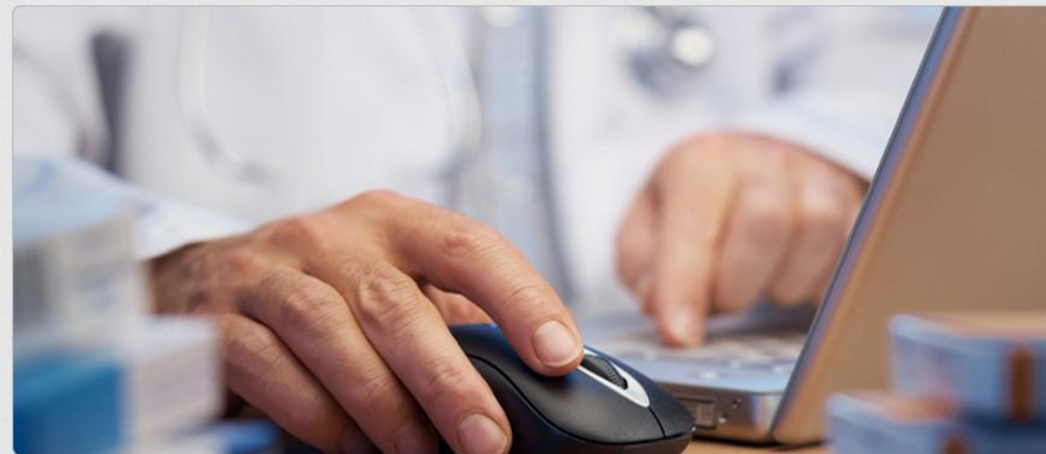


Health Management Information System (HMIS)

Georgia

USAID Health System Strengthening
Project (HSSP)

October
2012



Health Management Information System - Mission

- **Policy and management decision making based on accurate data**
- **Improved standardization and transparency of processes**
- **Improved efficiency and control of healthcare programs**

Health Management Information System – Main Characteristics

- **Information privacy and security**
- **Common standard for data registration to ensure international comparability**
- **Operational effectiveness and optimization of administration resources**
- **Real-time monitoring of financial/healthcare data**
- **Accurate statistics and analysis**
- **Effective management of knowledge and experience; evidence–based clinical decision making**

Main Components of Health Management Information System

- ✓ Regulation of Medical Activities
- ✓ Pharmaceutical Activities
- ✓ E-Services
- ✓ Pharmacy and Healthcare Network Information Portal
- ✓ Medical Mediation
- ✓ Immunization/Vaccination
- ✓ User Management Module
- ✓ Financial Accounting and Management
- ✓ Medical Classifications
- ✓ Analytic Tools



Functional Architecture of Health Management Information System

✓ Access to information and services



Electronic Services



Medical Portal



Pharmaceutical Portal



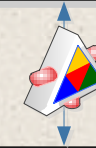
E-Prescription



E-Services



Analytic Module



Directions and Modules



Financial Accounting
and Management



Regulation of Medical
Activities



Pharmaceutical
Activity



Immunization



Medical Mediation



Auxiliary Modules



Main Registers



Medical
Classifications



Healthcare Facilities



Medical
Personnel



Pharmacies



Database of
Pharmaceutical
Products



Various
Registers

✓ Administration/management tools



✓ Basic registers



Health Management Information System Stakeholders

- Minister of Labor, Health and Social Affairs of Georgia (MoLSA)
- Social Service Agency (SSA)
- National Center for Disease Control and Public Health
- State Regulation Agency for Medical Activities
- Medical Mediation Service

- Revenue Service
- State Treasury - Ministry of Finance of Georgia
- Healthcare providers involved in the government-funded programs; all healthcare providers will be involved in the HMIS in the future
- Rural Doctors
- Insurance Companies
- General Population

Regulation of Medical Activities Component

Benefits of Modules

Licensing and Permitting Module for Healthcare Facilities and Certification/Accreditation Module for Medical Staff

- Keep electronic registers and enhance public information
- Complete histories of healthcare facilities taking into account legal succession (related to licenses, permits, accreditation)
- Information on medical staff training, their certificates and experience
- Transparent information on suspension/revocation of the right to medical activity
- In the future, information on distribution of medical staff by healthcare facility and geographic location



Pharmaceutical Activity Component

Component Modules

Pharmacy Module

Pharmaceutical Products Module

**Electronic Drug Registration in eCTD
(Common Technical Document)
Format**

E-prescribing Module

Benefits of Pharmacy Module

- **Registration of all functioning pharmacies and their identification according to type of activity**
- **Registration of pharmacy and pharmaceuticals inspection results**
- **Data standardization and prevention of duplicate entries**

