The public's priorities in health services

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Abstract

Background Rationing in health services cannot be solved only by cost-effective analysis because social values play a central role in the difficult trade-off dilemma of prioritizing some service over others.

Objective To examine the relative importance ascribed by the public to selected components of health services, in the national allocation of resources as well as in their personal insurance.

Methods A telephone survey of a representative sample of the Israeli adult population ($N = 1225$). Two versions of the questionnaire were used. At the national level, interviewees were asked to assume they were the Minister of Health. At the personal level, interviewees were asked to choose items to be included in their personal complementary health insurance.

Results Check-ups for early disease detection and nursing care for the frail elderly got the highest support for extra budget as well as to be included in personal insurance. Other items presented were fertility treatments, cardiac rehabilitation, mental health, dental health, programmes for preventive medicine and health promotion, subsidizing supplemental insurance for the poor, additional staff for primary clinics and building a new hospital. The lowest support was for alternative medicine and for cosmetic surgery. No subgroup in the Israeli society presented a different first priority.

Conclusion The Israeli public does not give high priority to 'nice to have' services but their selections are 'mature' and responsible. Rationing in health care requires listening to the public even if there are still many methodological limitations on how to reflect the public's opinion.

Introduction

The increasing cost of health-care systems is attributed to demographical factors as well as to technological intensive development; however, socio-political and cultural factors also have a strong influence. For example, the wide-scale

development of comprehensive insurance and of intensive consumerism intensified the expectations for accessibility to high-quality health care. In addition, changes in attitudes towards health and the continuous medicalization of more and more areas expanded the scope of health care.

Since the 1980s, many countries attempted to control the increasing costs of health-care systems by controlling expenditures through budget limitations and by developing new models of managed competition. However, these attempts actually heightened the recognition of the need to cope with selection, all health systems need some kind of rationing because no country is able to provide to everyone, all the technologies medicine offers. In particular countries with a national health system need to define and to restrict the basket of services, the government grants to the citizens.¹

Health care in Israel is universal and participation in a medical insurance plan is compulsory. The National Health Insurance Law from 1995 made membership in one of the four existing Health Maintenance Organizations (HMOs) compulsory for all Israeli citizens. The law determined a uniform and wide benefits package for all citizens. In addition, the law set out a system of public funding for health-care services by means of a progressive health tax, administered by Israel's social security organization (National Insurance Institute), which transfers funding to the HMOs according to a certain formula based on the number of members in each fund, the age distribution of members and a number of other indices. For additional fee, a voluntary additional or complementary insurance is provided by each one of the HMOs.

Rationing in health services cannot be solved only by cost-effective analysis because social values play a central role in the difficult trade-off dilemma of prioritizing some service over others.² An effective rational and accountable decision-making process demands specification of the explicit values involved. Because of that there is an increasing interest in hearing the public voice.³ How does the public prefer that the resources society designates for health be allocated? What are the 'must have' and what are the 'nice to have' among the wide range of components and services?

At the normative level, strong emphasis is given to public deliberation and the public involvement in the decision-making process,

however, much less is done de-facto to formally hear the public's priorities in health care. This raises the issue of whether or not the public is capable of expressing their priorities in health care. Are the priorities produced by public opinion surveys relevant and useful for decision-makers? Much depend on what and how we ask the public. Not much academic research on the public's priorities in health services was published in the professional literature. In the United States (US) many surveys have been conducted to explore the public's opinion on health policy issues such as the relative importance of a variety of diseases or health situations, on what have to be the priorities of the health system, on the relevance of particular health issues in the congress agenda, or on what should be the focus of the government's priorities in health.^{4,5} In Canada the public's priorities were investigated regarding health issues such as accessibility and waiting time for different services, manpower, accountability and quality control, provision of medicines and home care.⁶ Some surveys examined citizen's attitudes towards rationing and priority setting in general⁷ and many surveys collected data on the relative importance awarded to different criteria for rationing, presenting to participants a mix of patient, disease and treatment characteristics as well as social values.⁷⁻¹¹ Economists try to measure the public's preferences through utility assessment of different options, mostly measuring QALY's^{3,12,13} or by applying discrete choice experiment to obtain weights from the public for use in priority setting.¹⁴ A more concrete approach in surveys is to present a list of specific health services or categories of services¹⁵⁻²⁴, sometimes mixed with patients' characteristics.^{8,9,20,25,26}

