



# JEMBI HEALTH SYSTEMS

INTERNSHIP DAY PRESENTATION  
SDA BOCCONI SCHOOL OF MANAGEMENT  
26 November 2014

# Who we are

- ▶ African-based non-profit organization based in South Africa.
- ▶ Donor-funded programs (IDRC, CDC, PEPFAR, WHO, USAID, Rockefeller Foundation and others)
- ▶ Solid partnerships with African institutions (Universities, USG partners, MOH, and other national institutions)
- ▶ Four country offices:
  - ❑ South Africa (Cape Town & Durban)
  - ❑ Mozambique (Maputo)
  - ❑ Rwanda (Kigali)
  - ❑ Zimbabwe (Harare)

# Who we are (cont.)



## What we do

- ▶ Development of eHealth and Health Information Systems for low resource settings
- ▶ Provide technical skills and implementation expertise to institutions and non-profit organizations
- ▶ Share experience and knowledge (academic publications & conferences)
- ▶ Work Approach:
  - ❑ Programs: country project coordination, planning, management and administration, and M&E
  - ❑ Technical: architecture, requirements, system development and customization
  - ❑ Corporate services: Internal management and administration

## Why we do it

- ▶ Increasing need for evidence-based decision-making by health authorities
- ▶ Need for country ownership, leadership, scalability and sustainability of HIS
- ▶ Challenges:
  - ❑ Difficulty of generating accurate analysis and reports with paper-based system
  - ❑ Lack of in-country funding for HIS activities and workforce
  - ❑ Scarcity of health IT skills and training
  - ❑ Dependency on external consultants for HIS



# COUNTRY PROGRAMS

# Country Programs

- ▶ South Africa: National and provincial eHealth and Health Information Systems & Health Architecture Laboratory
  - Partnership with SA Medical Research Council, University of Kwazulu Natal - supporting Department of Health
- ▶ Mozambique: National Health Information Systems - Partnership with UEM-MOASIS, CDC Mozambique, USG partners (Supporting MOH and other ministries)
- ▶ Rwanda: Maternal and Child Health System and Health Information Exchange (supporting MOH)
- ▶ Zimbabwe: Human Resource applications and enterprise architecture (partner University of Zimbabwe, supporting MOH)
- ▶ Open Medical Record System (International)

# MOZAMBIQUE PROGRAM

JEMBI-MOASIS SOUTH-SOUTH COOPERATION MODEL



## Mozambique Program (South-South Cooperation Model)

- ▶ Based on South-South Cooperation Model, a JEMBI-MOASIS collaboration
- ▶ MOASIS:
  - non-profit organization of University Eduardo Mondlane in Mozambique
  - Living Lab created and supported entirely by JEMBI with support of IDRC, CDC, PEPFAR, WHO, Rockefeller, Twinning and others. Aims to:
    - ❖ Strengthen HIS local capabilities involving the public, private and academic sectors
    - ❖ Support Ministry of Health, Ministry of Women & Social Affairs and Ministry of Justice
    - ❖ Reference and link between the MOH and public/private partners

## Mozambique Program (South-South Cooperation) (cont.)

- ▶ A possible and effective solution for ownership, scalability and sustainability
- ▶ JEMBI:
  - ❑ Under 5 year CoAg with CDC to support MOASIS to strengthen HIS in Mozambique (+ funding from other donors: USAID, WHO, Twinning Center, and others)
  - ❑ focuses on macro planning, fundraising, grants, program management and administration
- ▶ MOASIS:
  - ❑ Country Office with local staff and focuses on deliverables
  - ❑ Responsible for the majority of HIS recognized by the MoH and works with other Ministries in cross-cutting projects.

