# **Original Article**

# The Perspectives of Patients' Organisations on the Provisions of the Health Services Memorandum in Cyprus

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#### Abstract

**Background:** Due to the economic crisis of 2013, Cyprus was forced to sign with a team of debtors a Memorandum of Understanding (MoU) that included conditions referring to specific reforms of the health sector (among other conditions).

**Objective or Aims:** The purpose of this study was to investigate the perspectives of Cypriot Patient Organisations (CPOs) on these conditions and on their expected implications with regard to the Memorandum of Understanding (MoU) on Health Services.

**Methodology:** Fourteen identified CPOs were invited to participate in the study; of these, ten (71.4%) participated. A questionnaire including 20 structured and three semi-structured question was given to conduct a quantitative and qualitative analysis. The questions referred to the content of the MoU and the perspectives of the CPOs on its conditions and implications. Each structured question was marked on a scale from -10 (very negative) to +10 (very positive), and was followed by a quantitative analysis. The three semi-structured questions were followed by qualitative analysis.

**Results and Conclusions:** Most of the CPOs (60%) disagree with the MoU's content, with the majority believing that the MoU would adversely affect the quality of Health Services (80%), patients' levels of satisfaction (60%), citizens' health (80%) or the supply of medicines (70%), among other results. The study revealed that CPOs realise the present health care system needs to be restructured, but that they are concerned about negative effects on specific health care areas (access, quality of health care, supply of medicines). On the other hand, the CPOs acknowledge the possibility of positive effects (the implementation of a general health system, cost limitations, limitations on polypharmacy).

Keywords: Patients, health policy, economic crisis, Cyprus.

# Introduction

The Cyprus healthcare system, comprising private and public health services, is not a national health system or generalised health insurance scheme (GeSY) (Antoniadou, 2005). An unregulated system is subject to inefficiency and misallocation of resources. Cyprus is the only country in the European Union where out-of-pocket expenditure is higher than public health expenditure. According to Mercer's adjustments for 2012, private health expenditure was  $\in 687$  million and public health expenditure equated to  $\in 585$  million (Mercer Limited, 2013). The need for a national health system was proposed in the Memorandum of Understanding (MoU) issued by the "Troika" (Republic of Cyprus, 2013), in addition to fiscal

measures in areas relating to healthcare service delivery and expenditure.

# **Research questions and hypothesis**

The views and reactions of affected patients should be taken into account when examining the effect of the economic crisis on the healthcare systems of different countries and that of healthcare provisions. The perspectives of Cypriot patient organisations (CPOs) on the MoU proposals and their impact on health services in Cyprus were assessed in the current study. Such a study has not been undertaken to date, especially regarding patient views on the effects of government policies, and particularly fiscal measures, imposed as a result of the economic crisis. Thus, this article is unique.

# Background

Overpriced medicine in the public and private sector was identified as an area of utmost concern (Merkur and Mossialos, 2007). In response, Troika proposed the development of clinical guidelines, the implementation of a cost-effectiveness analysis and a co-payment of  $\notin 0.50$  per prescription to address overprescribing (Petrou, 2015), thereby making practitioners gatekeepers of the health system and limiting unwarranted patient access to specialists (Starfield, 1994).

The MoU proposal is that patient contributions are introduced for visits to the family doctor ( $\in$ 3), specialists ( $\in$ 6) and hospital emergency services ( $\in$ 10). A fee of 1.5% of the annual income of all employees in the public sector, except specific vulnerable groups, is also required to reduce the number of visits to doctors, and particularly to emergency departments, as patient misuse of these services has been demonstrated (Theodorou, 2014; Petrou, 2015).

A binding set of contingency measures, such as cuts in tariffs or limits to the volume of reimbursable products and medical services, were introduced to ensure budgetary control of public health expenditure to prevent physicians from performing excessive and unnecessary laboratory and diagnostic testing (Petrou, 2015).