The originality of our survey resides in the differentiation between priorities at the national and at the personal level as well as in the methodology of the question presented to interviewees. The question specifically asked to allocate an extra budget, and not to distribute the entire health budget. In addition, the question combines the rating and the ranking method by asking interviewees to rate independently

each item presented to them, but after that they were asked to choose their first priority among the items to which they awarded high priority. The principal difference between these two techniques is that ranking forces interviewees to choose between alternatives, a process that demands some level of 'sacrifice'; while rating allows unconstrained choices or independent valuation of each alternative.²⁷

The list of items presented included broad areas or service's categories in the health system; including prevention and care, services not included today in the basic basket of services covered by the National Health Insurance and services for which there are critics on the wide coverage offered, as well as infrastructures and solidarity values, hoping the list allows evaluation of the nature of the health system the public prefers.

Aims

To examine the relative importance ascribed by the public to selected components of health services, in the national allocation of resources as well as in their personal insurance.

Methods

A telephone survey was conducted with a representative sample of the Israeli adult population aged 18 and over. The sample design as well as the collection of data was performed by The Cohen Institute for Public Opinion Research from Tel Aviv University. The phone interviews were conducted during June–August 2008 and were carried out in Hebrew, Arabic and Russian.

A probabilistic stratified sampling of households was built based on the official statistical areas characterized by socio-demographical characteristics. Areas were then matched with the computerized list of subscribers to the national telephone company, and households were randomly chosen. The proportion of Israeli households that possess landline telephones is 85%.²⁸ Only one adult in each household was interviewed.

There were two versions of the questionnaire to overcome the limitation of the length of the questionnaire for a telephone survey. The sample size was doubled and the two versions of the questionnaire were randomly assigned. This was based on the principles of partial questionnaire design method.^{29,30}

The number of households in the target sample was 7012, of these 3583 contacts turned out to be abortive (fax numbers, commercial numbers, disconnected numbers, failure to establish contact following up to five trials). Contact was established with 3429 households. Of these, 2204 did not agree to take part in the survey (actual response rate of 36%). The final sample included 1225 questionnaires.

Variables

The public's priorities were assessed by asking interviewees to assume they were the Minister of Health and as such to rate in a four categories scale to which extent they would allocate an extra budget to each of the items presented to them. The items in one version of the questionnaire included: fertility treatments, cardiac rehabilitation, check-ups for early disease detection, mental health, subsidizing supplemental insurance for the poor and alternative medicine. The second version of the questionnaire included: nursing care for the frail elderly, dental health, programmes for preventive medicine and health promotion, additional staff for primary clinics and building a new hospital. An additional question asked interviewees to indicate their first priority. The list of items was built through a systematic consultation with all stakeholders: professional colleagues, about 25 senior Israeli professionals in health policy, most of them top decision-makers in the Israeli Health System, and lay people participating in small discussion groups.

The public's priority at the personal level was assessed by asking interviewees to rate to which extent they will choose to include each one of the items in their personal complementary health insurance. From the previous lists a few items were deleted (subsidizing complementary

insurance, building a new hospital, fertility treatments and adding clinic staff) and they were replaced by cosmetic surgery, getting a second opinion and hospitalization in a private hospital. Here, again interviewees were asked to rate on a four level scale each item and finally to choose their most important priority.

Independent variables used in this analysis included: age, gender, population groups (Jews and Arabs), education (assessed by the highest degree the respondent attained: elementary and middle school, high school, any studies beyond high school but without an academic degree, and having a degree from a university or college), household income (interviewees were asked to place themselves in relation to the average income presented to them in one of the following categories: very below the average, below the average, average, over average, very over average), employment status (salaried, self-employed, pensioner, unemployed and homemaker) and children/marital status (recoded as: single-parent family, married couple with children, no children whether married or single). Health-related variables include: self-evaluation of health status (classified as excellent, very good, good, not so good and bad), intensity of exposure to the health system (two questions on utilization of services during the last year were combined into one measure: no contact at all with the medical system, no contact but visiting someone hospitalized, at least one visit to a community physician, was hospitalized or received hospital outpatient treatment), HMO (under Israeli National Health Insurance each person is insured in one of four HMOs), having or not complementary/supplemental health insurance (voluntarily acquired from the HMOs) and having or not private health insurance.

