*e*Health Philippines

Deliverables, 2016 and Beyond

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National Health System Goals

o The Department of Health is mandated to be the over-all technical authority on health that provides **national policy direction** and **develop national plans, technical standards and guidelines on health**.

o It is also a **regulator** of all health services and products, and provider of special or tertiary health care services and of technical assistance to other health providers especially to local government units.

o The implementation of **Kalusugan Pangkalahatan or Universal Health Care** is directed towards ensuring the achievement of the *health system goals* of

BETTER HEALTH OUTCOMES   **SUSTAINED HEALTH FINANCING**   **RESPONSIVE HEALTH SYSTEM**

*e*Health is …

Health Information and Management Systems Society (HIMSS):

"the application of Internet and other related technologies in the healthcare industry to improve the access, efficiency, effectiveness, and quality of clinical and business processes utilized by healthcare organizations, practitioners, patients, and consumers in an effort to improve the health status of patients"

Challenges of today's health system

- Access to health care services
- Access to real-time information for decision-making

*e*Health can provide solutions to achieve the goals, and hurdle the challenges of Kalusugang Pangkalahatan (KP)

National *e*Health Vision

By 2020, eHealth will enable widespread access to health care services, health information, and securely share and exchange patients' information in support to a safer, quality health care, more equitable and responsive health system for all the Filipino people by transforming the way information is used to plan, manage, deliver and monitor health services.

National *e*Health Vision

- Health and Well Being
- Community Health
- ...

Health Information

Health Reports

Top Leading Causes of Deaths
Top Leading Causes of Morbidity
Top Leading Causes of Injury
...

Health Care Activities

- Pilipinas Go4Health
- Hataw
- ...

- Personal Record
- Medication Record
- Medical Histories
- Examinations
- Procedures
- ...

Health Record

- Pharmacy Services
- Diagnostic Services
- Hospitals
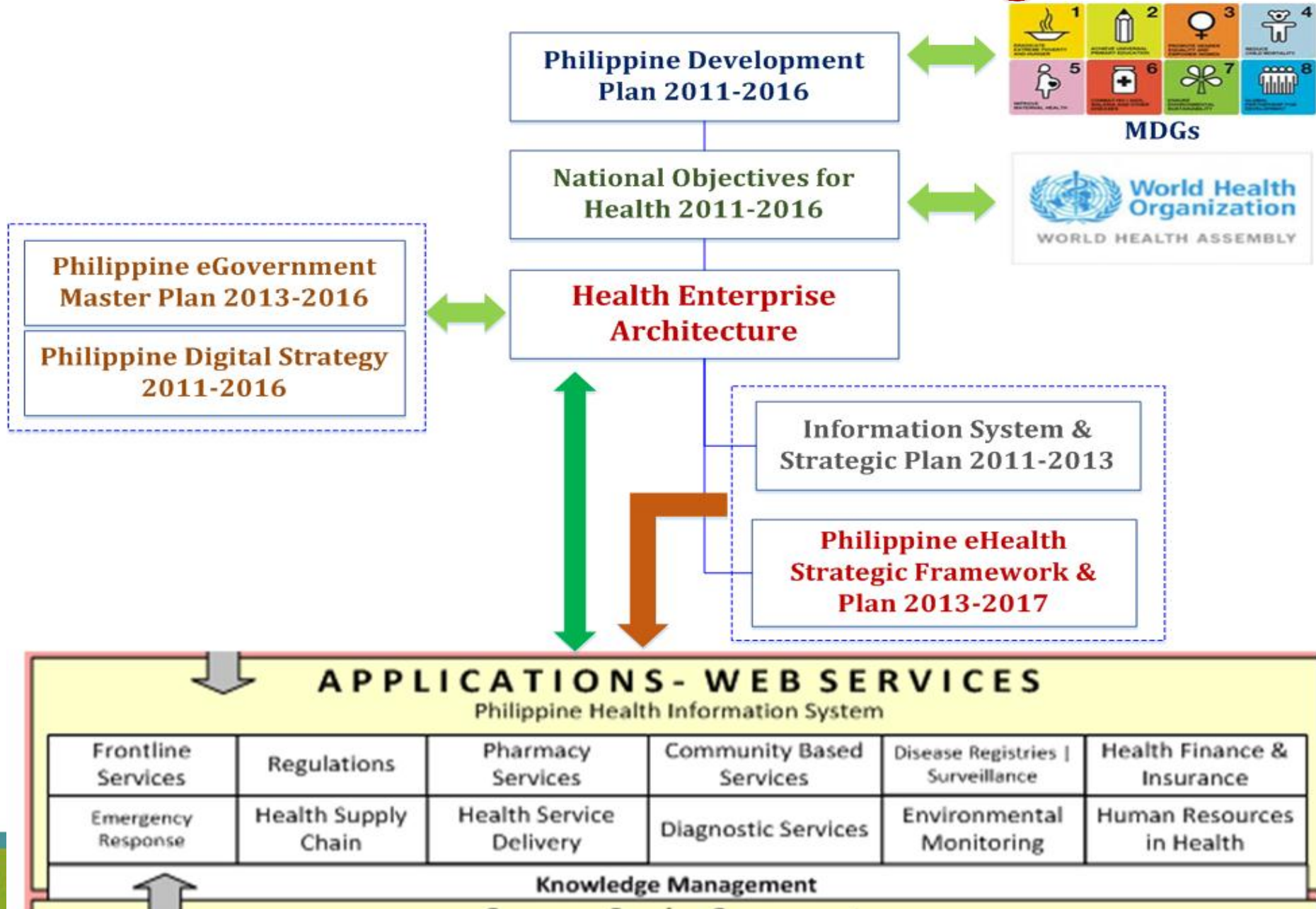- Health Providers
- ...

