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 2/5: AGYW SURVEY

1. OVERVIEW OF FINDINGS AND COMBINED RECOMMENDATIONS | 3. QUALITATIVE EVALUATION | 4. LEADERSHIP AND MANAGEMENT EVALUATION | 5. RECORD REVIEW

HERStory 2

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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

AGYW survey report

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Executive summary

Introduction

From 2016 to the present day, the Global Fund to Fight AIDS, TB and Malaria has invested in a combination intervention for adolescent girls and young women in South Africa, with the aim of reducing HIV incidence, teenage pregnancy, and gender-based violence and increasing retention in school and access to economic opportunities. Combination HIV prevention interventions, which merge effective biomedical, behavioural and structural interventions for combined delivery, are one of the key strategies for reaching the 90-90-90 targets and achieving the Sustainable Development Goal (SDG) of ending the HIV epidemic by 2030 (1). Catherine Mathews and her colleagues at the South African Medical Research Council were requested to conduct a process evaluation of the AGYW combination intervention being implemented during the 2019 to 2022 Global Fund grant period.

Informed by the Medical Research Council guidance on process evaluation of complex interventions (2), and by the importance of evaluating service coverage cascades, we conducted a process evaluation of the AGYW combination intervention 2019 to 2022. This process evaluation has several sub-components or sub-studies. This report describes the survey of a random sample of AGYW beneficiaries of the Global Fund funded AGYW programme. The other sub-studies are described in associated reports.

Aim and objectives

The aim of this process evaluation was to assess whether the intervention was being **implemented as planned** and whether the implementers were on a trajectory to achieve the outcomes, with reference to the theory of change (logic model) for the intervention being delivered in the current grant period 2019 to 2022. This report describes one component of the overall HERStory process evaluation: the survey of AGYW participants. Through the AGYW survey, we sought to evaluate the **coverage** of the intervention and whether it was aligned to the theory of change.

The objectives were as follows:

a) Describe the coverage of the HIV and sexual and reproductive health interventions according to age group, socioeconomic status, HIV risk and district
b) Assess whether the coverage of HIV and sexual and reproductive health interventions was aligned to the theory of change using coverage cascades
c) Investigate barriers to, and reasons for gaps in coverage

d) Describe the effect of the COVID-19 pandemic and lockdowns on coverage of HIV and sexual and reproductive health interventions

Study design

Between 1 December 2020 and 28 February 2021, we conducted a telephone survey with a random sample of AGYW beneficiaries of the AGYW programme who had been enrolled at least one year before.

Sampling

Within each of the six districts in which the AGYW programme was being implemented, we randomly selected 360 AGYW beneficiaries (Table A, using as a sampling frame a de-identified version of the My Hope programme monitoring database, which included a comprehensive list of every participating AGYW.

Table A: Survey sample used for the study

District	Bojanala	Klipfontein	King Cetshwayo	Ehlanzeni	Nelson Mandela Bay	Thabo Mofutsanyana (Dihlabeng)	Total
Principal Recipient	NACOSA	NACOSA	AFSA	AFSA	Beyond Zero	Beyond Zero	**3**
AGYW 15-19 years in school	200 (Core: 150 Layer: 50)	200 (Core: 150 Layer: 50)	200 (Core: 150 Layer: 50)	200 (Core: 150 Layer: 50)	200 (Core: 150 Layer: 50)	200 (Core: 150 Layer: 50)	**1200**
AGYW 15-19 years out of school	40 (Core: 30 Layer: 10)	40 (Core: 30 Layer: 10)	40 (Core: 30 Layer: 10)	40 (Core: 30 Layer: 10)	40 (Core: 30 Layer: 10)	40 (Core: 30 Layer: 10)	**240**
AGYW 20-24 years	120 (Core: 90 Layer: 30)	120 (Core: 90 Layer: 30)	120 (Core: 90 Layer: 30)	120 (Core: 90 Layer: 30)	120 (Core: 90 Layer: 30)	120 (Core: 90 Layer: 30)	**720**
Total AGYW	**360**	**360**	**360**	**360**	**360**	**360**	**2160**

We provided the Principal Recipients with the list of sampled AGYW beneficiaries' unique numbers. The Principal Recipient provided brief details about the study to the sampled beneficiaries using a script, and asked the AGYW if she would be willing to be contacted by a HERStory study team member to be invited to the study. A HERStory study team member contacted by phone each of the AGYW to invite her to participate in the study and administered the consent process with her telephonically. If the AGYW was under 18 years of age, we first obtained parental consent before we conducted the consent process with the AGYW.

Measurement

We invited consenting AGYW to complete a phone survey in the AGYW's language of choice, administered by a HERStory interviewer. Each participant received R100 reimbursement after completing the survey.

Results

Sample realization and response rates

The Sub-Recipients were unable to contact many of the sampled beneficiaries. The proportion of the sampled beneficiaries that the SR was unable to contact (to ask whether they would be willing to be called by a HERStory study team member to be invited to the study) varied by district as follows: Bojanala: 71.4%; Klipfontein: 73.8%; King Cetshwayo: 63.3%; Ehlanzeni: 46.7%; Nelson Mandela Bay: 32.7%; and Thabo Mofutsanyana: 74.6%.

Table B describes the proportion of sampled beneficiaries who participated in the survey, by district and age group. The overall sample realization was 23.8%.

Table B: Adolescent girls and young women survey sampling realization and response rates

District	Bojanala	Klipfontein	King Cetshwayo	Ehlanzeni	Nelson Mandela Bay	Thabo Mofutsanyana	Total
	Freq (%)	**Freq (%)**	**Freq (%)**	**Freq (%)**	**Freq (%)**	**Freq (%)**	
Principal Recipient	NACOSA	NACOSA	AFSA	AFSA	Beyond Zero	Beyond Zero	
AGYW 15-19 years in school	24/200 (12.0%)	6/200 (3.0%)	43/200 (21.5%)	79/200 (39.5%)	30/200 (15.0%)	30/200 (15.0%)	**212/1200 (17.7%)**
AGYW 15-19 years out of school	9/40 (22.5%)	9/40 (22.5%)	15/40 (37.5%)	1/40 (2.5%)	5/40 (12.5%)	13/40 (32.5%)	**52/240 (21.7%)**
AGYW 20-24 years	30/120 (25.0%)	43/120 (35.8%)	68/120 (56.7%)	28/120 (23.3%)	35/120 (29.2%)	47/120 (39.2%)	**251/720 (34.9%)**
Total AGYW	**63/360 (17.5%)**	**58/360 (16.1%)**	**126/360 (35.0%)**	**108/360 (30.0%)**	**70/360 (19.4%)**	**90/360 (25.0%)**	**515/2160 (23.8%)**

Description of the participants

Almost all the 515 survey participants were born in South Africa (97.9%), and were unmarried (97.8%). Most participants (87.0%) had lived in their present community for five or more years. Most (73.9%) reported that they had ever had sex, and among those, 93.7% had had sex during the 12 months before the survey. Approximately one third of participants (30.1%) reported that they had ever been pregnant,

and 23.5% reported they had one or more living children. Most participants (78.1%) reported that they had been enrolled in an educational institution at the beginning of 2020, with participants in the younger age group being significantly more likely to report this. In October 2020, 75.0% were enrolled in an educational institution, and 6.8% reported that they had dropped out of an educational institution during the year.

Very few participants (7.2%) reported that they had worked to earn money in the week before they participated in the survey. Statistically significantly more participants in the older age group reported working in the week before the survey (10.7%; 95% CI: 7.0% to 15.6%) compared with the younger age group (3.5%; 95% CI: 1.5% to 6.9%).

We determined that 11.2% of participants could be described as not in education, employment or training (NEET), with statistically significantly more participants in the 20 to 24 year age group defined as NEET (19.2%; 95% CI: 13.5% to 26.1%) compared with the 15 to 19 year age group (6.3%; 95% CI: 3.4% to 10.5%).

Participation in components of the AGYW Programme funded by the Global Fund

Nearly a third (27.6%) of all beneficiaries knew of an NGO in her community which provided "a safe space for young women to hang out and receive support", 23.6% spent time at a safe space in their community in the past year, and 14.7% had received the "My Journey" diary. Almost half (47.6%) of AGYW who used the safe space reported having an HIV test at the safe space, 66.2% reported that condoms were available at the safe space and 79.5% reported that information about health services for young women were available at the safe space. Furthermore, 86.4% of beneficiaries who had utilised a safe space said that it was a comfortable space to be in which suggests that going to the safe space was a positive experience for AGYW and a safe environment in which to receive HIV prevention services.

In the month before the survey, 23.7% of beneficiaries reported having received HIV testing from an NGO in their community in the month before the survey, and 9.0% reported receiving family planning from an NGO in her community in the past month.

HIV testing uptake

Participants reported very high levels of HIV testing, with 87.5% having ever been tested and 80.3% having been tested in the year before the survey. It is not known whether the tests were provided through the AGYW programme, though it is noteworthy that more than a quarter of the most recent HIV tests (27.6%)

were obtained at school or community sites, suggesting the AGYW programme played an important role in HIV testing coverage. Beneficiaries in the older age group were statistically significantly more likely to report ever having been tested, with almost all of the women in the 20 to 24 year age group (97.4%) having been tested, compared with 81.3% in the 15 to 19 year age group. The factors associated with having had an HIV test in the year before the survey were being in the older age group, having a living mother or father, fulfilling the study definition of being NEET, having ever had sex, ever having been pregnant, and ever having used contraception. When asked to report on quality of care criteria at their last HIV test, 85.3% reported the waiting time was reasonably short; 97.0% reported being treated in a friendly manner by the person who tested them; 96.5% reported the person who tested them was respectful of their needs; 87.5% reported that all other staff at the testing facility were friendly and respectful; 90.2% believed that their test result and other information they had shared would be kept confidential; and 96.5% reported that the health information they had received was clear and understandable.

Coverage of PrEP interventions and services among AGYW at risk of HIV infection

We constructed an HIV prevention cascade for PrEP, in which we defined the population in need of PrEP as all beneficiaries who had sex within the 12 months before the survey and did not identify as HIV-positive. The percentage of AGYW who were motivated to use PrEP (62.9%) and had access to PrEP (43.8%) was substantially higher than the percentage of AGYW who had ever used PrEP (8.3%, not shown in the cascade), who were using PrEP at the time of the survey (3.7%) and effectively using PrEP (3.0%) at the time of the survey (Figure A). We found that there were no significant differences in motivation, access, use and effective use of PrEP between groups of beneficiaries reporting HIV risk factors such as multiple partners, age disparate partners, and groups of beneficiaries not reporting such risk factors.

Factors associated with gaps in PrEP coverage

The factors associated with the gaps in motivation for PrEP among AGYW in the study population included inadequate knowledge about the effects of PrEP on HIV incidence, lack of confidence about taking PrEP every day and after a meal, lack of confidence about taking PrEP if friends, parents, or family members disapproved, and lack of confidence about taking PrEP if others think the AGYW has HIV.

The factors associated with gaps in access to PrEP include never having been offered PrEP (75.9% reported they had never been offered PrEP) and never having received education and counselling about PrEP. Being in the younger age group was also associated with lack of access to PrEP.

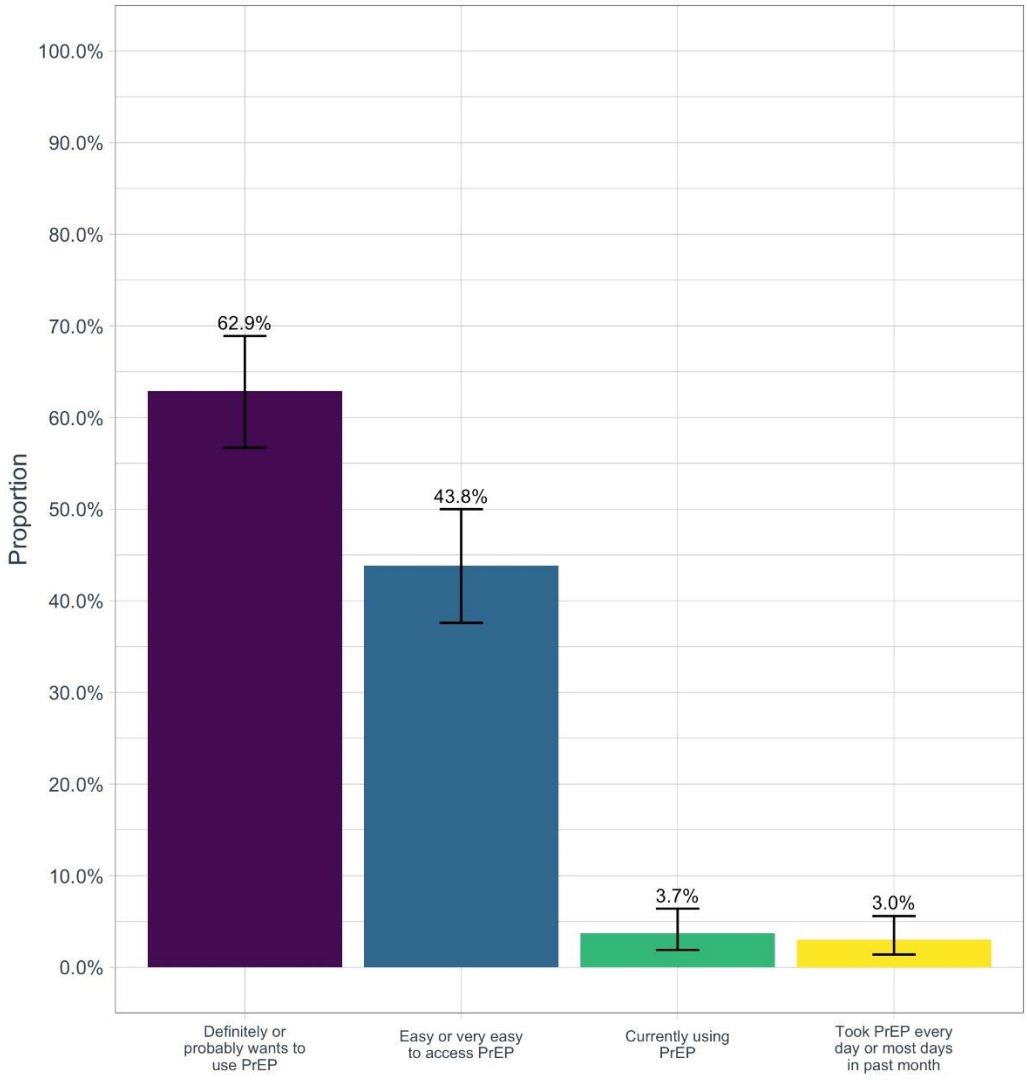

Figure A: Motivation to use, access to, use and effective use of PrEP by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive (n = 351).

Coverage of condoms among AGYW at risk of HIV infection

We constructed HIV prevention cascades for male condoms among AGYW in need of HIV prevention, defined as those who had had sex within the 12 months before the survey and did not identify as HIV-positive. The overall cascade (Figure B) demonstrates very high levels of motivation to use condoms (89.1%), access to condoms (82.7%), and use of condoms (89.7%), suggesting the potential for positive outcomes related to HIV prevention. The level of effective use of condoms was low (22.3%). AGYW who had more than one male sex partner in the six months before the survey were less likely to effectively use condoms (7.8%) compared to those who did not (26.2%).

Factors associated with gaps in condom coverage

Most AGYW were motivated to use condoms with their partners, and our analyses did not identify any factors associated with gaps in motivation to use male condoms with partners. Our analyses found that the factors associated with gaps in access to male condoms included: being in the younger age group; and reporting that it was difficult to get male condoms for unspecified reasons.

We found several factors related to “demand-side” issues were associated with gaps in the effective use of male or female condoms: AGYW not having condoms to use; AGYW reporting dislike of condoms; AGYW believing she was not at risk of getting HIV; AGYW’s concerns about what their sexual partner would think if they asked to use condoms; believing that their partner opposed the use of condoms; and having one partner who they trusted. On the “supply-side” we found that the AGYW having experienced stock-outs of condoms was associated with gaps in effective use of condoms.

Female condom coverage

Less than half of all beneficiaries (39.0%) of the AGYW programme believed that it would be easy or very easy to access condoms, 30.2% of AGYW had received counselling and instructions on how to use female condoms and only 1.7% of AGYW had used a female condom in the past six months.

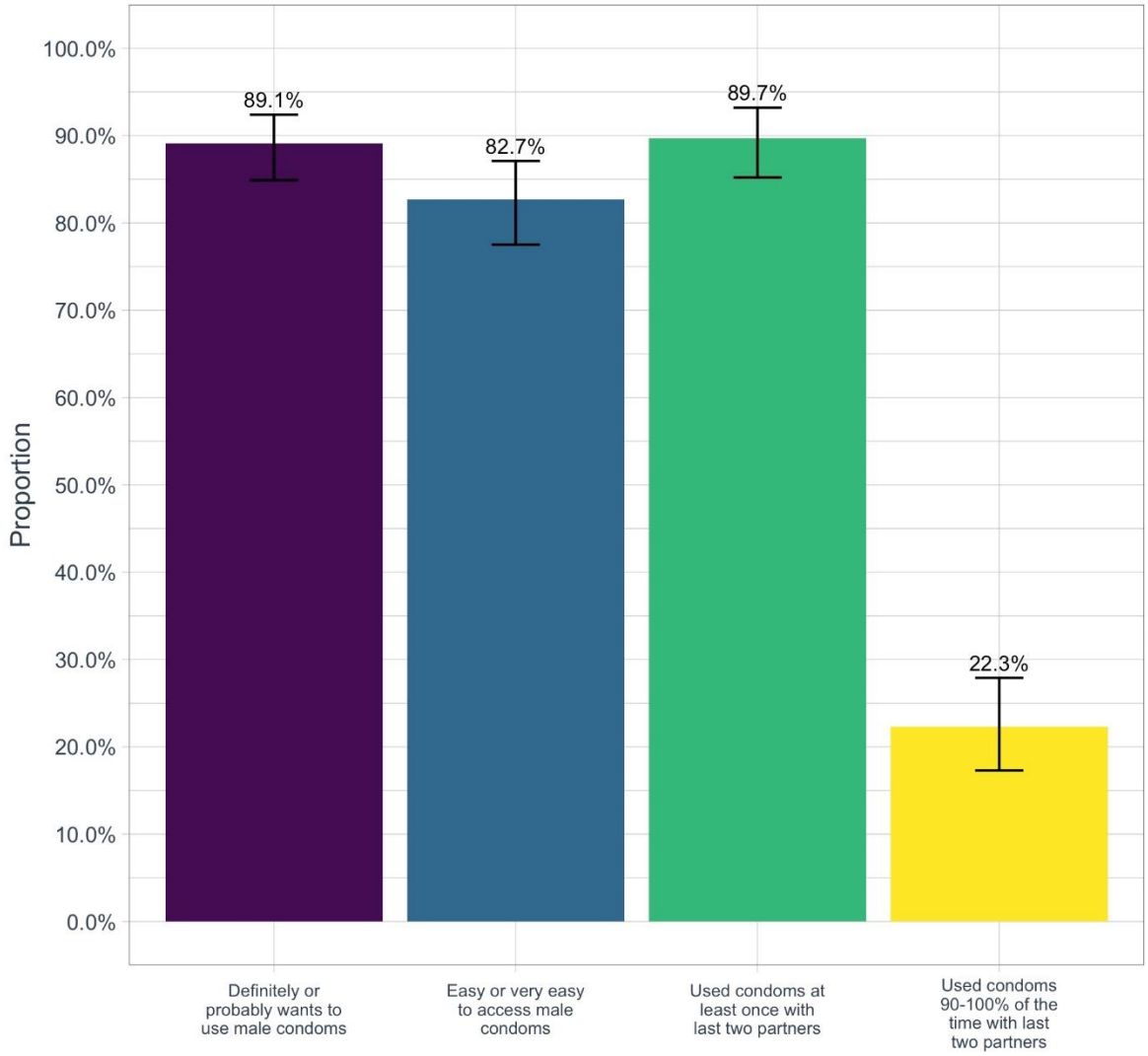

Figure B: Motivation to use, access to, use and effective use of male condoms by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive (n = 351).