New income thresholds for public healthcare beneficiaries, as opposed to the eligibility criteria used for social assistance, was proposed by the Troika. This measure led to 150000 people moving from the public to the private sector and consequently to out-of-pocket payments for health services. As a result, the total health budget for 2014 was reduced by approximately 20%, based on the assumption that the above measures regulated unnecessary healthcare delivery and costs (Petrou, 2014).

Troika suggested that health technology assessments should be established. Twenty clinical protocols for primary and secondary care were introduced and others are being processed. An economic evaluation of pharmaceuticals and other health technologies, performed by the Ministry of Health and the Health Insurance Organization, is currently underway in Cyprus (Republic of Cyprus, 2013; Kanavos and Wouters, 2014; Petrou, 2014). Furthermore, the information technology (IT) infrastructure necessary for the implementation of the GeSY requires completion, including the coding of inpatient cases by diagnosis-related groups, designed to replace the current outdated hospital payment system.

One of the most important reforms imposed by the MoU was the mandatory implementation of the GeSY by 2015, to ensure the financial sustainability of the overall healthcare system and to provide universal coverage to all citizens based on equality and solidarity. However, this has not yet been achieved owing to serious political disagreements about the legal autonomy of hospitals and the occupational status of health professionals.

# Implications of the economic crisis on health and health services

Many European countries introduced various measures to strengthen the sustainability of the funding of their healthcare systems and the efficiency of public healthcare provision, both directly before and in the aftermath of the economic crisis of 2007–2008. During the crisis, significant threats and opportunities were created for the healthcare systems of different countries (Karanikolos, Mladovsky and Cylus, 2013).

Greece, Spain and Portugal adopted strict fiscal austerity, leading to the sustained faltering of their economies and accompanying pressure on their healthcare systems. Suicides and infectious disease outbreaks are becoming common in these countries and budget cuts have caused limited access to health care (Kentikelenis, Karanikolos, Reeves, 2014). In contrast, Iceland rejected austerity through a popular vote and the financial crisis seems to have had little or no visible effect on health (Olafsdottir, Allotey, Reidpath, 2013). The interaction between fiscal austerity, the economic crisis and weak social protection has escalated health problems in Europe.

Political decisions as to how to respond to the crisis have a significant impact on public health (Stuckler et al, 2011). Mladovsky, Srivastava and Cylus (2012) analysed how different European countries responded to the financial crisis. Some protected (Belgium and Denmark) or froze (United Kingdom) their health budgets, and reduced budgets in other sectors. Others (Austria, Latvia, Poland and Slovenia) strengthened their position in price negotiations with pharmaceutical companies. The restructuring of hospitals was accelerated in Denmark, Greece, Latvia, Portugal and Slovenia. Cyprus, Greece, Ireland, Lithuania, Portugal and Romania reduced and England and Slovenia froze the salaries of health professionals, while Denmark minimised increases. Certain services were removed from benefit packages in the Netherlands, while those for low-income groups were expanded in Moldova. Others reduced the extent of health service coverage by introducing or increasing user charges (Mladovsky, Srivastava and Cylus, 2012).

The prolonged recession and health spending cuts in many countries in Europe is likely to impact on the health and economic welfare of these populations. Already, the prevalence of mental disorders has increased in Greece and Spain, selfreported general health has deteriorated and access to health services has declined (Gili et al., 2013; Kentikelenis et al., 2011). Since 2007, an increase in the number of suicides in people aged  $\leq 65$  years has been observed in the European Union (EU), reversing the steady decline previously noted in many countries (Stuckler et al., 2009; Stuckler et al., 2011). It was demonstrated that unmet essential needs have increased in numerous countries owing to limited access to health services (Rodrigues et al., 2013). Greece, Portugal, Ireland and Cyprus should receive special consideration as they were obliged to comply with the MoU provisions.