Health Care Services

- Safer, quality health care
- Equitable and Responsive Health System

Attainment of the

*e*Health Vision

*e*Health Context Setting

Philippine Development Plan 2011-2016

MDGs

National Objectives for Health 2011-2016

World Health Organization
WORLD HEALTH ASSEMBLY

Philippine eGovernment Master Plan 2013-2016

Philippine Digital Strategy 2011-2016

Health Enterprise Architecture

Information System & Strategic Plan 2011-2013

Philippine eHealth Strategic Framework & Plan 2013-2017

APPLICATIONS- WEB SERVICES
Philippine Health Information System

Frontline Services	Regulations	Pharmacy Services	Community Based Services	Disease Registries | Surveillance	Health Finance & Insurance
Emergency Response	Health Supply Chain	Health Service Delivery	Diagnostic Services	Environmental Monitoring	Human Resources in Health

Knowledge Management

*e*Health Context Setting

66th World Health Assembly

World Health Assembly

The World Health Assembly is the decision-making body of WHO. It is attended by delegations from all WHO Member States and focuses on a specific health agenda prepared by the Executive Board. The main functions of the World Health Assembly are to determine the policies of the Organization, appoint the Director-General, supervise financial policies, and review and approve the proposed programme budget. The Health Assembly is held annually in Geneva, Switzerland.

WHO/Peter Williams

o Consider, as appropriate, options to collaborate with relevant stakeholders, including national authorities, relevant ministries, health care providers, and academic institutions, in order to draw up a **Road Map** for implementation of ehealth and health data standards at national and subnational levels.

o Consider developing, as appropriate, **policies and legislative mechanisms linked to an overall national eHealth strategy**, in order to ensure compliance in the adoption of ehealth and health data standards by the public and private sectors, as appropriate, and the donor community, as well as to ensure the privacy of personal clinical data.

o ...

Philippines *e*Health Strategic Framework and Plan (PeHSFP)

The PeHSFP is the result of comprehending what the Philippines needs to achieve in order to address its health goals and challenges.

