

PRESENTATION TITLE COME HERE

Presenter name and surname



Cape Town
16 -19 July 2017

Private sector embracing universal healthcare

The
18th Annual
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Strizrep Tihomir, MD

Basic data

	Country	Croatia
1.	Total population (million)	4,28
2.	Health expenditure per capita (US\$)	\$930
3.	Life expectancy at birth (years)	77,9
4.	Infant MR (per 1.000 live births)	3,59
5.	Total health expenditure as % of GDP	8%
6.	OOP health expenditure (% of total health expenditure)	15%
7.	Maternal MR (per 100.000 live births)	5,01
8.	Hospital beds per 100.000	579
9.	Physicians per 100.000	284
10.	General practitioners per 100.000	51
11.	Nurses per 100.000	579
12.	Midwives per 10.000	36
13.	Average length of hospital stay (days)	8,9
14.	Average length of hospital stay (acute only)	6,8

Sources: WHO Regional Office for Europe: European health for all database



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Map of Croatia



Town

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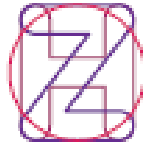
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Legal framework

- The basic legal framework of the health care system in Croatia consists of three key acts:
 - Health Care Act,
 - Mandatory Health Insurance Act,
 - Patient's Rights Protection Act.





Hrvatski
zavod za
zdravstveno
osiguranje

Croatian
Health
Insurance
Fund



Management Board:

- Government
- Unions
- Professional organizations
- Patient organisations



Managing director



Financial
sector

IT
sector

Legal
sector

Voluntary
insurance

Medical
sector

Quality assurance
and quality
control

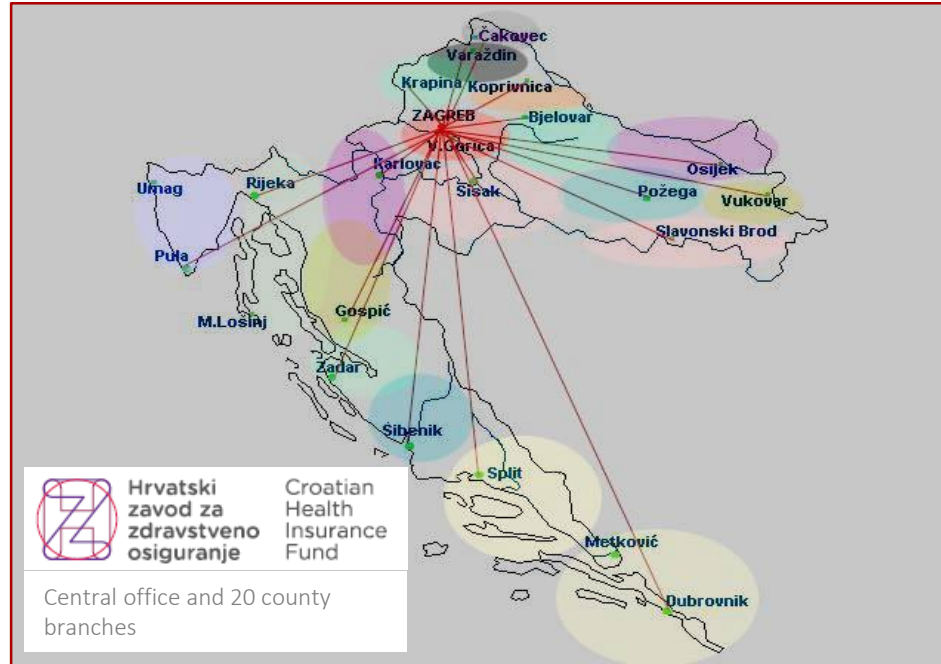


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Health Insurance Fund Branches



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Insured persons



Total number: 4.325.852



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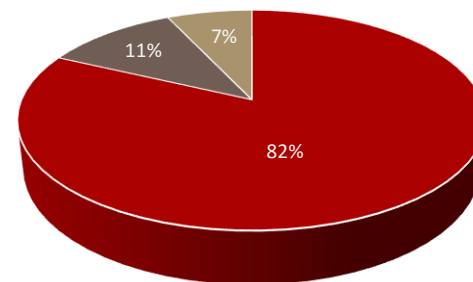
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Revenue collection

CHIF revenues
Contributions paid by employers (15%)
Special contributions for a work-related injuries (0,5%)
Contributions for the unemployed (5%)
Contributions from pensions (1%, 3%)
Excise tax on tobacco products (32%)
Revenues from automobile liability insurance (4%)
State budget contributions
Co-payments

CHIF revenues



- Contributions paid by employers
- State budget contributions
- Other



Exemption from co-payments

- ✓ Unemployed (if below certain income);
- ✓ Pensioners (if below certain income);
- ✓ Children and/or students;
- ✓ Disabled individuals (receiving social benefits);
- ✓ Veterans (if below certain income);
- ✓ Pregnant women;
- ✓ Cancer treatment;
- ✓ Dialysis;
- ✓ Regular blood donors;
- ✓ Organ donors;
- ✓ Mentally ill individuals.