Coverage of HIV care interventions among AGYW living with HIV

Our assessment of the coverage of HIV treatment and care services was limited by the small number of participants who reported they were living with HIV (15 participants). Our findings demonstrate good access to and coverage of HIV treatment and care services. All beneficiaries living with HIV were taking ART and almost all (96.0%) had had their viral load test within a year before the survey. Most AGYW (90.0%) said they started taking ARVs within three months of diagnosis. When asked whether, at their last viral load test, their viral load was suppressed, 9.2% reported that it had been suppressed, 33.8% reported unsuppressed, 50.9% reported that they had not been told, and 6.2% reported that they did not know. All participants living with HIV reported that at their last clinic appointment for HIV treatment, healthcare workers had treated them in a friendly manner and had been respectful towards them. Encouragingly, all AGYW living with HIV reported they had had no problems accessing their ART during COVID-19 or the lockdown. However, they gave somewhat contradictory reports about this, because 16.5% reported they had missed one or more appointments for collecting their ART because of COVID-19 and the lockdown, and 24.7% said they missed taking their ART pills because of COVID-19 and the lockdown. Only 12 of the 15 participants living with HIV reported that they had ever had sex. Among those who had ever had sex, 50.4% reported that they had used a condom 90-100% of the times when they had sex with their last male partner.

While we have shown that there were high levels of access to HIV treatment, participants reported suboptimal levels of adherence to the ART regimen. For example, only 61.6% beneficiaries living with HIV reported they had taken their ART medication 90-100% of the time and only 57.2% said they did a “very good or excellent” job of taking their ART in the way they are supposed to.

Coverage of pregnancy prevention interventions and services among AGYW at risk of pregnancy

Our study reveals that among beneficiaries who reported they had had sex in the year before the survey, motivation to use contraception (72.3%) and ease of access to contraceptive services (80.0%) were high (Figure C). Beneficiaries also reported a relatively high level of contraceptive use: most (65.5%) reported that they had used contraceptives during the six months before the survey. Fewer beneficiaries (28.1%) reported using contraceptives effectively, defined in this study as 90%-100% of the time in the six months before the survey (Figure C). It is possible that our estimates of the effective use of contraceptives reflected the time in which the survey was conducted. Participants reported that they had had fewer sexual partners and less sex as a result of the lockdown, and this might have resulted in lower than usual uptake and use of contraceptives.

Factors associated with gaps in coverage of pregnancy prevention interventions

The factors associated with gaps in motivation to use contraceptives were: being in the younger age group; beliefs that the contraceptive injection was not a good pregnancy prevention method for young women and that it made the body change in unpleasant ways; and beliefs that the contraceptive injection, implant and pill were not safe for young women.

The factors associated with gaps in access to contraception were: being in the younger age group; never having been offered contraception; believing that it was difficult to access contraceptives; believing that it would cost too much to get contraceptives; and believing that it was far to go to the contraception services.

The factors associated with gaps in the effective use of contraceptives among AGYW who had ever used contraceptives were: being in the younger age group; not being sexually active at the time of the survey; disliking the side effects of contraceptives; AGYW reporting that they had run out of contraceptives; perceiving the service opening hours to be inconvenient; having experienced a stock-out of contraceptives at the service; and reporting COVID-19 or the lockdown as a barrier to getting contraceptives. Various indicators of poor family planning service quality were also associated with gaps in effective use of contraceptives: AGYW reporting they had been steered or pushed towards a specific contraceptive method; reporting they had not received the contraceptive method of their choice; and believing that the information they shared at the contraceptive service would not be kept confidential.

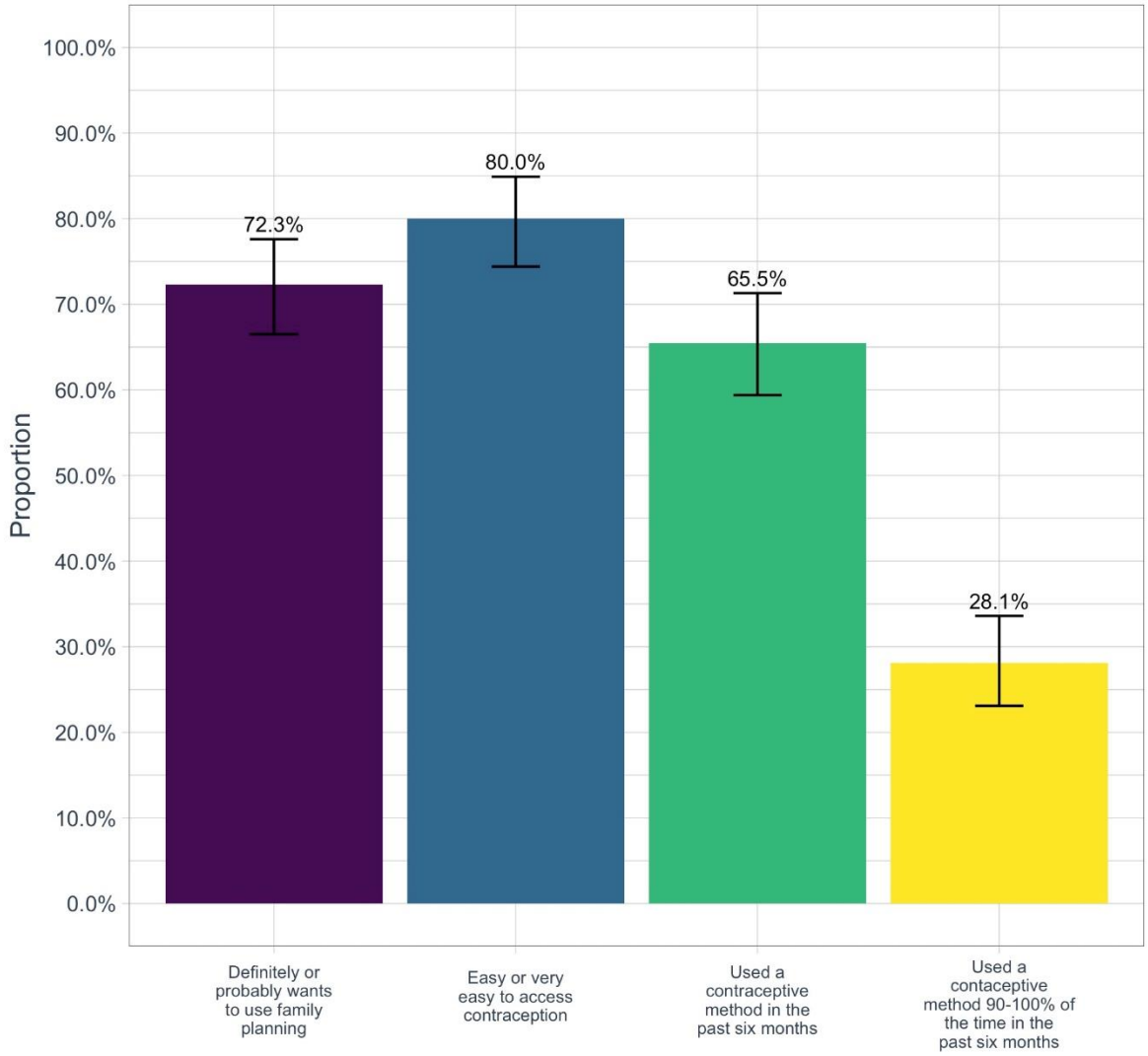

Figure C: Motivation to use, access to, use and effective use of family planning by AGYW who had had sex within the 12 months before the survey (n = 360).

Alcohol use

Our survey found that 2.7% of beneficiaries reported binge drinking (1.2% in the younger age group and 4.7% in the older age group).

The impact of COVID-19 and the lockdown

By AGYW's own accounts, the COVID-19 pandemic and the lockdown had a devastating effect on their lives, health, and access to health care based on their responses to the survey questions. Regarding access to health care, 22.5% of participants were unable to go to a clinic or doctor when they needed, 34.9% said they were unable to get the medicines they needed, 22.5% said they were unable to get the contraceptives they needed, and 21.0% reported challenges accessing condom because of COVID-19 and the lockdown.

Regarding livelihoods, 69.8% of the participants reported that she or a family member experienced financial problems during COVID-19 and the lockdown, 73.4% reported concerns about food running out, and 24.0% said they had gone a day and night without food due to lack of money during COVID-19 and the lockdown. Regarding education, almost half (44.5%) of the participants reported they had been unable to continue with their studies because of COVID-19 and the lockdown. Regarding health and well-being, 67.1% reported they had become more distressed and anxious during COVID-19 and the lockdown and 49.6% reported they had found it harder to get to the emotional support they needed during COVID-19 and the lockdown. Some participants reported that since the pandemic and the lockdown, there was more violence in their home (14.1%), and that they were more worried about being physically abused (12.1%) emotionally abused (22.1%) or sexually abused (6.6%).

Discussion

Contacting beneficiaries to invite them to the survey

The finding that a high proportion of enrolled beneficiaries was uncontactable for the research suggests that the programme implementers would also be unable to successfully retain and stay in contact with many of the beneficiaries over time to ensure their needs are met through the programme. This finding suggests the importance of exploring ways to successfully retain beneficiaries in the programme over time. The qualitative process evaluation that accompanies this report suggests that there might be a need to re-design the enrollment session in which AGYW first have contact with the programme. If implementers build a rapport with AGYW clients, and if AGYW have a positive experience of the first session and perceive potential benefits of the programme, it might be easier to maintain contact with the

AGYW over time. This would mean that the implementers would be able to reach those who need layered services and provide further support to them. On the other hand, it is possible that the difficulty of contacting beneficiaries was a unique and unexpected challenge that arose due to COVID-19.

HIV prevention cascades for PrEP

We found low levels of PrEP use (ever use and current use), and we speculate that this might be because our evaluation occurred before the widespread implementation of PrEP among beneficiaries, and at a time when it was difficult for the programme to procure the necessary PrEP supplies. According to the principal recipients, the procurement of PrEP through the National Department of Health was first delayed by seven months, and then there were barriers to ensuring a constant supply. This is supported by our finding that most participants (75.9%) reported they had never been offered PrEP. Also, the My Hope records show that fewer beneficiaries were referred for PrEP initiation or re-initiation in the first two six-month periods of the grant, compared to the second two six-month periods, as shown in the record review report accompanying this report. We found that while 8.3% of AGYW who were potentially at risk of HIV infection had ever used PrEP, only 3.7% were using it at the time of the survey. This drop in use might have been associated with PrEP access difficulties related to procurement of supplies by the PRs, or related to difficulties in reaching AGYW during the COVID-19 pandemic and lockdown. This is supported by the finding that 11.3% of participants reported that they had not been able to get the PrEP pills they needed because of COVID-19 and the lockdown.

Nevertheless, it is important to acknowledge that even though PrEP is a relatively new HIV prevention strategy, our results show relatively high levels of knowledge about PrEP, and motivation to use PrEP among AGYW. These are important precursors to PrEP uptake and our findings suggest that there is a substantial population of beneficiaries who would be amenable to using PrEP. The qualitative evaluation which accompanies this report has identified some of the concerns beneficiaries have around PrEP and its effects/side-effects. To further increase motivation for PrEP, these concerns and misconceptions could be addressed using information, education, and communication interventions.

We constructed HIV prevention cascades for PrEP, stratified by factors that increase the risk of HIV, to assess whether AGYW engaging in higher HIV risk sexual activities (multiple sexual partners, age disparate sexual relationships and transactional sex) or who reported other factors which put them at higher risk of HIV (alcohol use, fear of partner) had better coverage of PrEP. However, we did not observe any noteworthy differences is the cascades stratified by risk factors. As mentioned above, one possible reason that we did not see higher coverage of PrEP in beneficiaries at higher risk of HIV might be because, at the

time of the survey, the PrEP services had not yet been fully implemented in the six districts and that acceptability of PrEP is still in flux as a relatively new HIV prevention technology.

The factors associated with gaps in AGYW's motivation to use PrEP in our analyses include not knowing that PrEP could reduce a person's risk of acquiring HIV by 70% or more, and not having the confidence to take PrEP at the appropriate time and no matter whether other people (friends, parents, or family elders) disapproved or might think that the AGYW had HIV. These findings highlight knowledge about PrEP and social attitudes towards PrEP as barriers in AGYW's motivation to use PrEP. Interventions which could increase AGYW's motivation to use PrEP may include educational campaigns delivered in schools, healthcare settings, communities and through the social media. Interventions to shift social norms regarding PrEP could also be effective especially when delivered through peers and social networks.

We have shown that the factors contributing to gaps in access to PrEP were never having received instructions or counselling on how to use PrEP and never having been offered PrEP. We did not look at the factors associated with the effective use of PrEP given the low levels of PrEP use in the study population, however, we assume that the barriers to motivation and access will also influence the effective use of PrEP. In terms of interventions to tackle the outlined barriers, educational campaigns will be important in improving access to, and motivation for using PrEP. However, structural interventions such as increasing the number of settings in which AGYW may be offered PrEP, especially among adolescent girls (15-19 years old), could also improve PrEP coverage among AGYW.

HIV prevention cascades for condoms

Fewer than a quarter of AGYW at risk of HIV reported effective use of condoms. While using condoms is recommended when engaging in oral, vaginal or anal sex with a partner whose HIV and STI status is unknown, condoms are particularly important when engaging in high risk sexual activity such as having multiple sexual partners, age disparate sexual relationships and transactional sex. We found that condom coverage indicators were lower among AGYW who reported more than one sexual partner. This could suggest that participants' risks and vulnerabilities, as described in the theory of change, may not have been accurately assessed through the risk assessment tool as part of the core services. If they had, AGYW engaging in high risk sexual behaviours could have been given targeted education and counselling to improve the effective use of condoms. Nevertheless, there are multiple reasons why AGYW do not use condoms effectively, and it is important to note that these AGYW might have been given such targeted

education and counselling, but there might have been other factor beyond the control of the programme implementers which influenced whether they used condoms effectively.

Being in the younger age group was the main factor associated with gaps in access to male condoms. This suggests that interventions which aim to improve access to male condoms should target adolescent girls. The factors associated with gaps in the effective use of condoms were numerous. The barriers to using condoms effectively included not having condoms or lack of access to condoms due to stock-outs (we did not gather information on where the stock-out occurred), being worried what your partner may think if you asked to use condoms or opposition from sexual partners on the issue of condom usage, not believing you were at risk of HIV, disliking condoms or having a faithful partner who you trust. Thus, interventions to improve adherence to condoms will need to address barriers to physically accessing condoms as well as AGYW's personal beliefs about HIV risk and condoms, and their intentions to use condoms. Interventions to empower women to negotiate condom usage with their partners are important. However, there is also a need for other intervention approaches (described in more detail here: https://www.tandfonline.com/doi/full/10.1080/19317611.2020.1851334) including engaging young men and women in dialogues about gender to critique existing notions of manhood and womanhood, and reinforce positive forms of masculinity that enable more equal power in negotiations over condom use. Structural interventions which increase the availability of condoms and the number of settings in which AGYW's can access condoms (e.g. schools, clinics, community centres and safe spaces) could improve access and thus effective use of (adherence to) condoms. Risk-reduction counselling may also improve adherence to condoms and economic or gender empowerment may enable young women to choose their sexual partners and negotiate condom use. There is also a need to promote condom use among boys and men, the sexual partners of AGYW.

Pregnancy prevention cascades

If we assume that all the participants who had had sex in the year before the survey were at risk of pregnancy, and if we further assume that most of them did not plan to become pregnant, then our study has demonstrated an unmet need for contraception, with only 28.1% reporting effective use of contraception in the six months before the survey. However, it is worth noting the high motivation for contraception, the perceived easy access to contraceptive, and the high level of contraceptive use reported by the beneficiaries. These are precursors to the effective use of contraception, and this highlights a window of opportunity for improving effective use of contraceptives.

Our analyses of the factors associated with gaps in the pregnancy prevention cascade highlight the importance of both "demand-side" and "supply-side" interventions to improve pregnancy prevention coverage including: the provision of information and education campaigns on the safety and efficacy of contraception through schools, communities, mass media and other platforms; the provision of contraception services in more accessible spaces including schools, community halls and other platforms where young women congregate; interventions to engage schools to eliminate barriers to provision of pregnancy prevention services in the school premises; interventions to extend contraceptive provision to the private sector, such as to retail pharmacies; health services which offer a range of contraceptive methods; the provision of person-centred contraceptive services in which health providers work with AGYW to address their concerns about side effects and to find the contraceptive method of choice for each client; interventions to improve adherence to contraceptive use among AGYW such as behavioural counselling and the provision of incentives. Our analyses consistently show that being in the younger age group presents a gap in the coverage of pregnancy prevention interventions, and therefore it is important to tailor the interventions mentioned so that they are responsive to adolescents' needs.

