State of Palestine
Ministry of Health

Strategic Plan for
Health Information Management
2023-2025

for the health sector in the southern governorates

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Information Strategic Plan

For the health sector in the southern governorates

2023 – 2025

Contents:

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Introduction

The Palestinian Ministry of Health has launched the Health Sector Strategic Plan 2021-2025, which made the main focus on the quality of services and client satisfaction. The Strategic Plan included six goals, where the issue of governance was one of them.

Health Informatics represents the essential pillar of success in implementing and upgrading the governance system within the health system. It includes a number of areas: technical transformation in the health system, health information management and health research. The Ministry has made great achievements in the field of health informatics, yet the magnitude of challenges remains large. Among the key challenges are: keeping up with the rapid and significant progress in the field of technology and its employment towards enhancing health services; considerable growth in the level of leadership adoption and in the health system top management level to develop / establish smart health information management system that would strengthen the health service delivery system and health research system; achieve information & services integration among all health care providers – governmental, non-governmental & private - up to having a national e-health file; employ and direct health research efforts done by various research institutions to improve the health services provided.

As such, there was a need to have a clear and comprehensive strategic plan for health informatics for the four years 2023-2025, including all projects in the field of technical transformation, health information management and health research, which was identified based on environment analysis and which would be linked to clear achievement indicators.

This strategic plan aims to achieve effective and efficient systems to support health system decision-making, particularly in regards to medical and clinical services, in addition to strengthening smart electronic services and telemedicine.

We hope that by implementing this strategic plan, we will achieve a considerable leap in the quality of various medical and health services and raising the level of the Palestinian citizen satisfaction with the level of service provision, and Allah is the one who grants the success.

Eng. Osama Mohammed Qasem

Assistant Deputy Minister for Informatics, Planning and Development

Chapter One

Methodology of the Plan Development

In striving to establish a comprehensive health information management system capable of building and measuring health system performance indicators with high quality and accuracy, and in line with its vision, the Ministry has formed a team to develop a strategic plan for health informatics chaired by the Assistant Deputy Minister for Planning and Informatics Affairs, and consisting of the Computer General Administration, Planning and Institutional Performance Development Unit, Health Information Unit and National Institute of Public Health. The strategic plan for informatics was developed based on the Health Sector Strategic plan for the years 2023-2025, which included six main goals, where the fourth one - "Strengthening governance in the health management system" – incorporated strategic objectives related to enhancing health information systems and computerized work system in the health sector.

The task force conducted a rapid assessment of the most important strengths, weaknesses, opportunities, and threats (SWOT Analysis) that would affect the health information management system, in addition to evaluating the size and type of health services that have been computerized to date at the level of primary health care services, secondary health care services (hospitals), public health services, and allied health services. The task force also revised computerized operational programs that were included into the implementation framework originating from the Strategic Plan, where the programs were classified according to priorities and importance. The classification of the operational programs was based on the health care services they cover, which are primary, secondary, tertiary, allied health and emergency care services.

The task force has taken into consideration establishing and adoption of the Information Strategic Plan indicators in order to monitor and evaluate outputs of the operational programs based on two main sources:

1- The World Health Organization 2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs) and within the global response initiatives, which facilitates the assessment and comparison of the Palestinian health situation at the local, regional, and global levels.
2- The basic health indicators approved by the Ministry in line with priorities of the health programs for the years 2021-2025.

The projects of the Informatics Strategic Plan operational framework have been categorized under eight core areas:

1- Emergency services management projects;
2- Reproductive, maternal, child and newborn health care services projects;
3- Strengthening communicable and noncommunicable diseases services projects;
4- Strengthening comprehensive mental health services;
5- Enhancing computerized work system in the health sector;
6- Strengthening information systems in the health sector;
7- Developing capacities and skills of human resources;
8- Information governance projects.

The approved projects were described under each core area of the information projects in accordance with the following:

1- The main goal that the project achieves in accordance with the Strategic plan goals;
2- The strategic objective under which the project is categorized;
3- Key health indicators that serve a project and according to which this project is evaluated;
4- A strategic program (or strategic programs) under which the project falls;
5- The name of the project;
6- Description of the project;
7- The time frame of the project;
8- Estimated budget of the project;
9- Participating parties (including the Computer General Administration and Health Information Unit);
10- Expected results of the project implementation.

The cost of the projects that were approved within the strategic plan totaled about eight million USD, varying between computerization and information systems projects.

