

The effect of a radio campaign on prompt care-seeking and testing for children with fever: insights from northwestern Nigeria

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Presenter: Foyeke Oyedokun-Adebagbo

Co-Authors: Mathew Okoh, Ian Tweedie, Edet Ekpo, Angela Acosta, Gabrielle Hunter, Olusola Adeoye, Olubunmi Ojelade, Linda Osaji, Shittu Abdu-Aguye, Bolatito Aiyenigba, Paul L. Hutchinson, Jules Mihigo, Veronica Momoh, and Owoya Samuel



Background: Malaria in Nigeria

25%



of malaria cases worldwide
are in Nigeria

60%



In Nigeria, it is the leading
cause (60%) of outpatient
visits and 35% of deaths in
children under 5

480 billion



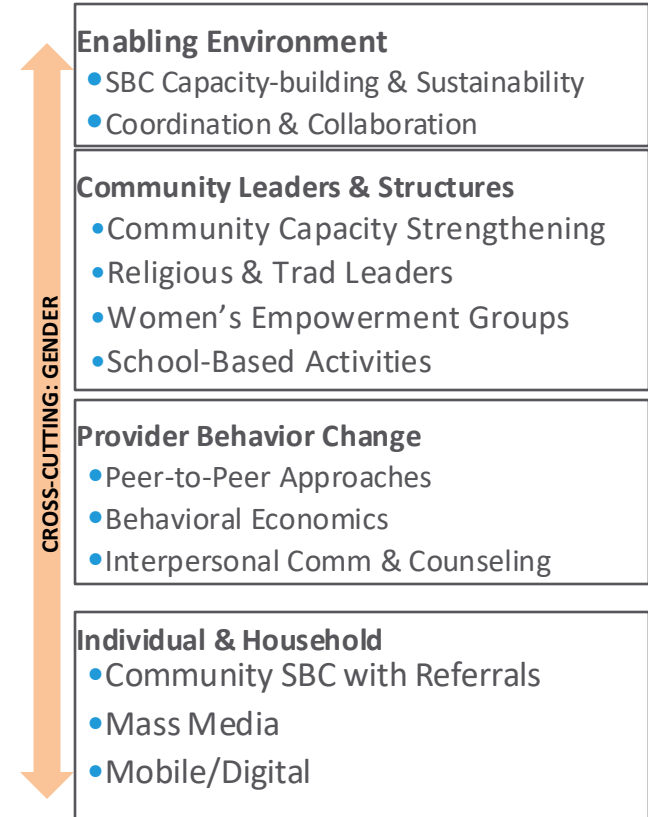
Costs in Nigerian naira in
out-of-pocket expenditures
and lost work hours annually

Prompt and appropriate diagnosis and treatment are critical to mitigating these impacts.

This study explored the contributions of an SBC campaign on prompt care-seeking and testing.

Breakthrough ACTION-Nigeria (BA-N) Project

17 Priority Behaviors Across Multiple Health Areas



The “Mama Put” Fever Care Campaign

- Malaria Focus behaviours included...
 - Prompt and appropriate care-seeking and fever testing
- As part of a suite of interventions, a fever care campaign was designed
 - Airing just before and during rainy seasons/peak malaria transmission periods
- Three campaign concepts were developed and pretested
 - Urban and rural 25–45-year-old men and women with children under 5
- The final design featured a well-loved restaurant owner (“Mama Put”) portrayed by a famous Nigerian actress
 - “Mama Put” deployed humor and role modelling
 - Pointed out common attitudes that hinder prompt care-seeking and malaria testing e.g. downplaying childhood illnesses as “ordinary fevers”.
- Three radio spots were developed and aired in 11 states.
 - In the three states featured in this analysis (Kebbi, Sokoto, and Zamfara), spots were aired **25,210 times** across 10 radio stations between March 2021 and September 2022 (18 months)

