



AKWA IBOM CASE STUDY

Promoting Quality Malaria Medicines through SBCC

September 2017



U.S. President's Malaria Initiative



HEALTH
COMMUNICATION
CAPACITY
COLLABORATIVE

INTRODUCTION

The continued availability and use of substandard, spurious, falsely labeled, falsified and counterfeit (SSFFC) medicines impedes global efforts to control and eradicate malaria, as such medicines do not include enough active ingredient to treat the disease. Not only do SSFFC antimalarials result in treatment failure and death, but they also waste health resources, create distrust in the health care system and contribute to growing levels of artemisinin resistance. Antimalarial medicines constitute the bulk of SSFFC medicines—53 percent of all substandard and 93 percent of all falsified medicines (Hajjou, et al., 2015). It is estimated that SSFFC antimalarials were associated with 122,350 deaths in children under 5 years old among 39 sub-Saharan African countries (Renschler, et al., 2015).

Poor quality medicine tends to fall into three categories (Kaur, et al., 2016):

- **Substandard:** Medicine that does not contain enough active ingredient due to unintentional errors caused in manufacturing.
- **Falsified:** Medicine that does not contain enough or any active ingredient due to intentional fraudulent manufacturing; it may carry false reputation of its source or identity.
- **Degraded:** Medicine that does not contain enough active ingredient due to poor conditions, such as storage environments, handling or transportation (light, heat, humidity, etc.), weakening the original quantity. Stolen or diverted medicine is at risk of becoming degraded.

In response, the Health Communication Capacity Collaborative (HC3) partnered with the U.S. President's Malaria Initiative (PMI) to create a global initiative focused on using social and behavior change communication (SBCC) to address the dangers posed by SSFFC antimalarial medicines and promote positive behaviors that will protect the public. As part of this initiative, HC3 developed an online **Promoting Quality Malaria Medicines through SBCC Implementation Kit** (I-Kit) to provide guidance to local stakeholders and program managers who are interested in designing and implementing targeted SBCC campaigns to respond to their specific medicine issue.

When this initiative began in 2015, HC3 conducted a literature review to learn how global and national programs had used SBCC to address SSFFC medicines. The review found very few examples of evidence-based, strategically produced and evaluated SBCC activities upon which to base its guidance. To fill this gap, HC3 designed, implemented and evaluated an SBCC campaign targeting malaria medicine consumers, informal medicine vendors and key decision-makers in Akwa Ibom State, Nigeria. HC3 used learnings from its experience in Nigeria and from its literature review to develop the I-Kit.



Vendors crowd the side of a smoggy thoroughfare in Nigeria. © 2000 Liz Gilbert, Courtesy of Photoshare

BACKGROUND: HC3's WORK IN NIGERIA

In 2016, HC3 assisted the Nigeria Federal Ministry of Health's National Malaria Elimination Program (NMEP) and National Agency for Food and Drug Administration and Control (NAFDAC) to design an SBCC campaign aimed at protecting Nigerians from poor quality malaria medicines. The Good Quality Malaria Medicines campaign was implemented and evaluated in Akwa Ibom State over a five-month period from April through August, 2016. This report describes the process, results and key learnings of this activity.

HC3 followed the strategic **SBCC P Process**[™] to design and implement the Good Quality Malaria Medicines campaign. The P Process entails five steps that guide communicators through a participatory, research and theory-based process to carry out impactful SBCC programs:

- **Step 1:** Inquire
- **Step 2:** Design the Strategy
- **Step 3:** Create and Test
- **Step 4:** Mobilize and Monitor
- **Step 5:** Evaluate and Evolve

INQUIRE: UNDERSTANDING THE MALARIA MEDICINES SITUATION

To gain a better understanding of the malaria medicine environment in Nigeria, HC3 conducted a review of available literature and key informant interviews with a range of stakeholders influencing malaria medicine buying, selling, use and reporting. HC3 also placed a few questions on a household survey about buying practices for malaria medicine. This process yielded four key insights.

