ORIGINAL ARTICLE

Citizen Preferences for Primary Health Care reform in Greece

Souliotis K[1,2], Tsimtsiou Z[3], Golna C[4], Nikolaidi S[2], Lionis C[5]

[1]Faculty of Social and Education Sciences, University of Peloponnese, Corinth, Greece
[2]Health Policy Institute, Athens, Greece
[3]Department of Hygiene, Social-Preventive Medicine and Medical Statistics, Aristotle University of Thessaloniki, School of Medicine, Thessaloniki, Greece
[4]Innowth Ltd, Larnaca, Cyprus
[5]Clinic of Social and Family Medicine, School of Medicine, University of Crete, Heraklion, Greece

Abstract

Background: The Greek National Health System is currently pursuing the strengthening of Primary Health Care (PHC). Citizen preferences for healthcare service utilization, their views on structural reform of the current system, and the profiling of those in favor of PHC are essential in planning a reform that respects citizens' needs. However, data on this topic in the country are scarce. The present study maps citizen preferences for health care reform in the primary care sector in Greece.

Methods: In March 2017, a sample of 1,002 citizens were surveyed by telephone. The survey was repeated with a different sample of 1,001 persons in October 2017. Both samples were defined via a random multistage selection process using a quota for the municipality of residence, sex, and age. Responders were asked to rate their satisfaction with the existing healthcare system and to rank their preferences as to the most important elements of future structural reform. Barriers to accessing healthcare services and in the implementation of structural reform as well as actual healthcare services utilization were also recorded. A logistic regression model was used to identify sample characteristics independently associated with the most requested reform.

Results: Citizens preferred to visit physicians -as outpatients- in their private practices (50.5 % in March and 44 % in October) rather than in public health services (17.8 % and 18 %, respectively). For 86.9 % and 85.6 %, respectively, structural reform of the current health system was considered "very" or "extremely necessary". The introduction of family physicians in the system was the most requested reform (48 % and 49.4 %, respectively). Citizens in older age groups were more likely to request the implementation of family physicians (25-39 years old: OR: 2.14, 95 % CI: 1.36-3.37; 40-54 years old: OR: 2.89, 95 % CI: 1.85-4.52; 55-64 years old: OR: 3.62, 95 % CI: 2.27-5.78; and over 65 years old: OR: 3.32, 95 % CI: 2.10-5.26). Male responders were 23 % less likely (OR: 0.77, 95 % CI: 0.63-0.93) to be in favor of this reform, after controlling for the other variables in the model.

Conclusions: Both survey streams reveal the growing demand for structural reform in the current healthcare system. Strengthening PHC is the most requested reform. Older and female citizens were more likely to be in favor of this reform. Integrating the private sector in developing a comprehensive PHC system, enhancing existing public health services, and increasing public awareness of the advantages of PHC should be considered critical elements of a high-quality PHC system. HIPPOKRATIA 2019, 23(3): 111-117.

Keywords: Primary Health Care, reform, health services, public sector, private sector, preferences, Greece

Corresponding author: Souliotis Kyriakos, Associate Professor, Department of Social and Education Policy, Faculty of Social and Political Sciences, University of Peloponnese, Damaskinou & Kolokotroni, 20100, Corinth, Greece, tel: +302741074991, e-mail: info@ksouliotis.gr

Introduction

Strong Primary Health Care (PHC) is the cornerstone of a high-quality, responsive healthcare system. Patient-centeredness, integration, continuity of care, and comprehensiveness are among PHC's core features associated with cost-effectiveness, better health outcomes, and higher patient satisfaction[1,2]. PHC can contribute to increased accessibility, emphasis on prevention, provision of long-term care, strong physician-patient relationship, and reduction in unnecessary medical services, thus narrowing the gap between socially marginalized and more privileged populations[3]. Strengthening PHC has been repeatedly suggested as the most efficient way to improve access to high-quality healthcare and the gold pathway to achieve health for all[1-5].