Alcohol use

Our estimates of binge drinking are lower than those reported in a representative household survey of AGYW living in areas in which the Global Fund funded AGYW programme was implemented during the 2016-2019 grant period, which found a prevalence of 10.3% reporting binge drinking (https://www.samrc.ac.za/intramural-research-units/healthsystems-herstory). Interventions to prevent and treat hazardous alcohol use among AGYW beneficiaries are nonetheless very important given the impact of alcohol on HIV prevention and treatment, and on pregnancy and gender-based violence.

The COVID-19 pandemic

By their own accounts, the COVID-19 pandemic and the lockdown had a devastating effect on AGYW's livelihood, health, and access to the health care they needed. It is important to note that the participants of this study have reported potentially less HIV risk behavior (fewer sexual partners and fewer incidences of sex) during the pandemic and lockdown, but greater concerns about being victims of violence. These concerns reflect a need for interventions to protect AGYW from violence especially during situations in which their access to the usual social protection resources are undermined, such as the lockdown.

To ensure the needs of AGYW are met during the pandemic and lockdowns, support is required for civil society organisations, such as those implementing the AGYW programme, as they have first-hand knowledge of the needs of the communities in which they operate and the impact of the pandemic therein

(3). Government-led structural interventions are also important as they can create an enabling environment for behaviour change: for example, mass distribution of condoms, contraceptives and ARVs at least during the short-term (4). However, civil society organisations can hold governments accountable and ensure these resources are distributed in an unbiased and equitable manner (3), and can support AGYW and youth to monitor the access and availability of commodities.

Study limitations

This survey of AGYW beneficiaries of the AGYW programme funded by the Global Fund reflects coverage predominantly during the COVID-19 pandemic and various levels of lockdown. A key limitation of conducting the study in the context of the COVID-19 pandemic is that the results will not reflect the true potential of the intervention.

The results of the survey reflect coverage predominantly during the early phase of the grant period, when not all the intervention components were being widely implemented. There had been a staged roll-out of various services and interventions, and our study was conducted among beneficiaries who had been enrolled when some of the services were not yet fully implemented. A limitation of conducting the study among beneficiaries who were enrolled in the early period is that the findings do not reflect the full potential of the intervention when all components are effectively implemented. This limitation affected our estimates of intervention coverage.

One of the important limitations of the study design is that the success of the sampling strategy was dependent on the AGYW beneficiaries being contactable by the SRs, predominantly by phone. Those who were not contactable by phone are likely to be different to, and possibly more vulnerable than those who were contactable, and this may have introduced a bias in the study findings. A consequence of the sample realization of 23.8% was a lower precision of the estimates, particularly for subgroups, such as those living with HIV.

We did not have participants' consent to link the survey data with the sampled AGYW's records in the programme monitoring database. Thus, we relied on participants' self-reports of health, risks, intervention coverage, and facilitators of, and barriers to service access and use. We do not know the extent to which these self-reports were valid. Although we checked with respondents whether they were in a private, comfortable place before we conducted the telephonic survey, we were not able to guarantee this privacy.

Other limitations include that we were not able to link service uptake to the AGYW Programme funded by the Global Fund, given the limited branding of the interventions, and that we did not include the sexual partners of AGYW in the scope of the study, because the AGYW Programme does not specifically target them.

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

Introduction

From 2016 to the present day, the Global Fund to Fight AIDS, TB and Malaria has invested in a combination intervention for adolescent girls and young women in South Africa, with the aim of reducing HIV incidence, teenage pregnancy, and gender-based violence and increasing retention in school and access to economic opportunities. Combination HIV prevention interventions, which merge effective biomedical, behavioural and structural interventions for combined delivery, are one of the key strategies for reaching the 90-90-90 targets and achieving the Sustainable Development Goal (SDG) of ending the HIV epidemic by 2030 (1). The combination intervention is aligned with the She Conquers Campaign (5), and the South African National Strategic Plan for HIV, STI's and TB (2017-2022) (https://sanac.org.za/download-the-full-version-of-the-national-strategic-plan-for-hiv-tb-and-stis-2017-2022-2/), which recommends for AGYW "comprehensive package of high-impact, context-tailored and carefully targeted combination prevention interventions … in all districts".

We conducted a process evaluation of the combination HIV prevention intervention for AGYW aged 15 to 24 years which was being implemented in 12 South African districts during the Global Fund Grant period 2019 to 2022. The process evaluation was requested by the South African National AIDS Council (SANAC), the body which oversees the combination HIV prevention intervention; by representatives for the Global Fund to Fight AIDS, TB and Malaria which fund the intervention; and by the principal recipients (PRs) of Global Fund funding who are South African non-government organisations (NGOs) responsible for implementing the combination HIV prevention intervention.

AGYW combination intervention implemented in the Global Fund grant period 2019 to 2022

During the 2019-2022 Global Fund Grant period, a combination intervention was implemented for AGYW aged 15 to 24 years in 12 of the South African districts in which AGYW were at highest risk of HIV incidence. The AGYW's 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 was the responsibility of three Principal Recipients (PRs): AIDS Foundation of South Africa (AFSA), Beyond Zero, and Networking AIDS Community of Southern Africa (NACOSA). The PRs sub-contracted sub-recipients (SRs) to implement the intervention components.

AGYW were 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 were received first) and *Layered Services* (which were additional services depending on the needs of the beneficiary, and which were received over time). Core and layered services were 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 were categorised into biomedical, behavioral and structural services. In addition to delivery of layered services by SRs, some layered services were 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 was to leverage these existing services rather than set up parallel and less sustainable services.

The intervention was designed and conceptualized according to a theory of change model which was built on the assumption that "**IF** adolescent girls and young women are identified through various entry points (in schools, communities through NGOs, churches, public spaces and higher education institution through TVET colleges) and have their risks and vulnerabilities assessed and, **IF** AGYW are linked to biomedical, behavioural and structural HIV prevention interventions, **THEN** that may lead to positive heath and behavioral outcomes, that, in turn should lead to reductions in new HIV infection among this group, **IF** programmatic, financial and political assumptions hold true" (extracted from AGYW Programme Description. The core and layered components of the AGYW programme, as well as the theory of change for the programme, are described in more detail in the overview of the HERStory 2 Process Evaluation which accompanies this report.

Process evaluations of complex interventions

Process evaluations investigate how and why an intervention works or does not work, and are often done in the context of a trial or outcome evaluation (6). They aim to elucidate and explain the reasons for an intervention working. The AGYW combination intervention is a complex intervention. Complex interventions have several interacting components and target multiple organizational levels and they are

usually difficult to implement (2). Process evaluations of complex interventions can be used to "assess fidelity and quality of implementation, clarify causal mechanisms and identify contextual factors associated with variation in outcomes" (2). It is important to base process evaluations on the explicit causal assumptions about how the intervention in question will work, such as those described in the theory of change or a logic model. Process evaluations will usually assess fidelity (whether the intervention was implemented as intended) and dose (quantity of the intervention implemented) (2). Because complex interventions are often tailored during implementation, it is important to capture what happens in practice, with reference to the theorized model. Process evaluations also commonly investigate the "reach" or "coverage" of the interventions (whether the intended beneficiaries come into contact with the intervention and how, and why did they participate or decline to participate) (2). The context in which the intervention is delivered may undermine or promote implementation and intervention effects (2), and thus studying the context is an important part of a process evaluation of a complex intervention.

The AGYW survey described in this report was one component of a multi-component process evaluation conducted by investigators at the South African Medical Research Council. The other components of the process evaluation are presented in accompanying reports.

Evaluating progress towards effective coverage

The concept of "effective coverage" (EC) refers to the proportion of a population in need of a service that experience a positive health outcome from the service (7). To achieve effective coverage of the AGYW combination intervention, AGYW who need the relevant service or intervention component should obtain it in a timely manner and at a level of quality necessary to achieving the desired effect and potential health gains (7). EC can be measured using health service coverage cascades applied to a clearly defined target population, for example AGYW with a specific health need, and including successive measures of contact with the health service/intervention, readiness of health service/intervention to deliver the service, receipt of appropriate and timely care, user-adherence, user-experience of care, disease control or prevention, well-being, health and survival (7).

For the most part, the AGYW's combination intervention was delivered outside of traditional health facilities, in schools and communities, and includes referrals to health facilities. There are a range of barriers that might prevent intervention coverage. For example, the difficulties of reaching school-going adolescents with after-school HIV prevention and SRH promotion interventions has been described in a

South African setting, in which it was found that adolescents who needed the programme most were least likely be recruited and retained in it (8). Therefore, in a process evaluation, it is appropriate to consider investigating extent to which steps in the coverage cascades are met, as these comprise the causal assumptions underlying effective coverage.

HIV Prevention Cascades

HIV prevention cascades have been proposed as a tool for measuring progress towards HIV prevention (9-11). They are a way to measure whether "appropriate programmes are being delivered with high quality and sufficient intensity and scale and are then taken up by the people who most need and want them in order to have both individual and public health impact" (10). Cascades are a way to measure effective coverage of key HIV prevention interventions and services. Recently there has been a great amount of research focusing on the development of standardized HIV prevention cascades using similar concepts as those used in HIV care cascades (11). However, HIV prevention cascades are much more complex than HIV care cascades for several reasons. Firstly, the denominator, the population in need or the "at risk" population, is not as clearly defined as in an HIV care cascade because people move in an out of risk over time, because prevention programmes are often delivered to a population that includes HIV positive and HIV negative people, and because people in the population engage in a variety of risk behaviours with varying levels of risk. This makes the specification of the denominator for the initial cascade imperfect (10). Secondly, people at risk of HIV have several HIV prevention technologies and services available to them, and these are often offered in combined packages provided by multiple service providers and accessed through various service entry points, such as the AGYW's combination HIV prevention intervention we are evaluating. It is not as easy to generate a cascade that combines interventions, yet there has been some progress in this field, and an HIV prevention cascade that combines PrEP and condoms has been developed (12).

Despite the complexity of HIV prevention cascades, there is an emerging consensus on the key constructs in such cascades (10). There is consensus that an HIV prevention cascade starts with the identification and quantification of a population group that is the focus of a prevention programme, ideally those most at risk be becoming infected with HIV (10). In the case of this process evaluation, this population group could be defined as the AGYW beneficiaries of the combination HIV prevention intervention who are HIV negative or of unknown HIV status, and who have had sex. In an extended version of the cascade, the second step is "motivation", referring to the importance of demand for the intervention among those at

risk. This step is not always included in prevention cascades, but we planned to include it in the cascades we developed for this process evaluation. The third step is “reach” or “coverage” and is defined as the extent to which a prevention method is delivered or made accessible to the at-risk population. The fourth step is uptake and initial use of the prevention method among those reached by the programme and the extent to which those who take up a prevention method use it correctly and consistently (10). The gaps in the cascade bars are gaps in motivation, access and consistent use, and the reasons for these can be explored in research, and we have explored this in this process evaluation.

Adolescent well-being

Achieving effective coverage of HIV and pregnancy prevention and care interventions will not automatically eliminate other challenges that compromise AGYW’s health-related quality of life and well-being. Therefore, it is important to investigate whether interventions to improve coverage are associated with improvements in well-being. A recent WHO–UNICEF–Lancet Commission (13) stated that indicators of adolescent happiness, life satisfaction, and positive peer relationships are missing from the SDGs, and that indicators for practical reason, meaning, purpose, and autonomy are only represented for girls within indicators of female empowerment. The authors cited the increasing recognition that promoting meaningful participation of adolescents and young people in community and society contributes to improved social cohesion, and more egalitarian communities, which in turn helps adolescents make a better informed, healthier, and more empowered transition into adulthood. The Commission also suggested that in order to create more gender-equitable social contexts for AGYW to thrive and flourish in, efforts need to be made to create enabling environments to ensure that AGYW can complete their schooling, and eventually participate in the labour force in a productive way. In the HIV policy evaluation field, there is now increased recognition of the importance of going beyond narrow disease measures in the HIV care cascade, and examining the impact of multi-sectoral programmes on people’s quality of life using proxy measures such as well-being(14-16). Recent studies suggest that well-being plays a critical role in access to social support and adherence among PLHIV. HIV-related stigma has been shown to have pronounced negative effects on well-being among PLHIV (17, 18). Given that the AGYW programme funded by the Global Fund focuses on key dimensions of young people’s well-being (i.e. improving access to support services, promoting positive coping and self-worth, stigma), it was important to evaluate the programme’s impact on AGYW’s well-being, based on measures that were grounded in young people’s conceptualisation of well-being (19), and to assess whether coverage of health interventions is associated with improved well-being.

The COVID-19 pandemic

In South Africa, in response to the COVID-19 pandemic, a lockdown was initiated towards the end of March 2020 permitting only essential services to continue functioning. Schools, universities and colleges were closed. Some lockdown restrictions were subsequently lifted and then later reimposed with the second wave of the epidemic in South Africa. The lockdown has affected the implementation of the AGYW's intervention, undermining AGYW's access to the core and layered interventions. People whose human rights are least protected, such as women and adolescents (and marginalized groups) are likely to be disproportionately affected by the devastating economic and social consequences of the COVID-19 pandemic (20). Thus, the pandemic is likely to have adversely affected the health and well-being of South African AGYW, and their access to health services, education, and social protection and other services. This will have affected those AGYW living in the intervention districts. For example, social isolation may have exacerbated the vulnerabilities of AGYW, and those living with abusive household members may have been at increased risk of interpersonal violence victimization, including sexual violence and intimate partner violence (21). For AGYW living with HIV, their experiences of social isolation may have been exacerbated (22). The social conditions in some households may have had an adverse effect on mental health. The lockdown decreased economic stability and employment leading to increased poverty and hunger in many households. The effect of school closures are likely to have increased school dropout. The way the COVID-19 pandemic has affected AGYW's sexual and reproductive health is becoming clearer, and it has been described as "devastating" (23), despite earlier predictions that lockdown conditions might limit leading to a reduced incidence of sexually transmitted infections including HIV (24). In the AGYW's survey, we investigated the effect of COVID-19 and the lockdown on AGYW's sexual and reproductive health and well-being, and on their access to interventions including those provided by the AGYW combination HIV prevention intervention funded by the Global Fund.

The HERStory Process Evaluation aims and AGYW survey objectives

Overall aim of the HERStory Process Evaluation

Informed by the Medical Research Council guidance on process evaluation of complex interventions (2), and informed by the guidance on evaluating service coverage cascades, we conducted a process evaluation of the AGYW combination intervention delivered between 2019 and 2022. The aim was to assess whether the selected health and educational interventions for AGYW, based on the theory of

change, were being implemented as planned and whether the implementers were on a trajectory to achieve the desired outcomes. The specific objectives that relate to the AGYW survey are described below.

Objectives

This AGYW survey was designed to answer the following questions and included the following objectives:

1. To describe the coverage of the HIV and sexual and reproductive health interventions according to age group, socioeconomic status, HIV risk and district
2. To assess whether the coverage of HIV and sexual and reproductive health interventions was aligned to the theory of change using coverage cascades
3. To investigate barriers to, and reasons for gaps in coverage
4. To describe the effect of the COVID-19 pandemic and lockdowns on coverage of HIV and sexual and reproductive health interventions

Study design

We conducted a cross-sectional, descriptive study in which we surveyed AGYW programme beneficiaries who had been enrolled in the programme for at least one year. This implies they were enrolled predominantly during the first year of the grand period, or in the early part of the second year. We stratified implementation districts by the Principal Recipient (PR), and we selected 2 districts per PR. We conducted phone interviews with a random sample of AGYW beneficiaries within each selected district.

Methods

Sampling for the AGYW survey

We surveyed AGYW beneficiaries from 6 of the 12 districts in which the intervention was being implemented, with two districts per Principal Recipient (Table 1). Together with the Principal Recipients, we selected the six districts which represented both rural and urban populations, and which represented a variation in the level of implementation success. This enabled the survey findings to be representative of implementation status. Within each district, we originally planned to randomly select four schools (two per implementation level) generating a sample of 24 schools across all districts (Table 1). In each district, we originally planned to select four community intervention settings located nearby the sampled schools (Table 1). However, the database of AGYW beneficiaries sent to us by the PRs did not consistently record school name or “ward” (small geographical area). Therefore, we did not sample schools and their surrounding communities. Rather, we randomly sampled AGYW across the whole district as described in

Table 2. One of the original motivations for selecting schools and their surrounding districts was to limit the costs of travel for the data collection team. However, this rationale fell away when, due to the COVID-19 pandemic and lockdowns, we decide to conduct the interviews by phone.

The sampling frame of AGYW comprised a de-identified version (which excluded identifying details for individual beneficiaries) of the My Hope programme monitoring database of AGYW beneficiaries, which included a comprehensive list of every participating AGYW. Only beneficiaries who had been enrolled as beneficiaries of the AGYW programme for at least one year were eligible for inclusion in the survey. This was to ensure they had had time to be offered and to take up the relevant core and layered interventions. This implies that the participants of this study were enrolled predominantly in the first year of the grant period. The AGYW who were enrolled in the core activities were in a separate database from those enrolled through biomedical layered activities. Although it was possible that one AGYW might have been listed in both datasets, before sampling we did not remove AGYW from the biomedical dataset if they were also in the core dataset. We stratified the beneficiaries as described below for sampling.

The PRs advised us approximately 50% of the AGYW beneficiaries enrolled in the programme would not be contactable using the cellphone numbers they provided at enrolment. Therefore, the planned sample size of 2160 accounted for a 50% non-response, with the intention to generate a sample realization of 1080 AGYW. Within each of the 6 districts, we sampled 360 AGYW to account for a 50% non-response, and a realized sample of 180 AGYW (Table 1 and 2).

Core versus biomedical

Based on the request from the PRs, we selected 75% of the AGYW sample from the core database and 25% from the biomedical database. The numbers sampled from each database are described in Table 2.

AGYW in the 15-19 year age group

We sampled double the number of AGYW in the younger age group (compared with the older age group), because we expected that approximately 50% of them would never have had sex, and therefore would not contribute to the HIV prevention cascade measures. For AGYW 15-19 years of age, in each district we randomly sampled 40 AGYW out of school (10 from the biomedical layer database and 30 from the core database) and 200 in school (50 from the biomedical layer database and 150 from the core database). A very small proportion of AGYW beneficiaries in the 15-19 year age range were not in high school, and this is the reason that we sampled fewer of them.

