



REPUBLIKA E SHQIPËRIË
MINISTRIA E SHËNDETËSISË

E-Health in Albania

25 October 2016



HEALTH CARE SYSTEM



HEALTH CARE IS PROVIDED BY AN INTEGRATED HEALTH SERVICE SYSTEM AND APPLY THE REFERRAL SYSTEM

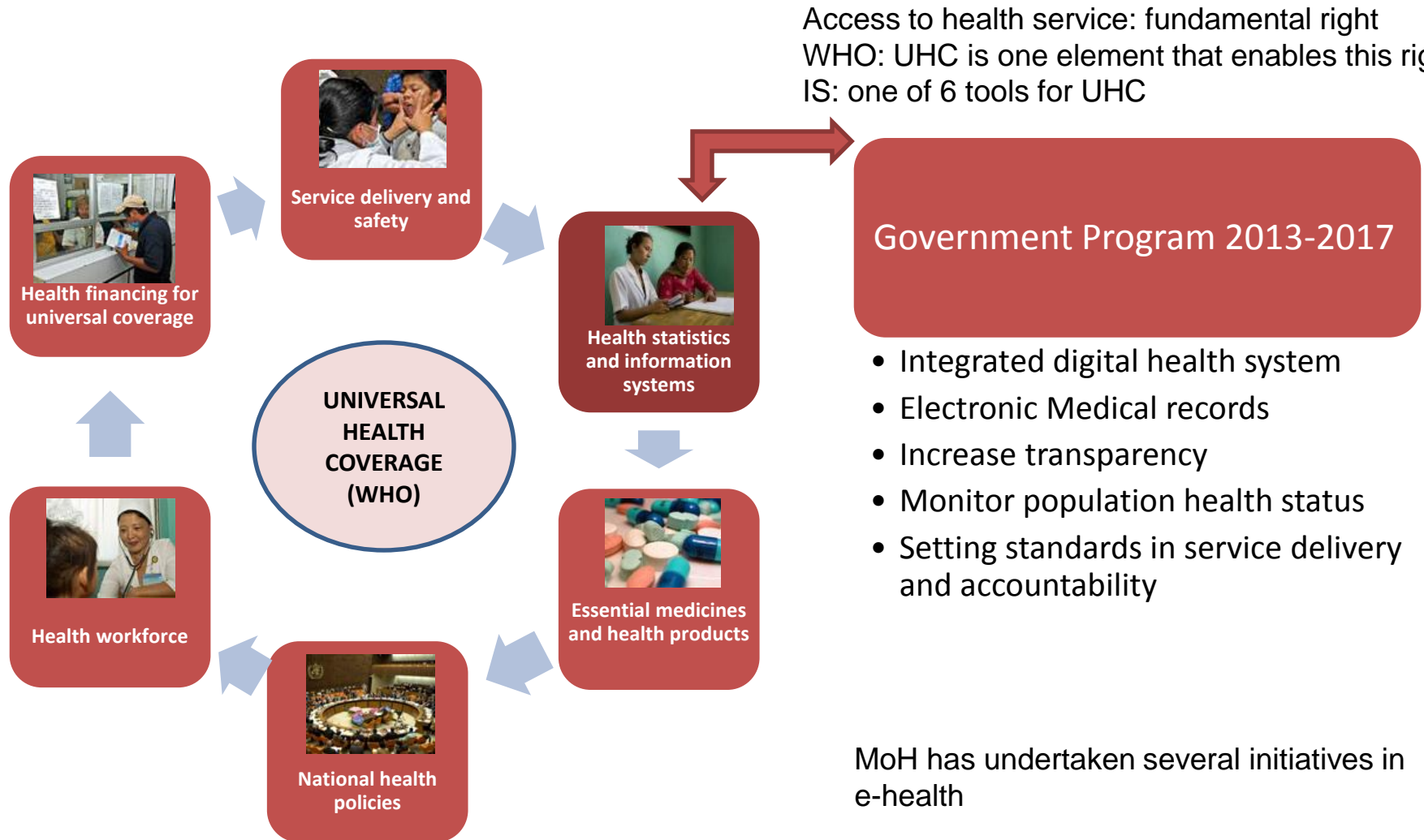


PRIMARY HEALTH CARE IS PROVIDED THROUGH A NETWORK OF HEALTH PROFESSIONALS AND INSTITUTIONS BASED ON THE PRINCIPLES OF FAMILY HEALTH CARE