1. Despite gains, substandard and falsified malaria medicines were widespread in Nigeria

Although there is debate over the actual prevalence of SSFFC antimalarial medicines in Nigeria, surveillance results show vast improvements since 2001, when it was estimated that 40 percent of all medicines in Nigeria were substandard or falsified (Fatokun, 2016). By 2016, only approximately 4 percent of malaria medicine was substandard, according to a study by NAFDAC and the U.S. Pharmacopeial Convention (USP). However, the study also identified a batch of falsified Coartem that was circulating in the North Central region of Nigeria (NAFDAC, 2016).

2. Unqualified and unregulated vendors are preferred sources of malaria medicines by many consumers, yet they are likely to stock substandard medicines

Patent and proprietary medicine vendors (PPMVs) make up a large portion (65 percent) of the malaria medicine-stocking outlets in Nigeria (Population Services International, 2013). Yet the majority of PPMVs are not registered and do not have formal training in medicine or pharmacy (Beyeler, et al., 2015; Society for Family Health [SFH], 2015; Anadach Consulting Group, 2015). For many Nigerians, PPMVs offer a more convenient and accessible option for malaria treatment than licensed pharmacies or health facilities (SFH, 2015). PPMVs practices are heavily influenced by consumer requests for specific medicine and their ability or willingness to pay. They sell medicine at a lower cost, even though it is often unregulated and more likely to be substandard. With about half of the population living in rural areas, with limited access to functional health care facilities, many Nigerians rely on open drug markets, where both SSFFC and legitimate medicines are sold (SFH, 2012).

3. Self-diagnosing and prescribing drives demand for unlicensed, informal market

Many Nigerians self-diagnose and treat fevers with malaria medicines without seeking diagnosis from a health provider. In fact, the majority (60 percent) of mothers prefer PPMVs to other providers for childhood malaria (Berendes, et al., 2012; SFH, 2012). According to an HC3 survey in 2015, most adults were aware that SSFFC medicines were a problem and recognized that they were more likely to get SSFFC malaria medicines from PPMVs than from the formal health sector. Nonetheless, they prefer to self-diagnose and treat, which is possible through PPMVs (Babalola, et al., 2016).

4. Technologies are available to assess medicine quality, but consumers are not using them

The NMEP, NAFDAC and pharmaceutical companies have developed some solutions to monitor and test medicine quality, but they have invested little in efforts to inform the public about them. For example, NAFDAC launched a Mobile Authentication System (MAS) in 2010 that allows customers to confirm that a product is genuine by texting a code printed underneath a scratch surface on the medicine packaging. Consumers receive a text message confirming that the medicine is authentic or otherwise. By law, all antimalarial medicines must include MAS scratchpads on their packaging.

Unfortunately, in 2015, very few adults knew about this technology or how to use it. One key informant reported that only about 17 percent of customers who buy Lonart® packets use the MAS scratchpad. In the HC3 2015 survey, not one respondent named the MAS scratchpads as a method of verifying the authenticity of malaria medicines.

DESIGNING A COMMUNICATION STRATEGY

Holding the Communication Strategy Development Meeting

In July 2015, HC3 and the NMEP invited several key stakeholders to a two-day meeting in Abuja. Participants included representatives of pharmaceutical manufacturers and distributors, NAFDAC, trade associations, malaria control projects and health communicators. Many had participated as key informants during the landscaping exercise. The purpose of the meeting was to understand the SSFFC malaria medicine situation in Nigeria and to design a communication strategy aimed at enabling Nigerians to protect themselves from SSFFC malaria medicines.

The two-day meeting was organized into three sections: 1) Understanding and analyzing the SSFFC malaria medicine situation in Nigeria; 2) Identifying and analyzing priority audiences; and 3) Developing communication briefs for each audience.

1. Understanding and analyzing the SSFFC malaria medicine situation in Nigeria

NMEP invited key informants to make presentations on various aspects of the situation and shared the situation analysis prepared by HC3. Participants presented on:

- The prevalence of SSFFC malaria medicines in Nigeria (USP)
- Malaria medicine distribution system, including importation, manufacturing, regulation and enforcement (Pharmaceutical Industry Practitioners' Association of Nigeria)
- Qualitative research on malaria treatment-seeking practices (MalariaCare Project)
- Qualitative research on prescribing and dispensing practices of PPMVs (SFH)
- NAFDAC's efforts to address SSFFC malaria medicines (NAFDAC)

Participants synthesized information from the presentations by creating a problem tree. Through this process, they defined the problem to be addressed through communication, its underlying and direct causes, and consequences. A report of the root cause analysis can be found in the [Workshop Report](#).

