quality of health services provided (Markovits & Monastiridou, 2008). A study conducted in nine hospitals in Athens found serious problems in relation to both the replacement rate and the educational level of nursing and administrative personnel (Sakellaropoulos et al., 2012). More precisely, the policy of very restricted recruitment implemented in the health sector in recent years has led to extremely low replacement rates of both nursing and administrative staff. Combined with low rates of positions filled, especially in the nursing services of the public hospitals, this increases workloads and damages the provision of adequate and qualitative care of patients. Furthermore, it was found that 25% of the nursing staff and 40% of the administrative staff are secondary school graduates.These high percentages, especially among administrative staff, raise issues related to their capacities to assimilate and implement new techniques in health administration and management.

The current financial crisis has exacerbated the problem of inadequate numbers of human resources for health. It is estimated that austerity measures have caused most emergency departments in Greek public hospitals to operate with one third of what National Nurses United stipulates to be the lowest safe staffing level (Kalafati, 2012). Staffing levels worsened following the MoUs as many health-care professionals chose to retire in order to avoid cuts and assure better pensions. Also, in the drive to reduce health system input costs, in 2010 salary cuts of 20% were applied to all public health-care staff (including administrative personnel, doctors, nurses, pharmacists and paramedical staff). In practice, three types of salary cuts have been applied through: (i) tax increases and a special solidarity levy; (ii) introduction of a new unified salary system for all public-sector employees; and (iii) reductions in the so-called special salary system for doctors. Moreover, planned performance-based productivity bonuses have not been implemented as no targets have been set, nor have any staff evaluations taken place. Other workforce measures aimed at reducing costs include the abolition of almost all subsidies to health-care staff; an increase in retirement age; non-renewal of contracts for temporary staff employed under fixed-term contracts; and a reduction in the replacement levels of retiring staff (one new staff member appointed for every five retiring). No new doctors will be hired in the state institutions, but private doctors contracted with EOPYY may work in public hospitals for one day per week (Economou, Kaitelidou et al., 2015).

3.2 Accessibility coverage

3.2.1 Geographical access and regional disparities

The Greek health-care system has a permanent problem which has become a structural characteristic: unequal regional allocation of infrastructures and both human and financial resources. This critical issue is raised in all related scientific literature (Economou, 2004, 2010, 2012a & 2012b; Economou & Giorno, 2009; Economou, Kyriopoulos & Karalis, 2000; Kyriopoulos, Gitona et al., 2000; Mitropoulos & Sissouras, 2004; Nikolakis et al., 2000; Tountas et al., 2008). This is a result of the fact that, traditionally, health resources in Greece were not allocated according to health-care need. Instead they were allocated on the basis of historical precedent, political negotiation and via centralized bureaucratic procedures (Mossialos, Allin, Davaki, 2005; Tountas, Karnaki et al., 2002).

The situation in 2001 and 2011 is illustrated in Figs.11–18 inclusive. These show persisting significant disparities in total hospitals, total hospital beds, acute and neuropsychiatric hospital beds, health centres and pharmacies, as well as doctors and dentists, per 100 000 population. These inequalities in the distribution of health resources make it questionable whether all health regions are capable of meeting the health needs of their populations. For example, existing disparities in the capacity and availability of oncology beds between various geographical regions influence equality of access to effective cancer care, favouring large urban areas and (especially) the regions of Attica (namely the cities of Athens and Pireus) and Macedonia (an area that includes Thessaloniki) (Souliotis, Athanasakis et al., 2009).

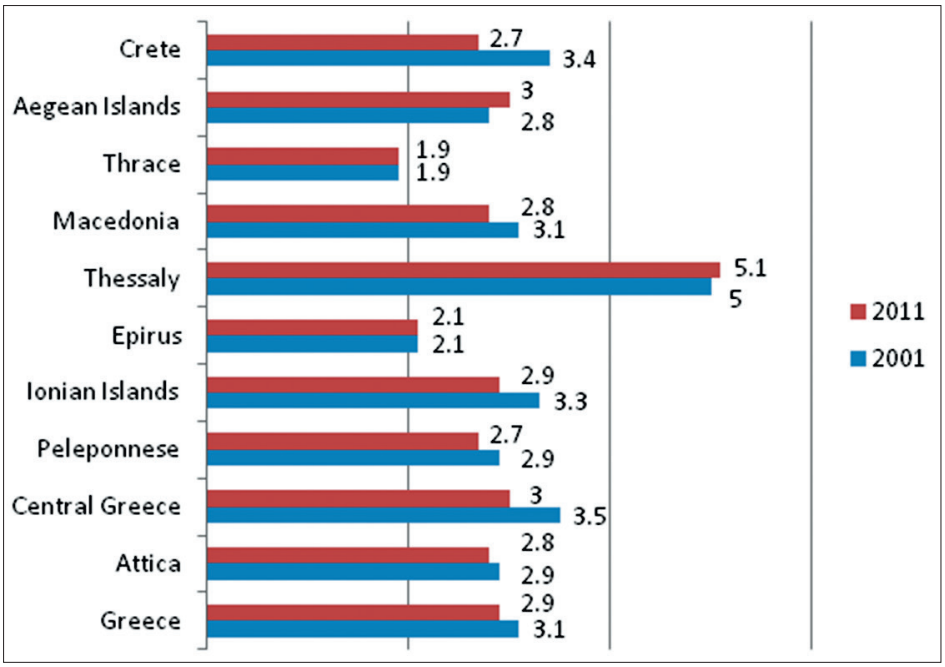
The geomorphology of Greece – including several remote mountains and a multitude of villages and islands with sparse populations – in combination with the absence of adequate incentives for staffing, does not facilitate satisfactory expansion of health care (Papatheodorou & Moysidou, 2011). The results of a recent study show deficient medical staffing of the remote health services, with the legislated incentives for recruitment and retention of physicians in remote areas showing poor effectiveness (Vardiampasis et al., 2014). An earlier study also indicates that location appears to affect health-services' performance: remote units (e.g. on small islands)[8] being more inefficient due to inadequate resource management and significant staffing inequalities. From this perspective, correcting reduced efficiency compromises equity of service access for highly dependent populations (Kontodimopoulos, Nanos & Niakas, 2006). These results are in line with those of another study taken from a PHC perspective, which identified the existence of important inequalities in the numerical and geographical allocation of ambulatory-care health workforce specialties across the country – favouring the medical profession and detrimental to rural areas and the islands – thereby raising concerns about policy-makers' ability to meet the emerging needs of the population (Simou, Karamagioli, Roumeliotou, 2013).

Patients' proximity to health units is associated with delays in treatment and was raised as an issue for consideration in a study examining the factors associated with delayed hospital arrival among patients with acute myocardial infarction (AMI). This found that the risk of delayed hospital arrival was almost 20 times greater among patients who reported a main residence located more than 10 km from the nearest hospital. Given that most patients participating in the study sample live in rural areas; that Greece is a mountainous and coastal country with resulting problems with geographical

[8] For health-reform proposals formulated in earlier years for many small islands and specific problems facing their populations concerning access to health services see Moraitaki-Tsami & Vasilakis, 2007; Filalithis, 2009.

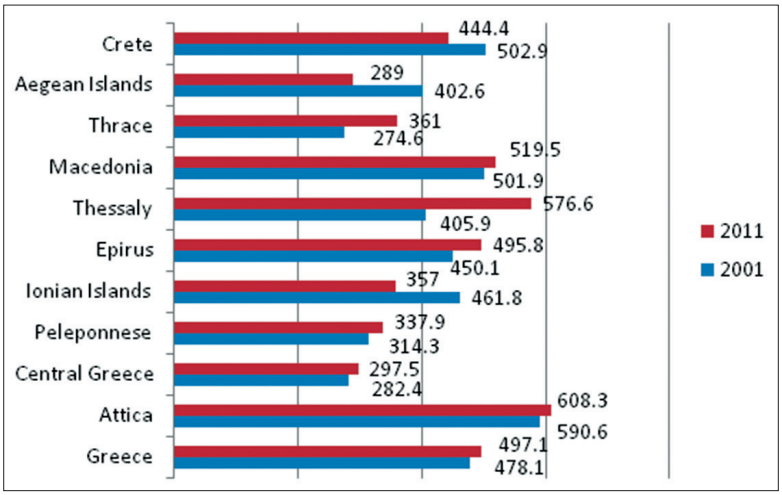
accessibility; and a situation of inadequate numbers of acute beds – all of these should be taken into consideration for planning accessible services (Brokalaki, Giakoumidakis et al., 2011).

Fig. 11. Total hospitals per 100 000 population by geographical region, 2001 & 2011



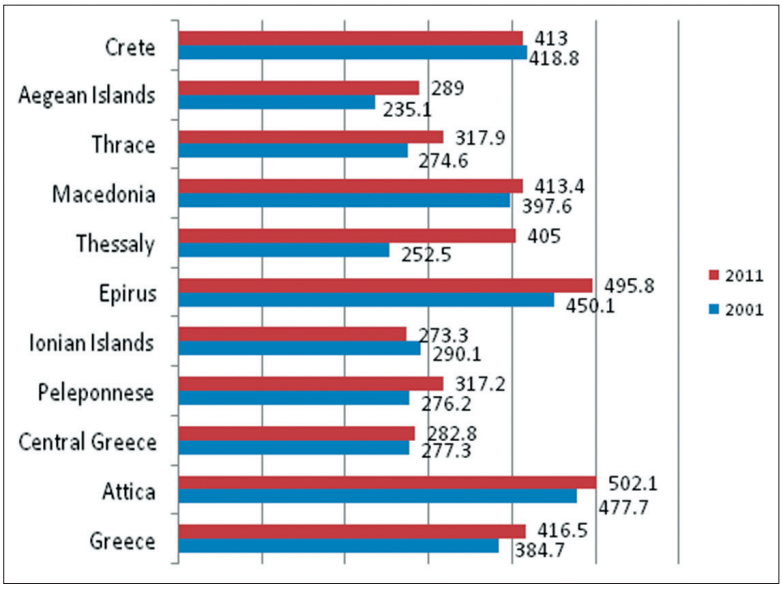
Source: ELSTAT, 2015d.

Fig. 12. Total hospital beds per 100 000 population by geographical region, 2001 & 2011



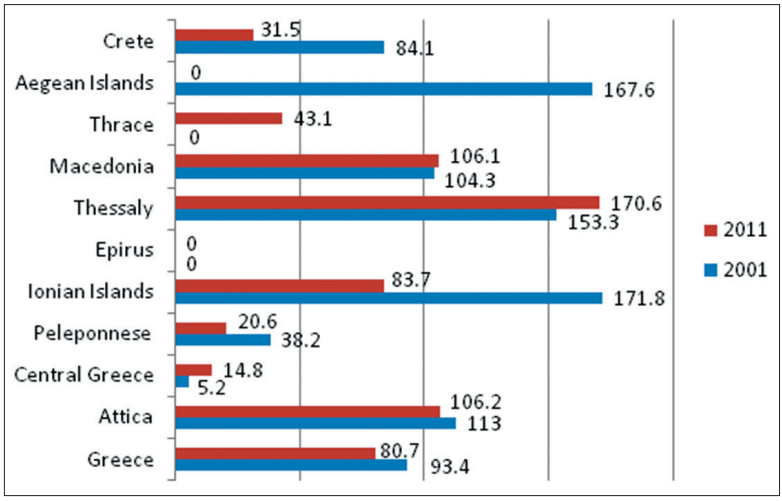
Source: ELSTAT, 2015d.

Fig. 13. Acute hospital beds per 100 000 population by geographical region, 2001 & 2011



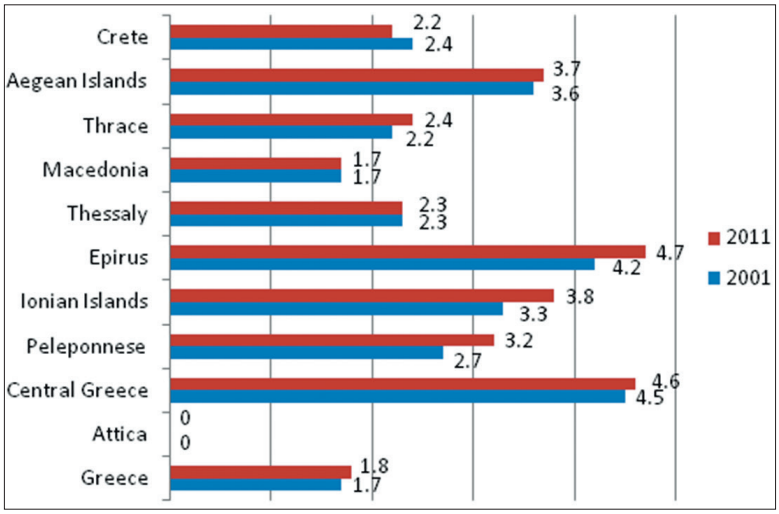
Source: ELSTAT, 2015d.

Fig. 14. Neuropsychiatric hospital beds per 100 000 population by geographical region, 2001 & 2011



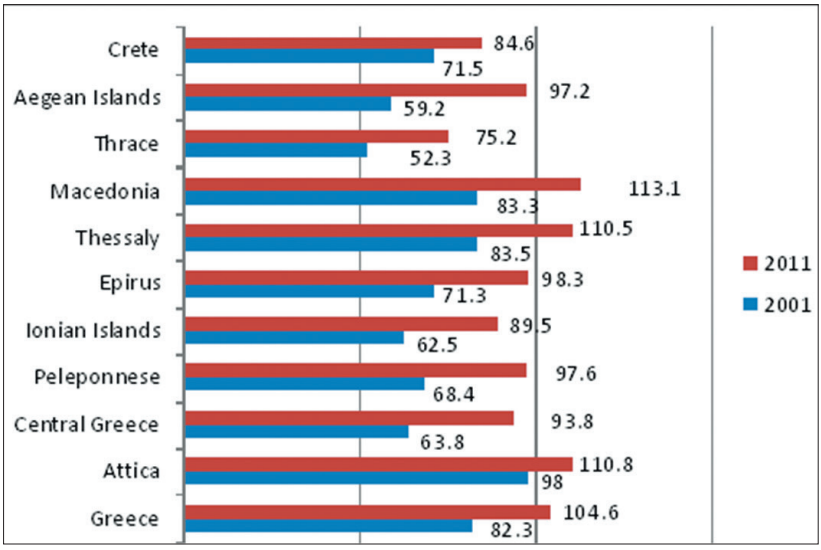
Source: ELSTAT, 2015d.

Fig. 15. Health centres per 100 000 population by geographical region, 2001 & 2011



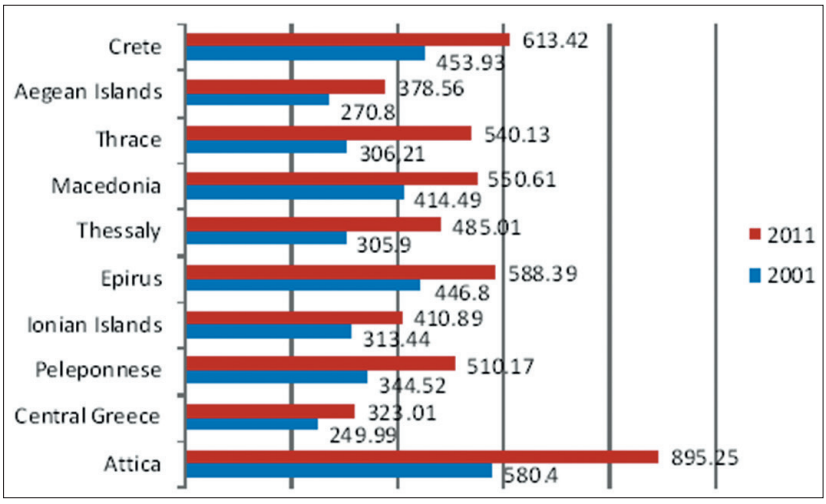
Source: ELSTAT, 2015d.

Fig. 16. Pharmacies per 100 000 population by geographical region, 2001 & 2011



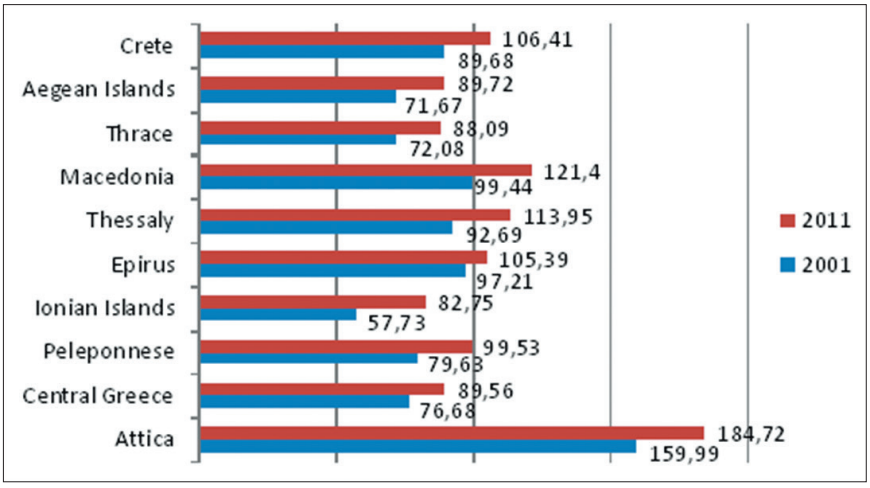
Source: ELSTAT, 2015d.

Fig. 17. Doctors per 100 000 population by geographical region, 2001 & 2011



Source: ELSTAT, 2015d.

Fig. 18. Dentists per 100 000 population by geographical region, 2001 & 2011



Source: ELSTAT, 2015d.

Researchers in Greece identify geographical region as a significant determinant of PHC and hospital utilization. Distance from health facilities, lack of access to means of transportation and unavailability of adequate infrastructure and human resources result in low frequency of visits to health services (Geitona, Zavras & Kyriopoulos, 2007; Zavras, Geitona & Kyriopoulos, 2014). The importance of regional health resources allocation is also demonstrated by the fact that health services in touristic areas are required to cope with increased demand during certain periods, such as summer (Noula et al., 2007).

Telemedicine could offer a solution to geographical barriers of access.[9] During the 1990s, certain initiatives were undertaken to develop telemedicine in Greece through efforts from both public and private organizations. These included projects such as MERMAID, AMBULANCE, HYGEIAnet, VSAT, TALOS, NIKA and, with a European scope: NIVEMES and HERMES (Eriotis, Vasilou & Zisis, 2008; Pavli, 2010). Although these efforts produced encouraging results, telemedicine in Greece did not progress in line with initial expectations and interest in developing such programmes decreased during the following decade. This can be attributed to many reasons, including the lack of proper education in information and telecommunication technologies among medical and non-medical staff of the telemedicine centres and hospitals; an inability to allocate permanent staff for operation of the system; shortages in telecommunication and

[9] Studies show that telemedicine appears to be effective not only for overcoming geographical barriers to access but also for cost savings (see Tsitlakidis, Mylonakis & Niakas, 2005).

other facilities; lack of information technology protocols and standards; absence of a distributed, virtual electronic health record; and several legal issues that need to be addressed to ensure effective delivery of health-care services. However, the most important issue is the lack of coordination of services and staff over a long-term action plan (Apostolakis, Valsamos & Varlamis, 2008).

In order to address skewed allocation of health resources, studies on restructuring PHC[10] have been conducted in recent years (Adamakidou & Kalokairinou, 2010; Groenewegen & Jurgutis, 2013; Karakolias & Polyzos, 2014; Ministry of Health, 2013; Ministry of Health and Social Solidarity, 2011a; National School of Public Health, 2013a; Polyzos, Theodorou et al., 2013; Sotiriadou, Malliarou & Sarafis, 2011; Souliotis, Thiraios et al., 2013) and hospital sector (Kyriopoulos, Adamopoulos et al., 2011; Liaropoulos, Siskou, Kontodimopoulos et al., 2012; Ministry of Health and Social Solidarity, 2011a; Tsavalias, Siskou, Liaropoulos, 2012). Their proposals include reallocation of facilities; structural and functional reorganization; reform of management in ESY hospitals; and mergers and changes in the use of certain health-care units. For example, a recent study measured and evaluated the distribution of the ESY's clinical and laboratory services and workforce in relation to the population in each health region. Proposals for their reallocation were formulated in order to address problems arising from shortages or oversupply of services which generate important inequalities in the distribution of services among the health regions (Nikolentzos et al., 2015). Some other studies prioritize changing the model of locational planning of hospitals and health centres, considering two objectives: (i) minimization of distance between patients and facilities; and (ii) equitable distribution of facilities among citizens (Mitropoulos et al., 2006).

Decentralization and regionalization of health services planning is one critical issue at the heart of the problem of regional disparities. Various attempts to decentralize the highly centralized Greek health system have failed. The most serious initiative – undertaken through establishment of regional health authorities (PeSYs)[11] in 2001 – was curtailed and never fully implemented. PeSYs were never given the autonomy to manage regional global budgets and to allocate health resources according to their population's needs; they had no decision-making powers; and most of their responsibilities were limited to either the form of proposals to the Minister of Health

[10] The necessity of establishing an integrated PHC system was not a critical issue on the health reform agenda for politicians in Greece during the 2000s. The scientific community submitted many proposals but none were implemented. One fundamental component of these was institutionalization of a referral system as the basic first pillar of the ESY (see Kyriopoulos, Lionis et al., 2000; Souliotis & Lionis, 2003 and 2005; Lionis, Symvoulakis, Markaki et al., 2009).

[11] Regional health authorities (PeSYs, established with Law 2889/2001), were renamed regional health and welfare authorities (PeSYPs, Law 3106/2003) and, later, health region administrations (DYPEs, Law 3329/2005).

or presupposed ministerial approval for implementation. This indicates that real decentralization of health-care competences was not achieved (Halkos & Tzeremes 2011; Kakaletsis et al., 2013). Studies suggest that failure to decentralize and regionalize the Greek health system can be attributed to many factors, including: obstruction by opposition from key interest groups; absence of policy continuity between governments; inability to tackle the bureaucratic and highly centralized system; and lack of political will (Athanasiadis, Kostopoulou & Philalithis, 2015).

3.2.2 Financial access and affordability

3.2.2.1 Health insurance coverage and user charges

Historically, social insurance funds in Greece have always played a very important role, especially with regard to the coverage, financing and provision of health-care services. However, their role and influence were not equally significant in the planning and regulation of the ESY, despite the fact that any development in the ESY impacted directly on them, and any significant change in the social insurance field (regarding coverage, contributions, provision and contracting) impacted on ESY financing. There was no statutory link between these two aspects and no active institutional body to coordinate actions on common issues and problems. Law 2519/1997 provided for such a body to coordinate ESY and insurance-fund policies. However, the Coordination Council for Unified Action in Health Services (SYSEDYPY) never became operational. It is notable that social health insurance funds were under the jurisdiction of the Ministry of Labour while the ESY was under the jurisdiction of the Ministry of Health. Furthermore, despite efforts over the last 20 years to gradually merge all IKA polyclinics with the ESY and to create a single, unified fund, until 2011 the situation remained unchanged and the problems continued.

Law 3655 of 3 April 2008 for administrative and organizational reform of the social insurance system was the first effort to rationalize the system and to merge health social insurance branches. Before this law was enacted, Greece had approximately 30 social health insurance branches providing coverage to about 97% of the population (Ministry of Health and Welfare, 2003). Together, four funds covered 95% of the country's population: (i) IKA, the largest fund, covering employees and workers in the private sector (50% of the population); (ii) Agricultural Insurance Organization (OGA) covering those involved in agriculture (20% of the population); (iii) Social Insurance Organization for the Self-employed (OAEE) covering merchants, manufacturers, owners of small businesses, and taxi and lorry owners and drivers (13% of the population); and (iv) Civil Servants Health Insurance Fund (OPAD) covering public-sector employees

(12% of the population) (Ministry of Health and Welfare, 2003). Funding was via employer and employee contributions and each branch provided its own health-care benefits package, resulting in significant differences in the level of coverage (content, procedures and quality) and freedom to choose health providers.

Law 3655/2008 was aimed to achieve administrative and organizational reform of the social insurance pension schemes and amalgamation of pension institutions in order to reduce their number to 13 major funds. The Law also provided for mergers of health funds and branches. This evolution was undoubtedly an important step towards rationalization of the system. However, the merged funds retained their original provisions, raising serious concerns about the extent to which the new legislation contributed to rationalization and enhancement of the system's efficiency.

In 2010, Greece faced an accelerated economic downturn and, under the fear of bankruptcy, the government requested financial assistance from the euro-area Member States and the IMF. The assistance was approved, and Greece signed an IMF/EU/ECB MoU. Under the provisions of the MoU, and creditors' pressure for rapid changes, the government introduced a number of health reforms. Law 3863 of 15 July 2010 for the new social insurance system was one legislative act passed in the Greek Parliament, foreseeing the separation of social health insurance branches from the administration of pensions; merging of health funds to simplify the overly fragmented system; bringing all health-related activities under the Ministry of Health and Social Solidarity; and establishing the Health Benefit Coordination Council. The aim of this council was to simplify the overly fragmented system by establishing criteria and terms under which social security funds could conclude contracts with all health-care providers in order to achieve reductions in spending and initiate joint purchase of medical services and goods with the aim of achieving substantial expenditure reductions through price–volume agreements (Economou, 2012a).

Following on from this the most significant reform was Law 3918 of 2 March 2011, introducing a major restructuring of the health system. More specifically, the health-care sectors of all four major social insurance funds (IKA, OGA, OAEE, OPAD) formed EOPYY to act as a unique buyer of medicines and health-care services for all those insured, thus increasing bargaining power with suppliers. EOPYY formally began operations in June 2011 and, until 2014, was also the country's main body tasked with managing primary care. Its role was to coordinate primary care, regulate contracting with all health-care providers and set quality and efficiency standards, with the broader goal of alleviating pressure on ambulatory and emergency care in public hospitals. However, under Law 4238 of 17 February 2014, EOPYY was converted to a single purchaser of health services and responsibility for PHC provision was transferred to DYPEs.

In the initial phase of EOPYY, only the health branches of IKA, OGA, OAEE and OPAD were merged. Subsequently, the House of Sailor, ETAA, ETAP-MME and the Insurance Fund for Bank and Utility Company Employees (TAYTEKO) also joined. The benefit packages of these funds were standardized and unified to provide the same reimbursable services based on EOPYY's Integrated Health Care Regulation (EKPY).[12]

Certain health insurance funds remain outside EOPYY, mainly mutual self-administered funds covering bank employees. These non-profit-making legal entities of private law include the Mutual Health Fund of National Bank of Greece Personnel (TYPET); Mutual Health Fund of Bank of Greece Personnel (ATPSYTE); Mutual Health Fund of Agricultural Bank Personnel (TYPATE); Health Account of Certified Public Accountants of Greece; and the Mutual Health Fund for Journalists (EDOEAP). The total number of (direct and indirect) insured with these five funds does not exceed 130 000 people.

