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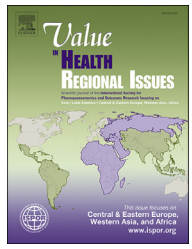

Brief Report

The Impact of Financial Crisis, Austerity Measures, and Bailout Agreement on Cypriots' Health: The Memorandum Is Dead, Long Live the Memorandum

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ABSTRACT

Background: Cyprus entered a prolonged financial recession, which escalated to a bailout agreement with a team of international lenders. This rendered as prerequisites structural reforms aiming to enhance efficiency of the system. **Objectives:** To report on the impact of the financial crisis and ensuing health sector reforms in Cyprus. **Methods:** A cross-sectional study with datasets from the 2010 and 2014 (11 088 individuals and 9983 individuals, respectively) Cyprus European Union Statistics on Income and Living Conditions. We analyzed data using a logistic regression model and also performed a documentary analysis. **Results:** Compared to 2010, in 2014 the percentage of Cypriots who self-reported their health state as very good was stable (1.03; confidence interval [CI] 95%, 0.98-1.09]), whereas the percentage of Cypriots who self-reported their health state as bad demonstrated a statistically significant reduction (0.75 [CI 95% 0.66-0.85]). The cumulative financial affordability impact the said measures had on the patients was negative: a significant increase was reported for patients reporting unmet medical needs ("cost" and "long waiting lists") (1.22 [CI 95% 1.03-1.35]), whereas inconclusive findings were reported apropos dental health needs (0.96 [CI 95% 0.88-1.04]). **Conclusions:** We demonstrate that crisis and health reforms did not exert any negative effects on Cypriots' health; nevertheless, a significant increase of patients who face difficulties in financing their health needs was reported. The mental health sector was, in particular, affected by the crisis, and consequently, health agencies must closely monitor this topic along with the aforementioned affordability issues.

Keywords: Cyprus, financial crisis, healthcare reforms, public health, Troika.

Introduction

As the looming threat of the fiscal recession hovered above the Eurozone, Cyprus recently exited its bailout agreement contracted in 2013 in the form of a memorandum of understanding (MoU) with a group of international lenders (commonly known as Troika).[1–3] The bailout became necessary when Cyprus experienced a rapid fiscal deterioration as a repercussion of the inordinate exposure of its smaller economy to the larger and failing Greek one. This ill-balanced interlace of the 2 economies eventually escalated to Cyprus' exclusion from the international financial markets in 2011, pushing its economy to the brink of bankruptcy and bringing the small island dangerously close to a national tragedy. Indeed, the MoU averted the threat, while in the name of long-term financial stability and sustainability, it brought about a number of major structural reforms, aiming at the enhancement of public administration efficiency and reduction of public resources' wastage. On the eve of the financial crisis, a bundle of austerity measures were implemented, which included a freeze on all wages in the broader public sector, including the cost-of-living adjustment, a 10% reduction in the remuneration scheme of newcomers, an array of contributions of civil servants to state and social insurance funds, a value-added tax increase, and a 3% tax increase on income from dividends.[4] The government also introduced an annual healthcare fee to all beneficiaries, primarily targeting public servants, while exceptions pertinent to socioeconomic criteria were applied, aiming to strengthen the sustainability of the funding structure and the efficiency of the public healthcare sector.[2]

The healthcare sector was in particular tainted by crisis because Cyprus and Ireland are the only EU countries without a comprehensive universal health coverage health system. The current healthcare sector is fragmented into 2 parallel, segmented, and uncoordinated healthcare sectors: public sector

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and private sector.[1–4] This is a rather inequitable setting, and we must underline that before the crisis no user charges were applicable in the public sector, which comprised a root cause for waste. This long-standing fragmentation hindered the implementation of supply and demand-side measures, which are frequently used in many countries. The public healthcare sector provides free care to people fulfilling certain socioeconomic and medical criteria, including impoverished citizens, public servants, and people with specific diseases, whereas the private sector is funded by out-of-pocket expenditure or by optional private health insurance schemes. This confluence of public and private health expenditure explicates why Cyprus is the unique EU country whose private healthcare expenditure exceeds public funding. Before the crisis, approximately 85% of Cypriots were entitled to free public healthcare; nevertheless, the percentage of those who actually resorted to the public healthcare sector was far less impressive because the public healthcare sector travails to satisfy beneficiaries' needs, an attribute imputed to its bureaucratic structure, inconvenient working hours, and scarce human resources.