In Greece, -until 2017- PHC services were provided by public units (health centers, polyclinics, and hospitals' outpatient clinics) and by a large number of self-employed physicians contracted and reimbursed by the public sector on a fee for service basis. This system priori-

tized free choice of provider and lacked any gate-keeping mechanisms, thus allowing patients to access secondary or even tertiary health care units directly. Out-of-pocket payments were persistently high[6-9]. In this framework, challenges with accessibility, continuity, and coordination of PHC services have been consistently highlighted, while the need for reform has been widely recognized[5-6, 8-15].

The economic crisis that the country has been facing for nearly a decade made this reform a priority, mandated both by the economic conditions of the health care system and the country's creditors.

As a result, in the second half of 2017, the Greek Ministry of Health started to pursue the reinforcement of PHC by calling on the population to register with family physicians, mainly serving in the public sector, to whom all citizens have free access, independently of their insurance coverage status[16]. The establishment of new public Local Health Units (under the acronym TOMY), where general practitioners and pediatricians (for those aged under 16), serve as family physicians is still in progress. This reform appears to be in line with the previous recommendations[8]. Nonetheless, citizens' views and preferences have not been recorded nor expressly taken into consideration, despite being explored in many other European countries[17-19]. This study conducted before the introduction of TOMYs, maps and assesses citizen preferences for health care provision, with an emphasis on strengthening PHC and for structural reform of the current system, in line with actual utilization of system services.

Materials and methods

Procedure

Two survey streams were conducted in March and, again, October 2017. Each survey sample was selected randomly from across the country and distributed proportionately to the 13 administrative regions. Samples were country representative and included adult men and women. The samples were selected at random from the National Telephone Company Directory. All numbers were categorized according to the 2011 National Census by region, prefecture, municipality, and urbanization level. A random stratified sampling procedure was employed. Only telephone numbers belonging to individuals were included in the studies, and numbers of businesses or public services were excluded. Both surveys were carried out by a commercial company working in the field of demographic surveys, under the close guidance of the scientific supervisor of the study. At least five callbacks were made, and to be included in the study, participants had to be fluent Greek speakers. Raosoft® software (Raosoft Inc., Seattle, USA) was used to determine the minimum required sample size. In Greece, the resident population is estimated to be 10,816,286 based on the 2011 population-housing census conducted by the Hellenic Statistical Authority[20]. Based on the sample calculation with 1 % margin of error, 99 % confidence level, and 50 % response distribution, at least 664 participants were needed. Due to the significant non-responsiveness rates observed in telephonic surveys in general, double the number of required participants was contacted. The response rate was 77.6 % in March and 74 % in October. The process was supported by a computer-assisted telephone interviewing (CATI) technique. No difference was recorded between responders and non-responders in terms of the administrative region.

Ethics approval for this study was obtained from the Research Ethics Committee of the University of Peloponnese.

Survey Questionnaire

Participants, in both survey streams, answered the same series of closed type questions. The questionnaire is comprised of the following sections:

1) Participants' demographic characteristics and socio-economic characteristics including age, sex, educational level, monthly personal income, and public and private insurance coverage.

2) Barriers to accessing healthcare; Economic characteristics of participants. The questionnaire was previously employed to measure barriers in healthcare access in other chronic diseases, such as rheumatoid arthritis[21], multiple sclerosis[22], and cancer[23] and other vulnerable groups such as Intravenous Drug Users (IDUs)[24]. This was the first time it was used in the general population.

3) Self-rated health. An item regarding participants' subjective assessment of their health was used. Self-rated health was rated on a five-point ordinal scale as follows: very poor, poor, moderate, good, and very good, in response to the question: "How would you rate your health today?" and was grouped into two categories: (1) very good and good, and (2) moderate, poor, and very poor[25,26].

4) Lastly, utilization of health care services, satisfaction with the current healthcare system, the necessity of reform, views on the most important elements of the structural reform, and perceived barriers regarding its implementation were assessed using a questionnaire constructed specifically for the needs of the study.

