Greece's healthcare system and the crisis:

a case study in the struggle for a capable welfare state

O sistema de saúde grego e a crise:

um estudo de caso na luta pela capacidade do Estado Social

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Abstract

The present paper discusses the impact of restrictive policies dictated by Troika on Greece's health care system. The majority of the measures introduced during the first wave of reforms (2010-2014), were fiscal consolidation measures resulting in increasing barriers to access to health services and a deterioration of the health of the population. Policies likely to promote health care system goals such as universal coverage, strategic purchasing, Health Technology Assessment, public health measures, shifting from inpatient to ambulatory care, and integration and coordination of primary and secondary care, were neglected, while some other, e.g. the National Organization for the Provision of Health Services, the National Primary Health Care Network and Diagnosis Related Group-Greek Version, were not well planned and implemented, due to extremely strict reform targets and schedules imposed by the Memoranda. Although after 2015 these neglected issues came to the forefront of the health policy agenda, issues for further consideration remain in relation to the scope and depth of social health insurance, the adequacy of public health funding, the development of a resource allocation mechanism, the reorganization of the hospital sector, the development of physical rehabilitation, long-term and palliative care and the strengthening of public health services. Using the health system as a case study, we argue that "hard" Europeanization mechanisms characterized by fiscal austerity and internal devaluation resulted to the retrenchment of the Greek welfare state.

Key Words:

Economic crisis, economic adjustment program, health care reform, welfare state, Greece.

Resumo

Este artigo analisa o impacto das políticas restritivas ditadas pela Troika no sistema de saúde grego. A maioria das medidas introduzidas durante a primeira fase das reformas (2010-2014) foram medidas de consolidação fiscal resultantes do aumento das barreiras ao acesso aos serviços de saúde e uma deterioração da saúde da população. Políticas que tendencialmente promoveriam as metas do sistema de saúde tais como cobertura universal, aquisição estratégica, avaliação da inovação tecnológica, medidas de saúde pública, mudança de internamento para cuidados em ambulatório, integração e coordenação de cuidados de saúde primários e secundários foram negligenciadas, enquanto que outras, por exemplo, a Organização Nacional para a Prestação dos Serviços de Saúde, a Rede Nacional de Cuidados Primários de Saúde e grupos de diagnóstico homogéneos (GDH) na versão grega, não foram bem planeadas nem implementadas devido aos exigentes objetivos reformistas e aos prazos impostos pelos memorandos. Embora depois de 2015 estes assuntos negligenciados tenham passado a constar como prioridades da agenda da política de saúde, outros continuam a necessitar de uma melhor abordagem em relação à abrangência do seguro social de saúde, a adequação do financiamento público da saúde, o desenvolvimento de um mecanismo de alocação de recursos, a reorganização do setor hospitalar, o desenvolvimento da medicina física e de reabilitação, os cuidados continuados e paliativos e o reforço dos serviços públicos de saúde. Usando o sistema de saúde como um estudo de caso, defendemos que "fortes" mecanismos de europeização caracterizados por austeridade fiscal e desvalorização interna resultam na retração do sistema público de saúde grego.

Palavras Chave:

Crise económica, programa de ajuste económico, reforma do sistema de saúde, sistema público de saúde, Grécia.

1. Organization and provision of health services in Greece¹

Greece's health care system is a mixed system comprising elements from both the public and private sectors. In the public sector, a national health service type of system coexists with a social health insurance (SHI) model. Several employment-related SHI funds covered the entire population prior to the economic crisis. After 2011, population coverage for health care was undertaken by a single entity, the National Organization for the Provision of Health Services (EOPYY), which covers the insured and their dependents and acts as the sole purchaser of health care services provided by the publicly financed National Health System (known as ESY). At the same time, the benefit packages of the various SHI funds were standardized to provide a common benefits package under EOPYY. The private sector includes profitmaking hospitals, diagnostic clinics and independent practices. A large part of the private sector enters into contracts with EOPYY, providing mainly primary/ ambulatory care. After 2010, the role of voluntary initiatives, non-governmental organizations and informal healthcare networks increased significantly. This was mainly a response to meeting the needs of the large portion of the population that lost insurance coverage and access to public health care, primarily through prolonged unemployment or other inability to pay contributions. Coverage was restored through remedial legislation in 2016.

The Ministry of Health is responsible for the planning and regulation of the ESY and EOPYY. Despite the establishment of regional health and welfare authorities as far back as 2001, and their renaming as Regional Health Authorities (known as YPEs) in 2004, these entities, which were intended to carry out extensive health care planning, organization and provision, have exercised only limited powers to date. This may change with the implementation of more recent primary care reforms. In 2014, legislation formally transferred all public primary care facilities, health care sites and rural surgeries to the YPEs jurisdiction. These are expected to take up their primary care coordination roles more fully under the implementation of further reforms being rolled out from 2017 to 2020, to create a more integrated, two-tier primary care system with a gatekeeping role.

The health system is highly centralized and regulated, and there is extensive legislation controlling the activities of third-party payers and providers of services, the purchasing process and the levels of prices and reimbursement within the ESY. The training and licensing of health professionals are also highly regulated. However, there are few mechanisms that allow adequate planning and allocation of physical and human resources in Greece, with a lack of prioritysetting processes, effective needs assessment and investment strategies, among others. Resources are unevenly distributed across the country, with a much higher concentration of health services and medical equipment in large cities compared with rural areas; private facilities are also largely located in urban areas.

Financing is through a mix of public and private resources, SHI and tax. Health expenditure in 2016 was 8.45% of the gross domestic product (GDP); however, in the context of drastically reduced GDP since the onset of the economic crisis, expenditure has fallen substantially since 2010. This spending translates to €1,660 purchasing power standard (PPS) per capita, which is roughly two thirds of the average for the 28 Member States. Public expenditure on health constituted 5.2% of GDP in 2016. A public expenditure cap of 6% of GDP, set in the country's first economic adjustment programme (EAP), continues to be applied in 2018. The share of public expenditure on health was 61.3% in 2016, with the remaining 38.7% being funded from private payments. The share of private financing in Greece is one of the highest in the European Union (EU) and is mainly in the form of out-of-pocket (OOP) payments. These payments are made up of co-insurance for medicines, direct payments for services not covered by SHI as well as payments for services covered by SHI but bought outside the public system to enhance access and quality. In addition, informal payments are widely practiced, partly because of underfunding of the system and partly through lack of control mechanisms. Voluntary health insurance makes up only a small proportion of health expenditure (3.9% of current health expenditure in 2016).

Providers' reimbursement mechanisms are to a large extent retrospective. Health professionals (e.g. doctors

^{1 -} This section is based on [1].



and nurses) working in ESY primary care facilities and hospitals are paid salaries while providers contracted with EOPYY are paid on a fee-for-service basis. Previously, hospitals were paid on a per diem basis but since 2012 public hospitals as well as contracted private hospitals are mostly compensated under a diagnosisrelated group (DRG) scheme, which aims to rationalize the use of resources.

