Original Research

The Public’s and Doctors’ Perceived Role in Participation in Setting Health Care Priorities in Greece

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Introduction: The Greek public is currently not represented at any level of the healthcare system’s organisational structure. This study aimed to investigate the opinions of Greek citizens as well as doctors regarding their representation in priority setting and to compare these two groups’ preferences when prioritising competing resources.

Methods: A sample of 300 citizens and 100 doctors were asked by means of a standardised questionnaire: (a) whether their views should inform healthcare decisions; (b) to rank in terms of importance other groups that should participate in the process; and (c) to allocate competing resources to a series of alternative prevention programmes, medical procedures or across different population groups.

Results: As many as 83% of the citizens stated that their opinions should inform decisions regarding prevention and population-group programmes, while a slightly lower 70% believed their opinions should also be heard regarding medical procedures. However, when asked to rank six different population groups in terms of their importance, the public ranked their role quite low. Generally, doctors and patients, and their families were ranked highest, while politicians were ranked last by both groups. Regarding allocation of funds, a remarkable consensus was observed between doctors and the public.

Conclusion: This study documents for the first time in Greece the clear preference for active involvement of both the public and healthcare professionals in the process of priority setting and resource allocation. There is great urgency in complementing these findings with qualitative research methods, such as in-depth interviews and discussions with focus groups, so that a more democratic, participative and transparent process for healthcare priority setting can be initiated, based on the actual needs and health problems of the public.

As a result of the scarcity of available resources, priority setting has now become an integral part of healthcare policy, implemented across multiple areas as well as within different levels and dimensions of the health system.¹,² Decision making, whether about choice of services and prevention programmes, or population groups, geographical areas and specialties, is inevitable. At the heart of the debate is the role of the citizen alongside health professionals in this process. It is often argued that participation of the general public could be achieved through market mechanisms. This, however, cannot always be put into practice because of market imperfections and often limited consumer sovereignty. In a centrally planned and funded public system, the citizen is commonly assigned a passive role, while real health needs and expectations are not directly taken into consideration.
The public’s perspective regarding health care planning and resource allocation has been the subject of studies across several countries; in particular, ways in which the public can become an active contributor to the decision-making process have been of particular interest to academics and policy makers alike. This is reinforced by the common finding across studies that policy makers are unaware of the preferences or needs of the public and that priority setting in many Western European countries does not conform to these preferences or needs.

The current study serves as an exercise in health care priority setting involving citizens as well as doctors in Greece. This is the first time that issues of resource allocation and priority preferences from the public’s perspective have been addressed in a Greek context. The Greek experience is of particular interest, since the design and implementation of a national health action plan with appropriate priority axes is not institutionally established, while the decision making on public health spending and financing is not based on criteria that consider the public’s real needs. Instead, resource allocation practice commonly consists of accounting operations that aim to cover the ongoing operational needs of the health facilities. Decisions concerning financing of the system are based on the previous year’s expenditure, while the financing of the health units is done retrospectively, without major differentiation from year to year or taking into account explicit and comprehensible criteria. In this process, the public is not represented at any level of the healthcare system’s organisational structure; thus, its health needs and preferences are not taken into consideration. The Regional Health Councils that were envisaged by the 1397/83 National Health System (ESY) legislation, through which the viewpoints of the local community could have been expressed on topics such as planning and implementation of health programs, were never set up or operated. Since that time, the issue of local community participation in healthcare priority setting has not been included in any of the subsequent legislation, nor has it ever been treated as a topic of consideration for the top managerial level of the Ministry of Health or the social insurance funds.

The aim here was: a) to investigate the opinion of doctors and members of the general Greek public regarding the perceived role of their involvement, as well as that of various other groups, in the decision making on fund allocation for health care; and b) to juxtapose the public’s and doctors’ choices concerning the prioritising of competing resources to different health care programmes, medical procedures or across population groups.

**Methods**

**Questionnaire**

A wide spectrum of methods have been used for the purpose of eliciting and recording public values and beliefs, including personal interviews, focus groups, public meetings, telephone hot-lines, voting and Delphi methods. A structured questionnaire was used here, developed for the purposes of a similar study by the Department of Public Health and Community Medicine of the University of Sydney to record the opinions of 373 patients in two clinics about their perceived role in health care priority setting. After the necessary permission had been obtained from the authors, the questionnaire was translated into Greek, with the necessary cultural adaptations to accommodate the needs and particularities of the Greek reality. The accuracy of the translation was cross-checked by blindly translating the questionnaire back to English. In order to improve the questionnaire’s comprehensibility, it was initially tested on a small sample of 40 people and feedback from the pilot testing was incorporated in the final version.