#### Methodology

Cypriot patient organisations were chosen as the sample as they are the first to encounter challenges experienced by their member patients. The sample was widened to include as many patient associations as possible to achieve a strongly representative sample. Fourteen patient associations were traced through their membership the Cyprus Federation of Patients' with Organisations. Of the 14 associations, 10 (71%) agreed to participate in this study through an appointed representative. The participating Cypriot patient organisations were the Cyprus Anti-cancer Association; ZOE, the Cyprus Anti-Leukemia Association; Cyprus Antirheumatic Association; Cyprus Multiple Sclerosis Association, Cyprus Diabetic Association; Cyprus Heart Association; Pancyprian Thalassaemia Association; HIV/AIDS Support Centre; Cyprus Myasthenia Gravis Association and Cyprus Parkinson's Disease Association. The sample was selected by the researcher based on the ability of the participants to provide suitable and adequate information about the phenomenon under investigation.

At the first of two meetings, the study objective was explained, and issues of discretion and the protection of personal data were discussed. The relevant study permits (Ministry of Health, National Bioethics Committee and Commissioner of Personal Data Protection) were presented. A pilot questionnaire test was conducted to establish the effectiveness of the tool in four of the 10 Cypriot patient organisations. It was determined that the questionnaire design and content did not require alteration.

The questionnaire was distributed at the second meeting. Interviewees were afforded the opportunity to include additional questions and express concerns about items not covered. This research instrument was chosen to allow both quantitative and qualitative analysis, and comprised a fully structured and a semi-structured questionnaire. The first part, comprising 20 structured questions, covered various aspects of the MoU, such as knowledge of its content and to what degree it could address inadequacies in the health sector. The extent to which the MoU might affect the implementation of the GeSY, public health expenditure and its redistribution, the level of cooperation between the public and private sectors, the state of citizen health, the present health system, the supply of medicine, the co-payment policy, the adequacy of the hospital staff, the quality of the health services, patient satisfaction, doctor errors in diagnosis, transparency, the modernisation and automation of hospitals and the long waiting lists for treatment were also covered. The questions also sought to determine whether the MoU proposals were just and patient centered.

The second part of the questionnaire consisted of three semi-structured questions (control questions) to verify the validity of the questions in the first section. The negative and positive aspects of the were categorised as opportunities, MoU weaknesses, threats and strengths. Interviewees were asked to state which health indicators were most likely to be positively or negatively affected. The data from the first 20 structured questionnaire questions were quantitatively analysed and the results were based on scores ranging from -10 to 10. The data for the three semi-structured control questions were analysed qualitatively.

#### Results

The total scores for each Cypriot patient organisation and those for each separate question are depicted in Table 1. The total score of each Cypriot patient organisation was a reflection of the positive or negative perspectives of the MoU on health and the associated consequences. The maximum positive score (of 10 being given to all items) was 200; the lowest possible negative score (of -10 being given to all questions, except the first) was -190. A total score of 132 (for CPO1) was the highest positive score obtained, and the lowest negative scores of -92 and -114, respectively, were attributed to Cypriot patient organisations 9 and 10 (Table 1).

Some questions received relatively lower (negative) scores than the others. These questions were:

• Q5: To what extent do you think the MoU has a human-centered focus?

• Q11: To what extent do you think the MoU is fair?

• Q12: To what extent do you think the MoU will affect public health?

• Q14: To what extent do you think the MoU will influence the supply of medicines?

• Q15: To what extent do you think the MoU will influence the adequate staffing of hospital units?

Relatively high (positive) scores were attributed to:

• Q4: To what extent do you think the MoU will accelerate the implementation of the GeSY?

• Q6: To what extent do you think the MoU will reduce public health expenditure?

• Q17: To what extent do you think the MoU will influence reformation of the healthcare system?

The majority of CPOs demonstrated knowledge of the MoU health proposals (a total score of 63). A negative score was given by six of the 10 associations with respect to whether or not they agreed with the MoU proposals (a total score of 4 was received for whether or not the MoU could address inadequacies in the health sector). A score of 53 was recorded for whether the MoU proposals would accelerate the implementation of the GeSY. Six of the 10 interviewees (60%) negatively scored the question as to whether or not the MoU suggestions were patient centered; with the lowest possible score of -10 being given by four associations. A relatively good mark (of 44) was given for whether public health expenditure would be reduced. It was also thought that public revenue would be redistributed in a rational manner (12 marks). The scoring was more positive (33) with respect to the reorganisation of public hospitals. Conversely, Cypriot patient organisations did not believe that long queues would be avoided (a total score of -5). However, the general view was that the public and private health sectors would cooperate (a total score of 19).

