Capacity Strengthening & Training Strategic
Manhiça Health Research Center

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Accra, August 17th 2015
Research

Research support services
- Laboratories
- Data center
- Other departments

Training
- Training Fellowship program
- Other training activities

Research platforms
- Demographic surveillance
- Morbidity surveillance
Research Matrix

- Malaria
- HIV/AIDS
- TB
- Diarrheal diseases
- Pneumonias and Invasive Bacterial Disease

- Clinical and molecular epidemiology
- Maternal and Reproductive Health
- Social Sciences
- Monitoring and evaluation
- Clinical Trials Unit

Sacoor et al 2013
Capacity Strengthening and Training

- **Human Capacity**
  Training and other capacity which allows the institution to have human resource capable to conduct research

- **Infrastructures**
  Generates scientific evidence that can be used to inform the creation and updating of health policies

- **Communication**
  Promotion of corporate image;
  Strengthen the communication with the community
  Dissemination of the center’s research activity
Human capacity
Unbalance between researchers vs the rest of the workers: About 500 center workers are only 14 researchers.

The greater the disparity between the overall personal vs that perform research makes heavy financial institution.
Human capacity

✓ The consolidation and future sustainability

✓ Mozambique needs this type of skills development for its own progress especially on health and biomedical research areas

✓ Training is a strategic area

✓ The partnership with training institutions have been key to strengthening the research and technical capacities of the country
Research Training: *Training Fellowship Program*

Post-graduate program to train young Mozambican and sub-Saharan graduates, wishing to develop their professional career as health researchers.

Implemented in collaboration with research and training institutions, the program provides direct experience in research at the centre.

Trainees perform post-graduate training (master’s and doctorates) at international recognised universities – in Australia, Belgium, Spain, South Africa, Portugal, UK, etc.

Fellows may also carry out internships at Universities, research centers and international institutions.

More than 30 Mozambican have benefitted from this program.
Manhica Senior Research Fellow
6 months - 2 years

CISM

young graduates Mozambicans
3 years

Postdoc
or
Internships
3-4 years

PhD

Master
2 years
Training activities (Cont’)

✓ **Post doctoral training**
  - CISM fosters post doctoral training at partner centers of past training fellows who continue to be part of the center’s research activities

✓ **Internship and Short term stays for health professions students and professionals**
  - Faculty of Medicine, UEM
  - Faculty of Veterinary, UEM
  - Instituto Superior de Ciências e Tecnologias de Moçambique (ISCTEM)
  - Instituto Superior de Ciências da Saúde (ISCISA)
  - Universidade de Barcelona, ISGLOBAL, Hospital clinic, Spain *(1-2 years)*-almost ; Four researchers /year
  - Universidade Católica de Moçambique
  - Centro de Investigação em Doenças Infecciosas ,
  - Centro de Investigação e Treinamento em Saúde de Chockwé
Internship and short term stays

Universidade Eduardo Mondlane
- Faculty of Medicine
- Faculty of Veterinary

• Rural and integrated internships at Manhiça District Hospital
• Mestrado Epidemiologia de Campo e Laboratorial
• Best graduate students of the Faculty “Estagio Premio”

Students, resident medical doctors and health professionals

• Australia, Brazil,
• Spain, Germany,
• Netherlands,
• Portugal, USA

24
10
2
14
Internship - Short term stays

National and international students

- Masters and PhD

Training of technical staff within the scientific and health area

- Chokwe Training and Health Research Center
- Infections diseases research center at Universidade Catolica de Mocambique
- Angola Health Research Center
- Polana Canico Health Center - INS
- Malaria National Reference Lab, INS (9/ano)
Internship-Short term stays

Internships at CISM < 1 month
19/year

Internships at Manhica HDSS > 1 month
53/year

72/year
Other training activities

Training of technical staff within the scientific and health area

☑️ The most frequent courses: GCP, GCLP, Bio-statistics, Financial Management, Data Management and Introduction to Clinical Research, Project Management and Ethics, Monitoring of Clinical Trials, Laboratory Techniques, (20 courses/year-on site and at other institutions)