Pharmaceutical Activity Component-II

Benefits of Pharmaceutical Products Module

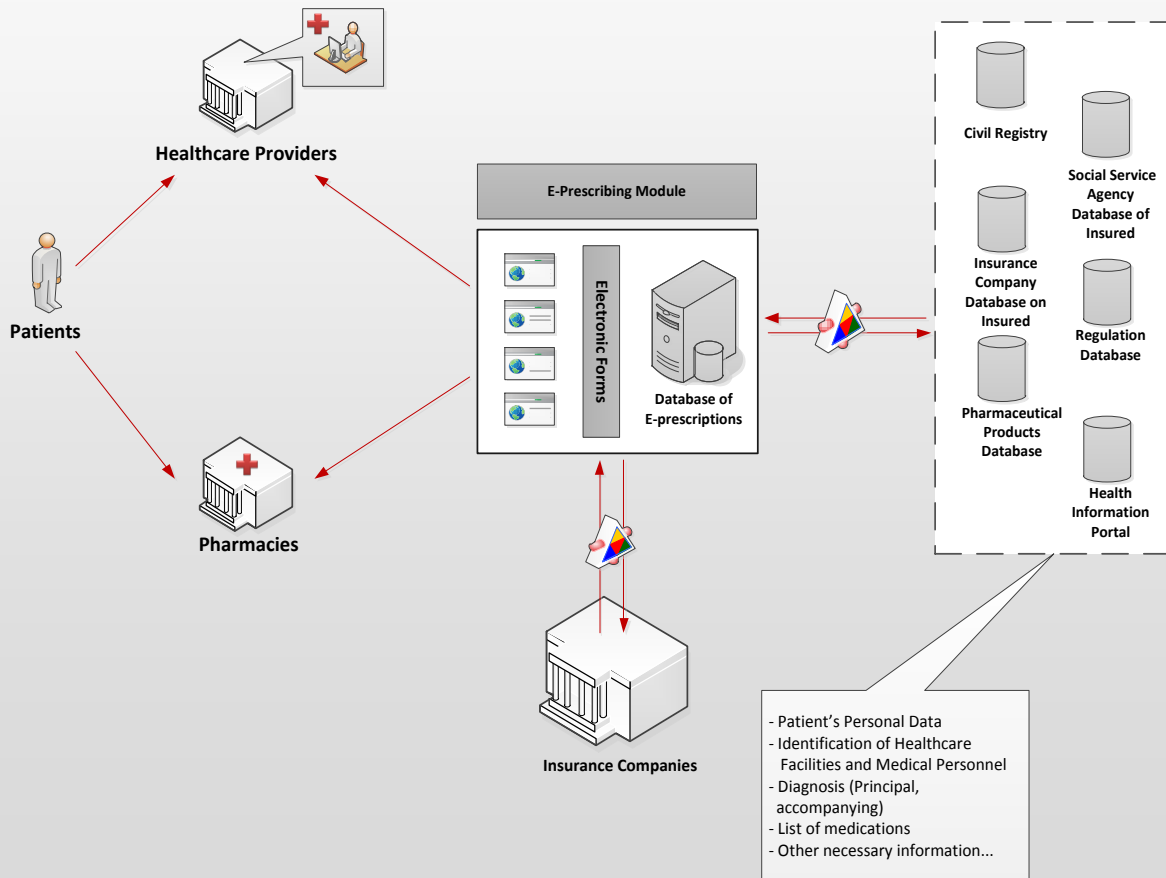
- ✓ A complete list of pharmaceuticals permitted in Georgia
- ✓ Opportunity for real-time exchange of information on import/export of drugs with the Revenue Service
- ✓ Capability to ensure citizens' safety, by proper drug surveillance mechanism using the unique drug code
- ✓ Data standardization and prevention of duplicate entries
- ✓ Ability of medical staff to make informed decisions based on drug annotations and different medical/scientific information

Benefits of Electronic Drug Registration in eCTD (Common Technical Document) Format

- ✓ Standardization of normative and technical dossier along with expertise processes
- ✓ Compliance of the registration process with international standards and technical possibility to connect reliable regulators to analogous registration interface
- ✓ Registration of high-quality drugs
- ✓ Timely optimization of financial and technical resources
- ✓ Data systematization and simplified data search

