Zambia MBS Brief: Executive Summary

What Do the Data Mean?

INTRODUCTION

The 2022–2026 Zambia National Malaria Elimination Strategic Plan emphasizes social and behavior change (SBC) as a primary intervention to encourage the uptake and correct use of commodities and interventions. With funding from the U.S. President's Malaria Initiative, the Breakthrough ACTION project collaborated with the Zambia National Malaria Elimination Center and other stakeholders to implement a Malaria Behavior Survey (MBS).

The MBS is a standardized survey that has been implemented in 13 countries. In Zambia, the behaviors examined included net use, net care, prompt and appropriate care-seeking, antenatal care (ANC), receipt of intermittent preventive treatment of malaria in pregnancy medication (IPTp), and acceptance of indoor residual spraying (IRS). Data on respondents' exposure to malaria messages and media habits were also collected.

The study provides crucial information for designing effective SBC programs. The study, fielded in Luapula, Northern, Muchinga, and Eastern provinces in April and May 2024, used structured questionnaires administered to a random sample of residents. The analysis used robust statistical methods to identify the factors most associated with practicing the desired behaviors.

The survey sample included:

1,325 households

2,045 individuals
1,593 women
452 men

WHAT DO THE DATA MEAN?

This MBS brief summarizes the proportion of the population practicing a variety of recommended malaria behaviors and the demographic and psychosocial factors associated with practicing them. All results cited from logistic regressions are statistically significant at the $p<0.05$ level or less. The brief also uses these results to present recommendations for SBC programs for each of the malaria intervention areas. A complete report is available on the MBS Website.

PMI U.S. PRESIDENT'S MALARIA INITIATIVE
LED BY USAID FROM THE AMERICAN PEOPLE

Breakthrough ACTION FOR SOCIAL & BEHAVIOR CHANGE

Breakthrough ACTION is funded by the U.S. Agency for International Development (USAID) and U.S. President's Malaria Initiative under the terms of Cooperative Agreement No. AID-OAA-A-17-00017.

Malaria Case Management

BEHAVIORS AT-A-GLANCE

Among caregivers of children under five years of age with fever within the two weeks prior to the survey:

92%

of female caregivers with a febrile child under five sought care from a health facility or community health worker (CHW) first (appropriate care).

85%

of female caregivers sought care on the same or next day (prompt care).

84%

of caregivers sought both prompt and appropriate care for a child with fever.

SBC RECOMMENDATIONS

1 CHALLENGE: Maintain and increase prompt and appropriate care-seeking. At 84%, the rate of prompt and appropriate care-seeking—defined as seeking treatment the same day or the next day following fever onset for a child under five at a health facility or from a CHW—is high for the MBS survey area, compared to historic nationwide rates. However, 16% of caregivers did not seek prompt and appropriate care. To improve this, SBC activities can:

- **Improve knowledge of care-seeking recommendations.** Respondents with a comprehensive knowledge of care-seeking were **3.8 times more likely** to seek prompt and appropriate care. SBC programs should consider reinforcing the three key components of comprehensive knowledge: when to seek care, where to seek care, and the importance of malaria testing for diagnosis.

- **Normalize prompt and appropriate care-seeking.** Respondents who believed that people in their community sought care on the same day or the day after they developed a fever were **2.3 times more likely** to seek prompt and appropriate care. This suggests that SBC programs should promote the perception that prompt care-seeking is the norm, particularly among urban populations where this belief is less common. Testimonials from trusted opinion leaders and peers can highlight that most caregivers from these groups do, in fact, seek prompt treatment. SBC programs can leverage mass and digital media approaches since televisions, radios, and phones are widely used by these groups.

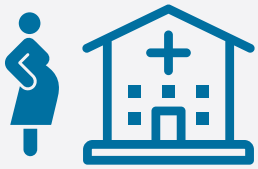
- **Increase attention to urban populations.** Although health services tend to be more geographically accessible in urban areas, urban respondents were **48% less likely** to seek prompt and appropriate care compared to rural respondents. Fewer urban respondents believed people in their community seek care on the same or next day following a fever (**80%** urban versus **85%** rural), seek a malaria test (**82%** versus **88%**), and believe that malaria treatments were effective (**53%** versus **64%**). SBC programs targeting urban caregivers can leverage the higher rates of radio, TV, and mobile phone use in urban populations. Messaging should normalize prompt and appropriate care-seeking in urban areas, emphasize the importance of malaria testing for all fevers, and, to counter skepticism about its efficacy, clarify that malaria treatment is highly effective when given early.

Antenatal Care and Intermittent Preventive Treatment During Pregnancy

BEHAVIORS AT-A-GLANCE

Of the women surveyed who reported a pregnancy during the previous two years:

ANC attendance



99%
attended at least one ANC visit.