Socioeconomic Factors During Crisis

The financial crisis dramatically transformed the socioeconomic landscape of Cyprus. Primarily, the crisis induced a profound reduction in income and the commensurate unemployment increase instigated a gradual shift of patients toward public healthcare services, which peaked in 2011 through 2012 for inpatient care, demonstrating a 13.5% increase versus the previous year.[3] A recruitment freeze applicable to health professionals and a surge of many healthcare professionals for early retirement, owing to rumors of taxation of their retirement benefits, coupled with the additional workload, impeded the operational capacity of the public healthcare sector, which toiled to cope with it.[1]

Unavoidably, this led to extended long waiting lists in the public sector or pushing people to the out-of-pocket-funded private sector. Indicatively, in 2013, a 21.7% increase in the number of patients who were reimbursed by the MoH for the provision of health services in the private sector on the grounds of inordinate waiting times was noted. Total health expenditure plummeted from 1259 billion euro in 2010 to 1106 billion euro in 2014, with the public sector demonstrating the biggest reduction (21% vs 3.9%) (Fig. 1).

The private sector is funded out-of-pocket unless patients are covered by an optional private insurance scheme. It was reported that high out-of-pocket payments were perceived as a barrier to the necessary medical care for 28% of the population.[5]

A prerequisite for the disbursement of the loan installments entailed Cyprus' obligation to abide by several mandatory reforms, which were targeting the efficiency of the system. The Troika recommended new income criteria for public healthcare beneficiaries, reducing health insurance coverage even further. This negative development pushed 15 000 people into the private market, where they will have to pay for their healthcare entirely out of pocket.

The unemployment rate in Cyprus climbed exponentially in 2012 and peaked at all-time high of 16.70% in September 2013 in the midst of the crisis. The crisis befell youth, and their corresponding unemployment rate spiraled to an all-time high of 40.50% in July 2013. The unemployment spike was coupled by a profound devaluation of labor. A 22% reduction of real wages occurred, which disproportionately burdened new entrants in the market: As an approach to compound tax evasion (widely underpinned as one of the principal factors of the financial crisis), the public beneficiary status mandated a 3-year contribution to the social insurance fund. The interrelation of health coverage and social insurance contribution forced tax evaders to settle their tax obligations in the face of a potential waive of their health rights, while it rendered social policies more specific and targeted, because the provision of free public health is oriented to those who need it the most, a step toward increased efficiency of the system.[2–4,6]

Despite being a rational approach, there was a backlash in the form of exclusion of several patients' categories from free public healthcare, such as new entrants in the labor market and refugees, which further eroded their fiscal position.

Most worryingly, the financial crisis exacerbated mental health issues. It was substantiated that recession intertwines with mental health through the inclusion of confounding