Philippines eHealth Strategic Guiding Principles

o Client-focus or person centered information
o Collaboration and/or partnerships with different stakeholders
o Users' Involvement
o Strategic approach in phases
o Harmonization and Independence
o Recognize the presence of entities that have already started eHealth
o Availability of human resource
o Compliance to laws and regulations
o Optimize use of resources

Philippines eHealth Components

GOVERNANCE						
Management of the eHealth Agenda	Operations Management	Monitoring and Evaluation	Policy Oversight	Networking and Collaboration	Strategic Architecture	Clinical Safety

LEGISLATION, POLICY AND COMPLIANCE

- Laws, Policies and other Issuances
- National Health Identifier | Health Data Standards for Interoperability
- Software Certification

eHEALTH SOLUTIONS (Services and Applications)

Information Sources	Delivery of Services	Information Flows
Health Reports Researches Health Knowledge Portals Electronic Health Record	Telehealth Services Electronic Consultation **Philhealth Electronic Claims Systems** Decision Support for Medication, Test Ordering Disease Management	**Health Information Exchange** (Referrals, Prescriptions, Test Orders and Results, Health Profile, Demographics, Care Plans, others)

STRATEGY AND INVESTMENT

- Strategic Planning
- Sustained Financing
- Fund Management

INFRASTRUCTURE

Connectivity	Computing Infrastructure
Storage	Databases
Security	Directory Services
Standards	Infrastructure Development and Management

HUMAN RESOURCES

- Education and Training
- e-Maturity and Capacity Building

STANDARDS AND INTEROPERABILITY

- Data Structures
- Messaging
- Terminologies
- Software Certification
- Research and Development

Philippines eHealth Strategic Phases

Phase		Time Frame	Description
Phase 1	Short-Term	2013 – 2014	**Standardize and Connect** – focus is on the establishment of governance and foundations, and provide basic connections to start information sharing across the health sector.
Phase 2	Medium-Term	2015 - 2016	**Transform** – Continuing innovations to develop and implement defined national eHealth solutions.
Phase 3	Long-Term	2017 - 2020	**Maintain and Measure** – By this time eHealth has been established and need to be maintained and sustained, continuously measured in terms of performance, and ongoing innovations and updates need to be managed.

*e*Health Plan

National *e*Health Vision

2017 - 2020

Maintenance | eHealth Researches & Innovations

2015 - 2016

Implementation Expansion of *i*ClinicSys, *i*HOMIS, Philhealth Systems and Philippine Health Information Exchange | eHealth Researches & Innovations

2014

Development & Implementation of *i*ClinicSys, *i*HOMIS, Philhealth Systems and Philippine Health Information Exchange | RxBox

Software Certifying Body to National Health Data Reporting

National Health Data Committee

Philippines eHealth Action Lines

	Actions Lines	Mapped eHealth Components
1	**Governance**	Governance | Strategy and Investment
2	**Foundations**	Infrastructure | Standards and Interoperability | Legislation, Policy and Compliance
3	**e-Health Solutions**	eHealth Solutions (Services and Applications)
4	**Change and Adoption**	Human Resource

Philippines eHealth Targets
Phase 1: 2013-2014

GOVERNANCE
o Signed Joint Department of Health and Department of Science and Technology Department Memorandum on the Creation of National Governance Steering Committee and Technical Working Group on eHealth
o Department Order on the National Health Data Committee and its Implementing Policies, Procedures, and/or Guidelines
o Department Order on Software Data Compliance Body for National Health Data Reporting and its Implementing Policies, Procedures, and/or Guidelines
o Administrative Order on Institutionalizing the National Telehealth Services under the Department of Health

FOUNDATIONS
o Administrative Order on the National Implementation of Health Data Standards for eHealth Standardization and Interoperability (eHSI Release 001)
o Administrative Order on the Implementation of Software Data Compliance to National Health Data Reporting
o Philippine Health Enterprise Architecture version 2.0
o Minimum Data Sets for the Philippine Health Information Exchange Registries
o Operational Infrastructure