Our vision:

Access to an effective and comprehensive Health Information Management System based on digital transformation that support decision-making system driven by / relying on high-quality health information and indicators.
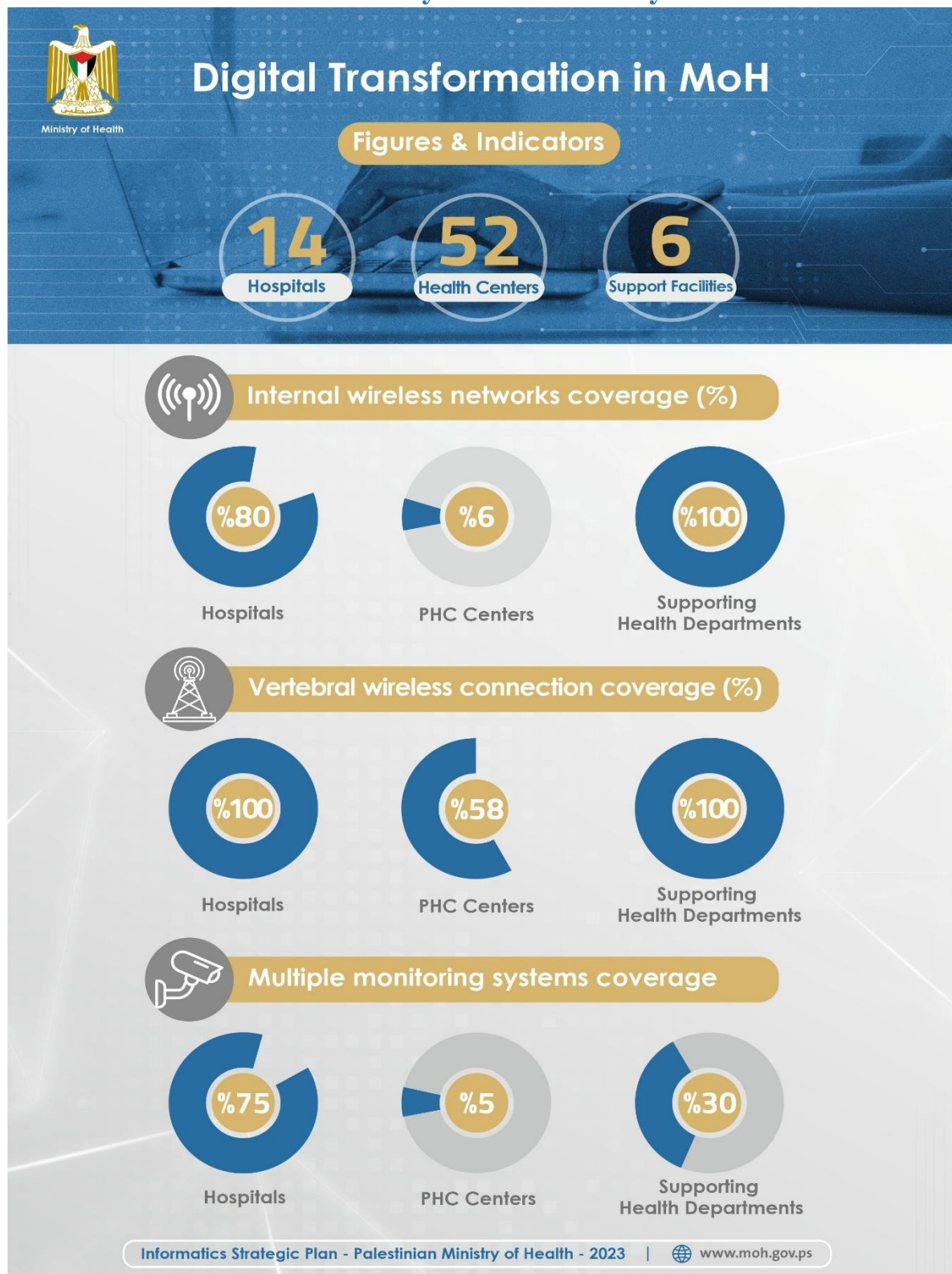
Implementation methodology:

In the light of real challenges that the Palestinian health system is facing, especially the scarcity of resources and capacities, and given the increasing health needs and expectations of the population, there has been a need to adopt the principles of health policy-making and employ health information management in making reliable information- and evidence-based decisions. Mindful of/ In view of the rapid progress of information technology and aiming at bridging the gap towards / on the way towards the digital health, ensuring integration of information in the health sector, improving health system efficiency, strengthening disease prevention and public health efforts, enhancing diagnostics, and upgrading/improving emergency response capacity, achieving digital health based on strong health information management systems can contribute to improving the health level and results indicators, in case real investment and adequate support are provided to scale up institutional and human capacities, as well as to upgrade the infrastructure and applications that enable the health sector to use health data.

The framework that the Information Strategic Plan will follow in implementing the listed programs will be based on the following guiding principles:

- Ensure the use of health information in the process of high-quality evidence-based policy-making and decision-making;
- Ensure that regulating policies and guidelines that control the development of comprehensive and reliable health information systems are in place;
- Ensure that clear policies and mechanisms aiming at maintaining the privacy and confidentiality of patients' information are available;
- Ensure unification of visions between the governmental and non-governmental health sectors in order to reach national indicators reflecting the health sector performance;
- Ensure that donors and partner organizations have the possibility to participate in implementation of the programs included in the plan and evaluation of their impacts and results;
- Ensure full consensus and coordination with donors and relevant partners in order to harmonize / to regulate the needed financial, logistic and technical support for developing information systems programs included in the plan;
- Ensure adoption and applying of /pursuing well-known frameworks or international initiatives such as the World Health Organization Health Metrics Network (HMN) framework & standards for country HISs that aims at strengthening health information systems capable of providing health information contributing to improvement of decision-making and policy-making;
- Facilitate each and every procedure to assist all stakeholders in conducting initial assessments and identifying needs prior starting to support and fund any agreed program, which is then to be followed by developing operational plans comprising proposed activities and implementation mechanisms;