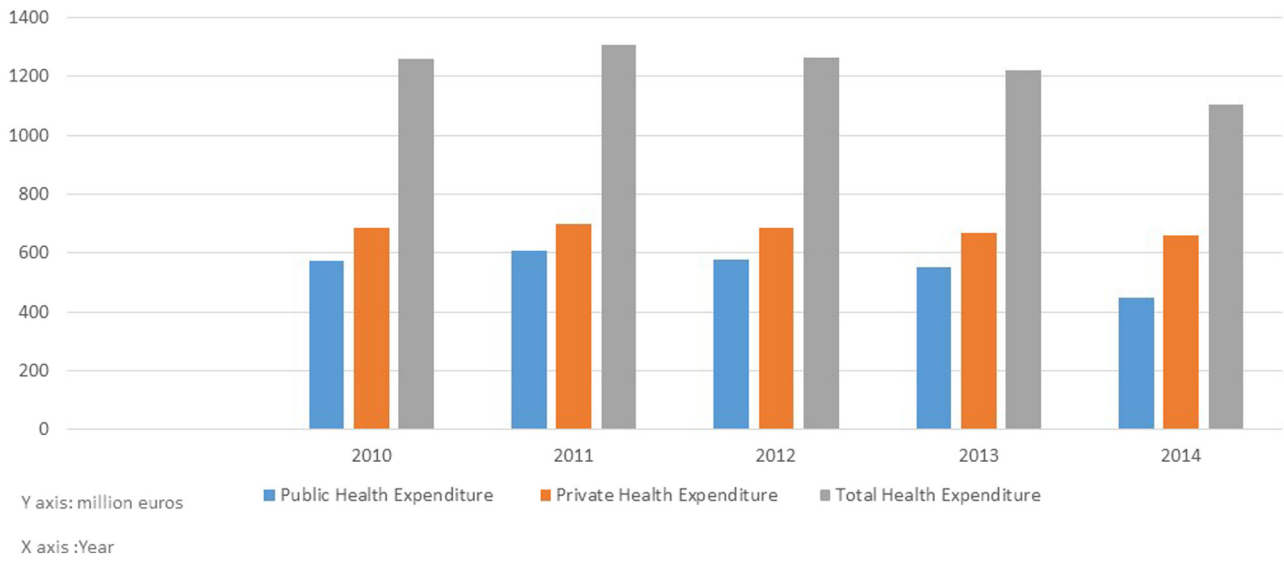

Fig. 1 – Health expenditure 2010 to 2014.

variables such as wealth lost, reduced income, fear of inability to meet financial terms and loans, along with increased workload in order to satisfy financial ends, in the context of labor devaluation. Even uncertainty stemming out of political upheaval can fuel or trigger mental distress.[7–10] A study in 2017 corroborated that crisis was associated with an increase of incidence of major depressive disorder, and it was reported that factors such as sex, age, family status, educational attainment, presence of chronic health disease, financial strain, employment status, and degree of institutional trust were statistically significantly correlated with depression and acquired predictive value.[11] The reported 1-month prevalence of major depression was 11.5% and was primarily exemplified by a 40.9% inability to meet household bills, clothing purchases (38.9%), and supermarket purchases (37.1%). This study was consistent with a previous study by Petrou, who underpinned the inelasticity of mental health services, after the introduction of copayment.[12] On the contrary, the reported elasticity of copayment on health utilization in other sectors such as the emergency room, laboratory ordering, and primary care accentuates the redundant use of healthcare services, imputed to a long-standing paucity of demand-side measures.[13–15] The introduction of copayment was necessitated by the bailout agreement in certain health activities prone to misuse and overuse, such as pharmaceuticals, laboratory tests (€0.5 per dispensed medicine and laboratory test ordered, which are capped at €10 per visit), and emergency visits (€10 per visit). Within the context of the public healthcare sector's efficiency enhancement, clinical guidelines in 20 health conditions and laboratory ordering were introduced. This was highly appraised by the medical community,[2–5] yet conflicted with an overriding misleading notion that guidelines deprive physicians of their autonomy. In the pharmaceutical sector, a significant expenditure reduction occurred in the public sector, whereas the private sector was rather marginalized because costs burden patients. There are no indications whether the reduction in the pharmaceutical expenditure has impeded—and to what extent—patient access to the required pharmaceutical treatment. Nevertheless, this reduction forced health authorities to explore and fine tune all cost-containment tools, and a bundle of efficiency measures were introduced, such as monitoring of refill period and dispensed quantity, better adherence to existing guidelines, and optimization of tendering.

In addition, Troika bolstered the support for the implementation of a National Health System (NHS), "the most powerful concept that public health has to offer," a causality factor of the current system's inefficiency. The fiscal viability of the NHS has led to heated debates between social stakeholders and, given the lack of consensus regarding the financing pattern, the much-anticipated NHS is expected to be fully implemented a 1-year period, which calls for other intermediary measures to be taken now, to render a safety net for vulnerable groups as in the case of people who are at risk of exclusion.