AGYW in the 20-24 year age group

For AGYW aged 20-24 years, in each district we randomly sampled 120 beneficiaries (30 from the biomedical layer database and 90 from the core database).

We limited the sample size to attempt to contain the costs of the survey within the funds available, and to minimize the burden on intervention implementers, who needed to make initial contact with the AGYW sample. We calculated that with a sample of 1068 AGYW, without considering the clustered sampling design, for a prevalence of 50% (the worst case scenario), and a 95% confidence level, the precision would be 3% on each side of 50% (confidence interval for one proportion using normal approximation). The cluster effect is substantial, and Table 3 below shows that this sampling strategy assures reasonable precision only for estimates higher than 80% or lower than 20%, in the order of a precision of 15%.

Table 3: Precision for 95% confidence intervals based on the size and numbers of clusters planned; AGYW survey

proportion	Overall distance	Schools distance	Community distance
0.5	0.195	0.191	0.211
0.6	0.191	0.187	0.206
0.7	0.179	0.175	0.193
0.8	0.156	0.153	0.168
0.9	0.117	0.115	0.126

icc=.03

50% realization of sample within clusters

Survey inclusion and exclusion criteria

The inclusion criteria for the survey were as follows:

- AGYW who had been enrolled in the AGYW programme at least one year prior to the start of the survey **and** who had received a core service, **OR:**
- AGYW who have been enrolled in the programme at least one year prior to the start of the survey through a layered service (they need not have received the core service)

The following exclusion criteria were used:

- AGYW has enrolled in the programme but had not been included in the core or biomedical databases of the programme
- AGYW had been enrolled in the AGYW programme less than one year prior to the survey implementation

Table 1: Original planned survey sample

District	Bojanala	Klipfontein	King Cetshwayo	Ehlanzeni	Nelson Mandela Bay	Thabo Mofutsanyana (Dihlabeng)	Total
Principal Recipient	NACOSA	NACOSA	AFSA	AFSA	Beyond Zero	Beyond Zero	**3**
School settings	4	4	4	4	4	4	**24**
AGYW 15-19 years	240	240	240	240	240	240	**1440**
Community settings	4	4	4	4	4	4	**24**
AGYW 20-24 years	120	120	120	120	120	120	**720**
Total AGYW	**360**	**360**	**360**	**360**	**360**	**360**	**2160**

Table 2 Revised survey sample used for the study

District	Bojanala	Klipfontein	King Cetshwayo	Ehlanzeni	Nelson Mandela Bay	Thabo Mofutsanyana (Dihlabeng)	Total
Principal Recipient	NACOSA	NACOSA	AFSA	AFSA	Beyond Zero	Beyond Zero	**3**
AGYW 15-19 years in school	200 (Core: 150 Layer: 50)	200 (Core: 150 Layer: 50)	200 (Core: 150 Layer: 50)	200 (Core: 150 Layer: 50)	200 (Core: 150 Layer: 50)	200 (Core: 150 Layer: 50)	**1200**
AGYW 15-19 years out of school	40 (Core: 30 Layer: 10)	40 (Core: 30 Layer: 10)	40 (Core: 30 Layer: 10)	40 (Core: 30 Layer: 10)	40 (Core: 30 Layer: 10)	40 (Core: 30 Layer: 10)	**240**
AGYW 20-24 years	120 (Core: 90 Layer: 30)	120 (Core: 90 Layer: 30)	120 (Core: 90 Layer: 30)	120 (Core: 90 Layer: 30)	120 (Core: 90 Layer: 30)	120 (Core: 90 Layer: 30)	**720**
Total AGYW	**360**	**360**	**360**	**360**	**360**	**360**	**2160**

Sampling process for AGYW survey

We provided the Principal Recipients with the list of AGYW beneficiaries we had sampled randomly for participation in the survey. They were identified with a unique number that allowed the PR to link to their identifying details. The Principal Recipient provided brief details about the study to the sampled beneficiaries using a script written by the research team (Box 1), and asked the AGYW if she would be willing to be contacted by a HERStory study team member to be invited to the study. The PR provided the HERStory team with a list of beneficiaries who agreed to be contacted, and this list included the names and contact details of the AGYW but did not include any link to their records in the monitoring database. A HERStory study team member contacted by phone each of the AGYW to invite her to participate in the study and administered the consent process with her telephonically. If the AGYW was under 18 years of age, we first obtained parental consent before we conducted the consent process with the AGYW. As part of the consent process, we requested the AGYW to allow us to access information about age, household, schooling and employment from her programme records. We did not seek to access any information about health or sexuality from her programme records.

Box 1: The script provided to PRs/SRs to be used when contacting sampled AGYW beneficiaries

Good day. My name is _____. I work for [SR NAME], the organization that is providing the health and education programmes for young women in your community. I am calling you because you have been selected randomly from a list of young women who participated in our programmes.
The South African Medical Research Council (SAMRC) is undertaking a study called the HERStory Study. As part of this study, a researcher at the South African Medical Research Council would like to phone you to invite you to take part in a telephone interview. The interview will be about the health programmes and services in your community for young women like you. This information will help the SAMRC to understand how health programmes can be changed to meet the needs of young women like you.

You do not have to agree to be contacted by the researcher. The study is completely voluntary. If you agree for a researcher from the South African Medical Research Council to phone you to tell you about the study and invite you to participate. It is important that you know the following:

1. *You can change your mind at any time, including when the researcher contacts you.*
2. *The researcher will tell you all about the study before she asks you whether you want to participate*
3. *The researchers on this study will respect confidentiality at all times: nobody in your home or community will know your answers, and your name and identifying details will not be included in the data*
4. *If you decide to participate in the study, you can stop participating at any time.*
5. *If you are younger than 18, your parent needs to give consent for you to participate*
6. *The interview will take about an hour.*

7. *If you participate in the study, you will receive R100 for the time you spend doing the interview: The researcher will send you an ABSA cashsend to your phone (or to a phone you choose to use), and you will able to withdraw R100 from an ABSA ATM.*

Would you be willing for me to give the researchers at the South African Medical Research Council your contact details so that they can tell you about the study and ask you if you would like to participate?

Measurement for AGYW survey

We invited consenting AGYW to complete a phone survey, administered by a HERStory interview who was based in Cape Town or Durban, at the SAMRC offices. The questionnaire and codebook are shown in Appendix A. The questionnaire was designed to measure HIV prevention cascades for condoms and PrEP, with guidance from scientists pioneering advances in these methods (25). The questionnaire included items measuring demographic characteristics, sexual and reproductive health and risk, measures of coverage of the core and layered interventions, the AGYW's experience of, and feelings about the interventions, and factors that were facilitators or barriers to uptake of the core and layered interventions.

For most questions, we used a recall period of six months when requesting participants to report on health risks and intervention coverage. Limiting the recall period to six months minimizes recall bias. This provides a six-month window of time during which the participant might have accessed the relevant services and interventions.

We included questions to measure quality-adjusted coverage for the following services/interventions, including their acceptability and responsiveness to adolescents and youth (https://apps.who.int/iris/handle/10665/44240) (https://www.who.int/maternal_child_adolescent/documents/global-standards-adolescent-care/en/) (26), using existing, validated or widely-accepted indicators or guidance on best practice:

- contraceptive services (27) (https://www.popcouncil.org/uploads/pdfs/2016RH_QualityMeasurement_Chapter5.pdf)
- HIV testing services (https://apps.who.int/iris/handle/10665/44240)
- PrEP services (28) (https://www.prepwatch.org/resource/south-african-guidelines-prep-2020/)
- HIV treatment services (29)

We included items about the impact of the COVID-19 pandemic on AGYW's health and well-being, and on access to interventions and services.

We included a social well-being measure (Mental Health Continuum Short-Form), as this measure has shown good psychometric properties for a South African context (30) and we have shown in our recent study that this measure aligns with young people's perceptions and experiences of well-being in South Africa (31).

We used the Center for Epidemiological Studies Depression Scale (CES-D-10) as our mental health measure. It is a brief depressive symptom screener. This measure was chosen as it has been validated in South Africa (32) and used in the National Income Dynamics Survey, and because mental health is a factor that influences health service uptake.

We did not include measures of intimate partner violence or sexual violence. However, we included a measure of sexual relationship power adapted for South African women. Sexual relationship power influences risk for IPV and HIV (33, 34).

To measure alcohol use, we used a brief version of the twelve-item Alcohol Use Disorders Identification Test (AUDIT), namely AUDIT-C (35), to describe the prevalence of hazardous drinking among AGYW. AUDIT-C comprises the first three items of AUDIT which measure self-reported alcohol consumption, and which has been found to be comparable to AUDIT, including among a South African population. A participant's AUDIT-C score can range from 0-12. Informed by the recommendation emanating from the South African study (35), a cut-off score of greater than or equal to 2 indicates hazardous drinking.

Analysis of AGYW survey data

First, the records from the survey data were checked for logical inconsistencies, data entry errors, outliers, and missing values. When data queries arose, we attempted to resolve the queries with the field team or by going back to the My Hope sampling frame. If the query could not be rectified, the field/observation was marked as "missing". Missing data was expected for some variables, particularly if a beneficiary refrained from answering specific questions in the survey. There was very little missing data in the survey responses. Except for the analyses mention below, we treated missing responses as their own category, and we did not exclude them in the denominator for the calculations of estimates.

We described key variables in the survey with frequencies (n) and proportions (%), overall and stratified by the district in which the AGYW was enrolled into the AGYW programme. Confidence intervals (95% Cis) were calculated for the overall proportions. The overall proportions also took into account sample weighting in order to be representative of the AGYW's district and age group.

Various indicators of needing, accessing, and adhering to interventions or services were created. Each coverage measure was presented as a number accessing or experiencing the service (n) and proportion (%), along with a 95% confidence interval (95% CI). For HIV prevention cascades, we aligned our analyses to the consensus around the steps in the cascades. For other services, we used a similar approach to the HIV prevention cascades, starting with the population at risk and in need of the service, and defining indicators of accessing and adhering to the interventions or services. Because the number of participants who reported they were living with HIV was so small, we did not create HIV care cascades. In general, coverage was defined as the proportion of the target population in need, that experienced the specific service level that is defined by the cascade.

Coverage cascades were conducted overall, and stratified by age group, SES group and by factors that put AGYW at risk of HIV: multiple sexual partners, age-disparate sex partnerships, transactional sex, fear of sexual partner, and alcohol use.

We explored the relationship between factors that may act as barriers to motivation, access and use of PrEP, condoms, and family planning services. To do this we calculated the frequencies (n), proportions (%), and 95% CIs for participants on each factor, by the coverage indicator. We also conducted chi-squared tests to compare the proportions, and risk differences. Sample weights were used in the calculations of proportions, confidence intervals and risk differences. This same method was also used to explore the relationships between intervention coverage and well-being. In exploring the relationship between potential barriers to motivation, access and use of PrEP, condoms and family planning services, we conducted a complete case analysis with missing data, since missingness was well under 10% for variables that had missing values. We also conducted a complete case analysis when exploring the associations between intervention coverage and well-being.

Stata (Stata 15.1, StataCorp, Texas, USA) and R version 4.0.2 were used to perform the analyses (36). In R the “survey” and “srvyr” packages were used for the inclusion of sample weights in the calculations (37, 38). A participant’s socioeconomic (SES) group was determined using Cluster Analysis with the K-Modes algorithm (39), with the 13 SES questions that were included in the AGYW survey. Cluster Analysis is an exploratory and unsupervised machine learning technique that allows analysts to divide data into meaningful groups based upon shared features. The package “klaR” was used for the Cluster Analysis of (40).

Data collection procedures for AGYW survey

The SAMRC employed a team of phone interviewers based in their Cape Town and Durban offices. The various members of the team had fluency in all the languages spoken in the sampled districts. The interviewers were trained in adolescent-responsive phone interview skills, and their competency was tested before we allowed them to conduct interviews. The interviewers were women between the ages of 20 and 35 years.

Using the contact details of sampled beneficiaries who had agreed to be contacted, the HERStory interviewer phoned the AGYW and invited her to participate. The interviewer confirmed the beneficiary's name and age. If the AGYW wished to take part in the survey, the interviewer gave the AGYW an appointment date for the survey, at the convenience of the AGYW. If she was younger than 18, when the interviewer contacted AGYW, she asked for her parent's contact details to obtain their verbal consent for the AGYW to participate in our study. This was done prior to conducting the consent process with the AGYW. If the parent did not grant consent, the AGYW was not able to participate in the study. At the appointed time, the interviewer called the AGYW and checked whether she was in a comfortable and private space and whether she had approximately an hour to participate. The interviewer read the consent form and audio-recorded the AGYW giving consent. If parental consent was relevant, this was obtained over the phone in the same manner, and the consent was audio-recorded.

If the AGYW did not have her own phone, or if she did not have a safe, private space in her home environment in which to participate in the phone interview, the SAMRC team asked the SR to arrange for the AGYW to be able to go to the programme's allocated "safe space" in the community for the phone interview, using a phone provided by the SR. (This only occurred only once.) At the safe space, all COVID-19 precautions were taken.

A R100 reimbursement was sent to each participant after they have completed the survey. If they agreed to participate in the study and they started the survey but withdrew before completing it, they were still sent the R100 reimbursement. It was sent using the ABSA CashSend method. The participant received a text message to their cellphone from the study team containing a PIN and one from ABSA bank which contained a 10-digit withdrawal code. The participant used these to withdraw the funds from an ABSA ATM. If participants had trouble withdrawing the funds, they could send a message to the study team members for assistance, at no cost to them. We checked whether each reimbursement had been redeemed, and when a reimbursement was not redeemed, we contacted the participant to assist them to redeem it.

When participants disclosed that they had psycho-social or health needs, or if they requested support, with their permission we referred them to the PRs and SRs, and we followed up to ensure they received the support they needed.

Ethics approval

The study was approved by the SAMRC Research Ethics Committee on 29 September 2020 (EC036-9/2020).

Results of the AGYW survey

Sample realization and response rates

The Principal Recipients or Sub-Recipients were unable to contact many of the sampled beneficiaries. The proportion of the sampled beneficiaries that the PR/SR was unable to contact (to ask whether they would be willing to be called by a HERStory study team member to be invited to the study) varied by district as follows: Bojanala: 71.4%; Klipfontein: 73.8%; King Cetshwayo: 63.3%; Ehlanzeni: 46.7%; Nelson Mandela Bay: 32.7%; and Thabo Mofutsanyana: 74.6%. The reported reasons the PRs could not contact the sampled beneficiaries included that there was no answer to their call, that the number was not valid, or, for a small minority, that there was no phone number in their records.

When the PRs successfully contacted the sampled beneficiary, most beneficiaries agreed to be called by a HERStory team member to be invited to the study. Between 0% and 10% of sampled beneficiaries across districts did not wish the HERStory team to contact them to invite them to the study, expect for Nelson Mandela Bay, where, based on reports of the SRs, 45.6% of the sampled beneficiaries did not wish the HERStory team to contact them.

Once the PRs supplied the HERStory team with the contact details of sampled beneficiaries who they had managed to contact, and who had agreed to be called to be invited to the study, almost every sampled beneficiary who was contacted by the HERStory team agreed to participate. A small number of sampled beneficiaries (n=38) declined to participate when they learned about the study from a HERStory team member, and this number ranged across districts as follows: Bojanala: 5 beneficiaries; Klipfontein: 5 beneficiaries; King Cetshwayo: 1 beneficiary; Ehlanzeni: 15 beneficiaries; Nelson Mandela Bay: 10 beneficiaries; and Thabo Mofutsanyana: 2 beneficiaries.

Table 4 describes the proportion of sampled beneficiaries who participated in the survey, by district and age group. The overall sample realization was 23.8%, and this proportion ranged from 16.1% in Klipfontein to 35.0% in King Cetshwayo.

Table 4: Adolescent girls and young women survey sampling realization and response rates

District	Bojanala	Klipfontein	King Cetshwayo	Ehlanzeni	Nelson Mandela Bay	Thabo Mofutsanyana	Total
	Freq (%)	**Freq (%)**	**Freq (%)**	**Freq (%)**	**Freq (%)**	**Freq (%)**	
Principal Recipient	NACOSA	NACOSA	AFSA	AFSA	Beyond Zero	Beyond Zero	
AGYW 15-19 years in school	24/200 (12.0%)	6/200 (3.0%)	43/200 (21.5%)	79/200 (39.5%)	30/200 (15.0%)	30/200 (15.0%)	**212/1200 (17.7%)**
AGYW 15-19 years out of school	9/40 (22.5%)	9/40 (22.5%)	15/40 (37.5%)	1/40 (2.5%)	5/40 (12.5%)	13/40 (32.5%)	**52/240 (21.7%)**
AGYW 20-24 years	30/120 (25.0%)	43/120 (35.8%)	68/120 (56.7%)	28/120 (23.3%)	35/120 (29.2%)	47/120 (39.2%)	**251/720 (34.9%)**
Total AGYW	**63/360 (17.5%)**	**58/360 (16.1%)**	**126/360 (35.0%)**	**108/360 (30.0%)**	**70/360 (19.4%)**	**90/360 (25.0%)**	**515/2160 (23.8%)**

Description of the participants

Table 5 shows the individual and household characteristics of the participants of the survey. Almost all (97.9%) participants were born in South Africa, were unmarried (97.8%). Most participants (87.0% had lived in their present community for five or more years. Maternal orphanhood was reported 19.1%, paternal orphanhood by 27.7% and double orphanhood (having lost both parents) by 9.0%. Approximately one third of participants (30.1%) reported that they had ever been pregnant, and 23.5% reported they had one or more living children. Participants in the 20 to 24 year age group were statistically significantly more likely to report having ever been pregnant (49.7%; 95% CI: 41.8% to 57.7%) compared with those in the 15 to 19 year age group (16.1%; 95% CI: 11.2% to 22.1%). The older group were also significantly more likely to report having one or more living children.

Most participants (78.1%) reported that they had been enrolled in an educational institution at the beginning of 2020, with participants in the younger age group being significantly more likely to report this. Just under half of the participants (46.0%) reported they were in primary or high school at the time of the

survey, and participants in the younger age group were significantly more likely to report this (69.4%; 95% CI: 62.5% to 75.6%) compared with the older age group (12.5%; 95% CI: 7.5% to 19.2%).

