

MERIT-Ethiopian Case Study

Concept Overview

Background

Meningitis Environmental Risk Information Technologies 'MERIT' Project

The MERIT project was created in 2007 and is a collaborative effort of the World Health Organization and members of the environmental, public health and epidemiological communities. MERIT has an overarching objective to help reduce the burden of epidemic meningococcal meningitis across Africa's Meningitis Belt by improving the risk assessment and management of the disease and by informing both reactive and preventive vaccination strategies.

The MERIT project combines the knowledge, research findings and expertise of around 30 international and regional partners to improve the understanding and analyses of the risk factors, including environmental, socio-economic, demographic, biological and epidemiological components, which are considered to influence the spread of meningococcal meningitis or trigger epidemic outbreaks in the region.

While each of the institutions involved in the MERIT project pursues its own mandate with respect to its organizational responsibilities, each recognizes the value of cooperation to achieve the ultimate goal of eradication of epidemic meningococcal meningitis disease. Currently around 20 activities, studies, research projects and modelling developments are progressing within the MERIT framework to help achieve its objectives.

Niger case study

Since the first MERIT meeting in September 2007, a sub-group of MERIT partners has combined their efforts to advance environmental and epidemiological modelling of meningitis epidemics using data from Niger. The aim of this group is to develop an operational risk assessment and decision-support tool, based on different statistical analyses and modelling methodologies, which will be tested in the 2008 epidemic season. Niger was selected as a focal country for the initial assessment and case study based on the relative strength and extent of the epidemiological and environmental data collected over the past 10-20 years.

Ethiopia case study

Building on the effectiveness of the collaboration around the Niger case study, MERIT partners agreed at the 2nd MERIT meeting in December 2008 in Addis Ababa, Ethiopia to formalize a sub-group of MERIT partners around meningitis activities in Ethiopia.

Objectives and outcomes

The MERIT-ETHIOPIA case study is being designed with the objectives to advance the understanding of the environmental, social and economic impacts and determinants of meningitis epidemics in the country, as well as to promote education programs and strengthening of meningitis surveillance systems in Ethiopia.

The MERIT-ETHIOPIA case study has four key areas of focus, around which individual study teams will be formed. Each study team will be led by a representative from the Climate and

Health Working Group in Ethiopia and will have participation from MERIT partners contributing specific skills and experience.

The four areas which have been identified will address the following components of meningitis epidemics in the country:

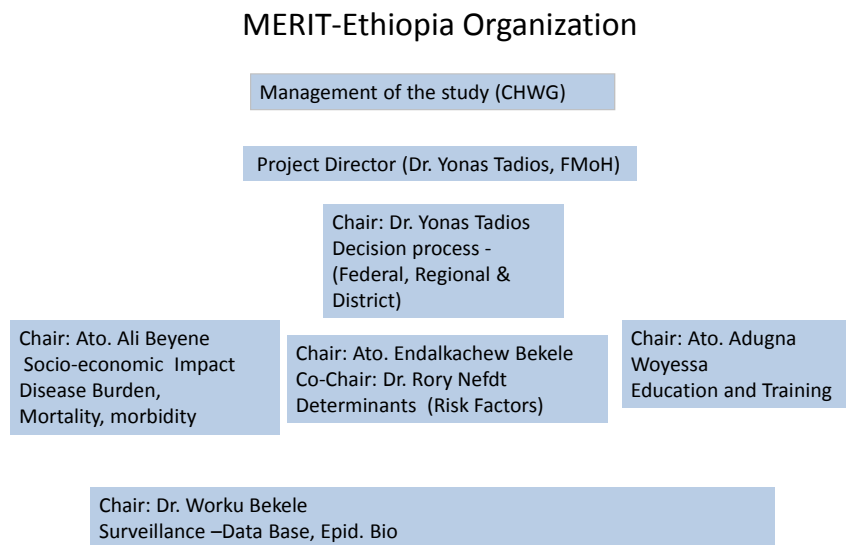
1. Socio-economic impact of the disease, including disease burden, mortality and morbidity
2. Determinants and risk factors of meningitis epidemic outbreaks
3. Education and training
4. Surveillance of the disease, including database and data collection systems, epidemiological, biological, laboratory/diagnostic capacities.

In addition, the Federal Ministry of Health will lead an overarching study team on risk assessment and decision support tools, integrating the output from the four study teams above to help inform decisions made at the Federal, Regional and District levels.

The expected outcomes include the strengthening of existing capabilities to respond to meningitis epidemics, an increase in the lead-time for anticipating and responding to epidemic outbreaks, and a stronger decision-making processes to support the implementation of reactive and preventive vaccination strategies.

Structure

The following figure shows the structure of the MERIT-ETHIOPIA case study and chair and co-chair of the study team from the Climate and Health Working Group membership. A coordinator will be appointed for at least the initial six months of the project, supported by the Health and Climate Foundation.



The international MERIT partners identified as potential participants in the study teams (to be invited and confirmed) include:

1. Socio-economic impacts

Anais Colombini, Agence Medecine Preventive (socio-economic study of meningitis epidemic impact in Burkina Faso)

Jessie Kanutu, International Federation of the Red Cross

David Rogers, Health and Climate Foundation

Mary Hayden, UCAR

Malgosia Madajewicz, IRI (economic factors)

2. Determinants and risk factors

Mohammed Yassin, Liverpool School of Tropical Medicine

Luis Cuevas, Liverpool School of Tropical Medicine

Peter Diggle, Lancaster University

Madeleine Thomson, IRI

Tufa Dinku, IRI

Sylwia Trzaska, IRI

Giovanni Rum, Group on Earth Observations

3. Education and training

Jessie Kanutu, International Federation of the Red Cross

Gilma Mantilla, IRI

4. Surveillance

Pierre Nicolas, IMTSSA (biological)

Stephane Hugonnet, WHO (disease surveillance)

Kathy O'Neill, WHO (health information systems)

5. Decision-support

Eric Bertherat, WHO

Madeleine Thomson, WHO

Peter Diggle, University of Lancaster

Marc LaForce, Meningitis Vaccine Project

Laurence Cibrelus, MSPH

Resource mobilization

A funding strategy will need to be developed to support the costs associated with the study teams (eg travel, participation at meetings etc). Potential funding opportunities will be identified and a project proposal will be developed for approaching donors, eg ClimDev Africa.

Roadmap

The following table shows the time frame and the activities to be accomplished by June.

Time Frame	Action
January 09	Create a study team led by Ethiopian expert
February-March	Define work plan of each of the study team by members of the study team
April	Review of plan by FMOH and CHWG-MERIT
June	Revision and Implementation of plans
Ongoing and Continuous	Mobilization of resources