BMJ Open

Improving health outcomes by strengthening public sector capacity in social and behaviour change programming in Nigeria: a qualitative study

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To cite: Adetunji A, Addo B, Abegunde D, *et al*. Improving health outcomes by strengthening public sector capacity in social and behaviour change programming in Nigeria: a qualitative study. *BMJ Open* 2025;**15**:e089214. doi:10.1136/bmjopen-2024-089214

► Prepublication history for this paper is available online. To view these files, please visit the journal online (https://doi.org/10.1136/bmjopen-2024-089214).

Received 24 May 2024
Accepted 02 January 2025

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ABSTRACT

Objective This paper examines the outcomes of the public sector capacity strengthening (PSCS) approach and how they contribute to the promotion of maternal, newborn, and child health, and nutrition (MNCH+N), family planning (FP) and malaria prevention-related outcomes.

Design The qualitative study implemented from July to August of 2022 used the outcome harvesting methodology and key informant interviews to elicit information including most significant change (MSC) stories to evaluate project outcomes over 5 years (2017–2022).

Setting The study was conducted in Sokoto, Kebbi, Nasarawa, Bauchi and Ebonyi states of Nigeria.

Participants The study focused on public sector stakeholders who were exposed to the PSCS intervention and were selected from government agencies. Nine study participants were engaged per state, bringing the total number of participants to 45. Data were analysed thematically and elicited MSC stories were analysed for content.

Results The PSCS approach empowered stakeholders at the individual level to disseminate MNCH+N, FP and malaria prevention messages, monitor health and social and behaviour (SBC) activities and increase the demand for health services. At the organisational level, the approach facilitated coordination of SBC activities, enabled training cascades and promoted adherence to health service guidelines. At the system level, it strengthened ward development committees to address health challenges. Challenges hindering stakeholders' application of PSCS-acquired skills include inadequate workforce, negative attitudes of health workers, funding constraints, cultural barriers, lack of government ownership and limited accessibility.

Conclusions This study shows that the PSCS approach is an effective model to scale up capacity for SBC in MNCH+N, FP and malaria prevention programmes. In response to documented supply-side challenges impeding the application of gained knowledge and skill, we recommend inclusive health worker recruitment, sensitisation programmes for health workers, government ownership, improved security, healthcare infrastructure and transportation systems.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ The outcome harvesting (OH) methodology situated in a qualitative research context allowed for the evaluation of a complex social and behavioural intervention by helping to attribute outcomes to programme activities through participant feedback.
⇒ Combining the OH methodology with the most significant change technique allowed for triangulation that further improved study findings.
⇒ While our methodological approach proved to be useful, outcomes captured through OH are susceptible to recall bias and may rely on participants' awareness of the outcomes.
⇒ The generalisation of study findings is limited due to the predominant use of qualitative methods in this study.

INTRODUCTION

Social and behaviour change (SBC) interventions are effective in improving and maintaining health outcomes with related approaches leveraged to successfully promote the adoption of health behaviours.[1 2] These interventions act in tandem with structural and system-related health interventions to promote comprehensive and long-term health gains.[3] Effective SBC approaches employed to influence health behaviours have included interpersonal communication, media utilisation and community mobilisation.[3] SBC strategies help address gender and societal norms, fostering informed decision-making and creating a supportive environment.[4]

The need to strengthen health promotion and SBC capacity in the global south has been

well documented[5 6] with an increasing acknowledgement of the need for capacity strengthening. This recognition has prompted governments and non-governmental organisations to explore collaborative efforts aimed at addressing capacity gaps for SBC.[7–9] The advantages of SBC make it essential to develop the capacities of critical actors to apply the strategy. Furthermore, capacity building aids the sustainability of SBC programming, encompassing planning, implementation, monitoring and evaluation of activities.[10]

Capacity building has been described as an investment in the long-term effectiveness and sustainability of beneficiaries' efforts.[11] Within the health system context, capacity focuses on improving skills, knowledge, resources and existing infrastructure to effectively address challenges or issues.[12] The process is dynamic, requiring flexibility and strong relationships with numerous actors. Capacity building for SBC involves training, mentorship, coaching, applied learning, policy reinforcement, process improvement and the integration of SBC into regular health planning and strategy.[13]

Large-scale behaviour change interventions have been documented in literature especially those that focus on increasing the capacity of change actors. For example, in Madagascar, the US Agency for International Development (USAID)/Santénet2 programme employed innovative activities to strengthen the community health system and achieve tangible outcomes in maternal and child health, nutrition and malaria control. The programme increased the capacity of community health workers to raise awareness and mobilise the community.[14] Another intervention was the Alive and Thrive intervention that was implemented in Bangladesh from 2010 to 2014. This intervention focused on scaling up infant and young child feeding interventions and included the training of community volunteers and health workers. This training was reinforced through supportive supervision, monthly meetings and quarterly refresher training.[15 16]