HOSPITAL CARE IS OFFERED TO THE CITIZENS IN NEED OF DIAGNOSIS, AND/OR ADVANCED TREATMENT IN HOSPITAL IN ACCORDANCE WITH THE REFERRAL SYSTEM

UNIVERSAL HEALTH COVERAGE AND HEALTH INFORMATION



E-HEALTH



USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES FOR HEALTH (WHO)

EVOLUTION OF PERCEPTION, WAY OF THINKING, BEHAVIOUR, ENGAGEMENT ON THE USE OF ICT TO IMPROVE HEALTH SERVICE

IMPROVE HEALTH SERVICE DELIVERY



- IMPROVED ACCESS TO THE SYSTEM, HEALTH CARD
- NATIONWIDE ELECTRONIC HEALTH RECORDS
- E-PRESCRIPTION
- HOSPITAL MANAGEMENT INFORMATION SYSTEM
- E-SIGNATURE
- E-EXAMINATION



EFFECTIVE ADMINISTRATION OF OF HUMAN AND FINANCIAL RESOURCES

- ADMINISTRATION OF MEDICAL DRUGS REGISTRATION SYSTEM
- MANAGEMENT OF HUMAN RESOURCE AND MEDICAL ASSETS SYSTEM
- HEALTH SITUATION MONITORING SYSTEM (Business Intelligence)



IMPROVE HEALTH SERVICE DELIVERY

1-HEALTH CARD

e albania

Abanani OK

PLATFORMA QEVERITARE E NDËRVEPRIMIT- Ofrues Identiteti


X Search

I vetëpunësuar
 Student
 Invalid luftë
 Pa pension
 I papunë
 Rasti i veçantë
 0-12 muaj
 Kujdestar
 Veteran
 Pensionist i pjesshëm
 STU

Plotësoni afatin për këto kategori:


Jetim
 Shtatzanë
 RVT
 Invalid i pjesshëm
 PAK
 IEVP
 Leje lindje
 Azikërkues
 Sigurim vullnetar
 I verbër

Data:

 FONDI I SIGURIMIT
TE DËTYRUESHËM
TE KUJDESTI
SHËNDETËSOR

Karta e shëndetit

TË DHËNAT E INDIVIDIT



KARTË SHËNDETI

FONDI I SIGURIMIT
TE DËTYRUESHËM
TE KUJDESTI
SHËNDETËSOR

Emri: [REDACTED]
 M / 27/01/1937
 Q.SH.: QSh Nr.4 Durres
 Mjeku: Harallamb Martopullo
 Nr. Personal: [REDACTED]
 Kodi i Pacientit: 0

Kategoria: Pensionist Afati: Pa afat

QR Code

Printo Shkarko

Identification of insured patients

- Started in January 2015
- Creates the electronic database of insured patients
- February 2016: Apply and generate online the health card. 16 thousands health cards generated online through e-Albania portal.
- Online interaction with other IT systems: Civil Register, pension, social assistance, labor offices, tax register.
- 1.190.315 Health Cards Active.

Improves the service

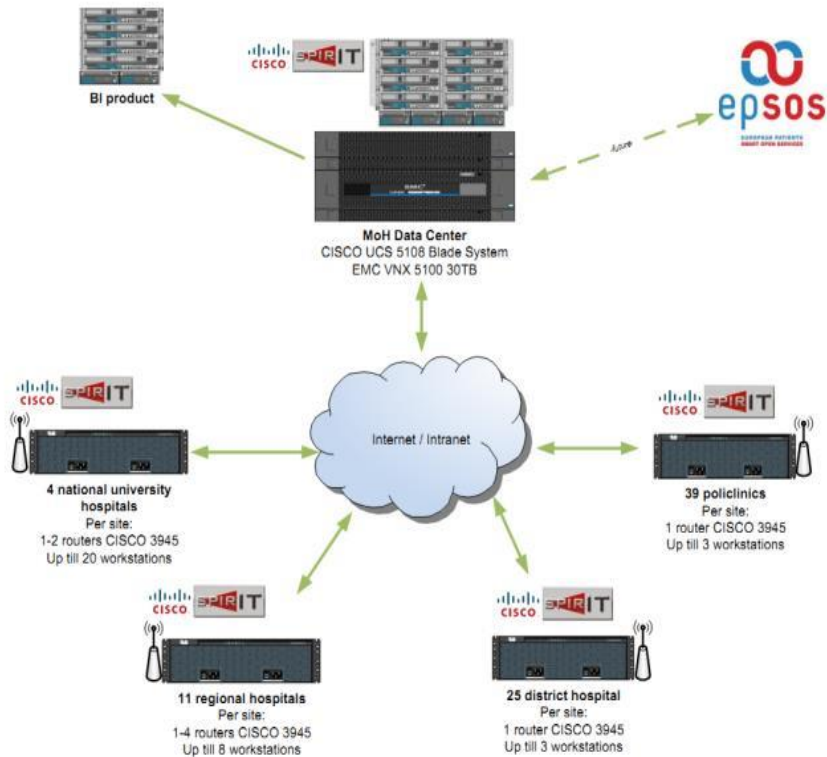
- Citizens benefits: Eliminates many documents needed before the health card.
- Citizens benefits: Reduce commute from one office to another and reduce the service time
- Citizens benefits: Free of charge
- Doctors benefit: Reduce time in paper work. Increase time to dedicate to patient.
- Health card validity is checked online by the doctor