- Ensure that large-scale/ major programs are implemented according to a multi-phase methodology and using clear consensus mechanisms among all partners;
- Ensure consensus among all partners on programs monitoring and evaluation mechanisms, which are based on clear criteria;
- Ensure adoption and follow-up of the measurement of all health indicators, agreed upon with donors and partners, right up to a point where the Palestinian health system is capable of comparing its indicators with international ones;
- Ensure that data quality assessment methods are applied in all programs included in the plan.

An overview of the status / reality of information systems infrastructure

Digital Transformation in MoH

Figures & Indicators

14 Hospitals   **52** Health Centers   **6** Support Facilities

Internal wireless networks coverage (%)

%80 — Hospitals   %6 — PHC Centers   %100 — Supporting Health Departments

Vertebral wireless connection coverage (%)

%100 — Hospitals   %58 — PHC Centers   %100 — Supporting Health Departments

Multiple monitoring systems coverage

%75 — Hospitals   %5 — PHC Centers   %30 — Supporting Health Departments

Informatics Strategic Plan - Palestinian Ministry of Health - 2023 | www.moh.gov.ps

Digital Transformation in MoH

Ministry of Health

Figures & Indicators

14 Hospitals

52 Health Centers

6 Support Facilities

General Statistics

Computerized Programs **36**

Smartphone Applications **4**

Public Services **15**

Computers Needed

Needed	Total	Hospitals	PHC Centers	Supporting Health Departments
Available Equipment	3400	2000	750	650
Required Equipment	1700	800	600	300
Equipment to be replaced	1600	900	250	450

Central Servers

	Total	Data Center	Hospitals
Available Servers	21	6	15
Required Servers	21	8	13
Servers to be replaced	16	4	12

Data size

	Total	Data Center	Hospitals
Current Data Size	21 TB	5	16
Required Data Size	320 TB	20	300

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Reality, gaps and hopes

The Ministry of Health initiated the official use of information technology and computerization of health services programs in 2007 in line with strategic objectives aiming at strengthening health information systems based on reliable data and evidence that would enable decision-makers, managers and officials to formulate health policies, plans, make decisions, monitor and evaluate the impact of health programs implemented.

Throughout the previous decade, the Ministry of Health has been able to develop gradually information systems and programs for hospitals, primary health care and supportive/allied health and administrative services (in phases). It started by computerizing administrative services to book hospital appointments and record PHC visits, right till it partially reached the computerization of 46 information systems and programs, among which the most notable are the *E-Hos* - hospital information system and the *Clinic Care* - primary care information system, which were unevenly operated in hospitals and PHC centers for such services as emergency, surgical, oncology, reproductive health, non-communicable diseases and general medicine, as well as many in a number of financial and administrative programs.

During the COVID-19 pandemic, support/allied health services programs were strengthened, which were represented by the Central Laboratory Program, development of the epidemiological investigation system, vaccination system7, as well as "Sahati" (My health) application and platform that were developed as the first interactive health application for the public to confront the COVID-19 pandemic and to address the rest of telehealth services needs, in addition to providing COVID-related complementary services to national and government institutions.

In spite of all the successes that the Ministry has achieved in providing easy access to computerized information or statistics that reflect health services coverage indicators, or prevalence and incidence rates of some diseases, there are still many gaps, obstacles and challenges that hinder access to a comprehensive digital information system capable of providing, monitoring and measuring all approved national health indicators within high quality and through the mechanisms of complementarity among all health care providers (government, NGOs, UNRWA, military, and private) in the Gaza Strip.

Among the most important of these constraints, which have been and still remain, are:

- Weakness of the information & communication technology (ICT) infrastructure;
- Continued Israeli blockade on the Gaza Strip, which prevents, impedes and delays the entry of ICT supplies and devices,
- Decaying and outdating of many computers, servers and networks;
- Lack of adequate funding to build a comprehensive information system;
- Lack of a strategic plan outlining the path of digital transformation in the health system;

- The magnitude of health services and multiplicity of their levels against lack of technical staff;
- Weak governance of the health information management system;
- Inadequate capacities and skills of health staff in dealing with information technology in addition to their resistance to change;
- Poor documentation and data recording among health service providers;
- Weakness in setting operational definitions of some variables;
- Weakness in data entry and data transfer from paper forms to computerized forms, where, as a result, confusion between the paper and computerized systems increases the workload and exacerbates the size of input errors.

Through this strategic plan, the Ministry of Health aspires to reach to a point, where it becomes capable of monitoring all national basic indicators related to the population health status; health service coverage indicators; input, output and outcome indicators of the health system performance, diseases risk factors indicators and public health determinants indicators.