Seven out of the 10 interviewees (70%) stated that the MoU proposals were unfair. Five of these gave the maximum negative score for this question (a total sum of 44). The Cypriot patient organisations believed that the health of the citizens would be adversely affected, giving a total score of -50 (equating to 50% of the highest achievable negative score), while slightly positive scores were obtained for the positive impact of the proposals on the present health system (a total score of 2).

CPOs/Qs	Q1	Q2	Q3	Q 4	Q5	Q6	Q7	Q 8	Q9	Q 10	Q 11	Q 12	Q 1 3	Q 14	Q 15	Q 16	Q 17	Q 18	Q 19	Q 20	TOTAL SUM SCORE
CPO1	5	7	8	8	9	6	8	9	5	7	8	5	6	5	5	5	7	7	5	7	132
CPO2	5	-3	-3	5	4	-3	5	5	4	5	4	-4	4	4	4	-4	5	4	5	5	51
CPO3	8	3	4	7	1	5	5	7	2	3	-5	-3	3	-5	-3	0	5	0	0	0	37
CPO4	5	9	3	7	-8	6	5	6	6	6	-8	-8	0	-8	-8	-2	5	-5	5	0	16
CPO5	8	-10	5	5	-10	5	-5	5	0	0	-10	0	5	0	-5	0	5	0	5	5	8
CPO6	5	-7	1	4	-2	3	5	5	0	2	7	-8	-2	-9	-9	-8	5	-7	2	8	-5
CPO7	8	7	8	0	-10	8	0	5	-10	3	-10	-8	7	-9	-7	-7	7	-8	0	0	-16
CPO8	5	-10	-10	5	-5	5	5	5	8	6	-10	-5	-6	-10	-10	-5	6	-4	7	7	-16
CPO9	5	-5	-5	7	-10	9	-8	-9	-10	-8	-10	-9	-9	-10	-10	-9	8	-10	-5	6	-92
CPO10	9	-5	-7	5	-10	0	-8	-5	-10	-5	-10	- 10	-6	-10	-10	-5	3	-10	- 10	-10	-114
TOTAL SUM SCORE	63	-14	4	53	-41	44	12	33	-5	19	-44	- 50	2	-52	-53	-35	56	-33	14	28	1

# **Table 1:** Scores of each Cypriot Patient Organisation

 Table 2 SWOT Analysis

Strengths	Weaknesses
Computerisation	New and innovative medicine
Reorganisation	No consideration of low income groups
Better Control	Inability to hire additional staff
Modernisation	Need to have more effective criteria for the
Protocols and procedures	beneficiaries
Better Management	Inability to avoid long queues
Abolition of special privileges to Public	Inability to apply protocols for competence,
Servants and Turkish Cypriots	quality and security
Better work conditions	Inability to perform reliable checks
Fees	Repeated postponement of introducing
Quality improvement	GeSY
Frequent evaluations	Lack of Development Policy
Transparency	Absence of multidisciplinary groups

Opportunities	Threats
Time frames	Budget cuts
Work hours—overtime	Beneficiaries criteria –
Governmental commitment	Co-payments
Controls of expenditure	Medicine out of stock
External pressure	Staff reductions
Transparency	NHS continuously postponed
	Family doctors (GPs)

# **Table 3 Health Indicators**

To be affected positively	To be affected negatively						
Expenditure	Expenditure						
Transparency	Morbidity						
Statistical data	Timely diagnosis						
Polypharmacy	HIV/AIDS						
Organisation	Sexual infections						
Effectiveness	Kidney diseases						
Efficiency	Mortality						
Equality	Cancer						
Medical errors	Expensive medicine						
Long queues	Doctors/nurses						
	Long queues						
	Access						
	Unemployment						
	Healthy food						

With respect to the projected impact of the MoU proposals on specific aspects relating to the standard of (and access to) care, it was estimated that medicine supply challenges would increase (a score of -52, one of the lowest scores). It was thought that hospital staffing and the quality of health services overall would be adversely impacted (respective scores of -53 and -35), that reformation would advance (56) and that patient satisfaction with health services would deteriorate (-33). Positive scores were also given for a

reduction in medical errors (14) and the promotion of transparency (28).

