

Building New University Hospital – What Citizens Know and Policy Makers Should be Aware of

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ABSTRACT

Survey of citizens' attitudes in the process of strategic decision making is one of the most important methods for determining health care priorities. We describe the results of a survey carried out in December 2001, with an aim to collect and analyze the attitudes of the citizens and health care professionals toward the possibilities and strategies of construction of the University Hospital in Blato, Zagreb. The first referendum on the construction of the new hospital was conducted among Zagreb citizens in 1982, when they agreed that the new University Hospital was much needed. Zagreb citizens confirmed once again their attitudes toward and opinions on the need to continue the construction of new hospital in the city outskirts. By 1992, when the construction of the hospital was halted due to insufficient financial means, Zagreb citizens had already invested over 150 million in the project. It is interesting that today, 89.4% of the citizens and 74.5% of physicians agree that the new hospital building should be completed. Also, 66.7% of the citizens and 88% of physicians think that this hospital should be a University hospital that could offer the most complex treatments and medical education. To finish the construction of the new hospital further 200 million needs to be invested. Survey showed that 71% of citizens and 82.2% of physicians think that funds should be raised from some form of credit or budget rather than by special local tax, additional tax or voluntary tax. This project will significantly determine the future of hospital and health care system in Croatia due to its capacities in terms of space, technology, and staff. Before the decision to continue with the new hospital construction be made, the expected future needs, demands, and supply of the health care services in hospital sector in Zagreb and Croatia should be provided using SWOT analysis for each of existing the facilities.

Introduction

Traditionally, patient involvement in medical decision-making during doctor consultations has been minimal, and non-existent at the level of organizational policy making. Observing the democratic changes in other areas, citizens now want a greater say in their own health care, such as selecting their physician and/or hospital, participating in medical decision-making, and in policy-making regarding investments in national and local health services. Greater community involvement in the health sector has been advocated over the past decade. Citizens choice is being claimed as a democratic right thus offering individuals a mechanism to exercise more influence through the choice of provider and/or insurer and the growth of health NGOs offer individuals the opportunity to participate actively in health policy-making and management. Among such opportunities that are developing rapidly in the countries of central and eastern Europe, mainly through the decentralization of health services, health surveys are becoming one of the important tools. Such procedures that include citizens and health care professionals in making strategic health care decisions with long-term implications on health care system and accessibility of health care services are common in the developed democratic societies¹. However, such procedures were not formally employed in recent strategic decision making process in Croatia.

After it was decided that voluntary local tax be introduced for building the »new University Hospital in Blato«, there has been no formal procedure to test the disposition, position, and readiness of the citizens and physicians to take upon themselves the fiscal, financial, and professional obligations regarding different options for finishing this major health care project^{2,3}. In recent years, a number

of suggestions have been made in public about what would be the best thing to do with a new hospital under construction in Blato, at the bank of the Sava river. It has been difficult recently to reach political and professional consensus on this project, although 20 and 10 years ago, the citizens of Zagreb strongly supported the proposal for local tax to be introduced as a means to raise funds for the construction of the hospital². The content of possible solutions was colored to a large extent by the social or professional status of the persons involved, depending on whether they were members of the municipal or state authorities, whether they were physicians in general or university hospitals, private entrepreneurs interested in making investments in already built facilities, citizens of Zagreb or journalists⁴. The arguments that most of them formally used to support or oppose the possible solutions were the »common interest«, attitudes of Zagreb citizens and patients or missing financial resources^{5,6}.

The aim of the study was to provide survey, analyze the attitudes of the citizens and health care professionals in Zagreb toward possible implications of different strategies regarding future design of hospital sector in Zagreb. The aim was also to analyze their readiness to take responsibility for solutions either as tax payers or health care professionals.

Sample and Methods

At the end of 2001, we created the study instrument that consisted of 12 multiple choice questions. In those questions the citizens and physicians could easily recognize the familiar variants of answers to this significant health care and economic question. Multiphase sample included 1,000 citizens older than 18 years, from all Zagreb city districts. Four streets were randomly selected from the list of streets in each district. Initial ad-

dress in every street was chosen by chance, whereas further addresses were chosen as every tenth address (apartment, house) from the initial one. From each street, 25 subjects were planned to be selected, 100 per district. The sample was achieved in 92.1% of the cases. The respondents were interviewed face-to-face at their homes by trained interviewers. Each interview lasted 10 minutes on average.

