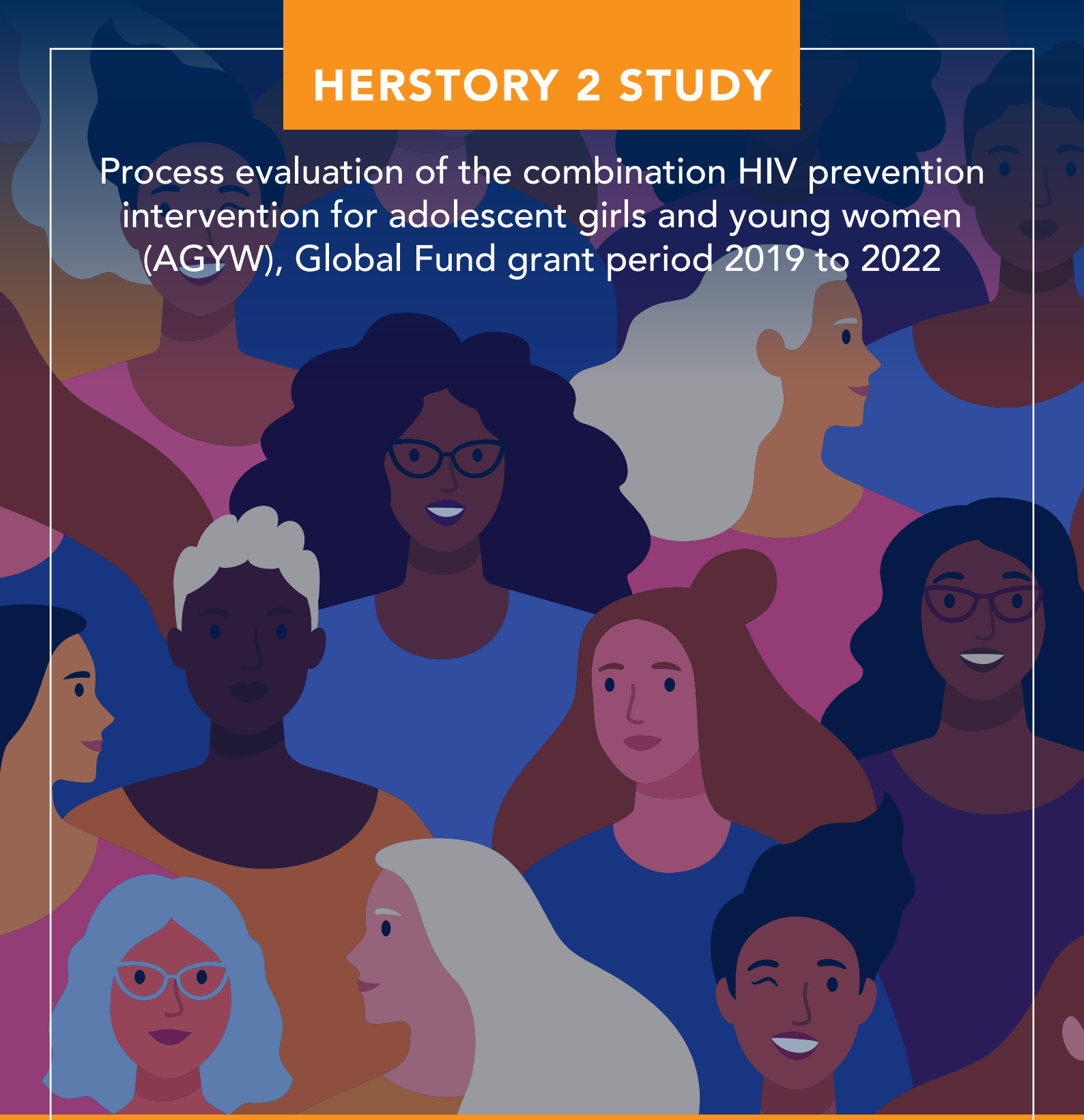
HERSTORY 2 STUDY

Process evaluation of the combination HIV prevention intervention for adolescent girls and young women (AGYW), Global Fund grant period 2019 to 2022



REPORT 4/5: LEADERSHIP AND MANAGEMENT EVALUATION

1. OVERVIEW OF FINDINGS AND COMBINED RECOMMENDATIONS | 2. AGYW SURVEY | 3. QUALITATIVE EVALUATION | 5. RECORD REVIEW

HERStory 2

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Delivery of the Global-fund HIV prevention intervention for adolescent girls and young women in South Africa: identification of implementation performance drivers using the Consolidated Framework for Implementation Research (CFIR)

Final Report

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Abstract

Background: Leadership and management is regarded as one of the building blocks of a responsive and resilient health systems. Strengthening of community-delivered HIV prevention programmes are regarded as central to achieving HIV epidemic control and in turn supporting universal health coverage initiatives. If we can understand the organisational dynamics that affect the implementation process, then we can better inform strategies to integrate and scale-up these programmes within the wider health system, and as part of universal healthcare coverage. This study explored the implementation of a large-scale comprehensive HIV prevention programme funded by the Global Fund from the perspectives of top- and middle-management levels.

Methods: A mixed-method study was conducted between December 2020 and February 2021, using the Consolidated Framework for Implementation Research (CFIR) which focuses on organisational inner settings (structure, culture, networks and communication, implementation climate, readiness for implementation). It entailed an online REDCap survey with top- and middle-managers of implementing organisations who were conveniently sampled. This was followed by qualitative online in-depth interviews with a purposive sample of survey participants. Descriptive statistics such as proportions and means were used to analyse the survey data. In-depth interviews were audio-recorded and transcribed verbatim. Qualitative data were analysed drawing on a rapid framework analysis approach. Data collection tools and analyses were mapped on the CFIR.