Capacity building for public sector stakeholders plays a crucial role in enhancing health service delivery with the development of skills widely recognised as indispensable for the successful implementation of projects.[17] The public sector fills a unique role as its individuals possess the capacity to drive and sustain systems-level changes.[13]

The public sector capacity-strengthening approach

Breakthrough ACTION/Nigeria, an 8-year project funded by USAID, implemented a comprehensive integrated SBC intervention with a dedicated component focused on public sector capacity strengthening (PSCS) to increase the capacity of public sector stakeholders in SBC programming to improve MNCH+N outcomes. The PSCS approach encompasses a systematic assessment, design and implementation of tailored and strategic capacity strengthening for SBC that acknowledges the involvement of the public sector across the individual, organisational and system levels. These levels are known as the SBC communication (SBCC) capacity ecosystem levels, and they are further described in the next paragraph. The PSCS approach leverages the SBCC capacity ecosystem framework developed by USAID's Health Communication Capacity Collaborative (HC3) Project.[18]

The framework recognises the interconnected nature of capacity strengthening and emphasises the need for multiple interventions for meaningful change. The SBCC capacity ecosystem involves individuals, organisations and resources working across different levels and sectors to create an enabling environment for effective behaviour change. The focus of Breakthrough ACTION at the three ecosystem levels is described as follows:

1. At the individual level, the focus is on enhancing the SBC skills of both programme and government staff through a variety of on-the-job training, self-directed learning and experiential learning approaches with outcomes being increased skills to develop health messages and content and generate demand for and monitor health services.
2. At the organisational level, the focus is on strengthening organisational connections and coordination, as well as developing processes to facilitate outcome-oriented coordination. Key outcomes include improved skills in coordination and facilitation of SBC activities.
3. At the systems level, the emphasis is on reinvigorating existing platforms that could be leveraged for SBC such as SBCC technical working groups, Advocacy Communication, Social Mobilisation subcommittees and SBC-Advocacy Core Groups and ward development committees (WDCs) to create a dynamic and active coordinating body. Specific outcomes envisioned include coordinated and harmonised SBCC messaging; alignment of SBC activities; strengthening of the WDCs including domestication of related policies, reinvigoration and strengthening the capacity of committees.

Breakthrough RESEARCH, the sister project of Breakthrough ACTION, plays a crucial role in providing evidence for the PSCS approach, among other initiatives. This paper, which is an outcome of a Breakthrough RESEARCH evaluation effort, examines the PSCS approach and how PSCS in SBC programming contribute to the promotion of Maternal, Newborn and Child Health plus Nutrition (MNCH+N), Family Planning (FP) and Malaria prevention outcomes.

METHODS

Study design

This qualitative study used outcome harvesting (OH) to gather information on changes in SBC capacity influenced by the PSCS approach from public sector stakeholders in five Nigerian states: Sokoto, Kebbi, Nasarawa, Bauchi and Ebonyi. The data collection for this study spanned 3 weeks from July to August of 2022. The evaluation covered the first 5 years of the PSCS intervention from 2017 to 2021. We used key informant interviews

Table 1 The OH process adapted from Wilson-Grau and Britt[19]

1	Design outcome harvest.
	We defined the purpose of the OH approach and determined the scope of the evaluation. In addition, we identified the different stakeholders involved as well as tools for data collection and reporting.
2	Review documentation and draft outcome descriptions.
	We reviewed a series of project documents for the Breakthrough ACTION programme such as annual reports and documentation on the PSCS intervention. From the exercise, we identified and drafted descriptions which are significant changes or results that have occurred because of a programme or intervention and what the intervention did to contribute to them.
3	Engage with informants in formulating outcome descriptions.
	Using KIIs and MSCs, we engaged study participants who are also stakeholders in this study to review the outcome descriptions based on the document review, and to identify and formulate additional outcomes.
4	Substantiate.
	We triangulated the information received from stakeholders with existing outcome descriptions and then reviewed the outcomes and selected those to be verified to increase the accuracy and credibility of the findings.
5	Analyse and interpret.
	We identified patterns and common themes and then categorise outcomes based on their significance and relevance to the evaluation.
6	Support use of findings.
	We shared the resulting information with the harvest users and developed knowledge products.

KIIs, key informant interviews; MSCs, most significant changes; OH, outcome harvesting.

(KII) to explore participants' accounts of their involvement in capacity-strengthening activities and validate the information garnered from the OH process.