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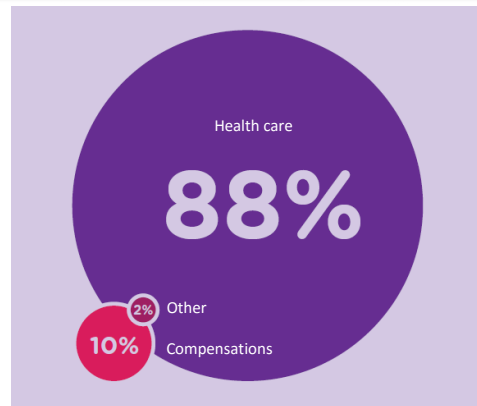
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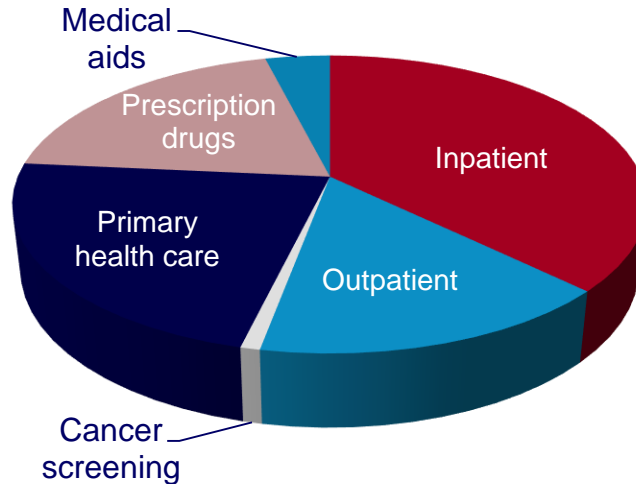
Basic benefit package

- Right to health care:
 - primary health care,
 - specialized health care,
 - hospital care,
 - drugs from the positive list,
 - dental aids,
 - orthopedic aids.
- Rights to compensation:
 - sick leave,
 - compensation for transportation costs,
 - compensation for employment injuries or occupational diseases.

Structure of expenditures



Health care expenditures



Total:
3.000.000.000 Eur

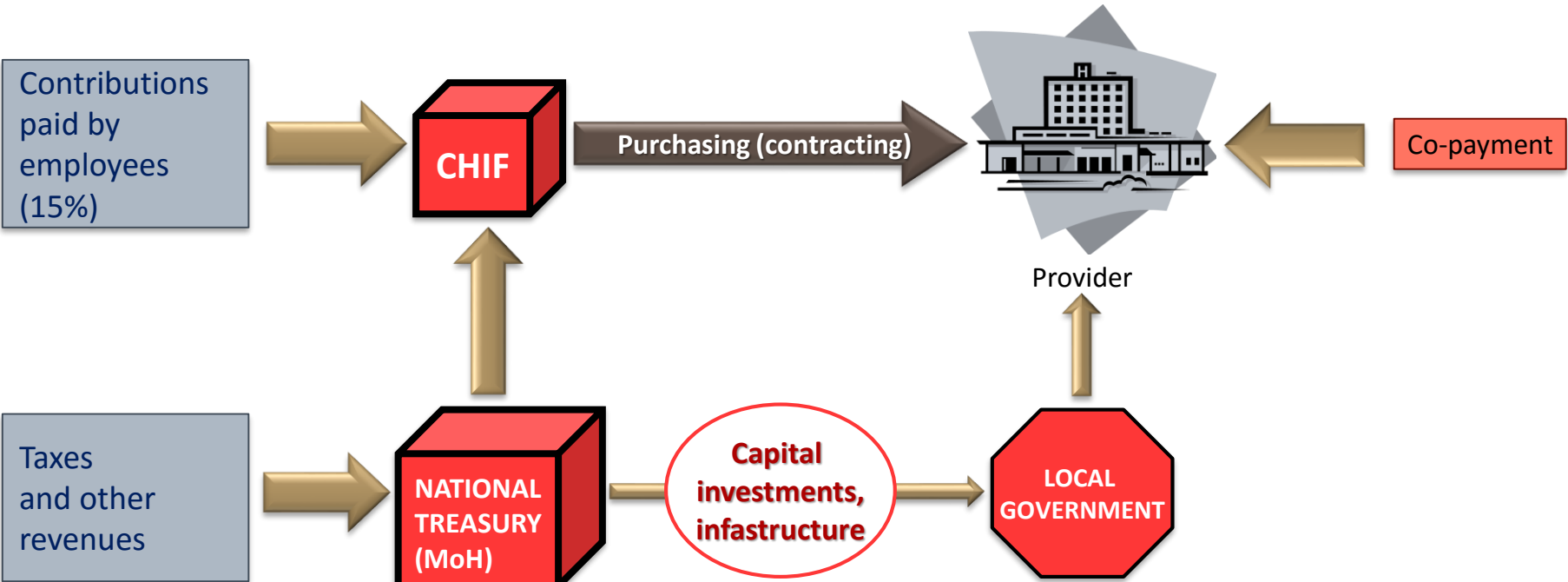


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Funds flow



Health System Organization

Ownership:

National Government

Tertiary Health Care

University hospitals



Secondary Health Care

General Hospitals, clinics

County Government, private

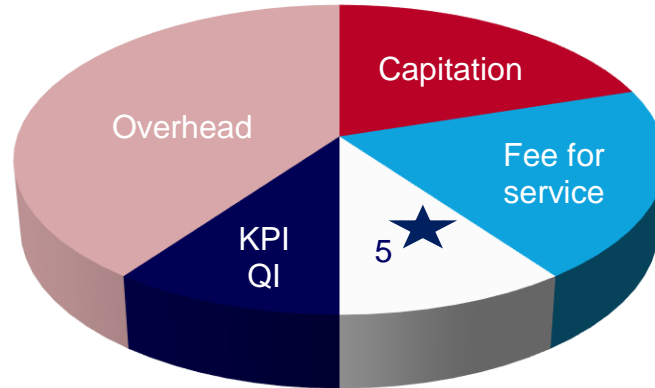
Primary Health Care

PHC, public health, emergency medicine



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PHC payment model



KPI – key performance indicators
QI – quality indicators



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Overhead

- Utilities (electricity, water, heating, ...),
- Disposal of infectious waste,
- Cleaning,
- Telephony and internet,
- Maintenance of IT hardware and software.



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Capitation

Amount per patient

	Age group	Amount* (HRK)
1.	0-7	107,51
2.	7-18	40,83
3.	18-45	53,17
4.	45-65	71,89
5.	>65	91,15

Risk adjustment formula

$$INDEX = \frac{P_{NOVA}}{P_{UGOVORENA}}$$

$$P_{NOVA} = (P_{STARA} - RS) + F_{DIABETES} + F_{HIPERTENZIJA} + F_{MORB}$$

$$F_{DIABETES} = \frac{1}{2} P_{D(STARA)} \left[\frac{1 - (N_{D(ORD)} * NP_{D(HZ/Z)})}{N_D} \right]$$

$$F_{HIPERTENZIJA} = \frac{1}{2} P_{H(STARA)} \left[\frac{1 - (N_{P(ORD)} * NP_{H(HZ/Z)})}{N_H} \right]$$

$$F_{MORB} = \frac{1}{2} P_{M(STARA)} \left[\frac{1 - (N_{P(ORD)} * NP_{M(HZ/Z)})}{N_M} \right]$$



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Fee for service

3 levels of complexity:

- level 1 - procedures that do not require additional equipment and/or additional training (otoscopy, suturing and wound closure, ...)
- level 2 - procedures that require additional equipment and/or training (ECG, spirometry, ...)
- level 3 - procedures that require a significant investment in equipment and training (ultrasound, ...)



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KPI and QI

KPI (Key performance indicators)

QI (Quality indicators)

Performance data:

- **Drug prescribing;**
- **Sick leave rate;**
- **Number of referrals.**

Clinical data:

- **Cardiovascular diseases;**
- **Obesity;**
- **Diabetes;**
- **COPD.**

- Simple
- Measurable
- Available from the electronic medical record



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Prevention and chronic diseases panels

Prevention panel

BMI, BP, blood glucose; smoking, alcohol

Dosadašnja mjerenja

Panel: PREVENTIVNI PREGLED

MKB-10 Z13 06.05.2014

Napomena

PREVENCIJA PREKOMJERNE TEŽINE I KRVINOG TLAKA

Težina kg **BMI** Izvršeno savjetovanje

Visina cm **BMI** Letak - poremećaj TT

Opseg struka cm **WHR** **WHR**

Opseg bokova cm

RR / mmHg

GUK

GUK mmol/l Izvršeno savjetovanje

PUŠENJE Izvršeno savjetovanje

Nepušač

Bivši pušač

Pušač - cigareta

- lide

- cigara

ALKOHOL - konzumiranje alkohola u zadnjih godinu dana Izvršeno savjetovanje

Ne pije Letak - alkohol

Ne pije (apstinent)