Mama Put
Correct Sense Fever Treatment



**Receive sense o...
Do am correct!**

Correct Sense Malaria Treatment

✓ Do test

✓ If na malaria

✓ Finish ya medicine

✓ If no be malaria nko

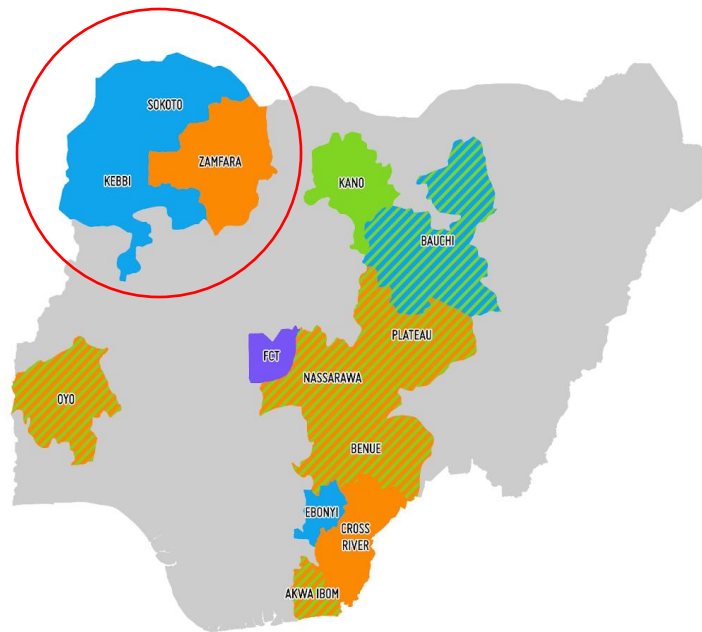
✓ Your health worker go tell you wetin to do

Sample “Mama Put” spot

https://www.youtube.com/watch?v=9cN4iGI6_6Q&list=PLbrF5LQrpysZMNCkwcPzzgYwZd8w1Tm6Q&index=3

Methods

- This was a secondary analysis that utilized existing data from the Breakthrough RESEARCH Behavioral Surveillance Endline Survey.
- The household survey was conducted in three states (Sokoto, Kebbi, Zamfara).
- The total sample for the endline survey included 3,144 women with a child under the age of 2 years.
- Data collection: October 1 – November 10, 2022
- Only respondents with a child who had a fever in the two weeks before the survey were included in this analysis (n=901).



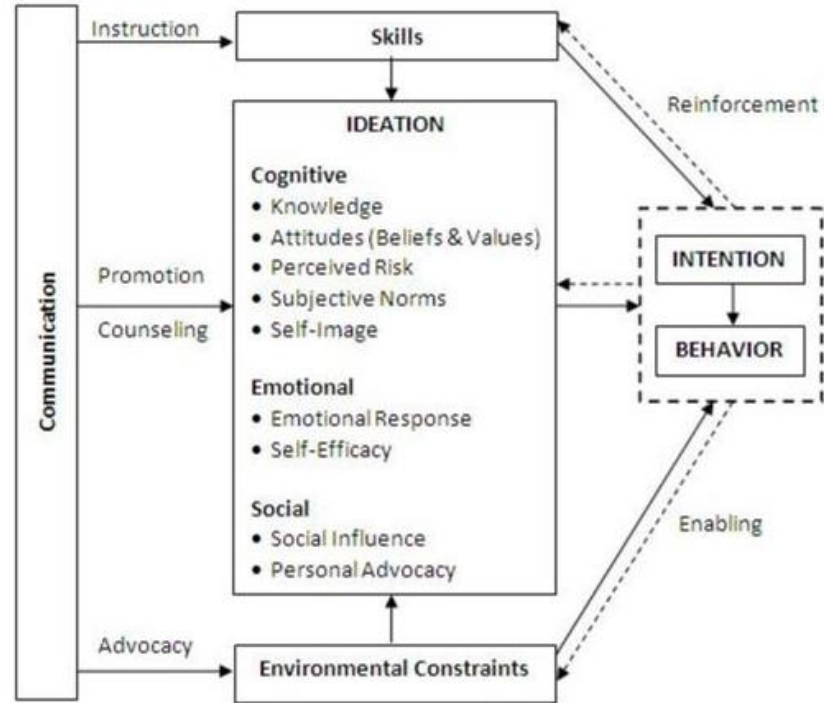
Geographic coverage of Breakthrough ACTION's Nigeria's malaria SBC activities