Results: Of the n=129 potentially eligible managers emailed, 126 (98%) agreed to participate in the online survey. However, only n=55 (44%) completed the survey, and most participants were at the middle-management level. In-depth interviews were successfully conducted with 10 of these managers. Our quantitative findings revealed that internal network and communication channels were strong, with approximately 60% of managers indicating they met weekly with frontline teams to discuss the programme and targets. Most participants reported challenges with establishing partnerships with key government departments and noted the role PRs could play in facilitating these links. Almost 85% of participants indicated that meeting programme targets was a key stressor during the COVID-19 pandemic. In order to implement the programme, several managers highlighted how they had to adapt processes and ways of working such as reallocating resources towards safety and protection of staff, adjusting platforms to reach AGYW and partnering with other stakeholders to access and refer AGYW. Whilst 91% of participants reported being supported by PRs and SRs, implementers described a lack of decision-making power on key aspects to the programme such as M&E systems, risk assessments, budget planning.

Overall, we identified three strongly distinguishing themes that influenced implementation: networks and communication, autonomy, adaptative leadership during COVID-19.

Conclusion: Our findings underscore the need for funders and governance structures of community-based HIV prevention programmes to actively assist programmes with establishing partnerships with stakeholders, ensure implementers are involved in the decision making process of key programme elements, and to integrate regular leadership and management training into the programme to increase the ability of managers to effectively respond to shocks.

1. Introduction

Over the past five years there has been considerable international investments to help curb the rising HIV incidence among AGYW in SSA (Subedar et al., 2018, Saul et al., 2018). Several evaluations of donor-funded and community-led HIV prevention programmes in South Africa and Kenya suggest that these initiatives have been effective in reducing HIV incidence, and have had favourable impact on the lives and livelihoods of AGYW (Chimbindi et al., 2018, Zuma et al., 2018, Gourlay et al., 2019). However, there is a gap in knowledge on how these programmes were implemented, particularly with regards to the facilitators and barriers to implementation at the organisational level. Strengthening of community-delivered HIV prevention programmes are regarded as central to achieving HIV epidemic control and in turn supporting universal health coverage initiatives (Holmes et al., 2020). If we can understand in-depth the organisational dynamics that affect the implementation process, then we can better inform strategies to integrate and scale-up these programmes within the wider health system, and as part of universal healthcare coverage.

A dearth of literature exists on the evaluation of the implementation of broader health systems strengthening initiatives and on disease specific donor-funded programmes in the areas of MCH, HIV/TB etc in SSA. Findings from these process evaluations highlight the importance of leadership and management in driving the processes through which programmes are implemented and in mitigating the impacts of shocks (Kagwanja et al., 2020, Cleary et al., 2018, Sato and Gilson, 2015). Similarly, results from the interim process evaluation of organisations funded under the 2016-2019 Global Fund AGYW programme indicate that leadership and management was a key factor that shaped the implementation process.

Leadership and management are regarded as one of the building blocks of a strong health system, and is considered an important element in the building of responsive and resilient health systems (WHO, 2007). Management entails planning, organising, control, budgeting, implementation, and evaluation; it ensures efficient utilisation of resources to achieve organisational goals (Ayeleke et al., 2018). Whereas leadership revolves around vision, ideas, direction, and inspiration; it establishes direction and motivates others to achieve organisational goals rather than a focus on day-to-day implementation of those goals (Ayeleke et al., 2018). According to Shung-King et al. (2018), leadership resides in multiple levels of the health system and not just among those who hold formal management positions.

The COVID-19 pandemic has presented itself with complex leadership and management challenges for people in authority in public healthcare programmes (Laur et al., 2021). It has also highlighted the need for adaptive leadership skills (i.e. making adjustments to processes and ways of working) to facilitate programme implementation during health shocks (Kagwanja et al., 2020, Laur et al., 2021). Kagwanja et al. (2020), note that this is one of the key indicators of resilience in a programme. Managers of community-based HIV programmes have been at the coalface of the pandemic, co-ordinating and networking internally and as well as externally between government sectors. However, we know very little about their experiences in leading teams and programmes in the context of the pandemic. This information is valuable for informing plans to strengthen the management and delivery of community-based HIV services such that they can rapidly respond to future shocks.

This study explored the facilitators and barriers of implementation of a large-scale comprehensive HIV prevention programme funded by the Global Fund from the perspectives of top- and middle-management, using the Consolidated Framework for Implementation Research (CFIR) (Damschroder et al., 2009). The specific objectives were to: 1) briefly understand the organisational history, structure and culture of institutions involved in implementation; 2) understand the decision making and leadership roles with regards to this programme; 3) understand to what degree there is convergence or divergence around the vision and goals of the programme as well as roles of the various actors; 4) describe levels of trust between key actors; 5) understand how the various leaders and mangers responded to the COVID-19 pandemic.

The CFIR is a conceptual framework that was developed to guide systematic assessment of multilevel implementation contexts to identify factors that might influence intervention implementation and effectiveness. CFIR has a total of 39 constructs/sub-constructs organised around five major domains: intervention characteristics, outer setting, inner setting, characteristics of the individuals involved, and the process of implementation. For this study we focused on the organizational inner settings: structure, culture, networks and communication, implementation climate, readiness for implementation (Appendix 1) The CFIR was applied to fully understand the implementation dynamics so as to inform programme improvements, scale-up and sustainability in similar contexts.