The OH technique is a participatory evaluation methodology that focuses on collecting and interpreting evidence of outcomes or changes resulting from a programme or intervention. For this study, we applied the six principles as set out by Wilson-Grau nd Britt[19] as described in table 1. More information on this study's application of the OH technique has been described elsewhere.[20]

Most significant change (MSC) stories were also collected as part of the KII process. The use of MSC stories allows for an inclusive evaluation approach during which project stakeholders are engaged to determine attributable changes.[21 22] Our MSC approach followed a modified process outlined in the study of Akeju *et al*[23] with steps including (1) raising the interest of stakeholder groups about the use of the MSC; (2) defining the domains of change following the SBCC capacity ecosystem levels of individual, organisation and system; (3) defining the time frame for analysing stories; (4) collecting 'significant change' stories from stakeholders using a developed MSC guide; (5) discussing all stories and voting for the most significant stories and why they were selected and (6) and providing feedback on the results of the selection process to participants.

Study area

Study states were purposively selected to correspond with the implementation states for the Breakthrough ACTION/Nigeria PSCS approach. The states represent four of the six geopolitical zones in Nigeria. Specifically, Sokoto and Kebbi states are located in the North-western geopolitical zone, Bauchi in the Northeast, Nasarawa in the North-central and Ebonyi in the South-eastern zone of the country.

Study population

The study focused on public sector stakeholders who were exposed to the PSCS intervention and drawn from government agencies. Six study participants were engaged per state for the KIIs as part of the OH process and an additional three were engaged to provide MSC stories in addition to the interviews bringing the total number of participants to 45. The six KII participants were selected based on their active involvement in the intervention and their level of understanding. Additionally, three participants per state contributed two MSC stories each, totalling 30 stories. These participants were engaged throughout the intervention, making them well suited to provide insights on programme-attributable changes. The research team determined that nine participants per state would ensure data saturation, based on a preliminary document review and the study's methodology. Practical considerations, including consultations with Breakthrough ACTION Nigeria staff, resource availability, time constraints and logistical challenges, also influenced the sample size determination.

Participants selection

Participants for the study were identified and recruited by actively engaging with the Breakthrough ACTION/Nigeria project. This collaborative effort enabled the acquisition of an extensive list of potential social actors that met the following selection criteria:

1. Working in an institution (public sector) where the SBC PSCS project activities are being implemented and in one of the five states where the study is taking place.
2. Exposed to BA-N SBC PSCS project activities.
3. Provides consent to participate.

The selection was random from the provided list and took into consideration the exposure to the PSCS intervention and their availability to participate due to their demanding roles.

Data collection

The study used KIIs to gather data from 45 participants and the objective was to validate the outcomes previously documented during step 2 of the OH process and explore potential new outcomes. 15 of these participants provided MSC stories reflecting on their experiences with the PSCS approach. The guide was piloted and it helped elicit information on capacity-strengthening activities and validated documented outcomes with each session typically lasting between 30 and 60 min. The MSC component of the guide included broad questions to elicit information about what was 'considered as the MSC that has occurred since the introduction of the PSCS approach'.

Data management and analysis

After the completion of data collection, audio files were transcribed and carefully reviewed for accuracy. The transcripts were securely stored on password-protected computers. For data management and analysis, NVivo software (released in March 2022) was used. We classified verified outcomes by the SBCC capacity ecosystem levels.[24] To ensure that we attributed the documented outcomes to the appropriate level, we outlined pertinent outcomes per level as follows.

1. Individual: Describes outcomes that encompass improved abilities in the development of health messages and content, demand creation for health services and monitoring of health activities.
2. Organisation: Depicts outcomes related to increased coordination and facilitation skills for SBC activities further resulting in cascading of knowledge and implementation of health services in accordance with existing guidelines.
3. System: Refers outcomes focused on strengthening WDCs as a platform for further SBC activities.

We used a deductive approach[25] while following the thematic analysis steps outlined by Braun and Clarke[26] to analyse qualitative data for the OH process. Four researchers conducted an initial review of selected transcripts for familiarisation. Immediate codes were generated and used to develop a coding framework. The framework was reviewed, and discrepancies were addressed by the research team. Transcripts were then coded using the established framework to ensure consistency. All 45 transcripts were divided into 4 sets, with 3 sets containing 11 transcripts each and 1 set containing 12. Two coders were assigned to each set, with each coder independently coding all transcripts within their assigned set, ensuring double coding across all transcripts. This approach involved a total of eight coders and allowed for comparison of coding results and assessment of consistency. As part of the coding process, regular peer debriefing was held to review coding, discuss challenges and update the codebook. In addition, the research team kept a detailed documentation of coding decisions. Coding comparisons were done in NVivo to visually inspect discrepancies. Discrepancies were resolved through consensus-building and codes were subsequently organised into themes. These initial themes were thoroughly reviewed and defined, reaching a consensus agreement to establish the final themes for analysis.