According to the EKPY, EOPYY seeks to ensure equal access for all insured in a single-service system which aims to provide services for health prevention, promotion, improvement, restoration and protection. A number of health-care services are outlined, together with their durations and associated costs, as well as how they are administered. Furthermore, the regulation specifies who is covered and how costs are reimbursed. The population covered by EOPYY is direct insurees and their family members who were previously insured by IKA, OAEE, OGA, OPAD, House of Sailor, TAYTEKO, ETAA and ETA-MME.

A common basket of health services has been introduced for the insured of the social health insurance funds that participate in EOPYY,[13] but there are still differences in eligibility conditions. For example, different funds charge different social insurance contributions. In addition, the common package introduced reductions in benefits to which the insured are entitled. For example, some expensive examinations (including PCR tests and tests for thrombophilia) that had been covered – even partially, on an outpatient basis – were removed from the EOPYY benefit package. Entitlement restrictions were introduced for childbirth, air therapy, balneotherapy, thalassaemia, logotherapy and nephropathy. Moreover, the introduction of a negative list for medicines in 2012 resulted in the withdrawal of reimbursement status for various drugs (Economou et al., 2015).

[12] The health branches of IKA, OGA, OAEE and OPAD were merged in EOPYY in 2011; the House of Sailor, ETAA, ETAP-MME and TAYTEKO joined in 2012. The EOPYY Integrated Health Care Regulation was published in 2011, and amended twice in 2012.

[13] The common benefits package is very similar to that previously provided by the largest social health insurance fund: IKA.

In 2011, an increase in user charges (from €3 to €5) was imposed in public hospital and health-centre outpatient departments. This measure was abolished by Ministerial Decision No. A3(g)/GP/oik.23754 of 1 April 2015 issued by the Minister of Health. Visits to health centres and outpatient departments of hospitals are now free of charge. The results of two studies show that the cost of establishing and maintaining the financing mechanism to gather the €5 patient fee in health centres exceeded the total revenues collected. Also, the way in which cost-sharing was implemented in PHC has not promoted a more effective delivery of services (Center for Health Services Management and Evaluation, 2013; Stokou, Vozikis & Chondrocoukis, 2013).

Law 4093/2012 introduced a €25 patient fee for admission to a state hospital from 2014 onward and an extra €1 for each prescription issued under the ESY (in both primary care and inpatient settings). However, the hospital admission fee was soon revoked and replaced with an extra tax of 10 cents on cigarettes, following strong reactions from health-care professionals and various other stakeholders.

Increases in medication copayments for specific diseases were also introduced in 2011 (Table 16). It is noteworthy that average monthly pharmaceutical expenditure increased between 2012 and 2013, despite price reductions in pharmaceuticals. This may be attributed mainly to increases in cost-sharing levels from October 2012. In general, average cost sharing for pharmaceuticals rose from 13.3% in 2012 to 18% in 2013. Indicatively, in 2013 only 8% of prescribed drugs (packets) required no copayment, compared with 13% in 2012 (Siskou, Kaitelidou, Litsa et al. 2014).

Table 16. Increases in medication copayments for specific diseases, 2011

Diseases	Copayment increases
Alzheimer's; dementia; epilepsy and angiopathy; Buerger's; type 2 diabetes; Charcot's.	From 0% to 10%
Coronary heart disease; hyperlipidaemia; rheumatoid arthritis and psoriatic arthritis; lupus; vasculitis; spondyloarthritis; scleroderma; COPD; pituitary adenoma; osteoporosis and Paget's; Crohn's and liver cirrhosis.	From 10% to 25%
Pulmonary hypertension.	From 0% to 25%
Kidney disease.	No copayment for medicines specifically treating the disease. Previously, patients were exempt from copayments on all drugs.

Source: Economou, Kaitelidou, Kentikelenis et al., 2015.

Mandatory all-day functioning of public hospitals (afternoon shift) was introduced as an additional measure. Under Law 3868 of 3 August 2010, the afternoon outpatient surgeries of public hospitals provide medical interventions to private patients on a fee-for-service basis. The consultation fee varies from €24 to €72, depending on physicians'

grades, and is distributed between the hospital (40%) and the physicians (60%). As a consequence, a structure providing services to those with the capacity to make OOP payments has been established in public hospitals; disadvantaged groups who cannot afford such payments are excluded.

Since April 2014, calls to make an appointment with any doctor under the PEDY scheme have been outsourced to private telephone companies, with charges ranging from €0.95 to €1.65 per minute. Other provisions introduced for EOPYY insurees (Joint Ministerial Decision No. EMP5 of 18 November 2012) are: (a) increases in user charges for treatment in private clinics contracted with EOPYY (rates differ, e.g. range from 15% to 50% for farmers); (b) all insured incur a 15% copayment for clinical tests in private laboratories contracted with EOPYY; (c) 25% copayment for a range of prosthetic devices, orthopaedic materials and respiratory devices; and (d) ceiling set on consumables such as diabetes test strips, injection needles. In addition, existing exemptions from user charges were removed from some groups (e.g. exemptions for chronically ill people are strictly related to their chronic illness, even though some ailments may be indirect consequences of their health conditions) (Petmesidou, 2013).

3.2.2.2 Provisions for unemployed and uninsured people

Unemployed people who can provide proof of at least 50 working days in the year preceding commencement of their unemployment continue to have access to sickness benefits in kind for 12 months after the commencement of unemployment.

After one year, the Manpower Employment Organization (OAED) provides health coverage in three categories.

1. Long-term unemployed people aged over 55 years who have completed at least 3000 working days (Article 10, Law No. 2434/1996).
2. Long-term unemployed people aged 29–55 years who have completed 600 working days are covered for a period of up to two years, increasing by 100 days per year for those aged 30–54 (§4, Article 5, Law No. 2768/1999).
3. Unemployed people aged up to 29 years who have been registered unemployed with OAED for a period of at least two months are covered for six months (Article 18, Law No. 2639/1998).

The health voucher programme was launched in September 2013, funded mainly by the National Strategic Reference Framework and introduced by Joint Ministerial Decision No. DOLKEP/F15/40/oik.20849 of 1 August 2013. This targets both those who

have lost their insurance coverage (whether directly or indirectly insured) and their dependent family members. In the initial phase, access was limited to ambulatory health-care services (visits to contracted physicians, ESY facilities and services provided by contracted diagnostic centres).

The health vouchers took two forms: (i) general voucher for people of all ages, providing up to three visits to a doctor or a diagnostic centre contracted with EOPYY but no cover for pharmaceutical treatment or inpatient care; (ii) health voucher for pregnant women providing up to seven visits (if voucher was issued in the first three months) to a doctor or a diagnostic centre contracted with EOPYY but, again, no cover for the cost of hospital care.

Health vouchers were originally valid for four months, with no potential for renewal. However, since January 2014 this has been expanded to eight months (nine months for pregnancy health vouchers). In addition, the restrictions on the number of visits and tests referred by a PEDY doctor were abolished at the beginning of 2015. The programme aims to cover unemployed and uninsured people who have actually been uninsured for more than two years, since OAED enables extension of insurance status for up to two years after people have lost their jobs. The specific criteria make the programme available to people who were formerly insured with social security funds which joined EOPYY, with an individual income of up to €12 000 (for singles) or family income of up to €25 000 (for married) (Health Voucher, 2015).

It was estimated that the programme would initially cover approximately 230 000 uninsured citizens for 2013–2014. However, up until March 2014 no more than 23 000 health vouchers had been issued and applications did not exceed 85 000 (unpublished data provided by EOPYY). The small number of vouchers issued and the very limited scope raised serious doubts about its effectiveness. As a consequence, it was decided to extend the programme until October 2015 and abolish the restrictions on the use of services.

Those who have exhausted their insurance rights to sickness benefits, and eligibility for OAED programmes and the health voucher, can request a poverty booklet. Introduced by Joint Ministerial Decision No. 139491 of 30 November 2006, this special mechanism has been developed to protect the vulnerable population and to provide free access to public hospitals, medical services and pharmaceuticals for poor and uninsured people who have exhausted their social insurance rights. The basic eligibility criteria are a lack of insurance, low income (annual family income not exceeding €6000, increased by 20% for a spouse and every underage or dependent child, provided that this income does not come from employment giving access to insurance) and permanent and

legal residency in Greece. Beneficiaries who are eligible for the uninsured booklet are registered in the Registry for the Uninsured and Financially Weak kept by the health or welfare directorate of each municipality. The poverty booklet is valid for one year, with the possibility of annual renewal for as long as the applicant remains unemployed and in poverty.

A certificate of social protection is issued for foreign nationals granted a residence permit for humanitarian and health reasons; nationals of Member States of the European Social Charter; and expatriates applying for the expatriate identification card or for Greek nationality. Recognized refugees or migrants whose application for refugee status is being processed; beneficiaries of subsidiary protection; and migrants granted residence permits for health reasons are entitled to free access to health-care services identical to those available to Greek citizens who are uninsured and poor.

Two joint ministerial decisions (No. Y4a/GP/oik.48985 of 5 June 2014 and No. GP/OIK.56432 of 28 June 2014) allow uninsured people and their families to access primary and inpatient health services, as well as pharmaceutical care. The provision of insurance to those recorded to have no coverage (currently over 2.5 million) started officially on completion of the ATLAS plan in June 2014. Those eligible are uninsured Greek citizens and nationals of EU Member States and of third countries who reside legally and permanently in Greece. Free access is available to those who are not eligible for the poverty booklet and are not insured with any public or private fund. However, beneficiaries have access to pharmaceutical care for acute and chronic disease, under the same terms, conditions and charges for prescribed medicine as those imposed for insured patients. These may impose obstacles to accessing care.

The role of NGOs and other health and social networks should also be mentioned. In Greece, a few NGOs (up to seven) actively provide health services to migrants, uninsured people and other vulnerable groups. More than twelve clinics and diagnostic centres have been developed in Athens and other cities, mainly offering PHC, provided by all the basic medical specialties (GPs, paediatricians, gynaecologists); preventive medicine (diagnostic tests); and mental health services.

With demand increasing, and the public health system deteriorating, NGOs and other unofficial networks of health professionals and volunteers set up to help poor and uninsured patients contribute significantly to retain access to a basic set of medical services among poor and unemployed people. A network of around 40 community clinics operates across Greece, providing mostly primary health services and medications free of charge to people either unable or ineligible to use public services.

The Metropolitan Community Clinic at Helliniko is one example: offering services to more than 20 000 people since it was established on a volunteer basis in December 2011 in response to a society operating in austerity and difficulty.

The Social Mission Infirmary has been in operation since February 2012. A report published in 2014 identified a major problem: 10% of patients needed systematic continuous care or at least to be hospitalized, but this was not possible unless their situation could be classified as an emergency (Social Mission Infirmary, 2014). Thus, 86% of people visiting the Social Mission Infirmary lost their social insurance during the years 2010, 2011 and 2012. The organization has created a network of support with a number of hospitals, and could provide care to two to three cases each month.

The foregoing description shows clearly that there is an overlap between the different pathways providing services to the uninsured and economically weak populations. The result is a confusing situation and an absence of integrated patient-friendly procedures.

3.2.2.3 OOP payments, black economy and catastrophic health expenditures

According to the latest available data provided by ELSTAT,[14] private health expenditure in Greece in 2012 accounted for €5.1 billion. This corresponds to 31.8% of total current health expenditure – a 1.5% increase since 2009 (Table 17). OOP payments constitute over 90% of private health expenditures.

An increase in private health insurance is observed but remains low in comparison to other European countries, with a relatively minimal role. A number of factors explain people's reluctance to pay for additional insurance, including: economic recession; low average household income; high unemployment; social and cultural factors; and the existence of obligatory social insurance coverage. Instead, there is a preference to pay a doctor or hospital directly when the need arises, even in the form of under-the-table payments. Factors endogenous to the private health insurance industry relate to market policies; low organizational capacity; cream skimming; and an absence of insurance products meeting consumer requirements. These explain the relative underdevelopment of private health insurance in Greece (Economou, 2001,

[14] Following analysis uses data for the period 2009–2012 – the only available data calculated according to the OECD System of Health Accounts (SHA) adopted by Greece in 2012. In the absence of a developed SHA in Greece, limited or no official data were available on the breakdown of health expenditure by type of health-care services, by financing agent or by provider, raising serious doubts about the capacity to implement an evidence-based health policy and address rationally challenges posed by the economic crisis and the MoUs (see Goranitis, Siskou & Liaropoulos, 2014).

unpublished report;[15] Economou, 2007, unpublished report;[16] Economou, Karalis & Kyriopoulos, 2001; Kyriopoulos, Economou et al., 2000; Siskou, Kaitelidou, Economou et al., 2009).

Table 17. Current private expenditure and percentage contribution by financing agent, 2009–2012

	2009	2010	2011	2012
OOP payments				
€ million	6 593.3	6 096.1	5 808.7	5 095.9
% total health expenditure	28.4	29.4	28.8	28.8
Private insurance				
€ million	433.8	536.6	534.2	525.7
% total health expenditure	1.9	2.6	2.7	3
Total private health expenditure				
€ million	7 027.1	6 632.7	6 342.9	5 621.6
% total health expenditure	30.3	32	31.5	31.8

Source: ELSTAT, 2014.

Most private health expenditure in Greece covers outpatient care. The rate of private expenditure for inpatient care as a proportion of total private expenditure has increased in recent years, but ambulatory care still absorbs the largest share (Table 18, Fig.19). The rise in private health expenditure during the last 20 years is associated with public underfinancing and the existence of a fragmented, ineffective and deficient PHC system. The private sector filled the gap through increased investment, mostly in upgraded amenities and new technology (Siskou, Kaitelidou, Papakonstantinou et al., 2008).

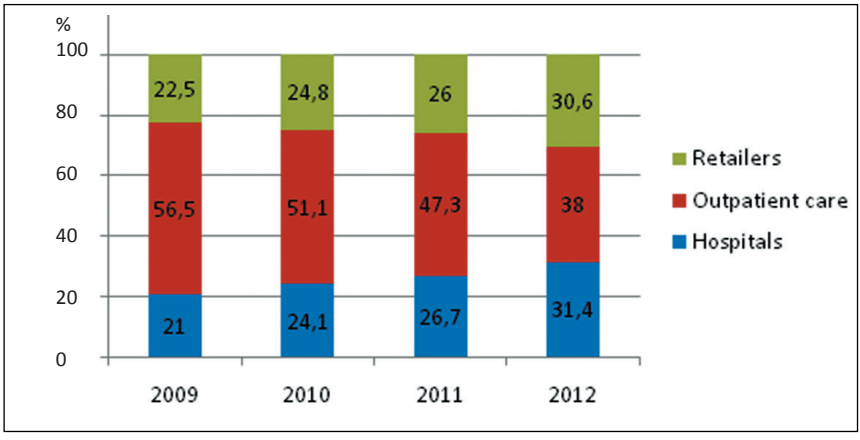
[15] Report for Mossialos & Thompson, 2003.
[16] Report for Thompson & Mossialos, 2009.

Table 18. Financing of health providers by private expenditure, 2009–2012 (€ million)

	2009	2010	2011	2012
Total private sector				
Hospitals, residential long-term facilities	1 477.1	1 597.1	1 696.4	1 764.8
Ambulatory health care	3 968.6	3 392.3	3 001.8	2 138.2
Retailers and other providers	1 581.4	1 643.3	1 644.7	1 718.5
Private insurance				
Hospitals, residential long-term facilities	310.7	380.3	379.6	377.2
Ambulatory health care	43	55.4	53.3	50.8
Retailers and other providers	80.1	100.9	101.3	97.6
Private payments				
Hospitals, residential long-term facilities	1 166.4	1 216.8	1 316.8	1 387.6
Ambulatory health care	3 925.6	3 336.9	2 948.5	2 087.4
Retailers and other providers	1 501.3	1 542.4	1 543.4	1 620.9

Source: ELSTAT, 2014.

Fig. 19. Distribution of private-sector health expenditure, 2009–2012



Source: ELSTAT, 2014.

The trend described above is confirmed by analysing household expenditure as recorded in the Household Budget Surveys conducted by ELSTAT (Table 19, Fig. 20). Within average monthly household expenditure, approximately 72% (the sum of medicines and doctors' services) is for outpatient services, with pharmaceuticals absorbing the largest share (32.4%) of total household health expenditure. This can be attributed to the increased copayments for drugs introduced after 2010 as mentioned in the previous section.

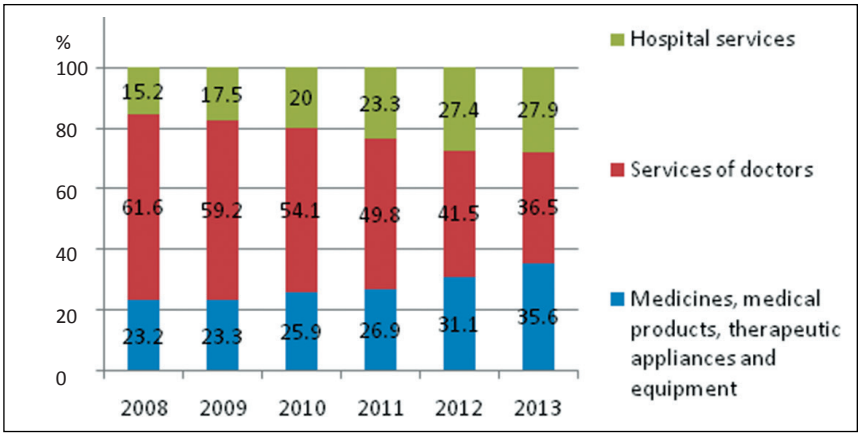
Furthermore, household expenditure on outpatient services of doctors of all specialties includes around 44.1% for dental services. This relates to the fact that, in reality, the Greek population is uninsured for oral health services. OOP payments by patients fill the gaps in dental insurance coverage of certain groups of the population and those arising from dissatisfaction with the quality of existing public-sector services (Dolgeras et al., 2004; Damaskinos & Economou, 2012). As a consequence, significant oral health inequalities are identified between socioeconomic groups in Greece. Lower levels of oral health are associated with those confronting financial difficulties (Yfantopoulos et al., 2014) as, in the absence of integrated social dental insurance, income becomes an important determinant of utilization of dental services (Zavras, Economou et al., 2004). As Van Doorslaer et al. (2004) have shown, the high level of private expenditure is one reason why modest-income segments of the population seek dental care less frequently than affluent households – the difference being wider for Greece than for the OECD average.

Table 19. Average monthly household expenditure on health (€) by category of service, 2008–2013

	2008	2009	2010	2011	2012	2013
Medicines, medical products, therapeutic appliances and equipment	33.02	32.25	32.23	30.84	32.52	37.13
Pharmaceuticals	27.36	25.83	27.44	25.33	28.69	33.80
Services of doctors	87.54	79.48	67.30	57.09	43.54	38.15
Dental services	42.30	39.45	33.25	26.65	19.73	16.81
Hospital services	21.54	23.55	24.90	26.66	28.66	29.16
TOTAL	**142.10**	**134.27**	**124.43**	**114.58**	**104.71**	**104.44**

Source: ELSTAT, 2015e.

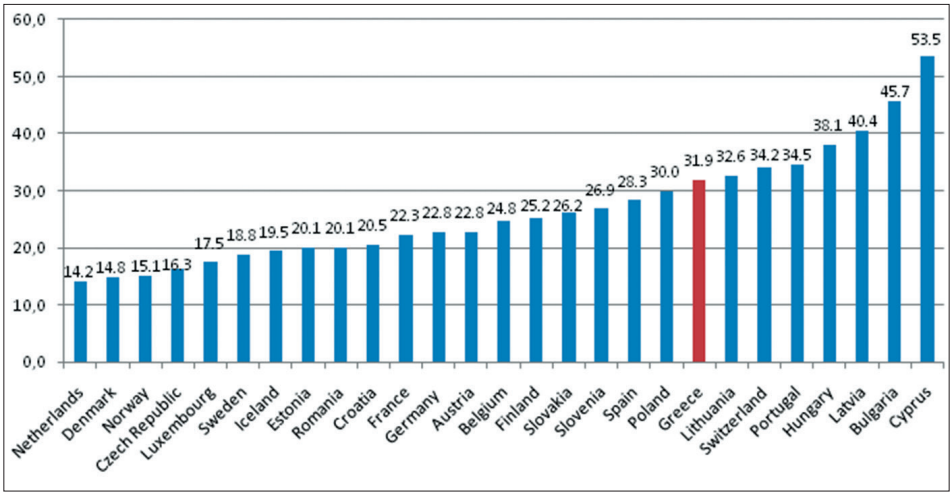
Fig. 20. Average household expenditure on health by category of service, 2008–2013



Source: ELSTAT, 2015e.

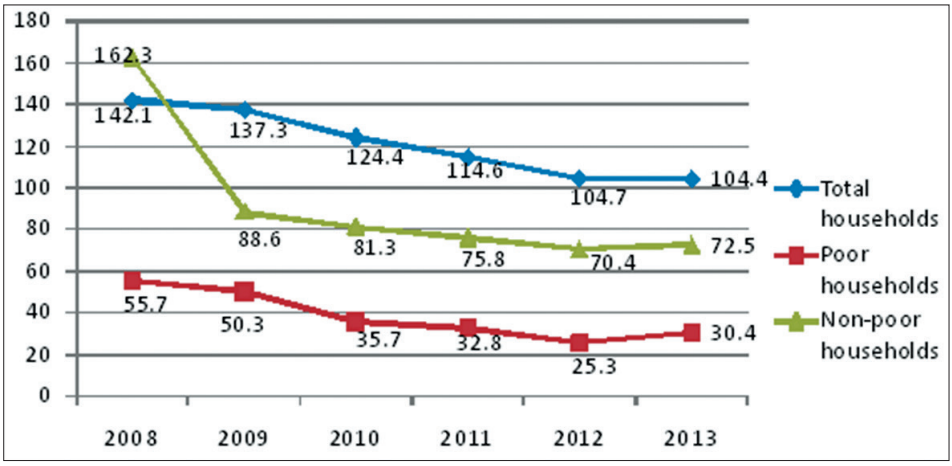
In international comparisons, Greece has one of the highest percentages of private health expenditure within total health expenditure (Fig. 21). This is a matter of serious concern as it undermines the constitutional guarantee of free access to health services. It also increases inequities in the distribution of the burden of financing health services among social groups. Average monthly expenditure on health of the poor households is approximately 42% of that of non-poor households (Fig. 22), due to the composition of poor households (e.g. elderly, uninsured). However, their expenditure on health as a percentage of the family budget is higher (9%) than the corresponding percentage for non-poor households (7%) (Fig. 23). According to Huisman et al. (2003), Greece is one of the European countries in which income has the greatest impact on the health of elderly people. Moreover, use of many health-care services in Greece is affected to a significant extent by an income effect, posing access problems for families with scant resources (Mergoupis, 2003).

Fig. 21. Annual private health expenditure as % of total health expenditure, European countries, 2012



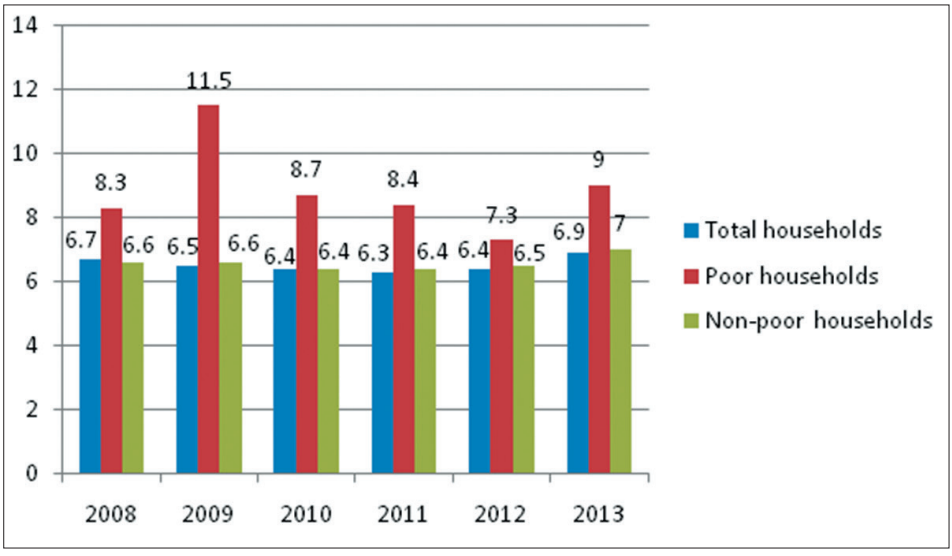
Source: Eurostat, 2015d.

Fig. 22. Average monthly household expenditure on health (€) by poverty status of population, 2008–2013



Source: ELSTAT, 2015e.

Fig. 23. Distribution of household expenditure on health by poverty status of population, 2008–2013 (%)



Source: ELSTAT, 2015e.

In a system characterized by high private health spending, poor households face the risk of catastrophic health expenditure: unexpected payments for health care exceeding 40% of household disposable income. In a study conducted in 2002, WHO's approach to fairness in financial contributions was applied to the Greek health system. The funding system was found to be regressive, given that low-income households paid a higher proportion of their income towards health care than rich households. The study also found that 2.44% of households in Greece face the danger of having to make catastrophic payments for health care, and 67% of households facing catastrophic health-care payments comprised households making OOP payments (Economou, Karabli et al., 2004; Kyriopoulos, Gregory & Economou, 2003). However, as international experience shows, OOP payments are not the only important determinant of catastrophic payments. They are the biggest issue when all three factors are strong: poverty; restricted access to and use of health services; and social mechanisms' failure to pool financial risks (Xu et al., 2003). It would be useful to conduct a similar study in Greece, considering the situation after 2010 which is characterized by high rates of poverty, loss of social insurance coverage, and increases in health services user charges.