In total, there were 32 high positive scores (a score of 6 to 10), 51 high negative scores (-6 to -10), 73 low positive scores (1 to 5), 26 low negative scores (-1 to -5) and 18 zero scores. Two of the 10 Cypriot patient organisations held a marginally negative view, three of the 10 held a negative view (slightly surpassing 50% with respect to the total sum of the negative scores), one in 10 Cypriot patient organisations held a positive view (slightly higher than 50% as a proportion of the high positive marks provided).

Cypriot patient organisations were asked to provide a deeper in-depth analysis of the MoU proposals and to identify negative and positive aspects as opportunities, strengths, threats and weaknesses.

The OCPs highlighted a number of strengths in the MoU's provisions, such as advances in computerisation, the reorganisation and modernisation of public hospitals, the introduction of protocols and procedures, and frequent evaluations.

Identified opportunities were greater adherence to medical timeframes, enhanced control over costs and expenditure, the application of external pressure to better guarantee government commitment to the implementation of the GeSY, greater transparency, an improvement in quality, the proposed implementation of a national health system and associated protocols, and equal access to health care.

Weaknesses were identified as the absence of new and innovative medicines in the list of prescribed medications in public hospitals, the absence of consideration given to low-income citizens, the moratorium in sourcing additional staff and the potential for long queues of patients requiring treatment.

Identified threats were a reduction in the budget, the criteria for eligibility for a medical card, the copayments required from patients, staff reductions, out-of-stock pharmaceutical preparations, continuous delays and postponements in the implementation of the GeSY (Table 2).

The objective of the second question was to gauge whether or not Cypriot patient organisations had specific concerns about the potential consequences that the MoU proposals would have on health and to identify potentially negative health indicators in this regard. Similarly, question 3 was designed to evaluate what were perceived to be positive consequences, and accordingly, the identification of potentially positive health indictors.

Cypriot patient organisations had a very good perception of underlying threats to health as a result of the MoU proposals, and by extension, those created by the economic crisis (Table 3). Potentially negative health indicators were reported to be depression, infectious diseases, chronic diseases and morbidity, difficulties in ensuring a timely diagnosis, higher mortality and challenges accessing health care. Potentially positive health indicators were transparency, the enhanced ability to collect statistical data on health, a reduction in poly-pharmacy, and improved organisation, efficiency and effectiveness.

# Discussion

The impact of changes to the healthcare system in Cyprus, dictated by the MoU and spurred by the economic crisis of 2007-2009, was not perceived to be unilaterally positive or negative by the Cypriot patient organisations. Overall, the clinical guidelines were positively received by 89% of doctors. The inclusion of physicians in the process was critical to its success (Ministry of Health, 2013; Health Insurance Organisation, 2014; Petrou and Vandoros, 2015). User charges were effected in accordance with the purchasing power of Cypriot citizens. (Petrou, 2014). Various multidisciplinary groups were formed to ensure the implementation of access to health care. The recommendation of such groups was that resources were required to establish clinical protocols and that adherence thereto might be difficult in a small country, such as Cyprus (Petrou, 2014).

Manifestations of the economic crisis included a sudden and significant drop in household income, leading to the impoverishment of 27% of the population (at risk of poverty or social exclusion) (Eurostat, 2015). This led to the shift of numerous patients to public hospitals, a trend that was confirmed by the 30% increase in the number of patients attending such hospitals (*Business Magazine,* 2013). Unfortunately, the size of the hospitals did not correspondingly increase to accommodate the extra demand (Cylus et al., 2013).