A group of health experts [healthcare providers (n =10), health policy makers (n =5), and researchers (n =2), etc.) originally reviewed the questionnaire regarding its definition. Purposive sampling was employed to select the members of the panel, with their level of knowledge and relevance of experience being the primary inclusion criteria. The questionnaire was then pilot tested on a randomly selected group of 100 participants who were inquired about item comprehension using a 5-point Likert scale (1: I understood nothing, to 5: I understood everything). Pilot study results were re-evaluated by a group of experts. More specifically, detailed results on all items were presented to them, along with participants' scores on the comprehension question. No amendments in the questionnaire were made at this phase of the study as the comprehension question score was deemed high (mean: 4.7, standard deviation: 0.54). Citizens who participated

in the pilot phase were excluded from the final analysis.

Statistical analysis

Categorical variables were presented using absolute and relative frequencies. Chi-square statistics were used to investigate whether March's and October's samples differ in socio-economic and demographic characteristics. Moreover, chi-square statistics were utilized to investigate whether the two study streams differed as to their attitudes towards a future structural reform. A logistic regression model was used to identify demographic and socio-economic characteristics independently associated with the attitude towards the implementation of the family physician reform. All analyses were performed using IBM SPSS Statistics for Windows, Version 25.0 (IBM Corp., Armonk, NY, USA).

Results

Characteristics of the study sample

In total, 2,003 citizens participated in the two streams (1,002 in March and 1,001 in October). The demographic and socio-economic characteristics of the two samples were comparable, as shown in Table 1. Participants considered their health to be mostly "good" or "very good" (67.1 % in March's sample and 71.4 % in October's), followed by "moderate" (23.3 % and 22.4 %, respectively), and "poor" or "very poor" (9.6 % and 6.2 %, respectively).

Health services utilization

A considerable portion of the sample in March (74.2 %) and in October (65.4 %) had used health services over the preceding six months. Among these, 88.7 % of participants in the March stream had visited a physician, 83.9 % had laboratory tests, 64.7 % had taken medications, and 15.3 % had been admitted to a hospital, while the corresponding percentages for participants in the October stream were 94.5 %, 74.8 %, 71.5 %, and 11.8 %, respectively.

Citizens preferred to visit physicians -as outpatients- in their private practices [74 % of participants in March (in 44.4 % the cost was covered by insurance and in 29.6 % out of pocket) and 71% in October (cost coverage 35.5 % and 35.5 %, respectively)] rather than in public health facilities, such as health centers or hospitals (26 % and 29 % of the total sample, respectively). Similarly, they preferred to have their diagnostic tests in private laboratories [82.6 % in March (72.7 % of the cost was covered by insurance and 9.9 % out of pocket) and 74.1 % in October (cost coverage 62.9 % and 11.2 %, respectively)] rather than in public laboratories in health centers and hospitals (17.4 % and 25.9 % of the total sample, respectively). On the contrary, for their hospitalization, they preferred to be admitted in public hospitals (73.1 % and 74 %, respectively) rather than in private clinics [27 % in March (17.6 % of the cost was covered by insurance and 9.2 % out of pocket) and 26 % in October (cost coverage 22.1 % and 3.9 %, respectively)].

Satisfaction with the Health System

A substantial part of the sample in March (78.7 %)

Table 1: The demographic and socio-economic characteristics of citizens participated in the two survey streams in March and October 2017.

