

# Serbia's healthcare system, will hospitals have new roles?

Zorica Terzic

School of Medicine, University of  
Belgrade, Serbia

email: [zoricaterzic37@gmail.com](mailto:zoricaterzic37@gmail.com)

# Demographic indicators, Republic of Serbia, 2012

- Serbia is situated at South East Europe
- The estimated population: 7,199,077 citizens
  - Male: 3,505,713
  - Female: 3,693,364
- Life expectancy: 74.74
  - Male: 72.22
  - Female: 77.29
- Live births per 1000 population: 9.3
- Mortality rate per 1000 population: 14.2



Sources:  
Health Statistical Yearbook of Republic of Serbia, 2012. Institute of Public Health of Serbia. "Dr Milan Jovanovic Batut". <http://www.batut.org.rs/index.php?content=77>  
Statistical Office of the Republic of Serbia. Available from URL <http://webzss.stat.gov.rs>. (accessed on September 2014.)  
Human Development Report 2013. The Rise of the South: Human Progress in a Diverse World. New York: UNDP, 2013  
World Development Indicators database. World Bank. Available from URL <http://data.worldbank.org> (accessed on September 2014.)

# Socio-economic indicators, Republic of Serbia, 2012

- Unemployment rate (%) in II quarter: 20.3 (in 2014)
- Literacy rate (%) in population aged 15+ years: 98 (in 2011)
- Human Development Index (HDI): 0.769 (rank 64 among 186 countries)
- GDP - per capita (PPP) (US\$): 10 800 (rank 106 among 226 countries)



## Sources:

Statistical Office of the Republic of Serbia. Available from URL <http://webzrs.stat.gov.rs>. (accessed on September 2014.)

Human Development Report 2013. The Rise of the South: Human Progress in a Diverse World. New York: UNDP, 2013

World Development Indicators database. World Bank. Available from URL <http://data.worldbank.org> (accessed on September 2014.)

# Indicators of health expenditure

Indicators of health expenditure	2003.	2004.	2005.	2006.	2007.	2008.	2009.	2010.	2011.
Total health expenditure as % of GDP	8.8	8.7	9.1	9.4	10.4	10.4	10.5	10.4	10.4
- Hospitals	4.7	4.31	4.36	4.26	4.57	4.59	4.38	4.29	4.22
- Primary Health Care Centers	1.5	1.86	1.76	1.88	2.05	2.25	2.25	2.19	2.44
Public-sector *expenditure on health as % of GDP	6.3	6.0	6.0	5.9	6.4	6.4	6.5	6.4	6.5
Health Insurance Fund expenditure on health as % of GDP	5.8	5.5	5.6	5.5	6.0	5.9	6.1	6.0	6.0
Private-sector expenditure on health as % of GDP	2.5	2.7	3.1	3.5	4.0	4.0	4.0	4.0	3.9
Total health expenditure per capita (\$)	230	274	307	371	547	673	577	546	622

Public - sector:

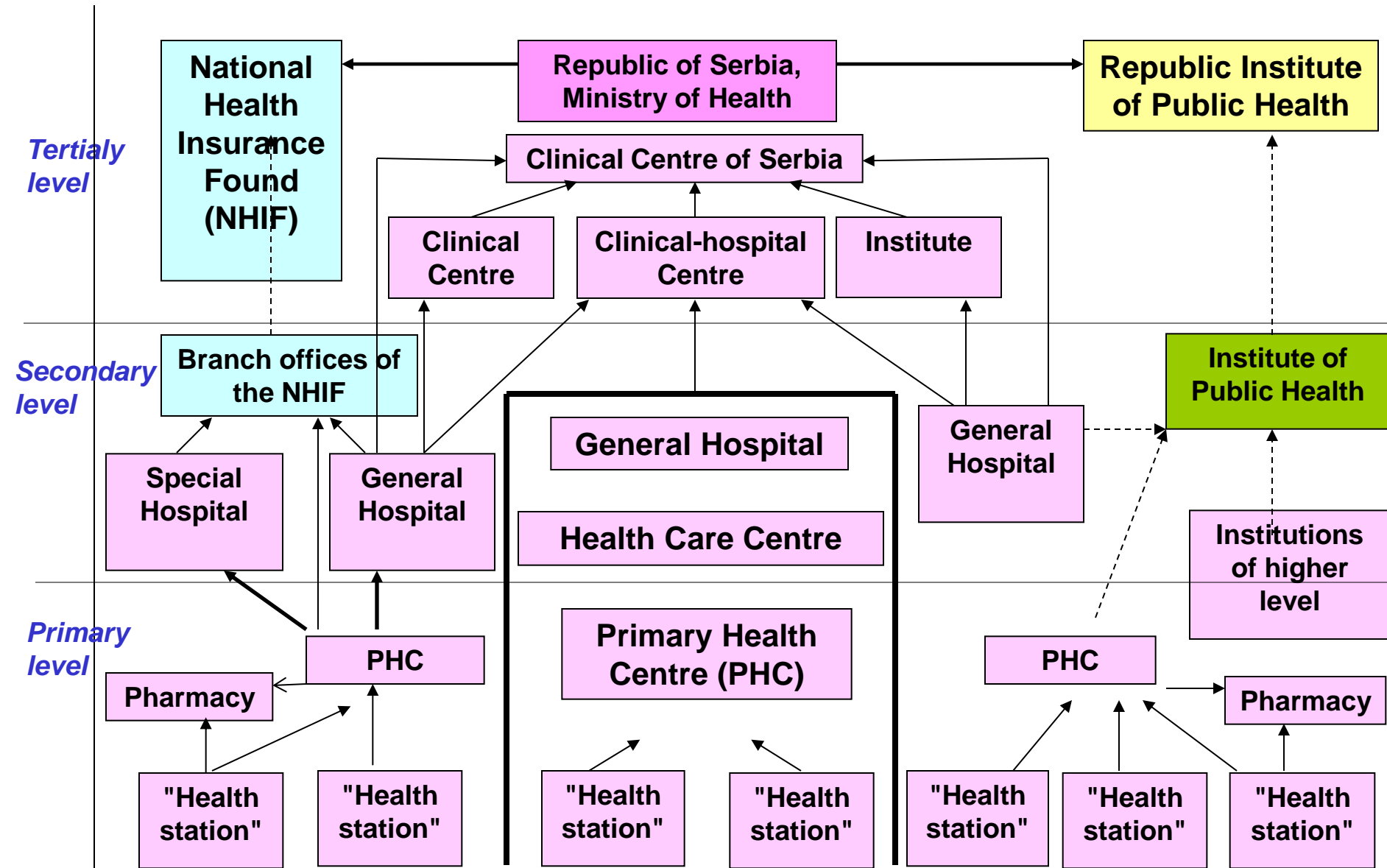
Budget of Republic Serbia, AP Vojvodina, municipalities and towns, Ministry of Defence

# Selected indicators of general hospital functioning in Serbia in period 2000-2012

Year	Average length of treatment (days)	Average hospital bed occupancy rate (%)
2000	9.1	62.8
2001	9.0	64.4
2002	8.9	63.7
2003	8.5	61.4
2004	8.5	62.5
2005	8.1	62.3
2006	7.6	60.5
2007	7.5	64.0
2008	7.4	65.7
2009	7.2	66.8
2010	8.4	73.0
2011	8.4	72.0
2012	8.2	69.66

Sources:  
Health Statistical Yearbook of Republic of Serbia, 2012. Institute of Public Health of Serbia. "Dr Milan Jovanovic Batut". <http://www.batut.org.rs/index.php?content=77>  
Statistical Office of the Republic of Serbia. Available from URL <http://webzbs.stat.gov.rs>. (accessed on September 2014.)

# Organisation scheme of health care system of Republic of Serbia



# **Development of health care system in Serbia**

- The first since after the World War II to the early seventies
- Second period officially began with adoption of the Constitution in 1974
- The third period began in the late eighties and coincided with the disintegration of Yugoslavia.
- The fourth period started after democratic changes in Serbia in 2000.