Within this memorandum-impelled reform context, Troika's contribution in helping countries achieve long-term positive results on their macroeconomic and social infrastructure has been repeatedly put to questioning. Indicatively, in neighboring Greece, imposed reforms have been characterized as short-sighted and socially unjust.[16,17] In any case, the allegations pertinent to Troika's catastrophic impact on health have exceeded the available evidence. In fact, no robust data exist related to the net effect of the financial crisis and the resulting austerity measures on public health in Cyprus. Reports from other countries, especially Greece, which has captured global attention, suggest a devastating multifaceted effect on public health.[16,17] Nevertheless, owing to distinct disparities between Greece and Cyprus, stemming out of diverse implementation measures and adoption level of MoU reforms, we cannot extrapolate from Greece's data. To this direction, the scope of this report is to present the preliminary impact of health sector reforms in Cyprus.

Table 1 – Adjusted estimates for changes in health access, health status, and affordability.

	Changes between 2010 and 2014, odds ratio (CI 95%)
Unmet self-reported needs for medical examination by sex, age, detailed reason, and income quintile	1.22 (1.03-1.35)*
Unmet self-reported needs for dental examination by sex, age, detailed reason, and income quintile	0.96 (0.88-1.04)
Very good self-reported health	1.03 (0.98-1. 09)
Bad self-reported health	0.75 (0.66-0.85)*
People at risk of poverty or social exclusion by age and sex	1.13 (1. 02-1. 25)*
People over 55 at risk of poverty or social exclusion by age and sex	0.71 (0.65-0.79)*

Note. 95% CIs presented. Data are from the Cyprus European Union Statistics on Income and Living Conditions, 2010 and 2014. Results are reported as weighted relative odds ratios for changes in reporting unmet medical needs, self-reported health, and people at risk of poverty between 2010 and 2014, adjusted for sociodemographic and other factors.
* Statistically significant at the 0.05 level.

Methods

To assess the crisis' impact, we collected data before and during the crisis. As many authors describe, the crisis had a rapid onset in Cyprus, in contrast to the long-standing and gradually evolving corresponding ones in Greece and Portugal. Therefore, the onset of the crisis is defined at 2011. Because we wanted to grasp the impact of pre-crisis, we set the pre-crisis watershed at 2010. Cyprus exited the crisis in 2016, therefore we deemed fit to use the 2014 data because by 2015 the economy was on a recovery trajectory, as affirmed by the positive assessment of long-term and short-term credit ratings, in tandem with assigning a positive outlook on Cyprus' economy. This is consonant with other publications that assessed health and crisis.[2,12–15]

In examining the possible impact of recession and interrelated measures taken,[18,19] we analyzed cross-sectional datasets from the 2010 and 2014 Cyprus European Union Statistics on Income and Living Conditions.[20] The value of Cyprus European Union Statistics on Income and Living Conditions data panel has been endorsed by many authors in similar studies across European countries.[21] Data were weighted for potentially confounding differences such as age, sex, marital status, and income in a logistic regression model. The results are presented as odds ratio (OR) with 95% confidence interval (CI). The dataset of 2010 included 11 088 individuals, and the dataset of 2014 included 9983 individuals. Sampling was performed in line with the recommendations of Eurostat, to safeguard a representative and reliable sampling process. Ethical approval was not required for this study, based on local regulations.

Results

Compared to 2010, in 2014 the percentage of Cypriots who self-reported their health state as very good was stable (OR 1.03 [CI

95% 0.980-1. 09]), whereas the percentage of Cypriots who self-reported their health state as bad demonstrated a statistically significant reduction (OR 0.75 [CI 95% 0.66-0.85]). The cumulative financial affordability impact the said measures had on the patients was negative: a significant increase was reported for patients reporting unmet medical needs ("cost" and "long waiting lists") (OR 1.22 [CI 95% 1.03-1.35]), whereas inconclusive findings were reported apropos dental health needs (OR 0.96 [CI 95% 0.88-1.04]). Moreover, a significant increase in people at risk of poverty or social exclusion was reported; nevertheless, the corresponding percentage reduced significantly in patients over 55, which constitute the most resource-demanding patient pool (Table 1).