A total of 30 MSC stories were elicited through the interviews out of which 7 (3 at the individual level and 2 each at the system and organisational levels) were validated to be the most significant stories that demonstrated changes attributable to the PSCS intervention after two rounds of review. During the first round of review, 6 stories that were completely out of scope were discarded leaving 24 stories. In the second round of review, 17 stories that met the scope but were not attributable to the PSCS intervention were also discarded leaving 7 stories validated as most significant. The process of validation was conducted by a five-member team that graded stories based on PSCS exposure, focus and attributable change, ranging from poor (1) to excellent (5). Each story comprised storyteller information, titles and SBC levels/domains of change that the research team identified.

This paper presents one story per ecosystem level. Although this paper is part of a larger study, the focus of our results is on the findings from step 3 of the OH process gathered through our engagement with public sector stakeholders.

Reflexivity

Throughout the study, the research team implemented a range of reflexivity techniques to ensure credibility and integrity. Regular team meetings were held to discuss and document biases that could influence data collection, analysis or interpretation. Similarly, the team's backgrounds in public health, monitoring and evaluation, and social research brought both strengths and potential biases to the study. Although these offered invaluable knowledge, there was a chance that they would reinforce presumptions about the effectiveness of the programme or the importance of health outcomes. These assumptions were documented and constantly discussed to ensure that the analysis remained objective. Team meetings allowed for the critical examination of assumptions and the potential impact on the study. We also maintained a reflexivity journal, a shared document where individual team members recorded reflections on how their perspective of the research objectives and elicited data might shape analysis.

Additionally, finalised results were cross-referenced with multiple data sources, including interview data, available project documents and defined outcomes from step 2 of the OH process. From the first steps of participant selection to data interpretation, the entire research process was documented to monitor the decision-making process and consider how any biases were addressed at every turn.

Ethical considerations

The study obtained ethical approvals from the National Health Research Ethics Committee in Nigeria and the Ethical Review Boards at the state level. The study team

Table 2 Demographics of study participants for OH and MSC

Description	Total (n=45)
Sex	
Male	35
Female	10
Role	
Head of Ministry/Department/Agency	2
Director/Deputy Director	7
Manager	7
Coordinator	7
Technical officer	17
Media personnel	5
Ministries/Departments/Agencies	
State Ministry of Health	7
State Primary Health Care Development Agency	19
State broadcasting corporation	5
Local Government Area	9
Others	5

MSC, most significant change; OH, outcome harvesting.

observed all the key research ethic principles by ensuring privacy and providing clear information during the informed consent process including a clear explanation of voluntariness, benefits and possible risks.

RESULTS

Demographics

The description of the social actors is shown in table 2. A total of 45 participants were engaged across study states for the OH and MSC activities. The majority were males (35/45), and half were either technical officers (17/45) or directors/deputy directors (7/45). Technical officers comprised participants such as the information officer, health education officer and the state disease surveillance and notification officer. Furthermore, the majority were drawn from either State Primary Health Care Development Agencies (SPHCDAs) (19/45) or State Ministries of Health (SMOHs) (7/45).

Changes documented at the three SBCC capacity ecosystem levels

This section is organised into three main headings corresponding to the three ecosystem levels: individual, organisation and system. Each main heading includes subheadings that represent emergent codes.

Individual level

At the individual level, the success of the PSCS approach was marked by public sector stakeholders' enhanced abilities in developing health content and messages, organising and conducting training sessions, monitoring SBC activities and generating demand for MNCH+N, FP and malaria prevention services.

Development of health content and messages

The PSCS approach has provided public sector stakeholders with support in disseminating crucial health messages through mass media and fostering interactive communication with the audience. This has proven to be a valuable opportunity for effectively reaching individuals at the community level and the wider public. Furthermore, there is evidence of improved skills among media personnel in delivering MNCH+N, FP and malaria prevention messages. They have been given the opportunity to attend training sessions, workshops and seminars, enabling them to enhance their skills and programme delivery. This has resulted in more engaging and impactful strategies for conveying information and motivating individuals to adopt healthier habits.

> We have received support in securing slots with various media outlets, particularly radio stations. This opportunity allows us to broadcast live programs, including health talks and interactive communication programs. Through this initiative, we have been able to effectively reach people at the grassroots level in the community and the wider public. Technical Officer

Demand creation

Participants were also equipped with the necessary skills and knowledge to enhance the demand for crucial health services. This involved training on relevant health issues and the dissemination of vital prevention information, enabling them to effectively educate and raise awareness within their communities. As a result, the PSCS capacity-building efforts proved beneficial in fostering a proactive approach to improving access to healthcare services.

> During the training, we learned about tuberculosis, malaria, and HIV, and the importance of testing to differentiate these diseases. We also gained knowledge on preventive measures, insecticide-treated nets, and the challenges of net usage, along with promoting proper care and monitoring in the community. Identifying net champions was emphasized. I utilized this knowledge to sensitize communities about the positive impact of malaria testing and proper treatment. Technical Officer

Monitoring of health activities

Participants mentioned that their ability to monitor and gather data for MNCH+N, FP and malaria prevention programmes had been enhanced through capacity-building efforts. A technical officer in Nasarawa expressed the opinion that these efforts had resulted in improved monitoring practices among public sector stakeholders, leading to better record-keeping and referrals.