It is worth mentioning that the Ministry of Health has initiated development of this Health Information Strategic Plan for a period of four years targeting health service priorities that are of concern for the health system and public health, so as to reach a point when decisions are made based on reliable information, evidence and health indicators that would to contribute to enhancing the health status level of the population and improving the quality of health care services provided. The Ministry of Health also aspires to share information, health indicators and various reports with all partners and donor organizations in order to improve coordination mechanisms and strengthen the design, implementation and evaluation of health projects, programs and interventions.

Environmental Analysis Matrix of the Reality of Informatics in the Health System:

Strengths	Weaknesses / Vulnerabilities
- MOH approach towards computerization of the health system - Computerization is a priority for the Ministry of Health - Personnel working in the field of ICT and information systems are qualified and trained - Structured units for information systems & technology are in place - There is a set of systems for computerized programs and infrastructure that can further be developed and updated - Strategic objectives focusing on digital transformation are set within the MOH Strategic Plan for 2023 – 2025 - Successful experience of information integration with the rest of the sectors during COVID-19	- Lack of staff working in ICT and information systems - Decaying, outdated and incomplete information infrastructure (software, hardware, servers, etc.) - Lack of sufficient training programs to keep pace with the rapid digital development - Weak government funding for computerized programs - Poor documentation and data recording - Lack of policies and procedures for data integration among health organizations - Lack of national indicators list - Lack of opportunities for exposure to external knowledge and expertise
Opportunities	**Threats**
- Donors support computing projects related to health services - Opportunities for interaction with other IT professionals and learning from their experience - Willingness of the non-governmental health sector for information integration - The increasing demand of the Ministry of Health, donors and researchers for access to information - Existence of internationally recognized information frameworks, that one can use and built upon	- Israeli blockade that prevents and impedes the entry of ICT equipment - Computing projects are frequently dependent on the availability of external funding - Pressure of compliance with the timeline in implementation of computing projects - Rapid progress in the development of ICT techniques - Adherence to the agenda of some donors - Departure of many of skilled and trained technical personnel as a result of the blockade

Strategic objectives:

1. Establishing / Building a comprehensive health information management system;

2. Improving easy access to services-related information;

3. Enhancing the health care quality system;

4. Contributing to decision-making and policy formulation based on information and indicators;

5. Building a national health file;

6. Optimizing the use of resources and regulating health expenditure;

7. Ensuring the integrity / complementarity of health information in the health system.

Chapter II

Information Strategic Plan Projects
for the Health Sector

First: Emergency Services Management Projects

Goal II: To enhance preparedness and effective management of emergencies and health disasters

Objective: Developing health emergency management policies, strategies and protocols

Basic indicators:

[SDG 1.5.1, 11.5.1, 13.1.1] Number of deaths, missing persons and persons affected by disaster per 100 000 people
[SDG 3.8.1] Coverage of essential health services
[SDG 3.c.1] Health worker density and distribution

Program	Projects	Description	Period of time			Estimated cost $	Actors involved	Expected outcomes
			2023	2024	2025			
Developing emergency management strategies and protocols	Field Emergency Medical Teams Information Management Project (EMT)	Field documentation of casualties data inside the tents before transferring them by ambulance, and assessing the cases prior transferring them to hospitals	√	√		20,000	Emergency Medical Services (EMS) Unit General Hospitals Administration (GHA) Primary Health Care (PHC) General Directorate (GD)	- Completeness and accuracy of clinical data of casualties; - Improving communication mechanisms between emergency tents and emergency departments; - Preparing / Arranging specialized professional medical staff before patient arrival (saving casualties' lives)
	EMS system information management & ambulance tracking system	Information tracking of daily and field movement of ambulances for (presenting to) the field management according to the level of risk/gravity	√	√	√	70,000	EMS Unit	- Reducing ambulance response time - Rationalizing and regulating of material resources spending
	Developing information system for hospital emergency departments (ED)	Building a comprehensive computerized electronic program to document all emergency data and procedures being	√	√	√	270,000	EMS Unit GHA PRCS	- Access to emergency services information & indicators - Contributing to improving the quality services in emergency departments

	performed in emergency departments (surgical, internal medicine, maternity and pediatric)						
Development of emergency radiology services (PACKS) *Note: can be done in phases*	The computerized process of displaying and archiving x-ray images and access to them	√	√	√	2,340,000	GHA PHC	- Quick access to diagnosis - Reducing time of waiting for the radiological examinations results - Storing examination results for reference

Second: Reproductive, maternal, child and neonatal health services projects

Goal I: To strengthen comprehensive and safe health services at primary, secondary and tertiary levels

Objective: Enhancing reproductive, maternal, child and neonatal health services

Basic indicators:

[SDG 3.2.1] Under-five mortality rate
Infant mortality rate
[SDG 3.2.2] Neonatal mortality rate
Stillbirth rate
[SDG 3.1.1] Maternal mortality ratio
Total fertility rate
Exclusive breastfeeding rate 0–5 months of age
Early initiation of breastfeeding
Incidence of low birth weight among newborns
[SDG 2.2.1] Children under 5 years who are stunted
[SDG 2.2.2] Children under 5 years who are wasted
[SDG 2.2.2] Children aged under 5 years who are overweight
Anemia prevalence in children
Anemia prevalence in women of reproductive age
Hypertension among adults
Overweight and obesity in adults
Diabetes Mellitus among adults
[SDG 5.3.1] Early marriage
[SDG 3.7.1] Demand for family planning satisfied with modern methods*
Contraceptive prevalence rate
Antenatal care coverage
[SDG 3.1.2] Births attended by skilled health personnel*
Postnatal care coverage – women

