Strengthening Ward-Based Primary Healthcare Outreach Teams (WBPHCOT) to Support HIV Epidemic Control:

An Evaluation of Expanded WBPHCOT Activities in South Africa

Background

In 2018, South Africa's National Department of Health (NDOH), with the support of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), launched an intensive "surge" strategy to identify an additional two million people living with HIV and link them to effective and sustained treatment. One component of the initiative was a commitment to strengthen the country's existing network of ward-based primary healthcare outreach teams (WBPHCOT) to enhance community-based services and facility-community linkages. The expansion of WBPHCOT activities was rolled out nationally in 2018-2019 and included support for staffing, training, monitoring, and performance management of WBPHCOT teams to improve general primary care services and the referral, linkage, adherence support and contact tracing activities so critical to achieving HIV epidemic control.

In partnership with HRSA through the U.S. Centers for Disease Control and Prevention (CDC), the United States Agency for International Development (USAID), and the NDOH, ICAP at Columbia University conducted a process evaluation of the national roll-out to identify barriers, facilitators and key lessons learned from the expanded WBPHCOT activities.

Evaluation Design & Methods

The process evaluation was designed to assess implementation of the expanded WBPHCOT program by triangulating the perceptions of multiple stakeholders and utilizing both qualitative and quantitative methods including site surveys, questionnaires, key informant interviews (KII), focus group discussions (FGD), tests of knowledge, and field observations of WBPHCOT. Data collection took place between September and November 2019 at 20 health facilities which were purposively selected from two districts: City of Tshwane and Bojanala. Districts were selected in partnership with the NDOH and CDC South Africa based on HIV burden, diverse settings (urban vs. rural). Sites were selected in partnership with District Management teams and implementing partners to represent diverse settings in the two districts. Table 1 summarizes the data collection and number of participants.

For the qualitative data (KIIs, IDIs and FGDs), audio recordings were transcribed and translated to English from Tswana by bilingual research assistants and reviewed for completeness. Transcripts were entered, cleaned, and analyzed using the Dedoose Software Package (Version 8.1.8) and data were then coded by question and content analysis was performed. For the quantitative data (KAP survey, questionnaire, KII/IDI close-ended questions), data was entered onto tablets that uploaded the data to a central SurveyCTO server. Data was then downloaded from the server, cleaned, and analyzed using STATA.

Table 1
Data Collected

TOOL	# OF PARTICIPANTS
Structured site assessments	20
Provincial level questionnaire	14
Key Informant Interviews with district-level & implementing partners level informants	28
In-depth Interviews with facility-level staff	70
Focus Group Discussions with CHWs working on WBPHCOTs	194 *(20 FGDs)*
Knowledge, attitudes and practices (KAP) Surveys: CHWs & Outreach Team Leaders	222 *(191 CHWs & 31 OTLs)*
WBPHCOT field observations / time-motion studies	132 *(124 CHWs & 8 OTLs) (65 observations; 215 households)*

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Key Findings

Participant Assessment of Expanded WBPHCOT Activities

Overall, most participants thought that the WBPHCOT "surge" had a positive impact. Participants at the district and implementing partner level had somewhat less positive impressions than other informants due to the coordination and management challenges they witnessed. CHWs had more positive assessments, and felt that their work increased the accessibility of health services and contributed to improved health outcomes. Facility-level participants, including outreach team leaders and facility managers, had positive impressions of the WBPHCOT surge, which they felt had decongested health facilities while increasing access to health care.

Participants perceived training to be the most successful component of the WBPHCOT surge, followed by staffing, management/ supervision and M&E (including mHealth).

> "The biggest achievement is health promotion. It's a big one. Health promotion. The other one, I would say the big list of referrals this year. Especially because they're doing their tracing well and the queues … in the facility have very much improved."
>
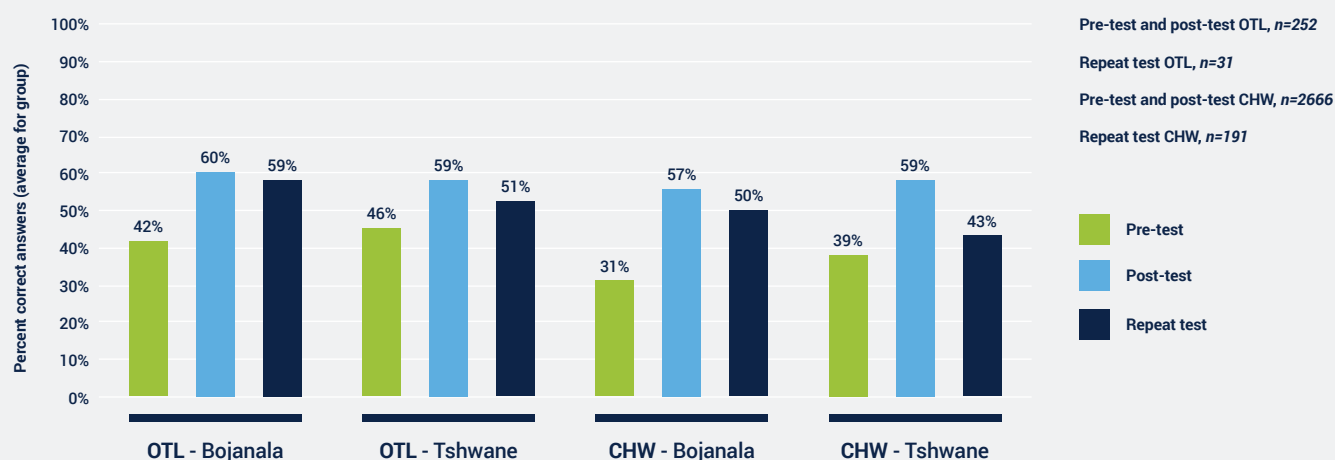> **Facility-level IDI participant**

Training

The KAP survey included the 40-question pre and post-test developed and administered by I-TECH prior to and immediately after the baseline training. Figure 2 shows these results and the repeat test included in our KAP survey 3-12 months later. Overall, there was substantial knowledge retention among CHWs and OTLs.