# Health care system, after 2000

- Equipment and buildings are often in poor condition or poorly configured, especially in regional areas.
- Services are not patient-centred or outcome oriented and there is a lack of governance, monitoring and clinical supervision.
- Hospitals have fairly low occupancy rates (around 70%) and length of stay is high by Western European standards (12.3 in 2000 for all hospitals).
- Rates of pay for health professionals are low by European standards, and low pay exacerbate the pressure on patients to make informal payments to access health care.
- Many health staff work in parallel in the private sector grey economy to increase their incomes.
- A cure-oriented health care system with priority given to the development of secondary and tertiary levels of care despite declared support for primary health care
- Poor development quality system
- Health facilities are relatively well staffed, with doctor-to-nurse ratios around 1:2
- Lack of policies for technology assessment and economic evaluation



# Management during 2000s

- Health care organizations are often hierarchal, poorly organized structures and face problems in setting priorities and making efficiencies.
- Hospitals are generally run by doctors with no formal management training and little experience of modern management practices.
- There is little evidence of multi disciplinary management and key functions like human resources and information technology are rudimentary.
- Staff with little professional satisfaction; there are high sickness and absentee rates; and few incentives for performance or efficiency.
- Other Serbian health management and organizational problems include rigid regulations constraining autonomy and decision-making; lack of coordination of activities and systems; poorly developed quality systems; and little use of evidence based approaches and international best practice .

# Areas of change

- Developing health strategy and policy documents, legislation and financing framework
- Rehabilitation, reconstruction and equipping of health facilities (hospitals, clinics, etc.)
- Building institutional, human resources and management capacity
- Health care sector reform (primary, secondary and tertiary health care)
- Support to public health development
- Restructuring the pharmaceutical sector

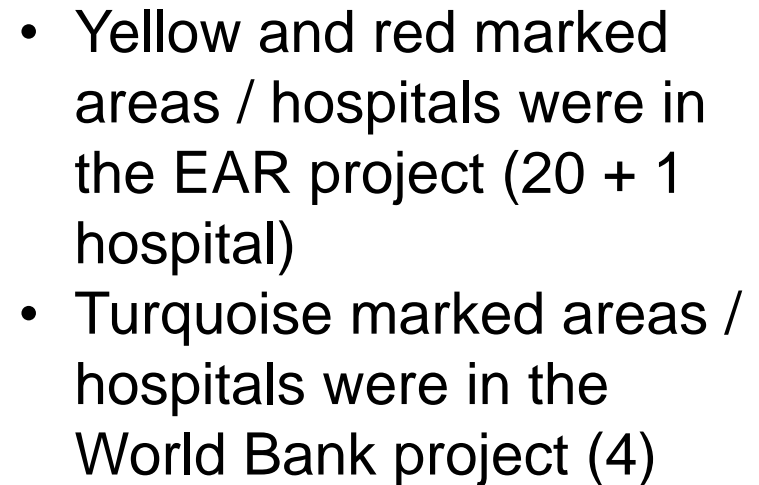
# Legislative framework

- **Health Care Law** adopted 28.11.2005, came into force 10.12.2005
- **Health Insurance Law** adopted 28.11.2005, came into force 10.12.2005
- **Health Care Worker Chambers Law** adopted 28.11.2005, came into force 10.12.2005
- **Occupational safety and health law** adopted 14.11.2005, came into force 29.11.2005
- **Law on the protection of population against communicable disease**  
adopted 15.11.2004, came into force 30.11.2004
- **Law on the substances used in the illegal production of narcotics and psychotropic substances** adopted 28.11.2005, came into force 10.12.2005
- **Transfusion Medicine Law adopted 31.08.2009**, came into force 11.09.2009,  
enforceable as of 1 January 2010 *EU project contribution*
- **Organ Transplantation Law adopted 31.08.2009, came into force 11.09.2009**,  
enforceable as of 1 January 2010)
- **Public health law adopted 31.08.2009**, came into force 11.09.2009, *EU project contribution*
- **Law on the treatment of fertility by biomedically assisted insemination** adopted  
31.08.2009, came into force 11.09.2009,, enforceable as of 1 January 2010
- **Waste Management Law (MoE)**, adopted 12.05.2009, came into force 23.05.2009.

# International support, after 2000

- 30 projects: 2000 – 2010
- Designed:
  - emergency assistance,
  - technical assistance to build capacity and / or to strengthen systems in the health sector.
- From 2000-2008 European Agency for Reconstruction (EAR) expenditure in Serbia amounted to €1.3 billion.
- Donors included: World Bank (WB), UNICEF, the Canadian International Development Agency (CIDA), and a number of bilateral donors – Norway, China, and Japan being the most important.
- Ministry of Health and local government supported and financed projects

- Yellow and red marked areas / hospitals were in the EAR project (20 + 1 hospital)
- Turquoise marked areas / hospitals were in the World Bank project (4)



# Republic of Serbia, Ministry of Health (MOH)

Main page | Site Map | Contact | RSS

Republic of Serbia  
MINISTRY OF HEALTH

HEALTH 2020

Date: 22.09.2014.