2. Methods

Study programme

The combination HIV prevention programme is being implemented for AGYW aged 15 to 24 years in 12 South African districts in which AGYW are at high risk of HIV incidence for the Global Fund grant period (2019-2022). This programme aims to increase retention in school, decrease HIV incidence, decrease teenage pregnancy, decrease gender-based violence and increase economic opportunities. The implementation of the programme is the responsibility of three Principal Recipients (PRs). The PRs sub-contract sub-recipients (SRs) to implement the intervention components, who in turn may further contract implementation to sub-sub recipients (SSRs). AGYW are introduced to the intervention through a number of entry points and referred to receive services via two main service components called the Core Service (which are received first) and Layered Services (which are additional services depending on the needs of the beneficiary, and which will be received over time). Core and layered services are delivered by funded SRs in schools, TVET colleges, dedicated safe spaces in communities, and mobile clinics that deliver clinical HIV and SRH related services. Layered services are categorised into biomedical, behavioral and structural services. In addition to delivery of layered services by SRs, some layered services are delivered by unfunded external service providers such as government health, education or social development providers, in their own settings via referrals from the funded SRs. The approach of the AGYW programme is to leverage these existing services rather than set up parallel and less sustainable services.

Design and participants

We conducted a mixed method study, specifically a sequential explanatory study between December 2020 and February 2021. We first conducted an online survey followed by qualitative interviews to help explain patterns in the quantitative data and probe themes with greater depth. Top- and middle-level managers at the SR and SSR level were purposively sampled for participation. Ethics approval for this study was obtained from the Human Research Ethics Committee of the South African Medical Research Council.

Data collection

An anonymous online REDCAP survey was developed drawing on domains in the CFIR and aligning it with experiences pre- and post-COVID-19, and strategies adopted to respond to shocks, as per Kagwanja et al. (2020) framework. The questionnaire contained both close-ended questions ("How often do managers and fieldteams in your organisation meet to discuss the AGYW programme?"), and open-ended question ("Overall, what would you say has worked to facilitate the AGYW programme's implementation"). PRs of the programme provided the research team with contact details of all top- and middle- managers within each SR and SSR. This survey link was emailed to all potentially eligible participants on this list. Once participants provided online written consent they were directed to the main questionnaire. At the end of the questionnaire, participants could provide permission to be followed-up for a qualitative online in-depth interview (IDI). These IDIs were conducted by a trained qualitative research assistant with a psychology background, with two additional investigators (DG, CM) on the call to probe additional questions. Verbal consent was obtained from all IDI participants. The topic guide for the IDIs were loosely mapped on dimensions of the CFIR, and probed participants survey responses. The online questionnaire and qualitative topic guide were piloted with three managers at the SR level.

Data management and analysis

Quantitative data from the online survey were cleaned and analysed using STATA (Version 15.0). Exploratory statistics such as proportions for categorical data and means for continuous data were produced. In-depth interviews were conducted using MS Teams and digitally recorded. All digital recordings were transcribed verbatim. A rapid framework analysis approach was used to analyse the qualitative data (Gale et al., 2013). This entailed familiarising oneself with the data by reading a few transcripts and listening to the audios. Thereafter, a working framework was developed by coding a few transcripts and grouping these codes into the themes. This framework was then applied to all transcripts by three coders (DG, KB, MM). Subsequently, quotes were extracted to support each category. Lastly, data were interpreted jointly by the investigator team.

3. Results

3.1 Participation rates and sample characteristics

The online survey link was disseminated to 129 potentially eligible participants (Table 1). Of these 126 (98%). individuals agreed to participate in the survey. However, only 55 (44%) participants completed the survey in in full or partially and comprised the final sample for analysis. Most participants who completed the online survey (n=27) were at middle-management level such as clinical managers, monitoring and evaluation managers, and operations managers. Only two individuals were at top management level (i.e. director, deputy director) (Table 2). The remainder (n=25) were involved in frontline supervision. Most participants were at least 1-5 years in their management position. Most of the participants were affiliated to implementing organisations from the North West (27%) and Eastern Cape (21%) province, serving a both urban and rural populations (42%). Approximately 60% of the implementing organisations were involved in provision of biomedical and other services. These organisations had on average 463 staff and reached approximately n=2624 AGYW per month (pre-COVID-19). More than half of the SRs were established during the past 11 years.

Table 1: Participation rates for the online survey

Emailed survey link	85
Link sent to an additional sample	44
Total implementers approached	**129**
Clicked on link but did not reply	1
Refused	2
Agreed to participate	**126 (98%)**
Did not complete survey	71
Completed survey	47
Partially completed survey	8
Total sample for analysis (completed + partial completion)	**55 (44%)**

Table 2: Online survey participants- sample characteristics

A. PARTICIPANT CHARACTERISTICS	**N=55**
Management level*	
Top	2 (4)
Middle	27 (50)
Frontline supervisors/implementers	25 (46)
Years in management*	
< 1 year	21 (38.89)
1-2 years	25 (46.30)
3-5 years	6 (11.11)
> 5 years	2 (3.70)
B. ORGANISATIONAL CHARACTERISTICS	**n (%)**
Province	
KwaZulu-Natal	4 (7.27)
Gauteng	8 (14.55)
Western Cape	8 (14.55)
Eastern Cape	12 (21.82)
North West	15 (27.27)
Limpopo	1 (1.82)
Mpumalanga	4 (7.27)
Free State	3 (5.45)
Catchment population	
Urban	9 (16.36)
Peri-urban	9 (16.36)
Rural	14 (25.45)
Mixed	23 (41.82)
AGYW-service provision	
Biomedical services only	9 (16.36)
Biomedical and other services	33 (60.00)
Other services	13 (23.64)
Period organisation established	
< 2010	22 (40)
2010-2019	32 (60)
Mean number of staff per	463 (SD 1886)
Mean number of AGYW reached per month, pre-COVID, during the Global Fund Cycle	2624 (SD 3011)

* Missing value: n=1

Among the n=30 participants who provided additional permission to be contacted for an interview, we purposively sampled n=20 participants at top- and middle-management for IDIs (Table 3). Of these, n=10 participated. Most of the participants who underwent an IDI were a middle-management level (n=8) at an SR.

