Malaria is endemic in Benin and everyone in the country is vulnerable. Success in meeting the Government of Benin’s target of eliminating malaria as a public health threat by 2030 depends in part on a strong health system and in part on a well-informed public willing to take appropriate action to prevent, diagnose, and treat the disease.

Behavior change communication and social mobilization implemented by the National Malaria Control Program in collaboration with ARM3 have measurably improved behaviors regarding malaria as well as public understanding of their rationale.

**ARM3 AT A GLANCE**

**DONOR:** USAID/PMI  
**PERIOD:** 2011 – 2018  
**PRIMARY OBJECTIVE:** To assist the Government of Benin (GOB) to rapidly and significantly reduce both the number of malaria cases and malaria-related mortality, as part of its efforts to bring malaria deaths to zero and eliminate malaria as a public health threat by 2030.  
**MAIN APPROACH:** ARM3 technical experts worked closely with Benin’s National Malaria Control Program (NMCP) to intensify malaria interventions and surveillance at all levels, with continuous capacity building including training, coaching and mentoring of NMCP and health-facility staff.

**SUSTAINABILITY:** The ARM3 methodology was designed for sustainability. In 2014, ARM3 transitioned from an implementing to an advisory role. The NMCP is now fully in charge of malaria interventions.  
**NATIONAL IMPLEMENTERS:** National Malaria Control Program (NMCP) of Benin with technical assistance from Medical Care Development International (MCDI), and other partners.  
**POPULATION REACHED:** Over 11 million—the entire population of Benin—in all 34 health zones.
Malaria takes an enormous toll on Benin’s population and economy. It is the leading cause of morbidity and mortality among pregnant women and children under five. In addition, the World Bank estimates that Beninese households spend 25 percent of their income on preventing and treating malaria.

Benin’s malaria strategy calls for universal use of long-lasting, insecticidal bed nets (LLIN). At project inception, Benin had already attained the highest rate of bed net use in West Africa (80 percent).

Yet national targets were not being met: health workers often found nets stored away in the house rather than hung; only 42 percent of households had one net per two people, as the malaria strategy requires; and only 70 percent of children under five were sleeping under a net (DHS 2011-12).

Other aspects of prevention, such as IPTp2, were also under-utilized.

The project’s intensive health-education and social mobilization efforts led to a dramatic rise in preventive behaviors. The challenge rapidly became maintaining success and sustainability.

**Bed nets distributed:**

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2017</th>
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<tbody>
<tr>
<td><strong>12.3 million</strong></td>
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**Households receiving at least one net per two people:**

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2017</th>
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<tbody>
<tr>
<td><strong>76%</strong></td>
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<td><strong>79%</strong></td>
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**Number of people who slept under LLIN previous night:**

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2017</th>
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<tbody>
<tr>
<td><strong>78%</strong></td>
<td></td>
<td><strong>88%</strong></td>
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</table>
BCC WORKS! SOME RESULTS:

To evaluate the BCC interventions, researchers in two administrative departments randomly sampled women visiting clinics about their knowledge and behavior. Mono-Couffo served as the control area, with no malaria programming on the radio or other BCC programs outside health facilities. Ouémé-Plateau was the intervention zone, where active BCC was practiced—on the airwaves, in community events, schools, and door-to-door.

Increasing knowledge

28% of women in the control area knew that ACT (artemisinin-based combination therapy) is the malaria treatment of choice

48% knew about ACT in the BCC area

84% of women knew how to prevent malaria (LLINs and IPTp) in the control area

93% knew in the BCC area

Changing behavior

42% of pregnant women in the control area reported having taken at least two rounds of IPTp

66% in the intervention area

82% of women with a child under five reported sleeping under a net the night before in the control area

94% in the intervention area
Through its SBCC components, ARM3 supported ambitious, nationwide NMCP behavior change campaigns for malaria prevention and timely treatment.

- **BCC support for two national bed net distribution campaigns (2014 and 2017),** with a target of at least 80 percent of the population using nets. LLINs were distributed along with malaria messages at schools; at health facilities, including antenatal and vaccination clinics; and directly to households in door-to-door visits by community health workers.

- **Message development:** ARM3 assisted the NMCP to revise and validate messages for families about the importance of:
  - Using insecticide-treated bed nets—one for each two people in the household, and particularly for pregnant women and children under five;
  - Pregnant women taking at least two rounds of IPTp at prenatal clinics;
  - Seeking testing and treatment promptly;
  - Messaging also reminded people that for pregnant women and small children, malaria testing and treatment are free of charge.

- **Mass media:** Since most Beninese rely on radio for news and entertainment, the project assisted the NMCP to develop contracts with 15 radio stations to air BCC programs, spots, and messages. The stations delivered thousands of messages, especially around the time of national LLIN distributions. Radio messages reached nearly half the population — an estimated 4.5 million people.

