

Côte d'Ivoire MBS Brief

What Do the Data Mean?

Introduction

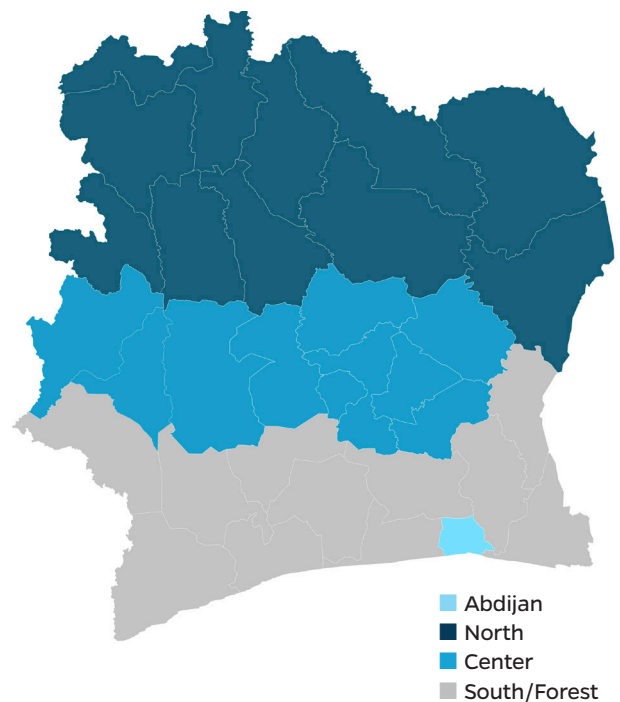
With funding from the U.S. President's Malaria Initiative, the Breakthrough ACTION project, managed by the Johns Hopkins Center for Communication Programs, collaborated with the Côte d'Ivoire National Malaria Control Program and other stakeholders to implement a Malaria Behavior Survey (MBS) on the psychosocial determinants of malaria-related behaviors from a representative sample of households. The study, fielded in four geographic zones during the 2018 rainy season (September–November 2018), used a cross-sectional survey with structured questionnaires administered to a random sample of women (15–49 years old) and men (18–59 years old) of reproductive age.

The goal of this study was twofold: to provide a better understanding of the sociodemographic and ideational characteristics associated with malaria-related behavioral outcomes in Côte d'Ivoire and to determine the appropriate focus of social and behavior change (SBC) programmatic activities.

What do the data mean?


For each intervention area, this MBS brief summarizes the key implications and recommendations for SBC activities informed by the psychosocial factors measured in the survey. Statistically significant correlations from multiple-regression analysis, when available and appropriate, form the basis of the recommendations. Regression results are reported across all zones when statistically significant, and when applicable, also at the lowest geographic zone for which they are statistically significant. The full and detailed results of the MBS can be found in the [Côte d'Ivoire survey report](#).

Côte d'Ivoire MBS Study Zones



Breakthrough ACTION collected information from:

 **5,969 households**

 **8,679 individual respondents**
(6,749 women and 1,930 men)



U.S. President's Malaria Initiative

Breakthrough
ACTION



Case Management

BEHAVIORS AT-A-GLANCE

Of the reported 23% of children under five years of age with fever within the two weeks prior to the survey:

90%

of caretakers sought care for the children



63%

of reported febrile children under five were brought to a health facility or community health worker (CHW) first, and on the same day or the day after the fever began; this varied by zone

Abidjan **71%**
North zone **62%**

Center zone **64%**
South zone **55%**



Timely care was more prevalent in **urban** than **rural** areas and among **wealthier** households



SBC RECOMMENDATIONS

1 Continue to promote prompt (same/next day) care seeking from qualified providers, including CHWs, for children with fever. There is room for improvement on this behavior, especially in the South zone (at 55%). To be effective, activities, especially outside of Abidjan, can:

- **Position immediate care seeking as a community norm.** The perception that immediate care seeking is the norm in the community was associated with a **90% (p<.001) greater likelihood** to immediately seek care at a health center or CHW across all zones. This factor is especially significant in the North and Center zones.
- **Promote and maintain a positive attitude.** Women with favorable attitudes toward timely care seeking were **80% (p<.001) more likely** to bring their child with fever within 24 hours to a health center or CHW across all zones. This factor is especially significant in the Center and South zones.
- **Promote spousal dialogue about malaria.** Women who discussed malaria with their spouse were **54% (p<.05) more likely** to bring their child with fever within 24 hours to a health care facility or CHW across all zones.
- **Support availability of antimalarials in health facilities.** The perception that antimalarial drugs are available in health centers was associated with a **2.4-fold (p<.1) increase** in immediate care seeking in the North zone, a **twofold (p<.05) increase** in the Center zone, and a **44% (p<0.1) increase** across all zones. Influencing this perception is an area of work for partners in service delivery, health provider behavior, logistics/supply chain, and social and behavior change communication (SBCC).

2 Reinforce knowledge about artemisinin combination therapy (ACTs) as the proper treatment for malaria. Information in need of strengthening includes:

- **Knowledge of ACTs.** While **98% of women** who reported a positive malaria test for their child under five with fever in the previous two weeks received some form of treatment, **only 42% reported** that the treatment was an ACT, and many did not know what the treatment was.

3 Improve understanding of malaria diagnostic test results:

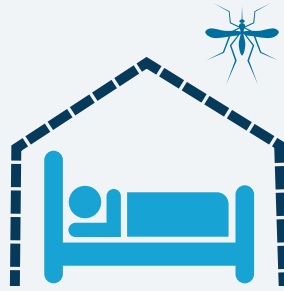
- **Clarify actions to take if test result is negative.** About **85% of respondents** reported that a blood test to confirm malaria is the only way to know if someone really has malaria; however, **as many as 32% of women** said they believed malaria drugs should always be taken even if the malaria test results indicate the fever is not caused by malaria.

Insecticide-Treated Nets

BEHAVIORS AT-A-GLANCE

The **use:access ratio** indicates the ratio of people who slept under an insecticide-treated net (ITN) the previous night (use) to people who could have slept under a net, assuming each net in the household provides access for up to two people (access).

The use:access ratio for all zones combined was **0.78**. The lowest ratio was in Abidjan at **0.49**, compared to **0.89** in the North, **0.91** in the Center, and **0.92** in the South.



63%

of the available ITNs observed within a household were reportedly used **consistently** (every night in the previous week), and varied by zone:

Abidjan **40%**
Central **69%**

North **70%**
South **67%**

Of all ITNs found in the household:

22%

were stowed away (either in packaging or not), which is not a recommended behavior

45%

were suspended and tied up

31%

were suspended, not tied up, and vulnerable to damage



55%

were reported as having been washed or dried in the sun



SBC RECOMMENDATIONS

Regression results for consistent net use control for number of nets in the household.

1 Continue to promote consistent net use every night and throughout the year to maintain current users and encourage others with access to use ITNs every night. With only 63% of nets in the household being used every night, there is room for improvement. To be effective, in addition to increasing access to ITNs in households, activities can:

- **Strengthen self-efficacy (the belief that one can perform a behavior).** Those reporting high levels of self-efficacy to use mosquito nets were **6.6 (p<.001) times** more likely to use ITNs every night than those who did not, across all zones.
- **Promote a positive attitude toward ITN use.** Those who reported a positive attitude toward the use of ITNs were **2.7 (p<.001) times** more likely to sleep under a net every night than those who did not, across all zones. One way to support a positive attitude is to promote a good night's sleep under an ITN.
- **Promote spousal and interpersonal communication about malaria.** Spousal communication **increases the odds of consistent net use by 29% (p<.01)** and was especially significant in the Center zone. Similarly, the odds of consistent net use were **higher by 26% (p<.01)** among those who discussed malaria with others compared to those who did not, and was especially significant in the North zone.
- **Position ITN use every night as a community norm.** The perception that sleeping under an ITN is the norm in the community was associated with a **16% (p<.05) overall likelihood** to sleep under an ITN every night, with a **34% (p<.05) increase** in the Center zone.
- **Correct misinformation about malaria.** Outside of Abidjan, those who mentioned at least one incorrect cause of malaria were **20% (p<.01) less likely** to sleep under an ITN every night, compared to those who did not mention any incorrect causes of malaria.
- **Promote effectiveness of bed nets for malaria prevention.** Although using an ITN was widely acknowledged as a method to prevent malaria (83.9%), just **over 35%** of those surveyed also believed one is equally likely to contract malaria whether or not they use an ITN.
- **Continue using mass media.** Outside of Abidjan, reported recent exposure to malaria messages on the media was associated with **40% (p<.001) greater likelihood** of sleeping under an ITN every night.
- **Promote hanging of nets already in homes.** Of the ITNs **not** used every night, most (77%) had never been hung by the household.