Philippines eHealth Targets
Phase 1: 2013-2014

eHEALTH SOLUTIONS

o   Telemedicine Pilot I, implemented in GIDA in the Philippines
o   Developed and Implemented Philippine Health Information Exchange System Phase 1 (Identified Sites)
  o   Philippine Health Information Exchange System software version 1.0
  o   Integrated Clinic Information System (*i*ClinicSys) software of the Department of Health
  o   Integrated Hospital Operations and Management Information System (*i*HOMIS) software of the Department of Health
o   Implemented Philhealth Electronic Claims Systems in Identified Sites
o   Completed RxBox2 Research
o   Conducted eHealth Researches
o   Developed and implemented in phases the eHealth projects under the Department of Budget and Management's Medium-Term Information and Communication Technology Harmonization Initiative
o   Developed and implemented in phases the Interoperable Health Information System for CHD4A – Calabarzon of the Korea International Cooperation Agency

CHANGE AND ADOPTION

o   Conduct of Awareness Activities

Philippines eHealth Targets
Phase 2: 2015-2016

Governance
o Working National Health Data Committee
o Working Software Data Compliance Body for National Health Data Reporting

FOUNDATIONS
o Philippine Health Enterprise Architecture version 3.0
o National Health Data Dictionary version 3.0
o Administrative Order on Information Protection

eHEALTH SOLUTIONS
o Enhancement and Implementation of the Philippine Health Information Exchange System Phase 2 (Replication to Identified Sites)
o Implemented Philhealth Electronic Claims Systems in Expansion Sites
o Implemented RxBox2
o Conducted eHealth Researches
o Developed and implemented proposed projects under the Department of Budget and Management's Medium-Term Information and Communication Technology Harmonization Initiative

Philippines eHealth Targets
Phase 2: 2015-2016

eHEALTH SOLUTIONS
o Information and Communication Technology Harmonization Initiative
o Continuing implementation of the Interoperable Health Information System for CHD4A – Calabarzon of the Korea International Cooperation Agency

CHANGE AND ADOPTION
o Conduct of Awareness Activities
o Enhanced Health Care Provider Licensing or Accreditation

Philippines eHealth Targets
Phase 3: 2017-2020

GOVERNANCE
- o Working National Health Data Committee
- o Working Software Data Compliance Body for National Health Data Reporting

FOUNDATIONS
- o Updated National Health Data Standards for eHealth Standardization and Interoperability
- o Operations, Maintenance and Monitoring of DOH, Philhealth and DOST Systems

eHEALTH SOLUTIONS
- o Continuous eHealth Innovations

CHANGE AND ADOPTION
- o Conduct of Awareness Activities
- o Continuing Implementation of Health Care Provider Licensing or Accreditation
- o Education and Training

*e*Health Milestones

DOH and DOST

eHealth Deliverables - Milestones

Consensus-building

Output: Minimum data sets and standard format disseminated to hospitals clinics, community centers by March 2014

- Patient Registry : DOH, PhilHealth
- Provider Registry : DOH, PhilHealth
- Facility Registry : DOH
- Shared Record : DOH, PhilHealth
- Terminologies : DOH, PhilHealth
- Health Interoperability Layer : DOH, PhilHealth

eHealth Deliverables - Milestones

Content building (Registries)

Outputs:

- 70 DOH Hospitals inputting by Dec 2014 [with e-claims] (53 DOH Hospitals using *i*HOMIS)
- 651 public hospitals inputting by Dec 2015 [with e-claims]
- 3,600 Rural Health Units/City Health Offices by Dec 2015 [with e-claims]
- RxBox deployed in 140 RHUs/CHOs by Dec 2014 and 1,000 RHUs/CHOs by Dec 2015
- 2,500 rural health units using *i*ClinicSys of the DOH by 2015
- Philhealth e-claims are deployed in all hospitals and clinics by Dec 2016 **(85 Million Filipinos covered by e-claims)**

Note: Total number of hospitals, 1,796 [Public hospitals, 721]