Pije - pivo

- vino

- žestoka pića

Uvedi Odustani

Chronic diseases Panel

Hypertension, diabetes, COPD

Mjerenja Laboratorijski nalazi

Dosadašnja stanja

Panel: HIPERTENZIJA

MKB-10 24.09.2013

Napomena

TEŽINA, VISINA, OPSEG STRUKA, BOKOVA

Visina 165,0 09.09.2013 **BMI: 23,73 Idealna TT**

Težina 64,60

Opseg struka **WHR**

Opseg bokova Izvršeno savjetovanje Letak - poremećaj TT

TLAK

Sistolčki 130,0 18.09.2013

Diastolčki 80,00 Pozitivna obiteljska anamneza DA NE

PUŠENJE

Nepušač

Bivši pušač

Pušač - cigareta

- lide

- cigara Izvršeno savjetovanje Letak - pušenje

GUK

GUK 4,60 20.09.2013 Izvršeno mjerenje glukoze u krvi

Dokazana šećerna bolest DA NE

LIPIDOGRAM

Uk. kolesterol

HDL kolesterol

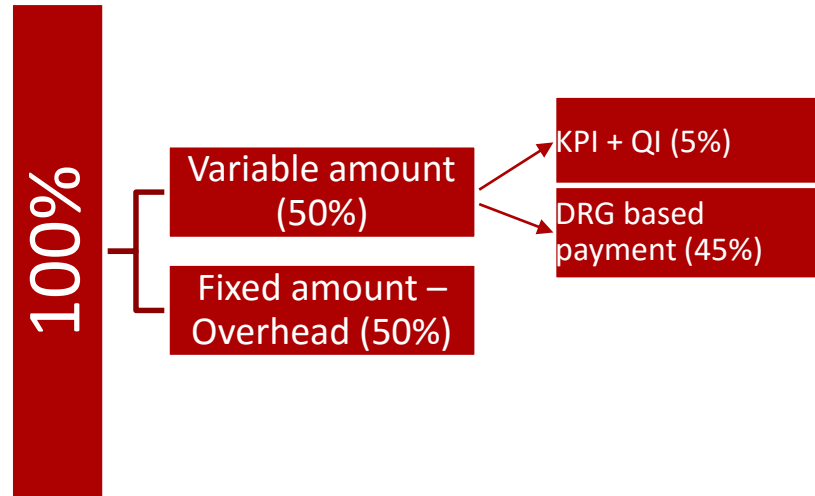
LDL kolesterol

KARDIOVASKULARNI RIZIK

Vjerojatnost fatalnog CV: -



Hospital payment system



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Hospital payment system

KEY PERFORMANCE INDICATORS (KPI) AND QUALITY INDICATORS (QI)

1% of the total budget per each indicator.
Payment is made only if KPI and QI are over the average for the same category of hospitals.

ADDITIONAL PAYMENTS:

Transplantations,
Interventional cardiology,
Interventional neurology,
Very expensive drugs.

KPI

Average length of stay

Number of outpatient visits per doctor

QI

Inpatient mortality rate

% of day cases

% of inpatients treated by “reserve antibiotics”



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Pharmaceuticals

Ljekarna Ed Borel - Godina: 2016										
Lista lijekova HZZO										
Lista lijekova Novi na listi Skinuti s liste Prjelaz Osn.->Dop. Prjelaz Dop.->Osn. Povećanja cijene Smanjenja cijene Nepromjenjena cijena Nivelacije Usp.										
1	ATK šifra	Nezaštićeno ime	Zaštićeno ime	Proizvođač	Oblik lijeka	HZZO Cijena			R	Specijalist
						Cijena	Doplata	Ukupno		
1	N03AX16102	pregabalin	Pregabalin Pliva	Teva UK Ltd., Merckle GmbH, Pliva	caps. tvrda 56x75 mg	66,02	0,00	66,02	R	Da
2	N03AX16103	pregabalin	Pregabalin Pliva	Teva UK Ltd., Merckle GmbH, Pliva Hrv	caps. tvrda 56x150 mg	132,05	0,00	132,05	R	Da
3	N03AX16104	pregabalin	Pregabalin Pliva	Teva UK Ltd., Merckle GmbH, Pliva Hrv	caps. tvrda 56x300 mg	264,10	0,00	264,10	R	Da
4	N03AX16121	pregabalin	Pregabalin Sandoz	Sandoz-Kundl	caps. tvrda 56x75 mg	59,42	0,00	59,42	R	Da
5	N03AX16122	pregabalin	Pregabalin Sandoz	Sandoz-Kundl	caps. tvrda 56x150 mg	101,61	0,00	101,61	R	Da

Basic list

Supplementary list

No co-payments

Co-payments set individually for different drugs

Regulatory framework:

Ordinance establishing the criteria for wholesale pricing of medicinal products and the method for reporting wholesale prices

Ordinance establishing the criteria for inclusion of medicinal products in the reimbursement lists of Croatian Health Insurance Fund