Statistical analysis

Data analyses were performed using the SAS (Version 9.13, Cary, NC, USA).

Chi-square analysis was used in bivariate analysis. Multivariable logistic regression analysis

was performed including independent variables significant at a 20% level.

Results

The sample accurately represents the Israeli population as can be seen in Table 1. The sample has some overrepresentation of married people, Arabs, high education, high income and people with supplemental health insurance.

Figure 1 presents the percentages of interviewees rating at the highest level (4. Sure that I will give the extra budget) to each of the 11 items. Check-ups for early disease detection got the highest support for extra budget and nursing care for the frail elderly in the second place. The item with the lowest support was alternative/complementary medicine.

Participants were asked in addition which of the items they will choose as first priority. As explained in the methodology, there were two versions of the questionnaire. In Fig. 2, the items presented in version 1 are shown and in Fig. 3 the items included in version 2. Nursing care for the frail elderly and early disease detection was outstandingly choose as first priority.

The importance the public assigned to selected areas of health care in their private life was measured by asking interviewees to assume it was possible for them to choose which services are included in their personal insurance. Figure 4 shows the percentage of respondents that rate at the highest level (4. for sure I will choose to include) for each one of the 10 items. Two-third of the interviewees (67%) will prioritize check-ups for early disease detection, and over half will prioritize cardiac rehabilitation (60%) and nursing care for the frail elderly (58%). Next, interviewees were asked to choose the first priority among those items they had assigned high priority. As explained previously, the two versions of the questionnaire included different items which are presented in Figs 5 and 6. It can be seen that the same items choose in the budget distribution were choose, even more prominently, for personal insurance: check-ups for early disease detection (46%)

Table 1 Demographic, socio-economic and health characteristics of the sample and of Israeli population (percentages)

	Sample	Israeli population ¹
Total	1,225 100.0	4.793000 100.0
Age-groups		
18–29	24.2	23.3
30–49	36.5	36.9
50–59	16.2	15.1
60–69	13.7	9.4
70+	9.2	10.6
Unknown	0.2	4.7
Gender		
Male	49.9	48.5
Female	50.1	51.5
Population groups		
Veteran Jews	73.1	81.8
Jews new immigrants ²	1.7	2.1
Arabs	25.2	16.1
Marital status		
Married	70.7	63.8
Not-married	29.3	36.2
Education ³		
Elementary, middle and high school	47.4	55.9
Higher than high school	21.3	19.0
Academic	29.3	25.1
Unknown	2.0	0.0
Household income ³		
Considerably lower	23.8	46.2
Somewhat lower	17.4	
Average	22.7	23.5
Somewhat higher	17.8	17.1
Considerably higher	7.4	
Unknown	10.9	13.2
Employment status ⁴		
Salaried	43.7	49.4
Self-employed	12.4	6.5
Not working	43.8	44.1
Retired	15.8	
Housewife	8.9	
Unemployed	6.5	
Student/soldier	6.4	
Other	4.3	
Unknown	2.0	
Self-evaluation of health status ⁵		
Excellent	34.2	44.4
Very good	25.6	
Good	25.6	35.2
Not so good	10.8	14.3
Bad	2.6	5.8
Unknown	1.1	0.2

Table 1. Continued

	Sample	Israeli population ¹
HMO ⁶		
Clalit	60.0	56.1 (56.6)
Macabi	17.8	24.3 (23.3)
Mehuhedet	9.6	10.6 (10.8)
Leumit	9.2	9.0 (9.3)
Unknown	3.4	
Supplemental health insurance ⁶		
Yes	75.0	67.0

¹Central Bureau of Statistics. *Statistical Abstract of Israel 2008*. Average data of 2007 for population aged 18 and over.

²Residing in Israel 10 years or less (immigrated since 1999).

³Data for Israeli population: Central Bureau of Statistics. *Social Survey 2008*. The survey is conducted in a sample of 7300 participants aged 20 and over.

⁴Data for Israeli population: Central Bureau of Statistics. *Labor Force Survey 2011*. Percentages are computed from Israeli population 15 years old and over.

⁵Ministry of Health. *A decade after the National Health Insurance Law – statistical data 1995–2004*. Jerusalem: February 2005. The data for the Israeli population relates to the age-group 25+ and in parentheses for 15+.