Basic data on subjects – citizens and physicians

The total achieved sample comprised 921 subjects – citizens from 10 Zagreb city counties. According to sex, 42.1% of subjects were men and 57.8% were women. Average age of respondents was 43.8 years, ranging from 18 to 83. According to their educational background, 9% of respondents were unqualified or qualified workers, 44.1% had secondary school background, whereas 46.8% had university qualifications or two-year post-secondary school qualification. The latter group included subjects with M.A. or M.Sc. and Ph.D. There were 51.8% respondents who were employed, 12.5% unemployed, 23.2% retired, 4.1% housewives, and 8.4% students. Subjects had had a permanent residency in Zagreb for 33.4 years on average (11.2% of respondents had lived in Zagreb for 10 years or less).

Our sample comprised 160 physicians from 4 Zagreb hospitals. There were 40 physicians selected from each of the following specialties: internal medicine, pediatrics, surgery, and gynecology. The sample was achieved in 98% of the cases. Trained interviewers conducted a »face to face« interview with physicians included in the survey at their respective hospital departments. In the group of physicians there were 157 subjects selected from the following Zagreb hospitals: Zagreb University Hospital Center »Zagreb«, Uni-

versity Hospital »Mercur«, University Hospital »Sestre milosrdnice«, and General Hospital »Sveti Duh«. Average age of selected physicians was 44 years, ranging from 23 to 64; 64.3% were men and 35.7% were women. There were 58.6% specialists, 15.3% residents, 12.7% chief physicians, 3.8% medical doctors, and 9.6% interns. Out of selected physicians 32.2% were specialists in internal medicine, 16.4% were pediatricians, 21.7% surgeons, and 27.6% gynecologists, 23.9% had M.Sc. and 28.4% had Ph.D. Their average length of service was 19 years.

Results and Discussion

One of the most important questions regarding the future of the hospital is whether to continue with its construction or to use the existing building for other purposes. Our respondents expressed their opinions as follows: 89.4% of the citizens and 74.5% of physicians were in favor of finishing the construction of »the new hospital«, 3.6% of citizens and 5.1% of physicians thought that the original purpose of the building should be changed and the hospital turned into business center with a hotel, 2.6% of citizens and 4.5% of physicians suggested other possible solutions (Table 1). The citizens held that the hospital should be turned into a nursing home for older people, geriatric hospital, student center, sports center, cultural center for the youth, entertainment and shopping complex, or simply be sold. Physicians thought that the hospital should be turned into one of the following: emergency care unit, oncology center, research center, nursing home for old people, student campus, city government, or be sold. Some thought that a part of the Novi Zagreb hospital facility should be sold (for health care or non-health care purposes) to raise partly the funds needed to finish the construction of the building. Almost 31% of citizens and 31% of

TABLE 1
SUGGESTIONS ABOUT WHAT WOULD BE THE
BEST THING TO DO WITH THE NEW HOSPI-
TAL UNDER CONSTRUCTION IN NOVI ZAGREB

Suggestions	Citizens (%)	Physicians (%)
To finish the construction of the new hospital facility	89.4	74.5
To redesign it into a large shopping mall	3.6	5.1
To redesign it into a business center with a hotel	4.4	15.9
Other*	2.6	4.5

Citizens – 24 suggestions: »nursing home«, or »geriatric hospital« (8), »student center« (2), »sports center«, »cultural center for the youth«, »shopping and entertainment complex«, »to sell it« (5), other;

Physicians – 7 suggestions: »emergency care unit«, »oncology center«, »research center«, »nursing home«, »student campus«, »municipal headquarters«, »sale«.

physicians disagreed with that suggestion, whereas 52% of citizens and 45.7% of the physicians agreed under the condition that the sold part of the hospital be used exclusively for health care purposes. The rest of 7.5% of the citizens and 17.2% of physicians approved the idea, irrespective of the intended purpose of the sold part of hospital facility, whereas only 9.4% citizens and 6.0% physicians were indecisive.

