



Arab Republic of Egypt

Egyptian Health Initiative: Using IT for Health Reform



Health

The *Egyptian Health Initiative (EHI)* is a public-private partnership that aims to improve health services in Egypt through effective use of Information & Communication Technology (ICT).



Mission Statement

Improving the safety, quality, and efficiency of health care delivery by enabling Information and Communication Technologies (ICT) across the health sector with special emphasis on the rural communities.



Strategic Objectives

- To improve the development and delivery of health services for Egypt's citizens through private/public partnerships, and assist the Egyptian Government to achieve its vision of wider health insurance system as a driver for social and economic development.
- To facilitate health reform in Egypt by introducing efficient public-private models designed to enhance the health services delivered to patients through the effective use of ICT.



Strategic Objectives (cont...)

- To advance the capacity of the local information technology industry to promote innovative health solutions in partnership with world-class firms, creating economic value that would lead to mutually beneficial business opportunities.
- To leverage the environment of national government commitment and corporate citizenship in building a model of health reform that can be exported and replicated throughout the Arab region.



Strategic Goals

- To reduce the cost of health care by better patient management.
- To achieve better utilization of expertise and resources.
- To provide an advanced medical service in emergencies.
- To create electronic medical records.
- To establish a connected health Community that connects, removes limitations and creates opportunities for 21st century physicians to realize their full potential.
- To prepare all physicians and nurses in all medical centers and hospitals to the digital workforce.



Proposed Work Program

- Track One : Primary Health Care
- Track Two : Secondary and tertiary Health Care
- Track Three : Medical staff capacity building
- Track Four : GIS system for master planning
- Track Five : Medical Emergency System
- Track Six : Telemedicine



Track 1

Primary Health Care

- Work stream 1:
 - Implement the clinical information system CIS in Family Health Units.
- Work stream 2:
 - Establish Family Health Units Network
- Work stream 3:
 - Operate and manage ICT infrastructure in Family Health Units through Health Technology Service Providers.
- Work stream 4:
 - Build and develop a data mining system for health in Egypt



Primary Health Care Unit Building Blocks

Services

(Capacity Building, Operation, Management, Data Entry,
Support, Maintenance...)

Clinical Information System

Family Health Fund

LAN

PCs

Peripherals

Connectivity

Infrastructure (Facility preparation and Networking)



Track 2

Secondary and tertiary Health Care

- Work stream 1:
 - Implement hospital management information system HMIS.
- Work stream 2:
 - Establish Hospitals Network to connect hospitals with the MOH data center
- Work stream 3:
 - Operate, and manage the hospitals through Health Technology Service Providers
- Work stream 4:
 - Integrate with the primary health care system.



Secondary & Tertiary Health Unit Building Blocks

Services

(Capacity Building, Operation, Management, Data Entry,
Support, Maintenance...)

Hospital Information System

LAN

PCs

Peripherals

Connectivity

Infrastructure (Facility preparation and Networking)



Track 3

Medical Staff Capacity Building

- Work stream 1:
 - Increase the capacity of the Medical staff leaders and the provinces to plan, monitor and manage health units
- Work stream 2:
 - Develop and provide e-training to medical staff to build up management and leadership competencies
- Work stream 3:
 - Build capacity of medical staff and administrative staff, in order to utilize ICT in health process management



Track 3 (cont...)

Medical Staff Capacity Building

- Work stream 4:
 - Develop a culture of innovation and collaboration by creating mechanisms for effective sharing of ideas, best practices and peer-learning through digital communities of medical staff.
- Work stream 5:
 - Develop Online Learning Solutions
- Work stream 6:
 - Improve/develop accessible e-curricula for different subjects based on content and curricula standards.



Track 4

GIS System for Master Planning

- Work stream 1:
 - Collect spatial data about health service providers

- Work stream 2:
 - Build the central database which hosts the nation wide health service providers (hospitals, health units, clinics, pharmacies, radiology centers, lab centers,... etc)

- Work stream 3:
 - Implement National Health Providers Geo-based Portal.



GIS System for Master Planning

Services

(GPS Data Collection, Basic Data Collection, Data Entry,
Data Update)

Spatial Data Form

Basic Data Form

Primary
HC. Units

Secondary
HC. Units

Tertiary
HC. Units

Pharmacies

Private Sector
Health Providers

Egyptian Geography Network

Base Map 1:250000 – 1:50000 – 1:5000



Track 5 Telemedicine

- Work stream 1:
 - Implement a number of telemedicine mobile units
- Work stream 2:
 - Develop the super specialty center
- Work stream 3:
 - Build the capacities for the medical staff operating the mobile units and the super specialty center.
- Work stream 4:
 - Operate and manage the mobile units.



Screening

Diagnosis



Track 6

Medical Emergency System

- Work stream 1:
 - Develop appropriate low-cost ambulance tracking and communication technology models for sustainable nationwide implementation that will integrate GIS based ambulance tracking system and hospital database to reduce the ambulance response time.



Medical Emergency System

Services

(Capacity Building, Operation, Management, Data Entry, Support, Maintenance...)

Call Capturing
Module

Dispatch
Module

AVL
(GPS/GIS)

Graphical Radio
Module

Monitoring
Module

Call takers
n1 seats

Call Dispatchers
n2 seats

Connectivity
EDAX
TETRA

Mobile units
Accessories

Emergency Control Center ECC



EHI Scope

- 400 family health units
- 50 secondary hospitals
- 50 tertiary hospitals
- Capacity building include approximately 12000 doctors, nurses, and administrators.
- Pilot Emergency system in Cairo
- 20 Mobile Care Units



EHI Budget Estimation

Tracks
Primary Health Care
Secondary and tertiary Health Care
Medical Staff Capacity Building
GIS System for Master Planning
Telemedicine
Medical Emergency System

Total Estimated Budget for Phase One: 50 M US\$

Together we build a better future



Microsoft

SIEMENS