Postnatal care coverage – newborn
Vitamin A supplementation coverage
[SDG 3.b.1] Immunization coverage rate by vaccine for each vaccine in the national schedule*
[SDG 3.8.1] Coverage of essential health services
Obstetric and gynecological admissions due to abortion
Institutional maternal mortality ratio
[SDG 3.c.1] Health worker density and distribution
Outpatient service utilization

Program	Projects	Description	Period of time			Estimated cost $	Actors involved	Expected outcomes
			2023	2024	2025			
- Preconception care - Antenatal care - Family planning services - Safe childbirth services in hospitals	Information integration for mother & child health (in hospitals & PHC) *Note: can be done in phases*	Linking Reproductive Health and Child Health Information System in PHC/MOH and UNRWA with hospitals	√	√	√	500,000	GHA PHC GD UNRWA	- Integration / Complementarity of Mother & Child Health (MCH) data between the Ministry of Health & UNRWA - Strengthening feedback among UNRWA, PHC & hospitals - Monitoring national MCH indicators
- Postnatal care services - Neonatal health care services - Child health - Upgrading diagnostic services	Upgrading radiology information management services for reproductive health (RH) (PACS - RH) *Note: can be done in phases*	The computerized process of displaying and archiving x-ray images and access to them	√	√	√	1,780,000	GHA PHC GD	- Quick access to diagnosis - Reducing time of waiting for the radiological examinations results - Storing examination results for reference

Third: Projects for strengthening communicable & non-communicable diseases services

Goal I: To strengthen comprehensive and safe health services at primary, secondary and tertiary levels

Objective: Enhancing communicable and non-communicable diseases services

Basic indicators:

[SDG 3.4.1] Premature noncommunicable disease (NCD) mortality
Cancer incidence, by type of cancer
Cervical cancer screening
[SDG 3.8.1] Coverage of essential health services
[SDG 3.c.1] Health worker density and distribution

Program	Projects	Description	Period of time			Estimated cost $	Actors involved	Expected outcomes
			2023	2024	2025			
Early detection and intervention for breast tumors **Upgrading diagnostic services**	Integration of information for breast and colon cancer services with a multidisciplinary team (MDT) (Surgeries - laboratory services (pathology) - radiology services (mammograms) - treatment protocols follow-up)	Establishing a computerized program that documents all data and procedures performed to patients with breast and colon cancer, starting from the stage of diagnosis and early detection.	√	√		142,000	GHA PHC GD	- Facilitating MDT clinical decisions and case management of cases with breast and colon tumors; - Monitoring national health indicators related to breast and colon tumors - Easing health follow-up of cases with breast and colon tumors
	Computerization of Sadaqa Turkish hospital		√			510,000		A model of fully computerized hospital

	Upgrading radiology information management services for oncology patients (PACS - Oncology) *Note: can be done in phases*	The computerized process of displaying and archiving x-ray images and access to them	√	√	√	1,690,000	GHA PHC GD	- Quick access to diagnosis - Reducing time of waiting for the radiological examinations results - Storing examination results for reference
Upgrading diagnostic services	Health information management for the safety of blood transfusion (barcode)	Building a computerized program standardizing codes and coding process of blood units since the moment they are packed till the moment of their use for patients	√	√	√	30,000	GHA Laboratories & Blood Banks Unit Central Blood Bank	- Reducing complications resulting from errors in blood units coding - Easy blood units tracking in places they were delivered to
Combating diabetes mellitus (DM) & hypertension (HTN)	Chronic diseases information management (hypertension - diabetes) in PHC *Note: can be done in phases*	Establishing a unified national electronic medical record / file in the Ministry of Health and UNRWA for patients with hypertension and diabetes	√	√	√	710,000	PHC UNRWA	- Complementarity/ Integration of patient's health data - Preventing duplication in figures & statistics - Reducing the costs of drugs dispensing, tests and medical consultations - Improving validity and accuracy of data up to reaching sound national indicators and making decisions based on accurate and comprehensive scientific evidence - Integration of information and access to national indicators - Strengthening feedback between UNRWA, PHC/MOH and hospitals.