Pharmaceutical Activity Component- III

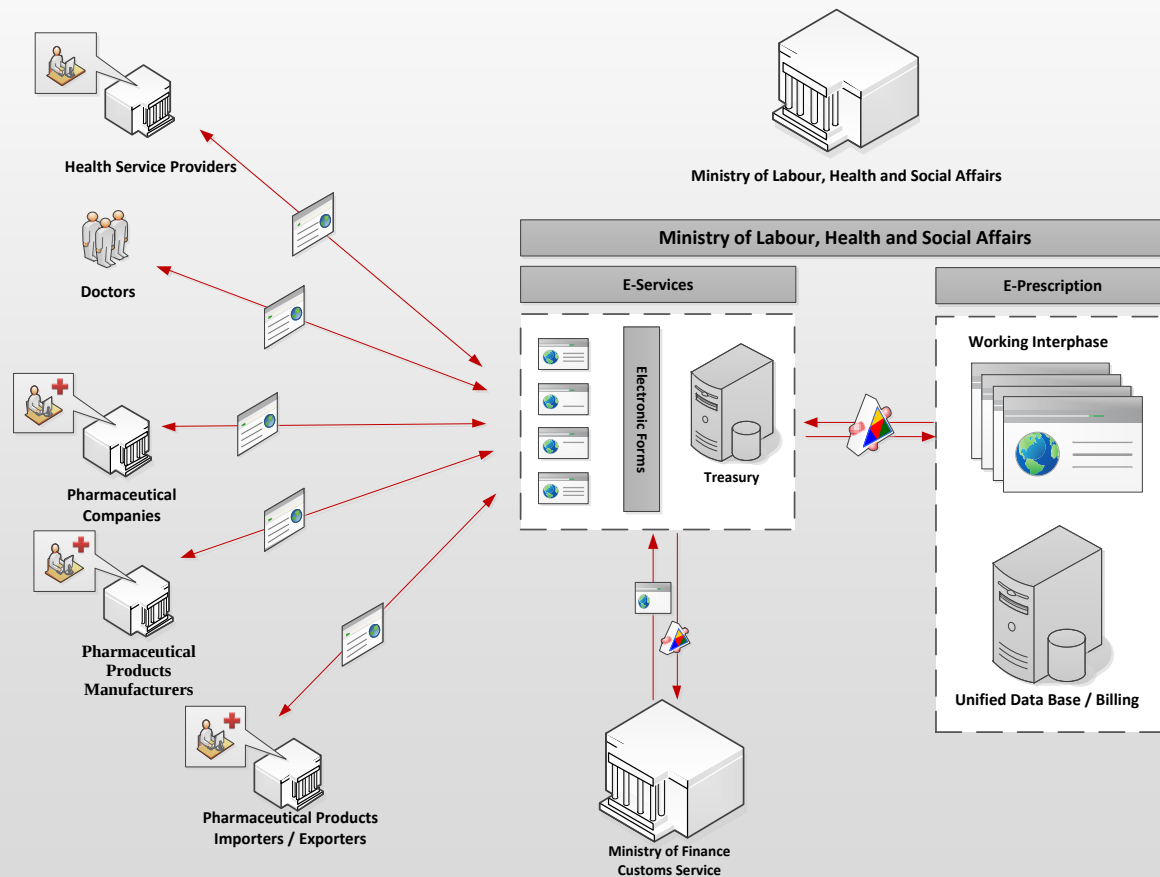
E-Prescribing Module



Benefits of the Module

- Centrally mobilized data; opportunity to gather reliable statistics and make an analysis
- Ensure cost-effective care, making informed and evidence-based decisions
- Control of the limit for drugs covered under government-funded and private health insurance plans
- Eradication of fraud and duplication of care
- Renewal of prescription for patients with chronic diseases without visiting doctors
- Timely optimization of financial and technical resources based on electronic reporting
- In the future, software that will ensure access to medical/scientific resources while rendering medical services

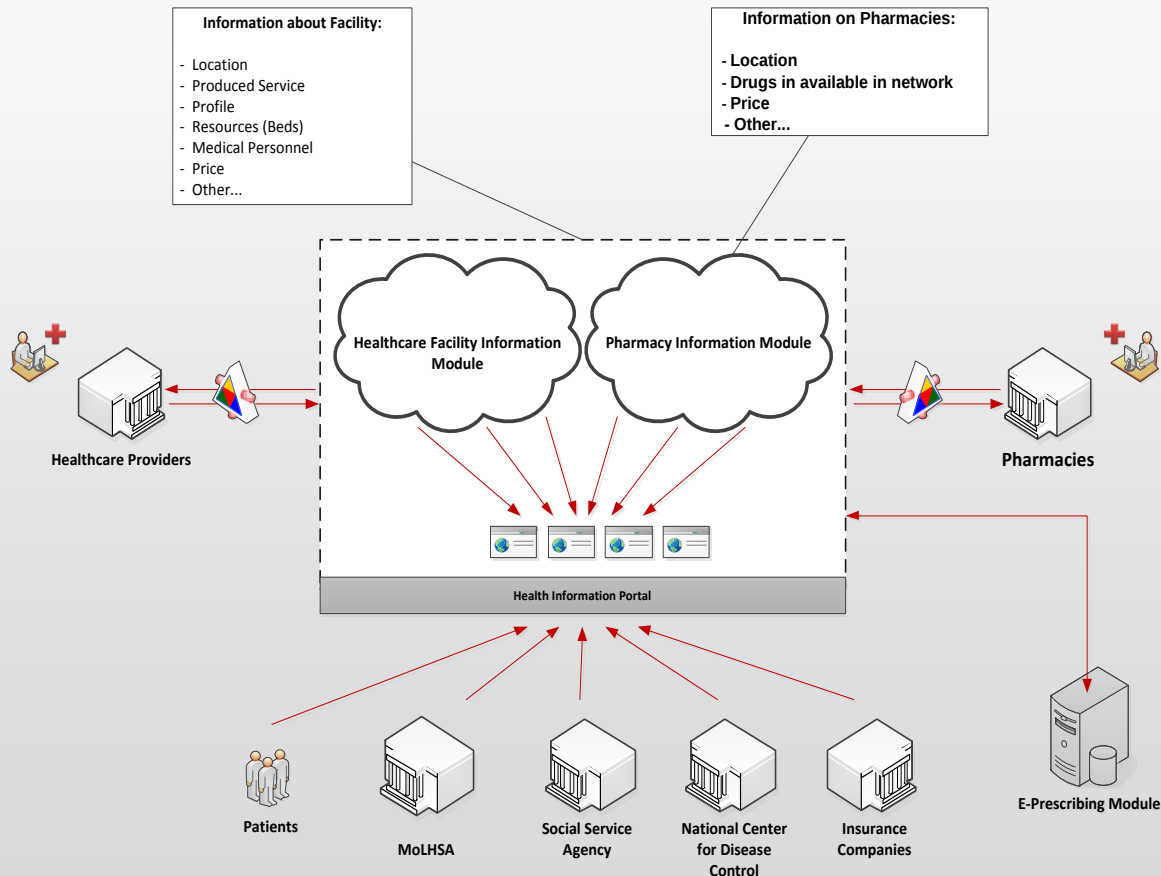
E-Services Component



Benefits of the Component

- Simplifying information exchange between the Ministry of Labour, Health and Social Affairs (MoLHSA) and other stakeholders
- Getting electronic permits and documents
- Reducing the costs related to paper documents
- Receiving/exchanging fast and reliable data online

Pharmacy and Healthcare Facility Information Portal



Benefits of the Portal

- Access to geographic, offered services and price-based information on medical services
- Access to geographic and cost-based information on pharmaceuticals
- Ability to exercise choice over selected clinics and pharmacies
- Price transparency
- Saved administrative resources

