

# Determination of hospital security index for emergencies and evaluation indicators

## Znanja i stavovi ispitanika o procjeni indeksa sigurnosti bolnice u izvanrednim situacijama

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### Abstract

**Introduction:** Today, a lot is said and written about the hospital as a health institution. Various international bodies and organizations, including the World Health Organization, deal with the problem of work, functions, and organizations.

**Aim:** This paper aims to perform a situational analysis of the organization of the hospital for emergencies; determine the availability of material and personnel resources in the hospital available in emergencies; examine the types of hazards that may have an impact on the safety of the hospital; determine the state of constructive and non-constructive safety of the hospital; examine the organization of services and support for patients and staff during emergencies.

**Methods:** The research is descriptive and analytical. Standardized evaluation lists prescribed by the World health organization (WHO), which determines the hospital safety index, and the original survey questionnaire, according to the defined methodology of the WHO, were used as research instruments.

**Research results:** For this work, a survey was conducted of 117 respondents, employees of the Clinical Center of the University of Sarajevo, who work in responsible positions. The majority of respondents believe that the conditions for preparing the hospital for emergencies can be improved by providing more human resources, educating staff, and ensuring important modern technologies. The situational analysis at the Clinical Center of the University of Sarajevo was carried out with an internal self-assessment of the hospital's safety index. The evaluation of the safety index for emergencies was calculated based on the defined WHO methodology.

**Conclusion:** It is important to point out that there are many dangers (hazards) that can have an impact on the safety of hospitals and that different factors have a significant role in the preparedness of hospitals for an emergency or disaster.

**Keywords:** Hospital safety index, emergencies, evaluation indicators

**Running head:** Hospital security index

### Sažetak

**Uvod:** O bolnici kao zdravstvenoj ustanovi danas se puno govori i piše. Problemom rada, funkcije i organizacije bave se razna međunarodna tijela i organizacije uključujući Svjetsku zdravstvenu organizaciju.

**Cilj:** Ciljevi ovog rada sljedeći su: učiniti situacijsku analizu organiziranosti bolnice za izvanredne situacije; utvrditi raspoloživost dostupnih materijalnih i kadrovskih resursa u bolnici u izvanrednim situacijama; ispitati vrste opasnosti koje mogu utjecati na sigurnost bolnice; utvrditi stanje konstruktivne i nekonstruktivne sigurnosti bolnice; ispitati organiziranost službi te podrške pacijentima i osoblju za vrijeme izvanrednih situacija.

**Metode:** Istraživanje je deskriptivno i analitičko. Kao instrument istraživanja koristile su se standardizirane evaluacijske liste koje je propisala Svjetska zdravstvena organizacija (SZO), a kojima se utvrđuje indeks sigurnosti bolnica.

**Rezultati:** Za potrebe ovog rada provedeno je anketiranje 117 ispitanika, zaposlenika Kliničkog centra Sveučilišta u Sarajevu, koji rade na odgovornim radnim mjestima. Većina ispitanika smatra da se uvjeti za pripremu bolnice za hitne slučajeve mogu poboljšati povećanjem ljudskih resursa, edukacijom osoblja i osiguravanjem suvremenih tehnologija. Situacijska analiza u Kliničkom centru Sveučilišta u Sarajevu provedena je uz internu samoprocjenu indeksa sigurnosti bolnice. Procjena indeksa sigurnosti za hitne slučajeve izračunata je na temelju definirane metodologije SZO-a.

**Zaključak:** Važno je istaknuti da postoji mnogo opasnosti koje mogu utjecati na sigurnost bolnica te da različiti faktori imaju važnu ulogu u pripremljenosti bolnica za neku vanrednu situaciju ili katastrofu.

**Ključne riječi:** Indeks sigurnosti bolnica, izvanredne situacije, evaluacijski pokazatelji

**Kratak naslov:** Indeks sigurnosti bolnica

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### Introduction

The hospital as a social and medical institution appears in human society very early. Its appearance is related to the development of medicine as well as skills and science. The

skill of treating patients occurs at a time when the human race itself is emerging. Egyptian civilization has left evidence of the existence of hospitals as medical institutions.