Table 3: In-depth interviews- Participation rates and sample characteristics

Provided consent for follow-up interview	30
Potentially eligible	20
Participated	10
Management level	
Top- management	2
Middle-management	8
Level	
SR	9
SSR	1

3.2 Key themes as per the CFIR dimensions

a. Culture

The mission and vision statement of most implementing organisations emphasised health, community, education, HIV and development, and appeared to have strong alignment to the programme goal (Figure 1). More than two-thirds of participants highlighted that the organisations mission or vision statement informed decision making (Table 4).

Figure 1: Word cloud highlighting key words in the mission (a) and vision (b) statement. The text font size indicates frequency

b. Networks and communication

i. Internal

Overall, most organisations held regular weekly or monthly leadership meetings to discuss the AGYW programme (Table 4). Moreover, more than 60% of participants reported that they met weekly with frontline staff to discuss the programme. Almost all participants in the IDIs highlighted the strong communication channels between management and frontline staff, particularly the ease of access of managers in the organisation as highlighted below.

"…our program manager has an open-door system so if the PGTs feel that they want to talk to the manager they don't have to go through… we don't have red tape! They don't have to go through rigid protocols to get access to the program manager; they will just come in! They can just phone him, you know. So, the

front-line staff know that if they want to talk to management, they can talk to management, they don't have to make appointments and they don't have to go through somebody to get to the manager. They can speak to him anytime and he is readily available." [IDI 5]

ii. External

Partnerships with government partners such as Department of Health and Basic Education were described as strong. Whereas ties with the Department of Social Development and Department of Justice were reported as being weak. One IDI participant described the challenges with initiating partnerships with the Department of Social Departments:

"…the Department of Social Development just needs to be visible. They are not visible. You know, whenever they go there there's always reasons why they cannot see you or you call them... there's an emergency... they will say we will come through. They never do and then eventually when you follow up it's like they don't even get back to you. You have to follow up all the time and then it's like oh we don't have a vehicle to go out…" [IDI 9]

However, it was also evident from the interviews that COVID-19 regulations strained stakeholder relationships with Department of Basic Education particularly if ties with schools were still be being developed.

"There were also some schools which didn't allow us back to their schools because they are saying, there is a circular which is from the district office which says we must not allow any visitors. …There were those challenges which made us not to work well with them not just because we didn't build the relationship with them but due to COVID-19 regulations……So they felt that if they allow our team now maybe it's our team that is going to bring COVID in or you know such things. So, it made the relationship not to be smooth..They did allow us to go back to schools to be with them but they minimised the interaction between our team and them because of COVID-19 regulations and also the fact that they emphasised that they needed more time with the learners." [IDI 8]

All participants reported strong ties between the programme and non-governmental partners, and other community-based groups. Some participants indicated that previous strong partnerships and trust helped facilitate relationship building for this programme.

" We didn't have any challenges because they already knew who we are. They already know us working in the community and I guess we have built a reputation that they could trust us to continue working with us." [IDI 9]

"we had these existing relationships with, with the Department of Basic Education that were, that were really like, positive and supportive." [IDI 1]

Furthermore, participants described the strong communication channels between SRs and PRs.

"The SRs and the PRs, we have like this easy communication between the SRs and PRs. We can contact them at any time via email or WhatsApp and they usually respond. You know, the communication is quick… it's not like you send an email and you only get a response after two weeks, everything is instant. Umm… most of the time." [IDI 2]

When probed about memorandum of understandings (MOUs) between the programme and government departments, most participants highlighted that they were unaware of these. Participants felt that the MOUs could facilitate relationship building with partners such as Department of Basic Education. In the IDIs, participants highlighted that perhaps MOUs exist between the PRs and departments, but these have "not trickled down to local district level".

"So, now with the Department of Education; we are dealing with mostly young girls who are attending school, so we need to have those MoUs, so that we are able to go into schools and we are able to have arrangements with schools, so that even if we are arranging an event, they know that we have this organisation that will be taking care of this number of girls from this school. Even if they need to refer to us, they don't even have our contact details. So, that relationship from the province, down to district and even down to sub-district level was not properly established and so we can't even tell you who to go to." [IDI 4]

One manager indicated that it was supposed to be the PRs of the programme that established relationships at national and provincial level to facilitate stakeholder engagement at the ground level.

"local structures, the relationship has already been established at a higher level and these local structures have been informed about who to link up with and what the relationship entails. " [IDI 4]

Table 4: Description of CFIR dimensions- culture, networks and communication. Data Source: Online Survey

CULTURE	
Organisation's mission/vision statement or key values drive decision making*	
Agree	48 (88.89)
Disagree	6 (11.11)
NETWORKS AND COMMUNICATION	
Internal	
Frequency of leadership meetings to discuss programme*	
Weekly	21 (38.89)
Bi-weekly	8 (14.81)
Monthly	21 (38.89)
Quarterly	4 (7.41)
Frequency of management meetings with fieldteams to discuss programme*	
Weekly	33 (61.11)
Bi-weekly	8 (14.81)
Monthly	10 (18.52)
Quarterly	2 (3.70)
6- monthly	1 (1.85)
External	
Strength of ties with key stakeholders: Strong*	
Department of Health	40 (76.92)
Department of Basic Education	38 (70.37)
Department of Social Development	28 (51.85)
Department of Justice	16 (30.19)
Healthcare facilities	48 (88.89)
Community NGOs	48 (88.89)
AGWY/Youth Structures	43 (79.63)
PRs	49 (90.74)
Other SRs	45 (83.33)
Other key networks/NGOs	45 (83.33)

* Missing value=1; N=54

c. Implementation climate

i. Tension for change

The majority of participants (85%) described their experience with implementing the programme as good but challenging during the COVID-19 pandemic (Table 5). Implementation challenges reported included delivery of certain components in the community, accessing AGYW telephonically, and referrals to government services and other SRs.