Theoretical model for the analysis: Ideation

Behavior is influenced by a set of psychosocial variables, including knowledge, perceptions of risk, efficacy beliefs, norms, and attitudes..

Collectively, this set of variables is called **ideation**.

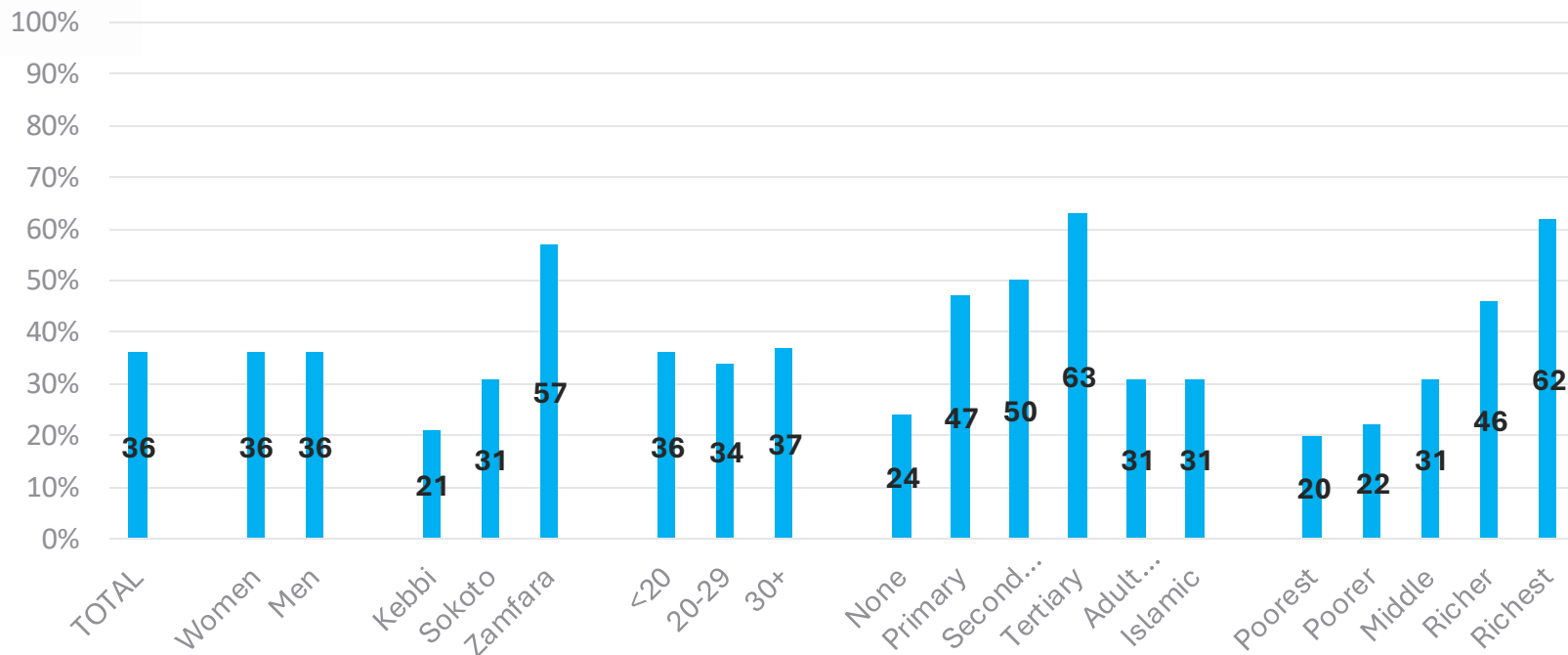
The ideation model has proven useful for understanding the predictors of various health behaviors (such as care-seeking) in multiple countries, including Nigeria.