Jewish civilization had a highly developed and well-established preventive medicine, while Indian civilization is known for medical care, both in-hospital and out-of-hospital [1]. Chinese civilization has given certain medical doctrines that are as old as 4000 years and which have survived to this day [1].

The American civilization of the ancient Maya, Incas, and Aztecs left traces of a very high skill of healing the sick and wounded, as well as the Greek civilization, which in its inscriptions mentions military hospitals where wounded soldiers were treated and cared for [2].

The new era and the Middle Ages had a significant impact on the development of hospital medicine and hospital services, but in a negative sense because Christianity rejected everything that was inherited from the long-term experiences of ancient civilizations. The Middle Ages are a time of darkness where Christianity cares more about the "soul" than the body [2].

In the 18th century, the development of the hospital service took place, with the accumulated experience, the good and the bad matured to such an extent that it gave impetus to the development of the modern hospital of that period [3].

Preventive work as a function of a modern hospital is one of the most important innovations in the development of a modern hospital as a public institution [4].

The prevailing opinion in the concepts of the organization of the hospital service is that it is necessary to ensure the planned development of the network of hospital institutions. The hospital is a very expensive and complicated institution, and therefore, no community, no matter how rich, can afford a project to build a hospital and hospital network without relying on the real needs and without coordination and cooperation at a higher level which is the basic local community [5].

Hospitals account for more than 70% of public spending on health care. Most of this spending goes to specialized medical staff and sophisticated and expensive equipment. Hospitals must continue to operate during emergencies and disasters as people, when an emergency occurs, immediately go to the nearest hospital for medical help without thinking that the institution may not function [6].

In crises, i. e., catastrophes, the need for on-site triage, assistance to the injured, and transport of the injured and sick from the scene to healthcare institutions must be taken into account. Every country must have a plan for the care of victims, their survival, prevention of epidemics, care for the physical and mental health of patients, rehabilitation of the terrain, decontamination, etc. In the event of a crisis, resources must be intensified and allocated where needed, and proper triage and medical assistance should be implemented. Large medical centers must have a contingency plan that is well integrated into the overall plan for the care of the injured population. Such a plan must begin to be implemented as soon as possible, with a plan to reimburse all injured who have been observed or hospitalized [7-10].

Emergency management considers the level of preparedness of the organization and staff of the hospital and hos-

pital activities essential for the provision of services to patients in response to an emergency or disaster [11].

Ensuring the functionality of hospitals and their safety in the event of a disaster is a great challenge, not only because of the large number of hospitals and their high cost but because they exist limited information on current security levels, emergency management, and disasters in hospitals [12].

The group responsible for general coordination (evaluation approving body) and supervision of hospital evaluation(s) consists of managers and decision-makers at the level of decision-makers from relevant organizations (e. g., Ministry of Health, Social Affairs or Finance, National Disaster Management Committee, network private hospitals). The body approving the evaluation should also consist of organizations and people responsible for strategic decision-making, the development of public policies, programs and plans, and the allocation of resources for the safety and functioning of the health services network in the event of emergencies and disasters. The evaluation of a hospital can also be approved by the senior manager of the particular hospital [10].

When making a plan in case of disasters, one must certainly take into account the possibility of damage or destruction of local health institutions, as well as facilities and equipment, but also the health workers themselves. Planning should begin with an assessment of available resources, health workers, equipment stocks, medical supplies, medications, as well as the capacity to care for the injured. In the planning of stocks of equipment, sanitary material, and medicines, one should take into account the sources of energy and the inflow of drinking water so that the appliances can function normally [6].

It is, therefore, vital to identify the level of security and functionality that the hospital will have in case of emergency and disaster. Hospital evaluations aim to identify the elements that need to be improved in a particular hospital or hospital network. It is important to identify them as priority interventions in hospitals that are, because of their type or location, essential to reduce mortality, morbidity, disability, and other social and economic costs related to emergencies and disasters [13].