Problem Statement: SSFFC malaria medicines are available and being used to treat malaria in Nigeria.

2. Identifying and analyzing priority audiences

In order to address the underlying causes of the problem, participants identified three priority audiences to influence:

- Consumers who buy anti-malarial medicines
- PPMVs
- Policymakers

Drawing on the situation analysis, participants described each audience and defined the practices and behaviors that each audience should adopt to reduce the use of SSFFC malaria medicines. They also identified factors that constrain or support adoption of those practices.

3. Developing communication briefs for each audience

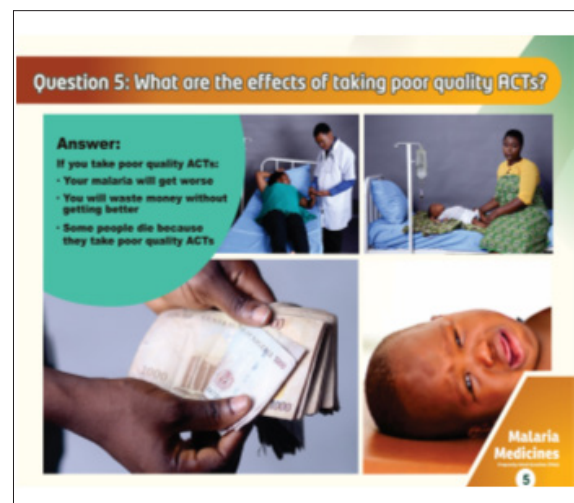
Based on the analyses, participants agreed on specific objectives for communication with each audience, supporting arguments and messages, and suggested communication channels.

Following the workshop, HC3 drafted a **communication strategy** based on participants' work and shared it with NAFDAC, NMEP and all participants in the strategy design workshop for review. The resulting SSFFC Malaria Medicines Communication Strategy serves as a guide for communicating about the issue throughout Nigeria.

DEVELOPING THE AKWA IBOM CAMPAIGN PLAN

HC3 had funding to test the campaign in one state. In consultation with PMI and NMEP, HC3 agreed to execute and evaluate the campaign in Akwa Ibom. The campaign targeted consumers of malaria medicines and PPMVs in Akwa Ibom through a two-pronged approach:

1. Orient PPMVs to take better precautions when procuring and selling malaria medicines, and encourage their customers to check malaria medicines before purchasing them. Messages recommended that PPMVs stock only medicines that have the NAFDAC registration number; handle and store medicines according to NAFDAC guidelines; sell malaria medicines only to customers who have a prescription; and get licensed if they have not already done so. The campaign promised PPMVs that consumers will see them as their preferred source for medicines if they follow these practices.
2. Influence medicine consumers through radio, TV, door-to-door visits by community volunteers (CVs), booklets and posters. Communication with consumers aimed to raise their awareness of the prevalence and dangers of poor quality medicines. Campaign messages encouraged them to get diagnosed and



Booklet cover and example page

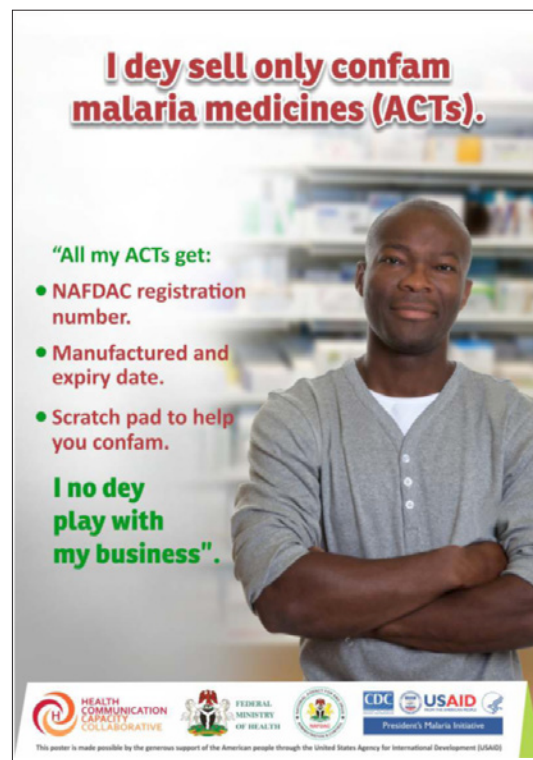
treated for malaria at government health facilities; and, when purchasing malaria medicines, to check the packaging for the NAFDAC number and expiration date. In addition, consumers were encouraged to use the MAS scratchpad to verify medicine authenticity. The campaign promised consumers a better chance of a speedy recovery from their illness if they adopted these practices.