Workshops and seminars

☑️ The CISM’s scientific and technical personnel participate in national and international conferences
☑️ Develop research networks and exchange knowledge and experience with other researchers
☑️ Scientific sessions (by researchers) and journal club (Training fellows) activities for the research and technical personnel (every week)
Other training program in Mozambique

- Educational Project regarding the introduction of the HPV vaccine in Mozambique (Collaboration MoH and Fundacao La caixa)

- Elearning Project in collaboration with
  - Manhica HDSS, Forum Mulher, Rede da criança, MASC, ECO SIDA, FDC, CESC, CAICC, Techsoup (storytelling courses, Monitoring & Evaluation Courses,)

- Project Trails of Excelence in Southern Africa (TESA)
  - CISM is a member of the network of centres of excellence in southern Africa “TESA”, promoted by EDCTP since 2010
  - Objective: Development of new clinical interventions against HIV/AIDS, Tuberculosis and Malaria/ build capacity of centres
  - TESA I e TESA II (CISM Coordenator)
**Challenges**

- The model is stressed because there are not core founding financing to maintain this training program.
  
  Every year, every single investigators have to look to the international opportunity for funding, so only if the get that opportunity he must to apply and approved then it can send their training fellowship to training.

- Continue to train Mozambique researchers.

- Attract young and talent Mozambican to join health research area offering them good work conditions.

- Funds for training activities.
Infrastructure
The center was created about 20 years ago, the infrastructure capacity was minimal, we had only hematic parasitology laboratory.
Demographic Surveillance System (DSS)

- Covers a study area of around 500 km² and 95,000 inhabitants
- All households are geopositioned and numbered
- All individuals have a unique identification number
- All vital events recorded (births, migrations, deaths, pregnancies, etc.)

Manhiça District

Legend
- National road
- Other roads
- Railway
- Study Area
- Incomati river
- Lakes
Morbidity Surveillance System

✓ It covers the Manhiça District Hospital and all health posts in the study area

✓ All information on pediatric visits and admissions is collected

✓ Information includes:
  • Personal identification
  • Demographic information
  • Signs and symptoms
  • Diagnosis
  • Treatment

✓ Currently CISM has over 50 health professionals working at health facilities in the study area
Morbidity surveillance

>1,000,000 Outpatient visits
>60,000 admissions
Laboratory

Divided into four sections:

I- Clinical Analysis

Blood parasitology

Hematology and Biochemistry

Malaria Microscopy for clinical trials
II-Microbiology

General bacteriology

Mycobacteriology
III-Immunology
IV-Molecular Biology
This is to certify that the Quality Management System of
CENTRO DE INVESTIGACAO EM SAUDE DA MANHICA (CISM)
MAPUTO
has been assessed and found to satisfy the requirements of
ISO 9001:2008
QUALITY MANAGEMENT SYSTEM REQUIREMENTS
in respect of the following scope:

THE LABORATORY OF THE MANHICA INSTITUTE OF PUBLIC HEALTH AND BIOSCIENCE TESTING:

EXCLUDING COMMUNITY HEALTH SERVICES, PACKAGING AND LABELING, AND DESIGN AND DEVELOPMENT

Registration Number:

Effective Date:
05 December 2012

Expiry Date:
01 December 2015

Date of Original Registration:
02 December 2009

Chief Executive Officer:

SAMSO COMMERCIAL SOC.LTD.

Data Management and Information Technologies

CISM DATA CENTRE (Manhica) APPLICATIONS SERVER DATABASE

- MaxID
- Demographic Surveillance System Application
- Healthcare System Application

Household Member(s)
- Birth Form
- Death Form
- In-migration Form
- Out-migration Form
- Correct and Update data
- Pregnancy Form
- Pregnancy Outcome Form
- GPS Coordinates

OR

Local healthcare System Database

Router
- Complete OPD Form Application

Patient(s)

Manhica Health
Data Center Archive
>500 forms/day

Paper free

Papers -> new technologies: PDA’s, mobiles, tablets.
Challenges

✔ Currently the center has capacity which are not updated.