Very few participants (7.2%) reported that they had worked to earn money in the week before they participated in the survey. Statistically significantly more participants in the older age group reported working in the week before the survey (10.7%; 95% CI: 7.0% to 15.6%) compared with the younger age group (3.5%; 95% CI: 1.5% to 6.9%).

Almost all the participants (98.7%) reported they had their own cellphone or that they used someone else's cellphone, and this is not surprising as they would not have been able to participate in the study without access to a phone. Among participants aged 15 to 19 years, 81.8% reported they had their own cell phone, 16.5% reported they did not have their own cell phone but they used someone else's and 1.7% reported that they did not have access to a cell phone while among participants aged 20 to 14 years, the estimates were 92.5%, 7.1% and 0.4% respectively.

We created an indicator of the participants' socio-economic status (SES), since this is an attribute that shapes most health outcomes in South Africa. Most of the participants in the study came from impoverished communities by global standards, and thus we decided that the SES category to which a participant belonged to would be relative to other participants in the study, rather than everyone else in the world. We chose 13 variables to derive our SES indicator, several of which are commonly used in other surveys to create similar indices: 1. AGYW was away from home for more than one month in past 12 months (internal migration has been shown to cause and be caused by poverty(41)), 2. Has piped water in household, 3. Has flushing toilet in household, 4. Household has working electricity, 5. Household has a car, 6. Household has a computer, 7. Household has the internet, 8. Household has a refrigerator, 9. Household has a stove, 10. AGYW or member of her household went a day/night without eating in the past month, 11. AGYW has own money, 12. AGYW saves money, and 13. AGYW owes money. Table 5 shows that 71.1% of participants were classified in the relatively high socio-economic status group.

Table 5: Individual and household characteristics of adolescent girls and young women who were beneficiaries of the Global Fund funded AGYW programme during 2019-2021 in six South African districts (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Born in South Africa															
Total	57/58	98.3	61/63	96.8	126/126	100.0	104/108	96.3	70/70	100.0	90/90	100.0	504.2/515.2	97.9	95.5 — 99.2
Age															
15-19	15/15	100.0	33/33	100.0	58/58	100.0	76/80	95.0	35/35	100.0	43/43	100.0	257.6/264	97.6	93.9 — 99.3
20-24	42/43	97.7	28/30	93.3	68/68	100.0	28/28	100.0	35/35	100.0	47/47	100.0	247.9/250.9	98.8	96.4 — 99.8
Has a South African identity document															
Total	51/58	87.9	45/63	71.4	101/126	80.2	56/108	51.9	52/70	74.3	81/90	90.0	349.5/515.2	67.8	62.6 — 72.7
Age															
15-19	9/15	60.0	16/33	48.5	36/58	62.1	29/80	36.2	18/35	51.4	34/43	79.1	125.7/264	47.6	40.5 — 54.8
20-24	42/43	97.7	29/30	96.7	65/68	95.6	27/28	96.4	34/35	97.1	47/47	100.0	242.3/250.9	96.6	92.3 — 98.8
Relationship status reported as not married															
Total	58/58	100.0	63/63	100.0	126/126	100.0	107/108	99.1	69/70	98.6	90/90	100.0	512.4/515.2	99.5	97.8 — 100.0
Age															
15-19	15/15	100.0	33/33	100.0	58/58	100.0	79/80	98.8	34/35	97.1	43/43	100.0	261.6/264	99.1	96.6 — 99.9
20-24	43/43	100.0	30/30	100.0	68/68	100.0	28/28	100.0	35/35	100.0	47/47	100.0	250.9/250.9	100.0	*
Maternal orphan															
Total	14/58	24.1	11/63	17.5	28/126	22.2	18/108	16.7	13/70	18.6	18/90	20.0	98.6/515.2	19.1	15.4 — 23.4
Age															
15-19	2/15	13.3	4/33	12.1	9/58	15.5	12/80	15.0	4/35	11.4	10/43	23.3	38.4/264	14.5	9.9 — 20.2
20-24	12/43	27.9	7/30	23.3	19/68	27.9	6/28	21.4	9/35	25.7	8/47	17.0	61.8/250.9	24.6	18.3 — 31.9
Paternal orphan															
Total	14/58	24.1	13/63	20.6	40/126	31.7	31/108	28.7	20/70	28.6	22/90	24.4	142.8/515.1	27.7	23.3 — 32.5
Age															
15-19	2/15	13.3	8/33	24.2	17/58	29.3	27/80	33.8	7/35	20.0	7/43	16.3	72.7/264	27.5	21.4 — 34.3
20-24	12/43	27.9	5/30	16.7	23/68	33.8	4/28	14.3	13/35	37.1	15/47	31.9	62.2/251	24.8	18.7 — 31.7
Double orphan															
Total	4/58	6.9	3/63	4.8	12/126	9.5	10/108	9.3	10/70	14.3	7/90	7.8	46.4/515.2	9.0	6.3 — 12.4

Table 5: Individual and household characteristics of adolescent girls and young women who were beneficiaries of the Global Fund funded AGYW programme during 2019-2021 in six South African districts (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Age															
15-19	1/15	6.7	0/33	0.0	4/58	6.9	8/80	10.0	3/35	8.6	3/43	7.0	20.9/264	7.9	4.5 — 12.8
20-24	3/43	7.0	3/30	10.0	8/68	11.8	2/28	7.1	7/35	20.0	4/47	8.5	25.5/250.9	10.2	6.2 — 15.5
Living in community for 5 or more years															
Total	36/58	62.1	51/63	81.0	116/126	92.1	103/108	95.4	57/70	81.4	73/90	81.1	448.4/515.1	87.0	83.6 — 90.0
Age															
15-19	8/15	53.3	26/33	78.8	55/58	94.8	80/80	100.0	32/35	91.4	38/43	88.4	237.4/264	89.9	84.2 — 94.1
20-24	28/43	65.1	25/30	83.3	61/68	89.7	23/28	82.1	25/35	71.4	35/47	74.5	203.7/251	81.2	74.5 — 86.7
Ever been pregnant															
Total	23/58	39.7	20/63	31.7	52/126	41.3	26/108	24.1	15/70	21.4	23/90	25.6	155.2/515.2	30.1	25.6 — 34.9
Age															
15-19	3/15	20.0	4/33	12.1	11/58	19.0	13/80	16.2	4/35	11.4	5/43	11.6	42.6/264	16.1	11.2 — 22.1
20-24	20/43	46.5	16/30	53.3	41/68	60.3	13/28	46.4	11/35	31.4	18/47	38.3	124.8/251	49.7	41.8 — 57.7
Has one or more living children															
Total	19/58	32.8	16/63	25.4	43/126	34.1	19/108	17.6	10/70	14.3	21/90	23.3	121.3/515.2	23.5	19.5 — 28.0
Age															
15-19	2/15	13.3	3/33	9.1	7/58	12.1	9/80	11.2	3/35	8.6	4/43	9.3	29.3/263.9	11.1	7.0 — 16.4
20-24	17/43	39.5	13/30	43.3	36/68	52.9	10/28	35.7	7/35	20.0	17/47	36.2	102.3/250.9	40.8	33.2 — 48.7
In the past 12 months spent a month or more away from usual home															
Total	24/58	41.4	15/63	23.8	39/126	31.0	17/108	15.7	22/70	31.4	21/90	23.3	127.7/515.2	24.8	20.7 — 29.2
Age															
15-19	5/15	33.3	7/33	21.2	19/58	32.8	8/80	10.0	9/35	25.7	7/43	16.3	51.4/264	19.5	14.3 — 25.6
20-24	19/43	44.2	8/30	26.7	20/68	29.4	9/28	32.1	13/35	37.1	14/47	29.8	81.4/250.9	32.4	25.3 — 40.2
Was enrolled in an educational institution at the beginning of 2020															
Total	34/58	58.6	47/63	74.6	87/126	69.0	96/108	88.9	52/70	74.3	82/90	91.1	402.4/515.2	78.1	73.9 — 82.0
Age															
15-19	12/15	80.0	29/33	87.9	48/58	82.8	79/80	98.8	29/35	82.9	41/43	95.3	240.4/264	91.1	86.4 — 94.5
20-24	22/43	51.2	18/30	60.0	39/68	57.4	17/28	60.7	23/35	65.7	41/47	87.2	150.2/250.9	59.9	51.9 — 67.5

Table 5: Individual and household characteristics of adolescent girls and young women who were beneficiaries of the Global Fund funded AGYW programme during 2019-2021 in six South African districts (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Currently in primary or high school															
Total	7/58	12.1	22/63	34.9	41/126	32.5	74/108	68.5	25/70	35.7	30/90	33.3	236.8/515.2	46.0	40.8 — 51.2
Age															
15-19	6/15	40.0	20/33	60.6	30/58	51.7	69/80	86.2	23/35	65.7	25/43	58.1	183.1/264	69.4	62.5 — 75.6
20-24	1/43	2.3	2/30	6.7	11/68	16.2	5/28	17.9	2/35	5.7	5/47	10.6	31.4/250.9	12.5	7.5 — 19.2
Worked to earn money in the week before survey participation															
Total	11/58	19.0	5/63	7.9	8/126	6.3	2/108	1.9	10/70	14.3	10/90	11.1	36.9/515.1	7.2	5.0 — 9.8
Age															
15-19	1/15	6.7	1/33	3.0	2/58	3.4	1/80	1.2	3/35	8.6	4/43	9.3	9.2/264	3.5	1.5 — 6.9
20-24	10/43	23.3	4/30	13.3	6/68	8.8	1/28	3.6	7/35	20.0	6/47	12.8	26.9/250.9	10.7	7.0 — 15.6
AGYW has own cellphone or uses someone else's cellphone															
Total	57/58	98.3	63/63	100.0	122/126	96.8	107/108	99.1	70/70	100.0	90/90	100.0	508.7/515.1	98.7	97.1 — 99.6
Age															
15-19	14/15	93.3	33/33	100.0	55/58	94.8	79/80	98.8	35/35	100.0	43/43	100.0	257.9/264	97.7	94.2 — 99.4
20-24	43/43	100.0	30/30	100.0	67/68	98.5	28/28	100.0	35/35	100.0	47/47	100.0	249.8/250.9	99.6	97.6 — 100.0
Lives in a household with piped water in house or yard															
Total	48/58	82.8	55/63	87.3	98/126	77.8	65/108	60.2	60/70	85.7	82/90	91.1	376.9/515.1	73.2	68.1 — 77.8
Age															
15-19	13/15	86.7	29/33	87.9	48/58	82.8	46/80	57.5	31/35	88.6	40/43	93.0	191.3/264	72.5	65.4 — 78.8
20-24	35/43	81.4	26/30	86.7	50/68	73.5	19/28	67.9	29/35	82.9	42/47	89.4	190.5/250.9	75.9	68.2 — 82.6
Lives in a household with own flush toilet															
Total	37/58	63.8	40/63	63.5	36/126	28.6	18/108	16.7	55/70	78.6	70/90	77.8	198.1/515.2	38.5	33.7 — 43.3
Age															
15-19	10/15	66.7	22/33	66.7	15/58	25.9	14/80	17.5	28/35	80.0	35/43	81.4	101/264	38.3	31.5 — 45.3
20-24	27/43	62.8	18/30	60.0	21/68	30.9	4/28	14.3	27/35	77.1	35/47	74.5	98.9/250.9	39.4	32.2 — 47.0
Lives in a household with electricity in working order															
Total	55/58	94.8	62/63	98.4	125/126	99.2	104/108	96.3	67/70	95.7	84/90	93.3	498.5/515.2	96.8	94.4 — 98.3

Table 5: Individual and household characteristics of adolescent girls and young women who were beneficiaries of the Global Fund funded AGYW programme during 2019-2021 in six South African districts (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Age															
15-19	14/15	93.3	33/33	100.0	57/58	98.3	76/80	95.0	34/35	97.1	40/43	93.0	253.2/264	95.9	91.8 — 98.3
20-24	41/43	95.3	29/30	96.7	68/68	100.0	28/28	100.0	33/35	94.3	44/47	93.6	246.4/250.9	98.2	96.1 — 99.4
Lives in a household with internet in working order															
Total	14/58	24.1	20/63	31.7	24/126	19.0	15/108	13.9	18/70	25.7	28/90	31.1	102.7/515.2	19.9	16.2 — 24.1
Age															
15-19	2/15	13.3	9/33	27.3	9/58	15.5	11/80	13.8	11/35	31.4	12/43	27.9	46.2/264	17.5	12.7 — 23.2
20-24	12/43	27.9	11/30	36.7	15/68	22.1	4/28	14.3	7/35	20.0	16/47	34.0	56.5/250.9	22.5	16.6 — 29.3
In past month, participant or household member went a day and night without eating because of lack of food															
Total	17/58	29.3	7/63	11.1	23/126	18.3	23/108	21.3	8/70	11.4	8/90	8.9	98.7/515.1	19.2	15.2 — 23.6
Age															
15-19	4/15	26.7	5/33	15.2	11/58	19.0	17/80	21.2	5/35	14.3	4/43	9.3	52.6/264.1	19.9	14.4 — 26.4
20-24	13/43	30.2	2/30	6.7	12/68	17.6	6/28	21.4	3/35	8.6	4/47	8.5	44.3/250.9	17.7	12.0 — 24.6
AGYW was classified as relatively high socio-economic status															
Total	35/58	60.3	52/63	82.5	86/126	68.3	82/108	75.9	38/70	54.3	75/90	83.3	366.5/515.1	71.1	66.4 — 75.6
Age															
15-19	8/15	53.3	29/33	87.9	40/58	69.0	67/80	83.8	20/35	57.1	33/43	76.7	197.7/264	74.9	68.2 — 80.8
20-24	27/43	62.8	23/30	76.7	46/68	67.6	15/28	53.6	18/35	51.4	42/47	89.4	158.1/250.9	63.0	54.9 — 70.6

* Not able to be estimated

Education and employment

Table 6 describes the education and training received by the AGYW beneficiaries of the AGYW programme. Having completed Grade 12 schooling was reported by 38.0% of the participants. Participants in the 20 to 24 year age group were statistically significantly more likely to have completed Grade 12 (69.4%; 95% CI: 61.7% to 76.4%) compared to those in the 15 to 19 year age group (16.0%; 95% CI: 11.4% to 21.7%). Almost half of the participants (46.0%) were enrolled in primary or high school at the time of the survey, and as expected, statistically significantly more of the 15 to 19 year age group were enrolled in primary or high school (69.4%; 95% CI: 62.5% to 75.6%) compared with the 20 to 24 year age group (12.5%; 95% CI: 7.5% to 19.2%).

To assess how the COVID-19 pandemic and the lockdowns had affected participants' educational progress, we asked a series of questions regarding enrolment in any educational institution at the beginning of 2020 and during October 2020, and whether the participant had dropped out of an educational institution during 2020 (Table 6). At the beginning of 2020, 78.1% of participants were enrolled in an educational institution. In October 2020, 75.0% were enrolled in an educational institution, and 6.8% reported that they had dropped out of an educational institution during the year. Participants in the 15 to 19 year age group were statistically significantly more likely to have been enrolled in an educational institution both at the beginning of 2020 and in October 2020, but there was no statistically significant difference in reports of having dropped out during the year. Table 6 shows that 18.2% of participants reported that they had dropped out of school before they had passed Grade 12.

Table 7 describes the employment status of the AGYW beneficiaries of the AGYW programme. A minority of participants (8.7%) reported that they had worked to earn money for a few weeks or more during January, February and March 2020. Statistically significantly more participants in the 20 to 24 year age group reported this (15.5%; 95% CI: 10.2% to 22.2%) compared with the 15 to 19 year age group (3.7%; 95% CI: 1.6% to 7.3%). In the week before they participated in the survey, 6.2% of participants reported that they had worked to earn money for one or more days, and in the month before the survey, 6.3% reported they had worked five days or more to earn money. Statistically significant more participants in the 20 to 24 year age group reported having worked 5 days or more in the month before the survey. Very few participants (0.1%) reported they had lost their job or stopped working because of COVID-19 and the lockdown. Table 7 shows the proportion of participants who reported they had their own money (26.8%), owed money to someone (13.7%) and saved money (70.8%).

Table 8 describes AGYW beneficiaries who were not in education, employment, or training (NEET) during 2020. We defined NEET as not being in primary or high school at the time of the survey, not being enrolled fulltime in an educational institution at the beginning of 2020 and during October 2020, and not being employed during the beginning of the 2020 as well as in the month before the survey. This definition has its limitations, because it does not capture part-time training courses that AGYW might have attended, and it does not capture short term employment they might have had at various times during the year. Based on this definition, Table 8 shows that 11.2% of participants could be described as NEET, with statistically significantly more participants in the 20 to 24 year age group defined as NEET (19.2%; 95% CI: 13.5% to 26.1%) compared with the 15 to 19 year age group (6.3%; 95% CI: 3.4% to 10.5%).

