

Breakthrough ACTION

SBC Flow Chart: Guyana Spotlight

February 2021



RESEARCH QUESTIONS



*How might we improve **malaria outcomes** among **mining communities** in Regions 7 and 8?*

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BACKGROUND AND CHALLENGE

Catalyst

Malaria cases are still prevalent among migrant populations, primarily miners, loggers, and stable Amerindian communities in the most highly endemic areas of the Guyana's hinterlands.

To expand access to malaria testing and treatment in the most affected regions (1, 7, and 8), the Ministry of Health (MOH) introduced rapid diagnostic tests (RDTs) and treatment for malaria into mining camps. Stable workers (e.g., cooks, security guards, shopkeepers) are trained to administer RDTs and provide free medication.

Challenge

Despite bringing free, quality health care services closer to the remote, hard-to-reach mining communities, multiple challenges remain. With low service uptake, miners tend to self-diagnose and self-treat rather than receiving Ministry-approved RDTs and appropriate medication, and miners who do receive a test and the appropriate medication often fail to adhere to the full treatment regimen.

Objective

Breakthrough ACTION Guyana sought to use the SBC Flow Chart to develop innovative, evidence-informed, theory-based, and human-centered SBC approaches to address key behaviors related to malaria testing and treatment. More specifically, the project aimed to increase the proportion of miners in Regions 1, 7, and 8 who

- Test for malaria within 24 hours of experiencing symptoms
- Complete malaria treatment as directed
- Sleep under a long-lasting insecticidal net (LLIN) every night

METHODS

This project's **co-design approach** allowed all partner organizations, as well as members of the target audiences, the opportunity to meaningfully contribute. It harnessed the wealth of expertise and experience that they bring to the table, resulting in increased diversity, quantity, and quality of ideas. We utilized the “Four Voices” model to ensure that the critical perspectives of the Voice of Intent, Voice of Design, Voice of Expertise, and Voice of Experience were involved every step of the way and had ownership of the project outcomes.

Literature Review, Baseline Survey, and Project Planning

A comprehensive literature review summarized malaria behavioral determinants, including knowledge, attitudes, and practices, as well as the social and cultural context of mining communities in Guyana, while a project baseline survey established pre-intervention indicators. The MOH was engaged early and regularly to shape the Define phase and support mobilization visits to Regions 7 and 8 to identify research sites and plan for the discovery fieldwork.

Intent Workshop

An intent workshop brought key stakeholders from the MOH, USAID, Breakthrough ACTION, Ministry of Communities, Ministry of Indigenous Affairs, Guyana Geology and Mines Commission, Guyana Women's Miners Organization, Guyana Gold and Diamond Miners Association, National Mining Syndicate, Guyana Forestry Commission and other partner organizations together to determine the parameters of the project and align expectations.

Discovery Research

Two research teams, including staff from Breakthrough ACTION, central and regional Vector Control Services, and MOH Public Relations and Health Promotion Unit, conducted immersive research activities in mining communities across Regions 7 and 8, speaking with 108 miners, camp managers, trained malaria testers, regional administration, and health facility staff.

Insight Harvesting and Validation

After separate insight harvesting in the regions, the two teams came together to combine and refine emerging research themes. A validation workshop was held to share insights with key project stakeholders and obtain feedback. The team developed personas and journey maps to further illustrate the insights and highlight opportunities for design.

Imagine Workshop

Thirty-five participants from ten partner organizations used 33 “How might we?” questions to generate 792 ideas and converge on a refined set of eight concepts. Small groups built low-fidelity prototypes so that the ideas could be tested *in situ* with real audiences quickly and cheaply.

Testing, Iterating, and Piloting

The Imagine workshop participants split back into two teams to travel to Regions 7 and 8 to give users the chance to interact with the prototypes and provide feedback on each idea. Teams reflected on what they heard after each session, and incorporated user feedback into increasingly higher fidelity prototypes. Refined prototypes were produced and piloted in both regions over a two-month period (Jun–Aug 2019). Breakthrough ACTION and Vector Control Services conducted intermittent supervisory visits to monitor the use of the materials, collect completed forms and checklists, and coach testers on the use of the new products and processes.

Implement and Monitor

Results from the pilot were used to inform the Apply Phase. Breakthrough ACTION procured a creative agency, Tagman Media, Inc., to co-create the final executions. The prioritized interventions are currently being implemented and monitored, with an endline survey planned for September 2021.

KEY INSIGHTS

3.1

Risk perception

Malaria is seen as routine and commonplace; it is not considered a major health risk in many communities.

3.2

Malaria knowledge and preventive behaviors*

Many contradictions exist around what people know about malaria and how they behave.

3.3

Adherence and nonadherence to correct treatment*

Many miners discontinue or discard malaria treatment as soon as they start to feel better.

3.4

Testing*

The role of volunteer testers in providing free malaria testing and treatment services is not fully understood or appreciated by miners and clients.