"COVID 19 has made implementation of the program extremely difficult In and Out of School"

"The challenges that we are facing is due to COVID-19 as we are forced to do risk assessments via telephone, and this affects the quality of work and service rendered to the AGYW."

One of the SSRs emphasised the resistance received from SRs when it came to tailoring the programme to fit local needs.

"So, even if we have input, it is always not upfront, it's always after something has happened and then we would say, but oh no we are on the ground, have you asked us? We would have known that it's better to do it this way or that way. So, the design of the programme is in such a way that, it…it you know…comes designed already and we have to follow how it's designed instead of getting input from the people on the ground." [IDI 6]

ii. Compatibility

Almost all participants agreed that the AGYW programme aligned with their organisations mission or vision statement. Human resource and monitoring and evaluation (M&E) systems were some of the key systems that participants indicated had to be set-up for the delivery of the programme.

iii. Relative priority

Most participants (79%) reported that the AGYW programme was perceived as a high priority programme in their organisation.

iv. Organisation incentives and rewards

The majority of participants (96%) indicated that being affiliated to the AGYW programme would help build the organisations brand.

v. Goal and feedback

Approximately 60% of participants reported that they were accessing the data from the programme on a weekly basis to inform decision making.

"So, we meet, weekly because we need to make sure that we see the impact of the program, how the particular teams are assisted, are they reaching target? So, we have weekly meetings as, as the senior management team." [IDI 6]

Furthermore, 60% of participants reported discussing planned goals and targets on a weekly basis with frontline staff.

However, one participant highlighted how managers are often perceived by frontline staff as just focused on wanting to meet programme targets. This manager indicated that due to the limited focus on referrals in the programme, frontline staff experience "backlash" from the community which in turn affects their emotional health.

"So, we come in, we do a risk assessment and we identify the needs, but we don't have anyone to refer to. So, the question has always been, what is the point of all of this? ….But for now, it just seems like we are coming in, filling in a paper tool so we can submit and reach our targets. So, that does discourage the team in the field if that is the only service they are providing because they are the faces of the program! We are based in the office and we simply want the numbers, but they are based in the program, in the field. They make the promises, they receive all of the backlash in the community. So, it does eat away at their self-confidence, their self-esteem and over a period of time it does take a toll on an individual." [IDI 4]

vi. Learning climate

One-third of participants reported that frontline staff received refresher training on a quarterly basis. Over 90% of participants indicated that their frontline staff feel valued, and they are provided with the opportunity to test new methods in the field.

"The field teams feel that they are essential and valued partners in the program because they are able to contribute in changing AGYW's lives for the better." [IDI 6]

Nearly 43% of participants reported meeting monthly with fieldteams to brainstorm implementation strategies.

One project manager described the informal communication channels set-up between SRs working in the same area. These channels brought SRs together allowing them to learn from one other regarding implementation experiences and engendered a sense of "comradeship".

"Um… that one is easier because as SRs we realised immediately as the program started, that we would need to count on each other to make this work and so we created sort of like an informal structure in subdistrict X, where all of the SRs meet and we plan a way forward in spite of whatever is happening from the PR side. So, it was easier for us because we all felt like we were in the same boat, facing the same challenges, so we decided to come together and have that structure where we, you know, raise challenges and see what the other partner is doing. If you need help, here and there, the other partners are able to assist in a formal environment, meaning having meetings every month. And then we also have a WhatsApp group, so if you need a solution very quickly, you can post on the WhatsApp group and get an immediate response. So, it was that comradeship, understanding that we are facing the same challenges, which actually brought us together. Ever since then, we have been able to work well together because we even attend the same meetings with the PRs and when we raise issues, it is more or less the same issues across the SRs; so, I think that is what brought us together. " [IDI 4]

vii. Response to shocks

Key stressors that most organisations endured pre-COVID-19 included challenges with reaching programme targets (60%), infrastructure issues (38%), staff turnover (16%) and organisation governance issues (16%).

"So, there's pressure, there's pressure of targets. There's pressure of everything, you know. So that's how we end up having a high staff turnover. Maybe even the package of the salaries that people get, maybe they are low." [IDI 10]

The main concerns that most managers had during the COVID-19 pandemic included reaching programme targets (85%), safety and protection of staff (80%), and inability to work in communities (78%). IDI participants highlighted the challenges in implementing alternate strategies in the context of COVID-19 lockdown regulations.

However, the targets sometimes are out of this world, and there was COVID. Maybe it's because of COVID because… there was lock down restrictions. And so, you know, we could not move because of the lockout restrictions. [IDI 10]

"Our success rate for girls to come for the repeat call up until now it has been extremely low. In the last quarter along from September up until December, we only got eight girls that came back for their repeat girls otherwise it has been difficult." [IDI 5]

" It is tough and like I mentioned earlier we try and find alternatives and say okay so we will do door to door and when you do door to door going to visit people at home families don't allow strangers to come on their premises because we don't know whose bringing COVID-19..." [IDI 9]

"We continued being there for our girls. But the challenge that we then faced was that we then had girls who were then supposed to come back for their 6-month repeat call and… because we were on lockdown we couldn't come to the safe space. So, we were then told to do these repeat calls telephonically, but the girls would tell you straight out: 'I am not comfortable talking about my sexual life over the phone'. They would say: 'I can't do this over the phone!'" [IDI 5]

Accessing AGYW in rural areas due to poor inter-connectivity posed a major challenge for implementers as highlighted by one participant:

"we are in the rural area...well semi-rural...so online just doesn't work….for instance, where I'm speaking with you from, we don't have infrastructure. We use mobile routers so we cannot have Wi-Fi or telephone lines installed here." [IDI 9]

Participants highlighted the challenges with keeping staff motivated when they were unable to telephonically reach AGYW during the COVID-19 pandemic.