## Aim

The aims of this paper are: to perform a situational analysis of the organization of the hospital for emergencies, to examine the types of hazards that may affect the safety of the hospital, to determine the state of constructive and non-constructive safety of the hospital, to examine the organization of services and support to patients and staff during emergencies.

## Material and methods

The study is descriptive, exploratory, and analytical. The standardized evaluation lists prescribed by the WHO, which determine the hospital safety index, and the questionnaire were used as research tools. The questionnaire was created

based on a review of scientific and professional literature and experiences from practice, and as an original, represents a special contribution to this scientific work. The questionnaire was anonymous, so the identity of the respondents cannot be established from the answers obtained.

In this study, all ethical principles related to the protection of the identity of the respondents and the data obtained through the questionnaire are respected.

The results are presented in tables and charts by the number of cases, percentage, mean with standard deviation, standard error of the mean, and range of values. To test possible differences between the examined groups of institu-

tions, the chi-square test, Fisher’s exact test, and Student’s t-test was used, and to test the influence of all parameters on the variables of leadership styles, Spearman’s correlation rank test. The level of statistical significance was set at 95% or with  $p < 0.05$ . The analysis was conducted using the IBM Statistics SPSS v 23.0 package.

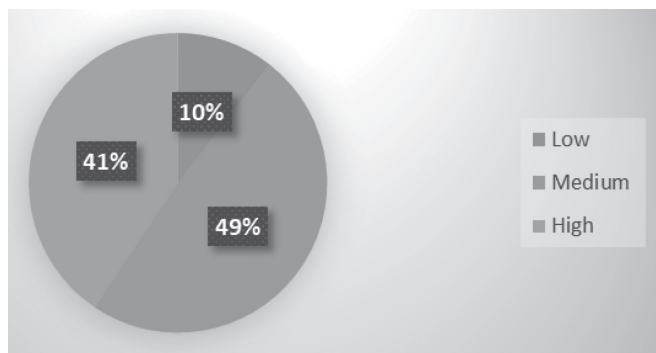
**Results**

The sample included a total of 117 respondents who completed the Google forms anonymous survey and who work in responsible positions within the Clinical Center of the University of Sarajevo.

**TABLE 1.** Representation of the calculation Che – square, p-value, significance views on hospital safety index in emergencies

	Hazards affecting the safety of the hospital and the role of the hospital emergency and disaster management	Structural safety	Nonstructural safety	ROW TOTALS
LOW	7 (3.05) (5.10)	4 (1.68) (3.18)	3 (9.26) (4.23)	<b>14</b>
MEDIUM	15 (14.17) (0.05)	11 (7.82) (1.29)	39 (43.01) (0.37)	<b>65</b>
HIGH	7 (11.77) (1.94)	1 (6.50) (4.65)	46 (35.73) (2.95)	<b>54</b>
COLUMN TOTALS	<b>29</b>	<b>16</b>	<b>88</b>	<b>133 (GRAND TOTAL)</b>

Following the above, the hospital’s safety index in emergencies was also calculated: **HSI: 0,650376.**



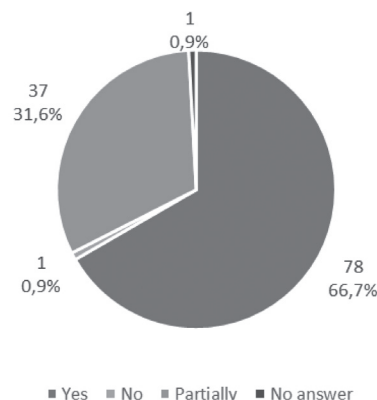
**FIGURE 1.** Hospital safety index in emergencies

In relation to gender, the survey was completed by 62.4% (N=73) females and 37.6% (N=44) males. Concerning the age structure, the largest number of respondents is in the age group of 46-55 years, 35.0% (N=41), followed by 56-65 years, 30.8% (N=36) and 37-45 years, 29.9% (N=35). The lowest number of respondents is over the age of 65, 0.9% (N=1).