3.5

Self and traditional malaria treatment

Commonly accepted practical solutions to diagnose and treat malaria, which differ greatly from official recommendations, are preferred due to convenience and personal experience with these treatments.

3.6

Job motivation

Miners and camp workers often prioritize financial/ economic gain over their health concerns.

3.7

Mining camp environment*

Strong and respectful relationships exist between miners and their camp managers because they need each other to be successful at their jobs.

3.8

Health care sources

Health facilities are a desired option for health care services, but people will access other sources if necessary due to transportation, time, distance, and cost limitations.

3.9

RDT training*

The RDT training provided by MOH is effective; however, testers would like to be trained to provide additional health services.

3.10

Communication*

Health communication and health promotion activities and materials, including radio programs, exist but are undeveloped and underutilized.

3.11

Coordination and communication gaps*

A lack of coordination and communication between stakeholder groups reduces the effectiveness of the National Malaria Program.

** Insight updated or supplemented after Design & Test fieldwork*

Insight: Adherence and non-adherence to treatment

Many miners discontinue or discard malaria treatment as soon as they start to feel better

Malaria is believed to be incurable; some miners were not aware that malaria can be completely cured or that parasites could be entirely eliminated from the body. Many believe that once you have malaria, it is always in your system and can “rise up” when triggered.

Nearly all of those interviewed reported stopping their malaria medication when they started to feel better, particularly for the 14-day *P. vivax* regimen. Given that some miners believe malaria remains in their system forever, they did not feel that completing treatment was necessary, and that treatment would only address symptoms. People were surprised to learn that malaria could be cured. When they realized how the medicine slowly decreases the number of parasites in their bodies until no parasites remain, they normally expressed the desire to take the full treatment.



Malaria might stay with you for five years in the liver—I’ve heard it before but I’m not sure if it’s true.

Miner

You could get tested negative one day and next day test positive. It could flare up.

Miner

I feeling good, so I stop [taking malaria treatment].

Miner

How might we make taking the full course of malaria treatment enjoyable or rewarding?

Insight: Risk perception

Malaria is seen as routine and commonplace; it is not considered a major health risk for many mining communities

Many community members believe getting malaria in the bush is inevitable and not of significant concern when it happens. Many people had recovered from malaria multiple times. Life in the interior is considered inherently risky; miners adopted a comparatively high tolerance for risk regarding their health. The work in the mines is dangerous and the immediate health risks posed by the job were more important than malaria. Miners considered other diseases such as typhoid and dengue as more dangerous and of greater concern.



If you want to prevent malaria, don't come to the bush.

Miner

I don't count. I've had malaria so many times I've stopped counting.

Miner

Typhoid is the "Big Man."

Miner

How might we increase the perceived risk of malaria in endemic areas?

PRIORITIZED SOLUTIONS

“Lil Mosquito, Big Problem” SBC Campaign



Lil Mosquito, Big Problem
 Posted by Joel De Mendonca
 September 18 at 3:50 PM · 🌐

I still hearing one and two ah dem boys saying them using herbs and other tings fuh treatment. Remember only de Ministry approved treatment de nurse or tester gives you when you get tested positive for malaria is de right ting and only when you take de full treatment the parasites leave yuh body completely.



👍 192 💬 19 Comments 📄 15 Shares

👍 Like 💬 Comment ➦ Share

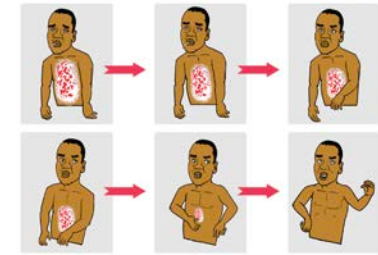
The campaign aims to increase malaria risk perception and self-efficacy to test for malaria and complete treatment through **radio spots**, an **animated miniseries** (“Jungle Feevah”), a **song and music video**, **social media**, **posters**, **banners**, **laminated handouts**, and other channels, all featuring “Mike the Miner” and targeting mining communities.

Branded Tester’s Toolkit

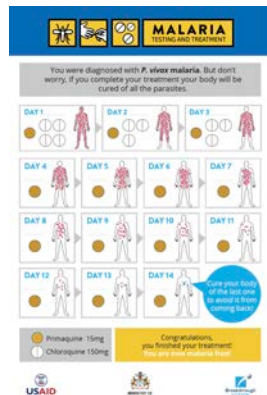


Trained testers receive free malaria testing and treatment **signage**, a **certificate** of completion, and a branded **toolkit** to store RDTs, medication, treatment adherence handouts, rapid counseling cards, referral and reporting forms, a flashlight, and other necessary commodities and supplies.

Innovations in Treatment Adherence



Treatment adherence **handouts**, **rapid counseling cards**, and a planned **tablet strip** give visual representations of how parasites in the body are reduced each day the treatment is taken until they are eliminated and the person cured. The tablet strip separates daily prescribed dosages into individual packets and includes space to write the time doses should be taken.



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