Accelerating Malaria Elimination in Africa

PATH partners with malaria-endemic countries, the private sector, and the global community in the quest for a malaria-free world.

Over the long term, elimination is the only sustainable goal for malaria programs and is key to communities realizing optimal health, development, and prosperity. PATH pursues this goal by investing across the spectrum from developmental research to national program strategy development and support, encompassing multiple platforms and spanning the entire value chain.

One of PATH's major malaria projects, the Malaria Control and Elimination Partnership in Africa (MACEPA), has been supported by the Bill & Melinda Gates Foundation since 2005. MACEPA has partnered with multiple African nations and global agencies to develop an approach to rapidly decrease the negative health and economic effects of malaria—it is called Scale-Up For Impact, or SUFI. All-cause childhood deaths have been reduced by more than 30 percent in just two to three years through the systematic application of the SUFI approach.

In 2014, as MACEPA implements its next phase, the focus is on ambitious objectives through which:

- African countries and their partners develop strategies to progressively eliminate malaria.
- Lessons learned from these country trials are disseminated for adaption and adoption across Africa.
- Countries eliminate transmission by clearing parasites from all communities.

To achieve these objectives, MACEPA works with national malaria control programs to foster national-to-community engagement. The focus is to ensure that key national decision-makers, health care providers, local leaders, and others influential in the community understand what malaria elimination could mean to their families, their counterparts, their constituents, and their communities, and that they actively support that goal. This approach guarantees that mechanisms are in place to ensure that authority and responsibility can be taken to lead to malaria elimination locally.

STRATEGIES THAT FOCUS ON COUNTRY NEEDS

Country strategies are designed to support local decision-making and be informed by local malaria epidemiology. In general, country teams will refine program interventions, including infection prevention through vector control (such as the use of insecticide-treated bednets) and prevention of malaria in pregnancy, along with improved malaria case management—accurate diagnosis and appropriate and effective treatment. MACEPA and partners also are conducting studies on additional transmission reduction strategies—such as mass test and treat and mass drug administration. In some settings these interventions are proving to be promising

THE GOAL

PATH/Laura Newman

The goal of MACEPA is the elimination of local malaria transmission at national or subnational levels in four countries—Ethiopia, Kenya, Senegal, and Zambia—by the end of 2020.

The four country partners have been engaged because their governments are committed to malaria elimination, they span a range of transmission intensity and program infrastructure, and they vary in landscapes, populations, and cultures. This will ensure that MACEPA experience and learning will be optimally relevant to countries throughout the region.

MACEPA partnership with four countries will generate experience and evidence useful across Africa.

PATH/Laura Newman

in the creation of malaria-free zones and the promotion of national elimination. High-quality, rapid reporting systems are crucial for evaluating progress toward elimination and improving existing data management systems. The MACEPA team also works to cultivate a global enabling environment, including increasing political and financial support for the elimination agenda.

This current iteration of MACEPA is being implemented in two phases. The initial, 21-month phase (2013–2015) focuses on building a shared resource mobilization strategy with national programs, staff capacity, policy and regulatory pathways, and country-validated operational plans that will position the countries to assess the feasibility and durability of elimination of local malaria transmission.

The initial phase of MACEPA will address the key principles of achieving elimination, including:

- Strengthening national data systems as the backbone for targeting interventions and assessing progress toward elimination.
- Rapidly and simultaneously clearing all circulating asexual stage parasites in humans.
- Rapidly clearing sexual stage parasites (gametocytes) in humans so that there is no source of infection for biting mosquitoes.
- Killing existing mosquitoes that currently harbor malaria parasites (sporozoites).
- Killing or stopping uninfected mosquitoes from being able to pick up gametocytes and survive long enough to transmit sporozoites back to humans.

Evidence developed during this phase will inform improved strategies for using existing and evolving tools for national malaria elimination programs. Based on what is learned in the first phase, MACEPA will develop plans for the second phase of the project, through 2020.

FURTHER INFORMATION

For further information about malaria programs at PATH and MACEPA contact Meg DeRonghe (mderonghe@path.org)

MACEPA partners with groups implementing studies that complement our work, including:

- **THE MEDICINES FOR MALARIA VENTURE**
- **THE MALARIA ELIMINATION INITIATIVE AT THE UNIVERSITY OF CALIFORNIA, SAN FRANCISCO**
- **THE CLINTON HEALTH ACCESS INITIATIVE**
- **THE MALARIA ERADICATION SCIENTIFIC ALLIANCE,** AND A RANGE OF ACADEMIC INSTITUTIONS

SELECT READINGS

- Elizabeth Chizema-Kawesha E, Miller JM, Steketee RW, Mukonka VM, Mukuka C, Mohamed Ad, Miti SK, Campbell CC. Scaling Up Malaria Control in Zambia: Progress and Impact 2005–2008. 2010. Am J Trop Med Hyg, 83(3), 480-488.
- Steketee RW, Campbell CC. Impact of National Malaria Control Scale-Up Programs in Africa: Magnitude and Attribution of Effects. 2010. Malaria Journal 9:299.
- Chizema-Kawesha E, Miller J, Steketee RW, Mukonka VM, Mukuka C, Mohamed A, Miti SK, Campbell CC. The Components of Success in Malaria Control: The Zambia Experience. 2011. Am J Trop Med Hyg: 84:361.
- Campbell CC, Steketee RW. Malaria In Africa Can Be Eliminated. 2011 Am J Trop Med Hyg 85(4): 584–585.

See **www.makingmalariahistory.org** for a full listing of resources.