A large part of OOP health expenditure in Greece concerns informal, under-the-table or side payments, constituting a black or hidden economy inside the health system.[17] Hidden economy activities have been a basic feature of the health sector in Greece (Kyriopoulos, Economu & Dolgeras, 2001) and no realistic analysis can disregard this phenomenon, even if their extent is difficult to measure (Souliotis & Kyriopoulos, 2003). Their burden is severe, especially when patients using public hospitals are asked to pay additional fees to physicians, mainly surgeons, who are paid state salaries (Tountas et al., 2005). A survey based on a sample of 4738 individual observations concluded that 36% of those treated in public hospitals had made at least one informal payment (Liaropoulos, Siskou, Kaitelidou et al., 2008). For 19%, these payments were additional

[17] In Greece, the word *fakelaki* [little envelope] is used for under-the-table, informal payments made to health professionals, especially doctors, to bypass waiting lists or ensure better service and more attention. The media describes many cases of patients paying *fakelaki*. A characteristic example is that of Kristina Tremonti, whose grandfather was diagnosed with terminal prostate cancer. One night he had incessant bleeding and needed urgent treatment.She rushed him to a public hospital in Kalamata, southern Greece where, in her words, they faced absolute negligence. Nobody gave them prompt attention and the medical personnel ignored her grandfather. Mrs Tremonti and her parents realized that the doctors were expecting a bribe (of about €300), once this was paid her grandfather was taken to the operating room within an hour. So traumatized by this experience, and determined to discover the extent of this practice in Greece, she set up the *edosafakelaki* [I paid a bribe] website (http:/www.edosafakelaki.org) which allows people to report anonymously on cases of giving or taking bribes, or where bribes were refused. In one month, 1000 different reports of bribery were posted on the site, around 60% of which relate to corruption in the public health system (Avgoustatos & Economou, 2013).

fees exacted by salaried doctors; for 17% they were so-called voluntary gratuities. The probability of making such payments was 72% greater for people wishing to avoid a waiting list than for those following standard admission procedures, and 137% greater for patients requiring surgery. The median payment amount was €300 – double the amount of monthly household spending on private health care, or 15% of their aggregate monthly outlays – and €200 in the case of gratuities. Nurses also receive gratuities, but lesser amounts (€25–35). This behaviour is encouraged by low pay in the public sector. As a result, it has been estimated that, on average, patients pay additional fees of approximately €5300 for heart operations for which the reimbursement is €8800 (Siskou, Kaitelidou, Papakonstantinou et al., 2008).

Another survey of 2741 people conducted in 2012 reports under-the-table payments for approximately 32.4% of public hospital admissions (Souliotis, Golna et al., 2015). In the private sector, the highest percentage (36%) of under-the-table payments was seen for visits to private practitioners and dentists (not issuing a receipt for patient OOP payment). Informal payments are most frequently made upon request, prior to service provision, in order to facilitate access to care, to reduce waiting times, to receive better quality care and, at a much lower percentage, for post-service provision, and out of gratitude. Even though the Greek health sector has been considerably affected by the ongoing fiscal crisis since 2010, the survey reveals that 58% of all respondents who consumed health services over the past 12 months paid under the table. Of these, a great majority (46.6%) consider that these payments had significant impact on their income and living conditions; a further 22.8% of respondents assessed the impact as medium. Moreover, the majority (55.8%) of those who evaluate their financial status as bad or very bad reported that hidden payments had a large impact on their income and living conditions. In an effort to estimate the total under-the-table health-care economy, the researchers extrapolated the main findings of the study to the Greek population based on the Household Budget Survey 2012. Hidden payments in the health sector were estimated at almost €1.5 billion for 2012, representing 28% of households' health expenditures. A previous study measured the share of the underground economy in the health sector at 17% of total expenditure on health (Kyriopoulos, 2004).

The Transparency International survey on petty corruption in Greece conducted in 2013 indicates that health care is at the top of the petty corruption list in both the public and the private sector (Transparency International, 2014). The amount given as a bribe in public hospitals ranges from €50 to €7000 for surgery; from €50 to €5000 for speeding up a case; and from €30 to €5000 for a doctor's payment. In the private sector, this varies from €150 to €4500 for surgery; from €20 to €1000 for medical tests; from

€100 to €5000 for speeding up a case; and from €50 to €3000 for a doctor's payment.

The problem was raised again in a recently published study examining how well the social health insurance system of Greece protects individuals against catastrophic OOP payments for inpatient care in private hospitals contracted with EOPYY (Grigorakis et al., 2014). The data were obtained after a cross-sectional survey in 2013 and comprised a sample of 413 insured who were hospitalized in contracted EOPYY private hospitals in the three main urban centres in Greece. The social health insurance system system covered only 47.3% of the total hospitalization cost; the average OOP payment was €1655.24. Of the 217 hospitalization cases that included surgery, 94 (43.32%) reported incidents of informal payments to surgeons and anaesthesiologists; 10% of the sample made OOP payments that exceeded one quarter of their annual wage or pension income.

A large part of the black economy lies in obstetric services in public hospitals. A study based on a population of 160 women who had given birth in four general hospitals in Greece, found a high rate of informal payments: 74.4% of the women were involved in informal transactions (Kaitelidou, Tsirona et al., 2013). Mean total private payments were €1549, comprising a mean informal payment of €848 and a mean formal payment of €701. The most common reason for under-the-table payment was the obstetrician's request (56.3% of respondents). Total informal payments were higher for women who gave birth in Athens, for Greek women (compared to non-Greek) and for deliveries performed by a woman's personal obstetrician.

The augmented black economy in the health sector during the last 20 years is mainly due to the structural problems within the health system, easing the development of unethical behaviours. Inefficiencies include a lack of information for users; long queues arising from unequal and inefficient allocation of human and economic resources and facilities; ineffective managerial structures which lack information management systems and, in many cases, are staffed by inappropriate and unqualified personnel without adequate managerial skills; limited administrative capacity; lack of coordination among the large number of payers; absence of adequate financial management and accounting systems; lack of monitoring processes and supervision mechanisms; irrational pricing and remuneration policy; and low salaries for health professionals, unrelated to their performance. These have resulted in a situation in which corruption has become a systemic characteristic of the Greek health-care system (Avgoustatos & Economou, 2013).

In summary, it can be argued that deficiencies in the public system boost private spending, posing problems of fairness and contributing to the development of informal payments. Research conducted before the current economic crisis has documented

amply that the financing of the Greek health-care system is significantly inequitable. The high level of official and unofficial private spending on health, widespread tax evasion, the high proportion of indirect taxation and social security contribution evasion has made health-sector funding highly regressive, disproportionately burdening the lower socioeconomic groups in society (Economou & Giorno, 2009; Economou, 2010; Liaropoulos, Siskou et al., 2008; Papatheodorou & Moysidou, 2011; Siskou, Kaitelidou, Papakonstantinou et al., 2008).

The crisis has exacerbated existing problems, and many of the policy measures introduced under pressure from bailout conditions have made health-sector financing more inequitable. The imposition of public health spending restrictions (to no more than 6% of GDP) and the simultaneous decline in GDP since 2009 (with further decreases forecast in the next few years) means that the public health sector is called upon to meet the increasing needs of the population with decreasing financial resources. This has negative effects, especially for the middle- and low-income households that lack the disposable income to buy private health services. Moreover, rising unemployment, part-time working, flexible employment and austerity measures (such as public-sector salary cuts) have led to falls in household income and the revenues of social health insurance systems' funds. This situation has led to additional strains on an already overloaded public health system. In combination, these factors could lead to a de facto two-tiered health system in which those who can afford to pay for private health services will be able to meet their health needs, while those without sufficient resources attempt to access services from a severely strained public system (Economou, Kaitelidou, Kentikelenis et al., 2015).

3.3 Acceptability coverage

This section contains aspects of acceptability coverage including patient satisfaction with health services provided, health system responsiveness, and social exclusion and discrimination as a barrier to access to health services for specific population groups.

3.3.1. Patient satisfaction with health services provided

In a 1996 Eurobarometer survey, 53.9% of Greek respondents declared that they were fairly and very dissatisfied with the health-care system. This was the third highest level

of public dissatisfaction with health services among EU countries, after Italy (59.4%) and Portugal (59.3%). In addition, 69.2% of Greek respondents expressed the need for complete rebuilding of the system or fundamental changes, compared to 76.9% for Italy and 70.1% for Portugal (Mossialos, 1998). In a subsequent Eurobarometer survey, the percentage of those supporting fundamental changes or complete rebuilding of the system increased to 78.1% for Greece and 80.4% for Portugal, but decreased to 65.5% for Italy (Eurobarometer, 2002).

After these two initial surveys on health care, Eurobarometer published a series of reports presenting the results of surveys undertaken with the objective of providing a picture of European citizens' perceptions on various aspects of their health systems. It is remarkable that in all these surveys the Greek respondents express negative attitudes towards the ESY, challenging the quality of the services provided. For example, in a survey concerning medical errors (Eurobarometer, 2006), 86% of Greek respondents considered them to be an important problem. This was the fourth highest percentage after Italy (97%), Poland (91%) and Lithuania (90%). In addition, 75% of Greek respondents (the highest percentage among EU countries) stated that hospital patients should be worried about the possibility of a serious medical error, and 61% had often read or heard about medical errors in their country. Greeks also showed the least trust in health-care professionals: only 24% had confidence in medical staff, 25% in doctors and 35% in dentists.

Similar doubts are expressed about homes of dependent people and nursing homes. A 2007 survey (Eurobarometer, 2007) found that negative opinions about care services offered in the homes of dependent people outnumbered positive ones in Greece (50%), Italy (40%), Romania (38%) and Bulgaria (36%). It is also important to note that in Greece (48%), Slovakia (50%) and Croatia (50%), around half of citizens were critical of the availability of home-care services for dependent people. Concerning affordability, 71% of the Greek respondents found the services provided not affordable, the highest percentage among the EU countries surveyed. It was also found that citizens in Greece tended to be the most negative in the EU concerning the quality of nursing homes: 65% of respondents indicating that they found the quality of these institutions to be bad. The majority were critical of the affordability of nursing homes, with 79% of Greeks (the highest percentage in the EU) believing that they were not affordable.

In another Eurobarometer survey, the main objective was to explore Europeans' perceptions of patient safety and their attitudes toward the quality of health care in their country. Examination of the survey data shows that 83% of respondents in Greece feel a risk of being harmed by hospital care, much higher than among respondents

from all the other EU countries. A similar pattern is found in perceptions of the likelihood of being harmed by non-hospital care: 78% of respondents in Greece feel a risk of adverse events in connection to such care, a much greater percentage than in other EU countries (Eurobarometer, 2010a).

The negative pattern is repeated in a more recent survey (Eurobarometer, 2014a). Only 26% of respondents in Greece say health-care quality in the country is good; the second worst rate after Romania (25%). In addition, 73% of Greek respondents think that the quality of Greek health care is worse than that of other Member States; again the second worst rate after Romania (78%). Furthermore, 78% of respondents in Greece say they think it likely that patients could be harmed by hospital care in their country (second worst rate after Cyprus: 82%). For non-hospital health care, respondents in Cyprus (75%), Portugal (71%), Greece (71%) and Poland (70%) are among the most likely to assess the quality of health care in their country as bad.

Dissatisfaction with health services is expressed not only in countrywide surveys but also in surveys concerning quality of life in cities. In three such surveys of residents in more than 75 European cities, respondents living in Athens and Heraklion (capital of Crete) express among the highest levels of dissatisfaction with health-care services, hospitals and doctors (Eurobarometer 2005 & 2009a; European Commission, 2013). In the latest of these three surveys, inhabitants of Athens are the most dissatisfied (69%) and inhabitants of Heraklion declare the sixth highest level of dissatisfaction (63%) (European Commission, 2013).

In the context of the current downturn, the Directorate-General for Employment, Social Affairs and Inclusion implemented regular monitoring of public opinion about the social impact of the global economic crisis. Various waves of Flash Eurobarometer surveys have asked, among other things, whether respondents noted any changes in their ability to afford health care for themselves or their relatives in the past six months. In all of these waves (Eurobarometer, 2009b, 2010b, 2010c, 2011 and 2012), Greece appears among the three countries with the highest proportions of respondents finding it more difficult to afford health care. Among the different waves of surveys, this proportion ranges from 47% to 63%.

The Greek population also registers the lowest satisfaction with health care in comparison to other EU countries in another series of Eurobarometer surveys concerning investigation of the prevailing social climate during the last six years. Among the thirteen countries with negative perceptions of their health-care system,

Greece has the lowest index. This is followed by Bulgaria, Poland, Romania, Latvia and Hungary. In addition, Greece shows the largest overall decline in perceptions of the health-care system across the period 2009–2014 (Eurobarometer, 2014b).

All of the aforementioned patient satisfaction surveys among EU countries indicate that Greek citizens are the most dissatisfied with their health-care system. Yet, this appears to contradict the results of national surveys showing that patients enjoy a relatively high percentage of satisfaction with services provided by the ESY. For example, a cross-sectional study using a sample of 15 215 patients discharged from 120 public hospitals asked for their opinions of services provided by medical and nursing personnel; accommodation facilities; and administrative services (Labiris & Niakas, 2005). It was found that the majority (88.3%) were satisfied with ESY doctors, widely appreciating physicians' interpersonal skills; a personalized approach; and information giving, physician feedback and discussion about treatment. The majority of the patients (81.8%) identified nursing services as adequate; effective behaviour of nursing staff was consistently related to satisfaction. Similar positive opinions were expressed concerning administrative services (75.5%): supportiveness, trust, warmth and respect by administrative staff being associated with higher satisfaction. Negative opinions were expressed about hospitals' hotel services: 42% of the patients identifying inadequacies in hygiene standards; 36% in the handling of the appointments; and 35% in the food provided.

Problems with the quality of hotel services, physical environment and infrastructure are also indicated in another survey conducted in six public hospitals located in northern Greece. Patients were least satisfied with equipment maintenance, meals, comfort and attractiveness of the environment. Conversely, hospitals performed rather satisfactorily with regard to doctors' knowledge and competence, and the staff's willingness to help patients (Karassavidou et al., 2009).

The results of all national research into patients' satisfaction with hospital care reach similar conclusions. Basic therapeutic services and the competences of medical and nursing personnel are rated positively. Patients express disappointment not only with hotel services, infrastructure, general cleanliness and meals, but also lack of staff, outdated equipment, unsatisfactory information giving and poor communication between hospitals and users (Aletras et al., 2007; Giannakopoulou & Zyga, 2013; Gnardellis & Niakas, 2005; Kalogeropoulou, 2011; Lambraki et al., 2013; Matis, Birbilis & Chrysou, 2009; Matis et al., 2010; Niakas & Gnardellis, 2000; Papagiannopoulou et al., 2008; Polyzos, Bartsokas et al., 2005; Souliotis, Dolgeras et al., 2002).

Consequently, it can be argued that dissatisfaction expressed by patients in Greece is related not to the core therapeutic services provided but rather to other structural, organizational and administrative problems of the health system (Niakas, 2003; Niakas, Gnardellis & Theodorou, 2004). The basic weaknesses of the Greek health system are the regressive character of ESY financing with high OOP payments; fragmented ambulatory care; and lack of a referral system. The austerity measures adopted in the last five years, with increases in copayments and user charges, is another factor associated with the growing dissatisfaction of the Greek population recorded in Eurobarometer surveys. Furthermore, patients often report frustration over the high costs of phone calls to schedule an appointment; long waiting times and delays in scheduling an appointment with a contracted physician; last-minute appointments; lack of flexibility when making appointments; long waiting times before being examined by a doctor; complex administrative procedures; and lack of coordination (Pierrakos et al., 2013; Pini, Sarafis et al., 2014; Tripsa et al., 2012). As already mentioned, the hiring freeze in the public sector has serious negative impacts on the quality of health services provided. Shortages of doctors and nursing personnel in health units result in long waiting lists and delays in the provision of care (Papanikolaou & Ntani, 2007).[18]

3.3.2 Health system responsiveness

The concept of quality also covers a set of non-clinical and non-financial dimensions that reflect respect for human dignity and interpersonal aspects of the care process, which the WHO defines as health system responsiveness. The pillars of health system responsiveness include dignity, autonomy, confidentiality, communication, prompt attention, quality of basic amenities, access to social support during treatment, and choice of health providers. A WHO survey conducted in 16 OECD countries in 2001 found that Greece reported the lowest level of overall responsiveness for both inpatient and outpatient services. Across inpatient domains, Greece had the worst performance in autonomy, communication, dignity and prompt attention; the second-worst performance in choice and social support; and the fourth-worst performance in confidentiality. Greece had the lowest performance in all outpatient domains except confidentiality, which showed the fourth-worst performance (Valentine et al., 2003).

[18] An article in the Greek newspaper *Ethnos* (Karagiorgos, 2015) reports that patients may have a six-month wait for an appointment in a public hospital outpatient department. An appointment for a breast examination at the breast cancer clinic of the "Agios Savvas" oncology hospital may entail a wait of 160 to 190 days. The economic crisis has increased visits to public hospitals (as patients cannot afford private treatment in private health clinics) alongside personnel and material cuts that seriously constrain the proper function of these hospitals.

In a subsequent national survey with a sample of 4000 respondents (National School of Public Health, 2006), it was found that ambulatory care had higher responsiveness (declared good or very good by 62.1% of respondents) than inpatient care (51.4%). For the individual elements of the responsiveness of ambulatory care, almost 79% of the respondents rated their experience of confidentiality of information as good or very good. The corresponding percentages for good or very good ratings were 69% for dignity, 65.5% for prompt attention and 64.6% for communication. This downward trend continues, with only 59.6% of users indicating that choice of provider was good or very good.

In assessing the responsiveness of secondary health services, the social support element displayed the largest proportion of users answering good and very good. The user experience in terms of confidentiality of information seemed to meet expectations, given that 76% assessed it as good or very good. However, only 59.6% and 59.3% respectively stated that experience of prompt care and dignity was good or very good. This dropped to 54.5% for experience of communication with health staff, and even lower for choice (53.8%) and autonomy (51.5%). These findings show clearly that all elements of responsiveness in hospital care were assessed as worse than those in ambulatory care.

Comparing the elements of responsiveness between those hospitalized in a public hospital and those in a private clinic, the survey found that the percentage of positive assessment (good and very good) in relation to prompt attention, dignity, communication and selection, namely the four major elements of responsiveness, was higher for those who used a private clinic. The difference in favour of private clinics ranged from 17% to 25%.

3.3.3 Vulnerable groups, social exclusion and discrimination

This section examines barriers in access to health care affecting vulnerable groups in Greece, focussing on three groups: migrants; Roma; and patients with long-term illnesses. The rationale behind this choice is firstly, the large number of migrants in Greece, especially illegal migrants.[19] Secondly, Roma people are one of the largest minorities facing serious discrimination – not only in Greece[20] but also in Europe.

[19] Greek police made 909 020 arrests of illegal migrants during the period 2006–2014 (Hellenic Police, 2015).
[20] Council of Europe (2012) estimates the Roma population in Greece to average 175 000.

Thirdly, in an era of crisis, with cuts in both incomes and health-care provisions, long-term patients face increased and (in many cases) unaffordable burdens of disease management. For health professionals, contact with vulnerable groups is made more difficult by language barriers, discrimination based on stereotypes, lack of health insurance, bureaucracy, and inability to understand paperwork and the way that the health system works (Karamitri et al., 2013).

3.3.3.1 Migrants

Discrimination and restricted access to health information, health promotion and health insurance increase the health vulnerability of migrants. A different culture, language barriers and an insecure position in the host country do not permit migrants to adequately address specific health needs and make it difficult to access appropriate health information and services. Conversely, health practitioners may lack awareness about the complex needs of migrant populations (Ioannidi-Kapolou, 2007).

In Greece, migrants residing legally in the country enjoy the same rights as citizens in terms of access to the health-care system (Cuadra, 2010). However, insurance is a requirement, as they can claim neither welfare benefit nor the poverty booklet which allows people on low incomes to access free health care. Free (or subsidized) health care is strictly connected to affiliation to social insurance. Only legal aliens, namely those holding residence and employment permits, have a right to social insurance.

To date, Greece lacks a formulated policy regarding access to and use of health-care services. This is mainly due to a lack of sound data on the epidemiological profile of migrants and their use of health services. In a study conducted in 2012 regarding migrants' access to health-care services in Greece (Galanis, Sourtzi et al., 2013), only 20.4% of participants reported that they had a good/very good degree of knowledge about public health services in Greece and only 56.5% of participants had health insurance coverage – a relatively small proportion in comparison to Greek citizens. Interestingly, over half of the participants in the study (62.3%) expressed unmet needs regarding health-care services. The most important reasons given were long waiting times in hospitals; difficulties communicating with health professionals; high cost of health care; complexity of the system; and poor knowledge of the health-care services available. In a more recent study (conducted in 2013) with a similar questionnaire and methodology, 35.6% of the participants reported a good/very good degree of knowledge about public health services in Greece; 70.5% reported a median to poor knowledge of their rights in accessing health services. Furthermore, a high percentage (67.4%) reported no health insurance coverage (Kaitelidou, Lemonidou et al., 2014).

Studies by the Medecins du Monde organization also indicate the many problems facing migrants in Greece. Serious barriers to health-services access are posed by: inability to speak the Greek language, with consequent gaps in communication; inefficient information about the organization of the health system; high cost of receiving health services and their own precarious socioeconomic position; problems with travel to where medical care is offered; lack of knowledge of their rights; and informal employment (Chauvin, Parizot & Simmonot, 2009; Chauvin & Simonnot, 2013; Chauvin, Simmonot & Vanbiervliet, 2013; Chauvin, Simonnot et al., 2014a & 2014b; Retinioti & Mantziou, 2010).

Undocumented migrants face even greater problems as they can only access public health-care services in cases of emergency or if there is a risk to the patient's life. The most significant change during the crisis (especially after 2011) is that hospitals and other health-care providers can no longer ignore the fact that patients are uninsured, as they often did in the past. They are now obliged to follow strictly the rules for uninsured people, who are eligible for treatment only in cases of emergency. Ministry of Health Circular No.Y4a/oik.45610 of 2 May 2012 states that treatment for undocumented migrants is provided by public services, public corporate bodies, local authorities and social security institutions only until the patient's health has been "stabilized". This provision poses a real problem because the concept of stabilization is not defined clearly in either the law or other regulations. Once again the decision is left to the discretion of the medical professionals who, in most cases, do not stop treatment (Fouskas & Economou, 2014; Kouli et al., 2013). Moreover, although an effort to introduce cultural intermediaries in hospitals started in 2009/10, this has been frozen and so issues of language and culture pose an additional obstacle to access. Under these circumstances – in a context of institutional weakness to address the health problems of migrants (Fouskas & Economou, 2009) – NGOs, municipal surgeries, welfare and health services provided by informal social networks and volunteers contribute significantly to the retention of access to a basic set of medical services (Economou, Kaitelidou, Katsikas et al., 2014; Kotsioni & Hatziprokopiou, 2009; Zafiropoulou, 2014).

Refugees and asylum seekers in possession of the relevant documentation, but without insurance or sufficient income, are entitled to primary and secondary care free of charge. However, those who have applied for asylum and are awaiting confirmation of their status as asylum seekers have only the right to access emergency services. It must be mentioned that the asylum procedure is quite lengthy, lasting up to several months, and the approval rate is extremely low (Kotsioni & Hatziprokopiou, 2009; Kouli et al., 2013).

In summary, migrants, asylum seekers and refugees in Greece face a number of barriers in access to health services, including (Altanis et al., 2008):

- legal and administrative difficulties in acquiring residence permit for eligibility identification card;
- financial difficulties in making OOP payments for health-care services;
- inadequate information on access to services (e.g. allowances, benefits);
- language difficulties in communicating with health professionals;
- professionals exhibiting biases and stereotyping of these groups;
- fear and bias towards the operation of public services.

To address these problems and facilitate migrants' access to health services, there is a dire need to strengthen the legal basis for the protection of migrants' rights at national level; to extend the establishment of intercultural mediators in health services; and to develop information material translated into the languages of migrants to provide guidance on key health behaviours, treatment of diseases and orientation of patients within the health system (Fouskas et al., 2014).

Towards this end – and based on an initiative of the Center for Health Services Management and Evaluation, University of Athens undertaken in the context of an EU-funded THALIS Project – a multilingual website is being developed.[21] This includes information:

- to improve access to health services in Greece – mapping all available health services, including hospitals and health centres of the ESY, social insurance funds, municipal clinics and NGOs that provide health services;
- on migrants' rights to access health services – describing the legal framework for each category (e.g. legal migrants, undocumented migrants, refugees, asylum seekers) and the rights of each;
- about the costs of using health services – for immigrants and all other users (mainly cost-sharing fees); and
- about identification of symptoms of the most common or dangerous infectious diseases together with advice on prevention, treatment, occupational health etc.

Information on the website will be available in the languages of ethnic groups with the bigger representation in the country. This is the first time that all publicly funded services will be available on one internet site.

[21] See http://www.healthgate4all.gr/

3.3.3.2 Roma population

According to a National School of Public Health (2013b) study, 77% of Roma people are completely uninsured; 78% reported that they have not had any vaccines; and 13% of Roma children do not have vaccination cards. It is noteworthy that reported coverage with two doses of measles, mumps and rubella (MMR) vaccine was inadequate among Roma children (8.7%) but markedly higher elsewhere – 83% of the total population, 86% of children who do not belong to a specific group and 75% of the children of migrants.

A small-scale survey (n=103), conducted in 2011 to assess the use of health services by Roma people in rural districts in Greece, reported that the barriers to access to health services cited most frequently by respondents were: long waiting times in hospitals; the attitude of health professionals; and the high cost of health care. The majority of participants (61.1%) reported that they are unable to cover the financial costs of health services. A significant proportion (45%) of participants reported that they had needed health services at least once during the preceding 12 months but could not afford them. Also, of the 38.8% who reported that they had been in need of medication during the preceding 12 months, 70.8% had not been able to obtain it because of the high cost (Galanis, Prezerakos et al., 2012).

A study conducted for the European Commission (Fundación Secretariado Gitano, 2009; Zarokosta, Tzanas & Tseva, 2009) compared the health of the Roma population across European countries (Bulgaria, Czech Republic, Greece, Portugal, Romania, Slovakia and Spain). This found that Greece had the highest number of Roma people who had never been to a physician (6% – four points over the average for the entire Roma population). In addition, Greece had the highest percentage (17%) of the Roma population who claimed to have needed but not received medical assistance; the figure ranging between 13% for minors and 21% for adults. The main reasons why the Roma population failed to receive medical attention concerned their economic situation – firstly, lack of sufficient funds to pay for the medical attention required; secondly, insurance failed to cover the visit; and thirdly, lack of health insurance. For vaccination, 35% of Roma minors in Greece did not follow the correct child vaccination programme; the second highest percentage after Romania (46%). Greece was among the three countries with the lowest proportion of the population having at least minimal contact with the dentist (58%). There was also a low percentage (23%) of adults who had visited the dentist in the last year. Of the Roma population that claimed never to have visited a dentist, again the second highest proportion (42%) was found in Greece, after Romania (44.3%). Furthermore, the Roma population in

Greece is among the highest users of emergency services in the seven countries. Last but not least, after Portugal (16%) Greece had the lowest proportion (43%) of Roma women who reported visiting a gynaecologist for reasons other than pregnancy. It is indicative that only 8% of Roma women in Greece (the lowest proportion) had undergone a mammography at some point in their lives.