2. The adjustment programme and the health care system

2.1 Overview

The health policy responses to the crisis and their effects in Greece should be seen from two perspectives. The first perspective relates to implementing much-needed operational and structural reforms, designed to address weaknesses in the health care system that predated the crisis. When the global financial and economic crisis started, the health system in Greece functioned within an outdated organizational structure dominated by clinical medicine and hospital services, without the support of an adequate planning unit or sufficient accessible information on health status, utilization of health services or health costs, and without being progressive and proactive in addressing the health needs of the population through actions in public health and primary health care. As a result, Greece's health care system was suffering from several inefficiencies, which can be summarized as follows [2], [3]: a high degree of centralization in decision-making and administrative processes; suboptimal managerial structures that lacked adequate information management systems and were often staffed by personnel without adequate managerial skills; lack of planning and coordination, and limited managerial and administrative capacity; unequal and inefficient allocation of human and economic resources; fragmented population coverage; an absence of a referral system and effective gatekeeping mechanisms; inequalities in access to services; oversupply of services fueled by the high number of physicians; high OOP payments; uneven regional distribution of human resources and health infrastructure; underdevelopment of needs assessment and priority-setting mechanisms; regressive and fragmented funding mechanisms; an anachronistic retrospective reimbursement system creating incentives for supplier-induced demand since physicians could be contracted by many insurance funds and be reimbursed on a fee-for-service basis; and absence of a health technology assessment (HTA) system. The old social health insurance system suffered from a large number of funds and providers with varying organizational and administrative structures offering services that were not coordinated. This resulted in different population coverage and contribution rates, different benefit packages and inefficient operation; all leading to large accumulated debts. Furthermore, the pharmaceutical industry created incentives for supplier-induced demand by influencing physicians to prescribe more pharmaceuticals than needed. Past reform attempts in areas such as primary care, the organization and provision of health services by hospitals and the enhanced cooperation of social insurance funds failed to deliver the expected results or were not fully implemented. Consequently, the need for reforms in the health care system was clear and has dominated the agenda of policy responses instigated by the crisis, particularly the attempt at large-scale cost-containment.

This brings us to the second perspective, which is particularly important when considering the effects of changes, and relates to the measures stipulated in the three successive EAPs. The Greek economy entered a deep, structural and multifaceted crisis in 2010, the main features of which were a large fiscal deficit and public debt, as well as continuous erosion of the country's competitive position. In order to address the problem, the Greek Government accepted a bailout from the EU, the European Central Bank and the International Monetary Fund (all three known as the "Troika"), signing up for an initial EAP starting from May 2010. Greece was until August 2018 under its third EAP, with financial assistance for all programmes amounting to €290 billion [4]. EAPs, based on neoliberal economic assumptions, aim at reducing the public deficit and debt, and they are implemented under stringent conditions to deliver a set of reforms to fiscal policy, state ownership and market liberalization. This has required implementation of severe austerity measures, including funding cuts to health care, social welfare and education, achieving savings through reductions in the salaries and the number of public sector staff, reductions in pensions, increases in direct and indirect taxation, privatization of stateowned enterprises and introducing deregulation of the labour market and flexibility in industrial relations. In the context of the wider economic situation, the Greek health care system came under pressure and reforming it was clearly a priority imposed by the Troika. Table 1 gives an overview of the demands of the Memoranda that are related with the health care system.

Table 1 - Measures in the MoUs for the health system

GREECE - MEMORANDA OF UNDERSTANDING (MoU) ON SPECIFIC ECONOMIC POLICY CONDITIONALITY (May 2010, February 2012, August 2015)

Expenditure and Financing Separate the financing of health care and pension systems. Merge the funds to simplify the overly fragmented system. Increase health taxes (alcohol and tobacco). Ensure greater budgetary and operational oversight of health care spending by the Finance Minister. Public health care expenditure not to exceed 6% of GDP. Public pharmaceutical expenditure not to exceed 1% of GDP. Increase co-payments of outpatient and diagnostic services. Revision of the pharmaceutical co-payment system in order to exempt from co-payment only a restricted number of medicines related to specific therapeutic treatments Review fees for medical services outsourced to private providers with the aim of reducing related costs by at least 15 percent in 2011, and by an additional 15 percent in 2012. Limit the prices of diagnostic tests. Increase health insurance contributions. Pricing and reimbursement of pharmaceuticals Reduce prices of generics and off-patent medicines. Use a new pricing mechanism based on the three EU countries with the lowest prices. The list will be updated on a quarterly basis. Reduce the price of all off-patent drugs to 50% and all generics to 32.5% of the patent price

Introduce rebates and clawbacks received from pharmaceutical companies and pharmacies.

Make use of a negotiating committee to develop price volume and risk agreements, in line with other EU countries standards and international expertise, especially for innovative and high cost drugs.

Prescription and monitoring of prescription

Increase the share of outpatient generic medicines by volume to 60% and of inpatient generic medicines to 60%.

Compulsory electronic monitoring of doctors' prescriptions for medicines, diagnostics, referrals and surgery in both NHS facilities and providers contracted with National Organization for the Provision of Health Services (EOPYY).

Compulsory prescription by active substance or less expensive generics when available.

Introduce binding prescription guidelines for physicians.

Mandatory generic substitution by pharmacies.

Monitor doctors' prescription behaviour and their compliance with binding prescription guidelines. Enforce sanctions and penalties as a follow-up to the assessment and reporting of misconduct and conflict of interest in prescription behavior and non-compliance with the prescription guidelines.

Introduce positive and negative list of reimbursed medicines.

Increase the share of procurement by hospitals of pharmaceutical products by active substance to ³/₄ of the total.

Set-up an health technology assesment centre that will inform the inclusion of medicines in the positive list.

Pharmacies sector

Abolish the 0.4 percent contribution of wholesale sales prices in favour of the Panhellenic Pharmaceutical Association.

Starting from 2012, the pharmacies' profit margins are calculated as a flat amount or flat fee combined with a small profit margin with the aim of reducing the overall profit margin to no more than 15 percent.

Readjust the pharmacies' profit margins and introduce a regressive margin is introduced - i.e. a decreasing percentage combined with flat fee of EUR 30 on the most expensive medicines (above EUR 200) – with the aim of reducing the overall profit margin to below 15 percent.

Introduce a contribution in the form of an average rebate

Reduce the wholesalers' profit margins to converge to 5% upper limit

Centralised purchasing and procurement

Set up the legislative and administrative framework for a centralised procurement system.

Increase the proportion of centralized procurement to 80%.

Use a consistent coding system for medical supplies and pharmaceuticals.

Use capitation payments of physicians to all contracts with EOPYY in order to reduce the overall compensation cost (wages and fees) of physicians by at least 10 percent in 2011, and an additional 15 percent in 2012, as compared to the previous year.



Primary care services

Develop an integrated primary health care network based on compulsory patient registration with a family doctor and a referral system to specialists.

Develop a system of electronic referrals to secondary care.

Hospital services

Implement double-entry accrual accounting.

Regular publication of audited accounts.

Complete the programme of hospital computerization and ensure full interoperability of information technology systems.

Upgrade hospital budgeting systems.