IMPROVE HEALTH SERVICE DELIVERY

2-NATIONWIDE ELECTRONIC HEALTH RECORDS

Albania EHR Solution



NATIONWIDE EHR

- Implemented in 79 health institutions within November 2016
- Federated Architecture
- High level of security for health data
- Easy to use and scalable
- Flexible to integrate with other systems
- IHE HL7 Standard
- Online-Offline mode
- Patient medical history online accessible through government portal

IMPROVES THE SERVICE

- Efficient management of admissions and other services provided by the Health Care Institutions.
- It provides communication between health care institutions for access to clinical data of patients
- Clinical documents are according to EU standards



IMPROVE HEALTH SERVICE DELIVERY 3-E-PRESCRIPTION (part 1)

e-Rx

Kryesore Detyra e-Rx Administrim Raporte

Pacienti Receta

Nr. Recete 154290949701210

Diagnoza Mononukleozë infektive

E vlefshme deri

* Tipi Recete Akute

E vlefshme

* Pershkrimi test

* Dt. Recetes 29.04.2015

* E vlefshme nga 29.04.2015

Anulloar (Po / Jo) N

+ Shto < Mbrapa Perpara > Kerko Recete Printo Recete

Pershkrimi i medikamentit + Shto Fshi

| Nr | Principi aktiv | Terapia e rekomanduar | Kohezgjatja e kurimit | Fuqia | Forma | Shenime |
|----|----------------------|-----------------------|-----------------------|-------|---------|----------|
| 1 | Acetazolamide 250 mg | 1 x 1 | 10 | 250mg | Tabletë | pas buke |

e-Prescription in Durrës

- Implemented in November 2015
- 75 pharmacies
- 129 doctors
- 18 Health Care Centers

- November 2015-October 2016
- Generated prescriptions -> 174 285
- Executed/dispensed prescriptions -> 171 684
- Patients that received prescriptions -> 18 249

Nationwide E-Prescription

- Contract Signed: November 2015
- Nationwide implementation
- Signed through e-signature



IMPROVE HEALTH SERVICE DELIVERY 3-E-PRESCRIPTION (part 2)

e-Rx

Kryesore Detyra e-Rx Administrim Raporte

e-Rx

Kryesore Detyra e-Rx Administrim Raporte

Pacienti Receta

MINISTRIA E SHËNDETËSISË

e-Rx

154290949701210

Tipi i recetës : Recete Akute
Data e vlefshmërisë nga : 29.04.2015
Data e vlefshmërisë deri :

Të dhënat e mjekut

Emri Mbiemri : sysadmin sysadmin
Kodi i mjekut : 0
Ofruesi i Shërbimit : Spitali DR

Të dhënat e pacientit

Emri Mbiemri : Shkelqim Kamberi
Datëlindje : 10.12.1970 Peshë : 80 Kg
Institucioni i Kujdesit : Spitali DR
Adresa : Rr. Curilave,Nr.15

Diagnoza Mononukleozë infektive

Plotësuar nga mjeku

| | |
|------------------------------|--------------------------------------|
| Principi | Acetazolamide 250 mg |
| Terapia e rekomanduar: | 1 x 1 |
| Fuqia: | 250mg Kohëzgjatja e Kurimit: 10 dite |
| Cmimi i rekomanduar i barit: | 12.5 Forma : Tablete Shenime |

Data e recetës : 29.04.2015
Mjeku : sysadmin sysadmin
Firma/ Vula:

Plotësohet nga farmacisti

| Emërtimi tregtar | Sasia | Cmimi | Totali |
|------------------|-------|-------|--------|
| | | | |

Totali i pacientit:
Rimbursuar nga Fondi:
Cmimi total i referencës:

Interacts with other IT systems

- Civil Register
- Health Card (The Fund)
- Drug Register (National Agency of Drug and Medical Equipments)
- etc

Improves the service

- Shorten the time of administrative procedures, increase time in the patient's medical service
- Doctor is assisted in medical decision making. (history of drug treatments is available).
- Ways of medical treatments serve for further studies to improve treatment protocols of different pathologies



NATIONAL INFORMATION SYSTEM OF CHECKUP (40-65 YEARS)

- Centralized information system of medical information regarding the visit of a patient ranging 40-65 years.
- Administration of the medical documentation of the visit :
 - Analysis
 - Interview
 - ECG
 - Tests results
- Activity monitoring (day, month or year based reports)
- Up to now: 501 722 files.
- Provides data for health professionals for health analysis studies and statistics.
- Citizens: Online information of data and checkup results through e-albania
- Secure access to the system from the service providers and all actors (HC, Labs, Fund and MoH).



IMPROVE HEALTH SERVICE DELIVERY

5. ELECTRONIC SIGNATURE

6. E-EXAMINATION

Electronic Signature of medical documents


- **Aim:** Doctors and pharmacists will electronically sign medical documents (eg. electronic prescription)
- Implementation in collaboration with NAIS, FUND
- To be implemented within 2016

E-examination – Queue management system for advanced health examinations

- **Aim:** Citizens can book online through e-albania portal for an advanced examination with medical equipments.
- According to the referral system, location, disponibility of the medical equipments and medical staff.

- ~32 examinations:
 - MRI
 - CT
 - Coronarography
 - etc

- Implementation in collaboration with NAIS, Fund
- To be implemented within 2016



HUMAN RESOURCES MANAGEMENT SYSTEM -DRUG REGISTRATION INFORMATION SYSTEM

SIRKB Logo Placeholder

Mirësevini, mah! | DII

Dashboard **Aplikimet e mia** Profili im

Shifeto

Të gjitha aplikimet
Aplikimet për regjistrim bari
Regjistrimet e Përsheptuara
Riregjistrimet
Aplikime për variacion
Regjistrimet e Miratuara

Apliko për...

Regjistrim bari
Regjistrim bari (i përsheptuar)
Riregjistrim
Variacion
Çregjistrim

Aplikime në proces

View Export to Excel (All Rows) Detach

| Nr. Aplikimi | Dt. Aplikimi | Emri tregtar | Emërtimi kimik | Tipi | Faza | Statusi |
|--------------|--------------|-------------------------------------|----------------|------------------------|--------------------|---------------|
| 41162 | 17.11.2014 | PAROL 100 mg | PARACETAMOL | Regjistrim Bari i Ri | Shqyrtim nga AKBPM | Protokollluar |
| 41151 | 17.11.2014 | APOTEL 1g/6.7ml | PARACETAMOL | Regjistrim Bari i Ri | Shqyrtim nga AKBPM | Ne proces |
| 41040 | 29.10.2014 | CAELYX 20 mg/10 ml | DOXORUBECIN | Regjistrim Bari i Ri | Finalizim | Ne proces |
| 41039 | 29.10.2014 | EVOLTRA 1 mg/ml | CLOFARABINE | Regjistrim Bari i Ri | Shqyrtim nga AKBPM | Ne proces |
| 40022 | 20.10.2014 | RANTIDINA ABC 1 shifhe x 30 | RANTIDINE | Regjistrim Bari i Ri | Vlerësim paraprak | Ne proces |
| 67 | 17.10.2014 | PEDEA 5 mg/ml | IBUPROFEN | Regjistrim Bari i Ri | Vlerësim paraprak | Protokollluar |
| 53 | 14.10.2014 | VIZARSIN 25 mg Kub 5 * flete 20-she | SILDENAFIL | Regjistrim Bari i R... | Shqyrtim nga AKBPM | Protokollluar |
| 52 | 14.10.2014 | ANALGINE 100 mg/ml | METAMIZOLE | Regjistrim Bari i Ri | Vlerësim paraprak | Ne proces |