Chronic diseases information management (DM & HTN) in in-patient and outpatient departments in hospitals	Chronic diseases information management (DM & HTN) in hospitals *Note: can be done in phases*	Developing and integration of the unified national electronic medical record / file for patients with DM & HTN in hospitals (in-patient and outpatient departments) and PHC	√	√	√	1,130,000	GHA UNRWA <mark>PHC</mark>	- Complementarity/ Integration of patient's health data - Strengthening feedback among UNRWA, PHC/MOH and hospitals - Monitoring hospitals performance indicators on DM & HTN care

Fourth: Enhancing comprehensive mental health services

Goal I: To strengthen comprehensive and safe health services at primary, secondary and tertiary levels

Objective: Enhancing comprehensive mental health services

Basic indicators:

[SDG 3.4.2] Suicide rate
[SDG 5.2.1] Intimate partner violence prevalence
Coverage of services for severe mental health disorders
[SDG 3.8.1] Coverage of essential health services
[SDG 3.c.1] Health worker density and distribution
Outpatient service utilization

Program	Projects	Description	Period of time			Estimated cost $	Actors involved	Expected outcomes
			2023	2024	2025			
Promoting mental health of youth, children and adolescents	Establishing a referral system among community mental health centers (CMHCs), the Psychiatric hospital and primary health care centers	Establishing a computerized information system to link mental health patients' data in the CMHCs with the Psychiatric Hospital	√	√	√	80,000	Mental Health (MH) General Directorate (GD) PHC GD	- Integration of information and access to national mental health indicators - Strengthening feedback between CMHCs and the Psychiatric hospital
	Establishing a referral system between school health and community mental health centers	Establishing a computerized information system to link the data of school students referred to CMHCs	√	√		15,000	MH GD	- Enhancing the quality of data on children with mental health problems - Strengthening feedback between school health and CMHCs
	Integration of community mental health centers and mental health units in hospitals	Establishing a computerized information system to link mental health patients' data in CMHCs and mental health units in hospitals	√	√	√	50,000	MH GD GHA	- Enhancing the quality of data on patients with mental health problems - Strengthening feedback between CMHCs and MH Units in hospitals

Fifth: Enhancing the computerized work system in the health sector

Goal IV: To strengthen governance in health system management
Objective: Promoting the computerized workflow system in the health sector
Basic indicators:
Rate of lost and damaged from medicines and medical consumables Proportion of utilization of medicines and medical consumables

Program	Projects	Description	Period of time			Estimated cost $	Actors involved	Expected outcomes
			2023	2024	2025			
Employing computing and electronic services for the benefit of health services	Information system to regulate central drugs and medical disposables stores *Note: can be done in phases*	Establishing a computerized system for monitoring and storing data on drugs and medical disposables since the moment of their entry through crossings till the moment of their delivery to the central warehouses	√	√	√	382,000	General Pharmacy Administration (GPA) Laboratories & Blood Banks Unit	- Regulating dispensing system between the central stores and health departments - Reducing the percentage of lost and damaged in drugs and medical disposables. - Rationalization of drugs and medical disposables consumption
	Information system for controlling/ regulating drugs and medical disposables in hospitals	Establishing a computerized system for monitoring and storing data on drugs and medical disposables in hospitals		√	√	145,000	GPA Laboratories & Blood Banks Unit GHA	- Regulating dispensing system between the central stores and health departments - Reducing the percentage of lost and damaged in drugs and medical disposables. - Rationalization of drugs and medical disposables consumption

| Information system for controlling/ regulating drugs and medical disposables in PHCCs | Establishing a computerized system for monitoring and storing data on drugs and medical disposables in PHCCs | | √ | √ | 204,000 | GPA Laboratories & Blood Banks Unit PHC GD | - Regulating dispensing system between the central stores and health departments
- Reducing the percentage of lost and damaged in drugs and medical disposables.
- Rationalization of drugs and medical disposables consumption |

Goal IV: To strengthen governance in health system management
Objective: Promoting the computerized workflow system in the health sector
Basic indicators:
Proportion of utilization and access to data

Program	Projects	Description	Period of time			Estimated cost $	Actors involved	Expected outcomes
			2023	2024	2025			
Strengthening computerized systems infrastructure	Equipping a data warehouse	A huge set of logical data is collected from various private data sources in order to provide a unified data view data for analysts and business users.	√	√	√	66,000	Health Information Unit GHA PHC GD	- Support decision-making within the MOH - Flexible access to health indicators and domains of analysis. - Using it for analytical reporting and business intelligence improvement
	Integration of DHIS2 platform with e-Hospital	Linking the DHIS2 program developed for reproductive health at PHC with the e-Hospital program developed by the Ministry of Health	√	√		15,000	PHC GD GHA	- Data integration between the PHC and hospitals including child health and reproductive health data - Strengthening feedback between the PHC and hospitals
	An Open Data Portal project	An Open Data Portal is any online platform that supports users in accessing health data. Model open data portals display MOH data for the health sector	√	√	√	30,000	PHC GD GHA Unit for coordination with NGOs	- Assistance in obtaining health data right up to the information-based health research - Open data provide citizens with the raw materials they need to contribute to improving public services

Goal IV: To strengthen governance in health system management

Objective: Promoting the computerized workflow system in the health sector

Basic indicators:

Number of surgeries per surgeon per month
Proportion of operation rooms utilization
Proportion of time lost in operation rooms
Rate of postponed surgeries