Reform the financing system and improve pricing and costing mechanisms. Introduce DRGs and develop clinical guidelines.

Accelerate payments, close budget loopholes and force arrears to be reported to Parliament as they develop.

Speed up the rationalization of the hospital network and adjust public hospital provision within and between hospitals within the same district and health region.

Revise the activity of small hospitals towards specialisation in areas such as rehabilitation, cancer treatment or terminal care where relevant.

Reduce operational costs.

Set up a system for comparing hospital performance (benchmarking) on the basis of a comprehensive set of indicators.

Assign internal controllers to all major hospitals.

Reduce hospital costs by at least 10 percent in 2011 and by an additional 5 percent in 2012 in addition to the previous year.

Develop clinical guidelines and set in place an auditing system of their implementation

Revise emergency and on-call structures.

Optimize and balance the resource allocation of heavy medical equipment (e.g. scanners, radiotherapy facilities, etc.) on the basis of need.

Improve hospital management and adopt selection criteria and measures to ensure a more transparent selection of the chairs and members of hospital boards

Cross services

Finalise the set-up of a system of patient electronic medical records.

Develop therapeutic protocols for the patient care pathways (primary and secondary care).

Reduce waiting times (including for elective surgery).

Human Resources

Reduce EOPYY's administrative staff by at least 50% and EOPYY's contracted doctors by 25%.

Increase the mobility of health care staff (including doctors) within and across health facilities and health regions.

Annually updated reports on human resources presenting the staff structure according to specialty, to be used as a human resource planning instrument.

Reduce public health sector wages and increase taxation of wages.

Reduce public health sector employment.

The following sections aim to describe and assess the health system reforms implemented in Greece after the economic crisis and until today.

2.2 Reforms in financing and payment mechanisms

According to the Memoranda of Understanding (MoUs), Greece is obliged to keep public health expenditures below 6% of the GDP and public pharmaceutical expenditures below 1% of GDP. The imposition of public health spending restrictions and the simultaneous decline in GDP observed since 2009, means that the public health sector is called upon to meet the increasing needs of the population with decreasing financial resources. Between 2010 and 2014, total current health expenditure in Greece decreased by 34.3%, public current health expenditure fell by 44.3% and private expenditure decreased by 11.9%, while an upwards trend has been recorded since (Figure 1). At the same time, the demand for public health services increased as visits to outpatient departments and the number of hospitalizations in public hospitals were increased between 2010 and 2015 by 2.3% and 10.5% respectively [5].



On the other hand, private current health expenditures as a percentage of total health expenditures increased from 31% in 2010 to 38.8% in 2016 (Figure 2). It is worth mentioning that almost 90% of private expenditure is out-of-pocket payments. An explanatory factor of this trend is the increase in user charges and copayments introduced in the Greek health care system after 2010 with the aim to increase revenues and limit the demand for health services. In 2011, an increase in user charges from €3 to €5 was imposed on outpatient services provided in public hospitals and health centres (abolished in 2015), and in 2012 a €25 patient fee for admission to a public hospital (revoked in 2014), together with an extra €1 for each prescription issued under the ESY were introduced (in 2016, exemptions were introduced regarding the €1 prescription charge



to relieve former welfare beneficiaries, the uninsured on low income and those belonging to vulnerable groups). In 2011 increases in medication co-payments were also introduced. For many medicines, the copayment increased from 0% to 10% and for others from 0% to 25%; the aim was to eliminate copayments for only a limited number of medicines and to increase them for the rest. Furthermore, the patient is charged the difference between the retail price and the reference price reimbursed by health insurance. Despite the continuous price reductions in

Figure 1 - Current health expenditures, 2010-2016 (in billion euro) Source: Hellenic Statistical Authority [6], [7].







NGO - nongovernmental organization; OOP - out of pocket payment.

Source: Hellenic Statistical Authority [6], [7].

pharmaceuticals and although there are exemptions in user charges for those with low income, those suffering from a chronic disease, children under 18 years hosted in social care and some other population groups, the result of the so far implemented policy is an increase of the average monthly household pharmaceutical expenditure as well as of the average proportion of patients' co-payment for pharmaceuticals from 9% in 2009 to 30% in 2016 [1], [5], [8], [9]. In addition, in April 2014, calls to make an appointment with any doctor under the National Primary Health Care Network (PEDY) scheme were outsourced to private telephone companies, with charges ranging from $\notin 0.95$ to $\notin 1.65$ per minute, thus increasing the financial burden of the patients. From this point of view, a positive evolution is the development by the Social Insurance E-Governance Center (IDIKA) of the e-RDV application launched in January 2017, enabling patients to make an appointment free of charge. Another issue to be considered is copayments introduced for EOPYY insurees in 2012 with the amendment of the EOPYY's Integrated Health Care Regulation (EKPY). According to the provisions of the EKPY, while treatment in public hospitals is free of charge, treatment in private clinics contracted with EOPYY presupposes user charges ranging from 30% to 50% of the DRG-KEN and 100% of the doctor's payment. Similarly, for clinical tests provided free of charge in public facilities, the

patient is obliged to pay a 15% co-payment in case of visiting a private laboratory contracted with EOPYY. This undermines equity of access, particularly in regions where due to the inability of public facilities to provide the necessary services, patients are forced to use contracted with EOPYY providers [1], [5], [8], [9]. Furthermore, despite publicly funded dental services being part of the EOPYY benefits package, the lack of adequate funding and the absence of contractual arrangements with private sector dentists, means that most services are not covered and patients must pay out of pocket.

The pharmaceutical sector has seen a number of measures aimed at containing costs and enhancing efficiency. Overall, reductions in pharmaceutical expenditure are being pursued though price reductions, increased rebates and clawbacks imposed on private pharmacies and pharmaceutical companies for both inpatient and outpatient drugs, promotion of the wider use of generics and, to some extent, control of the volume of consumption via methods such as prescription control mechanisms and e-prescribing (see section 2.4). Pharmaceutical expenditure has also been tackled in ESY hospitals through more efficient purchasing strategies, including the reduction of drug procurement prices through the implementation of price caps for approved drugs, the establishment of tenders to supply medicines based on the active

substance and the development of an (extended) list of medicines for which the Coordination Committee for Procurement issues unified tenders for supply contracts. Some innovative measures have been also introduced to lower outpatient pharmaceutical expenses; for example, expensive medicines for chronically ill patients are distributed through state pharmacies as prices are lower than in private pharmacies [1].