The aforementioned studies indicate that Roma people lack access to, or do not use, preventative health care and face inequalities in accessing health services in Greece. This is linked to a lack of targeted information campaigns, limited access to quality health care and exposure to higher health risks. Roma people experience ill health partly because they are much more likely to be poor. They have lower socioeconomic status, and diseases such as TB, measles, and hepatitis disproportionately affect the lowest socioeconomic strata. They are also likely to be sicker than other poor people with the same income level. Discrimination, social exclusion and unregulated civil status (including lack of personal documents, birth certificates and insurance) make it particularly difficult for Roma people to access health services (Altanis et al., 2008). When more frequent use of health-care services is required (due to chronic disease or old age), it can be extremely difficult for Roma people to meet OOP health-care payments or make pension/disability allowance claims.

A number of additional barriers to access to health services have been identified for Roma people, namely: lack of knowledge of disease prevention, lack of knowledge about health service rights and lack of physical access to services. These assertions are confirmed in the few studies conducted in EU countries to assess both health and poverty among the Roma population (ECDC, 2013; WHO Regional Office for Europe & Council of Europe Development Bank, 2006; Fundación Secretariado Gitano, 2009). Therefore, although there are insufficient data and research documentation, it could be argued that economic crisis has negative effects on Roma people's health status. This is due in part to restrictions in coverage and access to health services imposed on the whole population of Greece, but mainly to deterioration in living conditions.

3.3.3.3 Patients with chronic illness

The results of a study conducted by the National School of Public Health (Kyriopoulos et al., 2014a) indicate that the self-rated health status of patients with chronic illness (Alzheimer's, hypertension, diabetes or COPD) deteriorated between 2012 and 2013 (62.2% vs. 58.5% respectively). Such patients mentioned significant decreases in income, and expenditure reductions in many aspects related to lifestyle. The reported

income decrease was approximately 34.1%; private health expenditure was estimated at 10.2% of total family income. Furthermore, 24.8% of the interviewees faced increased difficulties in access to health-care services due to geographical barriers; the corresponding percentage for economic barriers was approximately 62.8%. In addition, 55.1% of the respondents were facing increased difficulties in access due to long waiting lists. In cases reporting that the need for physician visits for issues related to the chronic condition had largely been met, this was achieved by increased OOP expenditures and large family budget cuts on essential household goods and services (Skroumpelos, Pavi, Mylona et al., 2014).

Economic crisis has detrimental effects on chronically ill patients, being seen (among other things) in reduced adherence to medication, reduced utilization of laboratory and imaging services, and poor monitoring of complications (Aloumanis & Papanas, 2014). For example, many patients refuse more expensive diabetes treatments or decrease the frequency of drug prescriptions (Polyzos & Kountouras, 2012). Among 288 patients participating in a study conducted in Crete, the majority had themselves lowered the doses of several medications as they were unable to afford the cost. All patients using insulin had lowered their dosages; 46.42% of patients with COPD or asthma had stopped all medications, decreased dosages or used similar medications; only 51.8% of patients with dislipidaemia received their medications as suggested; and 75.6% of patients with cardiovascular disease received their medications as suggested, the rest having stopped or skipped dosages (Tsiligianni, Papadokostakis et al., 2014).

Physicians also note the economic crisis's negative impact on patient adherence to treatment. In a study concerning type 2 diabetes in Greece, the participating 176 physicians estimated that 22.9% of their patients had to quit or modify their treatment plan for economic reasons during the previous year. A somewhat higher percentage (26.9%) was found regarding modification of dietary habits for economic reasons during the previous year, leading to negative health outcomes. As identified by the participating physicians, the main reasons why patients modified or quit treatment were: higher copayments for pharmaceuticals; loss of insurance coverage; and barriers to access to a physician for medical prescriptions (Tsiantou, Zavras et al., 2014).

Patients themselves express concern about the difficulties they face. In a qualitative study, representatives of patients with chronic illness (type 2 diabetes, hypertension, COPD, Alzheimer's) and medical associations indicated serious problems in the management of chronic diseases: low-quality health services; fragmented primary-care system; and absence of specialized centres for the management of chronic diseases (Tsiantou, Mylona et al., 2014). These problems of the Greek health system were found

to be magnified because of the recession. Furthermore, the increased numbers of people who are unemployed, uninsured or at risk of poverty put additional pressure on the health system and further undermine the quality of health services. Economic and geographical barriers to access were reported. Strengthening of the primary health system; development of patient registries; patient education on self management; and patient association involvement in decision-making were considered critical to the improvement of disease management. Management of chronic diseases was challenging even before the Greek economic crisis, but the current economic framework poses additional threats for the health-care system, jeopardizing patients' health and its own sustainability due to an increased risk from future costs.

Risk of catastrophic health expenditure among patients with chronic conditions has increased since the implementation of the austerity measures and the health reform measures. Of 1594 patients who responded to a survey in 2013, 7.8% of all households with at least one person with a chronic condition were subjected to catastrophic health expenditures (3.6% in 2010). More specifically, the proportion of patients facing catastrophic health expenditures had risen from 6.2% in 2010 to 11.4% in 2013 for Alzheimer's; from 2.9% to 8.7% for COPD; from 3.4% to 7.1% for diabetes; and from 1.7% to 4.2% for hypertension. Pharmaceutical expenditures alone were deemed catastrophic for 4.6% of all the aforementioned patients in 2013 (1.6% in 2010). Catastrophic health expenditures due to OOP payments for drugs had risen from 2.8% in 2010 to 6.2% in 2013 for the patients with Alzheimer's; from1.8% to 3.4% for the patients with diabetes; from 0.9% to 2.9% for the patients with COPD; and from 0.9% to 1.7% for the patients with hypertension (Skroumpelos, Pavi, Pasaloglou et al., 2014).

As a result, NGOs and other social clinics have experienced increasing numbers of visits by people with chronic diseases (especially diabetes). Medecins du Monde reports a 23% increase in visits to their polyclinics by patients with chronic illness. This is mainly to obtain medication which they are unable to afford following the increase in copayments (Economou, Kaitelidou et al., 2015; Zafiropoulou, 2014).

All of the changes already described are particularly striking in cancer care, with its lengthy and expensive treatments. Patients with cancer are one of the groups most affected by the economic crisis and health-care budget cuts, facing serious problems with waiting times and access to appropriate medicines (Apostolidis, 2013). During the last few years, patient organizations have reported delays and disruption with drug supplies. All expensive cancer medicines are available through hospital and EOPYY pharmacies, but hospitals owe huge amounts to pharmaceutical companies that, in turn, have stopped deliveries to public hospitals. Patients can order their medicine

from their local private pharmacy, paying cash which they may then reclaim from EOPYY. However, this is not a method of choice as many cancer medicines are very expensive and EOPYY payments can be very slow.

Another critical issue is medication for patients with cancer who have no insurance. As the system stands, they are unable to obtain medication from the public health system and can only access the appropriate medicines through hospital pharmacies. Under Greek law, hospitals and pharmacies are obliged to demand cash payments for drugs. For cancer, these can amount to tens of thousands of euros – impossible for most patients. If the cost of medicine is not paid at the hospital, eventually it will be recovered via the tax return of the patient. In addition, misallocation of oncology-specific resources creates two tiers of patients based on ability to pay for travel/accommodation (Athanasakis et al., 2012). Furthermore, the limited data available indicate that patients with cancer face extended waiting times in order to access the appropriate therapies. Unofficial sources suggest waiting times of six to eight months for a cancer operation and more than two to three months for radiation therapy. Data derived from the Greek Health Map (EOPYY, 2015a) suggest that waiting times for visits to outpatient oncological clinics increased between 2010 and 2012. However, the data are limited and only for a sample of hospitals.

In addition to the difficulties already described, on 18 August 2014 the Ministry of Health set an upper limit on the number of presymptomatic checks for uterus, breast and prostate cancers that can be prescribed by EOPYY doctors. Given that Greece has both non-population-based and non-systematic screening programmes, without strengthened prevention actions and enhanced participation in presymptomatic examinations there is the danger that such policies will increase numbers of cancer cases in the near future (Tsounis, Sarafis & Alexopoulos, 2014).

3.4 Contact coverage

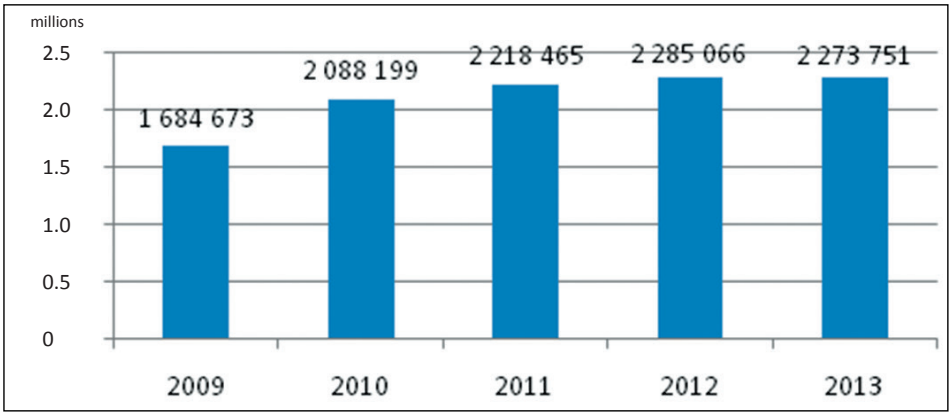
This section presents an exploration of the utilization of health-care services in Greece. Data are based on ELSTAT and ESYnet databases and on two reports published by the Ministry of Health (Ministry of Health and Social Solidarity, 2011b & 2012).[22] However, two Ministry of Health decisions must be outlined before presenting the data. Firstly,

[22] It is remarkable that the health databases of the international organizations (OECD Health Database, WHO Health for All database, Eurostat) have no available data concerning health services utilization in Greece after 2008. Hence, this report uses data from Greek resources, focusing on the years after 2009 to highlight the period of the crisis and the austerity measures.

in May 2014 a ceiling of 300 visits per month was imposed on every doctor contracted with EOPYY (Ministerial Decision No. Y9a/oik.37139 of 8 May 2014). This means that those insured with EOPYY who are in need of a doctor must either find a physician who has not reached the set upper limit or be charged on a fee-for-services basis not covered by social insurance. Secondly, Ministerial Decision No.Y9/oik.70521 of 18 August 2014 introduced ceilings on pharmaceutical expenditure for every physician contracted with EOPYY. These vary according to specialization; numbers of patients prescribed for; the prefecture; and the month of the year (seasonality). The argument for these new budget cuts is the necessity to control health-care costs. Yet, it is apparent that health decision-makers chose to increase the burden on patients rather than rationalizing the health system and making it more user-friendly by controlling the demand and supply of health care via a referral system.

Mixed results are obtained from examining actual utilization rates for the period 2009–2013. Firstly, it appears that the use of public services has risen. For example, patient admissions to public hospitals in 2010 were 24% higher than in 2009; 6% higher in 2011 than in 2010; and 3% higher in 2012 than in 2011. A slight decrease of 0.5% was recorded between 2012 and 2013 (Fig. 24).

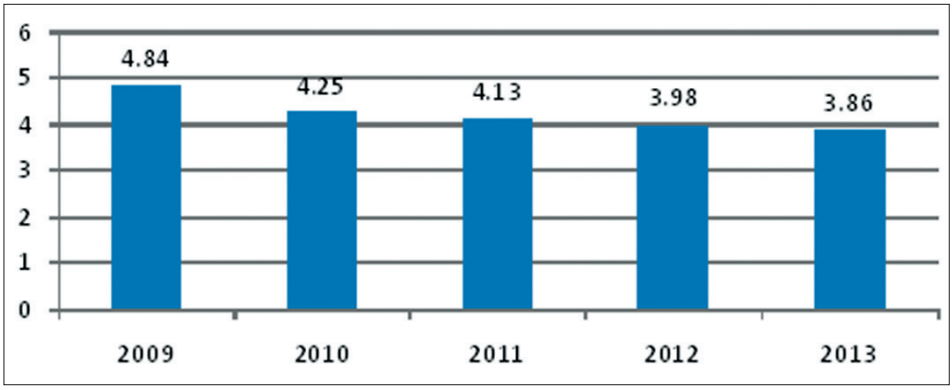
Fig.24. Patient admissions to public hospitals, 2009–2013



Source: Ministry of Health and Social Solidarity, 2011b and 2012; ESYnet, 2015.

At the same time, the average length of stay has fallen from 4.84 days in 2009 to 3.86 days in 2013 (Fig. 25).

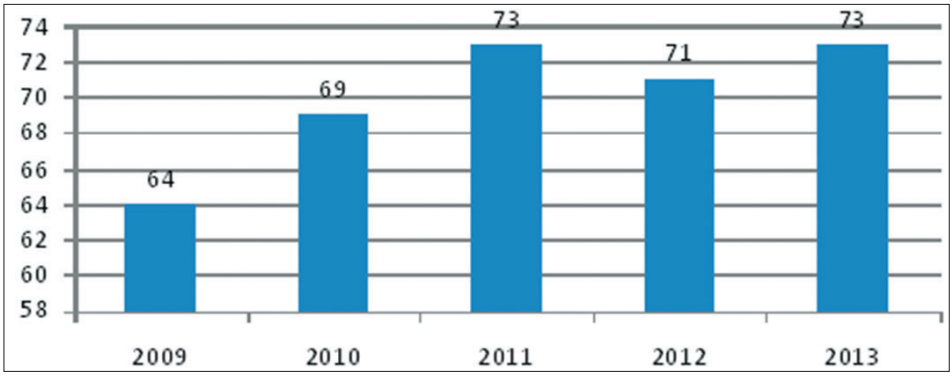
Fig. 25. Average length of stay in public hospitals, 2009–2013 (days)



Source: Ministry of Health and Social Solidarity, 2011b and 2012; ESYnet, 2015.

Additionally, the hospital bed occupancy rate in 2013 was 14% higher than in 2009 (Fig. 26).

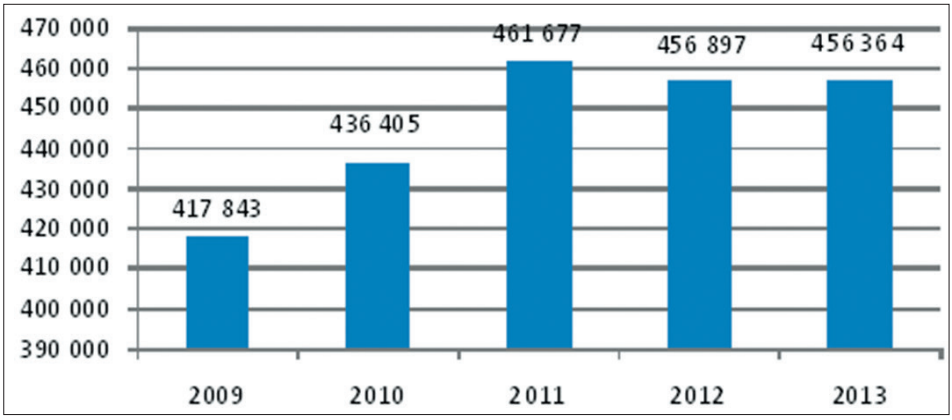
Fig. 26. Bed occupancy rates in public hospitals, 2009–2013 (%)



Source: Ministry of Health and Social Solidarity, 2011b and 2012; ESYnet, 2015.

Surgical interventions rose by 4% between 2009 and 2010, with a further 6% increase between 2010 and 2011. Thereafter, the trend reversed: decreasing by 1.15% between 2011 and 2013 (Fig. 27).

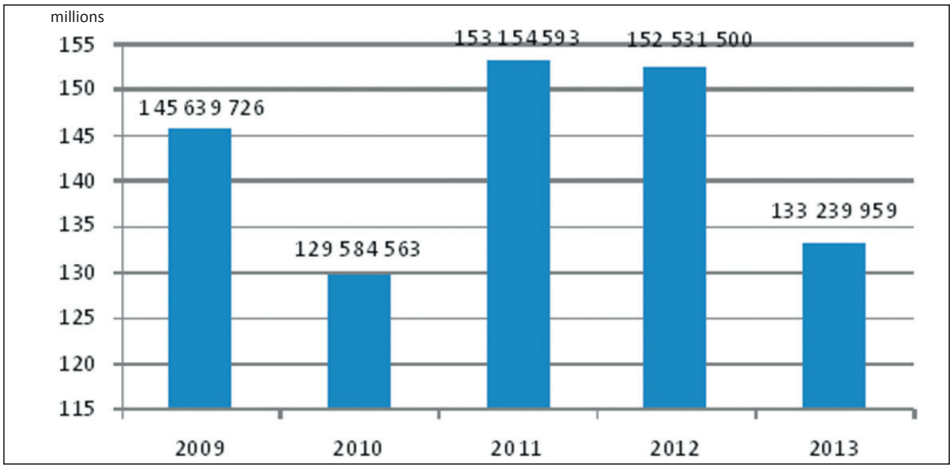
Fig. 27. Surgical operations in public hospitals, 2009–2013



Source: Ministry of Health and Social Solidarity, 2011b and 2012; ESYnet, 2015.

Laboratory tests declined by 11% between 2009 and 2010; increased by 17.7% between 2010 and 2012; and fell by 12.6% between 2012 and 2013 (Fig. 28).

Fig. 28. Laboratory tests in public hospitals, 2009–2013



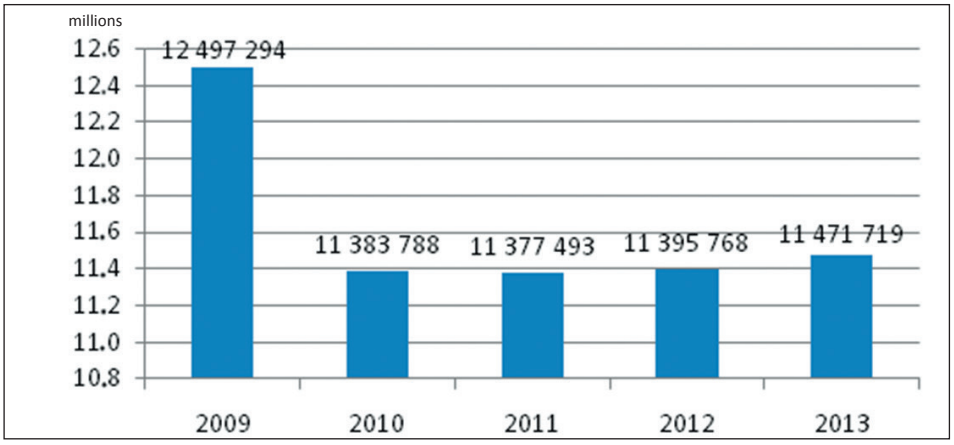
Source: Ministry of Health and Social Solidarity, 2011b &2012; ESYnet, 2015.

Thus, utilization has increased at a time when inputs and/or input prices have fallen. However, without adequate data on factors such as the quality of services, it is not

possible to discern whether these increased levels of utilization translate into actual increased efficiency in the delivery of services. Nor is it possible to tell whether or not adequate and appropriate levels of care are provided and meet patients' needs.

Conversely, visits to public hospital outpatient departments decreased by 8.9% between 2009 and 2010; remained relatively stable between 2010 and 2011; and increased slightly between 2011 and 2013 (Fig. 29). Overall, visits to public hospital outpatient departments decreased by 8.2% during the period 2009–2013.

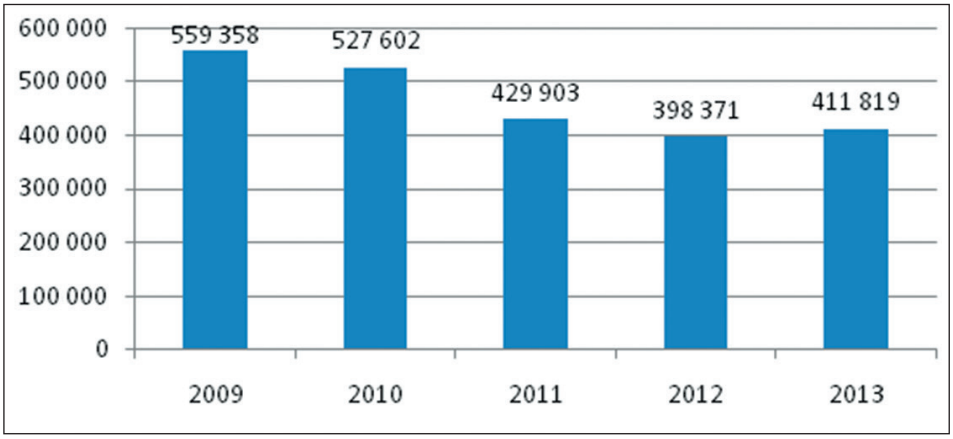
Fig. 29. Visits to public hospital outpatient departments, 2009–2013



Source: Ministry of Health and Social Solidarity, 2011b &2012; ESYnet, 2015.

Furthermore, visits to afternoon surgeries in public hospitals (compulsory afternoon shifts) declined by 6% between 2009 and 2010; by 19% between 2010 and 2011; and by 7.3% between 2011 and 2012. Between 2012 and 2013 a 3.4% increase was observed. Overall, visits to afternoon surgeries declined by 26.4% between 2009 and 2013 (Fig. 30).

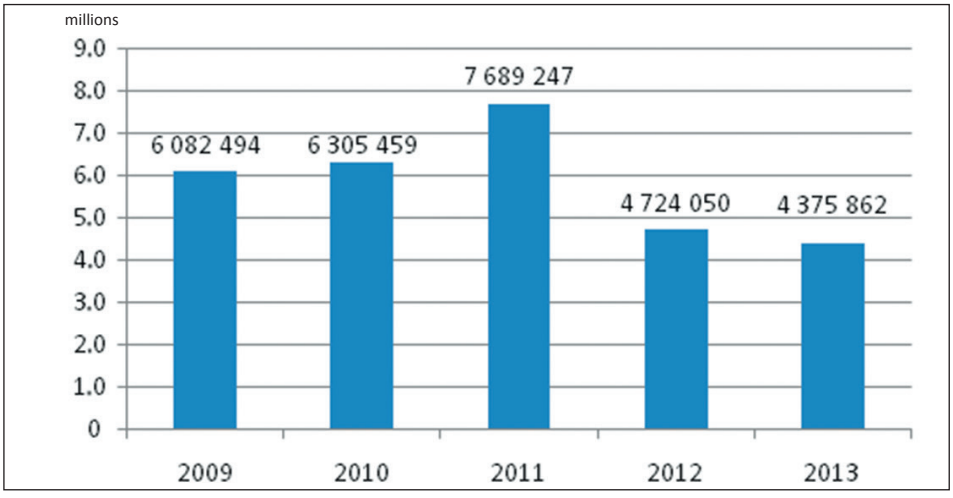
Fig. 30. Visits to public hospital afternoon surgeries (compulsory afternoon shifts), 2009–2013



Source: Ministry of Health and Social Solidarity, 2011b and 2012; ESYnet, 2015.

Another interesting evolution is apparent in visits to health centres.These increased by 26.4% between 2009 and 2011, but show a sharp decline (by 43.1%) between 2011 and 2013 (Fig. 31).

Fig. 31. Visits to health centres, 2009–2013



Source: Ministry of Health and Social Solidarity, 2011b &2012; ESYnet, 2015.

One possible explanation for these variations is increases in copayments and user charges which caused patients to delay visits to first-contact health services. This is exhibited in the decrease of visits to ambulatory units. In such cases, the health status of the patients worsens and hospitalization becomes inevitable.

3.5 Effective coverage

There are insufficient official data available to assess the effectiveness of the Greek health-care system. The only resources to identify are studies referring to different dimensions of the provision of certain health services, which may be used as proxy measures for the evaluation of clinical effectiveness. Disease management, medical errors, infections acquired in hospitals and immunization rates are the areas to be examined in this section.

It is a common finding that disease management in Greece is far from effective: PHC is neither well-developed nor organized and only a small percentage of the population receives screening services (Copanitsanou, 2015). For example, the services delivered by rural primary-care services are unilaterally oriented towards acute health problems, and rarely engage in prevention, health promotion, social care and rehabilitation. Moreover, chronic disease management is usually performed fragmentedly, with the main focus on prescribing (Oikonomou & Tountas, 2011a). Repetition of tests and prescriptions is usual due to poor information transfer between providers, and integration and continuity of care is nonexistent (Oikonomou & Tountas, 2011b).

Many barriers to the provision of high-quality PHC services are identified, including: PHC service shortages in workforce and equipment; inadequate GP and paramedic training; absence of positions/job descriptions or duty statements for GPs and other PHC personnel; and limited public awareness about the role of GPs (Sbarouni et al., 2012). Moreover, there are no mechanisms to supervise and evaluate medical practices and no effective systems for keeping, organizing and coordinating medical records; measuring use of health resources; or assessing and monitoring outcomes of care. Diagnostic and therapeutic protocols have been used only rarely (Oikonomou & Mariolis, 2010). Quality problems now raise further questions (Lionis & Petelos, 2013; Tsiligianni, Anastasiou et al., 2013), given that even before the present crisis general PHC in Greece lacked the necessary financial and human resources (Lionis et al., 2010). PHC should prevent unnecessary hospitalization, but this is not the case in Greece. Two studies evaluating cases treated in the emergency department of a Greek general hospital revealed that almost one in three patients in the surgical,

otorhinolaryngology, ophthalmology and gynaecology groups could have been managed by a GP, as could 40% of orthopaedic cases (Marinos et al., 2009; Vasileiou et al., 2009).