While the questionnaire is presented in great detail in the context of the original study for which it was designed, it was also deemed important to include a brief description here, mainly to highlight particular items that were added for the purposes of this study. The questionnaire consisted of 27 questions organised within a framework of five thematic units. The first thematic unit consisted of a sole question where participants were asked to rank nine health sectors or services in terms of allocating financial resources, including high-tech interventions, surgical procedures, psychiatric services, home care and rehabilitation. This item was not present in the original questionnaire but was deliberately added to the Greek version in order to juxtapose the public’s choices with those of doctors. The last thematic unit of thirteen questions was aimed at recording the socio-demographic characteristics of the participants, including their age, sex, level of educational attainment, self-reported level of health, the frequency of their use of health services, and possession of private health insurance. In the case of doctors, their speciality and employment body were also recorded.
As with the instrument used in the original study, the other three thematic units formed the core of the questionnaire. Featuring a common structure, a series of identical questions was included in all three units, each referring to a different level of priority setting, namely: a) prevention programmes, b) medical procedures, and c) programmes aimed at different population groups. For each service category, the participants were asked to:

1. Express an opinion as to whether their views and/or the views of other community members need to be taken into account in the process of fund distribution.
2. Rank in order of importance the groups they believe should participate in the process of decision making regarding resource allocation. The groups included doctors, hospital managers, politicians, patients and their families, the general public, as well as regional health authorities (a category absent from the original instrument but included here to better reflect the Greek reality). The participants were also given the choice to specify other groups not covered by the categories included here.
3. Allocate an additional amount of €10 million to a series of particular actions. As the available amount was not adequate to cover the complete needs of the competing actions that shape each programme (and as such, the allocation of a specific amount to one of the actions clearly affects the availability of funds to be distributed to the other two), the participants needed to take into account the principle of opportunity cost.

Regarding prevention programmes, the participants were given the choice of allocating funds across three alternatives: (i) programmes aimed at educating parents of children with behaviour problems, (ii) vaccinating the elderly against influenza, and (iii) educating and helping students to avoid or quit smoking. Regarding the theme of medical interventions, the actions included: (i) total or partial hip replacement, (ii) removal of eye glaucoma, and (iii) bypass surgery. Finally, the three sub-population programmes introduced a series of choices between population groups with low versus high level of annual family income, different standards of health, i.e. (i) excellent health denoting a life expectancy of 80 years and (ii) poor health denoting a life expectancy of 60 years, as well as across different age groups, i.e. (i) newborns, (ii) children, (iii) adults and (iv) the elderly.

Consistent with the methodology used in the original study, information concerning the problems addressed by each action, the potential impact, the cost, any side effects, etc., was made available alongside the questionnaire. This was important in order to make value judgments and decisions concerning resource allocation; in each case, the participants were asked to report whether they had used the information provided to them in order to reach their decision.

Population sample

The study recorded the opinions of two distinct groups: a convenience sample of 300 Greek citizens and a smaller sample of 100 doctors. Eligibility criteria for members of the public specified that participants should be Greek speaking citizens, 15 years of age or older and residing in the Attica prefecture. The sample of doctors was deliberately collated from within the same geographical region, to cover the majority of medical specialties and represent both primary and hospital care, as well as both the public and the private sectors. Unlike the original study, which focused on health service users recruited in a hospital setting, members of the general public were considered here. The expectation was that members of the general public may express opinions in an impartial manner since, unlike users who may be influenced to a certain extent by existing health problems, they are unaware of their future health needs. In view of important considerations regarding gaining access and ensuring high participation, randomly sampling the general population was not considered. Instead, a convenience sample of employees was chosen from a pre-selected list of a wide range of employers, not necessarily related to health, including public entities (such as Town Halls in the study area), private companies, as well as non-profit organisations. To represent the non-working population, the sample was extended to younger age groups, by sampling a number of schools, and to the post-retirement age, by visiting a number of old people’s homes.