Despite being proposed some time ago, the newly imposed MoU obliges the government to move forward with the development of the GeSY, a long-standing issue, the implementation of which has been delayed by objections by various parties, including doctors and private insurers. There were wide variations in the views expressed by the various Cypriot patient organisations in the current study, indicative of the extent to which their members were affected by the MoU proposals. The need to restructure the present healthcare system and to implement reforms was understood. However, there was considerable disagreement over a number of MoU proposals which were viewed as having the potential to adversely affect patient health.

Generally, positive, albeit very low, scores were given to the MoU-mandated changes. It was clear that the contents of the MoU were understood and the Cypriot patient organisations were able to clearly articulate the positive and negative aspects of the MoU proposals, its advantages and weaknesses, and anticipated consequences on health and the health system.

It was acknowledged that the one of the MoU's targets was the restructuring and modernisation of public hospitals, which, if achieved, would promote the autonomy of health service operations. However, the understanding by the Cypriot patient organisations was that the primary MoU target was to reduce the operational costs of health services, with the potentially negative consequences of overcrowding in hospitals, a shortage of medicine supplies, the need to procure extra staff, and a reduction in the family health budget, the quality of healthcare services and patient satisfaction levels (Rodrigues, Zólyomi and Kalavrezou, 2013), all of which impacted on the health of the population. The expression of similar concerns, on behalf of patients, has been well documented in several recent studies, including those by Petrou (2015) and Theodorou (2014).

It was established in the study by Theodorou (2014), performed in Cyprus, that patients believed that co-payments mostly affected low-income earners and those with poor health. The suggestion was that access to health care should not relate to the ability of patients to pay, but rather to their health needs.

Despite the aforementioned challenges, as a result of the MoU proposals and government's declaration of commitment, the Cypriot patient organisations were hopeful that the GeSY would eventually be implemented, and that medical errors would be limited and transparency promoted in the new system.

Their concerns were reasonable and genuine, and reflect similar ones about the impact of potentially austere policies on the health of selected EU citizens, and especially those in countries governed by the Troika (Karanikolos, Mladovsky and Cylus, 2013; European Public Health Alliance, 2016). Fortunately, European civil societies, including professional bodies, have acknowledged the negative effect of the cuts in health and social spending on health (European Public Health Alliance, 2016).

Government should resist pressure to further increase co-payments for the use of public health services to prevent excessive access thereto because the risks outweigh the benefits, so that a disproportionate amount of the burden is borne by those with a lower income or greater health care needs.

Clear steps are required to ensure equality of patient access to the healthcare system in Cyprus.

Thus, key recommendations are:

• The government should ensure access by vulnerable groups to health care through exemptions, set a ceiling for co-payments and introduce variable co-payments proportional to patient income.

• The use of generic medicine should be promoted through the regulation of the lowest prices in comparison with those of branded products (WHO, 2013).

• The prices of medicinal products should be updated frequently and the remuneration of pharmacists should be reassessed according to the new financial perspective.

• Any savings should be transferred to ensure the rapid uptake of innovative products.

• Over-the-counter dispensation should be reviewed (Kanavos and Wouters, 2014).

The impact of the economic crisis may persist, so the government should meet patients' clear needs rather than expressed requirements, especially considering the reduction in public spending. In this sense, health reforms should continue, even after economic recovery. The government should make an effort to increase transparency and accountability, while eliminating excessive politicisation in healthcare management (Petrou, 2014; Karanikolos, Mladovsky and Cylus, 2013). Health risks are evolving at an unpredictable rate during the economic crisis (and are likely to continue in its aftermath), while the corresponding decline in income makes it especially difficult for patients to source financing to obtain adequate health care.

From an economic standpoint, the need for health care competes with other financial obligations. Therefore, it is imperative that timely monitoring and analysis of health indicators is performed since the impact of the crisis on health has not yet fully unfolded.

To this end, it is vital that the establishment of the GeSY occurs as soon as possible. The size of the reform partly explains the delay, which was further exacerbated by the debate over a single versus a multipayer system. A multipayer health system promote competition but may not be feasible in a small country owing to the smaller financial scale and lack of expertise with respect to the balancing of risk. Such a system could aggravate current inequalities in healthcare access (Reeves et al., 2014). Ambivalence should not distort the overall objective of the provision of universal health coverage to all citizens, based on equality and solidarity.

