Digital Health in Global Health

An overview of ongoing trends and dynamics
HELLO!

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**Initiatives**

- **Global**
  -✓ Health Data
  -✓ Collaborative Communities of Practice
  -✓ Global Health Data Platforms

- **Country System**
  -✓ OpenHIE
  -✓ DHIS2
  -✓ IHRIS
  -✓ Health Financing
  -✓ LMIS

- **Point of Care**
  -✓ Hospital Level
  -✓ Health Center Level
  -✓ Community Health Workers

- **Patient**
  -✓ mHealth
  -✓ Apps
  -✓ mHealth Apps
GLOBAL INITIATIVES

Health Data Collaborative, Communities of Practice, Global Health Data Platforms…
GETTING BEHIND COUNTRY PRIORITIES

National Health Sector Strategic Plan

- TB
- cMYP (immunization)
- HIV/AIDS
- MALARIA
- NCDs
- GLOBAL STRATEGY
- OTHER HEALTH PROGR.

Comprehensive National M&E Plan

Common investment framework for M&E

- FOUNDATIONS
- BILATERAL/ MULTILATERAL FUNDING
- DOMESTIC FUNDING
- GAVI
- GFF
- GLOBAL FUND

Coordinated technical support and implementation
YOU CAN ALSO BROWSE INDIVIDUAL INDICATORS:

Health status  Risk factors  Service coverage  Health systems

SERVICE COVERAGE

Reproductive, maternal, newborn, child and adolescent
- Demand for family planning satisfied with modern methods (38 kB)
- Contraceptive prevalence rate (39 kB)
- Antenatal care coverage (42 kB)
- Births attended by skilled health personnel (45 kB)
- Postpartum care coverage (37 kB)
- Care-seeking for symptoms of pneumonia (42 kB)
- Children with diarrhoea receiving oral rehydration solution (ORS) (41 kB)
- Vitamin A supplementation coverage (37 kB)

Immunization
- Immunization coverage rate by vaccine for each vaccine in the national schedule (36 kB)

Tuberculosis
- TB patients with results for drug susceptibility testing (35 kB)
- TB case detection rate (41 kB)
- Second-line treatment coverage among multidrug-resistant tuberculosis (MDR-TB) cases (36 kB)

Malaria
- Intermittent preventive therapy for malaria during pregnancy (IPTp) (36 kB)
- Use of insecticide treated nets (ITNs) (36 kB)
- Treatment of confirmed malaria cases (36 kB)
- Indoor residual spraying (IRS) coverage (36 kB)

Neglected tropical diseases
- Coverage of preventive chemotherapy for selected neglected tropical diseases (36 kB)

HIV
First alignment priorities

- Routine HIS
- LMIS
- Community Health IS
- Health Facility Surveys
- Quality of Care

Second priorities

- Health Financing
- Human Resources
- Population Data
- Civil Registration
COMMUNITIES OF PRACTICE:
FROM MHEALTH TO DIGITAL HEALTH
GLOBAL HEALTH DATA PLATFORMS

What?
Crunching “any” available data to measure global health

Disease burden:
Healthdata.org
Example: Malaria Atlas
Example:

WorldPop
High Resolution Population Density Maps

(30% Belgian Project @ ULB)
GLOBAL HEALTH DATA INITIATIVES
(BELGIUM)

The Global Health Barometer

VUB – the Global Health Barometer

Barometer based on medical record data mining
BlueSquare – the integrated data platform initiative (IDPI)

Measuring Primary Health Care Performance at scale using any existing data

Consortium with 2 other companies and the Bill & Melinda Gates Foundation
COUNTRY-LEVEL DYNAMICS

DHIS2, OpenHIE, IHRIS, LMIS, Health Financing, Open Data…
DHIS2: THE LEADING DATA MANAGEMENT SOFTWARE PLATFORM

Collect, manage, visualize and explore your data

DHIS 2 is the flexible, web-based open-source information system with awesome visualization features including GIS, charts and pivot tables.

Global impact
DHIS 2 is the preferred health management information system in 47 countries and 23 organizations across four continents. DHIS 2 helps.

Integrated system
DHIS 2 is typically used as national health information systems for data management and analysis purposes, for health program monitoring and.

Runs on everything
With DHIS 2 you can capture data on any type of device, including desktops, laptops, tablets, smartphones and other mobile devices. Most solutions work.

UiO: University of Oslo
DHIS2: THE LEADING DATA MANAGEMENT SOFTWARE PLATFORM

UiO: University of Oslo
EXAMPLE IN NIGERIA

34,246 Health Facilities

8,242 Private
DHIS2 IN A TYPICAL DATA ECOSYSTEM

“DHIS2 effect”
Merge in DHIS2 of the disease specific M&E data systems
RISE OF MOBILE DEVICES IN ROUTINE SYSTEMS

HMIS

Data Warehouse

Community Health Worker

Electronic Medical Record

Human Resources

LMIS

HIV & TB

Health Financing
DATA SYSTEM INTEGRATION AND INTEROPERABILITY

National Data Warehouse

Results-Based Financing

Community Health Worker
Medical Records
Human Resources
Logistics Information Systems
Disease Specific (HIV, TB)
HUMAN RESOURCES

iHRIS
Open-Source Human Resources Information Solutions

Know Your Health Workforce

About Us  iHRIS Software  The iHRIS Community  Toolbox  Blog

mHero and the Principles for Digital Development: Development Done Right

By Amanda Puckett BenDor IntraHealth International and UNICEF launched the mHero platform in late 2014 in the midst of the Ebola ...