"…And then I think it was quite hard to keep staff motivated to do phones and WhatsApp calls to the young women because a lot of the numbers are wrong, we couldn't find the girls and that did affect staff morale quite a bit.[IDI 3]

Most participants reported that they implemented the following strategies to reduce the negative impacts of COVID-19: adjusted our platforms to reach AGYW telephonically or via social media (90%), allocated resources to safety and protection of staff and AGYW (80%); allowed non-essential staff to work from home (42%); partnered with other organisations who have more resources and reach (23%); referred AGYW to alternate service partners (23%).

One participant described how the COVID-19 pandemic allowed organisations to focus on strengthening data systems.

"I'm also grateful that I could focus 100% of my energy on data for two months, rather than split up between data and programming." [IDI 1]

Table 5: Description of CFIR dimensions-implementation climate. Data Source: Online Survey

IMPLEMENTATION CLIMATE	
Tension for change	
Rating of overall experience with overseeing implementation of the AGYW programme in this funding period*	
Good	1 (1.85)
Challenging	6 (11.11)
Better than the previous grant period	1 (1.85)
Good- but challenging during the COVID-19 pandemic	46 (85.19)
Compatibility	
The AGYW programme aligns with organisations own mission/vision/values*	
Agree	53 (98.15)
Disagree	1 (1.85)
The organisation had to set-up the following systems for the AGYW programme*	
HR	37 (68.52)
Financial, legal, contracting, procurement	31 (57.41)
IT	30 (55.56)
M&E	38 (70.37)
Relative priority	
Level of priority of the AGYW programme compared to other programmes run by the organisation**	
High priority	42 (79.25)
Medium priority	5 (9.43)
Equal	4 (7.55)
N/A- this is the only programme the organisation is implementing	2 (3.77)
Organisation incentives and rewards	
Being affiliated with the AGYW Global Fund programme will help build the brand of the organisation in the long run*	
Agree	52 (96.2)
Disagree	2 (3.70)
Goal and feedback	
Frequency at which management teams access data from the programme to inform decisions*	
Weekly	32 (59.26)

Monthly	14 (25.93)
6-monthly	1 (1.85)
It is mainly used when developing report	5 (9.26)
We do not engage with the data	2 (3.70)
Frequency at which planned goals and targets are feedback to the frontline teams*	
Weekly	32 (59.26)
Bi-weekly	9 (16.67)
Monthly	8 (14.81)
Quarterly	5 (9.26)
Learning climate	
Frequency at which frontline teams in the AGYW programme receive refresher training*	
Weekly	1 (1.85)
Monthly	14 (25.93)
Quarterly	18 (33.33)
6-monthly	6 (11.11)
Yearly	10 (18.52)
Never	5 (9.26)
Teams in the AGYW programme feel they are essential, valued and knowledgeable partners in the change process*	
Agree	49 (90)
Disagree	5 (10)
Frontline staff are allowed to try new methods on the ground to facilitate implementation*	
Yes	52 (96)
No	2 (4)
Frequency at which frontline teams meet with management to brainstorm ideas*	
Weekly	16 (29.63)
Bi-weekly	6 (11.11)
Monthly	23 (42.59)
Quarterly	7 (12.96)
End of financial period	1 (1.85)
Never	1 (1.85)
Response to shocks	
Key stressors the organisation endured pre-COVID-19	
Staff turnover	9 (16.36)
Broader funding cuts	3 (5.45)
Organisational governance issues	9 (16.36)
Infrastructure issues	21 (38.18)
Security and crime	9 (16.36)

Productivity goals and meeting targets	33 (60.00)
On a scale from 1-10, how challenging has it been for you to manage the programme during COVID-19	5.7 (SD: 2.7)
Main concerns of the programme during the COVID-19 project	
Staffing & budget	5 (9.09)
Programme targets	47 (85.45)
Safety and protection of staff in the field	44 (80.00)
Inability to reach AGYW	43 (78.18)
How to adapt the programme in this current climate to ensure safety of staff and AGYW	36 (65.45)
Inability to conduct our work in the communities	43 (78.18)
What strategies did you have to put in place to mitigate the COVID-19 impacts on the programme?	
We paused the programme	8 (14.55)
Allocated resources to safety and protection of staff and AGYW- sanitizers, masks, PPE	44 (80.00)
Adjusted our platforms to reach AGYW telephonically/virtually via WhatsApp/Facebook	50 (90.91)
Partnered with other organisations who have more resources and reach	12 (21.82)
Referred AGYW to alternate service partners	12 (21.82)
Adjusted staff contracts	2 (3.64)
Allowed non-essential staff to work from home	23 (41.82)
Other	2 (3.64)

* Missing value=1; N=54; ** Missing value=2; N=53

d. Readiness for implementation

i. Leadership engagement

The majority of participants (91%) indicated they were supported by PRs when they encountered problems with managing the programme (Table 6).

"I feel that they really, really are supported financially. Um …you know all of our budget lines; I feel have got sufficient funds within them." [IDI 1]

However, it was noted by one participant that the process of raising concerns and obtaining response from higher-level governance structures of the programme (PRs) is lengthy and "discouraging".

"And we actually had a meeting with the PRs, and we voiced our concerns, but nothing was really done. So, after a while we realised that even if you raise those concerns….it is not something that gets addressed immediately, it usually takes a while. There is a long process of… … the PR coming together with other PRs and then the information going to, I think there is a steering committee, and then that information going to Global Fund; so, that process is very long and discouraging." [IDI 4]

One participant expressed the lack of engagement with SSRs regarding budget planning for implementation which is often led by the SR.