Table 6: Education and training reported by AGYW beneficiaries of the Global-Fund funded AGYW programme, 2019-21 (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Completed Grade 12															
Total	28/58	48.3	31/63	49.2	67/126	53.2	28/108	25.9	20/70	28.6	50/90	55.6	196/515.2	38.0	33.2 — 43.0
Age															
15-19	3/15	20.0	5/33	15.2	17/58	29.3	9/80	11.2	2/35	5.7	17/43	39.5	42.4/264	16.0	11.4 — 21.7
20-24	25/43	58.1	26/30	86.7	50/68	73.5	19/28	67.9	18/35	51.4	33/47	70.2	174.2/250.9	69.4	61.7 — 76.4
AGYW was in primary or high school at the time of the survey															
Total	7/58	12.1	22/63	34.9	41/126	32.5	74/108	68.5	25/70	35.7	30/90	33.3	236.8/515.2	46.0	40.8 — 51.2
Age															
15-19	6/15	40.0	20/33	60.6	30/58	51.7	69/80	86.2	23/35	65.7	25/43	58.1	183.1/264	69.4	62.5 — 75.6
20-24	1/43	2.3	2/30	6.7	11/68	16.2	5/28	17.9	2/35	5.7	5/47	10.6	31.4/250.9	12.5	7.5 — 19.2
At the beginning of 2020, before COVID-19 and the lockdown, AGYW was enrolled full-time in school, college, university, or another educational institution															
Total	34/58	58.6	47/63	74.6	87/126	69.0	96/108	88.9	52/70	74.3	82/90	91.1	402.4/515.2	78.1	73.9 — 82.0
Age															
15-19	12/15	80.0	29/33	87.9	48/58	82.8	79/80	98.8	29/35	82.9	41/43	95.3	240.4/264	91.1	86.4 — 94.5
20-24	22/43	51.2	18/30	60.0	39/68	57.4	17/28	60.7	23/35	65.7	41/47	87.2	150.2/250.9	59.9	51.9 — 67.5
In October 2020, AGYW was enrolled full-time in school, college, university, or another educational institution															
Total	33/58	56.9	46/63	73.0	82/126	65.1	93/108	86.1	48/70	68.6	79/90	87.8	386.6/515.2	75.0	70.6 — 79.1
Age															
15-19	12/15	80.0	29/33	87.9	47/58	81.0	77/80	96.2	28/35	80.0	40/43	93.0	235.5/264	89.2	84.2 — 93.0
20-24	21/43	48.8	17/30	56.7	35/68	51.5	16/28	57.1	20/35	57.1	39/47	83.0	138.8/251	55.3	47.3 — 63.1
During 2020, AGYW dropped out of school, college, university, or another educational institution															
Total	3/58	5.2	4/63	6.3	11/126	8.7	7/108	6.5	5/70	7.1	4/90	4.4	34.8/515.2	6.8	4.5 — 9.7
Age															
15-19	0/15	0.0	1/33	3.0	2/58	3.4	5/80	6.2	2/35	5.7	2/43	4.7	12.1/264	4.6	2.2 — 8.4
20-24	3/43	7.0	3/30	10.0	9/68	13.2	2/28	7.1	3/35	8.6	2/47	4.3	23.4/250.9	9.3	5.4 — 14.7
AGYW who had left school before they had passed Grade 12															
Total	23/58	39.7	11/63	17.5	29/126	23.0	6/108	5.6	26/70	37.1	12/90	13.3	93.6/515.2	18.2	14.8 — 22.0
Age															
15-19	6/15	40.0	8/33	24.2	14/58	24.1	3/80	3.8	10/35	28.6	2/43	4.7	42.5/264	16.1	11.3 — 22.0
20-24	17/43	39.5	3/30	10.0	15/68	22.1	3/28	10.7	16/35	45.7	10/47	21.3	53.1/251	21.1	15.7 — 27.5

Table 7: Employment and financial status of AGYW beneficiaries of the Global-Fund funded AGYW programme, 2019-2021 (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
AGWY worked to earn money for a few weeks or more during January, February, and March 2020															
Total	10/58	17.2	5/63	7.9	12/126	9.5	6/108	5.6	9/70	12.9	1/90	1.1	44.7/515.1	8.7	6.2 — 11.8
Age															
15-19	1/15	6.7	1/33	3.0	2/58	3.4	1/80	1.2	5/35	14.3	0/43	0.0	9.9/264	3.7	1.6 — 7.3
20-24	9/43	20.9	4/30	13.3	10/68	14.7	5/28	17.9	4/35	11.4	1/47	2.1	39/250.9	15.5	10.2 — 22.2
AGYW worked to earn money for one or more days in the week before the survey															
Total	9/58	15.5	4/63	6.3	8/126	6.3	2/108	1.9	8/70	11.4	8/90	8.9	31.9/515.1	6.2	4.2 — 8.7
Age															
15-19	1/15	6.7	0/33	0.0	2/58	3.4	1/80	1.2	2/35	5.7	3/43	7.0	7.5/264	2.8	1.0 — 6.3
20-24	8/43	18.6	4/30	13.3	6/68	8.8	1/28	3.6	6/35	17.1	5/47	10.6	24.6/250.9	9.8	6.2 — 14.6
AGYW worked 5 days or more in the month before the survey															
Total	9/58	15.5	7/63	11.1	7/126	5.6	1/108	0.9	10/70	14.3	5/90	5.6	32.5/515.1	6.3	4.4 — 8.8
Age															
15-19	0/15	0.0	2/33	6.1	3/58	5.2	0/80	0.0	3/35	8.6	2/43	4.7	6.4/264	2.4	1.1 — 4.6
20-24	9/43	20.9	5/30	16.7	4/68	5.9	1/28	3.6	7/35	20.0	3/47	6.4	24.7/251	9.8	6.2 — 14.6
AGYW reported she lost her job or stopped working because of COVID-19 and the lockdown															
Total	0/58	0.0	0/63	0.0	0/126	0.0	0/108	0.0	1/70	1.4	0/90	0.0	0.8/515.2	0.1	0.0 — 0.8
Age															
15-19	0/15	0.0	0/33	0.0	0/58	0.0	0/80	0.0	0/35	0.0	0/43	0.0	0/264	0.0	*
20-24	0/43	0.0	0/30	0.0	0/68	0.0	0/28	0.0	1/35	2.9	0/47	0.0	0.7/251	0.3	0.0 — 1.5
AGYW has her own money															
Total	19/58	32.8	13/63	20.6	30/126	23.8	28/108	25.9	24/70	34.3	27/90	30.0	138/515.1	26.8	22.4 — 31.5
Age															
15-19	3/15	20.0	4/33	12.1	10/58	17.2	20/80	25.0	9/35	25.7	10/43	23.3	58/264	22.0	16.3 — 28.5
20-24	16/43	37.2	9/30	30.0	20/68	29.4	8/28	28.6	15/35	42.9	17/47	36.2	79.5/250.9	31.7	24.7 — 39.3
AGYW owes money to someone															
Total	8/58	13.8	11/63	17.5	30/126	23.8	10/108	9.3	7/70	10.0	8/90	8.9	70.7/515.2	13.7	10.6 — 17.4
Age															
15-19	1/15	6.7	2/33	6.1	7/58	12.1	4/80	5.0	5/35	14.3	3/43	7.0	19.7/264	7.5	4.4 — 11.7

Table 7: Employment and financial status of AGYW beneficiaries of the Global-Fund funded AGYW programme, 2019-2021 (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
20-24	7/43	16.3	9/30	30.0	23/68	33.8	6/28	21.4	2/35	5.7	5/47	10.6	59.5/250.9	23.7	17.4 — 31.0
AGYW saves money															
Total	35/58	60.3	52/63	82.5	86/126	68.3	81/108	75.0	38/70	54.3	75/90	83.3	364.5/515.1	70.8	66.0 — 75.2
Age															
15-19	8/15	53.3	29/33	87.9	40/58	69.0	66/80	82.5	20/35	57.1	33/43	76.7	196.1/264	74.3	67.5 — 80.3
20-24	27/43	62.8	23/30	76.7	46/68	67.6	15/28	53.6	18/35	51.4	42/47	89.4	158.1/250.9	63.0	54.9 — 70.6

* Not able to be estimated

Table 8: AGYW beneficiaries of the Global Fund funded AGYW programme who were not in education, employment, or training (NEET) during 2020 (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
AGYW was not in primary or high school at the time of the survey															
Total	51/58	87.9	41/63	65.1	85/126	67.5	33/108	30.6	45/70	64.3	60/90	66.7	276.4/515.2	53.6	48.4 — 58.8
Age															
15-19	9/15	60.0	13/33	39.4	28/58	48.3	11/80	13.8	12/35	34.3	18/43	41.9	80.9/264	30.6	24.4 — 37.5
20-24	42/43	97.7	28/30	93.3	57/68	83.8	22/28	78.6	33/35	94.3	42/47	89.4	216.6/250.9	86.3	79.3 — 91.6
At the beginning of 2020, before COVID-19 and the lockdown, AGYW was not enrolled full-time in school college, university, or another educational institution															
Total	24/58	41.4	16/63	25.4	39/126	31.0	12/108	11.1	18/70	25.7	8/90	8.9	112.8/515.1	21.9	18.0 — 26.1
Age															
15-19	3/15	20.0	4/33	12.1	10/58	17.2	1/80	1.2	6/35	17.1	2/43	4.7	23.6/264	8.9	5.5 — 13.6
20-24	21/43	48.8	12/30	40.0	29/68	42.6	11/28	39.3	12/35	34.3	6/47	12.8	100.7/251	40.1	32.5 — 48.1
In October 2020, AGYW was not enrolled full-time in school, college, university, or another educational institution															
Total	25/58	43.1	17/63	27.0	44/126	34.9	15/108	13.9	22/70	31.4	11/90	12.2	128.6/515	25.0	20.9 — 29.4
Age															
15-19	3/15	20.0	4/33	12.1	11/58	19.0	3/80	3.8	7/35	20.0	3/43	7.0	28.5/263.9	10.8	7.0 — 15.8
20-24	22/43	51.2	13/30	43.3	33/68	48.5	12/28	42.9	15/35	42.9	8/47	17.0	112.2/251	44.7	36.9 — 52.7
AGWY did not work to earn money January, February, and March 2020															
Total	45/58	77.6	54/63	85.7	111/126	88.1	101/108	93.5	58/70	82.9	86/90	95.6	456.2/515.1	88.6	85.2 — 91.4
Age															
15-19	13/15	86.7	30/33	90.9	55/58	94.8	78/80	97.5	28/35	80.0	42/43	97.7	246.3/264.1	93.3	88.9 — 96.3
20-24	32/43	74.4	24/30	80.0	56/68	82.4	23/28	82.1	30/35	85.7	44/47	93.6	205/250.8	81.7	74.9 — 87.3
AGYW did not work to earn money during the week before the survey															
Total	47/58	81.0	58/63	92.1	118/126	93.7	105/108	97.2	59/70	84.3	80/90	88.9	475.5/515.2	92.3	89.5 — 94.5
Age															
15-19	14/15	93.3	32/33	97.0	56/58	96.6	78/80	97.5	32/35	91.4	39/43	90.7	253.2/264	95.9	92.2 — 98.2
20-24	33/43	76.7	26/30	86.7	62/68	91.2	27/28	96.4	27/35	77.1	41/47	87.2	223.3/251	89.0	84.1 — 92.8
AGYW did not work to earn money during the month before the survey															
Total	44/58	75.9	56/63	88.9	116/126	92.1	103/108	95.4	55/70	78.6	77/90	85.6	461/515.2	89.5	86.3 — 92.2

Table 8: AGYW beneficiaries of the Global Fund funded AGYW programme who were not in education, employment, or training (NEET) during 2020 (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Age															
15-19	13/15	86.7	31/33	93.9	53/58	91.4	77/80	96.2	29/35	82.9	38/43	88.4	243.9/264	92.4	87.9 — 95.6
20-24	31/43	72.1	25/30	83.3	63/68	92.6	26/28	92.9	26/35	74.3	39/47	83.0	217.9/250.9	86.9	81.4 — 91.2
AGYW NEET during 2020															
Total	9/58	15.5	8/63	12.7	24/126	19.0	6/108	5.6	10/70	14.3	5/90	5.6	57.7/515.2	11.2	8.4 — 14.5
Age															
15-19	2/15	13.3	3/33	9.1	7/58	12.1	1/80	1.2	4/35	11.4	1/43	2.3	16.7/264	6.3	3.4 — 10.5
20-24	7/43	16.3	5/30	16.7	17/68	25.0	5/28	17.9	6/35	17.1	4/47	8.5	48.2/250.9	19.2	13.5 — 26.1

Sexuality and sexual relationships

Heterosexual intercourse is the primary mode of HIV transmission in South Africa (42). Thus, AGYW's sexual behaviour will be described below. Intergenerational relationships between AGYW and older men who provide AGYWs with money or goods, and are known as "blessers", increase infection among this vulnerable group (43).

Table 9 below describes the reports about relationships with boys or men among all participants in the survey (whether or not they had ever had sex). As shown in Table 9, that the median number of boyfriends or male sex partners that AGYW had had in the six months before the survey was one. A small percentage of AGYW (1.8%) reported that they had had a relationship with a blesser during the same period, ranging across districts from 0.9% (in Ehlanzeni district) to 3.2% (in Bojanala and King Cetshwayo). When asked whether they had started or stayed in a relationship for help with money or goods in the six months before the survey, 9.1% of participants reported that they had (3.3% to 12.1% across districts). Most AGYW reported that they had ever had sex (73.9%), although the percentage of AGYW who had ever had sex was statistically significantly higher in the 20 to 24 year age group (92.5%; 95% CI: 87.3 — 96.0%) compared to the 15 to 19 year age group, (61.6%; 95% CI: 54.6 — 68.3%), and results ranged across districts from 68.5% (in Ehlanzeni) to 89.7% (in Klipfontein). The percentage of AGYW who had sex with a boy or man before the age of 15 was 5%, ranging from 3.2% (in Bojanala and Kin Cetshwayo) to 10.3% (in Klipfontein).

Table 10 compares participants who reported they had ever had sex with those who had never had sex. Those who reported they had never had sex were significantly more likely to be in the younger age group, to be enrolled in an educational institution in October 2020, not to be NEET, to be defined as having flourishing well-being, and not to have a high Audit C score (indicating they were not classified as having hazardous alcohol use).

Table 11 describes the sexual behaviour and relationships of beneficiaries who have ever had sex. Most AGYW reported recent sexual activity with 71.2% of AGYW having had sex with a boy or man in the three months before the survey, 82.2% having had sex in the past six months and 93.7% having had sex in the past year. Beneficiaries in the 20 to 24 year age group were statistically more likely to have had sex in the past three months (79.7%; 95% CI: 72.4 — 85.8%) than those in the 15 to 19 year age group (60.2%: 95% CI: 50.4 — 69.3%). One in five women (19.9%) had had more than one male partner in the six months before the survey. A minority, 14.6% of AGYW, reported that their last male sex partner was five or more years older than them, and 21.8% reported that they had had a male partner that was five or more years

older than them in the six months before the survey. Only nine participants (2.1%) reported that their last male partner was 10 or more years older than them (data not shown). Only 4.4% of AGYW reported having more than one female partner in the six months before the survey. The difference between age groups for these final five variables was not statistically significant.

Table 11 reports on the prevalence of transactional sex among AGYW in the six months before the survey. Some AGYW (4.9%) reported having oral, anal, or vaginal sex to pay for things they needed, ranging from 1.4% of AGYW in Thabo Mofutsanyana district to 6.8% in Ehlanzeni district. Participants (7.9%) also reported having had oral, anal, or vaginal sex because they expected to receive money or goods in exchange, ranging across the districts from 2.8% (in Thabo Mofutsanyana) to 9.5% (in Enhlanzeni) and 9.6% (in Klipfontein). In addition, some AGYW (5.8%) communicated that they had had to "hustle" sex to help themselves or their families get things to survive, ranging from 1.9% (in Nelson Mandela Bay) to 6.8% (in Ehlanzeni) and 9.6% (in Klipfontein). There was no statistically significant difference between the age groups for the variables for transactional sex.

AGYW's reports of their sexual behaviour during COVID-19 and the lockdown are presented in Table 11. More AGYW reported that they had fewer sex partners during COVID-19 and the lockdown (9.7%) rather than more sex partners (1.3%), and many AGYW reported having sex less often (42.1%) compared to more often (6.8%). The percentage of women who had fewer sexual partners during COVID-19 and the lockdown varied across districts from 3.8% (in Klipfontein) to 18.3% (in Thabo Mofutsanyana). Having sex less often during COVID-19 and the lockdown also varied from 32.7% in Klipfontein district to 52.1% in Thabo Mofutsanyana district. Having fewer sex partners and sex less often during the lockdown did not differ with statistical significance by age group.

Table 9: AGYW programme beneficiaries' reports of their relationships with boys or men in the six months before the survey (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Median, IQR and 95% CI for the median, for number of boyfriends or male sex partners in the six months before the survey															
Total	1	1-1	1	1-1.5	1	1-1	1	0-1	1	1-1	1	1-1	1	0 — 1	1 — 1
Age															
15-19	1	1-1.5	1	0-1	1	0-1	0.5	0-1	1	0-1	1	0-1	1	0 — 1	1 — 1
20-24	1	1-1	1	1-2	1	1-1	1	1-2	1	1-1	1	1-1	1	1 — 1	1 — 1
AGYW reported that she had a relationship with a blesser in the 6 months before the survey															
Total	1/58	1.7	2/63	3.2	4/126	3.2	1/108	0.9	1/70	1.4	1/90	1.1	9.2/515.2	1.8	0.8 — 3.5
Age															
15-19	1/15	6.7	1/33	3.0	1/58	1.7	1/80	1.2	0/35	0.0	0/43	0.0	5.3/264	2.0	0.5 — 5.6
20-24	0/43	0.0	1/30	3.3	3/68	4.4	0/28	0.0	1/35	2.9	1/47	2.1	5.3/250.9	2.1	0.7 — 4.8
AGYW reported she had ever had sex															
Total	52/58	89.7	51/63	81.0	89/126	70.6	74/108	68.5	52/70	74.3	71/90	78.9	380.6/515.1	73.9	69.0 — 78.3
Age															
15-19	13/15	86.7	21/33	63.6	29/58	50.0	48/80	60.0	19/35	54.3	26/43	60.5	162.7/264	61.6	54.6 — 68.3
20-24	39/43	90.7	30/30	100.0	60/68	88.2	26/28	92.9	33/35	94.3	45/47	95.7	232/250.9	92.5	87.3 — 96.0
AGYW reported that she started or stayed in a relationship for help with money and goods in the 6 months before the survey															
Total	7/58	12.1	6/63	9.5	11/126	8.7	10/108	9.3	5/70	7.1	3/90	3.3	46.9/515.1	9.1	6.4 — 12.5
Age															
15-19	2/15	13.3	2/33	6.1	1/58	1.7	7/80	8.8	3/35	8.6	1/43	2.3	20.4/264	7.7	4.2 — 12.8
20-24	5/43	11.6	4/30	13.3	10/68	14.7	3/28	10.7	2/35	5.7	2/47	4.3	29.2/250.9	11.6	7.2 — 17.6
AGYW's age at first sex with a boy/man was younger than 15 years of age															
Total	6/58	10.3	2/63	3.2	4/126	3.2	5/108	4.6	4/70	5.7	5/90	5.6	26/515.1	5.0	3.1 — 7.7
Age															
15-19	2/15	13.3	1/33	3.0	1/58	1.7	5/80	6.2	2/35	5.7	1/43	2.3	15.7/264	6.0	2.9 — 10.7
20-24	4/43	9.3	1/30	3.3	3/68	4.4	0/28	0.0	2/35	5.7	4/47	8.5	9.3/250.9	3.7	1.8 — 6.6

Table 10: Factors associated with ever having sex among all participants (n = 510).