Program	Projects	Description	Period of time			Estimated cost $	Actors involved	Expected outcomes
			2023	2024	2025			
Strengthening computerized systems infrastructure	Upgrading information of the computerized surgeries registry program within the hospital system	Develop, strengthen and monitor data for emergency and non-emergency (elective) surgeries registry in hospitals and outpatient clinics	√	√		60,000	Health Information Unit GHA	- Enhancing the quality and accuracy of surgical data to contribute to decision making based on accurate information and indicators. - The optimal investment for operation rooms (ORs), which contributes to reducing health expenditures
	Establishing a national electronic platform for scientific health research	The platform contains scientific research, research projects and numerous services supporting scientific research		√	√	15,000	Health Information Unit	The scientific research platform consists of four basic components: a. Research and researchers; b. Research projects c. Proposed research topics or projects d. Supporting services for scientific research

Sixth: Strengthening information systems in the health sector

Goal IV: To strengthen governance in health system management

Objective: Strengthening information systems in the health sector

Basic indicators:

[SDG 16.9.1] Birth registration
[SDG 17.19.2] Death registration
Ratio of compatibility and difference in input data and codes

Program	Projects	Description	Period of time			Estimated cost $	Actors involved	Expected outcomes
			2023	2024	2025			
Developing a Health Data Dictionary	Updating the Health Data Dictionary	Develop and update the National Health Data Dictionary as a reference for standard and accepted terms and protocols used in collecting and documenting data in the health sector.	√	√	√	5,000	Health Information Unit Health sector organizations	- Improving the quality and accuracy of health information and indicators; - Unifying definitions and terminology of health variables and data in the health sector; - Decision making based on high quality information.

Program	Projects	Description	Period of time			Estimated cost $	Actors involved	Expected outcomes
			2023	2024	2025			
Establishing a unified national medical file	Building a general framework for the unified national medical file	- Setting regulations, policies and procedures for the unified national medical file - Implementing the national health file at the MOH level - Developing policies for information exchange and sharing between the Ministry of Health and other health service providers	√	√	√	10,000	GHA PHC GD Administrative Affairs General Directorate	- A unified national medical file - Policies for information exchange and sharing between the Ministry of Health and other health service providers
	Developing a Medical Archive System	Develop a policy of document security and retention / archiving, and providing the needed infrastructure and equipment for scanning and storage		√	√	130,000	GHA PHC GD Administrative Affairs General Directorate	- Ensure that a patient's (medical) history is kept for reference when needed; - Use of patient archive data in health research
	Developing a system of the health sector performance indicators	Establishing a computerized program for monitoring and follow up of the national indicators and the MOH departments and units performance indicators on a regular basis	√	√	√	25,000	All MOH facilities	- Comparing performance indicators values of the health system and the Ministry of Health; - Evaluating the effectiveness of health intervention programs in the Ministry of Health and non-governmental sector through a set of relevant indicators

Goal IV: To strengthen governance in health system management							
Objective: Strengthening information systems in the health sector							
Basic indicators:							
Program	**Projects**	**Description**	**Period of time**			**Estimated cost $**	**Actors involved**	**Expected outcomes**
			2023	**2024**	**2025**			
Developing a Geographic Information System (GIS)	Health Information Management through GIS	Development of a computerized program enabling geographical mapping of health information in order to access to spatial data (representation) to better support planning and decision-making in the field of public health.		√	√	30,000	GHA PHC GD Planning & Institutional Performance Development Unit	- Improving the quality and accuracy of health information and indicators; - Unifying definitions and terminology of health variables and data in the health sector; - Decision making based on high quality information.
	Promoting research and academic projects in the field of health informatics	Conducting two working days to present research and academic projects in the field of health informatics in the year 2023 and the year 2025	√	√	√	5,000	All MOH facilities	Selecting and approving a number of research projects serving the development of informatics; reaching an agreement with universities to provide researchers to conduct the selected research projects in cooperation with the Ministry; setting a mechanism for informatics sector benefiting from the research findings

	Strengthening partnership with the academic and private sectors in the field of health information system development	Establishing & maintaining research and development partnerships with faculties of Information Technology, Computer Engineering, academic health disciplines, as well as with private companies and business incubators to guide and promote research, health information projects and initiatives in line with the health sector needs.	√	√	√	2,000	Faculties of IT, Computer Engineering and health disciplines	Health-information research is provided to be used for improvement of the health information work in the Ministry of Health

Seventh: Capacity development and upskilling of human resources

Goal IV: To strengthen human resources management
Objective: Capacity development and upskilling of human resources
Basic indicators:
Number of qualified & competent staff

Program	Projects	Description	Period of time			Estimated cost $	Actors involved	Expected outcomes
			2023	2024	2025			
Making the most of the available personnel **Maximizing the benefit from internal and external scholarships and visiting delegations**	Upgrading the skills of (health) staff on health information management	Scheduled International Conferences Health data management and analysis Information report writing Data quality management Local & International annual conferences, seminars, and workshops related to health information management (held inside the country and abroad) Qualifying / Training staff to obtain a global applied certificate in health information management (HIMSS)	√	√	√	30,000	General Directorate for Computer & IT Health Information Unit Planning & Institutional Performance Development Unit	Learning about / Exposure to successful international experiences (field visits) in e-health transformation

