

Applied Malaria Modeling Network- Zambia Chapter Presents

A Training and Planning workshop for the local chapter

Name of the core applicant(s), Institution

1. Mr. Chisulo Mwale. Affiliation: University of Zambia.
2. Dr. Sipiwe Mulenga, Affiliation: University of Lusaka.

Venue: Kenneth Kaunda Conference Centre, Lusaka. Proposed Date: 1st – 3rd July, 2024.

Address of the Organization where organiser is based: Dr. Sipiwe Mulenga, Stand No. 2374, Pangaea Office Park, Great E Rd, Lusaka.

This workshop will be led by two AMMNet members that is Mr. Chisulo Mwale (University of Zambia) and Dr. Sipiwe Mulenga (University of Lusaka). Participants will be from multiple institutions, various fields of study to link Malaria Modelers with Non-modelers.

What kind of experts are you planning to get for the panel? We are an interdisciplinary group of researchers with an interest in using empirical data to develop models to inform public health decision-making. Members of the group have a diverse range of academic backgrounds - including mathematics, statistics, ecology, biology, and clinical medicine. We collaborate extensively with academic groups in malaria-endemic countries worldwide. If you need our CVs let us know.

For clarification purposes, this event is structured in an innovative way that places Local chapter planning sessions on the first day and technical training activities on the second to third day. This workshop involves hands-on, interactive, engaging activities and exercises to facilitate planning, modeling training, collaboration, and skill development. They are designed to be dynamic and encourage participants to actively engage in their learning process, rather than solely relying on passive listening. One objective is to establish an interactive setting that enhances modeling training and retention of the training material.

The main objective of this workshop is to foster an open and respectful collaborative forum for modeling learning and knowledge-sharing with the goal of improving the quality of analytical support offered to malaria modelers. This workshop will guide the local chapter on planned activities and will allow input from chapter members. This in turn will contribute to growing the local community of malaria modelers.

The workshop will create and/or strengthen the community among local malaria modelers, analysts, and partners, including strengthening partnerships between modelers/analysts and non-modelers/non-analysts by allowing them to exchange ideas on Local Chapter activities. This will develop a sense of ownership of the local chapter by chapter members. Further, this will feed into the sustainability of the local chapter.

Institutionally, this event is supported by the University of Zambia and The University of Lusaka Centre for Global Infectious Disease Analysis, we work to inform policy and hence we engage with a wide range of public health stakeholders.

The AMMnet Zambia chapter will encourage female participation at all levels of operations. The expected outcome is increased knowledge, competence, or confidence in a female participant's particular area and set of malaria modeling techniques.

To measure effectiveness of the workshop we will use a statistical tool called Kirkpatrick model. The Kirkpatrick Model is widely known and accepted. Measuring levels 3 and 4 has become much easier in recent years with advances in data access and their ability to use analytics to measure their performance. See Fig 1. below

Level	Measure	Description
4	Results	The degree to which targeted outcomes occur as a result of the training and the support and accountability package.
3	Behavior	The degree to which participants apply what they learned during training when they are back on the job.
2	Learning	The degree to which participants acquire the intended knowledge, skills, attitude, confidence and commitment based on their participation in the training.
1	Reaction	Reaction measures “the degree to which participants find the training favourable, engaging and relevant to their jobs.”

We will use the results of standard pre- and post-training knowledge tests and basic statistics to determine if delegates have learned anything new from your training workshop.

One way of effectively measuring impact is to include those who will attend the workshop when creating the ultimate goals. By using the answers from a pre-workshop questionnaire, the attendees will influence the creation of the goals. Their answers will help set goals such as the change in skills needed, topics that should be explored, and problems that need addressing. This will then guide what questions will be asked post-workshop in order to measure the overall impact.

Once the workshop has taken place we will use the evaluation information that will be obtained using an end-point survey to measure the effectiveness of the workshop on malaria modelling skills among the workshop attendants. This will give us a clear indication on how responsive the people have been to the new knowledge.

Total Number of Expected participants is **Thirty-five (35)**

Venue: Kenneth Kaunda Conference Centre, Lusaka. 1st – 3rd July 2024

Time	Activity/Topic	Presenter/Chair/expert
Day 1 – Morning (Plenary session) 9:00am-12:30 pm Health Break 11:00 -11:30am	09:15 – 09:30am. Keynote Lightning talk- Introduction and Overview of the AMMNet Global and Local Objectives	Mr. Chisulo Mwale, University of Zambia.
	09:30 – 09:45am Presentation- Status update on formal registration of AMMNet Zambia Chapter	Dr. Siphwe Mulenga, University of Lusaka
	09:45 – 10:00am Presentation- Basic AMMNet Membership procedures for Local chapter membership	Dr. Melosheb Njenga, ZAMBART
	10:00 -10:30am Presentation- Gender equality in AMMnet Zambia Chapter 10:30 – 11:00am Open discussion on gender inclusion in Local Chapter Activities.	Mr. Chisulo Mwale, University of Zambia Dr. Kalima Kalima, University of Zambia
	11:30 – 12:00 Strategic marketing methods to increase the number of AMMNet members in Zambia (Networking Activity) 12:00 – 12:30 Open discussion on the just ended training session topic	Dr. Paul Chiuima. Malaria Supervisor- Chongwe district Council. Zambia
	LUNCH BREAK	