✔ Most of those capacity has been stable according to the context decades ago.

✔ In some of the cases there is no classical model in how this capacity has to be established.

✔ INDEPTH network, has an important role on providing support across the site.
communication
and advocacy
Communication

✓ Publication of scientific papers.

✓ Forum for disclosure of the result:

Coordination Committee

- Ministry of Health (DNS, INS, DPS)
- Medicine Faculty (UEM)
- AECI
- Clinic foundation

years
1999-2000
The Centre aspires to play a role in the generation and dissemination of knowledge related to major public health challenges at both the national and international levels.
Annual lecture on global health

- organized to disseminate knowledge related major public health challenges at both national and international levels:
  - International speakers to talk about health issues of national and international interest
  - Shared the Centre’s work through Mozambican researchers

- It was attended by around 300 participants from various affiliations, including bilateral and multilateral cooperation, academia, research, diplomatic, State, NGOs, foundations, the private sector and other institutions.

- 7 editions of the lecture
The Vaccine Impact and challenges in Africa in the current decade

Dr. Pedro Aide
Researcher

Dr. Jean-Marie Okwo-Bele
Director of the WHO Department of Immunization, Vaccines and Biologicals
Addressing Unmet Needs in Global Health: Progress and Opportunities


Dr Inacio Mandomando, Researcher

Dr Trevor Mundel, President of the global health program at the BMGF
Miracles of science: Vaccines and ensuring access for all
The importance of Alliances in Facing Global Health Challenges

Dr Betuel Sigauque, Researcher
Dna Infanta Cristina de Borbon,
Dr. Charfudin Sacoor,
Head of demography department, CISM

The Role of Governments and the Women's Research Capacity Development

Sra Graca Machel,
Chair of FDC
New measures to control malaria, drugs and vaccines

Dr Eusébio Macete
CISM Director

Dr Pascoal Mocumbi,
President of the Manhica Foundation
EDITORIAL

O presente Boletim Informativo reporta as actividades do centro que tiveram lugar de Janeiro a Abril de 2014 e algumas actividades que tiveram lugar em Novembro e Dezembro de 2013. Agradecemos a todos que têm contribuído para a realização das actividades aqui reportadas.

Na área de pesquisa, o CISM-Fundação Manhiça (FM) em colaboração com CRESIB-IQGLOBAL, publicou 28 artigos científicos no ano 2013, o nosso trimestre 4 artigos. Encontram-se em curso 34 estudos nas diferentes áreas de pesquisa (maislia, TB, HIV/STD, Diarréias, Infeções respiratórias, Saúde Materno e Infantil, Ciências Sociais).

Na área de formação acolhão estudantes, médicos, residentes, e especialistas de diversas instituições académicas e de pesquisa nomeadamente Faculdade de Medicina (FM), do Hospital Sant Joan de Déu, Barcelona, do Hospital Clíní de Barcelona, do Hospital Materno-infantil Málaga, Espanha para a realização de estáncias formativas com enfoque para a componente laboratorial, clínica e de pesquisa.

Os destaques deste boletim são para a Palestra Anual em Saúde Global da Fundação Manhiça, a atribuição da Medalla Bagamoyo ao CISM, a Expansão do Sistema de Vigilância Demográfica (SVD) do CISM, o início da recolha de dados demográficos das mulheres em idade reprodutiva que participaram no ensaio clínico baseado numa intervenção clínica de base comunitária para prevenção e tratamento de pré-eclâmpsia e as formas técnicas que tiveram lugar no CISM.