Language: Српски English

Напредна претрага

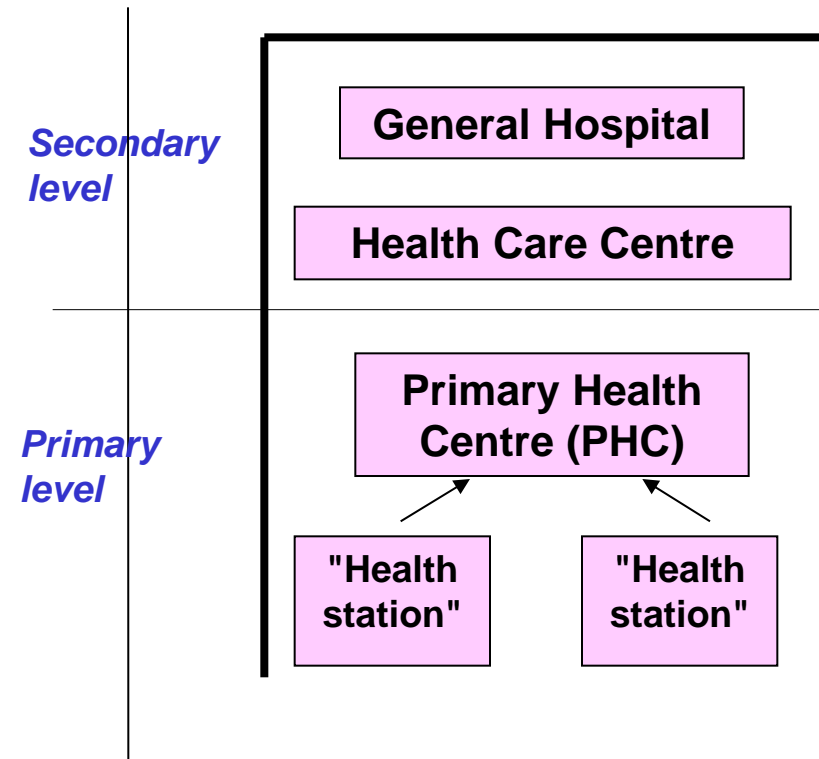
Navigation

- The Ministry
- Sectors
- International projects
  - Project proposals
  - Ongoing projects
  - Finalized projects
- Activities
- Documents
- Frequently asked questions

Main page : International projects

All project are available on MoH web site:  
<http://www.zdravlje.gov.rs/index.php>

# Reform changes in organisation of health care system of Republic of Serbia



- According to the Health Care Law from 2005, all health centers cased to exist.
- Health care centre were divided on primary health care centre and pharmacies under the jurisdiction of local governments and general hospital under the Republic. Often, this was not nether practical nor financial justified.

# Healthcare Institutions in Republic Serbia

HEALTH CARE INSTITUTIONS	No. OF INSTITUTIONS		
	2005	2008	2012
PRIMARY HEALTH CARE CENTRE	86	116	158
CLINICAL CENTRE	4	4	4
CLINICAL – HOSPITAL CENTRE	4	4	4
HEALTH CARE CENTRE	36	22	
- general hospital	39	24	
- primary health care centre	71	41	
GENERAL HOSPITAL	1	16	41
SPECIAL HOSPITAL	16	37	36
CLINIC	7	6	7
INSTITUTE	33	22	16
INSTITUTE (ZAVOD)	8	16	25
PUBLIC HEALTH INSTITUTE	23	23	25
PHARMACEUTICAL INSTITUTION / PHARMACY	28	35 (PHARMACY)	35 (PHARMACY)
MILITARY HEALTH CARE INSTITUTION		1	4
<b>Total</b>	<b>256</b>	<b>301</b>	<b>355</b>

**Sources:** Health Statistical Yearbook of Republic of Serbia, 2006, 2009, 2012. Institute of Public Health of Serbia. "Dr Milan Jovanovic Batut". <http://www.batut.org.rs/index.php?content=77>