Read More

iHRIS Software Improves Health Outcomes

Getting the right health worker in the right place at the right time is key to improving health outcomes. iHRIS is free and open source software for managing health workforce information. This information helps countries address health workforce shortages and solve other challenges across the health sector.

With iHRIS, your health workforce is in full view.

iHRIS Blog

IHRIS Community begins using Slack

More countries sign on to IHRIS: Global Community Still Growing and Adapting
**OpenLMIS**

OpenLMIS is designed to be highly flexible and adaptable to the unique needs of any health supply chain, in Tanzania and Zambia. OpenLMIS has been implemented nationally for multiple programs, whereas in Mozambique OpenLMIS has been implemented for vaccines in select provinces.

**Configurable**

OpenLMIS is designed to be interoperable with other key health information systems. Current system integrations include Enterprise Resource Planning (ERP) systems, HMIS systems (such as DHIS2), warehouse management systems (Sage, Spicor), accounting/financial management systems, and mobile tools (such as Logistimo, or OpenLMIS Supply). Additional integrations currently under development.

**Interoperable**
IMIS

Open Source Health Insurance Data System

Swiss Tropical and Public Health Institute
Schweizerisches Tropen- und Public Health-Institut
MAS Pilot

BIT - Step

Micro-health Insurance Data System
OpenRBF (BlueSquare)

Results-based financing data system

Towards health financing on top of DHIS2
Together Let's Build Solutions With Open Data

The Kenya Open Data Portal makes Public Government datasets accessible for free to the public in easy reusable formats, supporting the Government's drive to proactively inform citizens and be accountable.
WANT BIG IMPACT?

Ordoff Clinic, Kadoma (Zimbabwe)
Рейтинг Организаций Здравоохранения

Средний балл: 93, о выполнении 75%

1. Московская Территориальная Больница
2. Ак-Талинская Территориальная Больница
3. Центр Общей Врачебной Практики Майлюу-Суу

Ак-Талинская Территориальная Больница
Балдышская Городская Территориальная
Жайылская Объединенная Территориальная Больница

Карагандинская Территориальная Больница
Жогорку Кызылордская Территориальная Больница
Токмакская Территориальная Больница
Центра Общей Врачебной Практики Айдаршен
Центра Общей Врачебной Практики Майлюу-Суу
POINT OF CARE

OpenClinic, CERHIS, IeDa, OpenSRP…
What is OpenClinic project?

OpenClinic is an easy to use, open source, medical records system written in PHP. It has been mainly thought for private clinics, surgeries and private doctors. It is platform independent and it has multilanguage architecture.

Currently, OpenClinic has the following options:

- Medical Records
  
  Use this option to manage your patient's medical records.

  Patient's Administration:
  
  ○ Search, new, delete, edit
  ○ Social Data
  ○ Clinic History
  ○ Problem Reports
LE SYSTÈME D'INFORMATION HOSPITALIER MOBILE
Pour les pays en développement

Découvrir CERHIS
eDA - Innovative online technology for children's health care

OPENSRP

Open Smart Register Platform is an open source mobile health platform that allows frontline health workers to electronically register and track the health of their entire client population.
HOSPITAL SYSTEM FOR LOW RESOURCE SETTINGS

**IMPROVE**
patient care. Access intuitive clinical summaries, charts and X-rays from anywhere.

**INFORM**
decision-making with comprehensive reports. Increase efficiency with seamless integration between medical records, lab and billing.

**CONFIGURE**
a reliable system easily to your hospital’s workflow. Engage with a growing and responsive implementer community.

Bahmni is an easy-to-use EMR & hospital system. It combines and enhances existing open source products into a single solution.
COMMUNITY HEALTH WORKER

CommcareHQ, RapidPro…
CommCare: Reaching the last mile in over 50 countries.
About RapidPro
Read about the evolution of RapidPro from RapidSMS

The Marketplace
Use this portal to explore vendors, their areas of expertise, and the services they provide.
AND THE PATIENT?

mHealth, Android Apps…
7.5 million women, families and caregivers reached with vital health information that is transforming their lives.
TAKEAWAYS…
### TAKEAWAYS

<table>
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<tr>
<th>Data is at the heart of global health</th>
<th>Belgium is small</th>
<th>Recipe for success</th>
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<tr>
<td>As in other sectors, data &amp; technology will be at the heart of any intervention.</td>
<td>There is a lot happening out there. Working in our Belgian silo will lead to marginalised work.</td>
<td>Our community builds great products. But that is not sufficient. Communication, collaboration, network, visibility, reach are all fundamental ingredient of success.</td>
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Any questions?

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