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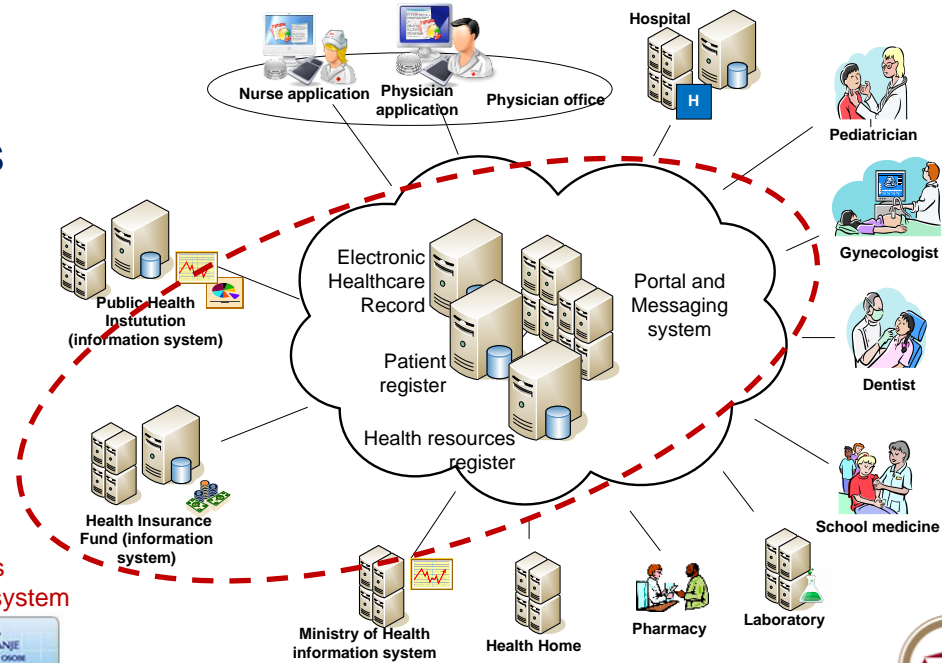
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E-health



- ✓ eMEDICAL RECORDS
- ✓ ePRESCRIPTIONS
- ✓ eREFERRALS
- ✓ ePATHWAYS
- ✓ TELEMEDICINE
- ✓ BI/GIS



CHIF operates central information system



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ePrescriptions



DIGITAL AGENDA FOR EUROPE

A Europe 2020 Initiative

European Commission > Digital Agenda for Europe > Scoreboard > Visualizations > DESI

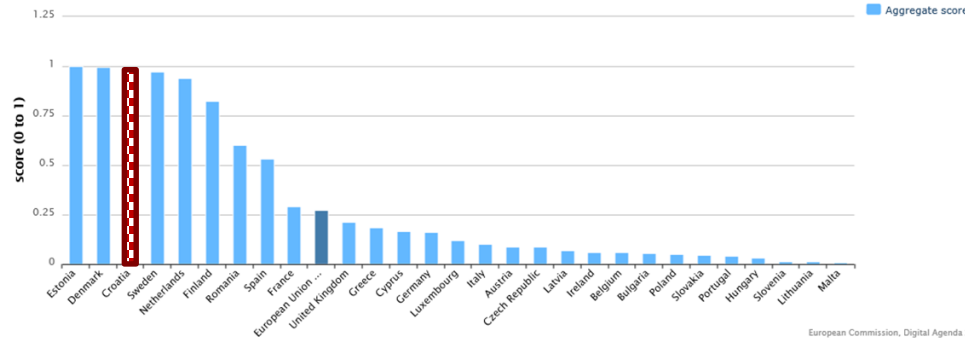


DESI by components

Indicator	5b2 ePrescription
Breakdown group	Aggregate scores
Period	2015

5b2 ePrescription, by Aggregate scores

Print chart Download image



European Commission, Digital Agenda Scoreboard

Source: *The Digital Economy & Society Index (DESI)*
<https://ec.europa.eu/digital-single-market/en/desi>



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eBooking/eReferral



Overview of health institutions
City of Zagreb and Zagreb county
Internal medicine - first exam

Ivan Horvat
99999993
01.01.1980



Overview all notifications

1 Select an institution 2 Select date



Hrvatski zavod za zdravstveno osiguranje
Croatian Health Insurance Fund
Pametno zdravlje.