Aplikime draft

View Detach

| Nr. Aplikimi | Dt. Aplikimi | Emri tregtar | Emërtimi kimik | Kodi ATC | Tipi |
|--------------|--------------|----------------|-------------------------|----------|----------------------|
| 41109 | 08.11.2014 | TADENAN | PYGUM AFRICANUM EXTRACT | G04C01 | Regjistrim Bari i Ri |
| 41042 | 30.10.2014 | TALGAN 2 mg/ml | BUDESONIDE | ATC04S3 | Regjistrim Bari i Ri |

SYSTEM FUNCTIONALITIES

- Online drug request registration
- Online access information for drug manufactures , distributors and importers. Online registration and authorization for import
- Registration and inventory of stamps serial numbers
- History of activity
- Drug register is available through Web Service for other systems. (E-prescription)



ADMINISTRIM EFIKAS I BURIMEVE NJERËZORE DHE FINANCIARE -HUMAN RESOURCES MANAGEMENT SYSTEM

SYSTEM FUNCTIONALITIES

- Accessible from 80 institutions
- ~24 thousands employees registered
- Monitor employ file
- Payroll

Kartela e punonjësit

Emri

Mbiemri:

Emri:

Emri i babait:

Emri nënës:

Mbiemri vajzërisë:

Em.bashkesh.:

Gjinia: id:

Identifikimi

Numri i identitetit:

Nr. Leternjoftimit /Pasaportes:

Nr.Regj. i punonjësit:

Përcaktimi i Emërimeve të Punonjësve

Nr. Emërimit:

Punonjësi:

Dt. Kontrate:

Shtesë Kontrate

Mënyra e Punësimit: Orët në Ditë: Klasifikimi:

Pozicioni: Lloji:

Titulli:

Arsyeja:

Nga data Me Afat

Në Datë:

Grada PG - Pagë grupi:

Paga Bruto SHP - Sht.Poz.:

Status: SHKP - Kush.pune:

Emërimi që mbyllet

Numri:

Pozicioni:

Titulli:

Periudhe Provë

Muaj: Data e njoftimit:

Zgjatja e Periudhës

| Data e Zgjatjes | Muajt | Dt.re Mbarimit |
|----------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> |
| <input type="text"/> | <input type="text"/> | <input type="text"/> |

Perfundimi i emërimit

Përfunduar më: Arsyeja:

Paguar deri: Datë Prot.:





-IMPROVEMENT OF HEALTH CARE SERVICE DELIVERY -HEALTH SITUATION MONITORING SYSTEM (BUSINESS INTELLIGENCE)

SYSTEM FUNCTIONALITIES

- Big volume of data! (1 600 000 records per month)
- Impossible to process information for decision making.

• SOLUTION

- BI Technology
- Integrated 6 IT systems from the FUND
- Integrated checkup system

• RESULTS

- Monitors the activity of Checkup
- Monitors the health situation
- Helps build health risk indicators of the population