"So, I think one of our challenges was that the SR is not based in the district. The SSRs are based in the district. So, we started on the wrong footing. For instance, the SR is responsible for the budgets so they don't even ask us you know when...when we put together the budget to implement... they don't do it with us... they do it on their own which works for them. ….So, those things cause the strain because they don't really understand the environment that we work in." [IDI 9]

ii. Available resources

Most participants indicated they with were provided with sufficient time to build partnerships (92%) and develop manuals and standard operating procedures (81%). However, only 68% of participants indicated they were given adequate time to reflect on the early phase of the implementation. Nearly two-thirds indicated they were able to adapt the programme to enhance its responsiveness.

"So, the training happened towards the end of last year and then we had to implement just before schools closed and try and get traction and that was quite challenging. Um I think every time a new element is introduced, there's not often enough time to consolidate the use of that new element and then you're constantly trying to catch up um by implementing what's new and consolidating the old um so I think that, that in terms of the actual content of the program has been hard to manage." [IDI 3]

One IDI participant highlighted that the experience gained from implementation during the previous fund round assisted their organisation overcome some of the time-constraints associated with the new round of funding.

" We were appointed very late. The program started in April 2019 and we appointed in October I think so we had to hit the ground running and hit the ground running at 120. So, there was not much training. There was not much... so everything you had to get as you went along. I think what was fortunate is that I was... I worked for the previous SR with a few other people that we started to implement the program with. So, we had the advantage of the experience from the previous round of implementing the AGYW programme." [IDI 9]

Some management levels expressed the challenges they encountered with having to fulfil multiple roles and the need to work overtime to complete tasks

" Being a project manager and be involved in finance and all such and it takes too much of my time to concentrate more like going out to stakeholders and all that. It takes most of my time because by the minute I get into the office, even the emails; you will have fifty emails which you need to respond on. Some of the emails require you to do this task and submit. It takes much of your time and work overnight and to also work over weekends. Those are the challenges of being a project manager." [IDI 8]

iii. Access to knowledge and information

The majority of participants (91%) indicated they received sufficient information from the PR regarding the implementation of the programme.

Table 6: Description of CFIR dimensions-readiness for implementation. Data Source: Online Survey

READINESS FOR IMPLEMENTATION	
Leadership engagement	
When you encounter a problem with regards to the programme implementation, are you supported by PRs in managing the situation?	
Agree	50 (91)
Disagree	5 (9)
Available resources	
Sufficient time was provided for your organisation to set-up the following activities for the AGYW Global Fund Programme**	
Hiring of staff	43 (81)
Setting up of information /M&E systems	44 (83)
Training of staff	41 (77)
Development of manuals/SOPs	43 (81)
Piloting	37 (70)
Reflecting on pilot/early phase of implementation	36 (68)
Make plans to adapt programme during this COVID-19 period	41 (77)
Developing partnerships with government departments	49 (92)
Developing partnerships with community/AGYW groups/other NGOs in this area	49 (92)
Your organisation is able to adapt the programme to improve its responsiveness**	
Agree	34 (64)
Disagree	19 (36)
Access to knowledge and information	
Received adequate information regarding the implementation of this programme from the PR	50 (91)

* Missing value=1; N=54; ** Missing value=2; N=53

3.2 Reflections on the programme- overview

When we asked both online survey and IDI participants on elements that facilitated implementation most highlighted the adequate funding received, community partnerships, resilience of staff and staff of the PR. However, a key barrier was the M&E systems of the programme (Table 7). Key suggestions for improving programme implementation included: adding additional staff, more time for planning, removal of risk assessment and the My Hope data system (Table 8).

Table 7: Current facilitators and barriers to programme implementation

What has worked?	What has not worked?
"The availability of funding"	*"The digital platforms e.g. My Hope and biometric devices"*
"Buy-in of the Traditional leaders"	*"Strained relations with the SR" (SSR perspective)*
"Teamwork and communications"	*"Recruitment during lockdown"*
"Resilience of staff" *"The willingness of staff to put their lives at risk to reach AGYW"*	
"The support provided by the PR to assist in preparing for implementation, the availability of the PR team to engage around key issues when necessary and reflect on how to improve"	

Table 8: Suggestions for improving programme implementation

What would you add to the programme?	What would you remove from the programme?
"Additional staff- field teams, linkage officers"	*"Remove the directive that Risk Assessments should be a facilitated discussion between interventionists and AGYW"* *…"Create an opportunity for AGYW to answer a Risk Assessment + privately and independently of an interventionist, with the assurance that their requested services will be arranged discretely and confidentially. Interventionists should be there to provide information and clarity if questions are confusing but cannot be expected*

	to extract reliable data from AGYW by asking the Risk Assessment questions."
"Incentives/branded material for AGYW"	*"Remove My Hope reporting system"* *The amount of administration time that's required by it [referring to My Hope system], for zero use value, is a hindrance to the program! [IDI 1]*
"Learnership programme for AGYW/economic strengthening component"	
"I definitely think that in the planning, I think there needs to be maybe the first quarter with our targets and with more interaction between NACOSA and the different organizations to strategically plan things better because I think like when you hit the ground running with targets you, you're not planning the strategy you're just doing the work" [IDI 3]	

4. Discussion

Leadership and management within South Africa's community health system, a key arm for its UHC/NHI initiatives, is a relatively poorly understood phenomenon. This study provides one perspective of this phenomenon through the lens of implementing partners involved in the delivery of a community-based AGYW HIV-prevention programme funded by the Global Fund. Using the inner setting domain of the CFIR, we identified three strongly distinguishing factors that influenced implementation, particularly during health shocks: networks and communication, autonomy, adaptative leadership skills. Our findings are consistent with other studies that identified these elements as key to successful implementation and response to shocks (Cleary et al., 2018, Sato and Gilson, 2015, Nxumalo et al., 2018). Our findings underscore the need for funders and governance structures of community-based HIV prevention programmes to actively assist programmes with establishing MOUs with key government departments, ensure implementers are involved in the design of key elements of the programme, provide space for implementers to adapt programmes for local context, and to build-in regular training on adaptative leadership (Laur et al., 2021) to increase their ability to effectively problem-solve to respond to shocks. Our findings have relevance for funders and programme planners considering re-structing community-based HIV programmes in the context of post-COVID-19.