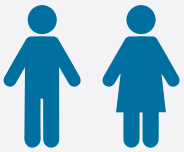
89%
had 4 or more ANC visits.

IPTp doses

99.6%
received at least one dose of IPTp.

87%
received at least 3 doses of IPTp.

Early ANC initiation



67%
started ANC in their first trimester.

87%
intend to start ANC early during a future pregnancy.

SBC RECOMMENDATIONS

1 CHALLENGE: Only 67% of pregnant women started ANC in the first trimester, though 87% intend to do so during a future pregnancy. With Zambia shifting its emphasis from at least three to four or more doses of IPTp, addressing the large gap between early ANC behavior and intention would create more opportunities for women to attend ANC and receive IPTp. To do so, SBC programs can:

- **Strengthen confidence in the need for ANC, even among healthy women.** Women with favorable attitudes toward malaria in pregnancy treatment (e.g., IPTp) were **3.89 times more likely** to attend ANC at least four times in a future pregnancy. However, only **15%** of respondents disagreed with the statement that if a pregnant woman feels healthy, she does not need to see a health provider. SBC programs can emphasize that early and frequent ANC is essential for both mother and baby, regardless of how healthy a woman feels. Messaging should highlight that malaria can be asymptomatic while still posing serious risks during pregnancy.

- **Reinforce the belief that starting ANC early is standard practice.** Women who believed that most women in their community start ANC in the first trimester were **2.2 times more likely** to start ANC early. Since most women (67%) already practice this behavior, SBC programs can highlight the fact that this is a common, recommended, and beneficial behavior.

- **Increase knowledge of malaria in pregnancy recommendations, particularly knowledge that ANC visits should begin during the first trimester.** Women who were knowledgeable about malaria in pregnancy recommendations were **2.15 times more likely** to intend to attend ANC at least four times during a future pregnancy and **1.90 times more likely** to intend to start ANC during their first trimester. However, knowledge of when a pregnant women should go to ANC for the first time was low among respondents **(52%)**. Similarly, only **76%** knew how many times a woman should receive IPTp during a pregnancy.

- **Foster trust in ANC services.** Women who perceived that most ANC providers treat women with respect were **1.86 times** more likely to intend to initiate ANC early in a future pregnancy. Many respondents thought if a pregnant women goes to a health facility without her husband/partner for ANC, the health provider would send her away **(62%)**. One-third **(37%)** of respondents believed that a health provider would only give a pregnant women the medicine to prevent malaria if she had eaten beforehand. Sharing testimonials and demonstrating positive ANC experiences can build trust in ANC services and encourage early ANC.

Insecticide-Treated Nets

BEHAVIORS AT-A-GLANCE

Net access[1]

1.1

was the use-to-access ratio in the Zambia MBS survey area. Among those with access to a net in their household, nearly all are using them. Additionally, this means households are using ITNs to protect more than two people per net.

Consistent use

86%

of respondents reported using a net every night of the week ("consistent use"). Women (85% versus 89% of men) and urban residents (80% versus 88% for rural) were less likely to use a net consistently.

Net care

53%

of all ITNs found in households were hung and tied over the sleeping space. This increases the longevity of ITNs.

66%

of ITNs had been washed with detergent or bleach.

40%

were dried in the sun, which can reduce insecticide effectiveness.

SBC RECOMMENDATIONS

1 CHALLENGE: Increase access to nets. While net use is high among those with access, overall access remains limited, with only 69% of the population having access to a net.

- **Use SBC to support the sustained acquisition of and access to nets.** SBC can promote household participation in mass and continuous distribution efforts and can encourage households to redistribute excess nets to other family members or neighbors with no nets. Similarly, strategic advocacy efforts are needed to mobilize government agencies, donors, and community and private sector leaders to prioritize the procurement and equitable distribution of ITNs.

2 CHALLENGE: Promote net care behaviors to increase the longevity of available nets. Room for improvement in easily adoptable net care behaviors is ample.

- **Promote ITN care through health facility staff and by SMS/chat/email.** Respondents who reported hearing a malaria message from a health facility and SMS/chat/email are **1.37 and 1.79 times more likely** to tie or fold up a net when not in use. The results suggest that facility-based and digital communication channels can effectively encourage net care behaviors.
- **Improve attitudes toward the use of mosquito nets.** In survey provinces, those who view nets positively **were 1.48 times more likely to** take care of them. In the MBS, sizable proportions of respondents appeared to have reservations about using nets in warm weather **(20%)**, unfolding the net every night **(25%)**, the smell of the net **(20%)**, and the safety of ITNs **(26%)**. SBC programs should consider specifically addressing these concerns.