Methods

- Two behaviors of interest...
 - Prompt care-seeking (seeking care within 48 hours of onset of fever) and
 - Testing febrile children for malaria
- Respondents who reported hearing any of the “Mama Put” radio spots were categorized as exposed
 - Exposure could be spontaneous or aided
- Six ideational factors were identified for each behavior and an ideation score was computed for each
 - Each respondent could have a maximum possible ideation score of 6 for each behavior
- Using mediation analysis, we examined how...
 - Exposure to messages on prompt care-seeking and fever testing influenced ideation scores, and
 - The effect of ideation scores on the behaviors of interest
- Analysis controlled for parity, socioeconomic status, age, state, education, and religion

Descriptive results: Exposure to Mama Put Fever Care Radio Spots by Sociodemographic Characteristics



Overall, 36% of respondents reported exposure to the Mama Put fever care radio spots, with no difference by gender or age. There were higher levels of exposure in Zamfara state, and by formal education level, and increased wealth status.

Components of ideational scores and descriptive results

Prompt care-seeking

- Intention: Intend to seek fever care for their child the same day or the next day.
- Attitudes: Agrees that: "A health provider is always the best person to talk to when a child is sick."
- Participation in decision-making: The respondent participates in decision to seek early fever care for child (alone or with partner)
- Supportive network: Agrees that others influence their decision to seek care for a sick child (vs. no one)
- Perceived availability: "Health facilities in my community have the treatment for a sick child"
- Self-efficacy: Confident that she could convince her husband to let her seek care for a sick child.

Max possible ideation score for prompt care-seeking: 6
Median respondent score: 4

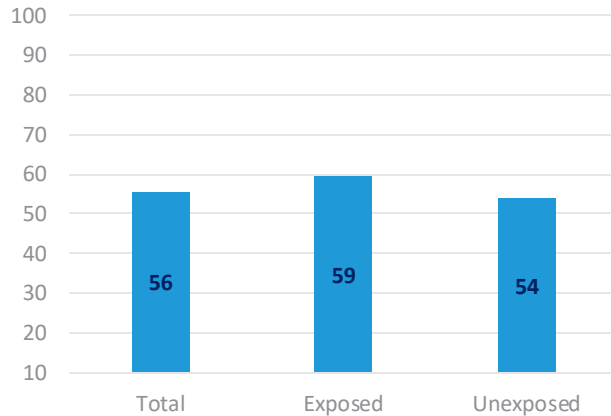
Testing fevers

- Knowledge: Knows the name of at least one malaria test (RDT and/or Microscopy)
- Perceived susceptibility: Disagrees that: Fever in children is almost always due to malaria
- Response efficacy: Agrees that: "A blood test is the only way to know if someone really has malaria"
- Attitudes: "Even with a negative test I always worry it may be malaria"
- Attitudes: "Even with a negative test I will still ask the provider for malaria treatment"
- Attitudes: Agrees that: "If the test is negative, I trust the provider will find the cause of the fever"