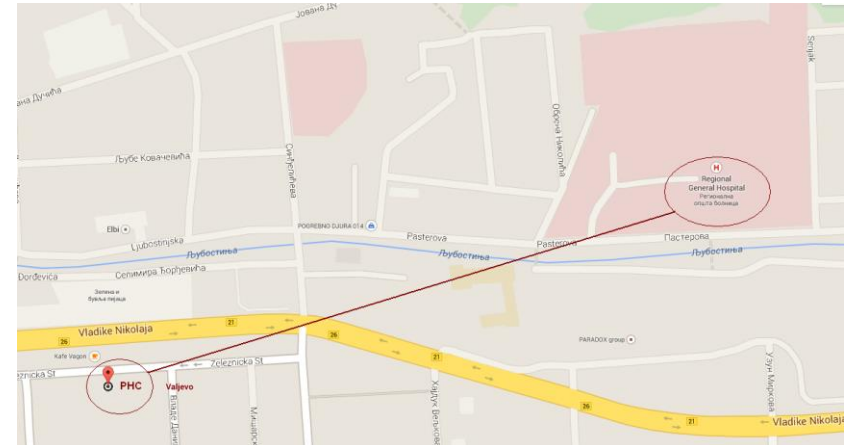
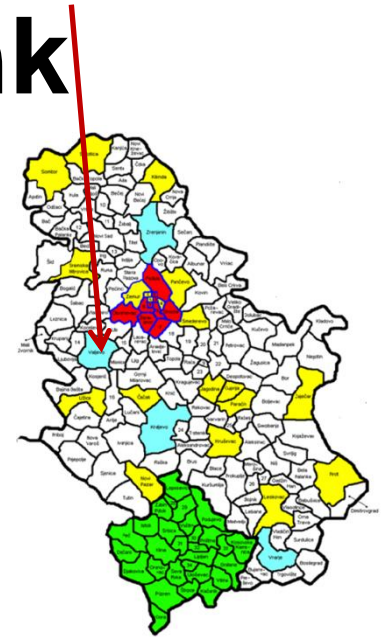
# Health Care Centre Valjevo, project of World Bank



PHC



General hospital



# Investment in Health Care Centre Valjevo



2004: the first scanner  
2007: magnetic resonance



2004-2007: Pulmonary Department

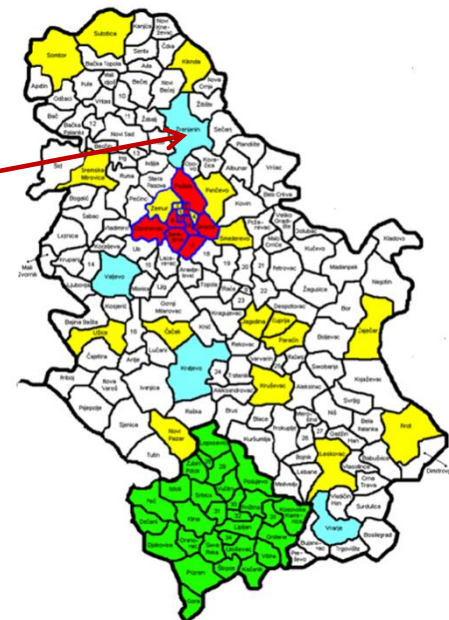


2010: Angio Theatre



2011: Mammography

# Hospital in Zrenjanin, project by World Bank





**OPŠTA BOLNICA  
ĐORĐE JOANOVIĆ  
ZRENJANIN**

Republika Srbija - AP Vojvodina  
Opšta bolnica "Đorđe Joanović"  
Dr Vase Savića 5, 23000 Zrenjanin  
Tel: (023) 536-930; centrala 513-200; lokal 204  
Fax: (023) 564-104  
e-mail: bolnicazr@ptt.rs

Početna | Istorijat | Opšti podaci | Organizacija | Press room | Preuzimanja | Donacije | Mapa sajta | Linkovi | Lokacija | Kontaktirajte nas | Foto Galerija

**Izdajamo**  
Operativni plan za upravljanje rizikom[pdf]  
Misija i vizija  
Menadžment  
Upravni i nadzorni odbor  
Stručni organi bolnice  
Važni dokumenti  
Finansijski izveštaji  
Finansijski Plan 2014  
Iskorišćenost posteljnog fonda  
Zalihe lekova, medicinskog i potrošnog materijala 2013  
Završni račun 2013



Dobrodošli na zvaničnu prezentaciju Opšte bolnice "Đorđe Joanović" u Zrenjaninu. Nadamo se da vam na ovaj način možemo pružiti informacije koje su vam potrebne o radu ustanove, organizaciji i pojedinim odeljenjima/odsecima. Tu su uvek i sveže vesti o novim metodama dijagnostikovanja i lečenja koje vršimo, kao i bilten "glas bolnice" koji je moguće preuzeti sa sajta.