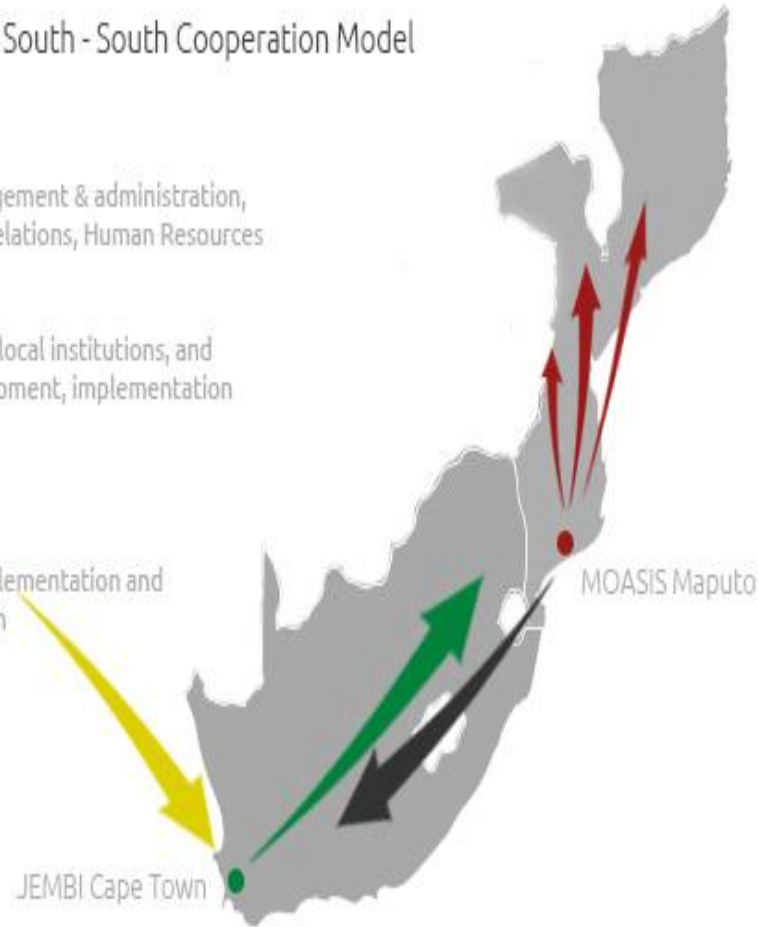
# Mozambique Program (South-South Cooperation Model)

## ► JEMBI-MOASIS:

- ❑ Multidisciplinary (IT experts, analyst and developers, public health specialist and epidemiologist)
- ❑ Constant Communication (daily skype, travel, conference calls, weekly coordination and technical meetings)
- ❑ Employ/develop local HR
- ❑ Joint team and work plans (gov. & partners)
- ❑ Helps for Project continuity/sustainability

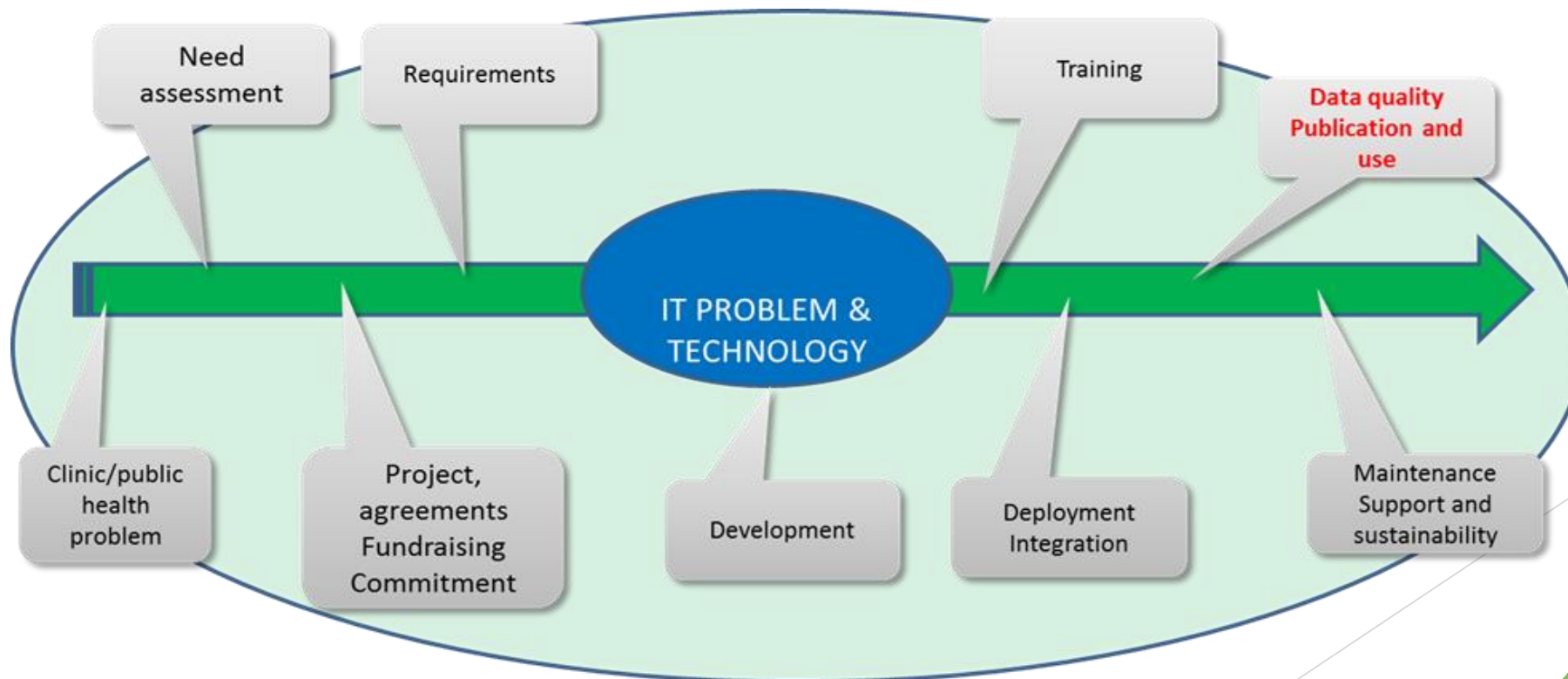
## JEMBI - MOASIS - South - South Cooperation Model