Nevertheless, after almost three years, the measures imposed by the MoU on health have been adopted by the health policy-makers of Cyprus. However, most of the measures that were positively evaluated by patients have not been adopted or are pending. It is questionable whether those responsible for health policy have the political will to take into account the viewpoints of Cypriot patient organisations, and particularly the recommendation to reform the healthcare system through the implementation of GeSY.

Finally, it is likely that the MoU has been mismanaged and that some proposals have been selectively progressed with the sole aim of reducing health costs, without actually seeking to reform the Cyprus health system.

# Conclusion

The perspectives of Cypriot patient organisations on the provisions of the MoU and their impact on health services in Cyprus were assessed in the current study. The impact of changes to the healthcare system in Cyprus, dictated by the MoU and spurred by the economic crisis of 2007–2009, was not perceived to be unilaterally positive or negative.

Overall, the clinical guidelines were positively received by 89% of doctors. Several threats were identified, the keys ones being a reduction in the budget, the criteria for eligibility for a medical card, the co-payments required from patients, staff reductions, out-of-stock pharmaceutical preparations, continuous delays and postponements in the implementation of the GeSY. Despite these, the Cypriot patient organisations were hopeful that the GeSY would eventually be implemented.

# Declarations

# Ethics approval and consent to participate

All relevant permits for the study from Ministry of Health (MoH), National Bioethics Committee and Commissioner of Personal Data Protection, were obtained.

# Availability of data and materials

The datasets generated and/or analysed during the current study are not publicly available due to personal data protection law.

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# References

- Antoniadou M. (2005), Can Cyprus overcome its health-care challenges? Lancet 365: 1017-20.
- Cylus J, Papanicolas I, Constantinou E, Theodorou M. (2013), Moving forward: Lessons for Cyprus as its implements its health insurance scheme. Health Policy 100: 1-5.
- Eurostat. (2015), People at risk of poverty or social exclusion by age and sex. [online] Available at: http://ec.europa.eu/eurostat/statisticsexplained/index. php/People\_at\_risk\_of\_poverty\_or\_social\_exclusion [21 November 2016, date last accessed].
- European Public Health Alliance (2016), healthyeconomic-policy/ [online] Available at https://epha.org/healthy-economic-policy/ [25 November 2016, date last accessed].

- Gili M, Roca M, Basu S, McKee M, Stuckler D. (2013), The mental health risks of economic crisis in Spain: evidence from primary care centers, 2006 and 2010. Eur J Public Health 23(1): 103-8.
- Health Insurance Organisation (HIO). (2014), Clinical Pathways for primary healthcare. [online] Available at: http://www.hio.org.cy/gr/kko-intro.html [21 November 2016, date last accessed].
- Hussey P, Anderson G. (2003), A comparison of singleand multi-payer health insurance systems and options for reform. Health Policy 66: 215-28.
- IN Business Magazine. (2013), Memorandum of Understanding and Health:34 – 36. [online] Available at: http://issuu.com/eventsteamimh/docs/september\_201 3m/36 [21 November 2016, date last accessed] [in Greek]
- Kanavos P, Wouters O. (2014), Pharmaceutical policies in Cyprus: a review of the current system and future options LSE Health. London School of Economics. [online] Available at: http://www.moh.gov.cy/moh/moh.nsf/All/73AB013 2AA5867CDC2257D3A0046AFC8/\$file/18.8.2014. Cyprus\_WHO\_Report.pdf?OpenElement [14 January 2015, date last accessed].
- Karanikolos M, Mladovsky P, Cylus J, Thomson S, Basu S, Stuckler D, Mackenbach J P, McKee M. (2013), Health in Europe & financial crisis, austerity, and health in Europe. Lancet 381(9874): 1323-31.
- Kentikelenis A, Karanikolos M, Reeves A, McKee M, and Stuckler D. (2014), Greece's health crisis: from austerity to denialism. Lancet 383: 748-53.
- Kentikelenis A, Karanikolos M, Papanicolas I, Basu S, McKee M, Stuckler D. (2011), Health effects of financial crisis: omens of a Greek tragedy. Lancet 378: 1457-8.
- Mercer Limited. (2013), Actuarial study of Cyprus National Health Expenditures and National Health System, Health Insurance Organization. [online] Available at: http://www.moh.gov.cy/moh/moh.nsf/EEBCAF0CD B3C0C4FC22577BB0026941E/\$file/2013\_10%20 MERCER%20Actuarial%20Study%20of%20Cyprus %20National%20Health%20Expenditure%20and%2 0National%20Health%20System.pdf [ 21 November 2016, date last accessed].
- Mladovsky P, Srivastava D, Cylus J, Karanikolos M, Evetovits T, Thomson S, McKee M. (2012), Health policy responses to the financial crisis in Europe, World Health Organization 2012 and World Health Organization, on behalf of the European Observatory on Health Systems and Policies. [online] Available at: http://www.euro.who.int/\_\_data/assets/pdf\_file/0009