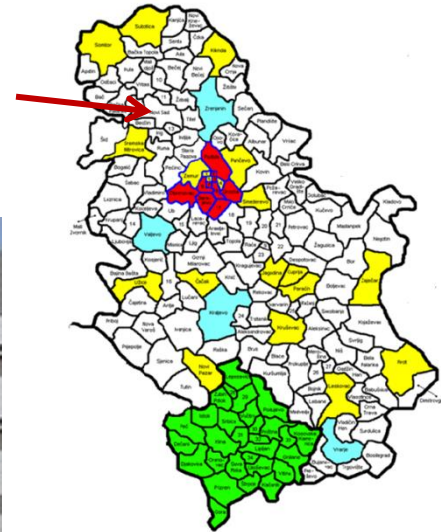
**AZUS**  
AGENCIJA ZA AKREDITACIJU  
ZDRAVSTVENIH USTANOVA SRBIJE  
Septembar 2014  
događaji ovoga meseca: 6  

P	U	S	Č	P	S	N
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

Definition of mission  
and vision of hospital  
and developed  
strategic plan



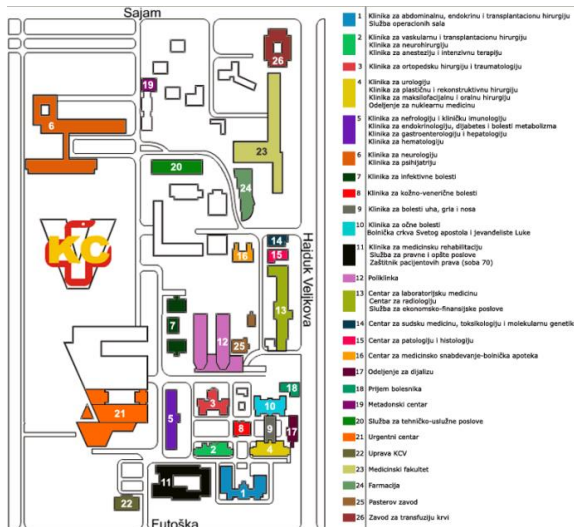
# Clinical Centre Vojvodina



Conceptual design of Clinical Centre of Vojvodina



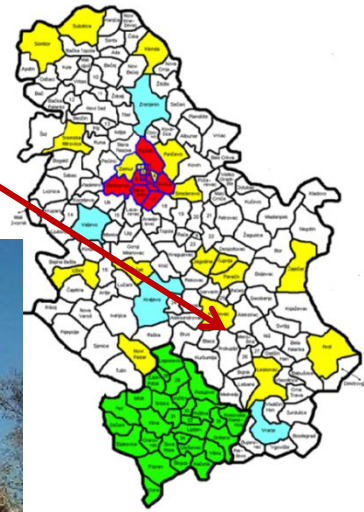
ER department of Clinical Centre of Vojvodina



Map of CC Vojvodina

- The plan was to centralize all branches of surgery, intensive care and diagnostic procedure in the main building.
- CCV has 500.000 patients per year, 1.370 beds and 2.753 employees.