⁶Ministry of Health. *Public report of HMOs' supplemental health insurance for the year 2006*. Jerusalem: July 2008. The percentage of insured persons is the same for age-groups 25+ and for 15+.

and nursing care for the frail elderly (44%) were chosen as first priority much above all other items.

The tendency to prioritize early disease detection in the national budget distribution was statistically related only to age (40% of those aged 18–64 choose this item as first priority but only 25% of those aged 65 and over, $P = 0.022$). However, in the multivariable analysis (Table 2), gender was the only significant variable in the model. The tendency to prioritize nursing care for the frail elderly was also significantly associated with age but in the reversed order: the item was chosen by 36% of those aged 18–39, 48% of those aged 40–64 and 46% among those aged 65 and over ($P = 0.038$). Jews choose the item 1.3 times more than Arabs (46 vs. 34%, $P = 0.013$). In the multivariable analysis, only the difference between Arabs and Jews remained significant (Table 2).

Choosing early disease detection as first priority in the personal insurance was associated with age (25% among those 65+ compared with over 40% in the younger age groups,

Figure 1 The relative importance the public assign to selective areas of health care.

Figure 2 The area chosen as first priority for receiving the extra budget (the options presented to half of the sample).

$P = 0.022$), by health status (32% among those reporting poor health compared with about 50% among those reporting good health) and by income (40% among those with income below the average compared with 57% among those with income above average). In the logistic model (Table 3), none of the independent variables were significant, only the lesser tendency of those over 65 to choose early disease detection as well as the stronger tendency of those with above average income to choose this

item is significant. Choosing nursing care for the frail elderly as first priority was associated with age (37% among the youngest <40 and over 45% in the other age groups, $P = 0.038$) and employment status (self-employed choose nursing care less than others, $P = 0.003$). No variable was significant in the multivariable analysis (Table 3).

Despite these findings, it has to be emphasized that no subgroup in the Israeli society presented a different first priority.

Figure 3 The area chosen as first priority for receiving the extra budget (the options presented to half of the sample).

Figure 4 The relative importance the public assign to selective areas of health care in personal insurance.

Discussion

Not much research to evaluate the public's priorities in health services has been conducted and consensus has not yet been achieved regarding the best technique to articulate and express the public's values in surveys.²⁷ The method developed in this survey is a combination of rating and ranking methods, we believe this an optimal solution for telephone interviews as it forces interviewees to go through all the list

of items before ranking them. The task assigned to interviewees was to allocate an extra budget so that they have to take into consideration the actual resource invested in the area and to prioritize where extra investment is needed in their opinion. An innovation in this survey is the assessment of the public's priorities at the national policy level as well as at the personal level, enabling to look at the public's preferences both as consumers and as citizens.

Figure 5 The area chosen as first priority for personal health insurance (the options presented to half of the sample).

Figure 6 The area chosen as first priority for personal health insurance (the options presented to half of the sample).

Generally, it is difficult to compare survey findings because of major differences in the questioning methods used and in the list of items presented to the public. We intend to carefully compare between our findings and other studies whenever possible.

Examinations/tests for early disease detection, as well as nursing care for the elderly were given high priority among the Israeli public, in both the distribution of national resources and in personal insurance. These items were chosen much more often than dental health, mental health, fertility treatments, cardiac rehabilitation, alternative medicine, building a new hospital, adding clinic staff and subsidizing complementary insurance for the poor; and in the personal insurance, the list included also cosmetic surgery, getting a second opinion and hospitalization in a private hospital.

In surveys in which the list presented to interviewees included any reference to institutions for long-term care of chronic elderly patients, the item was mostly given a medium priority: in Finland, it was ranked 6 from 16 items³¹; in

England, 5 from 10 services¹⁸; in another survey in England, it was ranked 8 from 16 items²⁵ and in a third survey in England, 10 from 12 items; however, 'special care and pain relief for people who are dying' was ranked second¹⁸. It is interesting to note that in Chinitz and Israeli's study in Israel, nursing care was ranked in the middle of the list in the trade-off questions; however, the related vignettes got a high average score (A. Israeli, D. Chinitz, N. Galai, unpublished data).