CREATING AND TESTING MATERIALS FOR THE AKWA IBOM CAMPAIGN

With the approved communication strategy and Akwa Ibom campaign plan as a guide, HC3 prepared creative briefs for each campaign material and hired an advertising agency to produce them. These materials included:

- A booklet for people buying malaria medicines, explaining what they should do to reduce their risk of buying SFFFC medicines;
- Two 60-second radio spots and one 60-second television spot in English and Ibibio;
- Posters and stickers in Pidgin and Ibibio to be displayed in PPMV shops and pharmacies; and
- A fact sheet on SFFFC malaria medicines for policymakers.

Through a collaborative process with HC3, the advertising agency produced these materials for pretest among PPMVs and malaria medicine consumers in Akwa Ibom. While HC3 pretested the materials, NMEP representatives also reviewed them and provided input. HC3 instructed the advertising agency how to revise each material to address audience and NMEP concerns, and shared the finalized materials with NMEP for approval.

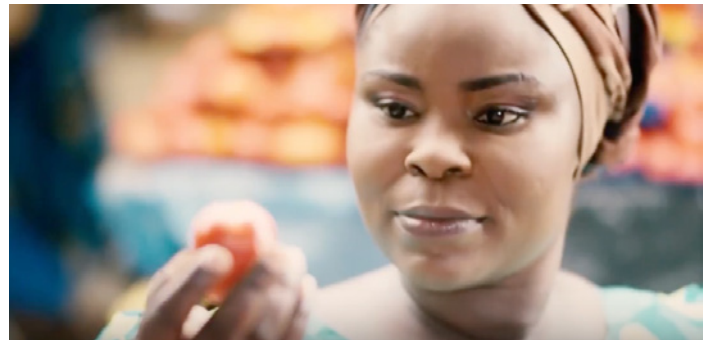


Poster describing how to use MAS scratchpad and sticker for PPMVs to advertise quality medicine sold at their shops.

HC3 also developed a dissemination plan for these materials. Based on the results of a commercial media reach survey, a media placement agency contracted by HC3 scheduled TV and radio spot broadcasts on the most popular radio and TV stations in the state during preferred listening times. HC3 also calculated the number of booklets, posters, stickers and fact sheets to produce, based on the number of PPMVs and pharmacists in the state, the number of CVs it planned to orient and the number of households visited by each CV each month.

IMPLEMENTING THE CAMPAIGN

The campaign's radio and television programming began broadcasts in early May 2016 on two radio stations and two television stations, and ran through mid-September of that year. While finalizing campaign materials, HC3 also prepared for four important activities that it rolled out in Akwa Ibom as soon as the materials were finalized: training CVs, orienting PPMVs, orienting journalists and a campaign launch among stakeholders and the press.



Screenshot of TV spot encouraging people to examine their medicine with the same precision that they examine vegetables in the market.

1. Training CVs

HC3, under its larger malaria communication project, had trained and supported 270 CVs in nine local government areas (LGAs) in Akwa Ibom State. For the Good Quality Malaria Medicines campaign, HC3 planned to train each of these volunteers to discuss SSFFC malaria medicines during house-to-house and community meetings, using the campaign booklet. In preparation for this training, HC3 designed a one-day training, and trained two master trainers from its partner Center for Communication Programmes Nigeria (CCPN). In May 2016, the CCPN master trainers conducted a training of trainers from each of the nine LGAs, who subsequently trained 30 CVs in their LGA. Each CV received copies of the campaign booklets and posters to put up in PPMV shops and pharmacies. HC3 supervisors conducted monthly monitoring visits to CVs to ensure that they were conducting sessions on good quality malaria medicines and had put up the posters.