# Clinical Centre of Kragujevac



Conceptual design of Clinical Centre of Kragujevac

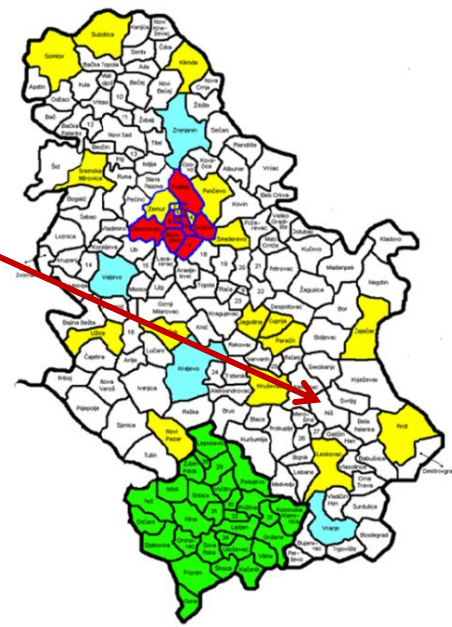


Clinical Centre of Kragujevac

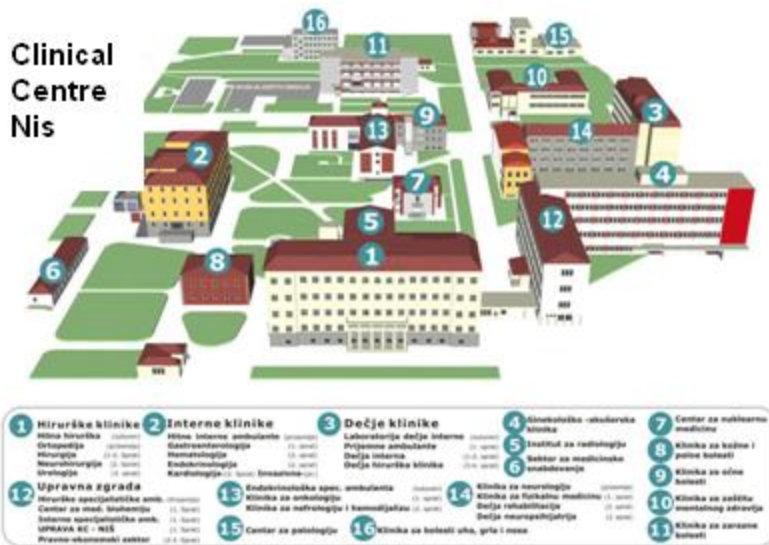
- Polyclinics will be established and space will be made for cardio surgery, cardiology, thoracic surgery and pulmonology.
- CC has 500.000 patients per year, 1.118 beds and 2.000 employees.



# Clinical Centre of Nis



Conceptual design of Clinical Centre of Nis



- ER department is envisioned and new building with the most surgery and internal medicine disciplines.
- Capacity in surgery will be expended for 100 beds.
- CCV has 500.000 patients per year, 1.465 beds and 2.988 employees.

# Clinical Centre of Serbia in Belgrade

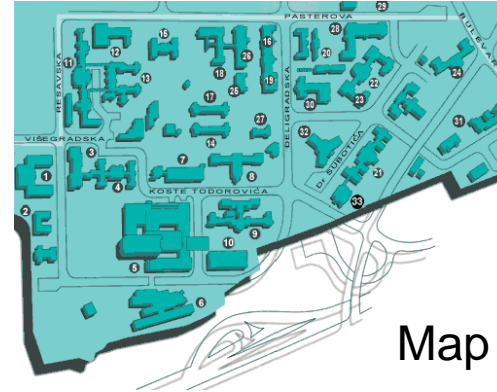


Conceptual design of Clinical Centre of Serbia,

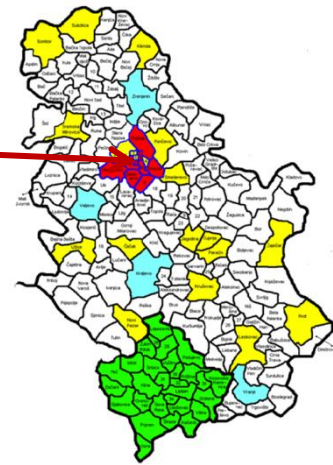
Today, Clinical Centre of Serbia (CCS)



- CCS is founded in 1974.
- 3 floors are in usage,
- 9 other floors are empty



Map of CC of Serbia



# Healthcare management training and education in Serbia

- Project "Training in Health Service Management in Serbia" is developed by EU as comprehensive management education program.
- Health Management training became postgraduate programme - the Master of Health Management, which was developed in the Center - School of Public Health and Health Management.
- The program is focusing on capacity development, improving management skills, and better planning in human resources.



[www.sph.med.bg.ac.rs/index.php](http://www.sph.med.bg.ac.rs/index.php)



# Serbian hospitals today

- The health care system has declined during the past two decades due to the country's politically unstable situation and long-term insufficient economic development.
- Serbian hospitals are characterized by excess physical capacity, cumbersome service delivery systems with high levels of medical interventions inconsistent in clinical quality, staff surpluses, and human resource management problems.
- As a consequence, in many cases the performance of Serbian hospitals has yet to reach a satisfactory level.