Data collection and analysis

Administration of the questionnaire was initiated in March 2006 and data collection was concluded in June of the same year. The questionnaire was usually distributed personally at the point of access, i.e. place of employment or residence (in the case of the
elderly). Except in the case of the elderly, where the questionnaire was completed in the presence of the interviewer to ensure its better understanding, questionnaires along with instructions were left with the participants to complete in their own time. The small size of the sample, and the personal contact that was developed in the process, allowed for a high response rate of 90% to be achieved. If questionnaires were not returned after a second reminder, a different employer (point of access) was chosen with a view to achieving a final sample of at least 300. At that level, sample size calculations suggested that the study would have sufficient power to detect a difference of as little as half a unit in mean ranking or mean funds allocated (in millions) in a statistical comparison between these two groups, as long as there was consistency in responses (i.e. small variation) within each group. Data analysis mainly involved a descriptive presentation of mean ranks or mean funds allocated to each programme or action, as calculated based on the participants’ responses. The relative importance of financing programmes or the usefulness of different groups in decision making was then determined by relative comparison of the actual mean rank. A more formal investigation of differences in the average ranking or allocated funds assigned by each of the two groups, public and doctors, was carried out using the t-test statistic or Pearson’s chi-square statistic as appropriate. All data manipulation and statistical analysis was performed in SPSS 15.0 for Windows.

Results

Table 1 presents the socio-demographic characteristics of the participants. Women are over-represented while, because of the sampling procedure’s focus on the workforce, the elderly are under-represented. Compared to the general Greek public, participants also tended to have attained higher educational status (as many as 70% with qualifications higher than secondary education), to report good/excellent health, and to have private health insurance. Amongst doctors, 62% were men, 25% had postgraduate titles, and 28% had private medical insurance; even though a small sample, this is a fair representation of the professional category they represent.

Table 2 presents the 9 service categories participants were asked to rank, along with the mean ranking each category received from the public and doctors separately. The table lists these services in terms of importance, as ranked (on average) by the public. With a mean rank of 2.84 and 2.85 respectively, “high tech operating and therapeutic interventions” and “therapy to children affected by life-threatening diseases” were in relative terms ranked as top two priorities by the public. “Health promotion and prevention” and “surgical procedures” were more likely to be ranked third and fourth. Generally, there seemed to be a strong convergence of public and doctors’ opinions as, with only small differences, these four services also received the top positions in the hierarchy from doctors. On average, the various “therapeutic treatment for people over 75 years” received the lowest ranking from both groups with “long-term hospital care for the elderly” also positioned at the bottom of the hierarchy (positions 8 and 7 of 9 amongst the public and the doctors, respectively). It is also worth noting that the category for which there seemed to be noticeable disagreement was “intensive care units for premature newborns”, which the public ranked at position 5 while doctors placed it at a marginal distance before the last position in the hierarchy. Although based on only nine pairs, Spearman’s correlation coefficient between the rankings was as high as 0.867 (p=0.02).

When the two groups were asked about their active involvement as a group in the process of resource allocation, at least three quarters of the respondents from both groups responded positively with reference to all three levels investigated here: i.e. prevention, medical and population-group programmes (Table 3). Some differences were observed, with 81% of doctors supporting a greater role for medical procedures in resource allocation, in comparison to 70% of the public (p=0.03). In contrast, 83% of the participants from the public requested a greater participation for the financing of programmes addressed to different population groups, in comparison to the observed low 65% among the doctors (p<0.01).

Both public and doctors perceived a need to ensure the active participation of other social groups in the process of priority setting. When asked to rank six different groups in terms of their role, doctors as a group were generally ranked high. Table 4 presents the average ranking allocated to each of the groups by the public and doctors separately. Amongst themselves, doctors clearly claimed to have the greatest role across all three levels. If not also receiving the highest rank by the public, as was the case for medical interventions, they were placed only just in second position, behind patients and their families. Interestingly, while the vast majority of members of the
public believe that as a group they have a legitimate role to play (Table 3), they rank themselves quite low by comparison to other groups such as patients and their families, as well as health professionals, yet always higher than politicians. Politicians were consistently ranked at the bottom of the hierarchy by both groups. A great number of participants also nominated groups other than the ones presented to them. Non-government organisations, academics, researchers, social workers, psychologists, health economists, primary healthcare nurses and local authorities were some of the main groups nominated.