Evaluation participants felt that the main strength of the updated training component WBPHCOT surge was the improved knowledge and skills among OTLs and CHWs. There were a large number of CHWs and OTLs trained and the training included supervisory training for the OTLs. Some respondents noted that the training was too short to cover all of the training content. Additional not all CHWs received Phase 2 training and it was difficult to train some of the CHWs who have low literacy levels.

> "Training was effective as we had lots of confidence to do our work afterwards. After training our performance will be enhanced. It lifted us spiritually, physically. The training boosted our confidence and ability to perform excellently and with pride. We were able to understand stuff that did not make sense before. I was able to know my rights and wrongs and fix them… "
>
> **Facility-level IDI participant (OTL)**

Figure 2
CHW and OTL Test of Knowledge

Pre-test and post-test OTL, *n=252*

Repeat test OTL, *n=31*

Pre-test and post-test CHW, *n=2666*

Repeat test CHW, *n=191*

Pre-test | Post-test | Repeat test

OTL - Bojanala: 42%, 60%, 59%
OTL - Tshwane: 46%, 59%, 51%
CHW - Bojanala: 31%, 57%, 50%
CHW - Tshwane: 39%, 59%, 43%

Staffing/Management

At the 20 participating health facilities, there was a median of 2 active OTLs per site (mean = 2.5, range = 1-4). Of these, a median of 65% had been trained on the new curriculum developed by I-TECH. There was a median of 25 active CHWs per site (mean = 26, range = 3-58) and a median of 70% of the active CHWs had been trained on the new curriculum.

Respondents reported an increased number of CHWs and OTLs hired, which helped reduce workloads substantially in some facilities, as a main strength of the expanded WBPHCOT staffing & management activities. Other successes included implementing a clear management structure with defined roles and responsibilities for OTLs and CHWs. Despite these achievements, participants still felt that WBPHCOT's were understaffed and noted that OTLs did not have enough time to supervise all the CHWs. At some facilities, the clinics were understaffed and OTLs and CHWs working on WBPCHOTs were expected to postpone their work in order to support clinic activities. At some sites, this challenge was compounded by a shortage of equipment and supplies and by lack of support from clinic staff and leadership, making it difficult for some WBPHCOTs to complete their daily activities and reach their targets.

> "…now we know how to do our jobs. Before we were in the dark. We were just going out with the CHW without knowing what are we going to do, just hi-jacking the things but now we know when we said we're going to do the tracing, we know what are we going to do. And then what is the supervised visit, what are we going to do. We know now."
>
> **Facility-level KII participant (OTL)**

> "She [OTL] explains with terms I understand, with my level of education. She does not make it difficult for me to understand…so it is easier for me to do the same with a patient."
>
> **CHW FGD participant**

> "…lack of transport, the distance and travel time between households. Limited availability of resources, like teams, for instance, teams running short of stationery. Sometimes you find that you don't have the machines, printers to assist them with."
>
> **District Level KII participant**

Facilitators of and Barriers to WBPHCOT Implementation Success

Table 2 outlines the perceived facilitators of and barriers to the successful implementation of the expanded WBPHCOT activities.

Table 2
Main Facilitators and Barriers to Implementation Success

FACILITATORS	BARRIERS
Leadership/political will	Lack of support of CHWs at facility level
Increased staffing numbers	Staff shortages
Introduction of new systems/improved systems	Low wages and lack of benefits for CHWs
Additional resources/equipment to execute expanded activities (transportation, workspace at clinics, stationary, health supplies)	Shortages of resources/equipment
	Long distances/transportation challenges for CHWs
Community support, awareness and engagement	Safety concerns for CHWs

Conclusions

The evaluation included diverse perspectives, including those of policy makers, implementers, facility-level staff and WBPHCOT members. The use of qualitative and quantitative methods, including direct observation of WBPCHOTs in the field provided depth, and the relatively large sample size provided rigor. However, generalizability of the results may be limited by the purposive selection of two districts and 20 health facilities. Key findings included broad support for the WBPHCOT surge, and appreciation of the enhanced training, staffing and supervision. The surge did not mitigate some longstanding challenges, including relationships between the WBPHCOTs and facility-based staff, the need for dedicated workspaces for WBPHCOT team members, and limited access to needed transportation, equipment and supplies.

Key recommendations from evaluation participants included:

Additional Training and Work Integrated Learning:

Although training was viewed positively overall, there were some training gaps. Additional training for CHWs who have less than a matric level of education, additional training/induction of facility managers to strengthen their relationships with OTLs and intensified training of OTLs on mHealth were all recommended by participants, as was better integration of continued on the job training.

Coordinated Recruitment and Deployment of CHWs and OTLs:

More coordinated recruitment and deployment of CHWs and OTLs would increase the chance that WBPCOTs are deployed based on the need of the communities. Assign OTLs an appropriate amount of CHWs to manage to ensure they have sufficient time to provider oversight and facilitate higher quality supervision.

Provide necessary transportation and supplies:

The lack of transportation and supplies made it difficult for WBPHCOTs to perform all of their duties efficiently. Transportation support would improve efficiency and morale as well as facilitate OTLs' supervision of CHWs. A dedicated workspace for WBPHCOTs at each health facility, even a tented area on the facility premises, would facilitate teamwork and recognition of the WBPHCOTs at the facilities. Lastly, there is a large need to prioritize and procure essential supplies including: uniforms, photocopying supplies, BP machines and glucometers.

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