PHIE Infrastructure operational by Dec 2014

DOST-ICTO
- o Data Warehouse (e.g. cloud computing)
- o Connectivity down to the barangays

DOST-ASTI
- o Registry Database Infrastructure (client, provider, facility, terminologies, shared record)
- o Interoperability Layer Infrastructure

eHealth Deliverables - Milestones

DOST-PCHRD

o eHealth Researches

   eHealth applications: tele-parasitology and tele-dermatology by 2014

o Smart diagnostic devices by Dec 2015

*e*Health Deliverables - Milestones

o Policies (Administrative, Legal, Ethics, Research and Finance) to achieve compliance and enhance benefits from eHealth

– Policy Guidelines: Department Circulars, Executive Orders

e.g. , facility or professional licensing tied up to inputting to registries; ethics incorporated in Philippine Health Research Ethics Board Guidelines

– Legislation
e.g., revise content of earlier Telehealth Bill filed in Congress

eHealth Commitments

MITHI (Health, 2014)

- Philippine Health Information Exchange (integrating/harmonizing health data coming from different electronic medical record systems and hospital information systems)
- Development and Implementation of the Health Enterprise Data Warehouse
- Integrated Health Goods Licensing Information System
- Standards Training and Change Management
- Implementation of DOHs Integrated Clinic Information System
- Expansion of the DOHs Integrated Hospital Information System
- System Enhancement and Implementation of the National Disease Registry

KOICA – Interoperable Health Information System for CHD4A – CALABARZON (5 years)

- Health Information Exchange
- Implementation the DOHs Integrated Clinic Information System
- Upgrading and Implementation of the Integrated Hospital Operations and Management Information System
- Data Warehousing

PCHRD Funds

1. Devices to gather and transmit data, e.g., RxBox, mobile phones, tablets, diagnostic devices

2. Applications, e.g. tele-referrals, tele-consultations

eHealth Commitments

DOH and PhilHealth

1. Universal Coverage (85 M Filipinos)
2. System Development, Implementation, and Maintenance of iClinicSys, iHOMIS, Philhealth eClaims Systems, and Philippine Health Information Exchange System
3. Operational Support to Systems
4. Interoperability Standards Setting (National Health Data Committee & Software Certification to National Health Data Reporting)
5. Training/Capability Building
6. Legislations/Policies

eHealth Commitments

Funding for 2015, 2016, and beyond to sustain eHealth

- o Operational Support (including Manpower, Technical support)
- o System Maintenance
- o Infrastructure Upgrade
- o Capability Building
- o System Monitoring and Evaluation

Monitoring and Evaluation
Philippines *e*Health Key Result Areas

Health Consumers Safer and Quality Health Care	Health Care Providers Make More Informed Decisions	Health Care Managers, Policy Makers and Researchers Effective Program/Research Development, Policy Making, Implementation & Monitoring
• National health identifier that is unique for each person • Access to quality and reliable health information • Access to individual electronic health records • Access and management of personal health records • Interactioin with health care providers • Health information can be shared and exchanged • Use of electronic consultations or telehealth capabilities in remote areas • High speed broadband connectivity • Online health reporting systems	• National health care provider identifier • Access to quality and reliable health information • Access to an integrated/single view of the patients' health information at the point of care • Access to health information like clinical decision support tools, medications, clinical knowledge, skills development , and others • Collaboration/coordination with other health care providers, and interaction with health consumers. • Secured sharing and exchanging of health information • Electronic consultations or telehealth services • Online test/examination ordering system and results reporting, referrals, and prescriptions • High speed broadband connectivity	• Access to quality and reliable health information for improved analysis, utilization, policy making, decision making and research purposes • Availability of tools to support the monitoring of health system activities and outcomes • Defined health data standards and processes for eHealth solutions' development and compliance

*e*Health Philippines

The key to keeping updated the **Philippines *e*Health Plan** as well as success in implementing the national eHealth agenda, is the continuing collaboration and communication with the different stakeholders to gain support, guidance, cooperation and commitment.

Thank You.