- Filter SKZZ healthcare institutions

Appointment overview
KBC Zagreb
Internal medicine - first exam

Ivan Horvat
99999993
01.01.1980



Name of health institution (county)

- KB Merkur (Zagrebačka županija i grad Zagreb)
- KBC-Sestre milosrdnice (Zagrebačka županija i grad Za
- KBC Zagreb (Zagrebačka županija i grad Zagreb)
- KB Sveti Duh (Zagrebačka županija i grad Zagreb)
- KB Dubrava (Zagrebačka županija i grad Zagreb)
- DZ Zagreb - Centar (Zagrebačka županija i grad Zagreb)

1 Odaberite ustanovu 2 Select date 3 Result

Remaining time 00:06

Resurs

- SKŽ-AMB 2-SZ7-ambulantna za opću
- SKŽ-AMB 2-SZ7-ambulantna za opću
- SKŽ-AMB 2-SZ7-ambulantna za opću
- SKŽ-AMB 2-SZ7-ambulantna za opću
- SKŽ-AMB 4-SZ7-ambulantna za opću
- SKŽ-AMB 4-SZ7-ambulantna za opću
- SKŽ-AMB 3-SZ7-ambulantna za opću
- SKŽ-AMB 3-SZ7-ambulantna za opću



Hrvatski zavod za zdravstveno osiguranje
Croatian Health Insurance Fund
Pametno zdravlje.

eBooking result

1 Select institution 2 Select date 3 Result



The eBooking has been completed for the patient **Ivan Horvat, Internal medicine - first exam**, in institution **KBC Zagreb**, on **07.12.2015-10:30**

If you want to do a new eBooking, close this window and submit a new eBooking request from your application.

Click the button to print confirmation.

Confirmation



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eMedical Records

The image displays two overlapping browser windows from the eMedical Records system. The top window shows the main dashboard for a patient, and the bottom window shows a detailed view of a therapy session.

Top Window: Patient Overview

URL: <https://web.cezih.hr/eMedicalRecord/#DashboardPlacebWJvPTExNjY3MTk1NA==>

Navigation: Pregled, Posjete, Slučajevi, Terapija, Alergije, Antik. terapija, Implantati, Veći kir. zahvati, Ostalo, Osiguranje

Osnovni podaci

SPOL	DOB	DATUM ROĐENJA
Ž	64	01.03.1951

MBO: 11111111111

Izabrani liječnici

- GORAN LAZIĆ
- IGOR LONČAR
- ZLATKA MEKOVEC

Kronične bolesti

I10	Bolest	I10	Bolest	Frekvencija
I10	Esencijalna (primarna) hipertenzija	I10	Byol Cor	1 (1 X 1 dnevno)
K21	Gastroezofagealni refluks	K21	Ares	1 (1 X 1 dnevno)

Bottom Window: Therapy Details

URL: <https://web.cezih.hr/eMedicalRecord/#TherapyPlacebWJvPTExNjY3MTk1NA==>

Navigation: Pregled, Posjete, Slučajevi, **Terapija**, Alergije, Antik. terapija, Implantati, Veći kir. zahvati, Ostalo, Osiguranje

Osnovni podaci

SPOL	DOB	DATUM ROĐENJA
Ž	64	01.03.1951

MBO: 11111111111

Izabrani liječnici

- GORAN LAZIĆ
- IGOR LONČAR
- ZLATKA MEKOVEC

Trenutna terapija

Datum	Terapija	Frekvencija
27.10.2015	Byol Cor	1 X 1 dnevno (1)
27.10.2015	Ares	1 X 1 dnevno (1)

Pretražite terapije

27.10.2015 u 15:24

Byol Cor

1 X 1 dnevno (1)
I10 Esencijalna (primarna) hipertenzija

Izdani lijek

Zaštićeno ime	Byol Cor
Datum i vrijeme izdavanja	27.10.2015 15:24
Količina izdanog lijeka	1
Način uzimanja	1 X 1 dnevno
Status	-
Komentar statusa	-

Propisani lijek

Zaštićeno ime	Byol Cor
---------------	----------



[OPCI UVJETI](#)
[KORISNIČKA PODRŠKA](#)
[MIROSLAV PAVUNIĆ](#)
[OJJAVA](#)

TESTNA VERZIJA - PREGLED OTVORENIH E-NARUŽBI

MIROSLAV PAVUNIĆ
 OIB: 3411544237

Pretraga slobodnih termina

Datum	Smisli Vrijeme*	Ustanova	Postupak	Zahtjev na uključivanje
02.12.2015. petak	8 sati 0 min	KBC, Split	Prethodna konzilija - Kardiološki pregled	<input type="checkbox"/> Izvoli

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[MIROSLAV PAVUNIĆ](#)
[OJJAVA](#)

TESTNA VERZIJA - Otkazivanje narudžbe

Ime i prezime osigurane osobe: **MIROSLAV PAVUNIĆ**
 Matični broj osigurane osobe: **121997009**
 Žrtavstva ustanova u kojoj ste namučani: **KBC, Split**
 Postupak na koji ste namučani: **MR lumbosakralne kralježnice**
 Datum termina: **10.12.2015., četvrtak, 17 sati 25 min**
 Razlog otkazivanja (Obavezan odabir):
 pregled/zahvat već obavljen u privatnoj ZU
 Kontakt broj na koji vas se može nazvati bude li potrebno (Obavezan unos):
 0912565370
 Kontakt E-mail za pohodu otkazivanja:
 miroslav.pavunic@hzzo.hr

Napomena: Otkazanu narudžbu nije moguće vratiti!