Eighth: Informatics governance

Goal IV: To strengthen governance in health system management
Objective: Strengthening health planning & policies, and decision-making mechanisms
Basic indicators:
Number of qualified & competent staff

Program	Projects	Description	Period of time			Estimated cost $	Actors involved	Expected outcomes
			2023	2024	2025			
Health Informatics Governance	Health Data Availability & Privacy Policy	The policy is applied to the use and exchange of data collected by the Ministry of Health or the one provided to various parties out of the health emergency context	√	√	√	2,000	General Directorate for Computer & IT Health Information Unit	Setting a policy regulating the availability and privacy of health data
	A policy of non-governmental health information systems licensing and approval	An integrated policy of terms / conditions and specifications for regulations application within non-governmental organizations is put in place aiming at managing the health information exchange system when needed to support access to high-quality information	√	√	√	2,000	General Directorate for Computer & IT Health Information Unit	Setting a policy regulating the licensing and approval of non-governmental health information systems

Health information /data systems outsourcing policy	Laying the foundations and putting in place standards that must be provided in the systems to be outsourced in order to ensure sustainable benefit from their utilization	√	√	√	2,000	General Directorate for Computer & IT Health Information Unit	A document containing/ outlining the necessary conditions and criteria for the outsourcing of any health information system to ensure its quality and sustainability in service provision
Project on developing the Informatics Strategic Plan 2026-2028	The process of developing/ preparing and building Informatics Strategic Plan 2026-2028			√	2,000	General Directorate for Computer & IT Health Information Unit Health sector organizations	A clear action plan comprising projects, methodologies and policies for the development of information work during the period 2026-2028, and based on the outputs of the current plan

Chapter III

Monitoring and Evaluation

The evaluation process depends on two points/ aspects:

- **Indicators of achievement that reflect the extent of producing of indicators;**
- **Internal and external evaluation of the effectiveness of achieving objectives of the plan**

The Strategic Information Plan extends over a period of 4 years; therefore, many of its evaluation and follow-up activities will be implemented on an agreed periodic basis and with clear responsibilities defined. The main purpose of building a monitoring and evaluation system is to follow up on the measurement, analysis, and documentation of the procedures, results and outcomes of the strategic plan.

The General Directorate of Computer and Information Technology and the Health Information Unit are mandated to issue periodic quarterly reports indicating the implementation of the strategic plan scheduled projects and highlighting obstacles to non-compliance with the timeframe. The report contains indicators of the achievement rate of documented activities and provides the relevant supporting documents. On the other hand, the two department / parties submit final reports upon completion of each project approved in the plan with all necessary data and information expected to be produced by the computerized systems.

The committee assigned to develop the information strategy is responsible for naming/ designating the health services-related indicators for each particular project and ensuring that the project, when completed, is capable of producing indicators agreed upon.

Annexes:

Project Name: Upgrading Emergency Radiology Services (PACS - Emergency)		
Priority	**Sub-projects / Ancillary projects**	**Cost in $**
1	PACS for major hospitals (Shifa – Nasser – EGH – Central-Turki)	1170000
2	PACS for average / moderate size hospitals (Indonesian – Rantissi – AlAqsa)	510000
3	PACS for minor hospitals (Beit Hanoon – Dorra – Najjar – Emirati)	480000
4	PACS for PHC centers	180000

Priority	**Sub-projects / Ancillary projects**	**Cost in $**
1	PACS - Shifa Medical Complex	270000
2	PACS – Central (Lab?)	300000
3	PACS – Nasser Medical Complex	200000
4	PACS – EGH	200000
5	PACS – Indonesian hospital	170000
6	PACS – Turkish hospital	200000
7	PACS – Rantissi hospital	170000
8	PACS – PHC centers	180000

Priority	**Sub-projects / Ancillary projects**	**Cost in $**
1	Computerization of Mother & Child Health services – hospitals	300000
2	Computerization of Mother & Child Health services – PHC centers	200000

Priority	**Sub-projects / Ancillary projects**	**Cost in $**
1	PACS for major hospitals (Shifa – Nasser – EGH – Central)	970000
2	PACS for average / moderate size hospitals (Kamal Edwan – Al-Aqsa)	510000
3	PACS for minor hospitals (Emirati)	120000
4	PACS for PHC centers	180000

Priority	**Sub-projects / Ancillary projects**	**Cost in $**
1	Computerization of PHC centers – North	160,000

2	Computerization of PHC centers – Gaza	220,000
3	Computerization of PHC centers – Middle Zone	330,000
Project Name: Chronic Diseases Information Management (Hypertension – Diabetes) in in in-patient and out-patient departments in hospitals		
Priority	**Sub-projects / Ancillary projects**	**Cost in $**
1	Computerization of in-patient departments – hospitals	850,000
2	Computerization of outpatient departments - hospitals	280,000
Project Name: Information System for Regulating Central Drugs and Medical Disposables Store		
Priority	**Sub-projects / Ancillary projects**	**Cost in $**
1	Computerization of Central Warehouses	288,000
2	Control systems	94,000