The item 'nursing care for the frail elderly' covers up many different issues. We need to explain first that there is here a problem of wording: the concept in Hebrew for nursing care ('tipul seudi') does not immediately imply hospitalization; it can be understood as home care as well. We assume that in Israel the public is more acquainted with the Long-Term Care Insurance Law implemented by the National Insurance Institute in cooperation with the Ministry of Social Affairs and the general health services. According to the law, long-term care benefit is given to people who have reached retirement age, are living at

Table 2 Logistic regression models for the first priorities at the national level in both versions of the questionnaire

Variables	Nursing care for the frail elderly			Check-ups for early disease detection		
	Odds ratio	95% confidence limits	P-value	Odds ratio	95% confidence limits	P-value
Age groups			0.39			0.11
18–39	1.0			1.0		
40–64	1.3	0.9–1.9		1.2	0.8–1.7	
65+	1.1	0.6–2.0		0.5	0.2–1.1	
Gender						0.04
Women				1.0		
Men				0.7	0.5–1.0	
Education			0.08			0.56
Elementary school	1.0			1.0		
High school	0.8	0.5–1.5		1.3	0.6–2.9	
Academic	0.6	0.3–1.1		1.5	0.7–3.2	
Population group			0.02			
Arabs	0.6	0.4–0.9				
Jews	1.0					
Employment status						0.26
Salaried				0.9	0.5–1.7	
Self-employed				1.0		
Not working ¹				0.7	0.4–1.3	
Family income						0.80
Above				1.0	0.6–1.7	
Average				1.0		
Below				0.9	0.6–1.4	
Exposure to health system						0.46
Non utilizer ²				1.4	0.8–2.7	
At least one visit to a community physician				1.3	0.8–2.1	
Hospitalized or outpatient treatment				1.0		
Complementary insurance			0.56			
Yes	1.0	0.7–1.6				
No	1.0					

¹Pensioner, unemployed, homemaker.²No visits to a physician, no visits to a physician but visiting someone hospitalized.

home and require the assistance of another person to perform routine tasks (dressing, bathing, eating, moving around the house, etc.), and to the elderly who require supervision at home for their own safety. A person who is entitled to long-term care benefits is not provided with monetary benefits, but rather with long-term care services to assist him in his daily activities, in running the household and helping his family with his care and supervision.³² The issue of long-term hospitalization in nursing care institutions is much more complicated, and the public is generally not familiar with it. In a survey con-

ducted in 2006 (G. Ben-Nun, G. Kaplan, A. Abulafia, A. Oren, I. Shoham, unpublished data), 46% of Israelis evaluated their knowledge level on the subject as 'very low' or 'low'. Long-term hospitalization for nursing care is not yet included in the basic basket of services covered by the HMOs. In the survey mentioned before (G. Ben-Nun, G. Kaplan, A. Abulafia, A. Oren, I. Shoham, unpublished data) 73% 'strongly support' or 'support', the suggested possibility that this service should be included among the entitlements in the National Health Insurance Law by adding a defined amount to the actual health tax, and

Table 3 Logistic regression models for the first priorities at the personal level in both versions of the questionnaire

Variables	Nursing care for the frail elderly			Check-ups for early disease detection		
	Odds ratio	95% confidence limits	P-value	Odds ratio	95% confidence limits	P-value
Age groups			0.38			0.11
18–39	1.0			1.0		
40–64	1.2	0.8–1.7		0.7	0.5–1.2	
65+	1.4	0.8–2.6		0.4	0.2–1.0	
Health status						0.93
Excellent				0.9	0.6–1.8	
Very good				0.9	0.5–1.6	
Good				1.0		
Not so good + bad				0.9	0.4–1.7	
Education			0.43			0.70
Elementary school	1.0			1.0		
High school	0.7	0.4–1.3		1.3	0.6–2.8	
Academic	0.7	0.4–1.2		1.4	0.6–2.9	
Population group			0.20			
Arabs	0.8	0.5–1.1				
Jews	1.0					
Employment status			0.13			0.77
Salaried	1.5	0.9–2.6		1.1	0.6–1.9	
Self-employed	1.0			1.0		
Not working ¹	1.7	1.0–3.0		0.9	0.5–1.7	
Exposure to health system						0.52
Non utilizer ²				1.2	0.6–2.2	
At least one visit to a community physician				1.3	0.8–2.1	
Hospitalized or outpatient treatment				1.0		
Private health insurance						0.16
Yes				1.3	0.9–2.0	
No				1.0		
Children/marital status						0.94
No children				0.9	0.4–2.0	
Married with children				1.0	0.5–2.0	
Single parent				1.0		
Family income						0.08
Above				1.7	1.0–2.7	
Average				1.0		
Below				1.1	0.7–1.7	

¹Pensioner, unemployed, homemaker.²No visits to a physician, no visits to a physician but visiting someone hospitalized.

the support increased to 86% after a short explanation on the proposal.