Concerning health care providers' payment mechanisms, the EAP impelled Greece to replace the per diem financing method of hospitals with a DRG-based one in a very short time period (one year) in order to increase efficiency and rationalize allocation of resources. As a consequence, the new system called DRG-KEN, which was implemented in January 2013, has encountered a number of problems. The pricing is based not on actual costs and clinical protocols but on a combination of activity-based costing with data from selected public hospitals, and so-called imported cost weights. Furthermore, the salary cost of those employed in hospitals is not included as they are paid directly through the state budget. So far, four revisions of the system have been made and at the time of writing a total reformulation of it is in process. In relation to health care personnel, in the drive to reduce health system input costs, salary cuts were applied after 2010 to all public health care staff, including administrative personnel, doctors, nurses, pharmacists and paramedical staff. Additionally, almost all subsidies to health care staff were abolished. In practice, three types of salary cuts actually took place: horizontal cuts from tax increases and a special solidarity levy, cuts through the introduction of a new unified salary system for all public sector employees and cuts through reductions in the "special salary system" for doctors. Indicatively, the average annual salary of specialists decreased from €58 000 in 2009 to €42 000 in 2015, while the average nurse's salary decreased from €29 000 to €21 000 in the same period. Moreover, planned performance-based productivity bonuses were not implemented as no targets were set, nor did any staff evaluations take place. Other workforce measures aimed at reducing costs include the nonrenewal of contracts for temporary staff employed under fixed-term contracts and a reduction in the replacement levels of retiring staff (for every five people retiring only one will be appointed) [1], [9].

2.3 Reforms in health insurance coverage

One of the major reforms of the health system was introduced in March 2011 with the unification of the large number of health branches of the social insurance funds and the formation of the EOPYY, supposed to function as unique purchaser of health services. The benefit packages of the merged in EOPYY funds were standardized and unified to provide the same reimbursable services based on EOPYY's EKPY, although there are still differences in arrangements, for example variations in size of contribution. The EKPY has been amended twice and, at the time of writing, a new amendment is under consideration. Although a common benefit package was introduced by the EKPY, the criteria used for deciding what services are included in it have not been formally stated, and a reduction in covered benefits took place and ceilings were imposed on the activities of doctors contracted with EOPYY. For example, some expensive examinations (including PCR tests and tests for thrombophilia) that had previously been covered by insurance funds - even partially, on an outpatient basis – were removed from the EOPYY benefit package. Entitlement restrictions were introduced for childbirth, air therapy, balneotherapy, logotherapy and services for thalassaemia and nephropathy. Moreover, the introduction of a negative list for medicines in 2012 resulted in the withdrawal of reimbursement status for various drugs. Furthermore, since 2014, a system of monthly caps has operated on physician activity. Every doctor contracted with EOPYY has a limit of 200 visits per month and there are also a monthly ceiling on the value of pharmaceutical prescriptions as well as prescribing diagnostic and laboratory tests. The latter varies according to specialization, number of patients prescribed for, the prefecture and the month of the year (seasonality). This means that those insured with EOPYY who are in need of a doctor's visit or a prescription must either find a physician who has not reached his or her ceiling or they will have to pay OOP. A systematic HTA process is not yet in place and there is no systematic assessment of the effectiveness of the services included in the benefits package. To some extent the implementation of a singlepayer system has managed to combat fragmentation and limit waste and administrative costs of the system, to constrain expenditure growth and to allocate resources more rationally. However, the creation of EOPYY has not been adequately supported at the operational level, as it has remained understaffed and underfunded, leading to delays in paying providers.



The economic crisis – and total deregulation of the labour market via flexible industrial relations policies and redundancies dictated by the MoUs - increased unemployment in Greece and resulted, according to the National Social Insurance Registry (ATLAS), 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. Initially, a Health Voucher programme was launched in September 2013 and targeted people who had lost their coverage, allowing them to access primary care only, and only a set number of times over the duration of four months. The measure was abandoned as ineffective because of the very low uptake rates and the limited coverage that it offered. Additional measures came into force in 2014 that were aimed at allowing people who were not insured with any public or private fund to access primary care and inpatient services, as well as pharmaceutical care. However, prescribed medicines were still subject to the same reimbursement conditions and charges as for patients ensured by EOPYY, leaving in place cost-related obstacles to accessing drugs. Moreover, access to hospital services was subject to means-testing procedures that were overly bureaucratic, were implemented differently among providers and which many perceived to be stigmatizing. Therefore, new legislation came into effect in August 2016 that provided access to care for the uninsured and vulnerable, including those without health coverage, migrants who are legal residents in Greece, children, pregnant women and people with chronic conditions, irrespective of their insurance status. These groups are now all entitled to the same level of access as those insured by EOPYY, subject to having a social insurance number or a health care migrant card. Furthermore, persons and families whose real annual income, total taxable value of the real property, total deposits with all credit institutions in the country or abroad and the current value of shares, bonds, etc. do not exceed certain amounts are eligible to obtain medication free of charge. Undoubtedly this legislation is of key importance in improving equity and access to health care for vulnerable groups. Nevertheless, there remain some reservations regarding equity issues, given that the uninsured can only access services supplied by public facilities and not those provided by privatelycontracted providers (e.g. diagnostic imaging laboratories). In particular, problems are encountered in regions where public health care services are understaffed or where there is a shortage of imaging scanners in public facilities [1], [5], [9], [10].

2.4 Reforms in the provision of health services

In February 2014, a structural reform was undertaken to upgrade the provision of publicly funded primary care through improved co-ordination of the various providers. A legislation passed in 2014 aiming to develop a nationwide primary health care service (PEDY), consisting of health centres, social health insurance outpatient clinics and contracted health professionals. According to Law 4238/2014 all public primary health care facilities passed under the jurisdiction of the YPEs. Based on that reform these facilities were supposed to function 24 hours a day, seven days a week. In addition, the law introduced a referral system based on general practitioners (GPs). However, the staffing of PEDY units remained oriented towards specialized doctors and a gate-keeping system didn't come into effect. In general the implementation of the reform was quite slow due to human and economic restrains and a rather fiscal-driven managerial approach [1], [5]. As a result, a new primary health care reform was introduced in August 2017. Under the new legislation, primary care is free of charge, and it operates on a 12 hour a day basis in areas where there is adequate hospital coverage and on a 24 hour a day basis where such hospital services are lacking. Primary health care services are provided at the first level by local health units (TOMYs) and by health professionals who have private practices and contract with EOPYY. At the second level, primary health care services are provided by health centres. In addition, central diagnostic laboratories will be established in each YPE providing laboratory tests and imaging diagnostic services to the population. Specialized care centres should also be established in eachYPE to provide specialized care, special education, physiotherapy and rehabilitation services. TOMYs operate as family medicine units and they are staffed by health teams consisting of GPs, internal medicine specialists, paediatricians, nurses, community nurses, social workers and administrative staff. As the second tier of the new system, the purpose of health centres is to provide specialized ambulatory care for all patients who are referred by the local health units. Patient registration with a local health unit, gatekeeping mechanisms and a referral system form part of the new delivery framework. An e-health record is also expected to be developed. Systematic monitoring to ensure quality and improve outcomes is expected to be achieved through the introduction of clinical protocols, clinical audit and electronic clinical information systems [1], [5].

The public hospital sector has been targeted as part of major restructuring efforts under the country's EAP. In July 2011 the government announced a plan to cut the current number of public hospital beds and reduce the number of clinics and specialist units. Public hospital management boards were replaced by a total of 83 councils responsible for the administration of all hospitals. The total number of beds in ESY hospitals decreased from 38,115 in 2009 to 29,550 in 2016. The number of medical departments and units declined by 600 and 15,000 hospital personnel were cut. Furthermore, 500 public hospital beds were set aside for priority use by private insurance companies for their clients. Additionally, changes were to be made to the use of eight small hospitals, which were supposed to be turned into urban health centres, support and palliative care units and hospitals for shortterm hospitalization and rehabilitation. However, so far, progress in implementing the restructuring of these 8 hospitals has been limited [11], [12].