Monitoring and evaluation play a crucial role in strengthening health systems, particularly in improving record-keeping. The number of referrals, treatments, and further management becomes a key indicator of progress and areas for improvement. Breakthrough ACTION has supported us by providing training at the local government and facility levels, enabling us to identify appropriate referral destinations. This support has been invaluable in assisting individuals who lack resources or knowledge to access necessary services. Technical Officer

MSC story at individual level

A male technical officer shared a story that highlighted the transformative impact of the PSCS intervention in relation to content development skills. The participant revealed that prior to the intervention, there was poor proficiency in knowledge aspects such as content creation, information management on social media and effective online engagement. This has changed with the advent of the PSCS approach. The story underscores the significance of capacity building in promoting public health awareness and engagement.

SBC training equips stakeholders with health content development skills

I had always struggled with developing content, but everything changed with the PSCS intervention. I was pleasantly surprised by my newfound abilities. Thanks to a recent training, I have learned valuable skills in content creation, information management on social media platforms, and effectively engaging with people online.

In this state, we faced numerous challenges regarding vaccine uptake. However, with the recent capacity building, I have gained knowledge on budgeting for content creation, developing impactful content, and performing analyses. Additionally, I now possess the ability to craft narratives around other crucial health topics such as antenatal care, exclusive breastfeeding, and malaria. Gone are the days when I simply wrote without proficiency.

Recently, I have been receiving guidance on developing newsletters. The State Primary Healthcare Department had never published any materials documenting their activities, aside from what was handled by the M&E officer. However, we recognized that health-related issues shouldn't be the sole responsibility of the M&E officer. Therefore, we advocated for the involvement of other units. I distinctly recall an interview conducted by someone who travelled from Abuja to speak with me. To prepare for this, I collaborated with the M&E officer to develop scorecards. I also convinced the primary healthcare management to start producing our newsletter. Technical Officer

Organisation level

Coordination of SBC activities

Support was provided to public sector stakeholders to develop tools and integrate plans with other partners, enabling them to effectively coordinate and monitor SBC activities. This collaboration also facilitated the harmonisation of campaigns and demand creation for health services. Through these efforts, stakeholders were able to streamline their activities, ensuring a cohesive and unified approach to SBC interventions.

Yes, we have successfully completed the process of micro-planning. In preparation for a malaria campaign scheduled for this year, we conducted a micro-planning meeting last year. During the meeting, we had the opportunity to collaborate with other partners in the state. Together, we harmonized our activities and tailored certain tools to suit our specific needs. At the end of the day, we utilized the tools during the campaign. They [Breakthrough ACTION] sponsored the event and offered technical assistance. Director

Likewise, several participants expressed that their training in leadership and strategic communication enabled them to acquire essential skills for coordinating and managing SBC activities while also playing a pivotal role in developing their communication abilities.

I had the opportunity to attend the intensive two week training on leadership and strategic communication in 2019. This training significantly enhanced my communication skills and equipped me to effectively coordinate SBC activities. As a result, I am currently overseeing SBC activities at the local government level, ensuring accurate reporting of our initiatives. Program Manager

Facilitation skills for knowledge cascade

To ensure knowledge dissemination, a cascade training model was employed to build capacity at the local government level. This involved training public sector stakeholders at the state level who held responsibilities in addressing various health challenges such as MNCH+N and FP. These stakeholders were equipped with the necessary facilitation skills to train other personnel at the local level and engage in SBC activities, including the dissemination of crucial health messages during community gatherings like compound meetings.

They always invite me, anytime we want to maybe enlighten the populace, we are selected to go and speak to them and even at the local government level whenever they are having their compound meetings, at times they tell us because we were trained at the state level and then we cascade the training to those at the local government level. So, there are times when they want to have any activity, they invite some of us and we go to give our support too. Director

An important product of the cascade training model was the increased provision of health services in accordance with national guidelines. Components of existing guidelines focus on concepts such as respectful maternity care (RMC) aimed at promoting respectful, equitable and person-centred care while aiming to eliminate mistreatment, abuse and disrespectful practices that may occur within maternal health settings. Participants shared that they received RMC training which in turn translated into good relationships between health workers and community members.

> I attended a training session on RMC that was much needed to address outdated practices among healthcare providers. This training positively influenced our approach to Malaria in Pregnancy and other social behavioural change activities. It inspired us and significantly improved the bond between health workers and the community. We are now seen as friends and partners, with community members willingly participating in our activities. Program Coordinator

Participants also provided information on increased provision of malaria-related services in accordance with malaria guidelines especially on the use of sulfadoxine-pyrimethamine as intermittent preventive treatment during pregnancy to safeguard against malaria and minimise the associated risks and complications.