At least part of the issue regarding mental health can also be seen as providing care, but while nursing care for the frail elderly received the highest support, the mental health item was chosen only by a small sector of the public. The same trend can be seen in the findings of Chinitz and Israeli (A. Israeli, D. Chinitz, N. Galai, unpublished data; D. Chinitz, A. Israeli,

unpublished data), the European study³³, the project in North Carolina²³ and to some extent in the Finland's survey³¹. A possible explanation for this phenomenon is that while everybody can see him/herself in the future as potential client of nursing care, mental health institutions are still suffering from stigma and prejudice so that most interviewees perceived mental needs as existing among certain type of persons that the interviewee do not see him/

herself or his/her acquaintances belonging to. Three studies present different results. Two surveys using the same questionnaire^{20,26} in which the item defined as 'Psychiatric services for people with mental illness' was ranked 6th among 12 items while 'Long stay hospital care for elderly people' was ranked in the 10th place in Great Britain and in the 8th place among Chinese people in Hong Kong.

In a structured group exercise conducted in North Carolina, 'Mental health and substance abuse (pays for counselling and therapy, treatments of mental illness and alcohol and drug abuse)' was ranked in the 8th place, while long-term care in a residential or nursing home was ranked in the 13th place among 234 low-income uninsured individuals.²² These discrepancies between countries suggest that culture is important in the individual's prioritizing of services, and individual decision making regarding the importance of services is influenced by the society in which the individual lives.

Check-ups for early disease detection was ranked second in this survey, also in addition, programmes for preventive medicine and health promotion were ranked relatively high. A significant finding is that these two items were also ranked high for inclusion in personal insurance. Chinitz and Israeli's surveys (A. Israeli, D. Chinitz, N. Galai, unpublished data) included two prevention related vignettes – stop smoking and dental prevention for children – these were ranked relatively low, but in the trade-off questions of the 2003 survey, routine check-ups for diabetes and for breast cancer were ranked relatively high (D. Chinitz, A. Israeli, unpublished data). Prevention services are usually ranked high in surveys^{15–17,20,21,26}; however, people seem to differentiate between different prevention services. Chinitz and Israeli (D. Chinitz, A. Israeli, unpublished data) mention that the Israeli public gives high priority to medical prevention care but much less to behavioural/educational prevention programmes. In an English survey¹⁹, childhood vaccinations were ranked first among 10 items and routine check-up for breast cancer in the 3rd place, while educational programmes for

tobacco prevention among children was ranked at the 8th place. In another survey in England²⁵, screening and vaccinations ranked 3rd among 12 items, while health promotion ranked 8th. In a third survey in England¹⁸, vaccinations were in the 3rd place among 10 items, while family planning was in the 8th place and help for those who want to stop smoking in the 9th place. It is interesting to note that helping smokers to quit received low priority in England however these findings may represent negative attitudes against smokers and not actually negative attitudes towards prevention. Two additional surveys, in England²⁵ and Finland³¹, found low priority for prevention services.

Half of the public for certain will support granting the extra budget to subsidize supplemental health insurance for the poor, similar support as given to cardiac rehabilitation. When constrained to choose only one item, 15% prefer to use the budget for this purpose. Chinitz and Israeli (D. Chinitz, A. Israeli, unpublished data) included also this item, and it was ranked relatively high. This finding denotes that values of social solidarity are still strong in Israeli society. In the exercise conducted in North Carolina, over half of the sample of low-income uninsured persons chose to award a meaningful discount to people without health insurance²², but among the sample of new insured members²³ only 36% support the discount. In another survey in the US³⁴, half of the sample was asked to select services to be included in health insurance for all the population, while the other half was asked to select services to be included in health insurance for low-income families. A comparison of the ranking of services between both samples shows only minimal differences. This finding demonstrates that the public believes that the insurance package for low-income persons has to be similar to the package for all the population.

Fertility treatments, alternative/complementary medicine and cosmetic surgery consistently received low priority in surveys.^{20,22,23,25, 26,28,34,35}

The results of this survey shows that the Israeli public gives priority to care and prevention, and when looking at the nature of the items to which they grant priority, it is apparent that the Israeli public does not give high priority to 'nice to have' and 'pampering' services but their selections are 'mature' and responsible.