2. Orienting PPMVs

HC3 also designed and conducted a one-day training for 40 PPMVs in Uyo, the capital of Akwa Ibom State. PPMVs were selected based on several criteria, including their willingness and ability to sell quality medicine and the amount of time they are present in their shops. During the training, HC3 trainers discussed the Ministry of Health's guidelines for malaria diagnosis and treatment, the problem of substandard and falsified malaria medicines in Nigeria and what PPMVs and consumers can do to reduce their risk of buying and selling poor quality malaria medicines. They were also given a demonstration on how to scratch and text the MAS number on each medicine packet to ensure its authenticity. At this time, each PPMV had a chance to scratch the MAS pad and text the number on a medicine packet. All participants received stickers and posters to hang in their establishments, as well as booklets to use when talking to customers.

Elder David Udo Umoh is the president of the National Association of Proprietary Medicine Dealers in Akwa Ibom. When talking about the HC3 orientation for PPMVs, he said:

"The recent training has been very beneficial to our members. We now know how to go about it. Previously we were giving anything that comes.

Once a client comes to you, because of the proliferation of fake drugs, you should allow them to confirm the authenticity of the medicine provided you (the vendor), know the product you are selling, because if you have genuine medicine, you do not have any reason to fear. This is because if you allowed your clients to confirm, they will know that you are dealing on good products."

3. Training Journalists

In February 2016, HC3 partner Internews conducted a three-day training for 10 journalists from Akwa Ibom and Abuja. During the training, the journalists learned about NMEP, the scope and problem of malaria medicines in Nigeria and the actions that consumers can take to minimize their risk of using these poor quality medicines. Next, journalists prepared radio, television and newspaper features about malaria Medicines and the campaign. Some of the trained journalists participated in the training for PPMVs and the campaign launch in Akwa Ibom, and prepared media coverage of the campaign and the issue. Internews followed up with trained journalists in Akwa Ibom to encourage further reporting on the issue.

4. Akwa Ibom Stakeholders Meeting and Campaign Launch

In April 2016, HC3 organized a half-day meeting of national- and state-level stakeholders in Akwa Ibom State. The State Minister of Health presided over the gathering and demonstrated how to use the scratchpad to verify the authenticity of malaria medicines. HC3 also briefed local journalists about the campaign.

EVALUATING THE CAMPAIGN

HC3 evaluated the Good Quality Malaria Medicines Campaign by reviewing data from a 2015 household survey and a 2016 Metrobus[®] Survey, a commercial marketing survey available in Nigeria. The team also conducted follow-up interviews with trained PPMVs and CVs.

During follow-up visits with the 29 PPMVs who participated in the training, most recalled training on the MAS scratchpads, 26 had copies of the booklets and had read them and 20 had posted the campaign poster. Twenty-eight said they had started doing something differently as a result of the training, including: telling customers to get tested for malaria before treatment (23); stopping selling chloroquine (16); allowing customers to scratch the MAS scratchpad and text the code to confirm the authenticity of artemisinin-based combination therapies (ACTs) before purchasing them (13); and stopping buying ACTs from the open market (3). All had heard the campaign radio or TV messages. One PPMV told HC3 that he purchased a refrigerator to improve his ability to store medicine.

The Metrobus[®] Survey, conducted in August 2016, was a cross-sectional household survey in Uyo, Akwa Ibom State. Of the 1,027 men and women interviewed (over 18 years old), the majority of respondents (78 percent) had heard information in the past three months about how to confirm the quality of antimalarial medicine, citing TV (59 percent) and radio (41 percent) above drug vendors (12 percent), posters (9 percent) and CVs (4 percent). Most people reported being exposed to one source (42 percent), compared with no sources (23 percent) or two or more sources (34 percent).