In relation to pharmaceuticals, there is a positive list of reimbursed medicines with an average price based on the Anatomical Therapeutic Chemical Classification System plus a negative list of non-reimbursed medicines, introduced in 2011 and 2012, respectively. An overthe-counter drug list was also introduced in 2012, which contained many medicines that until then had been reimbursed (e.g. some pain relief medication) but now required purchasing OOP. Finally, very expensive drugs are provided only through EOPYY and public hospital pharmacies. Apart from the establishment of positive and negative lists for reimbursement purposes and the introduction of reference pricing (which has resulted in price reductions for some medicines), an e-prescription system for doctors became compulsory in 2012, enabling monitoring of their prescribing behaviour as well as the dispensing patterns of pharmacists. At the same time, prescription guidelines following international standards were issued in 2012, and prescribing budgets for individual physicians have been set since 2014. The use of generic drugs has been promoted by a number of measures: physicians are required to prescribe drugs by the international nonproprietary name, allowing the use of brand names only in specific circumstances; there is a policy that 50% of medicines prescribed/used in public hospitals should be generics; and there is a policy of mandatory generic substitution in pharmacies [1], [9].

Concerning dental care, theoretically, the EOPYY scheme for publicly provided dental services should have begun in January 2014. This scheme required EOPYY to define what dental services would be covered and their reimbursement rates, as well as entering into contracts with a range of dental services providers. Insured people were to be eligible to receive treatment and compensation for both preventive and clinical treatment, plus prosthetics, with the freedom to choose a dentist from the network of contracted providers. However, because of budgetary constraints and cuts in public health expenditure, this scheme has yet to start [13]. This represents a deterioration of dental health insured provision as, prior to the establishment of the EOPYY, those insured under individual health funds had access to salaried and/or contracted dentists, albeit for a limited range of services. In practice, EOPYY members who are unable to pay OOP for private dental services can visit ESY units. Dentists working in public hospitals provide mainly secondary dental treatment for patients with medically complex conditions. Dentists working in health centres provide dental treatment for children up to 18 years of age, and emergency treatment for all ages. Data show a decreased number of dentists working in the public sector, because of the economic crisis, the merging of hospitals and the large-scale retirement of dental professionals in hospitals and health centres. Therefore, in addition to the limited range of dental services provided, there is also understaffing of public hospitals and health centres [13].

3. The performance of the health care system under the adjustment programme

3.1 Health care system impact on population health

Assessing the effects of the health care system reforms introduced in Greece in the context of the economic crisis on the health status of the population is a difficult task. This is largely due to the fact that it is difficult to estimate whether (and to what extent) an observed health effect is attributable to structural and procedural changes in the health system per se or to changes in the social determinants of health brought about by the economic crisis. Furthermore, the impact of any given change on health takes time to become apparent. Finally,





Figure 3 - Healthy life years in absolute value at birth, women and men, Greece and EU28 Source: Eurostat [14]



Figure 4 - Self-perceived health (% of the population) in Greece, 2010-2016 Source: Eurostat [15]

in Greece there is still a lack of timely and relevant data. Considering these restrictions, the following section shows the trends of some health indicators after 2010 and presents a summary of targeted studies concerning self-reported health, mental health, suicides, infectious diseases, infant health and cardiovascular diseases.

From 2010 to 2016, healthy life expectancy in Greece decreased by 2.3 years for men and by 3 years for women (Figure 3). In contrast, the average healthy life expectancy in the EU28 increased by 1.7 years for men and by 1.6 years for women.

Data also show changes in the self-perceived health of the

Greek population (Figure 4). Although the percentage of those declaring very bad, bad or fair health status is almost stable, there is a decrease in those perceiving their health as very good by 5.1 percentage points.

The infant mortality rate in Greece was on the decline for decades and was constantly below the EU-28 average. However, this trend was reversed after 2014 and in 2016 infant mortality reached 4.2 per 1000 live births, 0.6 percentage points above the EU28 average (Figure 5).

Preventable mortality, that is deaths which could have been avoided by health care of good quality and



Figure 5 - Infant mortality per 1000 live births, Greece and EU28, 2010-2016 Source: Eurostat [16]



Figure 6 - Preventable deaths, Greece and EU28, 2011-2015 Source: Eurostat [19]

public health interventions focusing on wider determinants of public health, such as behaviour and lifestyle factors, socioeconomic status and environmental factors, also increased slightly between 2011 and 2015 but remain below the EU28 average (Figure 6). Concerns have been raised regarding deteriorating standards of medical care because of the severe cuts, and the impact this could have on population health. A recent study has shown that amenable mortality in Greece experienced a small but significant increase in the years after the economic crisis [17]. Another major study found a significant increase in mortality from adverse events during medical treatment and estimated that there was an increase of more than 200 deaths per month after the onset of the crisis [18].

All-cause mortality decreased in the period 2010-2014, but increased again in 2015 (Figure 7). Diseases of the circulatory system, which remain the leading cause of death in Greece (accounting for 37.1% of all deaths) decreased by 19.9% between 2010 and 2015. In contrast, the other two main causes of death in the Greek population, i.e. neoplasms and diseases of the respiratory system (accounting for 26.1% and 11.5% of all deaths, respectively) showed an upward trend in the same period. It is also worth mentioning two other substantial increases in cause-specific mortality: deaths from infec-





Figure 7 - Deaths per 100 000 population (standardized rates) in Greece, 2010-2015 Source: OECD [20]



Figure 8 - Deaths from accidents and suicides per 100 000 population (standardized rates) Source: OECD [20]

tious and parasitic diseases as well as from mental and behavioural disorders.

Although the suicide mortality rate in Greece is among the lowest in the EU28, an increasing trend was observed for the period 2010-2014, with a slight decrease in 2015 (Figure 8). The opposite trend was recorded for motor vehicle accidents, for which а decrease during the period 2010-2014 was followed by an increase in 2015.

Recent insights on Greece from the Global Burden of Disease Study exploring the 2000-2016 period show that, many of the causes of death that increased in the period following the onset of the crisis are potentially responsive to care (e.g. HIV, neoplasms, cirrhosis, neurological disorders, chronic kidney disease, and most types of cardiovascular disease) [21]. Substantial changes in health loss indicators since 2010 support the interpretation that austerity measures compounded the country's pre-existing health burden. The study highlights that "steep quantitative changes in mortality trends and qualitative changes in mortality causes with a rise in communicable, maternal, and nutritional neonatal, diseases since 2010 suggest that an effect of the abruptly reduced government health expenditure on population health is likely".