A national action plan for public health based on 15 intervention areas was formulated for the period 2008–2012 (Ministry of Health and Social Solidarity, 2008), but never fully implemented (EOPYY, 2015b).[23] The resulting lack of any official national prevention and screening programme in Greece has negative effects on the population's health. For example, only a small percentage of the Greek population receives cancer screening (Karathanasi et al., 2009). There are neither national invitational colorectal cancer screening programmes focusing on early detection of the disease, nor guidelines for its management. Post-treatment surveillance guidelines for high-risk patients are very limited and depend solely on health providers' decisions (Geitona & Kanavos, 2010). Furthermore, physicians show varying levels of knowledge of cancer screening. One study showed that primary-care physicians in rural Crete demonstrate limited awareness of international recommendations and guidelines for breast-cancer screening and exhibit marked variation in their approaches to early detection and screening practices for breast cancer (Trigoni et al., 2011). Another study in the same geographical region indicates that failure of cervical-cancer screening arises not only from the lack of infrastructure and limited staff, but also the lack of physician referrals. GPs' main training in hospital clinics during residency underemphasizes the acquisition of skills regarding the practise of prevention in the community, leading to poor understanding of primary care's role in health promotion (Panagoulopoulou et al., 2010).

The performance of the Greek health system lags considerably behind other European countries in addressing specific diseases such as common cancers (breast, cervical, prostate, colon) and diseases of the circulatory system (Dimitrakaki et al., 2009; Pavi et al., 2011; Skroumpelos & Kyriopoulos, 2010). Problems with prevention and treatment of other diseases are also apparent. For example, peripheral arterial disease (PAD) remains underdiagnosed and undertreated in PHC settings in some regions – physicians rarely investigate their patients for the presence of PAD despite the presence of atherosclerotic risk factors (Argyriou et al., 2013).

[23] The intervention areas included substance abuse; cancer; sexual health; diet and nutrition; alcohol consumption; cardiovascular disease; environmental health; smoking; vehicle accidents; oral health; infectious diseases; travel health; rare diseases; HIV/AIDS; and antimicrobial resistance and nosocomial infections.The action plan for each intervention area (in Greek) can be found on the Health Map website (EOPYY, 2015b).

Greece does have a national immunization programme. Studies exploring childhood vaccination coverage suggest that socioeconomic factors play a significant role in determining the uptake rate: belonging to a minority group; presence of siblings; father's education; maternal age; distant immunization locations; and the perceived severity of disease are important determinants of children's vaccination status. Incomplete and delayed immunization is associated with long distance to the place of vaccination and with lower maternal age. Also, from belonging to Roma or migrant groups; to families with many children; or to households headed by fathers with low educational levels (Danis et al., 2010a & 2010b). Overall immunization coverage with traditional vaccines[24] is satisfactory (over 90%), but administration of booster doses is delayed in many cases (Pavlopoulou et al., 2013). Studies reveal that adolescent vaccination coverage is not satisfactory, mainly due to noncompliance with the final booster dose (Bitsori et al., 2005; Sakou et al., 2011). There are also problems with coverage of specific groups of the population: generally good or moderate for children in migrant families but generally moderate or low for children in Greek Roma families (Panagiotopoulos, Papamichail et al., 2013).

In relation to clinical effectiveness of hospital care, two measures of outcomes reflecting the quality of services provided are nosocomial infections and medical errors. A study of hospital-acquired infections carried out in 14 Greek hospitals in the early 2000s found an overall prevalence of 9.3% in the 3925 hospitalized patients recorded (Gikas et al., 2002). The most common infections recorded included lower respiratory tract infections (30.3%), urinary tract infections (22.7%), bloodstream infections (15.8%) and surgical site infections (14.8%). The greatest prevalence rate was found in the adult intensive care units (ICUs) (48.4%), followed by the neonatal ICUs (30.3%). Subsequent studies also indicated problems with device-associated infections in ICUs. Dima et al. (2007) investigated site-specific, risk-adjusted incidence rates of ICU-acquired infections in eight ICUs in Greece and found high rates for central line-associated bloodstream infection (12.1 infections per 1000 device days) and ventilator-associated pneumonia (12.5 infections per 1000 device days). Another study was conducted in three Greek ICUs from July 2009 to June 2010. This showed that, during 6004 days in intensive care, 152 of 294 patients acquired 205 device-associated infections – an overall rate of 51.7% of patients or 34.1 device-associated infections per 1000 days. The rate of mechanical ventilator-associated pneumonia was 20 per 1000 ventilator days; the central catheter-associated bloodstream infection rate was 11.8 per 1000 catheter days; and the catheter-associated urinary tract infection rate was 4.2 per 1000 catheter days. Excess mortality was 20.3% for ventilator-associated pneumonia and central

[24] Diptheria, tetanus and pertussis (DTaP); polio; haemophilus influenzae type B (Hib); hepatitis B (HBV); 1st dose MMR.

catheter-associated blood stream infection and 32.2% for carbapenem-resistant *A. baumannii* central catheter-associated bloodstream infection (Apostolopoulou, Raftopoulos et al., 2013). A more recent study confirms the clinical burden of catheter-associated urinary tract infection in ICU patients (Apostolopoulou, Zikos et al., 2015).

Reports sent to the Hellenic Center for Disease Control and Prevention from public hospitals throughout the country in 2011, show that absolute numbers of infections ranged from 230 to 450 per month. The majority of infections occurred in ICUs (54.9%), followed by internal medicine wards (27.4%) and surgery wards (17.7%). Bacteraemias and pneumonias were the most frequently reported types of infection (34.8% and 29.8%, respectively), followed by urinary tract infections (21%) and surgical site infections (14.4%). Ventilator-associated pneumonia was the prevalent type of pneumonia (73.9%). Among all the isolated pathogens, *Klebsiella* was the most frequent (43.2%), followed by *Acinetobacter* (35.9%) and *Pseudomonas* (20.9%). The overall crude case fatality rate was 35.7%, estimated in the 28-day period after the first positive culture. Calculated from data collected from 64 hospitals for the period from January to June 2011, the mean incidence was 0.55 per 1000 hospital days, ranging from 0 to 2.16 per 1000 patient days among hospitals (Dedoukou et al., 2011).

The application of clinical guidelines and protocols can play a positive role in improving the quality of medical care and the delivery of health services. In Greece, a number of issues prohibited their systematic dissemination, including negligence and health professionals' lack of awareness (Skalkidis, Nastos & Zavitsanos, 2010). One survey aimed to investigate knowledge and application of protocols and criteria according to WHO's definition of quality care in the operating room. Of the 153 nurses participating, more than half (55.3%) were unaware of the safety checklist as defined by WHO; and of those who knew it, only 42.7% used it (Karathanasi, Malliarou & Zyga, 2013).

Medical errors pose another challenge to the effectiveness of the health-care system. Greece has no central national authority to report cases of medical errors; most adverse events are detected using spontaneous reporting, which identifies only a small number of adverse events. However, findings show that, each day, around 20 to 30 patients die and 200 others are harmed by preventable medical errors (Vozikis & Riga, 2008). Research confirms that medical malpractice is present in the Greek health system, and that the invasive medical specialties show the highest rates of adverse events (Pollalis, Vozikis & Riga, 2012). Studies have reported omissions and errors regarding oxygen therapy (including decisions for oxygen prescription, administration, modification, monitoring, discontinuation) and interruption of oxygen therapy (Brokalaki, Matziou

et al., 2004); sentinel events related to medication, indwelling lines, airway and equipment failure in ICUs (Valentin, Capuzzo et al., 2006); and nursing errors (Mitsis, Kelesi & Kapadohos, 2012; Moumtzoglou, 2010). An attempt to estimate the economic burden of medical errors in Greece based on the review of 128 compensations awarded by civil courts between 2000 and 2009 found that the mean compensation amounted to €292 613, representing 35.41% of claimed compensation (Riga,Vozikis & Pollalis, 2014). The debate raised among health policy-makers as to the appropriate response to the problem resulted in proposals ranging from implementation of nationwide mandatory reporting, with public release of performance data, to voluntary reporting and quality-assurance efforts that protect the confidentiality of error-related data. In this context, development and implementation of Medical Error Reporting Information System (MERIS) has been suggested, in order to identify, collect, analyse and report medical errors and adverse events (Vozikis, 2009).

3.6 Health outcomes as measures of performance across Tanahashi framework domains

Many factors are considered to be the major determinants of health: socioeconomic and political context; levels of social cohesion and social capital within communities; material circumstances; living and working conditions; social stratification; personal behaviour, lifestyles and biological factors; and the structure of the health-care system and access to health services (Commission on Social Determinants of Health, 2008). In Greece, the lack of relevant studies makes it impossible to provide an estimate of improvements in the health status of the population attributable to each of these factors.

Some conclusions for the period before the current economic crisis can be drawn from two studies conducted by Nolte and McKee. These compared the performance of 19 OECD countries in relation to avoidable mortality amenable to health care. The studies reveal that at least 70% of the total improvements in life expectancy in Greece in the 1980s was due to falling amenable mortality in both sexes, with about half of this improvement due to declining infant mortality. Compared to other countries, amenable mortality made a somewhat smaller contribution in the 1990s than in the 1980s, although its impact was still substantial, accounting for about two thirds of the total increase in life expectancy in both sexes. Again, much of this change was driven

by falling death rates in infancy, accounting for 36% of the observed improvements in women and 47% in men (Nolte & McKee, 2004). Furthermore, between 1998 and 2003 mortality from amenable causes in Greece fell by 11% for males and 17% for females (Nolte & McKee, 2008).

These conclusions are confirmed by a third study examining trends of mortality (with a focus on avoidable mortality) in Greece between 1980 and 2007 (Ollandezos et al., 2011). The findings show a steady decline in the percentage of avoidable mortality within all-cause mortality (1980–1984: 27%; 2000–2007: 22.9%), falling by 30.5% (1980–1984: 217.4 per 100 000 population; 2000–2007: 151.1). The treatable mortality rate fell by 48.1%, making the largest contribution to the decline in avoidable mortality (1980–1984: 110.9 per 100 000; 2000–2007: 57.5). The ischaemic heart disease death rate fell by 13.1% (1980–1984: 52.7 per 100 000; 2000–2007: 45.8); preventable mortality rates fell by 11%, making a modest contribution to the decline in avoidable mortality (1980–1984: 53.7 per 100 000; 2000–2007: 47.8).

The three studies described suggest that the Greek health system has a positive impact on the population's health, but another study based on data envelopment analysis concluded that the effectiveness of the health-care system has eroded. The analysis showed that the performance of the Greek health-care system had fallen from a ranking of between third and fifth among OECD countries in 1990 to between twelfth and eighteenth place in 2006, depending on whether the resources available for health care are measured by the level of spending per capita or proxied by the number of active medical personnel. It was estimated that using health-care resources as efficiently as the best-performing countries would have increased life expectancy at birth by between 0.8 and 0.9 years in 1990, but the gap widened to between 1.7 and 3.0 years in 2006. Moreover, this decline in relative performance seems sharper if resources allocated to health care are measured by the number of active medical personnel. Such evidence would suggest that this weaker performance stems more from a decline in technical efficiency rather than higher input costs – prices and compensation paid for medical services (Economou & Giorno, 2009).

Several studies investigating the effects on public health in Greece have been published since the onset of the crisis. The following section sets out a synoptic presentation of the findings of these studies, indicating the three transmission paths from economic crisis to health outcomes: the supply of health-care services; demand for health services; and household behaviours that directly impact health (Hou et al., 2013). Under this prism, there is specific consideration of the consequences of the economic downturn as the health policy responses to the crisis affect the domains of

health-system coverage proposed by Tanahashi, which in turn affect the health status of the population.

It is is difficult to quantify the health effects of the economic crisis in Greece and of the government policies introduced in response. This is due to a lack of timely and relevant data. However, some preliminary evidence of targeted studies – concerning self-reported health, mental health, suicides, infectious diseases, infant health and cardiovascular diseases – indicate negative trends (Kentikelenis et al., 2014; Kondilis, Giannakopoulos et al., 2013; Simou & Koutsogeorgou, 2014).

In relation to self-reported health in Greece, studies find that higher percentages of older people, unemployed people, pensioners, homemakers and people with chronic disease (i.e. vulnerable groups) report poor self-rated health since the economic crisis (Zavras, Tsiantou et al., 2013; Vandoros et al., 2013). Mental health has also deteriorated during the economic crisis. Between 2008 and 2011 the one-month prevalence rate of major depression increased from 3.3% to 8.2% (Economou, Madianos et al., 2013a); and between 2009 and 2011 there was also a substantial increase in the prevalence of suicidal ideation and reported suicide attempts in Greece (Economou, Madianos et al., 2013b).

These developments in mental health, and the rise in the incidence of suicides, are linked to the crisis: high unemployment; poverty; state and household debt; cuts to benefits, entitlements and pensions; and increasing homelessness (Antonakakis & Collins, 2014; Christodoulou & Christodoulou, 2013; Madianos et al., 2014). According to a study conducted in 2015, the mean suicide rate overall rose by 35% between 2010 and 2012 (from 3.37 to 4.56 per 100 000 population). The suicide mortality rate for men increased from 5.75 per 100 000 (2003–2010) to 7.43 (2011–2012) and for women from 1.17 per 100 000 to 1.55. The increase in suicide mortality was significant in the 20–59 and over-60 age groups. Each additional percentage point of unemployment is associated with a rise in suicides of 0.19 per 100 000 population among working-age men (Rachiotis et al., 2015). A multidecade national analysis of suicide in Greece using monthly data found that select austerity-related events in Greece corresponded to statistically significant increases for suicides overall, as well as for suicides among men and women (Branas et al., 2015). The alarming trends in mental health and suicides are accompanied by restrictions in mental health services. A large number of community centres, psychosocial rehabilitation units and specialized establishments have suspended operations or reduced staff numbers. Furthermore, Ministry of Health funding for mental health in 2011 was 20% lower than in 2010, and in 2012 was 55% lower than in 2011 (Anagnostopoulos & Soumaki, 2013).

The economic crisis also appears to impact on infectious disease dynamics. Since 2010, Greece has been suffering a high burden of different large-scale epidemics including increased mortality from influenza during the pandemic and first post-pandemic seasons; emergence and spread of West Nile virus; appearance of clusters of non-imported malaria; and the outbreak of HIV infection among people who inject drugs (Bonovas & Nikolopoulos, 2012). The reported number of HIV infections among injecting drug users rose from 15 in 2010 to 522 in 2012 (Hellenic Center for Disease Control and Prevention, 2012); notified cases of TB in the Greek population rose from 261 in 2010 to 349 in 2012 (Spala, 2014). These results suggest that increasing socioeconomic disparities and difficulties (e.g. unemployment, extreme poverty, homelessness, stigma, discrimination, social isolation); budgetary constraints; and poor policies for financing prevention and treatment arising from the economic crisis have been translated into heightened risk behaviours on the individual level and impaired public health response at population level (Paraskevis et al., 2013).

Other implications of the economic crisis are recorded for other diseases, such as otorhinolaryngological disorders. A study aimed to explore possible occurrence variations within specific otorhinolaryngological morbidity between 2009 and 2011 by using the outpatient database records of a large hospital in Crete. This found a significant increase in the diagnosis of two disorders (vertigo and tinnitus) that could be associated with increased social anxiety and distress caused by the economic crisis (Karatzanis et al., 2012).

Children are one population group affected by the crisis. The stillbirth rate increased from 3.31 per 1000 live births in 2008 to 4.28 in 2009 and 4.36 in 2010 – an increase of 32% between 2008 and 2010 (Vlachadis & Kornarou, 2013). The live birth rate dropped to 10.45 per 1000 population in 2009, to 10.15 in 2010 and 9.39 in 2011 (Simou, Stavrou et al., 2013). These developments highlight the serious problem of barriers to access to qualitative maternal health-care services and programmes. In addition, a United Nations Children's Fund (UNICEF) report on the state of children in Greece reports that conditions for children have deteriorated in recent years as a result of a reduction in welfare benefits, rising parental unemployment, poverty and insufficient access to health care.Welfare payments in 2011 were 4.9% lower than in 2009 and a significant number of children in Greece have no access to health care because their parents have lost their state social insurance coverage (Hellenic National Committee for UNICEF, 2014).

Economic crisis and austerity policies have also impacted on public health, health promotion and health risk factors. Health promotion policies are constrained,

thereby inhibiting initiatives for disease prevention and health promotion education practices (Ifanti et al., 2013). An assessment of trends in health-related behaviours and cardiovascular risk factors within Greece before, at the outset of, and during the current financial crisis indicates that fruit and vegetable consumption has decreased alarmingly during the crisis, especially among those of lower socioeconomic status (Filippidis et al., 2014). The increase in hospital admissions for cardiovascular diseases during the financial crisis is alarming. Two studies conducted in a central hospital in Athens compared all admissions to the cardiology department during the pre-crisis (2003–2007) and crisis (2008–2012) periods. These revealed an increase in the number of admissions due to AMI (Papadimitriou et al., 2014) and atrial fibrillation (Samentzas et al., 2014) in both sexes during the crisis period.

4. FINDINGS OF THE QUALITATIVE RESEARCH

This section presents the findings of the qualitative research. Findings from the provider side are presented first, followed by those from the focus groups and face-to-face interviews with users of health services. Each section is structured according to the five dimensions of the Tanahashi framework.

4.1 Findings from interviews with health-care service experts

4.1.1 Availability coverage

Key informants placed most emphasis on the serious problem facing the health-care system in terms of human resources. This is due to obligations imposed in recent years by the Memorandum of Economic and Financial Policies (MEFP). These include drastically reduced opportunities to appoint public employees, thereby causing serious problems in human resources availability (e.g. physicians, nurses, paramedical staff), which in turn greatly hinder population coverage.

> *"As far as the human resources is concerned, certainly there is a relevant legal department responsible which makes provisions for the availability of the personnel. Of course you know that the financial obligations of the last years have reduced the ability of mass hiring in the public sector. There is a limitation in the number of hiring and, naturally, it is impossible to have the necessary human resources in all hospitals."* (Manager in Ministry of Health, int.01)

At the same time, experts confirmed the existence of an extensive infrastructure of health services in the country. However, the interviews have confirmed that shortages and uneven distribution of medical and health-care professionals seems to be the major barrier to availability of health services, both before and after the economic crisis in Greece.

> "*Especially in the urban* centres*, primary health care provided by the Social Insurance Institute (IKA) and hospitals is well-developed, while in smaller towns and villages unfortunately the only available physician is the rural service doctor.*" (Manager in EOPYY, int.04)

Interviewees particularly noted the unequal distribution between urban centres and rural areas and the islands.

> "*As a country, we have a lot of doctors, but they are unevenly distributed and in many cases they are not where they are needed. They are clustered in urban centres and it's a pity people who live in the islands do not have doctors while, at the same time, the existing structures are worn out.*" (Manager in EOPYY, int.04)

4.1.1.1 Human resources

Lack of personnel is highlighted, not only in small urban and rural areas but also in the islands. This has negative effects in both quantitative and qualitative terms.

> "*The last five years were really difficult. Especially the last two, mainly the last one and a half year I was without any doctor, even during the summer months, without any help from the hospital in Kalymnos and without being able to take work leave. Basically, I don't want to see my workplace anymore. I'm fed up – no more.*" (Manager of health centre, remote island, int.09)

In order to compensate for increasing shortages, especially in the islands, some NGOs organize mixed ambulatory care teams including specialists (e.g. cardiologists or ophthalmologists) to visit areas lacking their own permanent doctors.

Availability of care is also seriously affected by the low salaries of medical and health-care personnel. In turn, this leads to low levels of interest in Ministry of Health calls for jobs in regional/rural areas.

> "*In rural service practices, for example from the eight calls for a job that have been issued in Preveza only one has been covered and the reasons have to do with the*

fact that many doctors have left and the salary has been significantly reduced…. we are on red line because we work, we are on call for 24 hours without pay." (GP, rural area, int.10)

Low remuneration also has direct repercussions on the performance and motivation of existing staff who, in many cases, either retire or migrate to other countries where their profession is paid more highly.

"*Another reason which doesn't facilitate the access has to do with shortages in staffing that exist the last years in the field of health. Many have retired, fewer hirings have happened and that means that some specialties in some geographical departments or areas don't exist. There are shortages of rural doctors because many young scientists choose to go abroad to do their specialty and in that way avoid their rural service. As a result, populations who want simple services ranging from a simple prescription to a first diagnosis cannot get them.*" (Manager in Ministry of Health, int.02)

4.1.1.2 Infrastructure, equipment and medicines

Interviews with key people did not reveal serious problems regarding equipment and medicines. The infrastructure seems to have improved due to investments made through programmes in the framework of the National Strategic Reference Framework (ESPA).

"*Now as far as it concerns the structures, facilities and equipment, I believe that during the last years and with the many ESPA programmes for infrastructure, facilities and equipment, the majority of hospitals are at a very good level.*" (Manager in Ministry of Health, int.01)

When compared to the situation before the economic crisis, providers saw a positive dynamic, especially in the supply of medicines to uninsured people.

"At least EOPYY makes every effort concerning medicines. Even during crisis, EOPYY created pharmacies for high-cost medicines in order to avoid shortages from unlimited exports. So, we do whatever we can to cover Greece" (Manager in EOPYY, int.05)

But, according to the experts' analysis, the lack of insurance coverage drastically reduces patients' ability to access services. Key informants also emphasized deficiencies in terms of facilities and geographical access, especially in isolated rural areas and on the

islands (i.e. Astyalaia is 23 sea miles from Kos and 25 from Kalymnos where patients can be hospitalized).

> "*Here the weather conditions are the most important thing. Here there is difficulty accessing even the hospital we belong to. We belong to Kalymnos island and there are three ship services but not as many itineraries as we would like for a daily help.*" (Manager of health centre, remote island, int.09)

Moreover, when practitioners and NGO representatives were asked to describe the current position in relation to infrastructure and medicines, they expressed completely different opinions.

> "*The availability of health services, currently, in Greece is in a very minimum base, in human resources there is an analogy of 1/10, there is a shortage regarding the nursing staff, paramedical professions, therefore the coverage of the population is hindered. Supplies are basic and minimum: they don't have cotton, some don't have bandages, gloves, high security gloves and that's why there are plenty of working accidents, they easily get pricked by needles and syringes. Thus, all these impede access.*" (Representative of NGO, int.14)

The manager of a health centre explained that expenditure on, and procurement of, equipment does not seem to follow any principle of efficiency.

> "*Unfortunately we buy very expensive equipment, sometimes not even using it, in areas where it is useless and it doesn't help primary health care much, which is a necessity in small societies. Even for Athens. For a neighbourhood. It isn't logical to spend so much money on equipment which isn't used even once when we don't do basic things to help the population as groups.*" (Manager of health centre, remote island, int.09)

4.1.2 Accessibility coverage

Accessibility coverage seems to be seriously affected by structural dysfunctions in the system. In this sense, barriers are mainly related to the way appointments are set, the way that users may come into contact with specialists and to serious deficiencies in information campaigns.

"*Of course there are obstacles. The obstacles mainly have to do with organizational problems of the system: how we arrange a medical appointment and how the patients find the doctor and the specialty they want to find; how the patients' referral is made and how the patient is moved within the health-care system. There are a lot of organizational problems and there are also gaps in citizens' information and in the direction of this system. As a result the citizen sometimes feels isolated or like a stranger trying to find his way in a chaotic system.*" (Manager in Ministry of Health, int.02)

Key informants consider that the introduction of access to health care for uninsured people has been a positive development for all in the context of the current recession. In general, decision-makers, managers and service providers expressed positive attitudes towards the introduction of these provisions.[25] There was consensus that this major reform has improved access to health services for a large part of the population that was formerly excluded by both costs and failure to meet the criteria for access to health insurance.

However, certain key informants from the Ministry of Health feel that health insurance in Greece has been well-designed to meet the basic needs of the population, and lack of access may arise because users do not know their rights.

"*At this moment there isn't a law to exclude a category of people from accessing the health services. There is a possibility that they are unaware. Not knowing exactly their rights to access the health services so as to get the necessary health services.*" (Manager in Ministry of Health, int.01)

Providers appeared to have slightly different opinions, since they disagree with the increase in users' contributions for blood tests and medicines which was recently introduced.

"*Increased out-of-pocket contributions discourage and deter citizens from using the health-care services. I will tell you the simplest thing. Someone who doesn't have €9 to give for an AIDS/HIV test in outpatient clinics, won't go to do it. We go out and do this test with the saliva without any charge. Someone who is a carrier who doesn't go* [to get examined] *and doesn't get diagnosed, according to international studies, is 75% responsible for infecting others.*" (Representative of an NGO, int.14)

[25] The Joint Ministerial Decisions (48985/2014 and 56432/2014) of the Ministers of Health and Social Solidarity; Finance; and Labour and Social Security regulate uninsured people's access to health-care services (hospitalization, health and pharmaceutical care).

Indeed, they believe that these measures tend to blur users' knowledge about their rights. In turn, this explains why, in many circumstances, users exhibit aggressive behaviour and put the blame on health-care personnel.

> "*The contribution rate has changed, it has confused citizens a lot because they don't know if the 25%* [contribution] *or the 10% exists. The result is that we are the targets of people's aggression and we try to explain to them what is happening.*" (Pharmacist, int.15)

National-level key informants and those from health facilities were reticent to acknowledge that anticipated costs can still prevent people from seeking care. They said that people are deterred by myths, rather than the actual practices of payment.

> "*The charge and the visit are in the range of €5. I believe that it isn't a prohibitive amount beyond the means of any citizen to pay for a visit either in primary or secondary health care. Of course, there are directives from our Ministry, according to which people who have a health booklet because of financial weakness or people who suffer from a chronic disease are exempted from paying the €5.*" (Manager in Ministry of Health, int.01)

Only managers of regional-level facilities acknowledged that some people did not access care because they had no money for transportation to the health facility or for other associated costs, such as absence from work and anticipated OOP payments for doctors' consultations or other services.

> "*Transportation is a problem. The hospital is a rather long distance if the population is elderly and most of them do not have a private vehicle. The same for the poor, for those who don't have a vehicle to get around, for those who live in remote areas, for the pensioners who also have other problems of mobility etc. and can't travel on their own.*" (GP, rural area, int.10)

Practical problems also lead people who work long hours to rely upon private-sector services.

> "*The people who work and work long hours won't want to be worn out, they will go to a private doctor and they will pay the normal price for the visit.*" (Pharmacist, int.15)

In the opinion of national-level decision-makers the current legislation for health insurance does not leave anyone without cover and, in theory, health insurance should

be available to everyone through one mechanism or another. As already mentioned, recent legislative amendments have extended state provision of health insurance to socially vulnerable categories and to poor people registered as unemployed. However, some representatives from the Ministry of Health and EOPYY, as well as managers of health institutions, identified specific population categories still having difficulties with insurance coverage and thus access – uninsured people without knowledge of their rights, homeless people and immigrants without papers. This was highlighted by a manager in the Ministry of Health who described how such exclusions raise serious concerns about humanitarian deficiencies in Greek society.