Day 1 – Afternoon (Break Away Session)	14:00 – 14:30pm Training Session- Training session- Use of online platforms and tools that facilitate networking and collaboration between Modelers and non-modelers.	Dr. Melosheb Njenga, ZAMBART
	14:30 – 15:00pm Open discussion on the just ended training session topic	Dr. Irene Euphrazia, USAID Zambia Health Project.
	15:00 -15:30pm ModMTD algorithm and another numerical method of interest	
	15:30 – 16:00pm Question and Answer	
Day 2 – Morning (Plenary session) Health Break 11:00-11:30am	09:00 – 09:40am Hierarchy of malaria models	Mr. Bill Mwale. University of Lusaka
	09:40 -10:00am Question and Answer session	
	10:00 – 10:40am Training session- Agent-based models/Open Malaria models	Dr. Kalima Kalima, University of Zambia
	10:40 – 11:00 Question and Answer session	
Day 2 – Afternoon Break away- small-group. Networking Activity	11:30 – 12:00am Training session- Critically assess modeling assumptions, input parameters, and model outputs for the purpose of policy planning and evaluation.	Dr. Siphwe Mulenga, University of Lusaka
	12:00 – 12:30pm Question and Answer	
	LUNCH BREAK	
	14:00- 14:40pm Training session - High-level principles of mathematical and geo-spatial modeling	Dr. Melosheb Njenga, ZAMBART
Day 3 – Morning (Plenary session) Health Break 11:00am – 11:30am	14:40 – 15:00pm Question and answer	Dr. Kalima Kalima, University of Zambia
	15:00 – 16:00pm Plenary session Presentation - Raising awareness on Malaria Modeling in Zambian Health Sector to promote female participation.	Dr. Paul Chiuima, Malaria Supervisor- Chongwe district Council. All Chapter members present
	09:00 – 09:40am Training session- Differential equations, spatio-temporal statistics for Modeling.	Dr. Melosheb Njenga, ZAMBART
	09:40 – 10:00am Question and Answer	
Day 3 – Afternoon Session Close!	10:00 – 10:40am Training session- Modeling hypothetical parametric factors influencing the dynamics of malaria transmission.	Dr. Siphwe Mulenga, University of Lusaka
	10:40 – 11:00 Question and Answer	
	11:30 – 12:10am Training session- Internet and remote sensing technologies used in Malaria Modeling	Dr. Kalima Kalima, University of Zambia
	12:10 – 12:30 Question and Answer	
LUNCH		
Day 3 – Afternoon Session Close!	14:00 -15:00pm Submit a questionnaire to participants to collect feedback. Measure of effectiveness: Administering of end point participant evaluation survey questionnaire	Mr. Chisulo Mwale, University of Zambia
	15:00 – 16:00pm Vote of thanks. Exchanging contact details and agreeing on Next meeting.	Dr. Irene Euphrazia, USAID Zambia Health Project.

MALARIA MODELLING WORKSHOP

ZAMBIA

Fiscal Year: 2024 Planned number of workshop participants 35 people

	Budget	Actuals/ Justification	
Total Budget Revenue Expected			
Applied Malaria Modeling Network (AMMnet)	\$3,000.00		\$3,000.00
Total Revenue	\$3,000.00	\$-	\$3,000.00
Expenses			
Printing, Branding & Copying	\$120.00	Printing of Attendance registers, Brochures, Pop up banners	\$120.00
Venue Rental	\$680.00	Venue Rental	\$680.00
Transport for 35 people	\$1260.00	\$12 per day 3days 35 people	\$1260.00
Food/Meals/Coffee breaks and Lunch	\$900.00	\$8 per day per person 3days	\$900.00
Miscellaneous	\$40.00	Incidentals	\$40.00
Total Budget Expenses	\$3,000.00		\$3,000.00

Budget narrative

- Printing & Copying:** We will need some stationary printed and branded banners to add value to the workshop.
- Venue Rental:** The venue rental is fixed at this amount by the property managers. This also comes with equipment such as a P.A system, screens and chairs.
- Transport:** Transportation will be provided by using a hired shuttle to transport participants from various fixed points to the workshop venue and back for three days.
- Food/Meals/Coffee breaks and Lunch:** Meals are provided by the event centre at a fixed per head price. This covers two tea breaks as well.
- Miscellaneous:** This is to offset changes in foreign exchange values that might affect our budget.

Endnote: Please do not hesitate to contact us for any clarifications. We look forward to having fruitful discussions with local chapter members during this event.