3.2 Access and financial protection

Greece's health care system has been characterized in the past as inequitable in terms of access and coverage [2], [3]. It is now clear that the economic crisis has exacerbated existing problems. One study found serious gaps in the availability, accessibility and acceptability of existing services [8]. Across-the-board health budget cuts, and increased user charges led to a marked increase in the economic burden on patients. This was coupled with unemployment-related loss of coverage, affecting approximately 2.5 million people or a quarter of the population, and reduced household incomes due to cuts in salaries and pensions and increases in taxation. It is indicative that between 2007 and 2016 Greece recorded the largest tax-to-GDP ratio (7.4 percentage points) among the OECD countries, in an effort to meet the requirements under its bailout agreement [22]. As a result, there was a substantial rise in unmet need for medical examination in the period 2010-2016 (Figure 9). The latest data from EU-SILC indicate a decrease in unmet need in Greece of 3.1 percentage points between 2016 and 2017, possibly attributable to introduced measures for the coverage of the uninsured described in section 2.3, above.

As it was mentioned in Section 2.2, above, OOP share of total spending on health in Greece is high and as a consequence financial hardship is increased. According to the results of a study on financial pro-



Figure 9 - Unmet needs due to cost, distance or waiting time 2010-2016 Source: Eurostat [23]

tection in Europe conducted by the WHO Barcelona Office for Health Systems Strengthening, the incidence of catastrophic spending on health grew markedly during the crisis [24]. In 2010, 7.2% of households experienced catastrophic out-of-pocket payments, but by 2015 this had risen to 10.5% of households, falling to 9.7% in 2016. They are heavily concentrated among the poorest consumption quintile. In 2016, nearly a third of Greek households in the poorest quintile experienced catastrophic spending on health; these poor households spent 1 in every 7 euros on health care. Medicines play an important and growing role in driving catastrophic spending. In 2016, 44% of out-of-pocket payments among households who experienced catastrophic health spending were for medicines. Spending on inpatient care was also an important driver, but to a lesser extent. Inpatient care is the main driver of catastrophic spending among the richest quintile, while medicines are the main driver among the poorer quintiles. Similar conclusions come from another study, finding an increasing share of OOP for health in households' budget between 2008-2015, driven by significant increases in medical products (20.2%) and inpatient care (63%) [25]. The catastrophic and impoverishing impact of OOP appears to have been aggravated during the economic crisis, induced by the simultaneous effect of households' diminishing capacity to pay and the increased OOP burden, which ensued from the implemented reforms as part of the EAP. Myopic budget cuts and cost-shifting rather

> than focusing on health system's efficiency and effectiveness worsened barriers to health care access and, presumably, morbidity in the Greek population.

More than 25% of OOP health expenditure in Greece concerns informal, under-the-table or side payments, constituting a black or hidden economy inside the health system and raising serious concerns about access barriers to health care services. One of the main reasons for their scale and existence is the lack of a rational pricing and remuneration policy within the health care system. Surveys have shown that almost one in



three respondents who consumed health services over the past 12 months reported making at least one informal payment; these were mainly for the provision of hospital services or payments to physicians, primarily surgeons, so that patients can bypass waiting lists or ensure better quality of service and more attention from doctors [26]. Additionally, new types of informal payments have emerged recently, as patients seeking treatment have to pay an additional fee under the table to EOPYY contracted doctors, ranging from €10 to €20 for a service that is supposed to be free of user charges. This is the result of the low per visit remuneration of $\notin 10$, but mainly of ceilings imposed in 2014 on the activities of doctors contracted with EOPYY, including monthly patient visits, monthly amount prescribed pharmaceuticals and monthly amount diagnostic and laboratory tests prescriptions. Patients, with the aim to avoid referring to several doctors in order to find one who has not reached his/her visits and prescription limits, are forced to informal payments [1], [5], [8].

Patients with chronic illnesses have been particularly vulnerable as they are adversely affected by a lack of adherence to prescribed medication, reduced access to diagnostic services, poor monitoring of complications and increased risks of catastrophic expenditure. Studies show that many patients with diabetes refuse more expensive treatments or decrease the frequency of taking prescribed medication [27], [28]. Among the 288 patients participating in a study conducted in Crete, the majority lowered the doses of several medications as they were unable to afford the cost; all patients using insulin had lowered their dosages; nearly half of patients with chronic obstructive pulmonary disease or asthma had stopped all medications, decreased dosages or used cheaper alternatives; only half of patients with dyslipidaemia took their medications as required; and a quarter of patients with cardiovascular disease stopped medication or skipped dosages [29], [30]. These findings are supported by surveys of health care personnel: physicians reported that almost a quarter of their patients with type two diabetes had to stop or modify their treatment plan, while a similar proportion switched to poorer diets during the previous year because of higher co-payments, loss of coverage and inability to access a doctor to obtain a prescription [31].

Patients with cancer are another group that have faced

serious problems in accessing appropriate medicines [32]. Patient organizations have reported delays and disruption with drug supplies. All expensive cancer medicines are, in theory, available through hospital and EOPYY pharmacies, but in practice public hospitals are indebted to pharmaceutical companies and these, in turn, have discontinued supplies. Patients can order medicines through their local pharmacy, paying cash that they may then reclaim from EOPYY. However, this is not a common choice as many cancer medicines are very expensive and EOPYY reimbursement can take many months. Previously, this issue was even more critical for patients with cancer who had no health insurance as, if they did not pay for their treatment the cost of medication provided through hospital pharmacies was recovered through their income tax liabilities. However, after the implementation of legislation which provided coverage to the uninsured in 2016 those barriers were removed. In addition, unequal distribution of oncological resources created two tiers of patients, based on their ability to pay for travel/accommodation [33].

The risk of catastrophic health expenditure among patients with chronic conditions has increased since the implementation of austerity measures. One survey indicates that the proportion of households with at least one person with a chronic disease and subject to catastrophic expenditure has more than doubled, from 3.2% in 2010 to 7.8% in 2013, with the key reasons being high OOP payments followed by the cost of medicines [34].

3.3 Health system efficiency

In the early 2000s, Greece suffered from serious inefficiencies in the hospital sector, such as low bed occupancy rates, long length of hospital stay, high number of readmissions and an unbalanced distribution of resources Since 2010, several response measures have been introduced or are being attempted, including mergers of hospitals, reducing the number of beds, clinics and specialist units; changes to the hospital payment system, with the introduction of DRGs; and reductions in the cost of hospital supplies such as pharmaceuticals, medical supplies, orthopaedic supplies and chemical reagents. However, available evidence shows that while public hospitals in Greece succeeded in reducing their budgets this was not consistent with demonstrating efficiency gains. Assessing the performance of 117 public hospitals during 2009–2011, Polyzos found that only around one fifth utilized resources in the best possible way, with technical efficiency increasing in small and medium hospitals and falling in large hospitals over the three-year period [35]. Another study examining the performance of 90 general public hospitals in 2010 and 2011 found that the number of efficient hospitals increased by 15-20%, although two models estimated contrasting results in terms of the change in average efficiency scores [36]. Expenditure was indeed reduced by approximately €680 million in 2011 compared with 2009, but mostly as a result of cuts to easily identified supplies such as pharmaceutical, orthopaedic or medical supplies, rather than through policies promoting better resource allocation, such as control of overheads and administrative services, rational distribution of human resources, medical audit and adherence to clinical guidelines. A third study examined public hospital mergers for potential efficiency gains and showed that, in addition to structural changes, there was still substantial room for efficiency improvement because of persisting technical inefficiencies within individual hospitals [37]. Despite the initial difficulties in implementation, the introduction of a DRG payment system put pressure on providers to reduce costs. However, several other factors impede the aim of rationalizing resources. These include the lack of performance measurement and hospital benchmarking in terms of clinical efficacy and patients' satisfaction; the lack of incentives to optimize the utilization of the available human and technical resources; and the failure to link quality of service to hospital budgets.