Discussion

Our data indicate that cost and long waiting lists comprise the major barriers to medical care amid the financial crisis. As Cyprus is classified among the lower public health spenders (in terms of percent of gross domestic product), lenders focused on strengthening the sustainability of the public health funding structure. To this direction, annual contribution and copayment fees were imposed on the beneficiaries of public healthcare services. The measures aimed at curbing the documented extensive inappropriate utilization of healthcare resources and they have constrained primarily nonemergent visits to the emergency department, and visits to general practitioners.[2–5] Nevertheless, the public healthcare sector has exceeded its functional capacity, further compromised by the recruitment freeze measure that was imposed, thus forcing people to the private sector for timely care. This was also compounded by a wave of doctors that left the public sector, owing to rumors of termination of their permanent tenure and taxation of their retirement benefits. All of the above explicate the increase in unmet medical needs and culminate the intricacy in safeguarding timely access to the necessary healthcare. The government tried to extenuate the impact by subsidizing public sector's patients to the private sector; nevertheless, this was expostulated owing to higher costs and intermission of continuity of care, while the budget impact casts doubts about its long-term viability.

Our data attest to that, in contrast to other countries, the crisis did not deteriorate the self-reported health status, which is rather attributed to the targeted and rational austerity policies, and to the staunch implementation of the MoU impelled reforms.[16,17,22,23] Moreover, the reforms were introduced directly after the emersion of the fiscal crisis, in contrast to other countries where a significant time lapse occurred between crisis and reforms, mainly owing to social unrest, which further compounded uncertainty and consequently deteriorated their fiscal state. The lack of adverse effect on health was further substantiated by the significant reduction of people who self-reported their health as bad.

Cyprus is still in a recovery stage after the rapid fiscal deterioration, and consequently, health policies that would diminish its detrimental consequences are incumbent. In this notion, what calls for strict monitoring is the mental health chapter.[10–12] It was documented that fiscal crisis is an independent mental risk factor and the accumulation of debts can expose virtually anybody to mental health deterioration; mental health can be further aggravated by other trigger factors such as stress fueled by job loss or job insecurity or even political unrest. Most worryingly, this can occur anytime. In this context, it was reported that visits to psychiatrists demonstrated significant inelasticity to the introduction of co-payment, a fact that may indicate that for this particular patient group, this measure may actually serve as an access barrier to the necessary healthcare.[12] This, coupled with the increasing incidence rate of suicides (OR 1.26 [CI 95% 0.83-2]), prescribes for strict monitoring of the mental health chapter of Cyprus' human capital, especially in a country whose service sector is its economic lifeline.

Self-reported health status has demonstrated a significant correlation with health outcomes, but it was argued that self-rated health is more sensitive to short-term changes than other health outcomes.[12] Although current analysis broadcasts significant findings, it is imperative that health agencies scrutinize health indicators for the long-term impact of the crisis, specifically through hard endpoints such as mortality, to elucidate the impact of the crisis on health.

Our findings should be interpreted with caution; one of the limitations of the study was that the corresponding trends before the crisis were not known; therefore, it is feasible that our findings constitute a natural trajectory, although probably unlikely. In addition, the lack of a control group constitutes another limitation of this study. The confluence of financial crisis, austerity measures, and memorandum-driven reforms exerted a rather beneficial effect to the efficiency of the system and instilled the notion of rationalizing healthcare resources. Should this paradigm shift perpetuate, it can potentially emerge as the principal gain out of the crisis.

Although many may argue that shifting costs to patients, especially in the midst of financial crisis, would further impede access, one should also assess the payable fees: In Cyprus, the relative low fees entail the notion of responsibility, rather than the notion of access barrier. Nevertheless, we should not gloss over the impact of measures, and it must also be underlined that the crisis has overstretched deteriorating resources, and several vulnerable groups are faced with financially catastrophic healthcare expenditure, which can potentially undermine their quality of life. Reaching equilibrium among solidarity, equity, and fiscal targets should be in the spotlight.

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