> The capacity of health workers has been built on malaria in pregnancy, including the importance of administering sulfadoxine-pyrimethamine (SP). Previously, health workers lacked knowledge about the importance of SP. However, now, all health facilities are well-informed about malaria in pregnancy, including the timing and administration of SP. We have witnessed significant improvements compared to the past, and our people have benefited from enhanced knowledge and awareness. Director

MSC story at organisation level

A programme coordinator shared an impactful story that showcased the positive outcomes of capacity-building efforts at the organisational level. The story emphasised the influence of Breakthrough Action/Nigeria programming, specifically in raising awareness among health personnel regarding malaria as a risk factor for miscarriage during early pregnancy, particularly the first trimester. The coordinator's participation in SBC training provided valuable knowledge that led to their recommendation for conducting malaria tests. This story highlighted how capacity building and SBC training can significantly impact decision-making and improve the quality of care provided.

> SBC training promotes awareness of the effects of malaria in pregnancy
>
> There was a woman that I know who had a pregnancy in the past and subsequently a miscarriage. That miscarriage was because of malaria in a pregnancy that she didn't know about. It was after she had that miscarriage that she was rushed to our facility. When she came to the facility that day, I saw her…and together with the officer in-charge, advised that she be taken to the labour room to clean up the blood to examine the cause of the haemorrhage… They wanted to discharge the woman to just go home… I said, "can't you just take her to the lab to find out if maybe, there are some other causes to this miscarriage?" They did a microscopy and confirmed that she had malaria parasites… So that made the woman to understand that it was malaria that made her lose her baby. When this initiative started, we reached out to her community to educate them on the necessity of going to the hospital as soon as they became ill, attending antenatal checkups, and receiving essential drugs. Those drugs given to pregnant women will include SP [IPTp-sulfadoxine-pyrimethamine]. Today, if I'm passing through that axis, once the woman sees me, she calls me SP as a nickname. Program Coordinator

System level

At the system level, the PSCS approach focused on institutionalising improved coordination and increased capacity for SBC design and programming. This especially focused on driving the work of the WDCs and institutionalising the gains of the process. Participants affirmed that Breakthrough ACTION/Nigeria supported the revitalisation of committees in the covered areas by providing essential support in terms of resources, capacity building, supportive supervision to facilitate strategic planning sections, cocreation of accountability mechanisms to reinforce coordination skills and their capacity for SBC message design and programming. This has led to an increased capacity of community members to address health challenges in their communities.

> WDCs are leading the promotion of sustainability, particularly in addressing structural deficiencies in their domain. When WDCs are sensitized about the significance of these structures, they actively contribute based on their available resources. While the government has played its part, Breakthrough ACTION has also made contributions, either through material support or capacity-building initiatives. Technical Officer

MSC at system level

A technical officer shared a compelling story highlighting the impact of WDCs in promoting community ownership of the local health system. The story highlighted the significant role of WDCs in establishing health structures and how this responsibility has sparked a sense of shared accountability among communities in making health-related decisions and maintaining health structures.

WDC action inspires community shared responsibility for health decision-making

I will give you an example, you know this local government, if you go to the local government, there is a PHC, it's one of the most beautiful primary health cares in the state. It was built by the Officer In-Charge with the support of the WDC. This has led to a change in the community's understanding of the importance of their involvement in decision-making processes. Our communities now know the importance of being part of decision-making. So, there is that change - a very, very wide change. Previously, the Officer In-Charge had complete authority over the health facility, making decisions without considering community input. However, now it is widely recognized that the community has a role to play through the WDC. We were migrating from that ideology of "okay, I own the facility, I can decide whatever I intend to decide" and embracing a shared responsibility for health facility and its operations. Technical Officer

Challenges experienced

Participants highlighted several challenges that hinder their application of skills acquired from the PSCS approach. These challenges include inadequate human resources for health, insufficient funding, religious and cultural barriers, limited translation of messages, lack of mobility, security concerns, negative attitudes of health workers and inadequate intervention coverage. These challenges limited application of SBC skills in diverse ways. For instance, inadequate human resources for health translates to fewer individuals can consistently apply SBC skills and conduct necessary outreach which in turn limits scope of the programme. Similarly, insufficient funding restricts the resources needed for implementation of activities across levels and programme sustainability. Religion and cultural barriers limit application of skills as these beliefs could conflict with promoted health behaviours which in turn limits receipt of SBC messages.

A participant highlighted the significant challenge of human resource especially that there are not enough female health workers which makes service uptake difficult. Another challenge raised was the insufficient funding for the implementation of SBC activities.