In interpreting the findings, it is important to emphasize that the survey did not ask the public to distribute the entire health budget but to select to which area to award the extra budget. It suggests that the public takes into consideration the current situation and they choose the areas that in their opinion are more in need of additional financial support. For example, while the public appears to consider that there is sufficient coverage of fertility treatments in the actual basket of services, nursing care for the elderly and tests for early disease detection may need additional support.

There is not a single explanation for the priorities of the public because there is not a single criterion which can explain the surveys' results, nor cost, price or effectiveness and for certain not cost-effectiveness, neither the number of people in need for the service. In some of the areas, it is hard to separate the importance the public gives to certain needs, from the attitudes towards the persons needing the service and from the public's belief in the effectiveness of the service, such as in mental health or fertility treatments.

The survey presented in this study has the usual limitations of public opinion surveys: framing effects, expression of opinions even without knowledge, influence of parallel external events such as the media on people's opinion. Only a short list of items was presented to interviewees and most items represented categories of services including a broad range of situations or treatments. For example, the mental health item in Fowler's survey³⁴ was represented by three vignettes which gained different support: 88% of the public ranked high the treatment of persons with suicide tendency, 70% the treatment of severe depression but only 47% ranked high counselling for marital

problems. The low support for cosmetic surgery does not mean that people do not attribute importance to breast reconstruction following mastectomy or facial plastic surgery following trauma.

To reveal the public's values, a range of different methods may be employed. A central point of concern is the use of ranking vs. rating. Mullen referred to the use of constraints in characterizing the public's priorities by forcing interviewees to choose between items presented to them, in contrast to the technique of asking the interviewee to evaluate independently each one of the items.²⁷ In a pilot study for the national survey conducted in Finland, a test of reliability and validity of answers was performed.³¹ They found that interviewees identify first their preferred items in the list, they ranked them by importance and then they ranked the rest of the items almost randomly. As explained in the methods, our survey utilized a combination of both methods: interviewees were asked to evaluate each item in the list independently, but in an additional question, they were constrained to choose the most important one. The first priority question resulted in a clearer distinction between the items. Mullen also mentioned that when presenting the items there is an 'order effect'; however, we overcome this bias by changing automatically the order between items in each single questionnaire.²⁷ It is inevitable that the wording stated in the items list may strongly influence results. There are some items that were presented using diverse wording in different surveys and this seems to influence the level of support they gained. For example, sophisticated medical technologies were described in a Gallup survey as *very expensive treatments using sophisticated technologies providing very low benefit for very few people* and more interviewees agree (than disagree) that too much money is wasted in these treatments.¹⁷ Another survey described the item just as *sophisticated medical treatments* without any explanation, and the item got medium to high support.¹⁶ In a third survey, the item got medium priority when presented as *sophisticated medical treat-*

ments for life-threatening situations.²⁰ The same for intensive care for premature babies that when the high cost and the limited effectiveness are emphasized the item got low evaluation,²⁰ but when it is presented without any comments, it got relatively high priority.¹⁷

A limitation of this survey, as of most surveys on priorities in health, is that the list presented to interviewees is arbitrary and not consistent enough. For example, the list included categories of services but also items related to infrastructures or items representing social values. In addition, the definition of some of the items included in the lists is mixed with patient characteristics or with the specification of the efficiency or the cost of treatments. We need to explicitly choose, conceptually define and remain systematic with a specific criterion in building the list. For example, all the items in the list and their definitions are intended to represent social values, or structural components of the system or levels of treatment or types of morbidity. More than one list can be presented to interviewees, but the comparison they need to do is only between items of the same type.

Rationing in health care requires listening to the public even if there are still many methodological limitations on how to get and reflect the public's opinion. Those who trust the free market believe that money will follow the patient so that consumers' demand expresses the public's priorities. However, others believe that patients will follow the money and their choices will be influenced by different factors before they will get expressed as consumers' demand, so that the public has to get involved to inform decision-makers on which services have to be supplied. We do not advocate a decision-making process based on polls or referendums, but we strongly believe that information about the public's preferences, viewpoints and values should be available to decision-makers as one of the factors among many others that will be considered before making the final decision. Even if a decision contradicts public opinion, the public's attitudes can be useful in planning the implementation strategy.

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