In relation to education, about half of the respondents 51.3% (N=60), have completed a master’s or doctoral study,

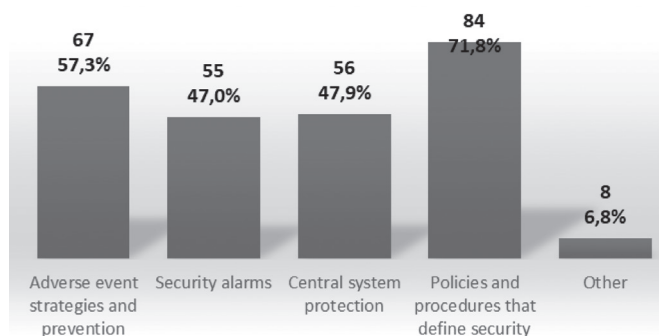
while the smallest number of respondents with a university degree, 2.6% (N=3).

Most respondents who responded to the survey are the head nurses of the hospital 31.9% (N=37), or the heads of organizational units, 27.4% (N=27). Out of the total number, 9.4% (N=11) of respondents did not answer this question.



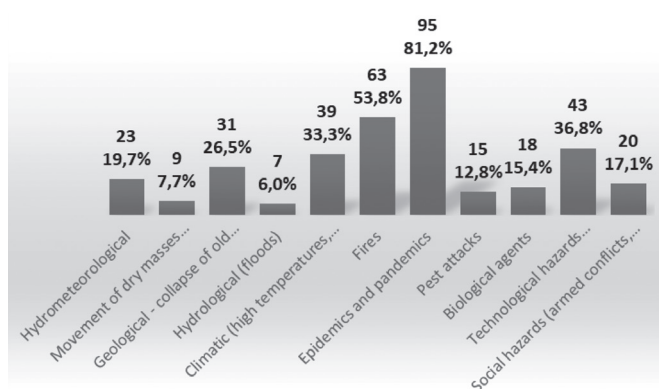
**FIGURE 2.** Existence of safety system in the provision of health services

The majority of respondents state that there is an established safety system for the services they provide, 66.7% (N=78), and partially 31.6% (N=37). Only one respondent state that it was not established and did not provide an answer.



**FIGURE 3.** System of established safety measures - risk prevention

Most respondents state that policies and procedures are established that define safety in 71.8% (N=84), then strategies for the prevention of adverse events in 57.3% (N=67), central system protection in 47.9% (N=56), safety alarms in 47.0% (N=55), and the second in 6.8% (N=8) of cases.



**FIGURE 4.** Hazards that represent a threat to a health facility

The biggest threat to institutions is epidemics and pandemics, as responded in 81.2% (N=95) of cases, followed by fires in 53.8% (N=63), and in third place in terms of the frequency of technological hazards in 36.8% (N=43). Rarely as a threat, respondents see hydrological hazards in 6.0% (N=7) and the movement of dry masses in 7.7% (N=9).

**TABLE 2.** Opinion on quality improvement in the process of preparation for emergency situations

	N	%
Provide more human resources	106	90.6
Provide modern technologies that are important	86	73.5
Remove barriers that are a risk to the hospital	70	59.8
Educate staff	99	84.6
Establish policies	73	62.4
Connect with other institutions relevant to emergencies	78	60.7

As an opinion on improving the conditions for preparing hospitals for emergencies in the first place, respondents state the provision of more human resources in 90.6% (N=106) of cases, then staff training in 84.6% (N=99) and the provision of modern technologies that are of importance in 73.5% (N=86).

### Discussion

For this study, a survey that included 117 respondents, employees of the Clinical Center of the University of Sarajevo, was conducted.

According to the results of the analysis of education, most respondents were masters, doctors, or professors, 51.3% of them, and the least respondents had higher education, only 2.6%. In relation to the functions in the workplace, the highest number of head nurses was 31.6%, while the lowest number of representatives of the quality department was 7.7%.