Characteristics	March 2017 (n1: 1,002)	October 2017 (n2: 1,001)	p value	Total Sample (n: 2,003)
Sex				
Male	492 (49.1)	484 (48.4)	0.737	976 (48.7)
Female	510 (50.9)	517 (51.6)		
Age				
18-24 years	98 (9.8)	100 (10.0)		198 (9.9)
25-39 years	212 (21.2)	260 (26.0)		472 (23.6)
40-54 years	287 (28.6)	261 (26.1)	0.034	548 (27.4)
55-64 years	204 (20.4)	166 (16.6)		370 (18.5)
65 years and up	201 (20.1)	214 (21.4)		415 (20.7)
Educational status				
Up to mandatory	555 (55.5)	520 (52.0)	0.116	1,075 (53.7)
Higher than mandatory	445 (44.5)	480 (48.0)		925 (46.3)
Place of residence				
Urban	737 (73.6)	759 (75.8)	0.242	1496 (74.7)
Rural	265 (26.4)	242 (24.2)		507 (25.3)
Net monthly personal income (in Euros)				
0-500€	120 (13.7)	74 (8.5)		194 (11.1)
From 500-1,000€	325 (37.2)	287 (33.0)		612 (35.1)
From 1,000-1,500€	226 (25.9)	244 (28.1)		470 (27.0)
From 1,500-2,000€	109 (12.5)	155 (17.8)		264 (15.2)
Over 2,000€	93 (10.7)	109 (12.5)	<0.001	202 (11.6)
Public insurance Coverage	939 (93.8)	947 (94.7)	0.390	1886 (94.2)
Private insurance Coverage	153 (15.3)	144 (14.5)	0.630	297 (14.9)
Self-rated health				
Very good/good SRH	672 (67.1)	715 (71.4)		1,387 (69.2)
Moderate SRH	234 (23.3)	224 (22.4)	0.012	458 (22.9)
Poor/ very poor SRH	96 (9.6)	62 (6.2)		158 (7.9)

Values are given as numbers and percentage in brackets. Public and private insurance coverage refer to number of citizens with public and private insurance, respectively, n: number of citizens.

and in October (73.7 %) were "dissatisfied" or "definitely dissatisfied" with the healthcare system, and 21.3 % and 26.3 % "satisfied enough" or "very satisfied", respectively (p =0.01). Barriers in access to any healthcare service (physicians, laboratory tests, hospitalization, or medication) during the preceding six months were reported by 22.5 % of March's sample and 16.1 % of October's (p <0.001). The vast majority of responders in March (86.9 %) and in October (85.6 %) considered a structural reform of the health system "very" or "extremely necessary", 9.2 % and 10.4 % respectively considered it "moderately necessary" and 3.9 % and 4.1 % respectively "a little" or "not necessary at all" (p =0.678).

Citizen preferences and perceived barriers to structural reform in the Greek Health System

The implementation of the institution of the family physician was the most frequently requested reform, both in March and October (48 % and 49.4 %, respectively, p =0.547). Increase in the number of public health units (28.1 % and 30.8 %, respectively, p =0.197) along with the mandatory implementation of primary prevention programs were also among the most requested reforms (25.6 % and 32.4 %, respectively, p <0.001), further emphasizing citizens' preference for strengthening PHC. Participants' responses on what they consider most important in structural reform in the health system per survey stream are presented in Table 2. Specifically, lack of political will (38.1 % and 32.3 % in March and October, respectively), along with the anticipated reactions of healthcare professionals (18.6 % and 23.9 % in March and October, respectively) were identified as the key barriers to a future reform by both streams. The results are presented in Figure 1. No statistically significant difference was observed regarding the potential barriers to a future reform between the two time points (p=0.468).

Profile of the citizens in favor of the implementation of the family physician reform

As shown in Table 3, responders of old age were more likely to be in favor of the implementation of the family physician reform. Responders aged 25 to 39 years were almost two times more likely [odds ratio (OR): 2.14, 95 % confidence interval (CI): 1.36-3.37], those aged 40 to 54 years were almost three times more likely (OR: 2.89, 95 % CI: 1.85-4.52), those aged between 55 to 64 years were 3.5 times more likely (OR: 3.62, 95 % CI: 2.27-5.78), and those over 65 years old were 3.3 times more likely (OR: 3.3, 95 % CI: 2.10-5.26) to be in favor of this reform in comparison with the reference category. On the contrary, male responders were 23 % less likely (OR: 0.77, 95 % CI: 0.63-0.93) to be in favor of this reform, after controlling for all other variables in the model.

Discussion

The survey streams, comprising of a total of 2,003 citizens with an interval of six months between them -before and after the introduction of a new PHC reform law[16]- confirmed the high level of dissatisfaction with healthcare services and revealed the public demand for structural reform. Results indicated a preference for outpatient health services in the private sector, mainly with costs covered by public insurance, while public hospitals preference far outweighed that for private clinics.