Medical Mediation

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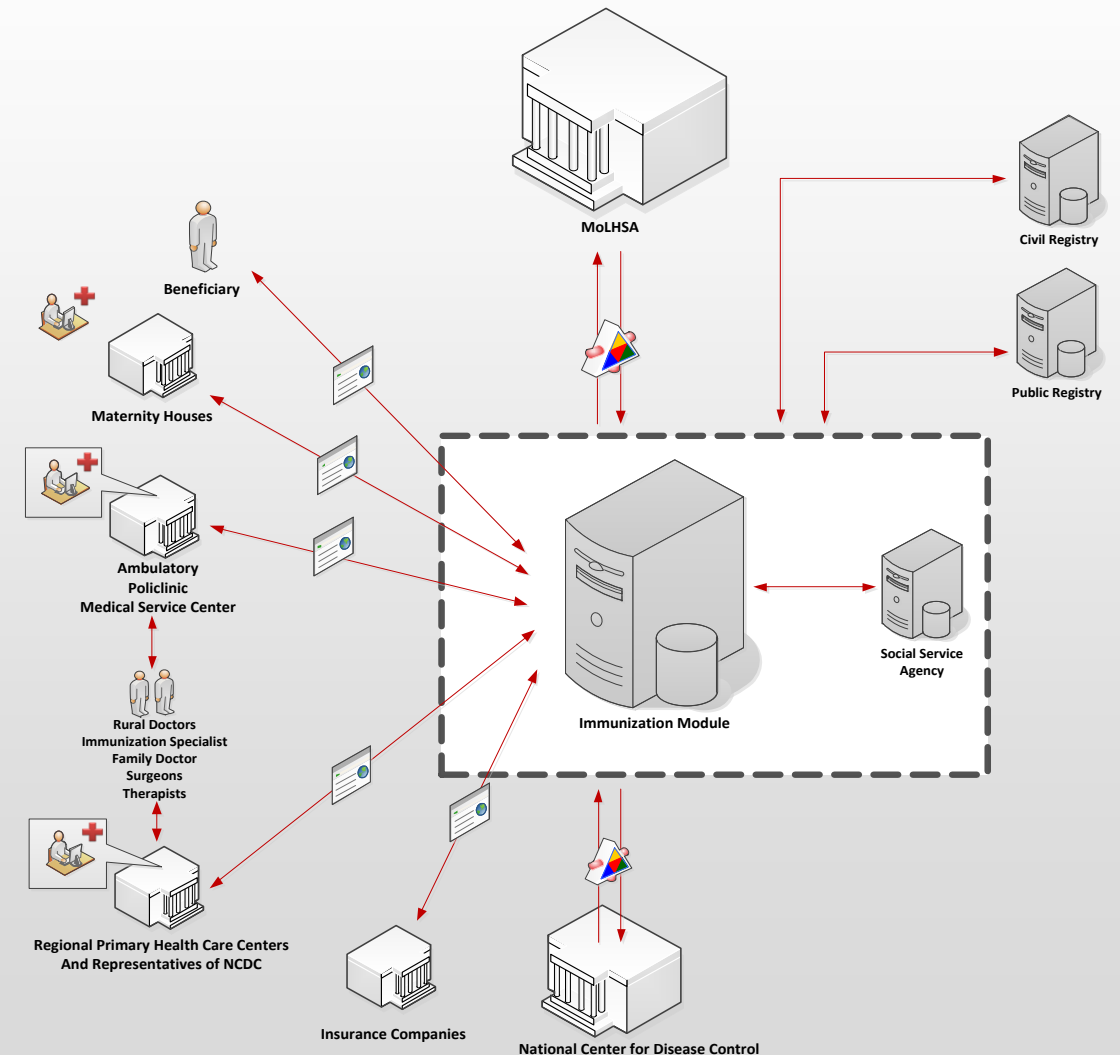
Benefits of the Component

- ❑ **Real-time registration of applications using common standards**
- ❑ **Electronic administration and management of applications/cases**
- ❑ **Simple, timely and flexible system**
- ❑ **Statistical observation and analysis**
- ❑ **Flexible mechanisms for application revision**
- ❑ **Simple inter-party feedback system**

Immunization Module

General Description

- Complete registration and monitoring of the target population
- Centralized data and simplified administration (based on reports submitted in hard copies)
- Monitoring of vaccine spending
- Opportunity to make reliable statistical and epidemiological analysis



Immunization Module

Functionality Details

- Real-time monitoring of preventive vaccines and vaccination process
- Technical support for entering complete and accurate data
- Automation of necessary reporting requirements and reports themselves
- Real-time beneficiary migration monitoring
- Notification and information system for providers and population
- Real-time data generation in relation to the covered population and the individuals eligible for immunization
- Reduced inventory, labor and administrative costs
- Maintaining statistics based on highly reliable data
- Determination of vaccine and associated medical supply needs
- Fully functional stock management sub-module to be added later

User Management Module

Benefits of the Module

	Ministry of Labour, Health and Social Affairs	Insurance Company	Provider
• Tool to manage users and their access levels	☒		
• A complete list of users for all information modules	☒	☒	☒
• Mandatory single authorization (single sign -on) to access modules	☒	☒	☒
• Opportunity to manage users and access levels for appropriate facilities independently	☒	☒	☒
• Possibility of integration of external information systems with the user and access level management module	☒	☒	☒