> "*The most excluded in accessing the health services are the uninsured. And when we say uninsured now we also mean those who work and are uninsured either because of their employer, or those who themselves, due to the financial crisis, prefer not to get insured and put the money in their pocket. Another big problem is the immigrants without legal documents, who even though they are our fellow men, live and work with them and sometimes we coexist in the means of transport, the places we visit; however, because they come from developing countries they face serious health problems and, especially, infectious diseases. This is the main concern that the government should have for those people. In humanitarian terms and at a practical level.*" (Manager in Ministry of Health, int.03)

Further, even specific categories whose access to health-care services is theoretically covered by Greek legislation can, in practice, be confronted by bureaucratic conditions that raise serious obstacles. This was described by one NGO representative.

> "*There are huge difficulties for people who suffer from many and complex health problems such as autoimmune diseases, rheumatoid arthritis, cardiological problems, cancers; for people who are carriers of hepatitis B and C; even for people who suffer from AIDS/HIV. Therefore, the disease someone suffers from is an aggravating factor. Another aggravating factor has to do mainly with bureaucratic issues. If someone doesn't have a standard insurance in order to get basic access, they should have either a destitute health card or a health booklet for the uninsured. But the issuance of either of these depends on the housing conditions or the lack of a permanent residence. We have to deal with a system that, while it recognized the status of homelessness in 2002, up to 2012 the term 'homeless' wasn't mentioned in any law. The term 'homeless' appeared for the first time in 2012 in a bill of the Ministry of Health and I actually participated in the advisory committee. When they ask the homeless to declare a residential address, to provide a document from the Public Power Corporation as proof that they have paid the electricity bill in order*

to have the ability to issue a health booklet for the uninsured or to get a seasonal allowance, we understand that we have to deal with a system, or rather with a legislative system, which doesn't recognize the right but recognizes the population." (Representative of NGO, int.14)

Some key informants admitted that possession of health insurance does not necessarily translate into receipt of the benefits to which one is entitled and extra costs (usually bribery) are usually incurred.

"*I believe that the* fakelaki [under-the-table payment] *is a monster that was fed by the political and social situation of the country and was imposed in some way. The issue is too huge to discuss it now, but I think it isn't only a problem of the medical community, it is a problem of the political community and it should have been solved by distinct decisions of political management. The system needs to be reformed for the better – modernized and improved – and when the system starts to work better, the* fakelaki *will cease to exist. Unfortunately, all the governments of the last few years, and all the oppositions, are to blame for nurturing this monster.*" (Representative of Medical Association, int.17)

Experts stressed that problems in accessibility coverage are also related to issues of culture. In this respect, some users appear to exploit the health-care system since they rely upon health-care services even if they have no real need – to the detriment of those who do.

"*And they are gathered in public hospitals, in the tertiary hospital, people who don't need this kind of treatment, and as a result this impedes the prompt service of the patients, because in the general hospitals the on call is such that we go for anything, even for an earache we have to go to the tertiary hospital. And as a result, we don't offer prompt treatment to patients who are in immediate need.*" (Director of nursing services in a hospital, int.20)

4.1.3 Acceptability coverage

Concerning the acceptability dimension, key informants identified both barriers and facilitating factors in accessing care. As a facilitating factor for increasing access, service providers mentioned doctors' responsible attitudes towards patients' health.

"*More and more the acceptance of care is improved. Institutionally, with the medical ethics code, there is protection of the patient. Now the doctors and nurses and all the health professionals are trained, among other things, on how to offer the care too. Not exactly for the services as such but for the way they will offer them.*" (Manager in Ministry of Health, int.03)

For acceptability barriers, one theme emerging from the in-depth interviews is that the overall acceptability of current health services is determined by previous experience of health-service provision.

"*I believe that with the regulation of the EOPYY the groups which benefitted most were those who until now didn't have access. Those insured through OGA didn't have access to the thousands of doctors which the EOPYY offered. Probably there are groups of people who lost privileges, those with the so-called noble social security institutions who lost some of their provisions.*" (Manager in the Ministry of Health, int.02)

Generally, service providers seem to blame public mentality for low access to health-care. Providers consider that good health's culturally low value in the personal system of values is the major deterrent in seeking timely health-care and hence presenting late for consultation. They also make judgments about those who do not seek health-care, describing them as older people who have already developed alternative ways of protection.

"*The older people who live in remote areas have developed other ways to protect their health and as a result not to ask access in the health services as a defensive mechanism. This doesn't mean of course that access isn't necessary for them, this isn't negotiable.*" (Manager in Ministry of Health, int.03)

Some providers admitted that low acceptability of health services is also influenced by the population's negative attitude towards ESY. This is due to lack of knowledge or because of the common phenomenon of the requirement for OOP payments to health providers.

"*It has to be evaluated regarding the users, but we should consider that the users are in an unfavourable position because they don't know much and they don't have knowledge of the health services.*" (Manager in EOPYY, int.05)

Providers mentioned another cultural barrier – people tend to visit health services only when they have symptoms and are still not used to the concept of preventive visits, despite the emphasis on prophylaxis.

"*The ignorance about prevention leads patients to avoid taking the necessary measures regarding prevention that are in force in most of the developed world. To do the PSA measurement, to do a mammogram. Despite the efforts made in the last 20 years, the population still has ignorance and fear about a potential diagnosis.*" (Director of medical services in a hospital, int.22)

The phenomenon of intolerance of delays and denial of the need to seek care shows that health providers and decision-makers lack basic understanding of determinants of social exclusion. This is mentioned by an NGO representative.

"*It has to do mainly with how the potential patient sees the level of health services. They see it negatively, they see it frustratingly. Generally, there is too much disbelief in the whole national health system – we saw that even with the generic drugs. When the doctor advises the patient about the generic, the patient is very reluctant. They wonder 'what is that you are saying? Is it for my benefit or because the government imposes it? To give me the cheapest drug in order not to cost the national health system a lot of money.' Let's say that the relationship of the patient with the national health system has been ruptured.*" (Representative of NGO, int.14)

Key informants believe that patients are afraid of stigma and discrimination. This, and the fear of social exclusion, leads some groups to hide their illness. The range of socially excluded categories included most of those listed in the social welfare law, and some specific categories such as TB and HIV patients, homeless people, Roma people, and migrants with severe diseases who do not adhere to treatment or interrupt their treatment.

"*There is the fear of stigma. There are groups that still hide their disease. For example, tuberculosis tends to become a plague in Greece and even the Hellenic Center for Disease Control and Prevention doesn't know who they are. An effort is under way to register them with the help of EOPYY because in the countryside they are also hidden in schools.*" (Manager in EOPYY, int.04)

4.1.4 Contact coverage

There appears to be consensus on how personal contact pays a decisive role in terms of satisfaction with contact coverage. Generally, contact coverage seems to be effective since Greeks have huge trust in practitioners' judgment.

"*Greeks have a great trust in their doctors, I think, they consider them gods.*" (Manager in EOPYY, int.04)

While citizens' trust in all doctors is extremely high, this is especially so for doctors in public hospitals as they are considered to be more experienced.

> *"Empirically, the personal contact, obviously affects. Every citizen trusts the doctor's judgment, especially with regard to doctors in public hospitals there is great confidence because (admittedly) the doctors of the national health system have a lot of experience."* (Manager in Ministry of Health, int.01)

Key informants identified waiting times as barriers for effective contact coverage – for both setting an appointment and receiving health care.

> *"Obstacles are the short time available for each appointment and the very long wait after making an appointment, which in many cases causes patients to go from one doctor to another doctor and to another doctor."* (Pathologist, PEDY, int.18)

However, providers perceive the lack of patient discipline in scheduling and keeping appointments to be a major barrier in contact coverage. Those who do not keep appointments – or even worse, those who do not have an appointment but try to bypass the waiting list by posing as someone's relatives or so-called friends – cause unnecessary queues and waiting times.

Another barrier is physicians' administrative load and lack of assistance/support from other health-care professionals. Many have large numbers of patients and are overloaded with medical documentation. In addition, visits to patients in remote areas are very time-consuming and detrimental to the quality of services offered.

> *"In the country where the elderly population exists and there isn't the capacity to move by means of transport such as buses, access to health care is now difficult. I go once a week to the villages, travelling from one hour to one and a half and, as you understand, this is difficult. I deal with prescriptions, patient examinations, changing catheters, vaccinations because they are elderly populations in these villages so ..."* (GP, rural area, int.10)

One practitioner mentioned that the lack of human resources has severe negative effects on contact coverage.

> *"Definitely I would offer better services if I worked 15 days per month. I would be more willing, that's for sure. Because a man cannot be well for the whole month and be in the same mood. And secondly, I have been here for many years and there are houses with stairs that I also get tired to climb and plus I go to the clinic and plus*

overnight I am on duty. It's completely inhumane. If there was another colleague here with me, I would definitely have someone to talk to or I could have the time to go to a conference to stay informed. I cannot live so isolated, me along with the other residents." (Manager of health centre, remote island, int.09)

Referrals to outpatient specialized care and to hospital are another problematic subject for providers. Patients often perceive the gatekeeping function of PHC to be an imposed bureaucratic barrier since a large part of the population believes that it does not meet their needs and is of low quality. Therefore, the phenomenon of bypassing PHC level and gaining direct access to specialized care is prevalent in both urban and rural areas.

"They think that the first access is to go straight to the tertiary hospital, while it's not the case in a primary level. There are the regional clinics, there are doctors and family doctors in their area, the local society to contact and give them adequate information. They accumulate in the public hospitals, the tertiary hospitals, people who don't need this care, so it prevents rapid patient service." (Director of nursing services in a hospital, int.20)

Health personnel at all levels of PHC and specialized outpatient facilities have described in detail issues related to referrals to specialized health care. People of all backgrounds insist on access to unnecessary specialist services. At specialized level, failure to schedule appointments is another common issue. A manager reported that about half of the patients arrive without an appointment, and hence without a referral from the family doctor.

"In the minds of the Greek people they will be underserved and won't have the same quality of health care that they would have if they had visited a private clinic, or that their problem will not be solved immediately if they have to go to IKA. The Greek patient has misunderstood the meaning of an emergency." (GP now in private practice, int.12)

Patients who think they need hospitalization similarly bypass primary health level. Doctors at PHC level are not always available, and may not concur with a patient's perception of the need for hospital care, so patients use emergency services rather than referrals to enter hospital. In addition, public tertiary care is perceived to be cheaper and of better quality than private clinics and so they rely upon its services.

"The use of public hospitals increased because patients cannot afford the cost of getting health services in the private sector and, secondly, there has been an

increase in the burden of morbidity of these people." (Director of medical services in a hospital, int.22)

4.1.5 Effective coverage

Key informants tended to address the dimension of effective coverage more in terms of recommendations for the future rather than current practices. Face-to-face interviews with managers revealed that they consider that quality of care cannot be assessed according to national protocols alone. They acknowledge that health-care services providers' attitudes towards users are of primary importance for any future collaboration.

"Especially, the first experience in relation to the behaviour of health services, in terms of the user, plays a key role in future cooperation." (Manager in EOPYY, int.05)

Several key informants, mostly practitioners, mentioned the emphasis on preventive work, as well as on supportive structures and programmes that lead to serious improvements in the quality of health-care services provided. This was explained by an interviewee.

"Factors that would facilitate access may be programmes such as "Help at Home" which once was in operation and helped patients. Currently I think it is running only partially because there are not adequate resources, no adequate vehicles and they don't often go up to the villages." (GP, rural area, int.10)

The Association of Pharmacists seems to play an important role in safeguarding social cohesion by covering the need for medicines of uninsured and poor people.

"We offer support in many areas and we provide social work through the Association of Pharmacists. For example, we have created organizations which organize some soup kitchens every now and then and we give some medications free to social groups in need and always in cooperation with each municipality. I think the work is best known through the site of the Association of Pharmacists." (Pharmacist, int.24)

Another parameter which seems to have a positive impact on effective coverage relates to follow-up protocols. These seem to be very important for adherence to treatment, especially for patients of oncology clinics, as described by one key informant.

"The oncology patients, because they return again for the follow-up, they have access, the therapy does not end. We do not just cure someone and then leave them. Here is another interaction because of the specialty of the hospital. The issue of letters of thanks and general access to the hospital and the treatment gives us hope that we will always have this relationship and we try through their comments on some issues to resolve them and become better. I do not think that anyone will leave the hospital because they are not satisfied. They will leave only when they have become well or occasionally they will come to revisit us. There is a good clinical outcome." (Director of nursing services in a hospital, int.20)

However, effective coverage depends to a high degree on how patients perceive treatment outcome and so is not always guaranteed.

"The patient always feels good and he is good when everything goes well. When problems begin and are created by the nature of the disease or by the spread of the disease, this trust is lost and they seek the solution with other doctors, in another hospital." (Director of medical services in a hospital, int.22)

At the same time, several managers admitted that, even if follow-up protocols are absolutely necessary for effective coverage assessment, the work overload means that this is not always possible in practice.

"It is definite and it is one of the basic rules of medical care. I wish there was this follow-up between patient and physician. However, many times it is not possible. The patients have increased, workers in health care have been reduced, so this relationship is mutual and has become somehow flexible. But it is certain that, as a relationship, it works and it is in favour of the patient 100%." (Physician, otorhinolaryngology – PEDY, int.19)

Key informants stress that measures could be adopted to increase the quality and effectiveness of services provided at PHC level.

"There are measures to be taken, the patient should be protected so as not to seek new services at secondary health level." (Manager in Ministry of Health, int.03)

Additionally, few key informants identified the need for further reforms in the ESY. Their fundamental concern relates to the ways in which reforms can be applied, suggesting that the diverse needs of each local community should be taken into account at micro level.

"Reforms to the system that will improve equal access to health care should be initiated and implemented. Best reallocation of funds or better use of the budgets of hospitals and their staff. Health-care units staffed with people who will be paid well and have the necessary qualifications. A health-care system that will take into account local needs; improve its operation in regard to the local community and geography of the region; assess the needs of the population, make a budget and give a staffing and financial support plan." (Manager of health centre, int.08)

4.1.6 Effects of recent legislative amendments

In terms of primary health reform, experts highlight that family doctors have not yet been institutionalized in Greece.

"The family doctor, at this time, it isn't an institution which has been implemented in Greece yet. It has been announced and advertised, but officially it hasn't been implemented to get results." (Manager in Ministry of Health, int.01)

Despite the measures implemented by the Greek government to establish family doctors as the main providers of PHC, this does not seem to be widely accepted. The reasons for this appear to be connected with the general social and political environment of the country. A key informant explained the strong reluctance in the Greek population.

"That story about the family doctor, I hear this every time, every four to five years. One of the big balloons of the health reform was implementation of the family doctor. This has never passed, since in the consciousness of the Greek citizen the concept of the family doctor is not accepted. The Greek citizen goes directly to the specialist. This model could only be implemented after a major social disaster. The model of the GP in the national health service in England applied in 1946, when England came out of the war and all the structures and infrastructure had been destroyed. In Greece, we are accustomed to go first to the pharmacy to get antibiotics on our own, then to go to the specialist physician, to go to a gastroenterologist for abdominal pain. You wonder what is going to happen if suddenly the legislation says that you should go to a family doctor. It is difficult because it is outside the culture of the Greek citizen." (Director of medical services in a hospital, int.22)

On the unification of social health insurance funds within one scheme (EOPYY), one key informant identified its major benefits to be social solidarity and the establishment of a common basic package of health-care services for all.

> *"In recent years, because the primary health-care system has changed, I think the access of the population is easier in the sense that the entire network, including health* centres *and social insurance fund polyclinics, has been unified. I believe that access is easier now as we speak, because we have a better integrated primary network."* (Manager in Ministry of Health, int.01)

Overall, health insurers are well aware of Joint Ministerial Decisions extending the right to health care and medicines for the uninsured population.

> *"This summer a ministerial decision was issued covering pharmaceuticals, initially for the uninsured. It was then expanded to cover all Greeks who have a social security number (AMKA). They can now take all the drugs they need. This ministerial decision enabled those of us responsible for pharmaceutical insurance to provide access to medicines to the whole population."* (Manager in EOPYY, int.05)

Additionally, they perceive these amendments to be a good policy that has extended access to people in need since physicians can now provide care to everyone without differentiating between insured and uninsured people.

> *"I would not say that there are specific barriers, and in terms of financial capability that some people might have, I think that by the Ministry's decisions which we issued we have overcome the barriers in access and in terms of financial difficulties."* (Manager in Ministry of Health, int.01)

Even for vulnerable groups such as refugees, key informants consider that previous changes in legislation had a positive impact on health-care coverage.

> *"Concerning immigrants, I think that institutionally there are provisions for cover. There is the project "Prolepsis" of the Hellenic Centre for Disease Control and Prevention (HCDCP), making special programmes for immigrants. There are instructions at hospitals and health services in general and they are provided with the documents that the asylum seekers have to fill out. They have the care that they need. I do not think this is such a big problem."* (Manager in Ministry of Health, int.02)

Key informants believe that access has been steadily upgraded since the social services of hospitals have been able to decide to provide coverage with medicines, even if if

the patient has no entitlement. They acknowledge the positive impact on health-care coverage stemming from the voucher scheme and the joint ministerial decisions granting uninsured people access to health-care services.

> *"Access is facilitated for example by the social services of hospitals. In hospitals there is the opportunity – in a three-member advisory committee, even when one has no right to have medical insurance – to approve a free stay because the doctor and the social worker also agree about the paramount necessity and medical interest. That it is vital for his life and health to provide medical treatment. Access has been facilitated and we should acknowledge that. The development of the health voucher is a good example."* (Representative of NGO, int.14)

Yet, as one of the key informants described, access may have been specified in legislation but its implementation is highly dependent on the availability of human resources.

> *"For the unemployed who have lost their insurance capacity there is one programme, the voucher, that they can obtain from the EOPYY and be covered for some visits to the EOPYY doctors. I think it is three visits per month. In the last two months I believe there is free access to primary care provided by PEDY, the old IKA or the outpatient departments of public hospitals. However, if I am uninsured and given the opportunity to go to IKA, it is not possible to find a specialty. I am not actually served, so it's better first to staff and then to provide."* (GP now in private practice, int.12)

The amendment seems to have had little effect on emergency services as life-threatening emergencies were already covered, regardless of insurance status. Also, some key informants acknowledged that many uninsured people are unaware that they may access health-care services.

> *"The law for health coverage of the uninsured has been issued and those people have access, however many of them don't know it. They don't know that there is this legislation. For example, compared to the other prescriptions of the month from all the insurance funds of EOPYY, the prescriptions of the uninsured are very few: 1% of the entire total of the other insured members."* (Pharmacist, int.15)

Leaders felt that it was too early to consider the effect of this amendment at the national outcome level, and that statistics do not yet show changes. At the same time, the predominant opinion was that access for the insured does not follow the rule that more quantity means less quality, since medical and health-care personnel

are strongly committed to the Hippocratic Oath. This was explained by the general manager of a district hospital.

> *"Despite the fact that we cannot exceed the budget of the hospital, most cases are treated. If I had only the letter of the law on my mind the hospital couldn't function, you are concerned with human lives."* (General manager of district hospital, int.07)

Additionally, experts admit that solidarity networks which have developed during the crisis cover the gap in existing typical coverage.

> *"They have differences because when we talk about an urban area and when we talk about the major urban centres, the outlets are too many, the alternatives are too many, the protective nets have been developed. As we said before, the solidarity is crucial. If someone is not served in a hospital he would go to the social clinic of his municipality. If you cannot get medicines from the pharmacy you will go to the solidarity-social pharmacy, because many solidarity-social pharmacies have been developed after being funded by the European Union at a municipal level. When it is a rural area, generally services start to reduce and the benefits are also reduced. There are no clinics, there are few remote clinics of the national health system, and so the population isn't covered." (Representative of NGO, int.14)*

4.2 Findings from interviews with users

4.2.1 Availability coverage

Data provided by users of health-care services indicate that availability coverage, especially in rural areas and in the islands, is negatively affected by serious shortages in terms of medical and health-care personnel; shortages in diagnostic and equipment capacity; and large variations in the quality of laboratory work.

4.2.1.1 Human resources

Participants showed a wide range of experiences of, and opinions on, the availability of physicians and nurses, depending on geographical location and place of residence. Residents of large urban areas took the availability of human resources for granted and did not stress many shortages in terms of equipment capacity. However, some interviewees revealed that, even in hospitals in Attica region, shortages seem to create functional problems.

> *"The Attica hospital has 15 surgical facilities – of the 15 operating rooms only four are functioning, imagine what a huge problem that is if only four out of 15 work. Why are 11 not working? They do not work because there are no materials, because they don't have doctors, they don't have disinfectants and other materials."* (Male, age 48, Salamis Island, long-term unemployed, int.user 02)

At the same time, in rural areas and on the islands, shortages concern both health-care personnel and equipment. A number of participants from these areas mentioned that their village/island has only one physician serving more than 1200 residents.

> *"It may not have equipment inside to take an X-ray to see where you have a fracture so you do not know what it is and you leave. Or even something else that happens here. Being ill. The doctor only has to leave here to go to Rhodes and then we are left without a doctor."* (Male, age 56, Astypalaia Island, long-term unemployed, int. user 01)

Participants feel that the lack of health-care availability in their village/island means that their health needs are not covered. They feel compelled to go independently to a private practitioner or to travel to another region.

> *"In Livadeia we choose to go either to a private clinic or to go to Athens. There isn't anyone in Livadeia Hospital. They go to a private clinic."* (Male, age 23, Athens, young unemployed, FG02)

Interviewees' personal experience of accessing health-care shows that people encounter not only geographical and financial barriers to access but also barriers arising from the attitudes of health staff when they call for help. Respondents tend to rely upon the ESY for acute cases only, preferring to delay seeking care for other health problems until they have money.

> *"And those telephone numbers they provide and call don't cover us quickly. They don't pick up and we are on hold and the cost is increasing. My husband is a pensioner and I am unemployed."* (Female, age 60, Fourni Island, protected member, FG03)

Changes following the restructuring of IKA, the largest social security organization, brought about more barriers to availability of coverage.

> *"At the appointment, with many branches of IKA closed, we are forced to go to the health centre, if you find any availability. It is a mess and crowded because Salamis*

Island is huge. Otherwise we must make and be charged for the phone call and make an appointment after one or two months. That's how long you have to wait for an appointment with a particular doctor." (Female, age 60, Salamis Island, protected member, int. user 10)

4.2.1.2 Infrastructure

The face-to-face interviews and focus group discussions with users of health-care services show large variability in perceptions about infrastructure and the technical capacities of equipment in health facilities. In some locations, respondents mentioned investment in renovating the infrastructure of both PHC and hospital facilities during the past five years.

"The Helena Venizelou maternity clinic is very well-equipped, it is even better than a private hospital. The single rooms and the luxury suites. And the twin rooms. You can't distinguish them from private rooms actually." (Female, age 29, Athens, working poor, FG04)

However, participants feel that diagnostic, laboratory and equipment capacities have not seen the same level of upgrade. People in all interviews perceive these to be quite limited not only in small villages or the islands but also, as mentioned before, in Attica region.

"Everyone in these really old structures is tired, low paid; the seats are dirty, broken; there are no beds; and some old documents provide information so you don't ask too much. In new structures there are no doctors or equipment operators." (Female, age 42, Chalkida, working poor, int. user 14)

People perceive large variations in the quality of laboratory work and X-ray results, so those who can afford it prefer to travel to Athens to repeat or access tests that are not available in their localities.

"I found myself in a provincial town with a huge problem with my back and I had to visit the hospital urgently. I went there and the situation was unacceptable in terms of infrastructure, equipment, the building, everything! In Athens the situation is better." (Male, age 48, Athens, working poor, FG04)

4.2.1.3 Equipment and medicines

Data from both face-to-face interviews and focus group discussions reveal no serious problems arising from shortages in pharmaceutical supplies. Concerning generic medicines, the interviews and focus group discussions with users reveal a tendency to get the same drugs as before the financial burden increased (now prescriptions incur extra charges). So, physicians now prescribe with the name of the drug instead of the basic chemical compound.

> *"It hasn't changed [the way I get my medicines]. He doesn't recommend two or three companies to choose from. The doctor chooses what medicine I will get. The doctor exclusively."* (Male, age 33, Athens, working poor, FG04)

Conversely, people with chronic diseases highlighted the tendency to use generics, resulting in a positive impact on the financial burden (decrease of expenditure).

> *"Usually, for drugs, at least what I take, there isn't any shortage. And even with the generic now I have an even more economical solution because I needed two packets a month of Singulair and it was more expensive while Modulair is cheaper and I only need one. Because it has twenty-eight pills inside, I think."* (Female, age 51, asthma, int. user 29)

Data obtained from face-to-face interviews and focus groups reveal no improvement in the availability of equipment, but performance variabilities between geographical areas (worse performance in remote areas).

> *"In terms of image or the configuration of the premises, you can say that the situation is better. However, the benefits offered to you, I would not say they are better than in the past. And this is probably related also to where you live in Greece. Here you can find a room to have the equipment you need to be examined, but there may be no doctor to operate the equipment. It is possible that the equipment is not plugged in, or maybe the equipment doesn't have a plug."* (Male, age 44, Evia, farmer, int. user 16)

4.2.2 Accessibility coverage

Most discussions with users in interviews and focus groups raised issues related to financial barriers in access to health care. Participants report that the ability to pay

informally out of pocket facilitates access to any level of care, to the same extent as possession of health insurance. Informal payments act as facilitation fees since they positively affect the accessibility of health-care coverage.

> *"When my mother was to have surgery, initially they didn't ask for a* fakelaki*. But my uncle went and gave* fakelaki *on his own, because he had talked with the doctor and he had the impression that if he didn't give a* fakelaki *my mother wouldn't have the necessary care."* (Female, age 22, Athens, young unemployed, FG02)

The experience of a woman who had need of a gynaecologist is further evidence of the effects of OOP expenditure: raising barriers to the accessibility of care and shaping negative attitudes towards the public health-care system.

> *"In one case, the most serious I would say in the life of a woman in childbirth, my doctor, in a public maternity hospital, asked me for a* fakelaki *of a significant amount in order to give birth. While he was writing the referral! I left disgusted and went to give birth in a private clinic, cheaper, with a receipt and with a doctor who did not know me but took a lot of care!"* (Female, age 42, Chalkida, working poor, int. user 14)

The present study reveals a huge deterioration concerning financial access over the last five years. OOP expenditures appear to have increased greatly: medical prescriptions are charged for, as well as unlisted drugs and laboratory tests.