The analysis revealed that knowledge about the issue was high, with most people reporting that poor quality medicines were relatively/slightly common (27 percent) and very common (47 percent). Additionally, the majority reported either somewhat agreeing (17.3 percent) or strongly agreeing (80 percent) that poor quality medicines could cause serious health complications

The survey also revealed that many people knew ways to ensure or confirm that malaria medicines were of good quality, including scratching the scratchpad (62 percent), and checking for a NAFDAC number (61 percent) or manufacture and expiry date (54 percent) on the packet. More than one-fourth (27 percent) reported getting malaria medicines from government hospitals or licensed pharmacists/drug shops.

Encouragingly, the majority (72 percent) indicated that they would do something differently the next time they needed antimalarial medicines, with most people saying they would use the MAS scratchpad (see breakdown in Figure 1). This result was viewed as a significant improvement from the baseline, in which no respondents mentioned the scratchpad.

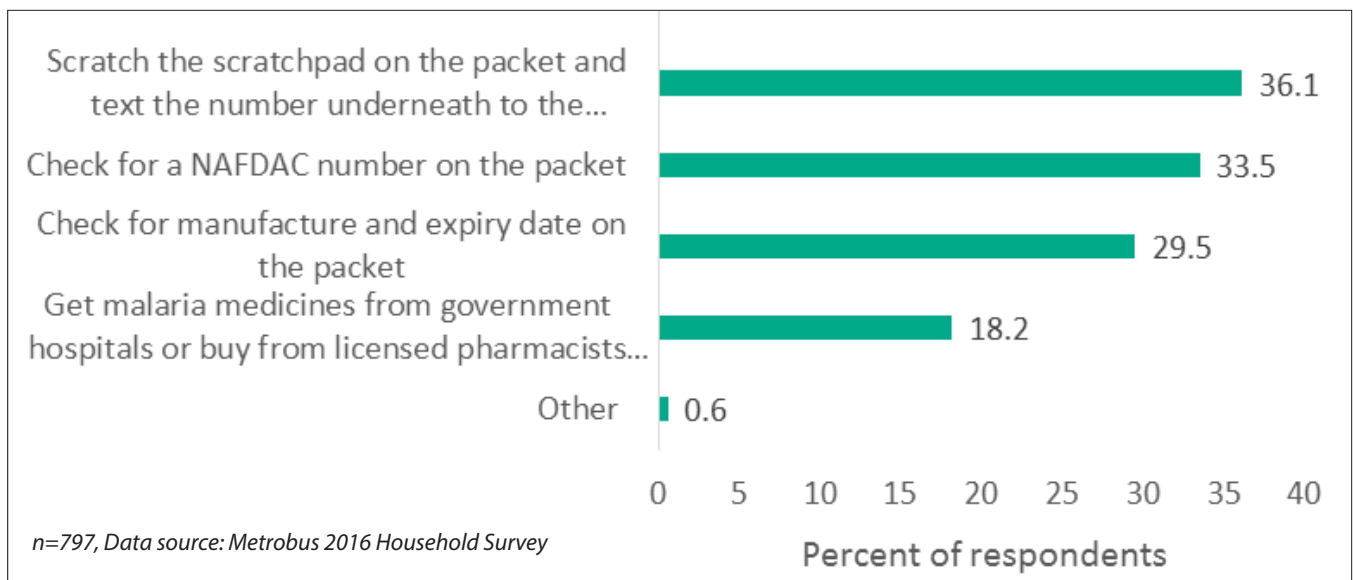


Figure 1: Actions respondents plan to take the next time they need antimalarial medicine

As seen in Figure 2, there was a dose-response relationship between exposure to communication on antimalarial drugs and knowledge of how to confirm their quality. Men and women exposed to at least one or two sources of campaign messages were significantly more likely to know how to confirm medicine quality.