Regarding the resource allocation task, a striking consensus was observed between the public and doctors in at least two out of the three category programmes. Table 5 presents the funds allocated on average (and standard deviations) to each of the programmes by the public and doctors separately. Generally, not only were the funds allocated to each programme on average comparable between the two groups, but the observed variability in the answers provided amongst participants of each group was relatively small, more so among doctors. While pairwise comparisons might reveal some significant differences between the two groups, the distribution of funds across programmes on the whole (and the resulting ranking of perceived importance) was largely comparable. More specifically, regarding prevention programmes, the public allocated the highest share on average to “education and assistance to students...
in avoiding or quitting smoking” while the doctors ranked “educating parents of children with behaviour problems” slightly higher. “Vaccination of the elderly against influenza” was in last place, with the smallest share on average by both groups. In general, however, no significant differences were observed between the amounts allocated across the three programmes by the two groups (p=0.50). Regarding medical interven-
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Table 5. Allocation of €10 million to different healthcare programmes as calculated by the public and doctors (values are x €1000).

<table>
<thead>
<tr>
<th>Prevention programmes:</th>
<th>Public Mean (SD)</th>
<th>Doctors Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educating parents of children with behaviour problems</td>
<td>3.64 (1.55)</td>
<td>4.42 (1.57)</td>
</tr>
<tr>
<td>Vaccinating the elderly against influenza</td>
<td>2.38 (1.48)</td>
<td>1.98 (0.86)</td>
</tr>
<tr>
<td>Educating and helping students avoid or quit smoking</td>
<td>4.12 (2.51)</td>
<td>3.59 (2.37)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medical interventions:</th>
<th>Public Mean (SD)</th>
<th>Doctors Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total or partial hip replacement</td>
<td>2.41 (0.96)</td>
<td>2.44 (0.87)</td>
</tr>
<tr>
<td>Eye operation for glaucoma</td>
<td>2.09 (0.97)</td>
<td>2.05 (0.84)</td>
</tr>
<tr>
<td>Surgical heart interventions (bypass)</td>
<td>5.50 (1.51)</td>
<td>5.51 (1.27)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Programmes for different population groups:</th>
<th>Public Mean (SD)</th>
<th>Doctors Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socio-economic status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>7.57 (1.20)</td>
<td>7.61 (1.63)</td>
</tr>
<tr>
<td>High</td>
<td>2.43 (1.20)</td>
<td>2.39 (1.19)</td>
</tr>
<tr>
<td>Age group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newborn babies</td>
<td>2.75 (1.15)</td>
<td>1.86 (1.05)</td>
</tr>
<tr>
<td>Children</td>
<td>3.11 (2.78)</td>
<td>3.45 (1.41)</td>
</tr>
<tr>
<td>Adult workers</td>
<td>2.60 (2.05)</td>
<td>2.89 (1.61)</td>
</tr>
<tr>
<td>Elderly</td>
<td>1.78 (1.71)</td>
<td>1.80 (1.35)</td>
</tr>
<tr>
<td>Health status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10,000 people of low health status</td>
<td>7.07 (3.70)</td>
<td>6.98 (1.80)</td>
</tr>
<tr>
<td>10,000 people of high health status</td>
<td>3.14 (1.52)</td>
<td>3.02 (1.80)</td>
</tr>
</tbody>
</table>

The majority of responders amongst both groups believed they had a legitimate role to play across all three levels of priority setting investigated here. However, when asked to rank six different population groups in terms of the perceived importance of their preferences, the general public ranked their role quite low, behind that of patients and their families and health professionals. Politicians were ranked last by both groups. Generally, a striking consensus was observed between doctors’ and the public’s opinions regarding funds allocated to different programmes.

The findings cannot be generalised to the Greek general public. However, the main aim here was not to achieve an accurate representation of the opinions of the Greek public in general, but to set up a comparison whereby the choices made by two distinct groups, doctors and citizens, could be juxtaposed. It should be noted that, unlike similar exercises abroad that recruited participants in the hospital setting, the findings reported here arose from a sample of generally healthy working citizens, whose opinions should not have been influenced by their own health experiences at the time. This is the first time such an exercise has been attempted in the Greek context; it revealed that as a group, citizens both believe they...
have a legitimate role to play in priority setting and resource allocation, and perform as well as doctors in allocating funds to diverse programmes.