2 Promote net care behaviors to increase the useful lifespan of available nets; these behaviors are moderately practiced:

- **Increase knowledge about and promote net care practices.** 31% of all ITNs were found suspended in such a way that exposed them to significant damage. Additionally, 55% of washed ITNs were dried in the sun, which can deplete the insecticide at a faster rate.
- **Leverage and maintain self-efficacy for net care.** Most respondents (89% of men and 89% of women) believed steps can be taken to maintain an ITN.

3 Consider different strategies for ITN use in Abidjan:

- Across all indicators of ITN utilization, use in Abidjan was considerably lower than the rest of the country, which may be due to improved housing and greater access to other mosquito prevention methods, such as air conditioning. **Efforts to increase ITN use in Abidjan should prioritize populations with highest parasitemia rates and risk of malaria.**
- Consistent ITN use among Abidjan respondents was related to having a **positive attitude toward net use** (4.2-fold (p.001) increase) and **perceived self-efficacy to use ITNs** (6.6-fold (p<.001) increase). In Abidjan, only 67% of respondents perceived they had the self-efficacy to use an ITN; increasing perceived self-efficacy for net use is vital for malaria SBC efforts in Abidjan. Effectively doing this may require additional information about specific populations in Abidjan more vulnerable to malaria.

ANC and Intermittent Preventive Treatment During Pregnancy

BEHAVIORS AT-A-GLANCE

Of the **91.4%** women surveyed who reported a pregnancy during the two years preceding the survey:



91%

reported attending at least one antenatal care (ANC) visit

75%

reported attendance at four or more ANC visits (national recommendation)

86%

reported receiving at least one dose of intermittent preventive treatment during pregnancy (IPTp)



53%

reported receiving three or more doses of IPTp (national recommendation), with **lowest rates among women aged 15-24 years (47%)**



SBC RECOMMENDATIONS

1 Increase knowledge about IPTp, particularly the number and timing of doses of sulfadoxine-pyrimethamine (SP) to be taken during pregnancy.

Activities can:

- **Increase knowledge.** While knowledge of ANC is high, only **25% of women** know a woman must receive SP at least three times during pregnancy (IPTp3+). Only **9% of women** believe SP can be taken on an empty stomach without any problems.

2 Emphasize the importance of starting ANC early in pregnancy. Interventions promoting ANC remain relevant and should focus on the number of ANC visits, the recommended time for the first visit, and the importance of IPTp being given to all pregnant women to prevent malaria. To be effective, activities can:

- **Promote early ANC.** As many as **41% of women** and **37% of men** believe a pregnant woman must wait a few months before first consulting a health worker, indicating room for improvement of perceptions of early ANC.
- **Specifically target young women for early ANC and IPTp3+.** Women aged **15 to 24 years** had the lowest levels of IPTp3+ at **47%** compared to women aged **35 to 44 years** at **58%**.

3 Emphasize the importance of male involvement in antenatal care and communication between spouses regarding ANC. Interventions can:

- **Promote inter-spousal dialogue about malaria.** Women whose husband accompanied them to ANC were **twice as likely to obtain at least four visits** compared to those whose husband did not accompany them ($p < 0.001$). Only **35% of men** reported they accompany their wives for ANC. Similarly, only **34% of couples** reported jointly deciding to attend ANC.

4 Take advantage of high self-efficacy, and promote attitudes and community norms favorable to ANC and SP. Programs can:

- **Promote a positive attitude.** Attitudes toward ANC and IPTp are mixed. Only **57% of women** and **61.4% of men** had positive attitudes toward ANC/IPTp.
- **Capitalize on high existing self-efficacy.** **75% of women** surveyed believed they could take all six relevant actions¹ related to self-efficacy to attend four ANC visits and receive at least three IPTp doses.
- **Sustain and increase community norms.** **70% of respondents** believed the use of malaria-prevention drugs by pregnant women is the norm in their community.