Financial Accounting and Management Component

- ◆ Financial Management of Healthcare Programs Module

- ◆ Case Registration Module

- ◆ Beneficiary Registration Module

 - General Out-patient Care

 - Rural Doctors

 - Dialysis

 - Psychiatric Care

 - Antenatal Care

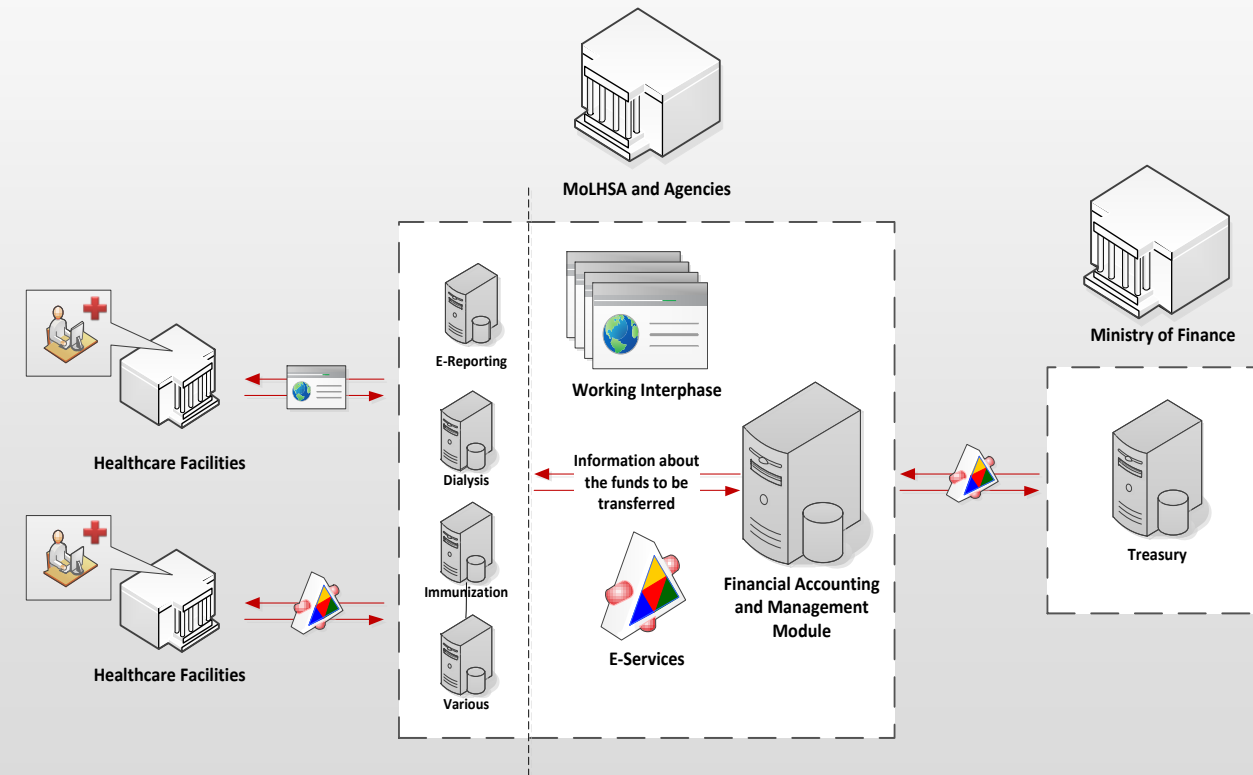
- ◆ E-Reporting Module for Insurance Companies

- ◆ E-Reporting Module for Healthcare Facilities

Financial Management of Healthcare Programs Module

Benefits of the Module

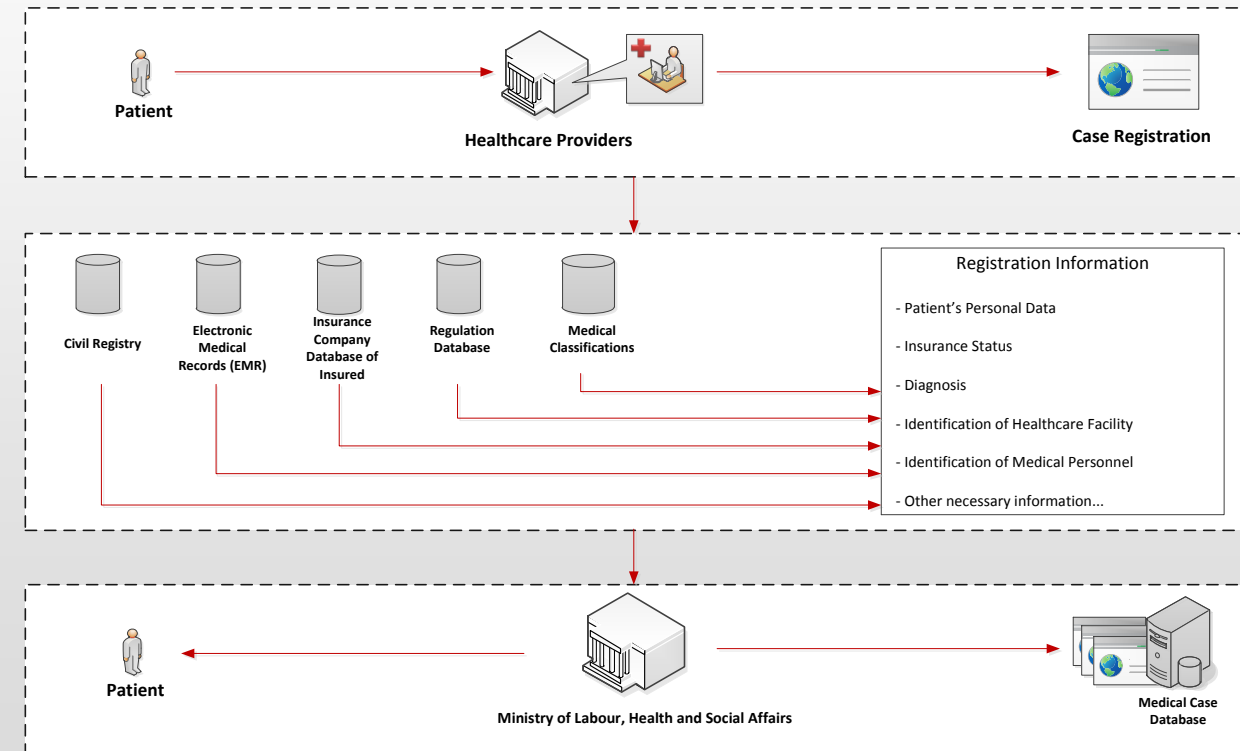
- Electronic registration and management of contracts, including their terms and conditions, concluded with healthcare facilities under government-funded healthcare programs
- Controlling and analysis of estimations submitted by healthcare facilities under government-funded healthcare programs
- Automatic procedures for payment made to healthcare facilities under government-funded healthcare programs
- Real-time data exchange with the State Treasury
- Complete analysis of financial resource flow within government-funded healthcare programs
- Flexible tool for management of budget units, financial limits and relevant changes