When asked whether there is an established security system of services provided by respondents in the health care institutions in which they work, most respondents answered in the affirmative, i. e., that there is a security system of service provision. The most common security measures they take are strategies and prevention of adverse events, namely 57.3%, followed by central system protection (47.9%), security alarms (as much as 47.0%), and policies and procedures that define security (71.8%).

As for the most common risks that pose a danger to health institutions, the respondents stated that they are epidemics and pandemics in most cases, followed by fires, climate risks, and technological hazards, while few responded that they are the movement of dry masses and floods.

As the most common system for ensuring the normal functioning of the institution, respondents cite alternative energy sources in 53.8% of cases, while the least insurance is provided in the area of alternative waste disposal in 7.7% of cases. According to research by Sarno L. and Rossi, F. on the topic "A Safety Index For Hospital Buildings", a simplified methodology was presented, based on questionnaires, with the aim of mapping the seismic risk of critical structures, such as hospital buildings, at the territorial level. The proposed methodology is based on the Hospital Safety Index assessed by WHO [14].

The readiness and resilience of hospitals showed some limitations despite the size of the country. A similar study to assess the readiness and resilience of hospitals was conducted in Indonesia [15]. Lujanac (2018), in her paper on "The functioning of hospitals and healthcare institutions in disasters" states that it is necessary to create security sectors in health institutions. Based on her study, she concluded that in the health care system, there are theoretical preconditions for building overall crisis management and even right solutions at the level of individual health care institutions. Also, there are some ambiguities, e. g., trained and available human and material resources in appropriate locations, undefined individual parts of the system, poor communication with umbrella institutions, as well as trivialization of security issues [11].

A large number of respondents in our research state that the hospitals in which they work are ready to assist the injured during emergencies and disasters, 76.1% of them, while only 3 respondents believe that hospitals are not ready to provide full health care to more sick or injured people during emergencies.

Of the total number of respondents, 45.3% of them state that training for working in emergencies is partially implemented. Also, a large number of respondents believe that employees are fully prepared to provide first aid to victims of emergencies. Similar to this research, Lujanac, Mihalini, Markoti, and Koul (2018) conducted a study on the "Management of a health crisis" and concluded that the basic function of any crisis plan is to define procedures, human and material resources, to inform and guide participants on the execution plan [11, 16, 17].

As the most common measures taken in the preparation of the hospital for emergencies, respondents state coordination and supervision (71.8%), then delegating tasks to team members (52.1%), participation in the development of plans (41.9%), and cooperation with services outside the institution are significant 29.1%, and direct participation in resource provision, 22.2%. Most of the respondents believe that the conditions in the preparation of the hospital for emergencies can be improved by providing more human resources, educating staff, and providing important modern technologies.

Turkalj (2018) studied the topic "The role of hospital emergency care in emergencies" and concluded that the professional and ethical obligation of health professionals is to provide the best possible care to victims in emergencies because when a disaster occurs, health and people's lives are at stake. In emergencies, a unified emergency room is crucial. It has a large and important role in triage, care, and providing quality health care to as many injured people as possible, respecting the guidelines and currently available resources [18, 19].

Recommendations for future research: first, implement the studies by other hospital safety evaluation techniques and tools; second, model the hospital performance evaluation based on the safety approach; third, do a cost-benefit analysis of various interventions for improving hospital safety [20].

## Conclusion

The analysis provides an affirmative answer to the set goals, or it confirms that the Clinical Center of the University of Sarajevo conducts an annual evaluation of the safety index, with some shortcomings. This survey confirms that work is being done to improve the hospital's conditions for emergencies and disasters.

It is important to point out that many hazards can affect the safety of hospitals and that various factors play an important role in preparing hospitals for an emergency or disaster. The respondents stated that the most common dangers for health institutions are epidemics and pandemics, followed by fires, climate risks, and technological dangers.

The most common security measures taken are identified policies and procedures that define security, strategies, and prevention of adverse events, central system protection, and security alarms.

The ways to improve the conditions in the preparation of the hospital for emergencies are to provide more human resources, education of staff, and important modern technologies.