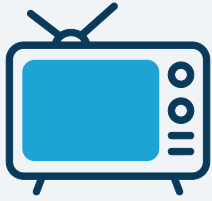
5 Emphasize that SP is provided free of charge at ANC visits. Many women pay for SP doses from a pharmacy. Activities can:

- After confirming SP availability in relevant health facilities, **increase community demand for free SP at health facilities.** More than a quarter (**27%**) of women reported receiving their doses of SP in a pharmacy, while SP is available for free in health facilities.

¹ The following actions relate to self-efficacy to attend four ANC visits and receive at least three IPTp doses: I can go to prenatal consultation as soon as I think I'm pregnant; I can convince my husband/partner to accompany me to the prenatal clinic; I can go for at least four prenatal consultations in a prenatal clinic; I can go to prenatal consultation even if my religious leader disagrees; I can take preventive treatment for malaria at least three times during pregnancy and I can ask for medicines that help prevent malaria when I go to the prenatal clinic.

Media Habits and Channels

AT-A-GLANCE



94%

of households in Abidjan and about **67%** in the other zones **own a television**

77%

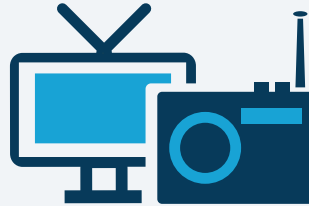
of respondents, both with and without a TV, **reported watching television at least once a week; 92%** watch television programs **regularly**

58%

of households **own a radio**, with some regional differences:

Abidjan **65%**
North **60%**

Central **57%**
South **53%**



Television (66%) and radio (22%) were the most frequently cited sources of exposure to malaria messages, with few (6%) mentioning billboards or posters



More men than women, and more people in Abidjan than in the other zones, reported exposure to malaria messages

For both men and women and in all zones, **television was the most common source of malaria messages**



MEDIA RECOMMENDATIONS

1 Ensure that women, rural residents, people under 25 years of age, poorer households, and people with low educational levels are priority groups for receiving SBC messages on malaria, given their vulnerability, role in the household, and/or lower uptake of behaviors.

- Overall, only **41% of respondents** heard a message about malaria in the past six months through mass media, interpersonal channels, and/or community events.

2 Radio exposure is unlikely to reach many; television should be considered as the preferred channel for all target groups, in all areas. To maximize reach for mass media (especially in Abidjan), adopt a multi-channel approach and consider additional media (apart from radio and television) to reach youth, women, and the poor.

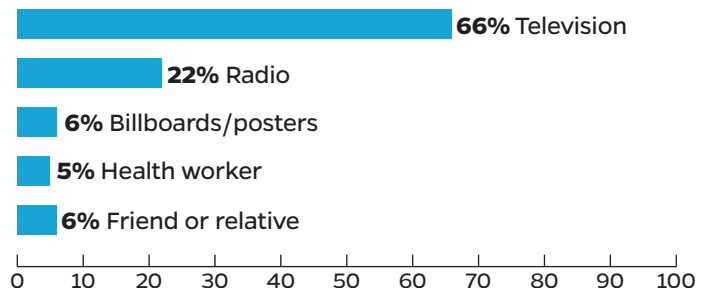
3 Early evening is the best time to reach younger women through television, while late evening is better for men and for people aged 35 and above. Radio is best broadcast in the morning for those aged 35 and above and in the evening for those under 35.

- Nearly half of men** compared to about a **quarter of women** said they preferred to listen to the radio in the early morning.
- Few men and women** prefer to listen to the radio in the afternoon or at night.
- There are differences between age groups, as **preference for radio in the mornings increased with age** while **preference for the evening decreased with age**.

4 Further research is needed to determine the most relevant additional approaches for reaching each audience, including social media² and mobile technology as well as targeted social mobilization. Existing platforms, such as CHWs, can also be leveraged to increase exposure.

- Only **5% reported** hearing messages about malaria from a health worker, while **6% reported** hearing messages from a friend or relative.
- Populations with more access to television tend to have more access to mobile technology

Sources of malaria messages



Note: Participants could select multiple options

² Social media usage was not measured in this survey.