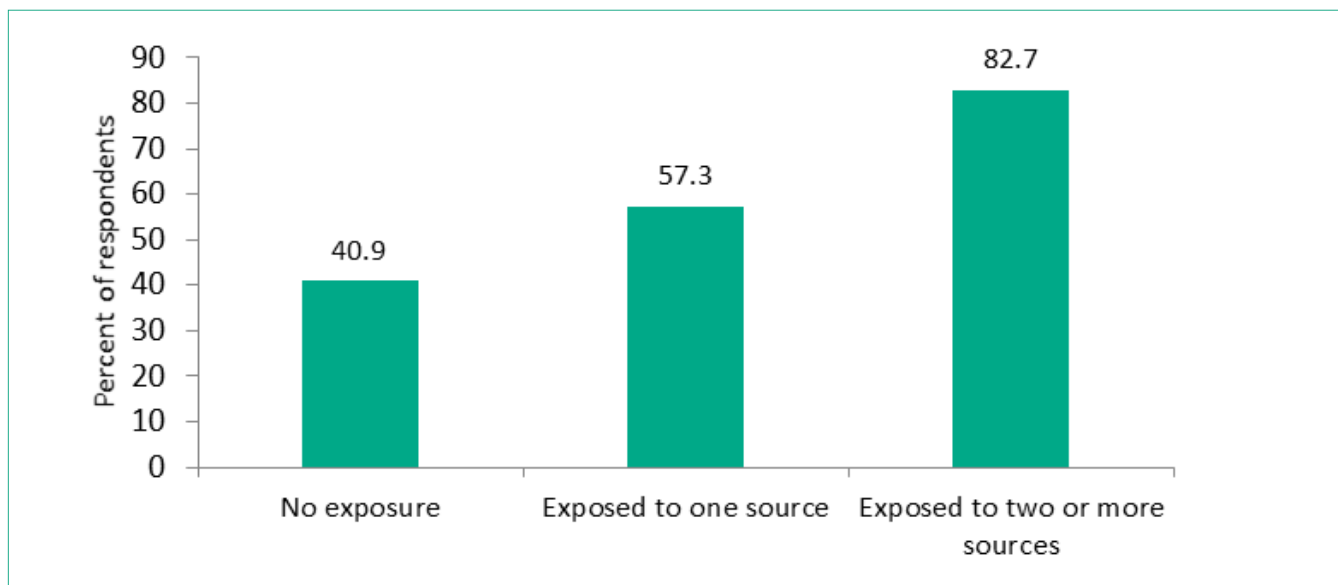


Figure 2: Percent of individuals who know at least two actions to confirm quality of drugs, by communication exposure

LESSONS LEARNED

The demonstration project in Akwa Ibom highlights several lessons and considerations for using SBCC to promote good quality malaria medicines, including:

- **Emphasize the presence of good quality medicine and calls to action.** The global community has been working for some time to generate demand for and use of ACTs. It is important that SBCC messages focus on the availability of good quality medicines and the proactive steps that consumers can take to confirm medicine quality, so as not to cause distrust in the health care system and medicine options and backtrack on the progress made. With this in mind, it is important to target only audiences that are in a position to take action. Advocacy techniques should be used for solutions beyond the audiences' control, such as encouraging stakeholders to change or introduce policies and laws or mobilizing resources. The results of Akwa Ibom show that a communication campaign—when carefully designed, tested and monitored—can bolster malaria control efforts without undermining them.
- **SBCC solutions vary depending on the type of malaria medicine issue.** For example, the solutions to reduce the presence of medicine that is substandard due to manufacturer issues may focus on strengthening manufacturer and border control oversight. Reducing the presence of medicine that is degraded due to diversion may require activities that strengthen the supply chain or legal systems. The Akwa Ibom campaign was effective because it was designed around the unique local medicine situation.
- **Collaborating with diverse partners early in the program development process, as was done in Akwa Ibom, helps to build a comprehensive understanding of the situation, program gaps and opportunities.** Additionally, partnering with existing efforts can increase the sustainability and reduce the costs of SBCC efforts. For example, the CVs in Akwa Ibom continued discussing medicine quality in their communities even long after the campaign had ended.
- **Develop programs around how populations are actually behaving—not just how they ideally behave.** Reviewing data from national surveys may help identify consumer trends, but they may also leave knowledge gaps as questions are often based on best practices. Key informant interviews and observation may reveal how and why people are actually behaving. If HC3 had not considered working with PPMVs, it would have missed out on the largest medicine source in Nigeria.

The materials and results of the Akwa Ibom Good Quality Malaria Medicines Campaign have been invaluable in informing the I-Kit on [Promoting Quality Malaria Medicines](#), as well as in building the evidence base for SBCC's ability to address this topic.



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