## Authors declare no conflict of interest

## References / Literatura

- [1] Prlić, N. Zdravstvena njega. Školska knjiga. Zagreb. 2009.
- [2] Dragič, M. Organizacija zdravstvene službe: Visoka medicinska škola Prijedor. 2017.
- [3] Dovijanović, P. Savremena organizacija zdravstvene službe i ustanova. „Obeležje“. Beograd. 2003.
- [4] Jančićević, M., Bogičević, N., Mirić, B., A. Organizacija Petrović, Ekonomski fakultet Beograd. 2014.
- [5] Alexander, D. E. Principles of Emergency Planning and Management Oxford University Press. 2002.
- [6] Trut, D., Čemerin, D. Krizno planiranje i upravljanje: Hrvatski Crveni križ/ Državna uprava za zaštitu i spašavanje. Veleučilište Velika Gorica. Zagreb. 2007.
- [7] Novak, B. Krizno komuniciranje i upravljanje opasnostima Priručnik za krizne odnose s javnošću. Zagreb. 2001.
- [8] Krizmanović, M. i suradnici. Psihološka pomoć u ratu Medicinska naklada. Zagreb. 2016.
- [9] Kešetović, Ž., Toth, I. Problemi kriznog menadžmenta - znanstvena monografija. Veleučilište Velika Gorica. Velika Gorica. 2012.
- [10] Philippine indicators: protect hospitals and health facilities in emergencies and disasters. Manila. Department of Health. Safe hospitals in emergencies and disasters. 2009.
- [11] Lujanac, D. Funkcioniranje bolnica i zdravstvenih ustanova u katastrofama. Završni rad. Univerzitet u Sarajevu. Sarajevo. 2018.
- [12] Ministry of Health of Nepal/World Health Organization. Guidelines on non-structural safety in health facilities. Kathamandu 2004.
- [13] World Health Organization. Patient Safety Curriculum Bulletin. 2010.
- [14] A global measure of disaster reduction. Washington(DC): Pan American Health Organization; Safe Hospitals. A collective responsibility. 2005.
- [15] Sunindijo, Riza & Lestari, Fatma & Wijaya, Oktomi. Hospital Safety Index: Assessing the Readiness and Resiliency of Hospitals in Indonesia. Facilities. 2019. 10.1108/F-12-2018-0149/full/html
- [16] Kratochvil, M. Zdravstvena skrb u izvanrednim situacijama Sigurnost. Velika Gorica. 2011.
- [17] Kratochvil, M., Kratochvil, A., Paternel, R. Sanitetska skrb u uvjetima kriza. Veleučilište Velika Gorica. Velika Gorica. 2016.
- [18] Turkalj, M. Uloga bolničkog hitnog prijema u izvanrednim situacijama. Diplomski rad. Sveučilište u Zagrebu. Medicinski fakultet. Zagreb. 2018.
- [19] Omanić, A. i autori. Krizna stanja u FBiH u periodu rata 1992 – 1995. g. Zbornik radova: Koliko smo spremni za vanredne situacije. Simpozijum medicinskih sestara/tehničara Vojvodine. Novi Sad. 2015.
- [20] Guide for Evaluators. WHO. Hospital Safety Index 2015.

**PRILOG:****ANKETNI UPITNIK<sup>1</sup>****NAZIV ZDRAVSTVENE USTANOVE:****SOCIODEMOGRAFSKI PODACI****Spol:** M Ž**Dob:**

- |            |            |
|------------|------------|
| a) 18 – 25 | d) 46 – 55 |
| b) 26 – 36 | e) 56 – 65 |
| c) 37 – 45 | f) 65 +    |

**Stručna sprema:** a) SSS b) VŠS c) VSS d) magistar, doktor, prof.**Funkcija na radnom mjestu:**

- a) Šef OJ
- b) Šef odjeljenja
- c) Glavna medicinska sestra / tehničar bolnice
- d) Predstavnik odjela za kvalitetu

**Postoji li u Vašoj ustanovi uspostavljen sistem sigurnosti usluga koje Vi pružate?**

- a) da
- b) ne
- c) djelomično

Ako DA, navedite koje ste sigurnosne mjere uspostavili u segmentu rada Vaše službe:

- a) Strategije prevencije neželjenih događaja
- b) Alarme sigurnosti
- c) Centralnu zaštitu sistema
- d) Politike i procedure kojima je definirana sigurnost
- e) Drugo navedite:

**Koji rizici su prema Vašem mišljenju prijetnja Vašoj ustanovi:**

- a) Hidrometeorološki
- b) Kretanje suhih masa (klizišta)
- c) Geološki – obrušavanje starih zgrada, slijeganje zemljišta
- d) Hidrološki (poplave)
- e) Klimatski (velike temperature, niske temperature i valovi hladnoće)
- f) Požari
- g) Epidemije i pandemije
- h) Napadi štetočina
- i) Biološki agensi
- j) Tehnološke opasnosti (kemijske, radiološke, nestanci struje)
- k) Društvene opasnosti (oružani sukobi, prijetnje po zgradu i osoblje)
- l) Drugo navedite \_\_\_\_\_

**Je li u Vašoj ustanovi uspostavljen sistem konstruktivne i nekonstruktivne sigurnosti? (standardi za sigurnost zgrada)**

- a) Da
- b) ne
- c) djelomično
- d) nisam upoznat

**Je li bolnica osigurala sisteme od kritične važnosti za njeno funkcioniranje?**

- a) Da
- b) ne
- c) djelomično
- d) nisam upoznat

<sup>1</sup>Hospital Safety Index - Guide for Evaluators. WHO 2015.

Ako je odgovor DA, navedite koje:

- a) Alternativne izvore energije
- b) Alternativne izvore hrane
- c) Alternativne izvore vode
- d) Alternativne izvore goriva
- e) Sterilni materijal i opremu
- f) Alternativne izvore telekomunikacije
- g) Alternativne načine uspostave interne komunikacije
- h) Izvore za alternativne načine odlaganja otpada

**Prema Vašem mišljenju, može li bolnica pružiti zdravstvene usluge većem broju oboljelih/unesrećenih u vanrednim situacijama?**

- a) Da
- b) ne
- c) djelomično
- d) nisam upoznat

Ako je odgovor DA, navedite na koji način:

- a) Osigurani su mobilni kadrovi i medicinske tehnologije
- b) Prostori za smještaj velikog broja bolesnika
- c) Zalihe lijekova
- d) Oprema za intenzivno liječenje
- e) Postoji bolnica za vanredne situacije opskrbljena svim resursima
- f) Drugo navedite:

**Provodite li redovne obuke za rad u vanrednim situacijama?**

- a) Da
- b) ne
- c) djelomično
- d) nisam upoznat

**Zna li sve Vaše osoblje postupati u stanju pružanja prve pomoći unesrećenima?**

- a) Da
- b) ne
- c) djelomično
- d) nisam upoznat

**Imate li pisana uputstva i smjernice za postupanje u slučaju vanredne situacije s kojima je Vaše osoblje upoznato?**

- a) Da
- b) ne
- c) djelomično
- d) nisam upoznat

**Imate li razvijenu intersektorijalnu mrežu suradnje s drugim institucijama od pomoći?**

- a) Da
- b) ne
- c) djelomično
- d) nisam upoznat

Ako DA, navedite koje: .....

**Koje mjere Vi poduzimate u pripremi bolnice za vanredne situacije?**

- a) Sudjelovanje u izradi planova i programa
- b) Koordinacija i nadzor
- c) Delegiranje zadataka članovima tima
- d) Suradnja s važnim službama izvan ustanove
- e) Direktno sudjelovanje u osiguravanju resursa

**Vaše mišljenje o unapređenju uvjeta za pripremu bolnica za vanredne situacije?**

- a) Osigurati više ljudskih resursa
- b) Osigurati važne suvremene tehnologije
- c) Ukloniti barijere koje su rizik za bolnicu
- d) Educirati kadrove
- e) Uspostaviti pravilnike
- f) Povezati se s drugim ustanovama od značaja za vanredne situacije
- g) Drugo navedite .....