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PREGLED REALIZIRANIH RECEPTA U ZADNJIH 6 MJESECI

Realizirani recepti u zadnjih 6 mjeseci

Datum	Lijek	Količina	Ispos*	Lijekovna
24.12.2014.	ATC04AB11F Amoksisilin Bialpha	1	19.80 kn	LJ GRIBANAC LJ JEJ1
05.12.2014.	B01AB02Z2 Faramin	2	41.80 kn	LJ PHYTO PHARMALIA LJ JEJ1
07.11.2014.	B01AB02Z2 Faramin	2	41.80 kn	LJ GRIBANAC LJ JEJ1
14.10.2014.	B01AB02Z2 Faramin	2	41.80 kn	LJ PERMAL PHARMIE - POC BRIG13
13.10.2014.	N05BA01111 Namiprid	1	4.81 kn	LJ SPLIT DAL ŽUPANJE LJ JEJ1 VAROŠ
24.09.2014.	B06AX1302 Chlorhex	1	35.36 kn	LJ SPLIT DAL ŽUPANJE LJ JEJ1 VAROŠ
20.07.2014.	B01BB01112 Faldin	1	22.26 kn	LJ GRIBANAC LJ JEJ1

*Ispos prikazuje od HZZO-a i eventualna doplate osiguravika, a PDV-om

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Pametno Zdravlje

Lumipex Životni stil

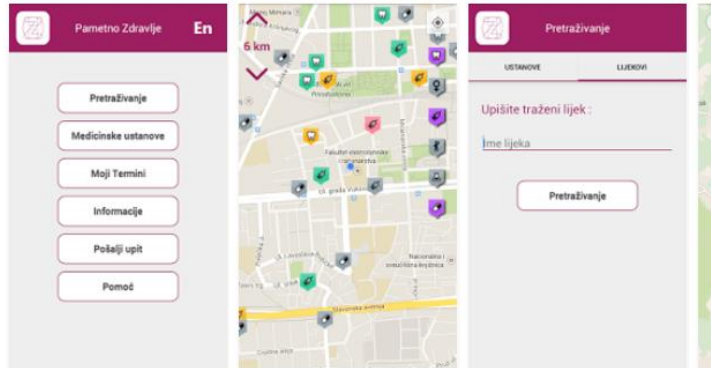
★★★★★ 21

PEGI 3

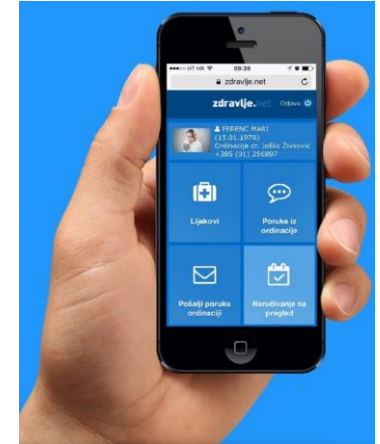
Aplikacija je kompatibilna s nekim vašim uređajima.

Dodaj na popis želja

Instaliraj



- Free mobile application – „Pametno zdravlje” („Smart Health App”)
- Easy searching for health institutions (by type) in Croatia
- Mapping of public health network
- Phone calls and e-mails directly to the institutions/doctors
- Drug lists search



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Hrvatski zavod za zdravstveno osiguranje

Budite dio najveće mreže liječnika u Hrvatskoj

Pozivamo sve zainteresirane liječnike u RH da se pridruže zajednici ISL Connecta

ISL+ CONNECT

- Upoznajte kolege**
Steknite nova poznanstva unutar i izvan struke
- Komunicirajte**
Pišite i komentirajte sadržaje te komunicirajte s kolegama
- Autorski članci**
Čitajte jedinstvene članke priznatih autora iz medicine
- Učenje i informiranje**
Ostanite informirani i profesionalno se razvijajte
- Korisni alati**
Uštedite vrijeme i olakšajte si medicinsku praksu
- Učlanite se**
Želite postati član? Podnesite prijavu!

Registrirani korisnici

Prijavite se

Zaboravili ste lozinku?