Our results suggest that the success of the programme implementation often relied on strong relational internal and relational ties, with various health and non-health actors. Strong communication channels and trust between managers and frontline staff appeared to be a key ingredient for successful implementation. The interconnectedness of the programme within the broader system was evident. Strong relational ties were present in organisations that had a previous existing partnership with stakeholders, highlighting the importance of organisational history. However, most organisations highlighted the lack of critical system hardware such as MOUs which impeded their ability to develop tangible and intangible software such as relationship-building and trust (Gilson, 2012, Erasmus et al., 2017).

A notable finding from our study was the innovative response strategies implemented during the COVID-19 pandemic, which demonstrated resilience. Adaptative strategies such as reallocating resources towards safety and protection of staff, adjusting platforms to reach AGYW and partnering with other

stakeholders to access and refer AGYW were often employed to implement the programme during COVID-19 (Kagwanja et al., 2020). Absorptive strategies such as re-organisation of teams and their working schedules were also common (Kagwanja et al., 2020). It was evident that managers experienced reduced autonomy with decision making around the hardware of the system (M&E systems, risk assessment tools) which created a sense of anxiety as they dealt with implementation challenges during a complex period (Gilson, 2012). The inability to strategise around referrals and linkages were exacerbated by existing weak relationships between the organisation and government departments. This impacted their ability to streamline these critical activities during COVID-19 in order to meet targets. Accounts of response measures during COVID-19 highlighted that managers drew on the intangible software of values and communication. Values such as a sense of community within the areas they work in, camaraderie with other implementers, and a desire to improve the livelihoods of AGYW shaped managers' responses (Gilson, 2012). This finding is consistent with the view that a strong value-driven purpose directs the range of choices for action in resilient organisations (Kagwanja et al., 2020, Barasa et al., 2018). Overall, their experiences of managing the programme during the COVID-19 pandemic highlight the challenges of intervening in a complex health system during pandemics.

Key strengths of the study include: 1) use of a mixed-method study design to understand what impacts implementation and how these factors impeded or facilitate implementation; 2) use of the a validated implementation framework (CFIR) to inform data collection and analysis; 3) obtaining perspectives from both top and middle-management levels; 4) analysis and interpretation of our data was done jointly with the investigator team.

Our study is subject to the following limitations. Our sample size for the online survey was small due to the low number of participants we completed the survey. We did not collect data on level of the implementing partner (SR, SSR), and. Given that our email list for the survey mainly contained email addresses of SRs, and our qualitative sample contained only 1 participant from an SSR, our findings may likely be more reflective of implementation experiences of SRs. We did not interview the PRs or funders of the programme. This would have brought into focus the formal processes of policy development, resource mobilisation and decision making

In conclusion, this study has contributed to the empirical understanding of leadership and management within a large-scale community-based HIV prevention programme for AGYW. It found that strong relational ties, autonomy in key elements of the programme and adaptive leadership skills are critical for effective delivery and scale-up of this programme. It highlights the importance of involving managers of implementing organisations at the early stages of planning process with funders and other governing institutions. This will allow for bottom-up input into key decision-making processes. As South Africa moves towards various community-based models to achieve UHC, the importance of early engagement with implementing partners and development of adaptative leadership skills to manage future health shocks will be critical.

Appendix 1: CFIR- Inner setting dimensions

Dimension	Definition
A. Structural Characteristics	The social architecture, age, maturity, and size of an organization
B. Networks & Communications	The nature and quality of webs of social networks and the nature and quality of formal and informal communications within an organization
C. Culture	Norms, values, and basic assumptions of a given organization
D. Implementation Climate	The absorptive capacity for change, shared receptivity of involved individuals to an intervention and the extent to which use of that intervention will be rewarded, supported, and expected within their organisation
1. Tension for Change	The degree to which stakeholders perceive the current situation as intolerable or needing change
2. Compatibility	The degree of tangible fit between meaning and values attached to the intervention by involved individuals, how those align with individuals' own norms, values, and perceived risks and needs, and how the intervention fits with existing workflows and systems
3. Relative Priority	Individuals' shared perception of the importance of the implementation within the organization
4. Organizational Incentives & Rewards	Extrinsic incentives such as goal-sharing awards, performance reviews, promotions, and raises in salary and less tangible incentives such as increased stature or respect.
5. Goals and Feedback	The degree to which goals are clearly communicated, acted upon, and fed back to staff and alignment of that feedback with goals
6. Learning Climate	A climate in which: a) leaders express their own fallibility and need for team members' assistance and input; b) team members feel that they are essential, valued, and knowledgeable partners in the change process: c) individuals feel psychologically safe to try new methods; and d) there is sufficient time and space for reflective thinking and evaluation
*7. Response to shocks (added in)	
E. Readiness for Implementation	Tangible and immediate indicators of organizational commitment to its decision to implement an intervention.
1. Leadership Engagement	Commitment, involvement, and accountability of leaders and managers with the implementation

2. *Available Resources*	The level of resources dedicated for implementation and on-going operations including money, training, education, physical space, and time
3. *Access to knowledge and information*	Ease of access to digestible information and knowledge about the intervention and how to incorporate it into work tasks

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