> *"In the past all the medicines were prescribed. Now plenty of medicines are out. We pay for them out of our pocket."* (Female, age 50, Athens, protected member, FG03)

Interviewees also revealed changes in the behaviour of medical and health-care personnel over the last year, especially in relation to bribery:

> *"The prices of* fakelaki *have fallen. We have generic drugs, doctors have left and nurses learnt to work hard…"* (Female, age 42, Chalkida, working poor, int. user 14)

Geographical access may not be a serious issue for users living in large urban areas but is an important barrier for those living in remote areas and on the islands. Indeed, accessibility coverage may be of crucial importance for a patient's life.

> *"He suffered with his heart and the helicopter had to come to get him and there was no doctor in Rhodes and the helicopter had to go get the doctor and then leave with the patient. The doctor had to leave from here to go to Rhodes and we stayed without a doctor. They called the helicopter to come, but there has to be a doctor to*

accompany him. How could the woman leave her patients here? And to come back after three or four days when there is a boat? It isn't like they will bring her back. And we were waiting. Instead of sending the helicopter with a doctor from Rhodes to get the patient, they told our doctor to leave with him. Then our mayor got mad and didn't allow the doctor to leave with the patient. So we were waiting from 7:00 to 12:00 for a doctor from Athens to come by helicopter. The man could have died during this time. So who is to blame? The state." (Male, age 56, Astypalaia Island, long-term unemployed, int. user 01)

4.2.2.1 OOP payments

As seen in previous quotes, OOP payments (e.g. for physician fees, pharmaceutical expenditure, laboratory tests) represent the most emotional and important topic for users of health services. Often taking the form of under-the-table payments, OOP payments are generally not perceived as a prerequisite for access to health care but rather as a so-called facilitation fee to avoid queues and obtain a better service.

> *"And a nurse I paid so as to be… for a cleaner environment, you know, the bed."* (Female, age 67, Piraeus, protected member, FG03)

The highest OOP payments are seen at hospital level, often (but not always) determining the amount of medical attention. Regardless of socioeconomic and health insurance status, participants in interviews and focus group discussions mentioned that they perceived variations in medical attention after hospital admission according to whether or not they had made under-the-table OOP payments.

> *"Where there is* fakelaki *– in short: where there is a bribe, you cannot eliminate this thing so easily in Greece – certainly I would be looked after better, it's for sure. We have always had this problem. In Attica, for example, I had a problem and I needed to go to surgery. I had had a lot of postponements and I could not find a surgery, for this reason. I tell you responsibly, because I have experienced all these in hospitals. The reason was that, if you could find or had an acquaintance, all the doors open in Greece."* (Male, age 48, Salamis Island, long-term unemployed, int.user 02)

The amount varies according to the type of service needed (i.e. the most expensive appear to be highly specialized surgeries). Payment does not necessarily determine the quality of care but rather the physician's attitude during service delivery, providing an assurance that "everything will be OK."

"Surgery took place in Sismanoglio Hospital. The service was amazing, they showed great concern. Certainly in the end I paid the doctor and the anaesthesiologist informally. I believe that the amount of money was quite large." (Male, age 48, Athens, working poor, FG04)

Even those with health insurance and all the necessary referrals face the danger of being bankrupted by OOP payments. However, some participants acknowledged that not all physicians request or expect money and some even refuse the offers.

"We gave an amount of money ourselves. He didn't want to take the money. But afterwards he took care of us." (Female, age 45, Athens, working poor, FG04)

Charges for laboratory work and, most importantly, pharmaceutical expenditures seem to be unavoidable OOP payments. Such expenditure burdens not only occasional patients but also those with chronic diseases who feel the double burden of changes in the Greek health-care system during recent years.

"They established the disability certifying centres (KEPAs). In order for a KEPA to accept you for examination, you have to pay €50. Although they say that if you have a referral from an EOPYY doctor there is no cost, you actually pay. There is no way not to pay, it is about €50 or so. Well, you are accepted by the committee, after at least seven months. You have to wait another two months to get the result and this decision is valid for only a year. That is, you have to spend a year to go to the committee and then you must go again. If you consider that they usually recognize only a low percentage of disability, you can appeal and have to pay another €50. They do this in order to get money from those who suffer." (Male, age 59, Athens, hypertension, int. user 24)

Significant OOP expenditures for pharmaceuticals mean that people cannot afford to pay for their medicines.They feel highly discriminated against since the cheapest medicines are compensated but the most expensive are not. This is so because physicians cannot prescribe treatment based on the ability to pay.

"In recent years I have had to go to a designated government pharmacy to procure drugs, not to my neighbourhood pharmacy or to the hospital's pharmacy where I get transfused. It's a waste of time and effort. Also, I have to pay in full for the materials I need for my iron chelation therapy. I pay the company that imports them and submit the invoices to the Treasury and they credit the money to my bank

account. Unfortunately, they delay for four to six months and I am constantly in debt because they cost €1350 per month. That is more than my salary. I believe that they did that to shift the costs. Instead of the state owing money to companies, it owes it to the insured." (Female, age 49, Athens, thalassaemia, int. user 30)

Financial barriers arising from expected OOP expenditures lead patients to resort to self-treatment and drive sporadic access to health care; delay in seeking timely care; and avoidance of planned surgeries.

"I've still got a valid IKA booklet but since we are unemployed it isn't useful to us for anything, because you have to pay a contribution. They will tell you to pay at best 10%, which is impossible for us at this moment. We do not have the money. In the end, the booklet doesn't offer us anything." (Male, age 37, Athens, long-term unemployed, FG01)

Since the value of health insurance is significantly decreased by the additional high direct formal and informal costs incurred, many interviewees pointed out the need to use private health care.

"It is quite expensive, too expensive. A visit, let's say to the private doctor, is around €50. While I have insurance from my parents, as I said before, I could do it for free, but unfortunately there are no doctors, ophthalmologists or general physicians for other situations and circumstances and young people are forced to resort to private doctors." (Male, age 18, Evia, young unemployed countryside, int. user 05)

4.2.3 Acceptability coverage

Acceptability coverage is adversely affected by delays in seeking health care. These may be due to competing needs for living expenses; providers' expectation of OOP payments; and poor provider–patient interactions. Sex, age, nationality and poverty have also been noted as limiting factors.

"Hospital in Chalkida. Emergency room. With my son for stitches in the head. Waiting for hours… the doctors, everybody busy… the nurses tired, worn out and beds unavailable. Because they were sensitive about the young age of my kid (3.5 years old) a surgeon took us into a room – a doctor's office – for the diagnosis and

then asked permission from the holder of the office to use it. I have no complaints." (Female, age 42, Chalkida, working poor, int. user 14)

Another barrier to the acceptability of health services is the perceived lower quality of care in regional facilities. Many participants feel that most competent and experienced physicians work in Athens and the big cities. A lack of trust in some physicians drives patients to seek second or third opinions; often, they are told that the prescribed treatment is not correct. People also seek second or third opinions for test results and diagnoses – repeating tests at a higher level of care, usually with different results.

"I went to an ophthalmologist because I saw some dark spots. And he said I needed laser treatment at once. He gave me the name of the person who would do the laser. I was alarmed and so on. And I went to the Eye Clinic in Athens and then to another professor who was introduced by a friend of mine. Both told me not to do it, under no circumstances. Nothing. It is normal. Caution about lifting heavy weights and so on, we don't do laser since it isn't absolutely necessary" (Female, age 45, Athens, working poor, FG04)

Discussions with users of health-care services confirmed that people with mild symptoms sometimes delay seeking health care until they are at a very late or advanced stage of disease.

"You do it with a telephone appointment and you arrange, depending on the disease, an appointment which at the earliest may be after one and a half to two months. Something may happen during the period of waiting for the appointment – your health problem may worsen... in other words you die and then your notice comes." (Male, age 48, Salamis Island, long-term unemployed, int.user 02)

Some participants found hospital conditions unacceptable and, even when hospitalization was indicated, preferred to receive treatment on a private basis in order to reduce the risk of nosocomial infections and avoid poor-quality hospital food.

"Privately, everything happens instantly at my chosen time. Publicly, you may be dead first (laughs) if the situation is urgent and you are waiting for the appointment. Unless you have an acquaintance to help you…" (Female, age 42, Chalkida, working poor, int. user 14)

The attitudes of doctors who are dependent on informal payments also create a bad reputation for health services. At the same time, young specialists are thought to provide better treatment (especially for vulnerable populations) by attempting to

understand a patient's situation without apportioning blame. Conversely, doctors with patronizing or simply unpleasant attitudes present a barrier for many people. The attitudes of health staff at regional level are considered to be much worse than in Athens, so people prefer to bypass them.

> *"Due to bureaucracy…because they don't have nice* behaviour. *They don't talk to you nicely. They ask you for too many documents and then when you give them the required documents, they tell you that you didn't bring this and that document. Something they didn't tell you and didn't clarify that you should bring. In that case you get upset, frustrated and start to lose your temper and get mad."* (Male, age 31, Athens, various insurance providers, FG06)

On factors facilitating acceptability coverage, users and non-users of health-care services stress that patient–provider interactions are now being assessed in a more positive trend.

> *"From the moment I got in, I started to tell him the symptoms and what I exactly had. Without having examined me, he had already started writing my prescription. Without even looking at me. Okay, I have seen this several times in IKA doctors. So, simply, they typically prescribe a drug for you. I understand what is happening, because I usually go to IKA and that is what usually happens – you go to the doctor to prescribe you a medication. Recently I went to a doctor affiliated with IKA, where I saw a different approach. Completely different examination, palpation, wanting to exclude various eventualities – either one or the other, virus infection and so on. But there was an examination. You understood that he had examined you. And a tendency to avoid prescribing too many medicines – only the essentials."* (Male, age 33, Athens, working poor, FG04)

Some of the most vulnerable participants gave positive accounts of health staff showing empathy. Some participants also empathized with the demands on health staff and showed understanding of their workloads, competing pressures and low salaries.

In terms of stigma and discrimination, Greek users have a tendency to blame immigrants – holding them responsible for the malfunctioning system.

> *"The immigrants, it is their fault. Physicians look after the immigrants more. I would like to say that the immigrants with political asylum don't pay for a ticket, because those who have political asylum, who have come from the war don't pay a ticket to any hospital, but why is that? We are not racists but the foreigners who gather them*

from the sea are looked after more than us. You go to hospitals and you see them feeding them and doing a lot for them, while we need a ticket to get in." (Male, age 50, Athens, long-term unemployed, FG01)

In the eyes of several interviewees, immigrants receive better health-care services than Greeks.

"The hospitals are flooded with Pakistanis and Roma. Us Greeks, nothing. They don't pay us any attention and we go to private hospitals. Now they have given them the right to free insurance from the welfare, they have given them a ticket and they go to hospitals for anything, even the most trivial reasons." (Female, age 48, Piraeus, protected member, FG03)

Homeless people are another vulnerable group that appear to be highly discriminated against, not only in public but also in private health-care services. This was described by a focus group participant.

"I went to a doctor to examine me in the medical centre, with a referral from the Archdiocese. He told me to visit him the following week because in the last resort he is doing me a favour by taking me without paying. I told him that in that case I shouldn't go at all and would look for another clinic" (Male, age 37, Athens, long-term unemployed, FG01)

4.2.4 Contact coverage

Participants in both face-to-face interviews and focus group discussions consider that contact coverage has improved in the past five years, mainly because health-care personnel have made positive changes in their behaviour towards patients and their relatives.

"Most hospitals are now at a good level and mainly we want to focus on the services of the personnel: medical, nursing, administrative. They are amazing. They have really changed their attitude and behaviour lately. They are much more kind and polite, much more willing to serve. They used to be more reluctant, inaccessible and often aggressive with patients. They weren't so kind and polite. I am surprised that I've received incredible kindness from the staff in all medical centres *I have visited recently. In the past, when I visited hospitals very often because of my father, I didn't encounter that."* (Male, age 48, Athens, working poor, FG04)

Participants acknowledge that health-care services are maintained and preserved exclusively through the personal dedication of staff.

> *"Hospital is kept functional because of the people who work there, the staff. Because there are shortages of everything else. There are shortages in everything."* (Male, age 31, Athens, various insurance providers, FG06)

At the same time, users' testimonies indicate that care and attention are dependent on the personality of the physician. More precisely, they believe that practitioners who work privately but are affiliated with EOPYY are much more reliable than those who work for the national health-care system.

> *"I have seen a big difference between permanent doctors for IKA, as PEDY is called now, and the IKA health units with the affiliated doctors. A difference like that between day and night. The affiliated doctor explains, analyses and then reaches a conclusion, explaining to you how he got there."* (Male, age 33, Athens, working poor, FG04)

Other participants stressed that good behaviour is a matter of conscientiousness and is not necessarily related to the type of employment or the earnings.

> *"There are some doctors who are very polite. They listen to you, they explain to you. They make you understand your problem. There are some who are indifferent and they don't give you any attention."* (Female, age 63, Athens, various insurance providers, FG06)

Even participants in focus group discussions assessed contact coverage to be at a satisfactory level. However, users tend to link good behaviour with health-care personnel's fear that they may be fired.

> *"The nurses were very very good. I don't know what the reason is. We said that it is a matter of personality. And they are afraid. I believe that all this is fake because they are afraid of losing their job."* (Female, age 60, Athens, protected member, FG03)

Participants also stressed that barriers to effective contact coverage are increased by bureaucracy.

> *"Too much bureaucracy. To prescribe medicines, to prescribe tests, to give your money back if you have to get money back. The procedure is terrible. If you live in Athens it is better, you can do all these. To leave here to go and do your tests and return, is a whole trip. It can't be done. You pay."* (Female, age 41, Astypalaia Island, protected member, int. user 09)

Many participants also mentioned bureaucracy's negative effects on the emergency health-care system which, in practice, does not work very well.

> *"I went with my mother to Attica Hospital. We went in the morning with 166* [ambulance service]. *From 11:00 in the morning till 9:00 in the evening they were doing tests on her. But the process of the tests was not synchronized. There were delays and gaps when she could have done some other tests and she didn't do them. And while we were waiting two hours for one examination we could have done another, but she didn't. And if we did this, then they told me to do another. And then do another, which is why we were late. There is no synchronization. After all this time and tests, at 9:00 in the evening they put us in a hallway. There was no room. In the hallway there was a permanent bed."* (Male, age 56, Athens, various insurance providers, FG06)

Both face-to-face interviews and focus group discussions registered quite high numbers of respondents who have used emergency services in recent years. Many noted that usually every call is taken but it seems that the ambulance's arrival is determined by the service used – public or private.

> *"The ambulance gave me a waiting time between 1.5 to 2 hours, while with private insurance the ambulance comes immediately and is outside your door."* (Female, age 30, Athens, various insurance providers, FG06)

While participants highlighted that private ambulances perform best, they nevertheless acknowledged that they are quite satisfied with the quality of service provided by the public emergency system.

> *"It was the usual old ambulance. Yes. It definitely had plenty of years on its back, it had definitely travelled many kilometres and was squeaking everywhere, but it did its job. It rolled along."* (Female, age 23, Athens, young unemployed, FG02)

Another issue relating to contact coverage regards the choice of affiliated physicians with standard agreements with EOPYY. Patients use these doctors not necessarily because they consider them to be more effective but mainly because they are old customers of particular doctors and are not willing to change them.

> *"Now that the EOPYY has changed, she has left the EOPYY and so I go to her private medical practice and she prescribes my medicine and I pay for this. That difference is quite huge. In the past I made an appointment in the IKA and went to the IKA. I wasn't paying anything, and they were prescribing my medicine."* (Female, age 51, Pireus, asthma, int. user 29)

4.2.5 Effective coverage

Interviewees perceive that effective coverage is positively affected by trust in their doctor's judgment which also positively affects adherence to treatment.

> *"The doctors actually offer very good medical services, they exceed their working hours and are constantly at our side any time we need them."* (Female, age 49, Athens, thalassaemia, int. user 30)

However, interviewees highlight a change in physicians' behaviour which seriously affects their relationships and results in negative impacts on adherence to treatment.

> *"In primary, I think, in my opinion, especially here in the province, I see that you lose touch with the doctor. Although it's a close circle, that is a small world, not like in the big urban centres, it is difficult to communicate with a doctor. Because you should ask the doctor to give you his personal phone number so that you know that you have contact with him. In the ESY, in the hospitals it is difficult. Unless he has a private practice as well. Otherwise, he does not seek it. As far as I know, I think."* (Male, age 48, Phthiotis, farmer, int. user 17)

Among interviewees who live in remote areas and on the islands, lack of trust and a deficient relationship with the only physician available in their place of residence drives patients to seek health-care elsewhere.

> *"Here we bring up our children on our own. We call paediatricians in Athens to check if what they tell us here is correct. It goes without saying this isn't a proper environment. I don't even trust the hygiene, to do a surgery, how clean is the operating room, for example? I would seriously think about it. I would take my child there, to Athens. I wouldn't bring him here"* (Female, age 41, Astypalaia Island, protected member, int. user 09)

Trust seems to be the key to effective coverage. Hence, even patients with only state insurance prefer to pay out of pocket to see doctors they trust who have moved into private practice. At the same time, some patients with private insurance prefer to follow their doctors who work in public hospitals.

> *"I have private insurance but I go only to IKA. I don't use the private insurance. Rarely. Do you know what I want to say? I want to say that I needed to make an appointment with a dermatologist, a pathologist and a gynaecologist, because I wanted to go to a swimming pool. And I wanted them to give me a health certificate*

for my child. Only that. And they told me on the phone, because they asked me why I needed this document. For tests? I explained the reason. They told me that they don't make these kind of appointments. I trust only the public ones." (Female, age 48, protected member, FG03)

Users of health services perceive changes in the medicines payment system (e.g electronic prescribing) as the most serious barrier because, in many cases, the system does not work.

"Having to go to the doctor and I often do not go because the cost is high and at that moment, at that time, I do not have this money to spare. But the electronic prescription is good when it works properly, and unfortunately it doesn't. When you go to the doctor, you hope they don't tell you that the system has crashed and you will have to sit for hours for them to write you a prescription. In the past, the old way, the doctor wrote your prescription very quickly and then left." (Female, age 60, Aigio, farmer, int. user 19)

4.2.6 Effects of recent legislative amendments

Many, but not all, participants were aware of the changes in the health-care system during the last few years. They highlighted that many of these changes were necessary for structural improvement but others imposed serious economic burdens on patients.

"The positive is that they tried to rationalize all management. This is positive. On the other hand there was an excessive restriction on access. The family budget has been burdened with several costs in the spirit of saving and regulating health issues. I think it should be treated with greater sensitivity." (Male, age 48, Athens, working poor, FG04)

However, procedural changes do not seem to bring much improvement when patients need to make use of health-care services.

"I wanted to go to KAT to be seen by an orthopaedic ... and my doctor told me about the health voucher ... you go to KEP, there are some papers... the IRS statement – if you don't owe money they will give it to you ... it is only for a day this statement not for many .... Then again the same papers, this mess..." (Male, age 48, Athens, long-term unemployed, FG01)

Similar problems were raised mainly by users who had been insured through smaller insurance funds that have been amalgamated in EOPYY.

> *"Previously we had our own social security – the Sailors' Insurance Fund. The service was impeccable. Now they send us to EOPYY. It is like, I don't want to say what it is. Too difficult. It takes you from one month to two months to make an appointment. I was charged over €10 to make an appointment."* (Female, age 60, Athens, protected member, FG03)

Freelancers appear to be the group most affected by changes in the insurance system combined with negative consequences of the economic crisis. As mentioned by one focus group participant, freelancers are most vulnerable since their insurance capacity is directly and immediately affected by their capacity to pay their monthly fees to the insurance fund.

> *"If you don't pay an instalment to the Insurance Organization for the Self-Employed you should know that you don't have insurance. Automatically you don't have insurance. Automatically. Immediately"* (Male, age 31, Athens, various insurance providers, FG06)

Regardless of their insurance status, participants view changes to the health insurance system as more negative than positive. The biggest benefits were perceived to be the right to hospitalization, not having to pay for a hospital bed. In this sense, health insurance is perceived to offer some relief from catastrophic costs. But, at the same time, its possession does not guarantee that all issues are addressed. Participants mentioned that free-of-charge access to consultations with physicians did not solve much of the problem. Generally, both pre-existing and new problems in the functioning of the public health-care system push them to rely on private health-care services.

> *"Let's say you want to make an appointment in EOPYY. You make a phone call. When will they answer? When will you make an appointment? After four months. You go to a private practice and you will have to pay €50."* (Female, age 30, Athens, various insurance providers, FG06)

Similarly, patients with chronic diseases consider that they still pay significant OOP payments in addition to health insurance at all levels, and that health insurance does not cover the full costs of accessed health care.

> *"Full coverage of drugs associated with the chronic disease that I have, I suffer from homozygous beta-thalassaemia. But for the other drugs for other diseases I have*

to pay a 25% contribution. And other tests, CT or MRI and whatever else I need. In the past all medicines and tests were completely free." (Female, age 49, Athens, thalassaemia, int. user 30)

It appears that only direct beneficiaries (uninsured and poor people) are aware of the most recent developments in health-care – particularly the legislative provisions for universal access to PHC regardless of insurance status, and benefit packages to cover the whole population.

"The solidarity-social pharmacy and the welfare insurance. From what I know, they work palliatively in society." (Female, age 42, Chalkida, working poor, int. user 14)

Indeed, the case of uninsured, unemployed and/or homeless people provides useful insights on the workings of social solidarity networks that help vulnerable groups to cope with lack of insurance in Greece at times of serious recession. Interviewees reported that structures for food distribution and temporary accommodation also work as agents for provision of medical care. Interviewees identified several social actors providing this kind of support, three of which are described briefly below.

- ***Club for UNESCO[26] of the Department of Piraeus & Islands*** operates a social pharmacy offering essential medicines (procured from sponsorships) to patients with chronic illness.

In an adaptation to the current model of service delivery, poor and uninsured patients try to avoid what they perceive to be redundant levels of care in which OOP payments are expected but the service providers are unable to solve the problem. For example, unemployed patients with chronic diseases explain how they avoid financial burden.

"On this subject about the diabetes medicines [...] a bill has passed and has the rule that all the medicine for diabetes, all those who are insured can get them for free, without paying one euro [...] the devices as well [...] why shouldn't we get them too? We are unemployed [...] we don't have money [...] only here is it free, just in UNESCO, only here [...] those who have welfare booklets get them through the hospital." (Male, age 48, Athens, long-term unemployed, FG01)

[26] United Nations *Educational, Scientific and Cultural Organization.*

- ***Medecins du Monde*** is an NGO which offers medicines and prescribes laboratory tests without bureaucratic burden and waiting times.

People without health insurance explain that they can overcome this barrier by relying on the services of medical humanitarian NGOs committed to provide medical and other services to marginalized populations that cannot access health-care services and medical care.

> "*There are the Medecins du Monde. The waiting time is between 10 minutes to 1 hour. Normal. You will be seen according to your waiting number. They help a lot and they are really helpful without asking you for additional documents. At the same time they will give you the medicine. Now they have a new contract with Biomedical and they send everyone there for free tests. Everything is free.*" (Male, age 44, Athens, long-term unemployed, FG01)

- ***Philanthropic Organization of the Holy Archdiocese of Athens*** (Apostoli) is an NGO offering appointments with one-week waiting times and access to medical services.

It appears that Apostoli plays a crucial role in effective coverage of people in need of health-care services.

> *"The Archdiocese has doctors in collaboration with medical associations. They give you a card. There are a lot of people so you have to wait your turn. They help with tests, referrals, with everything. It's true you have to wait for a week for a doctor to see you because there are many people waiting. […] I did a test recently in a health centre in Palaio Faliro and everything was free. You don't have to pay for anything."* (Male, age 50, Athens, long-term unemployed, FG01)

Table 20 summarizes the qualitative research findings on the supply and demand sides of health services.

Table 20. Comparison of supply and demand side findings

Coverage	Supply side (experts)	Demand side (users)
Availability coverage	• Serious shortages in human resources • Uneven regional distribution of medical and health-care professionals • Low salaries for medical and health-care personnel • Migration of health-care professionals • Extensive health service infrastructure • Geographical inequities in distribution of health services • Shortages of medical materials • Inefficient methods for procurement of medical equipment	• Shortages in human resources, infrastructure and equipment, especially in rural areas and islands • Variations in quality of services provided • Geographical inequities • Restructuring of IKA and establishment of EOPYY created more barriers to access • Generics (when prescribed) have positive impact on patients' economic burden
Accessibility coverage	• Structural dysfunctions in the health system • Absence of effective referral system • Positive effects from expanding health coverage to the uninsured • Long waiting lists • High costs and increases in users' contributions prevent access • Bureaucratic obstacles to health-care access • Patients lack knowledge of their rights and obligations • Widespread use of under-the-table payments (fakelaki) • Culture of overutilization of health-care services	• OOP informal payments facilitate timely access, especially to hospital services • Increase of OOP expenditure raises barriers to access and results in delays in seeking care • Personnel show positive change in relation to bribery • Geographical inequities in service distribution • Double financial burden for patients with chronic diseases • Cheapest medicines are compensated but most expensive are not • Need for reliance on private health care
Acceptability coverage	• Responsible attitudes among medical and health-care personnel • Previous experience of use of health services is determinant of acceptability • Negative attitude towards national health system is determinant of acceptability • High burden of OOP payments • Patients have no concept of prevention • Fear of stigmatization and social exclusion	• Quality of patient–provider interaction is significantly important for acceptability coverage • Lower quality in regional facilities drives patients to seek second or third opinions • Sex, age and nationality work as limitation factors • Delays in seeking care negatively influence acceptability • Low acceptability of public hospital services due to high risk of nosocomial infections and poor quality of food

Contact coverage	• High appreciation of doctors' judgment, especially hospital doctors • Barriers arising from long waiting times for appointments and receipt of health care, and short doctor–patient encounters • Lack of patient discipline in scheduling and keeping appointments • Overload of medical administrative documentation • Other health-care professionals are unsupportive of doctor's work • Doctors' excessive workloads reduce quality of services • Patients bypass PHC in belief that it cannot meet their needs and perception that gatekeeping function is a bureaucratic burden • Unnecessary visits to specialized doctors • Current economic situation reduced available household income and increased morbidity, resulting in more visits to public hospitals and less use of private clinics	• Positive change in personnel behaviour positively affects coverage • Physician's personality works as a facilitating factor • Health services still work due to the personal dedication of the personnel • Bureaucracy appears as a serious barrier • Emergency ambulatory care faces serious problems concerning timely provision of services
Effective coverage	• Linked to positive assessment of providers and behaviour of personnel • Necessity of supportive structures and programmes • Provision of social work services • Follow-up protocols • Need for further reforms taking account of micro level (diversified needs of each local community)	• Huge trust in physicians • Bad relations with doctors negatively affect adherence to treatment • OOP expenditure is not a barrier if patient is satisfied with the doctor • Medicines payment system and e-prescribing perceived as barriers because, in many cases, the system does not work
Amendments on PHC, unification of insurance funds, extension of coverage to uninsured population	• GP institution not yet implemented • Positive impact of unification scheme (social solidarity & basic package for all) • Positive impact of health vouchers and expansion of coverage to uninsured • Solidarity networks fill gaps in health coverage	• Little (and negative) knowledge of changes in health-care system • Negative assessment of unification of insurance funds • Social solidarity network plays significant role in helping uninsured/ poor/ homeless to cope with crisis

5. SUMMARY OF FINDINGS AND FUTURE POLICY RESEARCH

The reforms introduced in the Greek health-care system during the last five years have focused mainly on operational, financial and managerial dimensions. This might be considered reasonable as the reforms attempted to tackle serious long-term problems. However, this perspective ignores the citizen–patient dimension as formulation of a patient-centred health system appears beyond the scope of the reform package to date. The general approach of cost-containment measures has taken the form of horizontal cuts rather than a more sophisticated and strategic approach targeting resource allocation. Furthermore, structural reforms to reorientate the health system towards health promotion and PHC have been neglected (Economou, Kaitelidou, Kentikelenis et al., 2015).