- Programme management & administration, Planning, Donor Relations, Human Resources & M&E
- Coordination with local institutions, and Programme development, implementation & maintenance
- Donor funding
- Development, Implementation and Expansion Program



## Mozambique Program (South-South Cooperation Model)

- ▶ JEMBI-MOASIS interventions model to support MOH and other institutions and ensure sustainability
- ▶ Many HIS interventions in developing countries focus on the IT problem and development of technology
- ▶ JEMBI-MOASIS focus on the whole system for sustainability



# MOZAMBIQUE PROJECTS

BASED ON JEMBI-MOASIS SOUTH-SOUTH COOPERATION MODEL



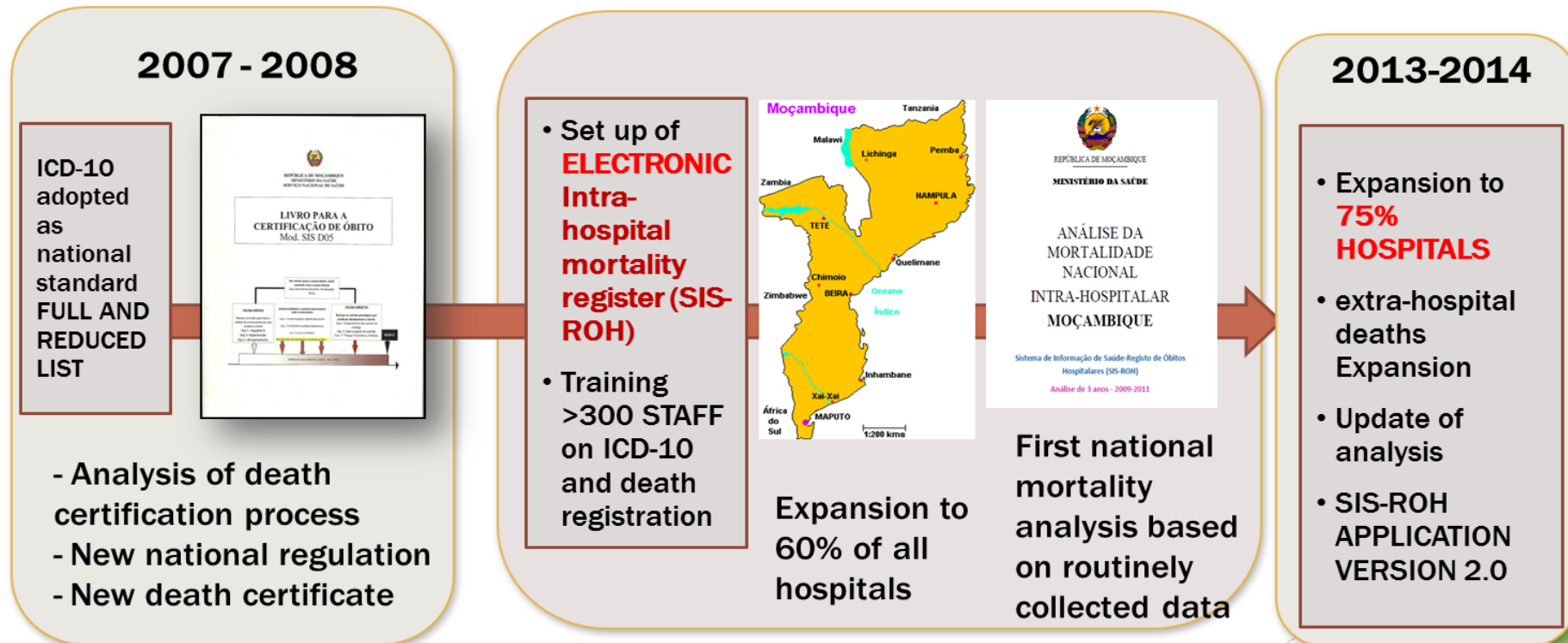


Health Infrastructure in Mozambique



# SIS-ROH | Intra-Hospital Death Registration System

- ▶ Computerized system that registers deaths occurring in hospitals nationally
- ▶ Uses ICD-10 coding for causes of death
- ▶ Developed by JEMBI-MOASIS developers
- ▶ Deployed and implemented locally at district, provincial and central hospitals
- ▶ Before 2006 mortality data was only acquired through census/surveys



# SIS-MA | New National M&E System

- ▶ Aim: support collection, analysis, interpretation and dissemination of health data used to plan public health services across Mozambique
- ▶ Old paper-based system unsustainable
- ▶ JEMBI-MOASIS with support of USG partners on behalf of MOH:
  - ❑ Evaluated older system
  - ❑ requirements definition
  - ❑ funds mobilization
  - ❑ International tender
  - ❑ Contract management
  - ❑ Project management
  - ❑ Quality control
  - ❑ Training and handover





# SIS-H | Hospital Information System based on aggregated data

- ▶ SIS-H collect aggregated data on hospital patient flow, and causes of discharge and mortality for inpatients in level II, III and IV hospitals
- ▶ In 2010 SIS-H version developed by private company showed to be unusable during the pilot in 2011
- ▶ Jembi-Moasis served as problem mitigation mechanism and offered technical assistance to turn SIS-H into usable software