Table 2: Participants' answers on what they consider most important in a structural reform in the current health system in two surveys of March and October 2017.

	March 2017 (n1: 1,002)	October 2017 (n2: 1,001)	p value	Total Sample (n: 2,003)
Implementation of Family Physicians for all	481 (48)	494 (49.4)	0.547	975 (48.7)
Search for new public health funds	420 (41.9)	385 (38.5)	0.115	805 (40.2)
Increase of the public health units	282 (28.1)	308 (30.8)	0.197	590 (29.5)
Increase of obligatory primary prevention programs	257 (25.6)	324 (32.4)	<0.001	581 (29.0)
Incorporation of the private sector in national health system	184 (18.4)	259 (25.9)	<0.001	443 (22.1)
Strict implementation of the smoking-prohibiting law	216 (21.6)	168 (16.8)	0.007	384 (19.2)
Citizens' participation in health expenses according to their income	147 (14.7)	195 (19.5)	0.004	342 (17.1)
Merging of public health units	76 (7.6)	121 (12.1)	<0.001	197 (9.8)
Obligatory private health coverage for additional services	73 (7.3)	113 (11.3)	0.002	186 (9.3)

n: number of citizens, *: p <0.05, **: p <0.001.

Table 3: Logistic Regression model predicting attitudes towards the implementation of the family physicians reform (n: 1,301).

	OR (95% CI)
Time period (Ref. March 2017)	
October	1.14 (0.94-1.39)
Sex (Ref. Females)	
Males	**0.77 (0.63-0.93)***
Age (Ref. 18-24 years)	
25-39 years	**2.14 (1.36-3.37)****
40-54 years	**2.90 (1.85-4.52)****
55-64 years	**3.62 (2.27-5.78)****
65 years and up	**3.32 (2.10-5.26)****
Educational level (Ref. Mandatory)	
Higher	0.89 (0.71-1.10)
Place of residence (Ref. Urban)	
Rural	0.91 (0.73-1.14)
Net monthly personal income (in Euros) (Ref. 0-500€)	
500-1,000€	0.92 (0.66-1.28)
1,000-1,500€	0.89 (0.63-1.26)
1,500-2,000€	0.98 (0.66-1.46)
Over 2,000€	1.26 (0.82-1.93)
Self-rated health (Ref. Very good/good)	
Moderate	0.97 (0.77-1.23)
Poor/very poor	0.96 (0.66-1.39)

n: number of citizens, *: p <0.05, **: p <0.001, OR: Odds Ratio, CI: confidence interval.

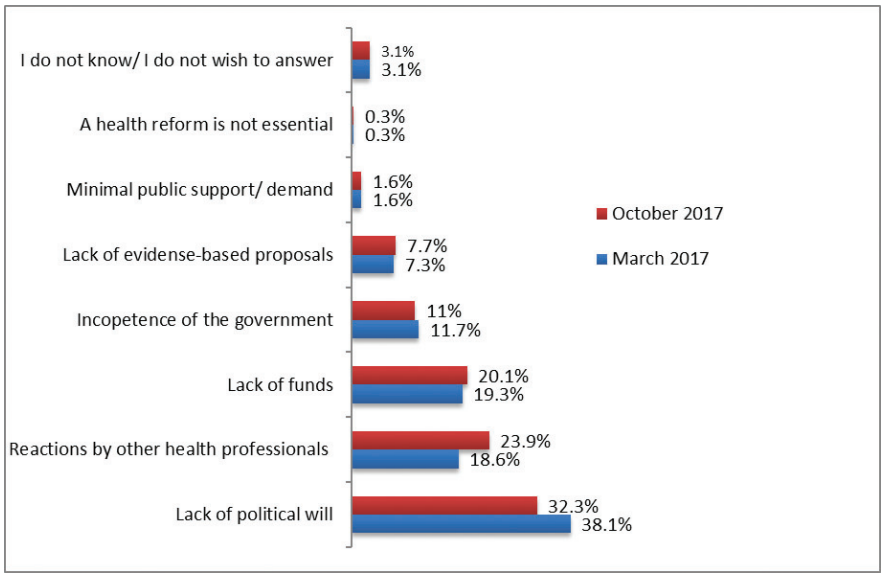

Figure 1: The major barriers in the reform of the health system as pointed out by the participants.