  Some radio stations even devised popular on-air contests where community members could test their knowledge on malaria and win prizes.

- **Training** of health workers in malaria education:
  - 2,384 doctors, nurses and other staff at health facilities trained
  - 1,214 community health workers trained

- **Social mobilization,** including festivals, infotainment, theater shows, and public discussions.

- **Developing and implementing the new National Integrated Communication Plan, 2017–2021.** ARM3 suggested modules and workshops on strategic communications planning; participatory planning and messaging with community members, and a national baseline survey of knowledge, attitudes, and practices regarding malaria.
ARM3 personnel have worked hand-in-hand with their colleagues at the National Malaria Control Program to significantly strengthen the organization so that it can meet government targets of nearly eliminating malaria by 2030.

In addition to developing standards, manuals, and trainings, ARM3 has employed an innovative capacity-building method designed to foster sustainability. ARM3 personnel, mostly Beninese themselves, are integrated into NMCP teams, and each work directly with an NMCP counterpart. ARM3 experts provide technical guidance, coaching and mentoring to their counterpart as needed—an extremely effective form of capacity building. NMCP staff frequently note improvements in confidence as well as technical skills.

Thanks to the vision and concerted efforts of both ARM3 and NMCP personnel, the NMCP is now fully in charge of implementing malaria interventions throughout Benin. In 2014, ARM3 transitioned into an advisory, rather than an implementing, role.
Within four months—between June and September 2017 — malaria cases and mortality both fell significantly (based on project reports).

### All confirmed malaria cases
- **June**: 26,755
- **September**: 6.6 million

### Malaria-related deaths
- **June**: 105
- **September**: 23

### Mortality rate
- **June**: 2%
- **September**: 1.5%

**ARM3: Behavior Change Communication**
THE EMERGENCY PLAN FOR ATACORA: PREVENTION BEHAVIORS STEP UP TO REPLACE RESIDENTIAL SPRAYING

The NMCP, with partners, had conducted indoor residential spraying (IRS) against mosquitoes since 2011 in many parts of the country. However as priorities shifted, spraying was discontinued in the northwest department of Atacora in 2017. Atacora had previously received annual chemical treatment for approximately 270,000 homes and other structures in 800 villages, and benefitting over 800,000 people.

Malaria typically rises rapidly to pre-spray levels when IRS ceases. To nip the resurgence in the bud in Atacora, the NMCP, in close collaboration with ARM3, developed and swiftly implemented an emergency prevention plan (see “confirmed malaria cases” graph below for the progression in outbreaks after IRS stopped and then when other prevention efforts stepped up).

In fact, ARM3 took this as an opportunity to demonstrate that malaria can be widely prevented without mass spraying of chemicals. The NMCP’s emergency response with ARM3 included many BCC elements, such as:

- **Mass media**: Short-term contracts with three local radio stations to deliver messages in various formats and languages, including soap operas, personal narratives, and game shows on malaria facts;
- **Materials for malaria education**: Guides and manuals as well as posters, flyers and T-shirts widely distributed to health professionals and the public;
- **Production and distribution of relevant music CDs** by popular Beninese artists;
- **Community mobilization with theater performances, other public events, and town criers, at health facilities, schools, and beyond**;
- **Training of hundreds of village chiefs, government officials, and religious leaders** in how to inform their constituents;
- **Training of 120 health professionals in public communication and malaria education**;
- **Door-to-door visits by trained community health workers**.

![Confirmed malaria cases (uncomplicated and severe) in 10 health facilities surveyed in Atacora in 2015, 2016, and 2017](image)
ARM3: Behavior Change Communication

www.mcdinternational.org

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OVERALL RESULTS

The community-based case management system contributed significantly to overall results of ARM3:

- **PREGNANT WOMEN WHO RECEIVED IPTp2, 2011**: 23%
- **PREGNANT WOMEN WHO RECEIVED IPTp2, 2017**: 67%
- **MALARIA-RELATED MORTALITY RATE, 2011**: 12%
- **MALARIA-RELATED MORTALITY RATE, 2017**: 1%

ACKNOWLEDGEMENTS

ARM3 and MCDI would like to thank the many dedicated staff and consultants who have contributed their time and expertise to the Accelerating the Reduction of Malaria Morbidity and Mortality project.

We recognize the Ministry of Health in Benin for its close partnership in making ARM3 an outstanding and sustainable success.

Finally, we gratefully acknowledge the support of USAID, PMI, and the American people for funding this important project, with special recognition to the USAID Benin Country Office for its dedication to strengthening the health system and improving the health of the people of Benin.