

## Supplemental material

**Q1** Please select your gender:

- 1 (Male)
- 2 (Female)

**Q2** Please enter your year of birth:

**Q3** Your highest level of completed education:

- 1 (High school)
- 2 (College degree/baccalaureus)
- 3 (Completed professional study)
- 4 (University degree/master's degree)
- 5 (Postgraduate study)
- 6 (Doctorate)

**Q4** Size of the settlement where you live:

- 1 (Up to 1,000)
- 2 (From 1,001 to 10,000)
- 3 (From 10,001 to 50,000)
- 4 (From 50,001 to 100,000)
- 5 (More than 100,000)

**Q5** Select your profession:

- 1 (Physician)
- 2 (Nurse/technician)
- 3 (Pharmacist)
- 4 (Economist)
- 5 (Psychologist)
- 6 (Lawyer)
- 7 (Sociologist)
- 8 (Other, please specify:)

**Q6** Please indicate your primary place of work:

- 1 (Clinical hospital)

- 2 (General hospital)
- 3 (Primary healthcare)
- 4 (Special hospital)
- 5 (Croatian Health Insurance Fund)
- 6 (Ministry of Health)
- 7 (Private healthcare)
- 8 (Pharmaceutical industry)
- 9 (Somewhere else, please specify where:)

**Q7** How long have you worked in the healthcare system?

**Q8** The healthcare system in Croatia is:

- 1 (A high-quality and well-managed system that serves patients' needs well)
- 2 (No better or worse managed than other sectors of society)
- 3 (Poorly led and organized system that spends too much and delivers too little)
- 4 (Your definition:)

**Q9** In terms of quality, according to the EHCI, the Croatian healthcare system among 35 selected systems in Europe ranks:

- 1 (Among the top 5 healthcare systems in Europe)
- 2 (Among the top 10 healthcare systems in Europe)
- 3 (Among the 10 least efficient healthcare systems in Europe)

**Q10\_2** Please rank the key causes of problems in managing the healthcare system by importance:

- Q10\_2a (Objectively large and difficult to solve problems of the healthcare system)
- Q10\_2b (Weak management capacities of the Ministry of Health)
- Q10\_2c (Weak management capacities of the Croatian Health Insurance Fund)
- Q10\_2d (Lack of educated management staff in healthcare)
- Q10\_2e (Weak management capacities of the Croatian Institute of Public Health)

**Q10** In your opinion, what would most improve the Croatian healthcare system:

- Q10a (More financial income)
- Q10b (A larger number of employed doctors and nurses)
- Q10c (A larger number of other healthcare workers)
- Q10d (Better education and management skills of leaders)

- Q10e (Greater managerial autonomy from political structures)
- Q10f (More use of data and information in decision-making)
- Q10g (Something else, please specify:)

**Q11** In your opinion, the healthcare system would be managed more effectively if:

- Q11a (The Ministry of Health had greater powers in decision-making)
- Q11b (The Croatian Health Insurance Fund had greater powers in management)
- Q11c (Hospital directors had greater powers in management)
- Q11d (There is enough authority and power for decision-making, but they are inadequately used/enforced)
- Q11e (Something else, please specify:)

**Q12** In your opinion, key decisions in the healthcare system should be made:

- Q12a (Using data analysis on disease trends and hospital performance)
- Q12b (Autonomous decisions by hospital heads)
- Q12c (Listening to the leadership of political parties that appointed the hospital heads)
- Q12d (Adapting to political authorities and economic lobbies)
- Q12e (Team decision-making)
- Q12f (Something else, please specify:)

**Q13** Below are statements about the Central Health Information System (CEZIH in Croatian). Please express your agreement on a scale from "completely disagree" to "completely agree" with the following statements:

- Q13a (CEZIH is a quality system and creates quality data for management)
- Q13b (CEZIH is a quality system but the data are not analyzed or used in decision-making)
- Q13c (CEZIH does not provide a sufficient amount of quality data)
- Q13d (CEZIH is not a good system; the data in it are full of errors and it is not possible to draw any conclusions or predictions from them)
- Q13e (Data collected from CEZIH greatly contributes to decision-making within the healthcare system)
- Q13f (CEZIH is not intended to be a basis for decision-making in healthcare)

**Q14** In the healthcare system, decision-making power is:

- 1 (Equally distributed among all professions)
- 2 (Dominantly in the hands of doctors)
- 3 (Dominantly in the hands of nursing and other professions)
- 4 (In healthcare, non-medical professions make decisions)

- 5 (In the hands of patients)
- 6 (Something else, please specify:)