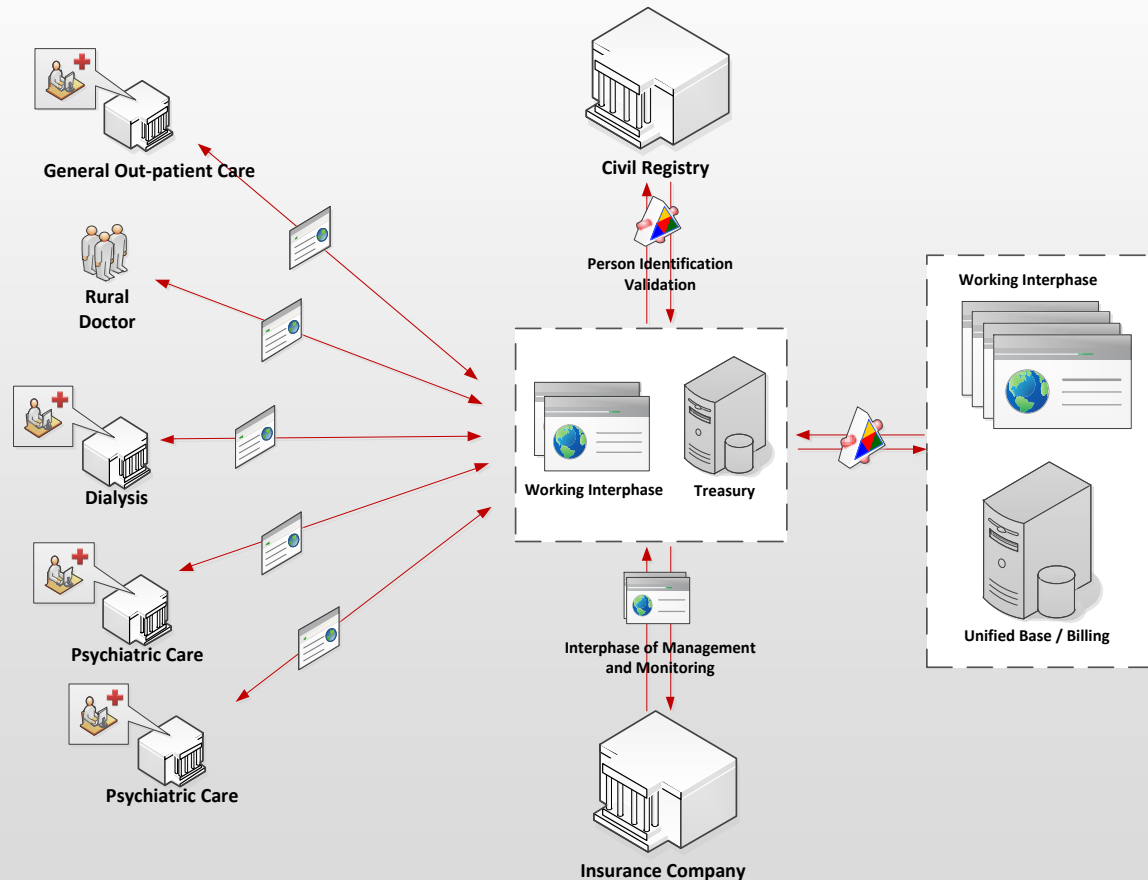
Case Registration Module

Benefits of the Module

- Real-time case registration using common standards
- Automatically entered/ synchronized personal data and insurance status of the patient (migration of data from the National Association of Public Registry database)
- Providing parties involved in medical cases with timely electronic information
- Automatic identification of healthcare facilities and medical personnel
- Prevention of simultaneous registration of individuals in different healthcare facilities
- Case inspection and analysis



