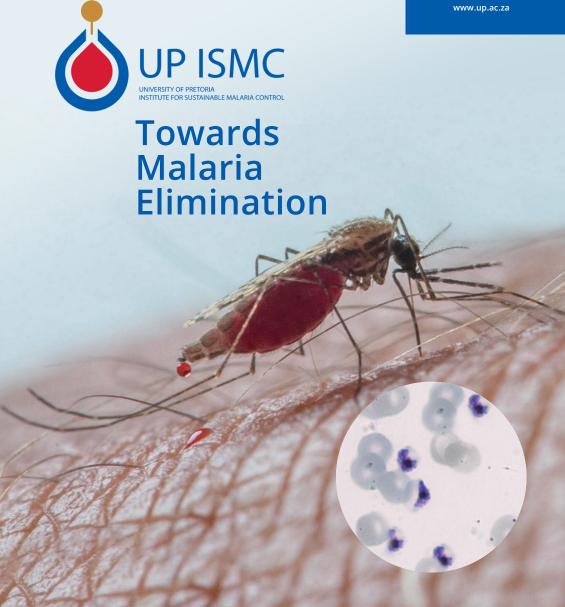
University of Pretoria Institute for Sustainable Malaria Control (UP ISMC)



Make today matter



INTRODUCTION

Malaria, a complex parasitic disease confined mostly to tropical areas and transmitted by female Anopheles mosquitoes, still kills hundreds of thousands of people annually. The disease is the result of a complex interplay between three biological systems each with its own complex life-cycle, environment, habits and pathogenesis profiles. Climatic changes and/or population movements may favour malaria transmission. To attain malaria elimination, integrated, innovative, collaborative and multi-partner research is needed for continued development of new technologies and strategies as sustainable malaria control methods. Research must translate into policy to have actual impact in affected areas and communities. Simultaneously, capacity needs to be built in malaria control programmes of endemic countries, and elimination strategies need to be strengthened.

VISION

To be a nationally and internationally known transdisciplinary research institute, making a substantial contribution towards the creation of a malaria-free Africa by:

- Employing sustainable and environmentally safe malaria parasite and vector control technologies;
- Establishing integrated vector management strategies;
- Ensuring effective malaria case management; and
- Promoting health education in affected populations.

RESEARCH

The Institute is a fully integrated, transdisciplinary and interfaculty initiative. The experts involved have established research programmes aimed at malaria elimination. Community involvement and education are addressed as part of health promotion with the aim to change community behaviour and practice.

SERVICES AND COURSES

- Malaria Vector Insectary and Laboratory

 Insecticide and repellent testing, and insecticide resistance testing.
- Malaria Parasite Molecular Laboratory
 - Screening of compounds that kill all parasite life stages, and identify druggable targets and processes in parasites.
- Leadership & management capacity building course for control programmes.
- Vector surveillance and control short course

AFFILIATIONS

Access to a global partner and stakeholder network with MOUs and active collaborations, including tertiary education and research institutions, research consortia, big pharma, industry, country ministries of health, and more...

AWARDS

- SAMRC Collaborating Centre for Malaria Research
- DSI/NRF SARChI Chair in Sustainable Malaria Control
- NRF Community of Practice in Malaria Elimination
- NSTF Award 2018 Communication

FOCUS

The UP ISMC takes an integrated approach towards safer malaria control and management, with research in three cross-cutting clusters.



SUSTAINABLE MALARIA CONTROL



HUMAN HEALTH

Case management
Public health
Environmental health

In vivo / ex vivo infection analyses
Functional genomics
Bioinformatics

Toxicology

Education
Surveillance
Epidemiology
Health promotion
Health economics

Health economics
Clinical & field trials
Community engagement
Animal modelling

GIS

Integrated Vector Management
Environmental management
Mathematical modelling
Early warning systems
Remote sensing

Remote sensing
Climate change
Toxicology



PARASITE CONTROL

Parasite biology

Anti-malarial discovery & development
Transmission blocking strategies
Parasite surveillance (epidemiology)
Related malaria-like infections

Chemical & plant control

VECTOR CONTROL

Biting behaviou
Physical methods of control
Monitoring & Evaluation
Resistance testing
Semiochemistry

External collaborators & funders (Nationally & Internationally)



The A,B,C,D OF MALARIA PREVENTION





AWARENESS

Be AWARE of the risk and symptoms





BITE PREVENTION

Avoid being **BITTEN** by mosquitoes (from dusk till dawn)





CHEMOPROPHYLAXIS

Take CHEMOPROPHYLAXIS (antimalaria medication) if prescribed





DIAGNOSIS

Early **DIAGNOSIS** and Rapid Treatment

MILD/MODERATE

SYMPTOMS

SEVERE

DO NOT IGNORE SYMPTOMS. GO STRAIGHT TO A DOCTOR



EARLY DIAGNOSIS and RAPID TREATMENT prevent deaths

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UP End Malaria









www.malaria.up.ac.za