Palestra Anual em Saúde Global da Fundação Manhiça


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HPV Vaccine Demonstration Project in Mozambique

Khâlia Munguambie1,2, Esperança Severo1,2, Benigno Mbalinde1, Manuel Ndoll1, Azucena Bandal1, Carolina Minda1, Carla Silva Matos1, Adelino Xerente1, Joaquim Lade1, Elisa Socrat1, Silvane Mocambili1, Carla Carithro2, Eustávio Maciel1,John Antony1, Pedro Alonso1, César Mendes1


Background

- Cervical cancer is the most common cancer in women worldwide - 380,000 cases are registered every year.
- It is responsible for 275,000 deaths per year.
- 70% of these deaths occur in Developing Countries.
- It is the most common cancer among women in sub-Saharan Africa.
- 70,700 cases are registered per year.
- Mozambique has one of the highest incidences in the world.
- 55 new cases per 100,000 women per year.
- It is caused, in 90% of cases, by the Human Papillomavirus (HPV).
- It affects women in the peak of their lives (30-50 years of age).
- Screening and treatment of pre-cancerous lesions can save many lives.

Justification

- The majority of women in developing countries has limited access to health services.
- The Mozambican Government intends to introduce the HPV vaccine in the country.
- The HPV vaccine can strengthen cervical cancer control, especially if it is administered to adolescent girls.
- Adolescents are not usual health service users, and there is little experience of vaccinating adolescents outside the health system premiums.
- It is crucial to conduct a demonstration project targeting adolescents in order to generate evidence to support the introduction of the vaccine countrywide.

Objectives

- To demonstrate the feasibility and acceptability of vaccinating adolescent girls against HPV in pilot areas in Mozambique.
- To evaluate the feasibility of vaccinating 10 year old girls against HPV.
- To evaluate the acceptability of girls, their parents, guardians, health and education professionals and communities at large.
- To estimate the costs associated with vaccination in an entire district.
- Compare approaches to reach 10 year-old girls: schools vs. health facilities vs. community.

Procedures

- Two vaccination campaigns will take place in 2014 and 2015.
- Each year, around 5000 girls will be vaccinated in Manhiça District.
- Vaccination will take place in schools, health facilities and communities.
- The stages of the campaign will be: community sensitization; screening and recruitment; vaccination; and dose.
- The evaluation will be through:
  - Observation of the vaccination process.
  - Interviews with adolescents and stakeholders.
  - Focus group discussions with community members.
Advocacy unit and institutional relationship

- Created in 2014

- Create empathy outside the institution and promote a climate of cooperation with stakeholders

- Mobilize efforts and resources for Research
Challenges

✓ Improve our external communication strategy

✓ is new, few centers have this well developed area and INDEPTH could play a key role to strengthen this area

✓ The researchers are not fully prepared to pass the results to search for civil society, and the society itself is not so prepared to assimilate this information, because sometimes research results are contradictory to what are the public sector policies
6 MATURE ALL-PURPOSE SITES
1. US Army Medical Research Project-Kenya (USAMRU-K), Kisumu (Kenya)
2. Wellcome Trust/KEMRI, Kilifi (Kenya)
3. Malaria Research and Training Centre (MRTC), Bancoumana, Bandiagara, Donegueboougou (Mali)
4. Centro de Investigação em Saúde da Manhiça (CISM), Manhiça (Mozambique)
5. Bagamoyo/Ifakara Health Research & Development Centre (IHRDC), (Tanzania)
6. Medical Research Council (MRC): Basse, Banjul/Fajara, Farafenni (The Gambia)

5 SITES BEING UPGRADED
1. CDC/ KEMRI (Kenya)
2. Malaria Research Laboratory (MRL), University of Ibadan (Nigeria)
3. Noguchi Memorial Institute for Medical Research Clinical Trials Facility (Ghana)
4. Service de Parasitologie, University Cheikh Anta Diop, Dakar (Senegal)
5. Niakhar Institut de recherche pour le developpement, Niakhar, Dakar (Senegal)
Thank you