When you look at human resources for health, it is very big issue because one will say "I would not allow male health worker to touch my wife". Also, insufficient funding poses a significant barrier to the successful implementation of our work. If there is no money the work would not go perfectly okay. Technical Officer

A programme manager expressed that religious and cultural barriers still exist and hinder the implementation of capacity built by the PSCS approach, despite notable progress, but remains optimistic about further change in the future.

Despite significant progress, there are still some challenges related to religion, tradition, and finances. While the issues surrounding religion and tradition have been greatly reduced, they persist to some extent. Although these challenges remain, there is optimism that they will diminish over time and pave the way for smoother progress in the future. Program Manager

DISCUSSION

The PSCS approach brought about substantial improvements in knowledge and skills at the individual, organisation and system levels. At the individual level, there was increased skill in the development of health messages and content with public sector stakeholders receiving support in disseminating crucial health messages through mass media and fostering interactive communication with the audience. This outcome was achieved through training sessions that included active methods such as role-playing, group discussions and scenario-based exercises, as well as on-the-job mentorship. This led to improved self-efficacy and increased development and dissemination of health messaging. This in turn led to increased demand for MNCH+N, FP and malaria prevention services.

This outcome is similar to the approach used by the Ingobyi project in Rwanda where there was a collaboration with public sector stakeholders to design tailored SBC messages and materials which has in turn helped to increase the timely uptake of antenatal care services, as well as health-seeking behaviour, by addressing myths, misinformation and negative perceptions of health services.[27] Similarly, other studies have documented the importance of dissemination of SBC messages through mass media such as radio programmes in changing health behaviours.[28] The successful dissemination of health messages and subsequent uptake of health behaviours is because of the ownership of the programme by public sector stakeholders who had their capacity built as a result of the PSCS approach.

Our study revealed that the PSCS approach led to increased ability of public sector stakeholders to monitor and gather data leading to better record-keeping, referrals and access to essential health services. This was facilitated through the receipt of hands-on training in data collection, analysis and reporting, which empowered them to track key health indicators and programme outcomes. Capacity building also included data review sessions that helped highlight gaps and reinforced learnings. This resulted in an increased capacity to track the effectiveness of health activities and make evidence-based decisions for adaptive management. Monitoring is important in understanding programmatic trends that could be used to adjust implementation over time and it also plays a crucial role in showcasing progress.[29 30]

At the organisation level, the PSCS approach improved stakeholder capabilities to coordinate and facilitate SBC

activities, effectively harmonising SBC activities and generating increased demand for MNCH+N services. The achievement of effective coordination at this level meant that different stakeholders participated in SBC activities, which in turn made it possible to navigate complicated social systems, and pool resources, knowledge and efforts, which produced sustainable results. This was facilitated by collaborative planning sessions and strategic alignment of intervention efforts that reduced fragmentation and ensured that programme activities were aligned with community needs.

An important outcome of the PSCS approach was the increased facilitation skills of public sector stakeholders which has allowed them to help cascade knowledge to the Local Government Area (LGA) level. This was achieved through a series of hands-on training-of-trainer sessions and supportive supervision activities that specifically sought to improve skills related to communication, interpersonal and engagement skills, contextualisation of training content and presentation. This in turn resulted in increased knowledge at the LGA level, improved engagement with communities and improved service delivery Health programmes including those aimed at MNCH+N, FP and malaria prevention have generally leveraged the cascade training model to ensure that knowledge is translated to lower levels.[31–33] It has been crucial in reaching a large volume of target audience leading to an increase in MNCH knowledge and skills.[34] In our study, we found that these trainings allowed the target audience of health workers to facilitate key meetings as well as provide RMC and adhere to national malaria management guidelines. Similarly, the approach allowed for the contextualisation of interventions as well as an efficient use of resources.

At the system level, the PSCS approach focused efforts on strengthening WDCs through the support for the domestication of relevant policies at the state level and the provision of capacity building for WDCs. This was achieved through the provision of technical support in terms of resources, capacity building, continuous supportive supervision to facilitate strategic planning sections and cocreation of accountability mechanisms to reinforce coordination skills and their capacity for SBC message design and programming. This translated to community ownership of programme activities and subsequently increased service uptake.