- ▶ The system was successfully downgraded and tested in June 2012
- ▶ SIS-H was corrected and enhanced following the field test and a pilot was started in 3 hospitals (for Pediatrics Department only)

# INNOVATIVE PROJECTS

- ▶ The SIS-Compact Station is one of JEMBI-MOASIS innovative projects:
  - ❑ Micro-Computer with touch screen powered by open source software
  - ❑ Only enables the function of a predetermined list of applications allowed by the administrator
  - ❑ Low virus contamination
  - ❑ 3G connectivity: useful for rural areas with limited electricity availability
  - ❑ Low production cost and allows for local maintenance and production



# ACHIEVEMENTS

JEMBI-MOASIS

# Achievements in Mozambique

- ▶ JEMBI-MOASIS involved in over 20 projects at national level producing positive results
- ▶ Increased participation and representation of Mozambique in WHO-FIC based conferences in 2012, 2013 and onwards
- ▶ Helped generate the 1<sup>st</sup> mortality data analysis in Mozambique based on routinely collected data
- ▶ Training of over 300 staff on ICD-10 and death registration
- ▶ Transition from old paper-based system to New National Monitoring & Evaluation System (SIS-MA) and deployment to all provinces
- ▶ New Innovative projects for data collection and interoperability between systems (SIS-Compact Station)
- ▶ IT Support for provinces and districts in rural areas

# INTERNSHIPS

JEMBI HEALTH SYSTEMS

# Internship & Career Opportunities at Jembi

- ▶ Programmes and Technical Support
- ▶ Gain experience in Management and Administration, planning, fundraising, M&E in donor-funded projects in Africa
- ▶ Support/Implementation Staff
- ▶ Technical design, development and software team support
- ▶ Volunteers and Interns looking to gain experience in ehealth and HIS in Africa (Non-paid Donor-funded projects with support for certain expenses depending on availability of funds)
- ▶ We are a DONOR-FUNDED African non-profit organization, and encourage application for funds from donors for internships at Jembi