Target: Zero malaria transmission in Senegal

Exploring innovative strategies for elimination

**Malaria elimination** is an ambitious, but feasible, goal for national health systems and is key to communities realizing optimal health, development, and prosperity. PATH contributes to achieving elimination in Africa’s most at-risk populations by investing in the development of new technologies and approaches to preventing, diagnosing, and treating malaria infection, strengthening national capacity for the delivery of prevention and treatment programs and advocating at national and global levels for improved policies, practices, and investment.

PATH’s MACEPA project began partnering with the government of Senegal in 2010 to support the scale-up of national malaria control activities in line with the country’s 2011–2015 strategic plan. MACEPA provides critical technical assistance to the National Malaria Control Program (PNLP) through the development of key documents, including the Malaria Program Review, the follow-on 2011–2015 National Malaria Strategic Plan, the successful submission of a Global Fund Round 10 application, and a recent application to the Global Fund New Financing Mechanism.

**Current program goals and activities**

In 2014, MACEPA expanded from the Richard-Toll district, its original focus, to the northeastern districts of Ranérou, Linguère, and Kanel to pilot an innovative approach to reduce malaria transmission using a variety of strategies tailored specifically to the local malaria transmission stratum—from very low to moderate transmission—with the objective of clearing infections from the population and eventually stopping malaria transmission altogether.

MACEPA is currently working with the PNLP to achieve and maintain malaria elimination in northern and central Senegal. In these regions, malaria transmission ranges from very low intensity (less than 5 cases per 1,000 people each year) to moderate intensity (15 to 50 cases per 1,000 people each year). MACEPA’s strategy is anchored in a step-wise approach:

- **Step A—Accelerate scale-up for impact:** Optimize preventative vector control measures and case management.
- **Step B—Build information systems for action:** Ensure high quality and timely reporting of infections, cases, and transmission foci.
- **Step C—Community clearance of malaria parasites:** Implement population-wide strategies to reduce transmission.
- **Step D—Detect and investigate individual cases:** Apply household and neighborhood (focal) strategies to stop transmission.
- **Step E—Eliminate:** Document and maintain zero transmission.

**MACEPA is partnering with the Senegalese government to assess different malaria control strategies in areas with low-to-moderate transmission.**

The resulting data and lessons will help guide programmatic decisions to accelerate toward elimination.
Work across the spectrum of malaria transmission

The fundamentals for any malaria elimination program are strong vector control and high-quality information systems—Steps A and B. In its areas of intervention, MACEPA works closely with the PNLP to ensure these measures are in place, supporting an increase in long-lasting insecticide-treated bednet (LLIN) coverage from 33 to 79 percent in three districts and rolling out a weekly rapid reporting system at all health posts in ten districts.

Once malaria transmission has reached a moderate level (approximately 15 to 50 cases per 1,000 people each year), population-wide treatment strategies can be used to clear parasites from entire communities (Step C). In 2013 and 2014, MACEPA and the PNLP used mass testing and treatment strategies, weekly tracking of fever symptoms (PECADOM++), and case investigation to break the cycle of transmission.

In areas where malaria transmission is extremely low (< 5 cases per 1,000 people), individual case investigation, a “Step D” strategy, is a practical way to track infections before they spread through the population. MACEPA, in collaboration with community leaders, health authorities, and private companies, has implemented a case investigation strategy resulting in a significant decrease in transmission in the Richard-Toll district. Some areas of the district have not had a single malaria case within the past year. In 2015 and 2016, MACEPA will document these malaria-free areas and will aim to maintain their malaria-free status (Step E).

The fight against malaria in Senegal is strengthened by an extraordinary national mobilization effort. The Zero malaria! Count me in campaign has been engaging all levels of Senegalese society in malaria elimination, from policy makers to people living in rural communities, generating a greater understanding of the disease and strong support for malaria programs. The Zero malaria! Count me in campaign serves as a powerful platform for the PNLP to raise awareness on malaria elimination being within the reach. The campaign also works to mobilize additional resources and commitment toward elimination from the government, the private sector, traditional donors, and communities.

Planned program activities

In 2015, MACEPA, in partnership with the PNLP and local health authorities, will expand Step D work (case investigation) to the Ranérou, Linguère, and Kanel districts, as transmission is now low enough to make this approach practical.

MACEPA will also work closely with the PNLP to assess the impact of its national malaria control strategy implemented from 2011–2015 and support the development of the new national malaria elimination strategy for 2016–2020.