Strengthening PHC, mainly with the implementation of the family physician reform and primary prevention programs, was by far the most requested reform. Older citizens were more likely to be in favor of the implementation of the family physician reform, whereas males were 23 % less likely to be in favor of this reform.

Although the implementation of the family physician reform was the most frequently requested reform, it was still prioritized by less than half of the survey participants. This finding confirms the limited public awareness of the role of general practice and family medicine that had been previously reported in a qualitative study of perceptions of PHC professionals on the quality of services in rural Greece[10]. The fact that family physicians were never an element of the National Health System and that general practitioners were mainly situated in rural areas justifies why the majority of Greek citizens never had the experience of a well-organized PHC and, therefore, cannot automatically understand its benefits. This finding reinforces the importance of previous recommendations on communicating the advantages of a strong PHC to patients and the general public[8].

The majority of participants reported that they had chosen to visit physicians and laboratories in the private sector during the preceding year, mainly reimbursed by their public insurance. Their preference for private-sector primary care services provision was also reflected in their response as to the most important reform, where 20 % of responders in March and 25 % in October emphasized the need for incorporation of the private sector in the National Health System. Study sample reported a definite preference for a strong engagement of the private sector in any new care delivery system and structural reform of current public health units, including, as reported in a previous recent study, availability of PHC services closer to respondents' place of residence or work and relaxation of any time pressures[11].

Age and gender were identified as the defining characteristics of citizens who were in favor of the implementation of the family physician reform. Preference for family physicians among older age groups is in line with previous studies, where older patients were found to place greater emphasis on continuity of care through family physicians and general practitioners as opposed to specialist care[19,27]. It has been reported that older patients prefer PHC because they tend to have a poorer health status and, therefore, appreciate the value of holistic health care that family physicians can provide[28]. On the other hand, their preference for PHC services has also been attributed to the fact that they come from different generation[19,28].

Females were more in favor of strengthening PHC. This confirms findings from previous studies, where patient-centered beliefs, including a preference for information and control, were associated with being female[29]. Females appear to be more involved in their healthcare, and they are more frequent users of health information found on the Internet. Therefore, they are more likely to prefer a more patient-centered approach that a family physician is expected to provide[30]. As PHC has come to be recognized for informed decision-making, professionals' attention to patient views, and delivery of the best treatment[18], females are expected to play a critical role in supporting the family physician's institution and introducing PHC to their social environment.

Strengths and limitations

The current is the first study in Greece that investigates citizen preferences towards a structural reform of the healthcare system, including PHC. The study profiles those in favor of strengthening PHC, using a national representative sample on two different time points within a six-month period before and after implementing the new law regarding PHC. A possible study limitation may be the sampling strategy and the mode for data collection. Due to feasibility reasons, face-to-face interviews could not be conducted. Eligible to participate in the study were only those who had a landline connection, and the majority of households in Greece have a fixed telephone access[31]. Nonetheless, vulnerable groups (e.g., homeless or living in extreme poverty) may have been excluded or under-represented (e.g., immigrants), and these groups often face more barriers in accessing healthcare services. Data were self-reported and, therefore, some response bias may be allowed. Finally, due to participants' anonymity, reported socio-demographic and socio-economic data could not be cross-checked using an objective database.

Implications for future research

Study findings provide evidence regarding citizens' knowledge of and attitude towards healthcare and PHC in Greece. Therefore, the study provides a baseline for future research that may investigate the evolution of such attitudes, particularly following the introduction of TOMYs and other PHC reforms.

Conclusion

The current reform of the Greek National Health System, which centers on strengthening PCH, was mainly triggered by the economic crisis that the country is facing. Older and female citizens could play an important role in advocating for family physician's institution in their social environments. Communication of the advantages of a strong PHC to patients and the general public could play a crucial role in increasing public awareness and acceptance of the role of general practice and family medicine.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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