3 CHALLENGE: While the net use-to-access ratio suggests that the population values using nets, the consistent practice of the behavior can be improved. Fourteen percent (14%) of respondents did not consistently use an ITN, defined as sleeping under an ITN every night of the week preceding the survey. To address this, SBC programs can:

- **Leverage health providers as effective messengers.** Those who reported hearing malaria messages from a health facility were **1.69 times more likely** to use a net every night. While SBC programs can continue encouraging providers to counsel clients about net use and net care, their limited reach within the health facility context can be expanded by featuring providers on mass and digital media.

[1] The use-to-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).

Indoor Residual Spraying

BEHAVIORS AT-A-GLANCE

Among respondents who reported that their households had been offered indoor residual spraying (IRS):

89% are willing to accept IRS in the future if offered.

85% of respondents trust spraying the inside walls of a house is an effective method to prevent malaria, whereas

99% of respondents trust ITNs.

SBC RECOMMENDATIONS

1 CHALLENGE: Sustain the high percentage of the population willing to accept IRS. Experience in other countries has shown that this can decrease with time. SBC activities can:

- **Improve attitudes toward IRS.** MBS results show that one in four respondents have concerns about IRS. Only **74%** agreed with the statement: "The benefits of having my house sprayed is worth the effort needed to move my belongings out so it can be sprayed." Only **76%** disagreed with the statement: "Many people develop skin problems (rashes, itching) after the walls inside their houses are sprayed with insecticide." SBC programs should provide clear information to address misconceptions about IRS, emphasizing that skin problems are not caused by IRS, and the benefits outweigh the effort involved.

- **Increase the population's confidence in their ability to practice IRS-related behaviors.** Related to the attitudinal beliefs described above, **83%** of respondents believe they can move furniture in preparation for spraying. SBC programs can increase perceived self-efficacy by providing practical strategies and encouraging communities to work together. SBC activities should begin as soon as IRS focus areas are identified so communities can anticipate and prepare for potential obstacles.

- **Strengthen trust in the effectiveness of IRS.** While **99%** of respondents believe ITNs are effective at preventing malaria, only **85%** agree that "spraying the inside walls of a house is an effective way to prevent malaria." SBC programs can highlight the effectiveness of IRS by sharing data from local and national malaria control efforts, demonstrating reductions in malaria cases in areas where IRS has been implemented. They can also show testimonials from community members who have experienced the benefits of IRS firsthand, as well as endorsements from local health officials, health providers, and opinion leaders.

Media Habits and Channels

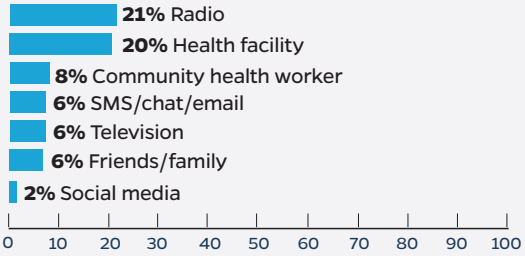
BEHAVIORS AT-A-GLANCE

48%
had heard a malaria message in the six months before the survey.

77%
own a mobile phone or tablet.

48%
listen to the radio at least once per week.

Sources of malaria messages



Note: Participants could select multiple options

25%
watch TV at least once a week.

4 pm to 8 pm
is the best time to reach both men and women through both TV and radio.

MEDIA RECOMMENDATIONS

- **Use a multi-channel strategy that includes mobile phones, radio, and television.** Only **25%** and **48%** of respondents, respectively, watch TV and radio at least once a week. While **77%** own a phone, very few had seen or heard a malaria message from social media **(2%)** or SMS/chat/email **(6%)** in the preceding six months. This suggests radio and TV alone would not reach a critical mass of the population and that mobile phones are underutilized. A multi-channel strategy can expand the reach and strengthen recall of malaria messages.

- **Ensure malaria messages air between 4 to 8 p.m.** One-half of radio **(47%)** and TV **(49%)** audiences tune in between 4–8 p.m., making this a key window for reaching large audiences. However, to maximize reach and reinforce messaging, SBC programs should consider additional airtime to engage different audience segments throughout the day.

- **Use mass and digital media to leverage the influence of health workers and promote positive perceptions of malaria services.** MBS results suggest that health providers can play a critical role in malaria SBC in Zambia. Exposure to malaria messages from health facility providers is linked to more consistent net use and care, and positive perceptions of providers increase the likelihood of early ANC initiation. In addition, **20%** of respondents already report seeing or hearing malaria messages from a health facility. However, providers interact with a limited number of clients every day. SBC programs can amplify providers' influence by using mass and digital media to increase trust in health services and reach audiences beyond clinic settings.