Beneficiary Registration Module

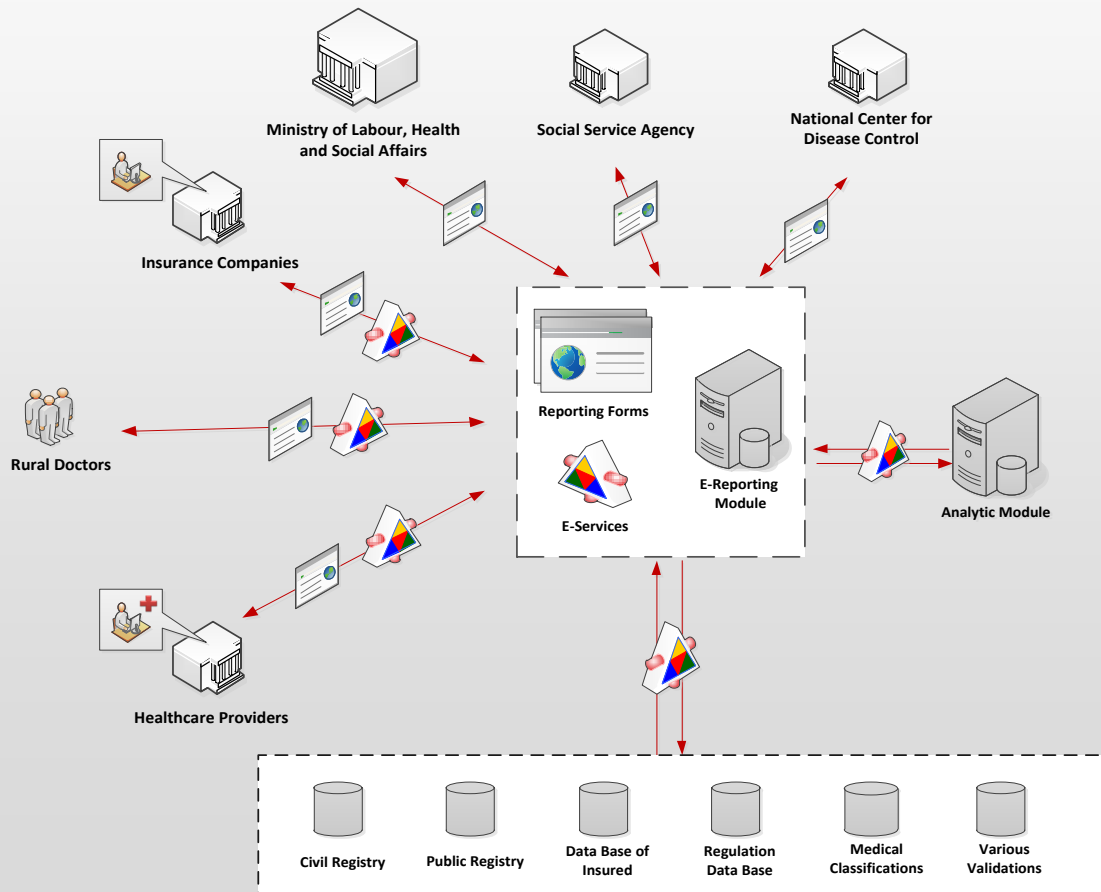


Benefits of the Module

- Provision of lists of beneficiaries to all healthcare facilities and rural doctors countrywide
- Data registration using common standards; Medical record keeping (out-patient card)
- Registration of one individual in only one healthcare facility that eradicates duplication
- Identification of civil, insurance and other statuses of individuals in different registers
- Financial transparency
- Simplified administration and reduced costs; effective utilization and forecasting of government funds
- Flexible mechanism of calculation of payment amount within the state out-patient program
- Opportunity to analyze information from different angles

E-Reporting Module

E-Reporting Module for Insurance Companies and Healthcare Facilities



Benefits of the Module

- Common standards for data registration and exchange (common registration forms and invoices)
- Minimum probability of inaccurate data entered by users
- Data identification and validation with databases of internal and external agencies
- Effective utilization of budgetary resources; transparent funding and saving human and administrative resources
- Opportunity for multi-level analysis of information

Medical Classifications

Benefits of the Component

- Database of medical classifications approved in Georgia (ICD10, NCSP, ICPC2, laboratory classification)
- Constantly updated information on classifications and their inter-relationship
- Instrument for classification content management/improvement
- Electronic portal and services to ensure communication with external systems