This development further highlights the importance of the WDCs in the Nigerian health system and how they ensure community members' complete ownership of primary health matters such as health promotion, community mobilisation and maternal and newborn child health services. However, these committees are often ineffective, owing to inadequate capacity for health information dissemination among other roles.[35–37] The capacity building provided to address this gap through the PSCS approach is consistent with the findings of other health programmes. An example was a health programme that provided capacity building for WDCs in the training, mentoring, coaching and supportive supervision which resulted in increased involvement of WDCs in primary healthcare management and improved resource mobilisation for health.[38] These are also in line with a study by Ntoimo *et al*, which demonstrated that training received by WDCs enabled them to provide information on maternal and child health, leading to increased uptake of services.[39]

Challenges that deter public sector stakeholders from applying knowledge and skills gained through the PSCS approach include health supply-side challenges such as insufficient health workforce, particularly female health workers and negative attitudes of health workers. These are pervasive health system challenges that continue to exist in Nigeria and in the northern region where our study was implemented. A study on human resources for health in the northern states of Jigawa, Katsina and Zamfara also documented the scarcity of suitable health workers particularly female health workers which dissuades uptake of services owing to the preference for female health workers due to cultural norms.[40] Other studies have also revealed unfriendly attitudes of health workers as a key factor that impedes the utilisation of MNCH services.[41] These attitudes include a lack of empathy, judgemental behaviour, impatience, rudeness and neglect, among others. These could be because of health worker burn-out, low job satisfaction and stressful working conditions. These factors hinder stakeholders' efforts by eroding trust and making it difficult for communities to adopt new behaviours. Solutions to these challenges include inclusive recruitment of health workers, especially women, implementation of retention strategies like better pay, career development and improved work environments as well as the promotion of patient-centred care.

Other challenges documented include lack of funding, lack of government ownership, cultural barriers and limited accessibility. The lack of adequate funding has consistently been identified as a significant obstacle to the success of MNCH+N, FP and malaria prevention programmes, leading to other challenges.[42] This is not surprising, considering that these interventions primarily rely on donor funding, meaning limited financial resources and consequently restricted implementation. To address this challenge, it would be beneficial to emphasise the importance of political will and government ownership. Our findings indicate that these crucial elements were absent from the equation, further exacerbating the funding-related challenges. Despite the successes achieved by the Breakthrough ACTION/Nigeria programme in mitigating cultural barriers, addressing these challenges remains a crucial task for stakeholders. This is primarily due to the complex nature of cultural norms, which often require substantial time and effort to rectify. Consequently, it is important to recognise that comprehensive positive outcomes may not materialise immediately, as transforming deeply entrenched norms requires a sustained and patient approach. We found that limited accessibility is promoted by insecurity and limited geographical access. Northern Nigeria

is fraught with insecurity which has limited coverage of health programmes.[43 44] Also, limited geographical access has been documented as a key barrier to health service uptake.[45 46] The solutions required to address limited accessibility could be beyond the scope of donor-driven interventions and might need strong governmental intervention.

Limitations: We found the use of the OH methodology to be innovative as it allowed for the seamless evaluation of the complex Breakthrough ACTION Nigeria intervention. While our approach proved to be useful and important for addressing our questions, we noted a few limitations that warrant consideration. Outcomes captured through OH are susceptible to recall bias and may rely on participants' awareness of the outcomes. Also, perspectives and interpretations of data are subjective. To address these concerns, we implemented a rigorous triangulation of findings and a reflexivity process, ensuring that only verified outcomes were documented.

Conclusion

Our findings demonstrated improvements in individual capacity for demand generation for health services and monitoring. At the organisation level, public sector stakeholders showed enhanced abilities in coordinating and facilitating SBC activities and system-level changes including increased support and effectiveness of WDCs. However, challenges were identified, such as inadequate health workforce, negative attitudes among health workers, funding limitations, lack of government ownership, cultural barriers and limited accessibility. Addressing these issues necessitates inclusive recruitment and retention strategies, fostering empathy and patient-centred care, implementing sensitisation programmes, promoting government ownership, enhancing security conditions and strengthening healthcare infrastructure and transportation systems.

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Acknowledgements The authors would like to express their gratitude to the US Agency for International Development and Breakthrough ACTION Nigeria for their support in conducting this study. Special thanks are extended to all the study participants across the five study states, as well as the research assistants who diligently collected the data. The authors are also thankful to the state agencies that graciously participated in this study.

Contributors AdA, BA and NJT designed the study, AuA contributed to the design and led data collection, AdA and BA led the analysis, BA, AK, PS and FO-A contributed to the analysis process, AdA developed the initial manuscript, all authors contributed to writing and review of the paper. AdA is the guarantor of this paper.

Funding This work was supported by Breakthrough RESEARCH (Cooperative Agreement AID-OAA-A-17-00018), made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the Breakthrough RESEARCH project and the Population Council and do not necessarily reflect the views of USAID or the United States Government.

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Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval This study involves human participants and was approved by the National Health Research Ethics Committee (Approval number: NHREC/01/01/2007-2/06/2022), Sokoto (Approval number: SKHREC/039/2022), Bauchi (Approval number: NREC/03/11/19B/2021/52), Nasarawa (Approval number: 18/06/2017), Ebonyi (Approval number: EBSHREC/26/07//2022 – 25/07/2023) and Kebbi (Approval number: 107: 029/2022) State Ethical Review Boards. Participants gave informed consent to participate in the study before taking part.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available on reasonable request.

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