How much were the citizens aware of the initiatives of city government to finish the construction of the new hospital and what was their position with respect to that initiative? There were 49.0% of citizens and 73.9% of physicians aware of the fact that city government was considering the possibility of finishing the construction of the new hospital in Novi Zagreb; 83.9% of citizens and 71.2% of physicians supported that intention of the city government, whereas 9.5% of citi-

zens and 24.2% of physicians did not support that intention, because they thought it was an irrational way to spend funds (3.5% of citizens, 8.3% of physicians). There were 2.3% of citizens and 6.4% of physicians who did not support the intention of the city government because they thought that the existent capacities of Zagreb hospitals were sufficient, whereas 3.6% of citizens and 10.2% of physicians thought that there was no objective financial potential to finish the hospital construction. Also, 5.5% of citizens and 15.9% of physicians thought that the hospitals already in use should be renovated rather than the hospital in Novi Zagreb finished.

The citizens and physicians who thought that the construction of the hospital should be finished by all means were asked the following question: »What should be the character and content of the hospital in Novi Zagreb?« The respondents answered as follows: 30% of citizens and 10.3% of physicians thought that the hospital should serve as a general hospital, 66.7% of citizens and 88.0% of physicians thought that it should be a university hospital offering the most complex treatments and medical education, whereas only 2.4% of citizens and 1.7% of physicians thought that it should be a specialized hospital (Table 2).

TABLE 2
WHAT TYPE OF HOSPITAL SHOULD THE NEW
HOSPITAL IN NOVI ZAGREB BE?

	Citizens (%)	Physicians (%)
It should be a general hospital	30.9	10.3
It should be an university hospital for most complex treatments and medical education	66.7	88.0
It should be a specialized hospital	2.4	1.7

Our survey revealed that the estimations of as many as 70.6% of citizens were that they would use the services of the hospital in Novi Zagreb, along with the services of already existent hospitals, if the hospital would provide the best health care. Significant number of citizens associated the use of new hospital services with its accessibility – 22.3% would use the hospital if it were well connected by public transport with other parts of the city, 12.8% would use it if it were the nearest hospital to their place of residence, 1.6% of citizens would use it for some other reasons. Only 1% of citizens would not use the services of the new hospital because it would be too distant from their home, 3% because they were satisfied with health care services of other hospitals, and 1.2% for some other reasons.

As many as 67.5% of physicians expressed their wish to work in the new hospital in Novi Zagreb. Only 8.6% were indecisive, whereas 23.9% stated that they would not like to work in the new hospital due to its distance, satisfaction with their present working place, or older age.

Former questions mostly dealt with defining the needs and wishes of two groups of subjects. The following group of questions connects the needs with possi-

ble financial sources, including readiness to participate in providing financial support.

Where do you stand with respect to possible sources of financial support? More than half of citizens (53%) and over 75% of physicians held that the funds to finish the construction of the new hospital in Novi Zagreb should be taken from the city budget. State budget was even more appealing potential source of funds, with 71% of citizens and as many as 95% of physicians thinking that the construction of the new hospital should be finished by means from the state budget. There were 27% of citizens and 76% of physicians in favor of a new voluntary local tax as a potential source of funds, and 24% of citizens and 68% of physicians in favor of foreign credit. On the other hand, 76% of citizens and 24% of physicians held that the funds should be raised by selling some »old hospitals« (Table 3).

The decision of the city government to introduce a special tax, additional tax, and voluntary tax of Zagreb citizens for raising funds to finish the construction of the new hospital would not be supported by 72% of citizens and 82% of physicians (Table 4). Also, 47% of physicians and 31% of citizens held that some of the existent hospitals in Zagreb should be transferred into the premises of the new hospital while

TABLE 3
WHICH FUNDS SHOULD BE USED FOR FINISHING THE CONSTRUCTION OF THE NEW HOSPITAL?

Funding source	Citizens (%)		Physicians (%)	
	Yes	No	Yes	No
Municipal budget	52.9	7.7	75.0	25.0
State budget	71.1	4.7	94.7	5.3
New voluntary local tax	8.5	27.0	24.4	75.6
Selling facilities of some »old hospitals«	24.0	18.6	76.1	23.9
Foreign credit	23.5	18.0	68.4	31.6
Other	3.3	–	5.1	–

answering the question: »Which of the Zagreb hospitals should be »moved« into the new hospital facilities?» (Table 5).

TABLE 4
WOULD YOU SUPPORT THE CITY GOVERNMENT DECISION TO INTRODUCE SPECIAL TAX, ADDITIONAL TAX, OR VOLUNTARY TAX FOR FINISHING THE CONSTRUCTION OF THE NEW HOSPITAL?

Answer	Citizens (%)	Physicians (%)
Yes	14.2	10.2
No	71.8	82.2
Indecisive	14.0	7.6

TABLE 5
WHICH OF THE ZAGREB HOSPITALS SHOULD BE »MOVED« INTO THE NEW HOSPITAL FACILITIES?