/170865/e96643.pdf?ua=1 [21 November 2016, date last accessed].

- Merkur S, Mossialos E. (2007), A pricing policy towards the sourcing of cheaper drugs in Cyprus. Health Policy 81: 368-75.
- Ministry of Health (MoH). (2013), Authors estimations based on official price list, 2011–2013. In: Official price list 11/2/2013. Ministry of Health. [online] Available at: \_http://www.moh.gov.cy/moh/phs/phs.nsf/dmlindex gr/dmlindex gr? OpenDocument [21 November 2016, date last accessed].
- Olafsdottir A, Allotey P, Reidpath D. (2013), A health system in economic crises: a case study from Iceland. Scand J Public Health 41(2): 198-205.
- Petrou P. (2015), An interrupted time-series analysis to assess impact of introduction of co-payment on emergency room visits in Cyprus. Appl Health Econ Health Policy 13(5):515-23.
- Petrou P. (2014), Financial crisis as a reform mediator in Cyprus's health services. Eurohealth 20:35-8.
- Petrou P, Vandoros S. (2015), Cyprus in crisis: Recent changes in the pharmaceutical market and options for further reforms without sacrificing access to or quality of treatment. Health Policy 119(5): 563-8.
- Reeves A, Basu S, McKee M, Stuckler D. (2014), The political economy of austerity and healthcare: crossnational analysis of expenditure changes during the Great Recessions in 27 European nations 1995-2011. Health Policy 115(1): 1-8.
- Republic of Cyprus (RoC) (2013), Memorandum of understanding on specific economic policy conditionality. [online] Available at: http://static.cyprus.com/troika\_memo\_final.pdf [21 November 2016, date last accessed].
- Rivera JD. (2012), European Public Health Alliance (EPHA). http://www.eapn.eu/wpcontent/uploads/2012/06/2012-06-28-Letter-to-the-European-Council-of-June.pdf.
- Rodrigues R, Zólyomi E, Kalavrezou N, Matsaganis M. (2013), The impact of the financial crisis on unmet needs for healthcare. Research Note 7/2013. Social Situation Observatory, European Commission. [online] Available at: http://www.euro.centre.org/data/1417527848\_17398 .pdf [21 November 2016, date last accessed].
- Starfield B. (1994), Is primary care essential? Lancet 344(8930): 1129-33.
- Stuckler D, Basu S, Suhrcke M, Coutts A, McKee M. (2011), "Effects of the 2008 recession on health: a first look at European data", The Lancet, 378:124–125.
- Stuckler D, Basu S, Suhrcke M, McKee M. (2009), The health implications of a financial crisis: a review of the evidence. Ulster Med J 78(3):142-45.

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- Theodorou M. (2014), Testing the Waters for GeSY: Patients' opinion of cost-sharing arrangements in the public Health Care System in Cyprus. Cyprus Economic Policy Review 8(2): 37-59.
- WHO. (2013), Guideline on Country Pharmaceutical Pricing. [online] Available at: http://www.ncbi.nlm.nih.gov/books/NBK258631/pd f/TOC.pdf. [10 December 2014, date last accessed].