ელექტრონული ჯანდაცვა

კლასიფიკატორების მოდული

სისტემის მართვა ICD10 NCSP ICPC2 ლაბორატორია დახმარება

ICD10 ქართული კლასიფიკატორა

სრული კოდი ქართული დასახელება

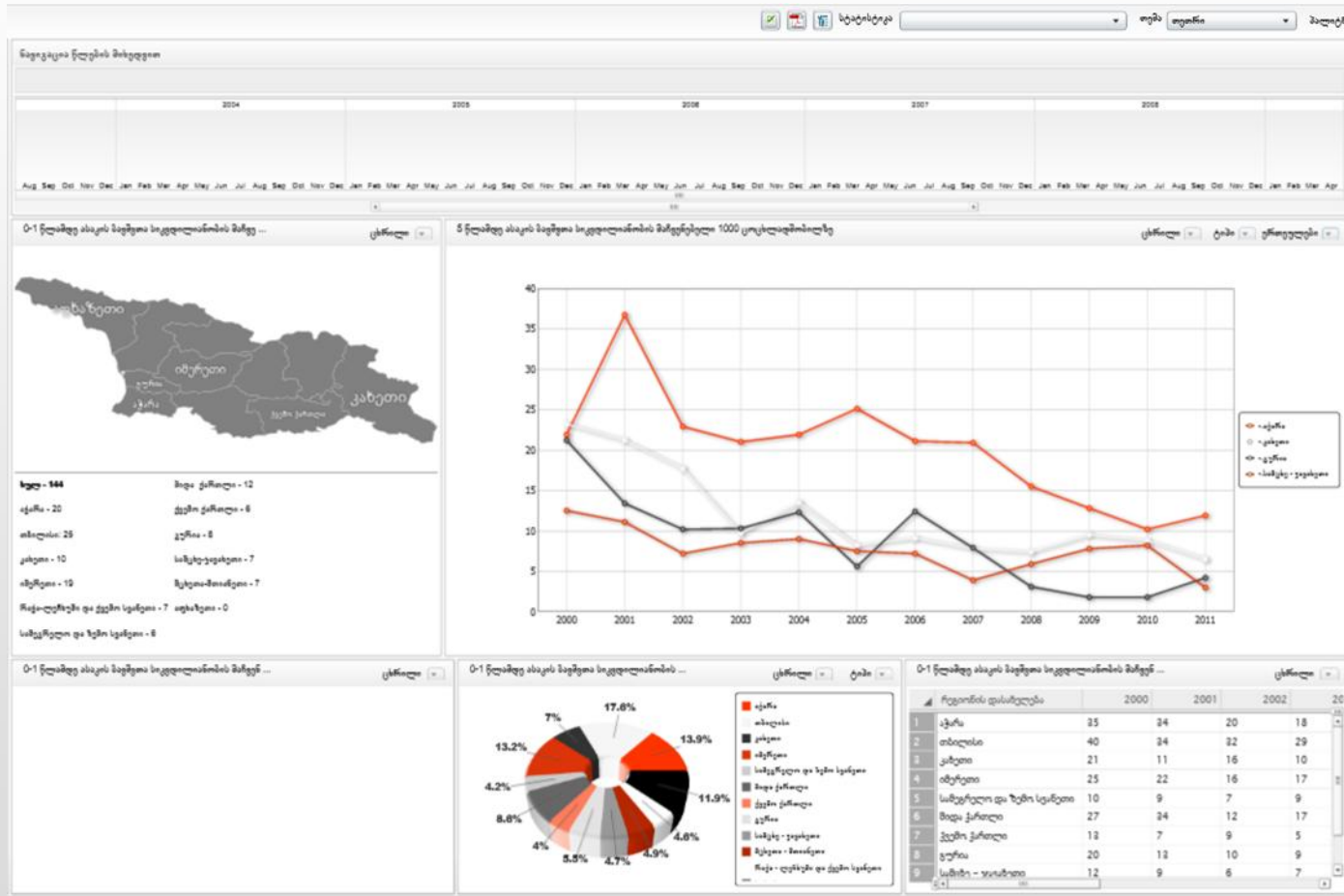
სრული კოდი	ქართული დასახელება	
კლასი 1	ზოგიერთი ინფექციური და პარაზიტული დაავადებები	🔍
კლასი 2	სიმსივნეები	🔍
კლასი 3	სისხლისა და სისხლმზადი ორგანოების დაავადებები და იმუნური მექანიზმით მიმდინარე ზოგიერთი დარღვევები	🔍
კლასი 4	ენდოკრინული სისტემის, კვლევებისა და ნეოთერეპიათა ცვლის დარღვევით გამოვლენილი დაავადებები	🔍
კლასი 5	ფსიქიკური და ქცევითი აშლილობები	🔍
კლასი 6	ნერვული სისტემის დაავადებები	🔍
კლასი 7	თვალისა და მისი დანაშაულის ავადმყოფობები	🔍
კლასი 8	ყურისა და დერლისებრი მორჩის დაავადებები	🔍
კლასი 9	სისხლის მიმოქცევის სისტემის დაავადებები	🔍
კლასი 10	სასუნთქი სისტემის დაავადებები	🔍
კლასი 11	საჭმლის მომწელებელი სისტემის დაავადებები	🔍
კლასი 12	კანისა და კანქვეშა ქსოვილების დაავადებები	🔍
კლასი 13	ბეჭდ - კუნთოვანი სისტემის და შემაღებული ქსოვილების დაავადებები	🔍
კლასი 14	შარდ - სასქესო სისტემის დაავადებები	🔍
კლასი 15	ორსულობა, მშობიარობა და ლოკინობის ხანა	🔍
კლასი 16	პერინატალურ პერიოდში განვითარებული ზოგიერთი მდგომარეობები	🔍
კლასი 17	თანდაყოლილი მანკები, დეფორმაციები და ქრომოსომული დარღვევები	🔍
კლასი 18	სიმბატომები, ნიშნები და ნორმიდან გადახრილი კლინიკური და ლაბორატორიული მომავლები, რომლებიც არ არის შეტანილი სხვა კლასიფიკაციებში	🔍
კლასი 19	დაზიანება, მოწყვლადობა და გარე მიზეზების ზემოქმედებები	🔍
კლასი 20	ავადობისა და სიკვდილიანობის გარე მიზეზები	🔍
კლასი 21	ფაქტორები, რომლებიც მოქმედებს ჯანმრთელობის მდგომარეობაზე და დაკავშირებულია საშუალოდ საშუალოდ	🔍
კლასი 22		🔍

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ჯანდაცვის სისტემის განვითარების პროექტის ფინანსური და ტექნიკური მხარდაჭერით

Analytic Tools

Benefits of the Component

- Opportunity to generate analytical diagrams and graphics based on collected data
- Comparison, monitoring and analysis of information flows according to different indicators
- Dynamic graphics generated based on data received from various sources
- Opportunity to analyze information from different angles (time interval, geographic distribution, etc.)



New Modules are coming with New Ideas...

Health Management Information System Website

<http://ehealth.moh.gov.ge/Hmis/Portal/Default.aspx>

User Manuals and Video Tutorials in English language can be found in Help menu of each module.