Max possible ideation score for fever testing: 6
Median respondent score: 3

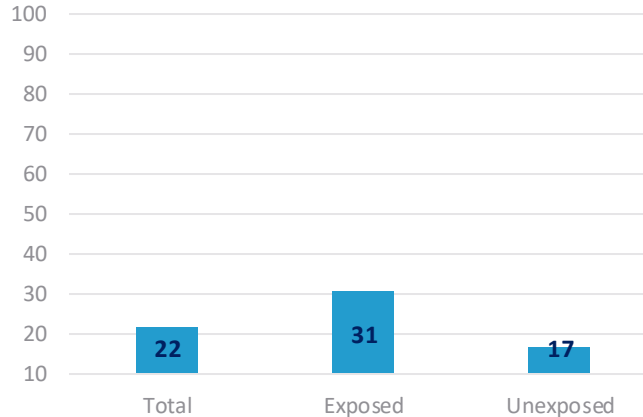
Descriptive results: Behavioral outcomes among the total sample, exposed, and unexposed groups

Prompt care-seeking



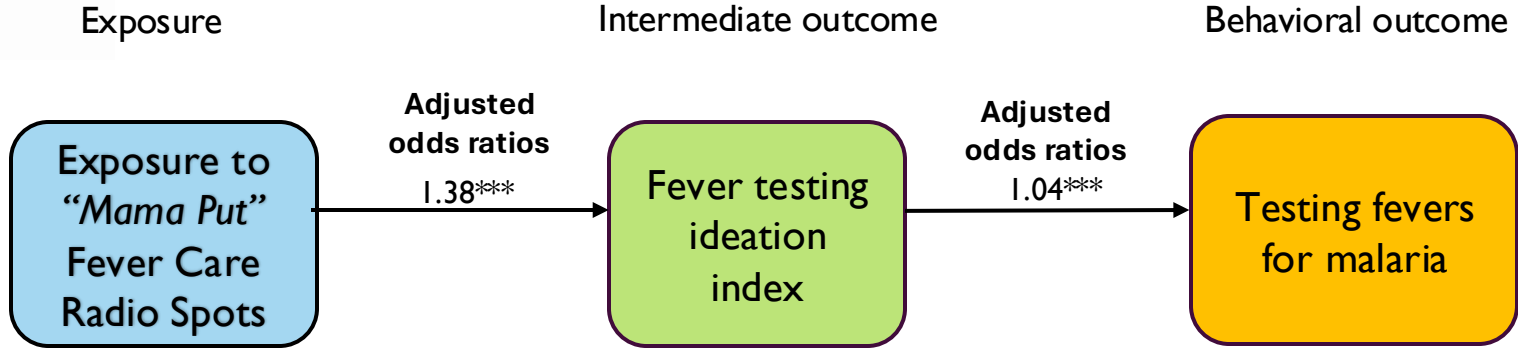
55.7% of the total sample sought care promptly (within 48 hours) for their child's fever (59.4% among those exposed to "Mama Put" vs. 53.5% in the unexposed group).

Testing fevers



22% of the total sample reported that blood was collected for malaria testing (31.0% among those exposed to "Mama Put" vs. 17.3% in the unexposed group).

Mediation Analysis Results: Fever Testing




- Similarly, when controlling for socio-demographic characteristics, women who reported exposure to "Mama Put" spots were **38% more likely** to have a higher malaria testing ideational score compared to those not exposed (adjusted Odds Ratio = 1.38, 95% CI 1.24–1.54, $p < 0.001$).
- For every unit increase in malaria testing ideational score, women were **4% more likely** to report that blood was collected from their child for testing (adjusted Odds Ratio = 1.04, 95% CI 1.02–1.06, $p < 0.001$).

Conclusion

- The results suggest that BA-Nigeria's "Mama Put" fever care spots contributed to prompt care seeking and fever testing through its effect on ideation.
- This analysis contributes to existing literature by demonstrating that mediation analysis is useful for designing and assessing the effects of SBC interventions.
- Additional analysis would be helpful for identifying specific ideational factors with the greatest likelihood of influencing these desired behaviors within the context of northwestern Nigeria.





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Thank you!

For more information on results and materials developed by Breakthrough ACTION Nigeria, and to see the other “Mama Put” spots, visit <https://breakthroughactionandresearch.org/nigeria/>