	Ever had sex								
	No			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Age group									
15-19	106	39.7	32.7 — 47.0	156	60.3	53.0 — 67.3	0.0000	33.04	25.23 — 40.84
20-24	15	6.6	3.5 — 11.3	233	93.4	88.7 — 96.5			
Relative socio-economic status									
Relatively low socio-economic group	25	19.1	11.9 — 28.2	120	80.9	71.8 — 88.1	0.0666	-8.85	-18.32 — 0.61
Relatively high socio-economic group	96	27.9	22.5 — 33.8	269	72.1	66.2 — 77.5			
HIV status (n = 504)									
Positive	3	22.7	3.5 — 58.1	12	77.3	41.9 — 96.5	0.8313	-2.84	-29.03 — 23.36
Negative or don't know	117	25.5	21.0 — 30.5	372	74.5	69.5 — 79.0			
Enrolled in an educational institution in October 2020									
Enrolled in education	109	30.8	25.3 — 36.8	268	69.2	63.2 — 74.7	0.0000	21.72	13.80 — 29.65
None	12	9.1	4.3 — 16.5	121	90.9	83.5 — 95.7			
AGYW NEET during 2020									
No	115	27.6	22.7 — 32.9	334	72.4	67.1 — 77.3	0.0000	20.11	12.20 — 28.03
Yes	6	7.5	2.6 — 16.4	55	92.5	83.6 — 97.4			
Tested for HIV in the past year (n = 464)									
Yes	80	18.9	14.6 — 23.8	349	81.1	76.2 — 85.4	0.0646	-17.53	-35.51 — 0.44
No	14	36.4	19.5 — 56.1	21	63.6	43.9 — 80.5			
Spent time at a safe space in past year (n = 500)									
Yes	25	23.0	14.6 — 33.4	87	77.0	66.6 — 85.4	0.5919	-2.84	-13.22 — 7.54
No	94	25.8	20.7 — 31.5	294	74.2	68.5 — 79.3			
AGYW's wellbeing was flourishing									
No	33	18.7	12.6 — 26.3	155	81.3	73.7 — 87.4	0.0174	-10.84	-19.72 — -1.97
Yes	88	29.6	23.6 — 36.0	234	70.4	64.0 — 76.4			
AGYW's wellbeing was languishing									
No	108	26.7	21.8 — 32.1	329	73.3	67.9 — 78.2	0.1521	8.20	-2.88 — 19.27
Yes	13	18.5	9.6 — 30.7	60	81.5	69.3 — 90.4			

Table 10: Factors associated with ever having sex among all participants (n = 510).

	Ever had sex								
	No			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
High AuditC score (>= 2) (n = 496)									
No	80	32.1	25.4 — 39.3	170	67.9	60.7 — 74.6	0.0038	13.42	4.36 — 22.47
Yes	39	18.6	12.9 — 25.6	207	81.4	74.4 — 87.1			

CI, Confidence Interval

Table 11: Sexuality and relationships among beneficiaries of the AGYW programme who reported that they had ever had sex (n = 389)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
AGYW last had sex with a boy or man within the three months before the survey															
Total	36/52	69.2	38/51	74.5	67/89	75.3	48/74	64.9	44/52	84.6	56/71	78.9	271.1/380.6	71.2	65.4 — 76.5
Age															
15-19	6/13	46.2	16/21	76.2	19/29	65.5	27/48	56.2	16/19	84.2	16/26	61.5	97.9/162.8	60.2	50.4 — 69.3
20-24	30/39	76.9	22/30	73.3	48/60	80.0	21/26	80.8	28/33	84.8	40/45	88.9	184.9/232	79.7	72.4 — 85.8
AGYW last had sex with a boy or man within the six months before the survey															
Total	40/52	76.9	43/51	84.3	78/89	87.6	59/74	79.7	45/52	86.5	60/71	84.5	313/380.6	82.2	77.2 — 86.6
Age															
15-19	9/13	69.2	19/21	90.5	24/29	82.8	36/48	75.0	16/19	84.2	17/26	65.4	125.1/162.8	76.9	67.8 — 84.4
20-24	31/39	79.5	24/30	80.0	54/60	90.0	23/26	88.5	29/33	87.9	43/45	95.6	201.3/232	86.8	80.4 — 91.7
AGYW last had sex with a boy or man within the 12 months before the survey															
Total	46/52	88.5	46/51	90.2	85/89	95.5	72/74	97.3	47/52	90.4	63/71	88.7	356.8/380.6	93.7	90.7 — 96.0
Age															
15-19	11/13	84.6	20/21	95.2	28/29	96.6	46/48	95.8	17/19	89.5	20/26	76.9	150.7/162.8	92.6	86.0 — 96.7
20-24	35/39	89.7	26/30	86.7	57/60	95.0	26/26	100.0	30/33	90.9	43/45	95.6	218.9/232	94.4	90.6 — 96.9
AGYW's last male partner was 5 or more years older than her															
Total	6/52	11.5	13/51	25.5	25/89	28.1	7/74	9.5	2/52	3.8	5/71	7.0	55.5/380.6	14.6	10.9 — 19.0
Age															
15-19	1/13	7.7	3/21	14.3	10/29	34.5	5/48	10.4	0/19	0.0	2/26	7.7	20.1/162.7	12.4	7.2 — 19.3
20-24	5/39	12.8	10/30	33.3	15/60	25.0	2/26	7.7	2/33	6.1	3/45	6.7	38.9/232.1	16.8	11.5 — 23.2
AGYW reported having a male sex partner who was 5 or more years older than her during the six months before the survey															
Total	10/52	19.2	19/51	37.3	32/89	36.0	10/74	13.5	8/52	15.4	11/71	15.5	82.9/380.6	21.8	17.3 — 26.7
Age															
15-19	3/13	23.1	6/21	28.6	9/29	31.0	6/48	12.5	2/19	10.5	2/26	7.7	29.3/162.7	18.0	11.5 — 26.1
20-24	7/39	17.9	13/30	43.3	23/60	38.3	4/26	15.4	6/33	18.2	9/45	20.0	62/232.1	26.7	20.1 — 34.2
AGYW had more than one male partner in the six months before the survey															
Total	13/52	25.0	15/51	29.4	13/89	14.6	13/74	17.6	10/52	19.2	17/71	23.9	75.8/380.6	19.9	15.5 — 24.9
Age															
15-19	4/13	30.8	5/21	23.8	7/29	24.1	5/48	10.4	3/19	15.8	6/26	23.1	29.4/162.7	18.1	11.5 — 26.4
20-24	9/39	23.1	10/30	33.3	6/60	10.0	8/26	30.8	7/33	21.2	11/45	24.4	54/232.1	23.3	16.5 — 31.2

Table 11: Sexuality and relationships among beneficiaries of the AGYW programme who reported that they had ever had sex (n = 389)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
AGYW had more than one female partner in the six months before the survey															
Total	1/52	1.9	1/51	2.0	2/89	2.2	6/74	8.1	1/52	1.9	1/71	1.4	16.8/380.6	4.4	2.1 — 8.0
Age															
15-19	0/13	0.0	0/21	0.0	2/29	6.9	3/48	6.2	1/19	5.3	0/26	0.0	7/162.7	4.3	1.5 — 9.6
20-24	1/39	2.6	1/30	3.3	0/60	0.0	3/26	11.5	0/33	0.0	1/45	2.2	10.6/232	4.6	1.3 — 10.9
AGYW had oral, anal, or vaginal sex to pay for things she needed in the six months before the survey															
Total	3/52	5.8	3/51	5.9	2/89	2.2	5/74	6.8	1/52	1.9	1/71	1.4	18.8/380.7	4.9	2.6 — 8.4
Age															
15-19	2/13	15.4	1/21	4.8	0/29	0.0	2/48	4.2	1/19	5.3	0/26	0.0	9.2/162.6	5.7	1.9 — 12.6
20-24	1/39	2.6	2/30	6.7	2/60	3.3	3/26	11.5	0/33	0.0	1/45	2.2	13.9/232.1	6.0	2.4 — 12.2
AGYW had oral, anal, or vaginal sex in the six months before the survey because she expected to receive money or goods in exchange															
Total	5/52	9.6	3/51	5.9	7/89	7.9	7/74	9.5	2/52	3.8	2/71	2.8	30.2/380.6	7.9	5.0 — 11.9
Age															
15-19	2/13	15.4	1/21	4.8	1/29	3.4	4/48	8.3	1/19	5.3	1/26	3.8	13.4/162.7	8.2	3.6 — 15.5
20-24	3/39	7.7	2/30	6.7	6/60	10.0	3/26	11.5	1/33	3.0	1/45	2.2	20.3/232	8.8	4.5 — 14.9
AGYW needed to "hustle" sex in the six months before the survey to help herself or her family get things to survive															
Total	5/52	9.6	2/51	3.9	4/89	4.5	5/74	6.8	1/52	1.9	2/71	2.8	22/380.7	5.8	3.3 — 9.3
Age															
15-19	2/13	15.4	1/21	4.8	1/29	3.4	0/48	0.0	0/19	0.0	0/26	0.0	6/162.7	3.7	0.8 — 10.2
20-24	3/39	7.7	1/30	3.3	3/60	5.0	5/26	19.2	1/33	3.0	2/45	4.4	21.8/232	9.4	4.7 — 16.5
AGYW reported COVID-19 and the lockdown had affected her sex life in that she had more sex partners than before															
Total	1/52	1.9	4/51	7.8	0/89	0.0	0/74	0.0	0/52	0.0	1/71	1.4	4.8/380.7	1.3	0.4 — 2.9
Age															
15-19	1/13	7.7	2/21	9.5	0/29	0.0	0/48	0.0	0/19	0.0	1/26	3.8	3.9/162.6	2.4	0.4 — 7.6
20-24	0/39	0.0	2/30	6.7	0/60	0.0	0/26	0.0	0/33	0.0	0/45	0.0	2.3/232.1	1.0	0.1 — 3.6
AGYW reported COVID-19 and the lockdown had affected her sex life in that she had fewer sex partners than before															
Total	2/52	3.8	6/51	11.8	5/89	5.6	9/74	12.2	6/52	11.5	13/71	18.3	37.1/380.7	9.7	6.5 — 13.9
Age															
15-19	0/13	0.0	0/21	0.0	2/29	6.9	6/48	12.5	1/19	5.3	3/26	11.5	12.4/162.6	7.6	3.6 — 14.0
20-24	2/39	5.1	6/30	20.0	3/60	5.0	3/26	11.5	5/33	15.2	10/45	22.2	25.4/232.1	11.0	6.4 — 17.1

Table 11: Sexuality and relationships among beneficiaries of the AGYW programme who reported that they had ever had sex (n = 389)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
AGYW reported COVID-19 and the lockdown had affected her sex life in that she had had sex more often than before															
Total	4/52	7.7	7/51	13.7	11/89	12.4	1/74	1.4	3/52	5.8	10/71	14.1	26/380.6	6.8	4.5 — 9.8
Age															
15-19	0/13	0.0	2/21	9.5	5/29	17.2	1/48	2.1	3/19	15.8	2/26	7.7	9.4/162.7	5.8	2.9 — 10.2
20-24	4/39	10.3	5/30	16.7	6/60	10.0	0/26	0.0	0/33	0.0	8/45	17.8	16.5/232.1	7.1	4.1 — 11.2
AGYW reported COVID-19 and the lockdown had affected her sex life in that she had sex less often than before															
Total	17/52	32.7	21/51	41.2	46/89	51.7	31/74	41.9	19/52	36.5	37/71	52.1	160.3/380.6	42.1	36.3 — 48.1
Age															
15-19	4/13	30.8	7/21	33.3	13/29	44.8	18/48	37.5	3/19	15.8	13/26	50.0	57.5/162.7	35.3	26.7 — 44.7
20-24	13/39	33.3	14/30	46.7	33/60	55.0	13/26	50.0	16/33	48.5	24/45	53.3	113.5/232.1	48.9	40.6 — 57.2

IQR: interquartile range

Sexual relationship power

We included a measure of sexual relationship power adapted for South African women. Sexual relationship power influences risk for IPV and HIV, as well as the HIV care continuum (https://knowledgecommons.popcouncil.org/cgi/viewcontent.cgi?article=1547&context=departments_sbsr-hiv). The measure included a set of statements about the participant's relationship with her current or most recent main partner/boyfriend, and she was asked the extent to which she agreed, with response options ranging from strongly agree through to strongly disagree. If she was not sure, or if she had not been in the situation, we asked her to guess how he would act. Table 12 describes the prevalence of strongly agree or agree responses to the statements.

As shown in Table 12, 43.9% of AGYW reported that when their partner wants sex, they are expected to agree, ranging across the districts from 22.2% to 63.0%. A smaller percentage of participants (16.1%) agreed that if they asked their partner to use a condom, he would get angry, ranging from 7.1% to 19.8% across the districts. AGYW (23.6%) reported that their partner would not let them wear certain things (18.9% to 28.6% across districts) and 26.2% of AGYW reported that when they wear certain things to make themselves look beautiful, their partner thinks they are trying to attract other men (18.9% to 29.3% across districts). Most AGYW (51.1%) reported that their partner wanted to know where they were all the time, ranging from 45.6% to 53.2% across districts, and some AGYW (17.6%) even agreed that their partner told them with whom they could spend time, varying across districts from 13.3% to 20.4%. Meanwhile, 16.4% of AGYW said that their partner lets them know that they are not the only partner they could have (11.9% to 19.4% across districts). Lastly, some AGYW (29.1%) felt that their partner had more to say about important decisions that affected them than they did, ranging from 17.8% to 32.5% across districts. There was no statistically significant difference between the younger and older age groups for these variables.

Table 12: Sexual relationship power among AGYW beneficiaries of the Global-Fund funded AGYW programme, 2019-2021 (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
When he wants sex, he expects me to agree															
Total	20/58	34.5	14/63	22.2	34/126	27.0	68/108	63.0	26/70	37.1	25/90	27.8	226.1/515.2	43.9	38.7 — 49.1
Age															
15-19	6/15	40.0	6/33	18.2	14/58	24.1	50/80	62.5	12/35	34.3	6/43	14.0	118.5/264	44.9	37.7 — 52.2
20-24	14/43	32.6	8/30	26.7	20/68	29.4	18/28	64.3	14/35	40.0	19/47	40.4	105.2/251	41.9	34.0 — 50.1
If I ask him to use a condom, he would get angry															
Total	8/58	13.8	9/63	14.3	25/126	19.8	19/108	17.6	5/70	7.1	14/90	15.6	82.8/515.1	16.1	12.5 — 20.2
Age															
15-19	3/15	20.0	6/33	18.2	9/58	15.5	14/80	17.5	4/35	11.4	7/43	16.3	44.6/264	16.9	11.9 — 23.0
20-24	5/43	11.6	3/30	10.0	16/68	23.5	5/28	17.9	1/35	2.9	7/47	14.9	40.5/251	16.1	10.7 — 22.9
He won't let me wear certain things															
Total	13/58	22.4	12/63	19.0	36/126	28.6	24/108	22.2	19/70	27.1	17/90	18.9	121.5/515.1	23.6	19.4 — 28.2
Age															
15-19	5/15	33.3	7/33	21.2	13/58	22.4	17/80	21.2	13/35	37.1	4/43	9.3	63.9/264	24.2	18.3 — 30.9
20-24	8/43	18.6	5/30	16.7	23/68	33.8	7/28	25.0	6/35	17.1	13/47	27.7	62.7/250.9	25.0	18.5 — 32.4
He has more to say than I do about important decisions that affect us															
Total	17/58	29.3	14/63	22.2	41/126	32.5	33/108	30.6	19/70	27.1	16/90	17.8	150/515.1	29.1	24.6 — 34.0
Age															
15-19	3/15	20.0	8/33	24.2	17/58	29.3	21/80	26.2	10/35	28.6	9/43	20.9	68.1/264	25.8	19.9 — 32.4
20-24	14/43	32.6	6/30	20.0	24/68	35.3	12/28	42.9	9/35	25.7	7/47	14.9	84.4/250.9	33.6	26.2 — 41.7
He tells me who I can spend time with															
Total	8/58	13.8	11/63	17.5	18/126	14.3	22/108	20.4	13/70	18.6	12/90	13.3	90.5/515.1	17.6	13.8 — 21.9
Age															
15-19	2/15	13.3	4/33	12.1	10/58	17.2	15/80	18.8	9/35	25.7	6/43	14.0	46.8/263.9	17.7	12.7 — 23.8
20-24	6/43	14.0	7/30	23.3	8/68	11.8	7/28	25.0	4/35	11.4	6/47	12.8	44.8/250.9	17.8	11.9 — 25.1
When I wear things to make me look beautiful he thinks I may be trying to attract other men															
Total	17/58	29.3	11/63	17.5	36/126	28.6	30/108	27.8	16/70	22.9	17/90	18.9	135.1/515.1	26.2	21.8 — 31.0
Age															
15-19	4/15	26.7	8/33	24.2	18/58	31.0	22/80	27.5	13/35	37.1	6/43	14.0	74.4/264.1	28.2	22.0 — 35.0
20-24	13/43	30.2	3/30	10.0	18/68	26.5	8/28	28.6	3/35	8.6	11/47	23.4	58.9/250.9	23.5	17.0 — 31.0

Table 12: Sexual relationship power among AGYW beneficiaries of the Global-Fund funded AGYW programme, 2019-2021 (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
He wants to know where I am all of the time															
Total	27/58	46.6	32/63	50.8	67/126	53.2	56/108	51.9	36/70	51.4	41/90	45.6	263.1/515	51.1	45.9 — 56.2
Age															
15-19	5/15	33.3	15/33	45.5	25/58	43.1	39/80	48.8	23/35	65.7	18/43	41.9	124.2/264.1	47.0	39.9 — 54.2
20-24	22/43	51.2	17/30	56.7	42/68	61.8	17/28	60.7	13/35	37.1	23/47	48.9	142.1/250.9	56.6	48.7 — 64.3
He lets me know I am not the only partner he could have															
Total	9/58	15.5	11/63	17.5	15/126	11.9	21/108	19.4	9/70	12.9	13/90	14.4	84.3/515.2	16.4	12.7 — 20.6
Age															
15-19	2/15	13.3	6/33	18.2	5/58	8.6	12/80	15.0	6/35	17.1	8/43	18.6	38/264	14.4	9.8 — 20.1
20-24	7/43	16.3	5/30	16.7	10/68	14.7	9/28	32.1	3/35	8.6	5/47	10.6	50.1/250.8	20.0	13.6 — 27.7

Participation in components of the AGYW programme

We asked a series of questions to assess the extent to which beneficiaries had participated in various components of the AGYW programme. It was not always possible to identify components of the programme because they were not branded. Furthermore, we could not assume that beneficiaries knew the names of the SRs or SSRs delivering the programmes. Therefore, it possible that our estimates of the proportion of participants who had been involved in a component of the AGYW programme are underestimates. We included a question about receipt of services in the month before the AGYW participate in the survey, to assess whether the SR or SSR had used the opportunity of contacting the beneficiary for the survey to offer services.