If the Greek health-care system is to achieve its stated objectives – provision of comprehensive and high-quality services equitably, universally and free at the point of delivery – it should be geared towards citizens and facilitate patients' access and orientation within the system. It should also demonstrate effective delivery of personal and population services. In this context, equitable access to services has to be reconsidered. Academics, health policy-makers and health-services users and providers are well aware of serious barriers in access to health services in Greece and many studies have been published highlighting different aspects of these barriers. Yet this study is the first comprehensive research carried out in the country to identify bottlenecks and facilitating factors for access to health care using the Tanahashi dimensions of health coverage as the assessment framework. This chapter provides an overview of the findings from the desk review and the qualitative research, suggesting key policies and research considerations with a focus on the implications of the study findings in relation to the challenges posed by the economic crisis.

5.1 Availability coverage

The desk review provided information about infrastructure and human resources. This examined the number of PHC units, diagnostic centres, hospitals, hospital beds, pharmacies and diagnostic imaging equipment, as well as the situation concerning doctors, nurses and hospital personnel. The following conclusions can be drawn from the analysis.

a) Although the number of hospitals declined, mainly due to the closure of private clinics, the numbers of both private and public hospital beds increased during the 2000s. However, Greece is below the EU average for total hospital beds per 100 000 population.

b) The availability of expensive biomedical technology has increased rapidly. Among EU countries, Greece now ranks in second (after Italy) and first place, respectively, for numbers of MRI and CT scanners per 100 000 population. This is due to uncontrolled supplies of biotechnology, mainly in private diagnostic centres. Conversely, biomedical equipment is scarce (and mostly old) in public hospitals.

c) Inadequate staffing is a major problem for health centres and for public hospitals. Health centres face greater difficulty, with shortages in three categories: doctors, nurses and administrative personnel. Shortages of nurses and doctors are more apparent in public hospitals.

d) Numbers have increased in all categories of health professionals – mostly in physicians, then nurses. It is indicative that the rate of increase in nurses was almost half that of doctors (25.6% and 46.9%, respectively, between 2000 and 2011); the latter increase being mainly due to the increase in specialists. There has also been an increase in total numbers of hospital personnel. However, a number of serious imbalances in the development of human resources for health can be observed when Greece is compared with other OECD countries: (i) the number of physicians per 1000 population appears extremely high; (ii) Greece has the highest number of specialists per 1000 population but the lowest number of GPs; (iii) Greece also has the third lowest density of nurses (after Turkey and Mexico). Furthermore, although it has been mentioned that the numbers of hospital personnel increased between 2000 and 2011, Greece compares unfavourably with other EU countries: with the fourth lowest rate of health personnel employed in hospitals.

e) Quantitative imbalances in health manpower are accompanied by negative

qualitative characteristics of Greek health-care personnel. The latter include educational level and ageing of nursing and administrative personnel, as well as burnout due to workloads.

Key informants placed most emphasis on the serious problems facing ESY in terms of human resources. They recognize that there are serious shortages and uneven regional distribution of all categories of health professionals, and consider that the problem has been aggravated by the obligations imposed by the MoUs. Salary cuts and restrictions on staff recruitment have resulted in ineffective operation of public health units and migration of health-care professionals. At the same time, experts confirmed the existence of an extensive infrastructure of health services in Greece which, however, is allocated unequally among the regions. The inefficient methods of medical equipment procurements are raised and shortages in materials and supplies in hospitals have been noted, especially by NGOs. Service users also indicate that availability coverage is negatively affected by serious shortages in health-care personnel and the diagnostic and equipment capacity of public services, and by large variations in the quality of laboratory work. This is especially true on the islands and in rural areas, with a better situation in large urban areas.

Thus, it is obvious that Greece faces significant problems in planning of health-care personnel; development of medical technology; and allocation of facilities. There is a contradictory situation in which a general oversupply of doctors coexists with medical understaffing of ESY services. Additionally, despite a significant number of nursing graduates there is inadequate coverage of nursing posts in public hospitals. A similarly contradictory situation concerns medical technology, where oversupply in the private sector sits alongside undersupply in the public sector. Finally, the financial crisis's negative effects on resource availability are recognized, arising from the implementation of austerity policies.[27]

In this context, it is necessary to tailor the management of medical and nursing demography to the population's needs. This can be achieved via closer collaboration between the medical and nursing associations acting as advisers to the Ministry of Health concerning the numbers and specialties required in each region of the country in the next five years. Special incentives should be established for specialties facing shortages of doctors, including general practice, public health and emergency medicine. Another option for consideration is the introduction of short-term training programmes to enable doctors to respecialize in shortage specialties.

[27] According to data provided by the Hellenic Society for Intensive Care, 103 of 578 ICU beds in public hospitals are currently closed due to shortages of medical and nursing personnel. In order to reopen these beds, 572 nurses and 107 doctors must be recruited. A further 272 nurses are required to cover staff shortages for the 475 operating ICU beds (Hellenic Society for Intensive Care, 2015).

Health policy should also prioritize the hiring of medical, nursing and administrative personnel to fill all the vacancies in ESY health units. Concerning medical technology, the purchase of imaging equipment in the private sector should be based on a minimum threshold of population density; in the public sector it is important to ensure the replacement of old equipment and to fill existing gaps in the regions.

5.2 Accessibility coverage

The desk review analysed not only geographical access and regional disparities but also financial access and affordability, with a focus on: health insurance coverage; user charges; OOP and under-the-table payments; and provisions for unemployed and uninsured people. The main findings are summarized in the following paragraphs.

a. The ESY faces a structural problem with unequal regional allocation of infrastructures, human and financial resources. This results from the fact that health resources in Greece are allocated on the basis of historical precedent, political negotiation and centralized procedures rather than according to health-care needs based on decentralization, regionalization and implemention of a resource allocation planning method.

b. Persisting significant disparities in total hospitals; total, acute and neuropsychiatric hospital beds; health centres and pharmacies; and doctors and dentists per 100 000 population challenge health regions' capabilities to meet the health needs of their populations. Most of these resources are highly concentrated in large urban areas, particularly in Attica and Central Macedonia.

c. Many studies concerning decentralization and reorganization of PHC and the hospital sector have been conducted in recent years, aiming to address the skewed allocation of resources. None has ever been fully implemented.

d. The unified social health insurance fund (EOPYY) was established as a sole purchaser of health services in 2011. In an austerity-driven context, this was accompanied by reductions in benefits for the insured and by increases in copayments and user charges for visits to health centres and hospital outpatient departments, pharmaceuticals and laboratory tests.

e. The economic crisis – and total deregulation of the labour market via flexible industrial relations policies and redundancies dictated by the MoUs – increased unemployment and resulted in more than 2.5 million people losing their social health insurance rights. Action to address this development was delayed, and the measures implemented were uncoordinated, insufficient and stigmatizing for the beneficiaries.

f. Among EU countries, Greece has one of the highest rates of OOP payments (31% of total health expenditures), constituting the largest share of private health expenditures (over 90%) and covering mainly outpatient care. Their rise is associated with public underfinancing; the fragmented, ineffective and inefficient nature of PHC; and, since 2010, increases in copayments.

g. High private health expenditures in Greece undermine the constitutionally guaranteed free access to health services and increase inequities in the distribution of the burden of financing health services among social groups: 2.44% of poor households in the country face the risk of catastrophic health payments.

h. A large part of OOP health expenditures in Greece take the form of under-the-table payments, estimated to represent 28% of total household health expenditures, or almost €1.5 billion, in 2012. The augmented black economy in the health sector arises mainly from structural problems in the health system, easing unethical behaviours.

All key informants agree that some positive initiatives have taken place lately. The two ministerial decisions (No Y4a/GP/oik.48985 of 5 June 2014 and No GP/OIK.56432 of 28 June 2014) to expand health-service coverage to uninsured people have been a positive development for all in the context of the current recession. However, certain key informants from the Ministry of Health suggested that many cases of lack of access occur because patients do not know their rights and obligations. There is also disagreement over user charges: providers arguing that the increase in copayments discourages patients from visiting services but national-level key informants reticent to acknowledge that anticipated costs can prevent people from seeking care.

Managers of regional-level facilities also acknowledged that some people do not access care because they lack money for transportation to the health facility. Furthermore, NGO representatives indicated that social groups who theoretically have access to health services face bureaucratic barriers. It is also worth mentioning the observations

that health insurance coverage does not guarantee access in the case of someone being forced to make under-the-table payments, and that problems with accessibility are also related to a culture of overutilization of health services.

For users of health-care services, geographical access appears to be a serious issue in rural and small urban areas and the islands. This study also reveals a huge deterioration in financial access, with large increases in OOP expenditures: charges for medical prescriptions as well as unlisted drugs and laboratory tests. Users also mention that the heavy financial burden of OOP payments deters use of services. Conversely, certain users view informal OOP payments as facilitators for timely access to qualitative services, especially inpatient care, in cases where someone has the income and the willingness to pay.

Overall, the study findings reveal persistent regional inequalities in the distribution of health resources, posing barriers to access especially for the population of remote areas and islands. Secondly, OOP payments are high, whether in the form of user charges or of informal payments. Thirdly, measures to expand health-service coverage to uninsured people are moving in the right direction but bureaucratic and stigmatizing barriers remain. These findings indicate the necessity to rationalize planning and resource allocation. Developed over recent years, Health Map and ESYnet should be improved and strengthened as tools for evidence-based health policy. Furthermore, both sources of health-system financing and methods for reimbursing health providers should be reconsidered, increasing public expenditures as a share of total health expenditures and introducing disincentives for unethical economic transactions, mainly in the hospital sector.

5.3 Acceptability coverage

This section addresses different aspects of acceptability coverage, including patient satisfaction with the health services provided, health-system responsiveness, and the situation of vulnerable groups with a focus on migrants, Roma people and patients with chronic illness. The main findings of the literature review are summarized below.

a. The Greek population has a negative attitude towards the ESY, challenging the quality of services provided. In all Eurobarometer surveys, Greece is among the

countries in which the highest proportions of people consider it likely that they will be harmed by a medical error and that it has become more difficult to afford health care. Moreover, the economic crisis has increased Greek respondents' dissatisfaction with health services as expressed in the Eurobarometer surveys.

b. Dissatisfaction is related not to the core therapeutic services provided but rather to other structural, organizational and administrative problems of the health system. These include the regressive character of ESY financing, with high OOP payments; fragmented PHC and the absence of a referral system; long waiting lists and delays in scheduling appointments with contracted physicians; and the austerity measures adopted (increases in copayments and user charges).

c. Responsiveness in the ESY is also described negatively, reflecting low respect for human dignity and interpersonal aspects of the care process, especially in hospital services.

d. Migrants, Roma people and patients with long-term illnesses are three social groups facing significant barriers in access to health services. More specifically, for migrants, asylum seekers and refugees in Greece these include legal and administrative difficulties in acquiring a residence permit for the eligibility identification card; financial difficulties with OOP payments for health-care services; inadequate information on access to services (e.g. allowances, benefits); language difficulties communicating with health professionals; professionals applying biases and stereotypes; and fear and bias towards the operation of public services.

e. Roma people face inequalities in accessing health services in Greece linked to a lack of targeted information campaigns; limited access to quality health care; and exposure to higher health risks. They also experience ill health partly because they are much more likely to be poor and have lower socioeconomic status. Diseases such as TB, measles and hepatitis disproportionately affect the lowest socioeconomic strata. Roma people are also likely to be sicker than other poor people with the same income level. Discrimination, social exclusion and unregulated civil status make it particularly difficult to access health services. When more frequent use of health-care services is required it can be extremely difficult for Roma people to meet OOP health-care payments or to make pension/disability allowance claims.

f. Economic crisis has a detrimental effect on people with chronic illnesses. Among other things, this is seen in diminished self-rated health status; reduced adherence to medication; increased risk of catastrophic health expenditure; reduced utilization of laboratory and imaging services; and poor monitoring of complications.

On the acceptability dimension, key informants identified both barriers and facilitating factors in accessing care. Service providers mentioned the responsible attitudes of doctors towards patients' health as a facilitating factor. For acceptability barriers, one theme emerging from the in-depth interviews is that the overall acceptability of current health services is determined by people's previous experiences of health-service provision. Service providers seem to blame users for their own low access to health care – good health's culturally low standing in their personal system of values is a major deterrent in seeking timely health care and therefore they present late for consultation. Service providers also admit that low acceptability of health services is influenced by the population's negative attitudes towards the ESY arising from lack of knowledge or because of the common phenomenon of OOP payments to health providers. Another cultural barrier mentioned by providers was people's tendency to visit health services only when they have symptoms, with little concept of preventive visits. Key informants believe that patients can hide their illness because of their fear of stigmatization and social exclusion.

From a user's perspective, delays in seeking health care adversely affect acceptability coverage. These may be due to competing needs for livelihood, providers' expectation of OOP payments, and poor provider–patient interactions. Another barrier to the acceptability of health services is the perceived lower quality of care in regional facilities and the lack of trust in health professionals. Some participants found hospital conditions unacceptable and, even when hospitalization was indicated, preferred to receive treatment on a private basis in order to reduce the risk of nosocomial infections and avoid poor-quality hospital food. In terms of stigma and discrimination, Greek users have a tendency to hold immigrants responsible for the malfunctioning system and believe that they receive better health-care services.

Thus, this analysis reveals that structural inefficiencies in the Greek health system result in low acceptability of the quality of services provided to patients, an issue discussed in depth in the relevant literature. The doctor–patient relationship and trust seem to be important elements of acceptability coverage. However, the most worrying finding of the survey is the expression of racism against vulnerable groups, some interviewees blaming them for delays and inefficiencies in the ESY. This is an indication that, in times

of crisis, phenomena of social exclusion and blaming of the victim emerge and societies become more conservative. From this point of view, systematic research is required on the impact of discrimination on the quality of health-services provision. The role of intercultural mediators should be strengthened and expanded to all health-care units. Other possible interventions that should be explored include consciousness raising and training on the use and effect of stereotypes, and educational seminars organized with the participation of health-care personnel in order to change attitudes and beliefs.

5.4 Contact coverage

This section presents an exploration of the utilization of health-care services in Greece based on data provided by the ELSTAT and ESYnet databases and on two reports published by the Ministry of Health (Ministry of Health and Social Solidarity, 2011b & 2012). The following key points are derived from the desk review.

a. A ceiling of 300 visits per month per doctor contracted with EOPYY was set in May 2014. Secondly, in August 2014, ceilings were set on the pharmaceutical expenditure of each physician contracted with EOPYY depending on specialization; the number of patients for whom the doctor prescribes; the prefecture; and the month of the year (seasonality). Rather than controlling the demand and supply of health care via a referral system – thereby rationalizing use of the health system and making it more user-friendly – it is obvious that this decision contributed to increasing costs for patients.

b. Examination of actual utilization rates for the period 2009–2013 reveals mixed results. It appears that the use of public services has risen. Patient admissions to public hospitals have risen, while the average length of stay has fallen and the hospital bed occupancy rate has risen. There is also an increase in surgical interventions. Thus, utilization has increased at a time when inputs and/or input prices have fallen. However, without adequate data on factors such as the quality of services it is not possible to discern whether these increased levels of utilization translate into actual increased efficiency in service delivery. Nor is it possible to tell whether or not adequate and appropriate levels of care are provided and meet patients' needs.

c. Overall, during the period 2009–2013, visits to both outpatient departments and afternoon surgeries (compulsory afternoon shifts) in public hospitals have

decreased. Another interesting evolution concerns visits to health centres: these increased between 2009 and 2011, before declining sharply between 2011 and 2013. One possible explanation for this situation is that increases in copayments and user charges caused patients to delay visiting health services of first contact. This is expressed in decreases in visits to ambulatory care units. In such cases, the health status of the patients worsens and hospitalization becomes inevitable.

Key informants indicate that long waiting times for appointments and receipt of health care; short doctor–patient encounters; and too much medical administrative documentation are serious barriers to access. They also raise the issue of patients failing to attend scheduled appointments. Furthermore, lack of support for doctors' work from other health-care professionals and the excessive workload of doctors are possible causes of deteriorating service quality. Moreover, in many cases patients bypass PHC because they believe it cannot meet their needs, perceiving its gatekeeping function as a bureaucratic burden. As a consequence, unnecessary visits are made to specialized doctors. The present economic situation has reduced the available household income and increased morbidity, resulting in greater use of public hospitals and less use of private clinics.

According to users, the qualitative dimension of contact coverage has improved mainly because health-care personnel show positive changes in their behaviour towards patients. However, users tend to link this good behaviour with health professionals' fear of losing their jobs. Participants acknowledge that health-care services are maintained and preserved exclusively through the personal dedication of staff. Conversely, participants stressed that effective contact coverage is negatively affected by bureaucracy. Many participants also mentioned that bureaucracy negatively affects even the emergency health-care system which, in practice, does not work very well.

These findings stress two directions that should be prioritized in future research. First, in-depth analysis of how user charges affect patients' choice and use of health services. The emergence of the substitution effect resulting from the type and mode of patients' participation in the cost of health services should be considered. Second, examination of the population's changing cultural attitudes towards PHC and preventive policies. The main priority in Greece's health policy should be a transition from a hospital-centric and fragmented health system – built around hospitals, specialists and priority programmes without continuity of care – to patient-centric integrated health care that puts people first and secures the health of communities. In this context, the initiative to reform PHC in Greece undertaken during the last three to four years should be

strengthened and completed in the direction described in the World Health Report 2008: transforming the existing system into a gatekeeping hub of a coordinating network of institutions and services (WHO, 2008).

5.5 Effective coverage

There are not sufficient official data available to assess the effectiveness of the Greek health-care system. The only suitable resources are studies referring to different dimensions of the provision of certain health services, which may be used as proxy measures for the evaluation of clinical effectiveness. Disease management, medical errors, infections acquired in hospitals and immunization rates are areas examined in this section.

a. Disease management is far from effective in Greece. PHC is neither well-developed nor organized and only a small percentage of the population receives screening services. The services delivered are unilaterally oriented towards acute health problems, rarely engaging in prevention, health promotion, social care and rehabilitation. Moreover, chronic disease management is usually performed fragmentedly, with the main focus on prescribing. Mechanisms for supervising and evaluating medical practices are absent and there are no effective systems for keeping, organizing and coordinating medical records; measuring use of health resources; or assessing and monitoring outcomes of care. Diagnostic and therapeutic protocols are used rarely. Quality problems raise further questions at the present time of crisis.

b. The performance of the Greek health system lags considerably behind other EU countries in addressing specific diseases such as frequent types of cancer (breast, cervical, prostate, colon) or circulatory system diseases.

c. Overall immunization coverage is satisfactory. However, administration of booster doses is delayed in many cases. There are also problems in specific population groups: coverage of children from migrant families is generally good or moderate, while that of children in Greek Roma families is generally moderate or low.

d. Hospital-acquired infections and medical errors are two more issues requiring serious consideration in assessing inpatient care in Greece.

Key informants tended to address the effective coverage dimension more in terms of recommendations for the future, and less in relation to current practices. Face-to-face interviews with managers revealed that they consider that quality of care cannot be assessed according to national protocols alone. They acknowledge that health-care services providers' attitudes towards users are of primary importance for any future collaboration. Several key informants, mostly practitioners, mentioned the emphasis on preventive work and on supportive structures and programmes that lead to serious improvements in the quality of health-care services provided. Another parameter with an apparent positive impact on effective coverage relates to follow-up protocols: these appear to be very important factors in adherence to treatment, particularly among patients of oncology clinics. At the same time, several managers admitted that, even if follow-up protocols are absolutely necessary for effective coverage assessment, work overload means that they are not always possible in practice.

Health-services users perceive effective coverage to be positively affected by trust in their doctor's judgment, which also positively affects adherence to treatment. Interviewees who live in remote areas or on the islands report that patients are driven to search for health care elsewhere if they experience lack of trust and a deficient relationship with the only physician available in their place of residence. Trust seems to be the key to effective coverage. Hence, even if they have only state insurance, some patients prefer to pay out of pocket in order to stay with doctors whom they fully trust who have moved into private practice. At the same time, others choose not to use their private insurance as they prefer to follow their doctors who work in public hospitals. Furthermore, users of health services perceive changes in the medicines payment system (e.g electronic prescribing) as the most serious barrier to effective coverage because, in many cases, the system does not work.

Routine monitoring of quality of care and clinical outcomes is insufficient. The development and introduction of medical records; clinical diagnostic and therapeutic protocols; diseases registries; and screening programmes should be of high priority. Improvement of the e-prescription system and the introduction of electronic medical records are two measures of immediate priority. Moreover, policies to ameliorate the administration of immunization booster doses and to increase vaccination coverage of vulnerable groups should be promoted.

5.6 Legislation on extending coverage to uninsured population

The limited literature concerning the impact of the 2014 legislation on extending coverage to the uninsured population shows that – although the establishment of mechanisms to ease the access of vulnerable groups to the public health system is an imperative need, and these legal amendments were definitely in the right direction – four issues should be considered. First, establishment of a referral system based on family GPs has not yet been implemented. Second, a stigmatizing procedure is in place to enable uninsured people to access hospital services. This requires a specific committee to certify a patient's need for hospitalization, a procedure that is not applied to the insured population. Third, the legislation's requirement for uninsured patients to make copayments may have negative effects on those in need of pharmaceuticals, given their difficult economic situation. Fourth, to date the Ministry of Health has not clarified with public hospitals how they are to implement the ministerial decision about hospitalization of the uninsured. As a consequence, uninsured patients seeking hospital services face serious unjustified administrative barriers to access to health care due to their differentiated treatment by different public hospitals.

Key informants highlighted that, within primary health reform, GPs have not yet been institutionalized in Greece. Measures implemented by the Greek government aimed to establish family doctors as the main providers of PHC but this has not been accepted widely. The reasons appear to be connected with the general social and political environment of the country – the change is largely impeded by reluctance among the Greek population. Unification of social health insurance funds in one scheme (EOPYY) has produced major benefits for social solidarity by establishing a common basic package of health-care services for all. Overall, health providers are well aware of joint ministerial decisions extending the right to health care and medicines for the uninsured population, perceiving these amendments to be a good policy that extends access to people in need since physicians can now provide care to everyone, without differentiating between insured and uninsured people. Key informants consider that these legislative changes have had a positive impact on health-care coverage even for vulnerable groups such as refugees. Key informants also believe that access has steadily been upgraded since the social services of hospitals have the opportunity to decide whether someone is entitled to medicines even though they lack coverage. In this direction, they acknowledge the positive impact on health-care coverage produced by the voucher scheme and the joint ministerial decisions allowing uninsured people

access to health-care services. However, it is indicated that access may have been specified in legislation but implementation is highly dependent on the availability of human resources.

The amendment seems to have had little effect on emergency services since life-threatening emergencies were already covered, regardless of insurance status. Also, some key informants acknowledge that many uninsured people are unaware that they may have access to health-care services. At the national outcome level, leaders feel that it is too soon to consider the effect of this amendment, and that statistics do not yet show the changes. At the same time, the predominant opinion was that access for the insured does not follow the rule that more quantity means less quality since medical and health-care personnel are strongly committed to the Hippocratic Oath. Additionally, experts admit that solidarity networks developed during the crisis now cover the gaps in typical coverage.

By contrast, many – but not all – participating users are aware of the changes in the health-care system over the last few years. They highlighted that many of these changes were necessary for structural improvement but others imposed serious economic burdens on patients. Changes related to procedures do not seem to bring much improvement when patients need to make use of health-care services. This also holds true for the unification of insurance funds which is negatively assessed mainly by those who were insured with the smaller insurance funds. Freelancers appear most affected by the changes in the insurance system, exacerbated by the negative consequences that the economic crisis has had on Greek society. They are the most vulnerable since their insurance capacity is directly and immediately affected by their capacity to make their monthly payments to the insurance fund.

Regardless of their insurance status, participants' attitudes towards changes in the health insurance system tend to be more negative than positive. The biggest benefits are perceived to be the right to hospitalization (i.e. not having to pay for a hospital bed). Thus, health insurance is perceived to offer some relief from catastrophic costs. Yet, at the same time, possession of health insurance does not guarantee that all issues are addressed. Participants mentioned that free-of-charge access to consultations with physicians solved little of the problem. Both pre-existing and new functional problems in the public health-care system generally push them to rely upon services in the private system. This is also true for patients with chronic diseases who consider that they still pay significant OOP payments in addition to health insurance at all levels and that health insurance does not cover the full costs of accessed health care.

The most recent developments in the health-care sphere – specifically the legislative provisions entitling everyone to PHC regardless of insurance status, and a basic benefit package for everyone – appear to be known only to those who are direct beneficiaries, namely people without insurance and poor people. Indeed, the case of uninsured, unemployed and/or homeless people provides useful insights on how, in times of serious recession, social solidarity networks work and help vulnerable groups to cope with lack of insurance in Greece. Interviewees reported that structures for provision of food and temporary accommodation also work as agents for provision of medical treatment.

Taking account of the aforementioned findings, two health policy issues are highlighted. First, the imperative need to establish a referral system comprising either GPs or integrated PHC groups. Second, the need to establish a more comprehensive and less stigmatizing procedure for expanding health coverage to uninsured people.

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