| Rajone | Bretje | Qendra Shendetimore | №1 | PAS <120 PAS >=140 | PAS <120 PAS >=140 | PAS <120 PAS >=140 | PAS <120 PAS >=140 | PAS <120 PAS >=140 | PAS <120 PAS >=140 | PAS <120 PAS >=140 | Popullsia | Grupmosha 40-49 | Grupmosha 50-59 | Grupmosha 60-69 | Te veteperqendrohen me rrezikun (C23) (kg/m2) | BMI (23-24.9) | BMI (25-29.9) | BMI (30-34.9) | BMI (35-39.9) | BMI (40-49) | Konsumi i lartshme (litra) | Konsumi i lartshme (litra) | Konsumi i lartshme (litra) | Duhani (20-29 pije) | Duhani (30-39 pije) | Duhani (40-49 pije) |
|--------|--------|---------------------|-------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----------|-----------------|-----------------|-----------------|---|---------------|---------------|---------------|---------------|-------------|----------------------------|----------------------------|----------------------------|---------------------|---------------------|---------------------|
| BEKAT | BEKAT | Qendra Shendetimore | 104 | 6 | 80 | 1 | 6 | 48 | 52 | 31 | 62 | 42 | 33 | 61 | 11 | 89 | 103 | 0 | 0 | 0 | 63 | 40 | 2 | 36 | 4 | 5 |
| | | Qendra Shendetimore | 300 | 16 | 336 | 5 | 10 | 88 | 252 | 66 | 228 | 122 | 140 | 141 | 72 | 283 | 349 | 0 | 0 | 0 | 236 | 54 | 2 | 325 | 22 | 3 |
| | | Qendra Shendetimore | 306 | 68 | 352 | 2 | 31 | 131 | 199 | 58 | 208 | 178 | 145 | 165 | 56 | 314 | 385 | 0 | 0 | 0 | 2 | 383 | 0 | 367 | 10 | 8 |
| | | Qendra Shendetimore | 57 | 12 | 42 | 0 | 5 | 21 | 30 | 13 | 36 | 21 | 28 | 23 | 6 | 12 | 56 | 0 | 0 | 0 | 21 | 34 | 2 | 15 | 3 | 2 |
| | | Qendra Shendetimore | 643 | 75 | 568 | 24 | 165 | 271 | 259 | 115 | 363 | 200 | 208 | 329 | 106 | 583 | 644 | 0 | 0 | 0 | 104 | 450 | 9 | 563 | 30 | 2 |
| | | Qendra Shendetimore | 916 | 41 | 883 | 47 | 208 | 434 | 267 | 234 | 536 | 306 | 326 | 462 | 131 | 131 | 911 | 0 | 0 | 0 | 332 | 576 | 8 | 822 | 99 | 1 |
| | | Qendra Shendetimore | 1,387 | 259 | 1,306 | 33 | 115 | 449 | 709 | 261 | 916 | 471 | 414 | 669 | 304 | 671 | 1,044 | 0 | 0 | 0 | 136 | 1,202 | 47 | 1,274 | 108 | 5 |
| | | Qendra Shendetimore | 345 | 29 | 317 | 15 | 41 | 134 | 188 | 78 | 204 | 141 | 135 | 158 | 82 | 218 | 343 | 0 | 0 | 0 | 24 | 307 | 14 | 305 | 37 | 3 |
| | | Qendra Shendetimore | 412 | 109 | 399 | 19 | 50 | 134 | 199 | 99 | 257 | 155 | 152 | 194 | 66 | 264 | 412 | 0 | 0 | 0 | 56 | 203 | 72 | 365 | 45 | 2 |
| | | Qendra Shendetimore | 1,262 | 214 | 1,257 | 40 | 206 | 444 | 636 | 235 | 872 | 480 | 429 | 644 | 281 | 724 | 1,345 | 1 | 1 | 1 | 306 | 985 | 63 | 1,134 | 189 | 31 |
| | | Qendra Shendetimore | 1,189 | 310 | 1,044 | 12 | 91 | 308 | 484 | 232 | 759 | 430 | 331 | 558 | 280 | 711 | 1,035 | 0 | 0 | 0 | 149 | 988 | 30 | 1,038 | 111 | 22 |
| | | Qendra Shendetimore | 1,287 | 491 | 1,715 | 68 | 184 | 595 | 880 | 337 | 1,261 | 626 | 499 | 853 | 539 | 1,436 | 1,870 | 1 | 0 | 0 | 1,000 | 780 | 76 | 1,686 | 190 | 12 |
| | | Qendra Shendetimore | 1,367 | 400 | 1,216 | 21 | 70 | 257 | 724 | 141 | 791 | 576 | 527 | 634 | 207 | 676 | 1,219 | 27 | 10 | 1 | 269 | 1,061 | 38 | 867 | 132 | 8 |
| | | Qendra Shendetimore | 957 | 278 | 698 | 29 | 87 | 228 | 448 | 151 | 681 | 376 | 347 | 433 | 177 | 583 | 955 | 236 | 154 | 8 | 30 | 910 | 11 | 854 | 90 | 13 |
| | | Qendra Shendetimore | 799 | 85 | 698 | 8 | 15 | 132 | 248 | 537 | 232 | 284 | 342 | 178 | 111 | 797 | 9 | 0 | 0 | 0 | 148 | 344 | 22 | 68 | 3 | 0 |
| | | Qendra Shendetimore | 1,148 | 61 | 1,107 | 7 | 23 | 305 | 624 | 454 | 659 | 459 | 482 | 542 | 216 | 242 | 1,148 | 0 | 0 | 0 | 49 | 1,092 | 7 | 1,029 | 109 | 0 |



IMPROVEMENT OF HEALTH CARE SERVICE DELIVERY

2'nd Component: "Improvement of Health Information Management Systems"

World Bank Project. 2015-2021



Set up:
National
Health
Information
System Center



HIS for
regional
hospitals



New payment
methods for
the hospitals



Improve IS in
the FUND.



Interoperability
within health
system and other
external systems



Other
activities
(trainings etc).

Main activities of the component



Thank you