Hospitals to be moved	Citizens (%)	Physicians (%)
General Hospital »Sveti Duh«	48.8	21.0
Traumatology Hospital	33.8	8.9
University Hospital »Sestre milosrdnice«	19.7	0.6
University Hospital Center – Šalata	15.6	–
University Hospital »Merkur«	15.1	1.9
University Hospital Center – Rebro	12.9	3.2
Institute for Tumors	11.7	1.9
University Hospital for Gynecology and Obstetrics – Petrova	3.9	–
Children Hospital – Klaićeva	2.3	–
University Hospital for Infectious Diseases	1.7	0.6
Psychiatric Hospital – Jankomir	0.6	–
»All old hospitals«, »dilapidated«	24.2	–

Conclusion

The construction of the new hospital in Novi Zagreb started more than 10 years ago. Due to many unfavorable circumstances (war, shift of political parties in power, economic crisis) the building project came to a halt in a very crucial moment, when the construction was almost half way through. Large funds were invested in building the basic infrastructure. The level of realization of the construction plan does not allow putting into function any part of the hospital premises and requires additional and big efforts to raise funds (250 mil. EURO), plan and carry out the project to the end. Meanwhile, some basic factors that determined the planning and running of the project 15 years ago have changed.

Some of those factors are the following: changed demographic and epidemiological structure of the total population⁷, different catchments area, change in health care technology, change in the organization, management, and financing of the health care sector. The hospital system in Croatia was built for a different environment (the demand and supply of former Yugoslavian market), a different organizational system (self-managed socialism), and a larger population. For example, fewer people now live in Croatia compared to before the war, and patients also came from other parts of the former federation. In addition, changing patterns of disease, rising public expectations, and new technology mean that policy makers face a variety of pressures in restructuring the hospital system. In spite of this trends new initiatives appeared to add new buildings and increase existing capacity of the almost each hospital, clinical hospital or clinical hospital center in Zagreb. Very few of them are taking into account international experiences and trends as well as the lessons

TABLE 6
STANDARD NUMBER OF ACUTE AND CHRONIC CARE HOSPITAL BEDS PER
100,000 POPULATION FOR 2001 AND 2002

Hospital beds	2001		2002		reduction in 2001/2002
	per 100,000 population	No. of beds	per 100,000 population	No. of beds	
Acute care	398	16,814	361	15,236	-1,578
Chronic care	154	6,494	150	6,340	-154
Total	551	23,308	511	21,576	-1,732

about the performance of hospitals under changing socio-economic conditions and what really makes difference in improved clinical effectiveness^{8,9-11}. During 2002, the Ministry of Health of the Republic of Croatia has created the standards of care to be used for planning and for rational financing of hospital services, which will lead toward taking into account the real clinical procedures, expenses, and patients case mix. Standards of acute and chronic care hospital beds and the number of professional staff have been defined, which has led to a significant decrease in the number of requisite beds. As early as 2002, the number of contracted beds will decrease to 1,732 or 9.4% of a total pool of acute care hospital beds in Croatia in a single year (Table 6). These changes will strongly affect the hospital sector. At the same time, it is planned, as a result of changes in disease management and clinical process management, that the average number of hospital days will decrease from 8.2 days in 2002 to only 5 days in 2010 (Figure 1). It is also planned and expected that the number of acute care hospital beds per 100,000 population will decrease from 3.6 in 2002 to 3.0 in 2005 to only 2.5 in 2010. The organization of the new University Hospital (increased number of day surgery and day care departments, integrated emergency services, linkage to the alternative levels of care) is envisaged as contribution to such increased efficiency and ef-

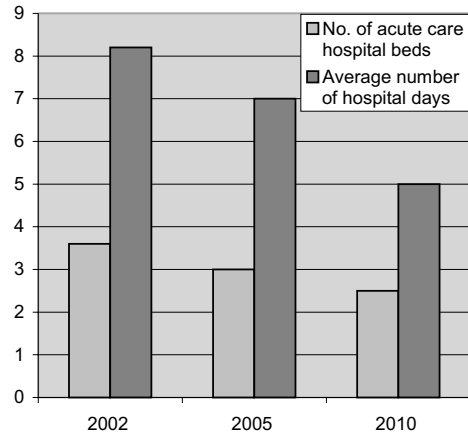


Fig. 1. Planned reduction in the number of acute care hospital beds in the Republic of Croatia by 2010, based on the reduction in the average number of hospital days.