Inefficiencies are also observed within primary/ ambulatory care. Oikonomou et al., measured the efficiency of rural health centres and their regional surgeries in southern and western Greece, finding that 16 out of 42 facilities were efficient, while the mean technical efficiency level was under 60% [38]. The authors suggested that the health centres could theoretically produce 33% more output, on average, using their current production factors. Similarly, Mitropoulos et al. found inefficiencies in primary care centres attributed mainly to size, density and the mortality rate of the catchment population; the location of the health centre; and the number of competing health care facilities in the area (e.g. outpatients departments of hospitals or private clinics) [39]. Thanassoulis et al., in their attempt to identify benchmark cost-efficient GP units and to estimate potential cost savings, suggested that the largest efficiency gains (more than 80%) could be made through control and use of drugs, followed by appropriateness of referrals [40].

In this context, it is noteworthy that reductions in government health spending between 2010 and 2014 show that budget cuts (as a share of the total expenditure on health) have occurred across the board in both inpatient and outpatient care as well as pharmaceuticals. While focused on short-term goals of budget retrenchment, such strategies also affect the areas that need long-term investment (e.g. ambulatory care), particularly in such a hospital-centred health system as in Greece.

3.4 Assessment of the impact of the EAP on the health sector in Greece

The health policy responses to the crisis and their effects should be considered with four realities in mind [9]. First, the Greek health care system was not well prepared to cope with the challenges imposed by the economic crisis, given its multidimensional structural problems. These structural weaknesses created a health system that was vulnerable to economic fluctuations and unable to meet the increasing needs of the population. Secondly, implementing operational and structural reforms, designed to address the weaknesses in the health care system was urgently needed. Thirdly, and perhaps most importantly for understanding the effects of changes, the measures stipulated in Greece's EAP were by and large fiscal consolidation measures. Cost-containing policies implemented after 2010 in the Greek health system have generally taken the form of cuts across the board. Finally, when looking at individual reform initiatives it is important to remember that the Greek health care system has undergone a massive amount of changes in a very short period of time. As a consequence, reform steps that were a prerequisite for further changes had no time to mature before new efforts had to be initiated.

The reforms that have been taking place in the Greek health care system since 2010 and especially in the



period 2010-2015, have focused mainly on operational, financial and organizational dimensions. This might be considered reasonable as the reforms attempt to tackle serious long-term structural problems. However, this perspective ignored the citizen/ patient side of the equation in that the formulation of a patient-centred health system was out of the scope of the reform package. Furthermore, carrying out major changes coupled with extensive financial cuts has proved to be very challenging in terms of both the ability to conduct meaningful reforms and the consequences for service delivery. Overall, the content and the process of reforms have been mainly technocratic/managerial in nature, with insufficient consideration for the broader functioning of the health system and the health needs of the population.

Another important issue is that 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, partially because of the pressure exerted by the EAP to achieve immediate results in health expenditure cuts. Tellingly, after budget reductions were made, the shares of government spending by health care function (inpatient services, outpatient services, pharmaceuticals, etc.) remained largely unchanged with the exception of pharmaceuticals, indicating that cuts were made across the board in order to achieve targets rather than to increase efficiency in the long term. Even within the hospital sector, cuts to supplies with a significant therapeutic impact in health care (e.g. pharmaceuticals and orthopaedics) have not been accompanied by either containment of expenditure on overheads and other supportive services (which actually recorded an increase in most hospitals, e.g. more than 60% of public hospitals increased their expenditures for cleaning and 45% increased security expenditures) or efforts to rationalize the distribution of existing resources.

A third point to consider is that the side-effects of certain measures have not been taken into account adequately. Reform processes may trigger unintended consequences. Examples in Greece include worsening access to care and pharmaceuticals; increasing demands for informal payments due to cuts to the already low salaries of health professionals working in the public system, particularly doctors; migration of many young and well-qualified physicians and other health care professionals to other countries as a result of the worsening of reimbursement rates as well as working conditions.

In conclusion, the EAP directly affected the Greek health system [41]. First, austerity measures stipulated the reduction of public health expenditure with negative impacts on the volume and quality of services provided. Second, health insurance coverage and access to services were reduced via increases in user fees and co-payments, reductions in covered benefits and the imposition of ceilings in the use of services. Third, human resources for health have been affected via hiring freezes, salary cuts and brain drain. Fourth, the above mentioned impacts of EAP on the country's health system had negative followon effects on population health and unmet medical needs.

4. After the end of the acute crisis: Has health policy changed?

The majority of the reform measures introduced during the first wave of reforms (2010-2014) undermined the health system goals described in the typology adopted by WHO/EURO (health status, financial protection, efficiency, equity, quality, responsiveness, transparency and accountability) [42]. These included the reduction of the scope of essential services covered, the reduction of population coverage and increases in user charges for essential services (i.e. changes in all three dimensions of coverage), increases in waiting times for needed services, horizontal cuts in public health expenditure and attrition of health workers caused by cuts in salaries, reductions in the replacement levels of retiring staff and migration to foreign labour markets. On the other hand, introduced measures likely to promote health system goals were limited and, in many cases, not well planned and implemented. This category encompasses the establishment of the EOPYY as a single payer to strengthen risk pooling, the introduction of the DRG-KEN (Diagnosis Related Group-Greek Version) system for hospital payment and price reductions for pharmaceuticals combined with e-prescribing. Finally, a range of essential policy options were neglected, such as strategic purchasing combining contracts with accountability mechanisms, HTA transparently embedded in

decision-making processes, monitoring and transparency measures, public health measures to reduce the burden of disease, shifting from inpatient to daycase or ambulatory care, integration and coordination of primary care and secondary care, and of health and social care, the reduction of administrative costs while maintaining capacity to manage the health system and fiscal policies to expand the public revenue. In addition, the citizen-patient dimension as the basis for shaping a patient-centered health system appeared beyond the scope of the first wave reform package. Furthermore, the effects, intended or unintended, of the measures introduced were not monitored or adequately considered to further shape policy [1], [9].