Besplatan broj korisničke podrške:
0800 1319
Info mail:
hzzo@isi.hr

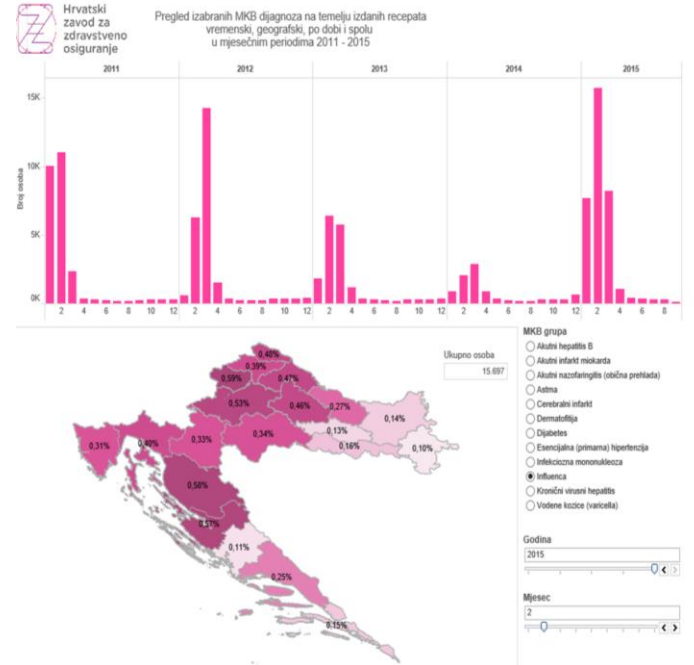
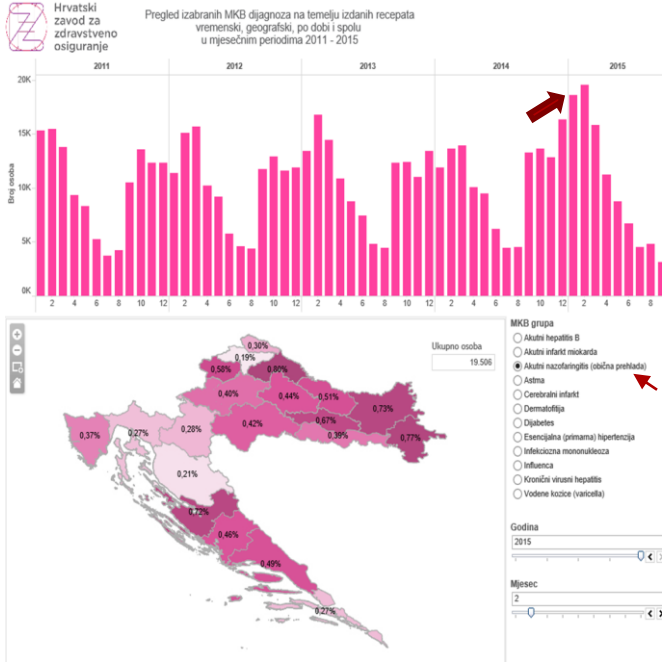
Početna stranica | Uvjeti korištenja

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- The information system for doctors (ISL) aims to provide all informations relevant to medical practice.



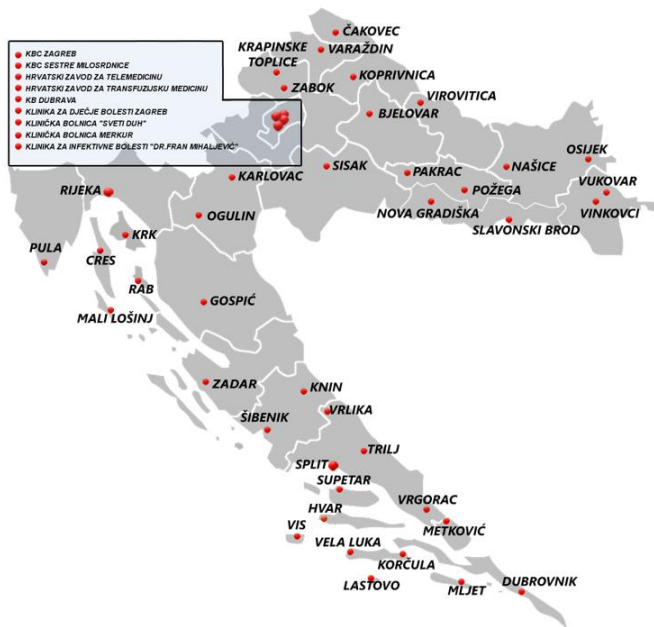
BI and Data Analytics



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Telemedicine



- 103 telemedicine centres within 57 health institutions;
- All centres connected through the private IP/MPLS network;
- Telemedicine centers provide radiology, neurology, neurosurgery, cardiology, gastroenterology, immunohematology, trauma and maxillofacial health services;
- All RIS/PACS systems connected via teleradiology workstations in telemedicine centers;
- Continuous medical education (CME) – professional development program for health care professionals at remote locations, carried out successfully for five years (televideo-conferences in real-time)



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The
18th Annual
BHF Southern
African Conference

Private sector embracing universal healthcare

THANK YOU



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**THE FUTURE
DEPENDS UPON THE
DECISIONS MADE
TODAY**

“Will we look into the
eyes
of our children and
confess
that we had the
opportunity,
but lacked the courage?”



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