Both Wiseman et al\textsuperscript{10} and Rosén\textsuperscript{14} cite a number of reasons for the need of public involvement in healthcare priority setting; these include transparency, equity, fairness, effectiveness and responsiveness of the healthcare system and health professionals towards patients. Furthermore, such participation can enrich health policies with new and innovative ideas, promote trust and accountability between the public and doctors, and legitimise a client-centred approach to the health services provided. Nevertheless, despite the observed consensus on its importance and the fact that it is characterised as a desirable aim by the World Health Organization, involving the public in healthcare priority setting is neither simple nor easy to implement. Issues include the means and processes necessary for involving the public, the degree to which the public’s needs and preferences can be taken into account by the healthcare policy makers, and how needs and expectations (and their impact) might be consolidated into the process. Furthermore, it is not uncommon for researchers to express scepticism and concerns as to the purpose or usefulness of public participation in healthcare priority setting,\textsuperscript{15} based on research findings that the public may overly emphasise the importance of life-saving technologies and the provision of end-of-life services to patients, or may tend to favour those with higher education and may be unjust to those whose opinion is not easily heard.\textsuperscript{16,17}

A review of the literature suggests that relevant studies can be classified into two main categories based on their findings. The first category consists of studies that suggest the public and the healthcare professionals are in their majority positive towards pursuing an active involvement in the processes of healthcare priority setting and recourse allocation.\textsuperscript{10,14,18-20} The second category would include studies that suggest healthcare priority setting is the responsibility of doctors and other healthcare specialists but not of the general public.\textsuperscript{21,22} Participants may even declare their unwillingness to answer questions related to the subject of healthcare priority setting and argue that, given their limited knowledge, they are not equipped to express valuable opinions.\textsuperscript{23} Other than the different perceptions and expectations of the general public, these opposing research findings may be to some extent due to the methodological design, sampling procedures, the diverse methods of approaching the general public, as well as the different formulation of the research questions across the studies. As many as 23 different methods of recording and registering public opinions and preferences have been identified.\textsuperscript{14} It is true that findings of studies with a closed-ended questionnaire, such as the one used here, might be substantially different from those derived when more qualitative research methods, such as in-depth interviews, are used.

In general, the current research exercise is consistent with the findings of similar studies abroad that made use of questionnaire design, where the vast majority of the research participants argue that they, along with other social groups, should be active participants in priority setting. Given the diversity of the programmes investigated here, some of the differences observed are not surprising, since in the case of medical procedures the need for relevant education and specialised skills may be perceived as important by the public, while in the case of population-based programmes perceptions and values about the uniformity of care in the population from a clinical point of view may influence doctors’ responses. It is also worth noting that the notion of giving politicians low-ranking positions does not constitute a Greek paradox: on the contrary, it is also the result of similar studies elsewhere.\textsuperscript{14,19}

It is true that the responses from the two sample groups (the general public and the doctors) might have been substantially different had additional information and details concerning the framework and procedures of participation, the opportunity cost regarding time, the responsibilities and consequences of decisions and other relevant issues, been made available to the research participants. A plausible explanation of the uniformity of responses recorded is the argument, often advanced in the relevant literature, that the nature of the research questions results in affirmative answers. In fact, for particular items, such as resource allocation between two programs addressing two groups with different socio-economic level or level of health, the responses were perhaps obvious and foreseeable. Detailed information about the results, impact and cost of each programme subject for funding was given to participants as part of the questionnaire and, as indicated in similar studies, when presented with adequate information, the public’s opinion may better match that of the specialists.\textsuperscript{24} Here, as many as 70% of the public responded that they based their responses on that information. Interestingly, only 20% of doctors claimed to have used the additional information.

Undoubtedly, in the everyday process of priority setting and resource allocation, a wider variety of parameters and facts need to be considered and taken
into account. The fact remains that technical and complex details cannot always be easily understood by the general public and, in some cases, even by healthcare professionals. Therefore, the formulation of research questions that incorporate the complexity of the daily decision making and that can also be expressed in a manner comprehensible to both the public and healthcare professionals is a complex and demanding task.

Conclusions

Despite the fact that the sample of the general public used for the purposes of the current exercise was not representative of the general Greek population, the research findings are invaluable in the sense that they document for the first time in the Greek context the clear need and preference for active involvement of both the public and the healthcare professionals in the process of priority setting and resource allocation. Active participation of the general public presupposes not only a clear sense of a country’s financial potential but also a greater sense of social responsibility. However, as it stands right now, the citizens may be more demanding of social benefits than willing to pay back through taxation. This may be the main reason for the observed supremacy of the demand for “unlimited healthcare” over the concept of “unlimited healthcare funding”. The objective to be pursued is the establishment of the necessary structure and framework that will promote active public participation in healthcare decision making is nowadays a necessity. In the Greek context, there is an urgent need to complement these initial findings with qualitative research techniques, such as in-depth interviews and discussions with focus groups, so that a more democratic, participative and transparent process for healthcare priority setting and resource allocation can be initiated, based on the actual needs and health problems of the public.

References