**Q15** In your opinion, directors of healthcare institutions (university hospitals, general hospitals, county hospitals, health centers, etc.) should have:

- 1 (Only a medical school diploma)
- 2 (Only a degree in economics)
- 3 (A medical school diploma with postgraduate studies in management)
- 4 (A degree in economics with postgraduate studies in health management)
- 5 (Professional education is not important)
- 6 (Something else, please specify:)

**Q16** The Minister of Health of the Republic of Croatia should be:

- 1 (Doctor of Medicine)
- 2 (Economist)
- 3 (Associate professor or professor of medical school)
- 4 (Physician with an MBA degree or management specialist)
- 5 (The profession is not important but having political party support is)
- 6 (Something else, please specify:)

**Q17** Managers of healthcare institutions should:

- 1 (Receive a regular salary like all other healthcare workers)
- 2 (Receive the highest salary in the institution)
- 3 (Receive a higher salary than the highest salary in the institution and special financial bonuses for successful business results)
- 4 (Receive rewards such as additional education for successful financial results)
- 5 (Something else, please specify:)

**Q18** The main problem with management in healthcare represents:

- 1 Insufficient rewarding and incentivizing of leaders for successful business operations
- 2 Lack of responsibility for failures and mistakes in leading institutions
- 3 Too great a dependency of management structures on political appointments
- 4 Insufficient knowledge and lack of management skills of current managers
- 5 (Something else, please specify:)

**Q19** Financial problems of the healthcare system are a consequence of:

- 1 Too little total funds allocated for healthcare
- 2 Failure of the state to fulfill its obligations to the HZZO
- 3 Excessive expenditures on medications
- 4 Excessive expenditures on hospital care
- 5 Poor management of existing funds
- 6 (Something else, please specify:)

**Q20** Looking at financial management, what would increase the quality of the healthcare system?

- Q20a Increase taxes and direct them to healthcare
- Q20b Increase employer contributions which currently stand at 16.5%
- Q20c Increase co-payments for medications and services
- Q20d Offer some public services to the market
- Q20e Spending is already irrational, focus should be on management quality
- Q20f (Something else, please specify:)

**Q21** Funds collected for healthcare should be directed:

- 1 Into the state treasury managed by the Ministry of Finance – because the Ministry of Finance would manage the finances more responsibly
- 2 Directly to the Croatian Health Insurance Fund - because HZZO is best equipped and most responsible for managing finances in healthcare
- 3 Into the treasury managed by the Ministry of Health - because the Ministry of Health is best equipped and most responsible for managing finances in healthcare
- 4 None of these institutions is sufficiently capable of managing healthcare finances
- 5 (Something else, please specify:)

**Q22** Healthcare system reform is an important social and health issue. It should be designed and implemented by:

- Ministry of Health led by the Minister
- Government of the Republic of Croatia led by the Prime Minister
- Committee for Health and Social Policy of the Parliament and Ministry of Health
- Some other body/institution, please specify which:

**Q23** For a quality healthcare manager, the most important knowledge is:

- Q23a Knowledge of the causes and progression of diseases
- Q23b Knowledge of management theories and practices
- Q23c Organizational and financial experiences

- Q23d Communication and leadership skills regardless of professional background
- Q23e (Something else, please specify:)

**Q24** In your opinion, in making decisions about the healthcare system, patients:

- Should not participate in decision-making because they are not qualified
- Should not participate in decision-making because they are too subjective
- Should have a much more important role than now
- Have enough opportunities to influence, but do not use them
- Must always participate and be involved
- (Something else, please specify:)

**Q25** Your influence on the selection of the director or leading person of your institution is:

- 1 (Great)
- 2 (Medium)
- 3 (Small)
- 4 (None)

**Q26** Below are statements about differences between men and women in implementing decisions in healthcare. Please express your agreement with each statement:

- Q26a Men are more qualified and decisive for decision-making in healthcare
- Q26b Men make up the majority of healthcare workers so it is right that they also make up a large majority of managers
- Q26c Men have more time to devote to work
- Q26d Men generally make better decisions
- Q26e Women are less capable of managerial functions and have difficulty making tough decisions
- Q26f Women have less time due to family life to devote to healthcare

**Q27** Managing the healthcare system is possible with strong data, informational, and analytical institutional support. In Croatia, this role is already performed by:

**Q28** If you were offered additional education in the field of management, you would choose the following:

- Q28a Clinical management and treatment process management
- Q28b Financial management
- Q28c Pharmaceutical management
- Q28d Human resource management
- Q28e Public health project and process management

- Q28f (Something else, please specify which:)

**Q29** Finally, please specify one key thing/change you believe would improve management in healthcare.