fectiveness of the hospital sector. All changes described, with expected changes in demographic structure, organization of health care in the community, changed approach to organization and financing of primary health care, will have enormous consequences on demand for hospital services and their level of efficiency and effectiveness, which is today held by well organized and cost effective health care systems in European Union and EU candidate countries (Figure 2). Also, in the current new phase of health care reforms consumer views are becoming increasingly important not only in evaluating the success or otherwise of

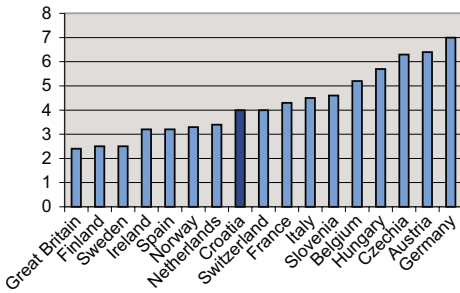


Fig. 2. The number of acute care hospital beds per 1,000 population in selected European countries.

these initiatives but also in creating the plans and objectives of the future reform plans¹². It became apparent that not a single one objective like to decentralize health care services, rationalize the hospital system, develop better links between hospital and community-based health services could be reached without the public participation. In the 21st century the reforms and their outcomes will not be measured any more only from the prospective of policy makers. This is largely what differentiates population-based

approaches to health care from traditional one. Modern hospitals need a coherent strategy for monitoring performance to ensure equity of access and responsiveness in service delivery¹³. However, despite the rising interest in the hospital sector, there is still need to increase body of evidence about measurable impact of reforms on performance. The potential for using citizens and patients opinions to influence priority setting for strategic decision in the area of hospital sector development is also not fully explored. The answer whether the reforms are success, a failure or neither is recently evaluated and measured against five criteria: equity, quality, choice and responsiveness. And of course *accountability* meaning the decision making process is transparent and participative including the public voice and exit strategy. Thus the conclusion is that policy makers should not only measure whether health services are sensitive to patient needs and views but also to use patients views as an instrument for planning and designing future network of hospitals in Zagreb and Croatia.

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GRADNJA SVEUČILIŠNE BOLNICE: ŠTO GRAĐANI ZNAJU A NOSITELJI ZDRAVSTVENE POLITIKE BI MORALI UVAŽAVATI

S A Ž E T A K

Ispitivanje stavova građana u procesu donošenja strateških odluka jedno je od najvažnijih metoda u određivanju zdravstvenih prioriteta. U ovom radu opisani su rezultati istraživanja provedenog krajem 2001. godine, s ciljem da se prikupi i analizira stajalište građana i zdravstvenih profesionalaca o mogućnostima i strategijama izgradnje Sveučilišne bolnice Zagreba s lokacijom u Blatu. Kada su 1982. Zagrepčani prvi put krenuli na referendum za izgradnju nove bolnice u njihovom gradu složili su se da je Nova klinička bolnica Zagrebu prijeko potrebna. Svoje stavove i razmišljanja o potrebi nastavka izgradnje bolnice na kraju grada potvrdili su 1987. godine. Do 1992. godine kada je gradnja bolnice obustavljena zbog nedostatnih financijskih sredstava, Zagrepčani su uložili preko 150 milijuna Eura. Interesantno je da se 89,4% građana i 74,5% liječnika zalaže za dovršenje izgradnje Nove bolnice. 66,7% građana i 88% liječnika misli da bi nova bolnica trebala biti klinička bolnica za najsloženije oblike liječenja i medicinsku izobrazbu. Za dovršetak gradnje Sveučilišne bolnice potrebno je uložiti još 200 milijuna Eura, 71% Zagrepčana i 82,2% liječnika ne vide rješenja u uvođenju posebnog poreza, prireza ili doprinosa, već u nekom obliku kreditnog ili budžetskog financiranja. Riječ je o projektu koji će zbog svojih prostornih, tehnoloških i kadrovskih kapaciteta značajno odrediti budućnost čitavog bolničkog i zdravstvenog sustava u Hrvatskoj. Prije donošenja odluke o nastavku gradnje trebalo bi koristeći metodu SWOT analize odgovoriti na pitanje kako će izgledati potrebe, potražnja i ponuda zdravstvenih usluga u budućnosti.