After 2015, and the election of a new left-wing government, these neglected issues came to the forefront of the health policy agenda, building on increasing concerns about achieving universal health coverage (UHC) and reducing of barriers in access to health services [43]. The 2016 legislation providing free access to care for uninsured Greeks and immigrants and the abolishment of some kinds of cost-sharing, resulted in a slight decrease of OOP payments (Figure 2) and of self-reported unmet need for health care due to cost, distance or waiting time. The new PHC system introduced in 2017 embodies the fundamental principles of WHO and it is expected to result in better access to quality health care and a more rational and efficient use of existing services and recourses as a result of a decrease in the unnecessary hospital admittance through well-organized referral processes. A Committee for the Evaluation and Reimbursement of Medicinal Products for Human Use (Evaluation Committee) was established in 2018 as an early HTA mechanism, paving the way for the institutionalization of HTA. The legislation passed in 2017 strengthens the role of the patients and stipulates that social control should be carried out, inter alia, through surveys by which citizens evaluate the services they have received, and that the results of those surveys should be taken into account in the process of decision making on the provision of services, as part of the peoplecentered approach. The commitment to empowering the patient voice is also reflected in a 2016 legislation which foresees an Office for the Protection of Health Services Recipients' Rights to be established in every hospital. Furthermore, national evidence-based strategic plans are being prepared for addressing human resources for health (HRH) imbalances and the reorganization and development of public health services. Towards this direction, technical assistance provided by the World Health Organization (WHO) played a catalyst role², including, among other things, the conduct of assessments and making recommendations to address issues such as re-profiling the emergency medical services [44] or rationalizing distribution and utilization of high value capital medical equipment [45].

However, issues for further consideration remain, such as the structure of co-payments for pharmaceuticals and other health services, ceiling on doctors' treatment activities, the absence of real dental coverage and the excessive reliance on indirect taxes and high OOP payments, formal and informal, making the overall funding of the health sector regressive and inequitable. The substantial pressures on both components of public financing in the Greek system (SHI and state budget) create justified concerns over the mid- and long-term adequacy of funding in the health system. However, fruitful reform efforts and sustainable gains, for example in the context of UHC, require a sound financing base to materialize. Bringing public spending on health care up to at least 6% of GDP (compared to its current 5.2%) in the immediate future is a stated goal of the government. To ensure that this is achieved in a sustainable and predictable manner, both SHI and tax-based funds requires further focus on improving collection and pooling. There is a need to rethink and to promote a public debate on the health budget, which must be viewed not as a financial burden but as a developmental tool, with a focus on addressing not only economic dimensions but also the welfare of citizens. In relation to the health status of the population it is necessary to not only develop and implement health in all policies, surveillance and monitoring systems and disease registries but also to reach beyond the health system

^{2 -} In January 2016, an initiative entitled "Strengthening capacity for universal coverage" (SCUC) was launched, aiming to support Greece's mid-term reform priorities for the health sector. The initiative, which is a collaboration between the Greek Ministry of Health and the WHO's Regional Office for Europe and is funded by the European Union, has as a general objective to contribute to improving health and health equity in Greece, especially for the most vulnerable population groups, by helping the Greek authorities in their move towards universal coverage and in strengthening the effectiveness, efficiency and resilience of the Greek health system. The initiative focuses on three reform axes: a) enhancing universal access to quality care; b) improving financial sustainability of the health system. A "100 Actions" Plan was developed to guide reform efforts along those lines. A number of reform measures introduced in the past three years have taken knowledge generated by the SCUC initiative into account.



and strengthen research in order to better clarify the causal mechanisms connecting socioeconomic factors with mortality and morbidity of specific diseases [43].

5. Lessons to be learn

Greece serves as a potent example that top-down, bigbang approaches to reforming the health system may not be the optimal way forward. Although many of the reforms attempted since 2010 were necessary goals, in Greece's case, they were too much and too fast and in many cases towards the wrong direction, distorting the principle of equity. No estimates on social and health impact of the MoUs conditionalities were made, there was no preparedness towards the impact of the measures adopted on health and health system, and timely response to these effects was absent. Furthermore, there was no evaluation of calendar, sequencing and implementation of health policy measures. This situation of implementing the neoliberal "shock doctrine" under the strict reform targets and timetables imposed by the international creditors, risked health policy becoming an ideological warfare generated by EAP instead of evidence-based welfare responding to the needs of the population. The economic crisis, EAP implementation and the restrictions stemming from the overall rule of austerity in the EU have coincided with notable negative social effects, raising concerns in relation to the impact of austerity measures on social welfare and health, as well as on the economic and social rights of people living in poverty and social exclusion [46].

Prior to 2009, lack of political will and consistency led to delays in much-needed and important reforms. Once the implementation of changes began as part of the requirements of the EAP, the context was much more unfavourable in terms of lack of funding, time and other resources, as a consequence of the austerity measures, and this has adversely affected both process and outcomes. Managing change in the context of economic crisis requires a steady commitment to key health system goals, such as sustaining universal population coverage, a focus on population needs, a goal to improve the quality of care and a strategic reliance on evidenceinformed policymaking to find appropriate responses. It also requires the building of strong supportive coalitions with stakeholders. Given the medico-centric character of the ESY, there is a dominance of the medical profession across health care system reforms, being able to resist any change that might affect their dominant position [47], [48]. This is once again evident in the recent (2017) PHC reform. Although most stakeholders are supportive to this reform, the Pan-Hellenic Medical Association (PIS), argues that it may not be sustainable and if fully implemented, it will undermine the quality of the health care services provided and the medical profession.³ The question is to what extend the opposition expressed by PIS can raise barriers to the full implementation of the reform. The answer is related to the more general concern about forces in politics and society who actively promote a viable public health care system as part of a capable welfare state, considering the strict and binding fiscal coordination in the context of the EU economic governance (e.g. Two Pack, Six Pack, Fiscal Compact, MoUs etc).

It can be argued that in the pre-crisis period, EU's intrusiveness in shaping the Greek welfare state reforms was weak as it was based on "soft", voluntary policy mechanisms, such as the "Open Method of Coordination", with the aim to converge towards the so called "European Social Model", and the role of domestic stakeholders (Greek parliament, social partners, veto players etc) was high [51]. The situation changed during the postcrisis period and EU intrusiveness in shaping the Greek welfare reforms became very high, characterized by "hard" Europeanization mechanisms (e.g. MoUs), where compliance with the EU requirements is conditional upon receipt of the "Troika" loans. The new EU reform recipe imposed aim at fiscal austerity, internal devaluation and structural reforms, resulting to the retrenchment of the Greek welfare state. In this context, the role of the national stakeholders has been diminished, while national government became the main domestic player in policy reforms [52].

^{3 -} PIS has stated its opposition to the implementation of the referral system by the family doctor to specialized doctors and hospitals (gate keeping) and to the call of EEOPY for recruiting family doctors (GPs, Internists and Pediatricians), as it is considered to be degrading for the medical profession and risking the quality of the care provided to the target population. Additionally, several reservations have been reported by the local medical associations regarding the foreseen low wages and the job insecurity that the job description entails in the Local Health Units - TOMYs (funding is guaranteed under the ESPA Partnership Agreement 2014-2020 for 2 plus 2 years in total) leading to the attraction of relatively young and inexperienced GPs. Ultimately, concerns were expressed that the TOMYs may not attract the foreseen numbers of patients (and as a result demand will shift towards the contracted with EOPYY physicians) or the quality of the health care services provided may be undermined, PIS also expressed its opposition regarding the right of midwives to prescribe certain examinations and pharmaceuticals [49], [50].

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