As shown in Table 13, 11.2% of AGYW reported that they had received help from an NGO in their community with problems that they were experiencing in the six months before the survey, ranging across districts from 6.9% (in Klipfontein) to 15.9% (in Bojanala). During the month before the survey, 11.2% of AGYW received condoms from an NGO in their community (5.7% to 19.0% across districts), 23.7% of AGYW received HIV testing (14.3% to 33.3% across districts), 9.0% received family planning (6.9% to 11.4% across districts), 6.2% received PrEP (4.0% to 10.3% across districts), 2.1% received HIV treatment (0% to 3.4%), 6.4% received help from a social worker (1.6% to 10.2% across districts) and 11.9% received help with another issue (6.9% to 13.9% across districts). AGYW in the 20 to 24 year age group (19.0%; 95% CI: 13.3 — 25.9%) were more likely to have received condoms from an NGO in their community in the past month compared to AGYW in the 15 to 19 year age group (6.0%; 95% CI: 3.3 — 9.8%). There was no significant differences between the age groups for all other variables in Table 13. A minority of AGYW (14.7%) reported receiving the “My Journey” diary in which to write their goals and life journey plan, ranging from 6.5% in Ehlanzeni district to 30.2% in Bojanala district.

Safe spaces have the potential to reduce AGYW’s HIV risk: there is some evidence that spending time in community spaces and community groups that include an element of adult supervision is protective against HIV incidence and risk (44). Less than a third of AGYW (27.6%) knew of an NGO in their community that provided a safe space for young women to hang out and receive support, ranging across districts from 18.6% (in Nelson Mandela Bay) to 37.9% (in Klipfontein) (Table 13). Even fewer AGYW (23.6%) reported spending time at a safe space, ranging from 10.0% (in Nelson Mandela Bay) to 34.9% (in King Cetshwayo).

Table 14 reports on services and activities at the safe space among beneficiaries of the AGYW programme who reported that they had spent time at a safe space in the past year. We asked the 113 AGYW who

spent time at a safe space in the past year what services they had received at the safe space and what activities they had participated in at the safe space, and 20.7% had received help from a social worker, 25.3% had received help with homework, 47.6% had had an HIV test, 24.0% had received counselling to cope with distress, 20.9% had participated in a self-defence class, 15.4% had participated in a parenting class, 21.6% had connected to the internet or Wi-Fi, 44.1% had joined a game or fun activity, 21.4% had received services from a mobile clinic and 33.2% had participated in a sports activity. There was no statistically significant difference between age groups for these variables. However, 26.7% of AGYW reported that they had participated in another activity or received another service at the safe space in the past year which was more common in the 20 to 24 year age group (45.0%; 29.3 — 61.5%) compared to the 15 to 19 year age group (15.0%; 6.1 — 28.8%). Most AGYW who had been to a safe space (66.2%) reported that condoms were available at the safe space, 79.5% reported that information about health services for young women was available at the safe space and 86.4% reported that the safe space was a comfortable space to be in.

Table 13: Self-reported participation in components of the Global-Fund funded AGYW programme among beneficiaries of the programme during 2019-2021 in six South African districts (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
During the past six months, the AGYW had received help from an NGO in her community with problems she was experiencing															
Total	4/58	6.9	10/63	15.9	12/126	9.5	13/108	12.0	7/70	10.0	13/90	14.4	57.5/515.1	11.2	8.2 — 14.8
Age															
15-19	1/15	6.7	5/33	15.2	6/58	10.3	9/80	11.2	5/35	14.3	6/43	14.0	29.8/264	11.3	7.3 — 16.4
20-24	3/43	7.0	5/30	16.7	6/68	8.8	4/28	14.3	2/35	5.7	7/47	14.9	28.4/250.9	11.3	6.7 — 17.6
During the past month, AGYW had received condoms from an NGO in her community															
Total	8/58	13.8	12/63	19.0	22/126	17.5	7/108	6.5	4/70	5.7	15/90	16.7	57.9/515.2	11.2	8.4 — 14.6
Age															
15-19	1/15	6.7	3/33	9.1	9/58	15.5	2/80	2.5	1/35	2.9	4/43	9.3	15.8/264	6.0	3.3 — 9.8
20-24	7/43	16.3	9/30	30.0	13/68	19.1	5/28	17.9	3/35	8.6	11/47	23.4	47.7/250.9	19.0	13.3 — 25.9
During the past month, AGYW had received HIV testing from an NGO in her community															
Total	10/58	17.2	21/63	33.3	29/126	23.0	28/108	25.9	10/70	14.3	21/90	23.3	122.3/515.1	23.7	19.5 — 28.4
Age															
15-19	2/15	13.3	9/33	27.3	15/58	25.9	18/80	22.5	5/35	14.3	6/43	14.0	55.8/264	21.1	15.7 — 27.4
20-24	8/43	18.6	12/30	40.0	14/68	20.6	10/28	35.7	5/35	14.3	15/47	31.9	69.3/250.9	27.6	20.6 — 35.5
During the past month, AGYW had received family planning from an NGO in her community															
Total	4/58	6.9	5/63	7.9	11/126	8.7	10/108	9.3	8/70	11.4	9/90	10.0	46.2/515.2	9.0	6.3 — 12.3
Age															
15-19	2/15	13.3	3/33	9.1	5/58	8.6	5/80	6.2	5/35	14.3	4/43	9.3	23/264	8.7	5.2 — 13.6
20-24	2/43	4.7	2/30	6.7	6/68	8.8	5/28	17.9	3/35	8.6	5/47	10.6	27.4/250.9	10.9	6.2 — 17.5
During the past month, AGYW had received PrEP from an NGO in her community															
Total	6/58	10.3	4/63	6.3	5/126	4.0	7/108	6.5	3/70	4.3	6/90	6.7	32.1/515.2	6.2	4.0 — 9.2
Age															
15-19	1/15	6.7	0/33	0.0	1/58	1.7	4/80	5.0	2/35	5.7	3/43	7.0	11.6/264	4.4	1.9 — 8.5
20-24	5/43	11.6	4/30	13.3	4/68	5.9	3/28	10.7	1/35	2.9	3/47	6.4	22.2/250.9	8.9	4.8 — 14.6
During the past month, AGYW had received HIV treatment from an NGO in her community															
Total	2/58	3.4	0/63	0.0	4/126	3.2	2/108	1.9	1/70	1.4	2/90	2.2	10.8/515.2	2.1	0.9 — 4.1
Age															

Table 13: Self-reported participation in components of the Global-Fund funded AGYW programme among beneficiaries of the programme during 2019-2021 in six South African districts (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
15-19	1/15	6.7	0/33	0.0	1/58	1.7	2/80	2.5	0/35	0.0	1/43	2.3	6.4/264	2.4	0.6 — 6.2
20-24	1/43	2.3	0/30	0.0	3/68	4.4	0/28	0.0	1/35	2.9	1/47	2.1	4.8/250.9	1.9	0.6 — 4.4
During the past month, AGYW had received help from a social worker from an NGO in her community															
Total	2/58	3.4	1/63	1.6	5/126	4.0	11/108	10.2	3/70	4.3	5/90	5.6	33/515.2	6.4	4.0 — 9.7
Age															
15-19	0/15	0.0	0/33	0.0	1/58	1.7	8/80	10.0	3/35	8.6	1/43	2.3	16/264	6.1	3.1 — 10.5
20-24	2/43	4.7	1/30	3.3	4/68	5.9	3/28	10.7	0/35	0.0	4/47	8.5	16.2/251	6.4	2.9 — 12.1
During the past month, AGYW had received help with another issue from an NGO in her community															
Total	4/58	6.9	7/63	11.1	14/126	11.1	15/108	13.9	9/70	12.9	8/90	8.9	61.2/515.2	11.9	8.7 — 15.7
Age															
15-19	2/15	13.3	1/33	3.0	9/58	15.5	10/80	12.5	7/35	20.0	3/43	7.0	33.8/264	12.8	8.5 — 18.3
20-24	2/43	4.7	6/30	20.0	5/68	7.4	5/28	17.9	2/35	5.7	5/47	10.6	30.3/250.9	12.1	7.1 — 18.7
AGYW had received the "My Journey" diary in which to write her goals and life journey plan															
Total	9/58	15.5	19/63	30.2	31/126	24.6	7/108	6.5	9/70	12.9	13/90	14.4	75.9/515.1	14.7	11.6 — 18.3
Age															
15-19	3/15	20.0	12/33	36.4	10/58	17.2	3/80	3.8	5/35	14.3	11/43	25.6	33.8/264	12.8	8.7 — 17.9
20-24	6/43	14.0	7/30	23.3	21/68	30.9	4/28	14.3	4/35	11.4	2/47	4.3	49.5/250.9	19.7	14.0 — 26.5
AGYW knows an NGO in her community which provides a safe space for young women to hang out and receive support															
Total	22/58	37.9	19/63	30.2	46/126	36.5	24/108	22.2	13/70	18.6	20/90	22.2	142/515.1	27.6	23.2 — 32.3
Age															
15-19	5/15	33.3	8/33	24.2	22/58	37.9	16/80	20.0	5/35	14.3	7/43	16.3	64/264	24.3	18.4 — 30.9
20-24	17/43	39.5	11/30	36.7	24/68	35.3	8/28	28.6	8/35	22.9	13/47	27.7	81.3/250.9	32.4	25.3 — 40.1
In the past year, the AGYW had spent time at a safe space in her community															
Total	15/58	25.9	9/63	14.3	44/126	34.9	26/108	24.1	7/70	10.0	12/90	13.3	121.8/515.1	23.6	19.4 — 28.3
Age															
15-19	4/15	26.7	4/33	12.1	17/58	29.3	20/80	25.0	4/35	11.4	3/43	7.0	60/264	22.7	16.9 — 29.4
20-24	11/43	25.6	5/30	16.7	27/68	39.7	6/28	21.4	3/35	8.6	9/47	19.1	63.5/250.9	25.3	18.9 — 32.6

Table 14: Reports about services and activities at the safe space among beneficiaries of the Global Fund funded AGYW programme during 2019-2021 in six South African districts (n = 113)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Received help from a Social Worker															
Total	1/15	6.7	1/9	11.1	7/44	15.9	8/26	30.8	1/7	14.3	2/12	16.7	25.3/121.8	20.7	12.4 — 31.4
Age															
15-19	1/4	25.0	1/4	25.0	2/17	11.8	6/20	30.0	1/4	25.0	0/3	0.0	14.8/60	24.7	12.4 — 41.0
20-24	0/11	0.0	0/5	0.0	5/27	18.5	2/6	33.3	0/3	0.0	2/9	22.2	11.5/63.5	18.1	7.0 — 35.0
Received help with homework															
Total	0/15	0.0	0/9	0.0	4/44	9.1	13/26	50.0	0/7	0.0	5/12	41.7	30.8/121.8	25.3	15.8 — 37.0
Age															
15-19	0/4	0.0	0/4	0.0	1/17	5.9	12/20	60.0	0/4	0.0	1/3	33.3	20.1/60	33.5	19.3 — 50.2
20-24	0/11	0.0	0/5	0.0	3/27	11.1	1/6	16.7	0/3	0.0	4/9	44.4	6.8/63.5	10.7	3.0 — 25.4
Had an HIV test															
Total	5/15	33.3	4/9	44.4	28/44	63.6	11/26	42.3	2/7	28.6	9/12	75.0	58/121.8	47.6	36.9 — 58.6
Age															
15-19	1/4	25.0	2/4	50.0	8/17	47.1	9/20	45.0	2/4	50.0	2/3	66.7	25.9/60	43.1	27.9 — 59.3
20-24	4/11	36.4	2/5	40.0	20/27	74.1	2/6	33.3	0/3	0.0	7/9	77.8	33.7/63.5	53.1	37.0 — 68.7
Received counselling to cope with distress															
Total	3/15	20.0	2/9	22.2	10/44	22.7	6/26	23.1	4/7	57.1	3/12	25.0	29.2/121.8	24.0	15.6 — 34.2
Age															
15-19	0/4	0.0	1/4	25.0	4/17	23.5	5/20	25.0	2/4	50.0	0/3	0.0	13.1/59.9	21.9	11.0 — 36.7
20-24	3/11	27.3	1/5	20.0	6/27	22.2	1/6	16.7	2/3	66.7	3/9	33.3	14.5/63.5	22.9	11.8 — 37.6
Participated in a self-defense class															
Total	2/15	13.3	1/9	11.1	13/44	29.5	5/26	19.2	1/7	14.3	3/12	25.0	25.4/121.8	20.9	13.0 — 30.7
Age															
15-19	1/4	25.0	1/4	25.0	3/17	17.6	4/20	20.0	1/4	25.0	0/3	0.0	12.3/59.9	20.6	9.5 — 36.2
20-24	1/11	9.1	0/5	0.0	10/27	37.0	1/6	16.7	0/3	0.0	3/9	33.3	14.9/63.5	23.5	12.1 — 38.6
Participated in a parenting class															
Total	1/15	6.7	0/9	0.0	8/44	18.2	5/26	19.2	1/7	14.3	0/12	0.0	18.7/121.8	15.4	8.3 — 25.1
Age															

Table 14: Reports about services and activities at the safe space among beneficiaries of the Global Fund funded AGYW programme during 2019-2021 in six South African districts (n = 113)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
15-19	0/4	0.0	0/4	0.0	2/17	11.8	5/20	25.0	1/4	25.0	0/3	0.0	10.2/60	17.0	7.2 — 31.8
20-24	1/11	9.1	0/5	0.0	6/27	22.2	0/6	0.0	0/3	0.0	0/9	0.0	7.2/63.5	11.3	4.4 — 22.5
Connected to the internet/Wifi															
Total	2/15	13.3	1/9	11.1	8/44	18.2	7/26	26.9	2/7	28.6	4/12	33.3	26.3/121.8	21.6	13.3 — 32.0
Age															
15-19	2/4	50.0	1/4	25.0	3/17	17.6	5/20	25.0	2/4	50.0	3/3	100.0	17.6/60	29.4	16.1 — 45.9
20-24	0/11	0.0	0/5	0.0	5/27	18.5	2/6	33.3	0/3	0.0	1/9	11.1	11.3/63.5	17.8	6.8 — 34.8
Joined a music, game or fun activity															
Total	4/15	26.7	0/9	0.0	21/44	47.7	14/26	53.8	3/7	42.9	5/12	41.7	53.7/121.8	44.1	33.4 — 55.2
Age															
15-19	1/4	25.0	0/4	0.0	8/17	47.1	11/20	55.0	2/4	50.0	1/3	33.3	27.4/60	45.7	30.1 — 61.8
20-24	3/11	27.3	0/5	0.0	13/27	48.1	3/6	50.0	1/3	33.3	4/9	44.4	26.1/63.5	41.1	26.1 — 57.5
Received services from a mobile clinic															
Total	1/15	6.7	2/9	22.2	8/44	18.2	7/26	26.9	2/7	28.6	4/12	33.3	26.1/121.8	21.4	13.2 — 31.8
Age															
15-19	1/4	25.0	2/4	50.0	2/17	11.8	6/20	30.0	2/4	50.0	1/3	33.3	16.5/60	27.5	14.8 — 43.7
20-24	0/11	0.0	0/5	0.0	6/27	22.2	1/6	16.7	0/3	0.0	3/9	33.3	9.9/63.5	15.6	6.1 — 30.3
Participated in a sports activity															
Total	4/15	26.7	0/9	0.0	14/44	31.8	10/26	38.5	4/7	57.1	5/12	41.7	40.5/121.8	33.2	23.4 — 44.3
Age															
15-19	1/4	25.0	0/4	0.0	6/17	35.3	10/20	50.0	3/4	75.0	2/3	66.7	25.3/60	42.2	27.1 — 58.5
20-24	3/11	27.3	0/5	0.0	8/27	29.6	0/6	0.0	1/3	33.3	3/9	33.3	12/63.5	18.9	9.8 — 31.3
Other service or activity															
Total	5/15	33.3	3/9	33.3	13/44	29.5	6/26	23.1	1/7	14.3	3/12	25.0	32.6/121.8	26.7	17.9 — 37.1
Age															
15-19	1/4	25.0	1/4	25.0	5/17	29.4	1/20	5.0	1/4	25.0	0/3	0.0	9/60	15.0	6.1 — 28.8
20-24	4/11	36.4	2/5	40.0	8/27	29.6	5/6	83.3	0/3	0.0	3/9	33.3	28.6/63.5	45.0	29.3 — 61.5
Reported that condoms were available at the safe space															

Table 14: Reports about services and activities at the safe space among beneficiaries of the Global Fund funded AGYW programme during 2019-2021 in six South African districts (n = 113)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Total	11/15	73.3	8/9	88.9	33/44	75.0	14/26	53.8	4/7	57.1	12/12	100.0	80.6/121.8	66.2	54.8 — 76.3
Age															
15-19	2/4	50.0	3/4	75.0	10/17	58.8	11/20	55.0	3/4	75.0	3/3	100.0	34.5/60	57.5	41.1 — 72.8
20-24	9/11	81.8	5/5	100.0	23/27	85.2	3/6	50.0	1/3	33.3	9/9	100.0	47.8/63.5	75.3	57.7 — 88.4
Reported that information about health services for young women was available at the safespace															
Total	13/15	86.7	8/9	88.9	41/44	93.2	17/26	65.4	6/7	85.7	11/12	91.7	96.9/121.8	79.5	68.5 — 88.1
Age															
15-19	4/4	100.0	4/4	100.0	14/17	82.4	12/20	60.0	3/4	75.0	2/3	66.7	44.1/60.1	73.5	57.5 — 85.9
20-24	9/11	81.8	4/5	80.0	27/27	100.0	5/6	83.3	3/3	100.0	9/9	100.0	58.1/63.6	91.5	76.4 — 98.3
Reported that teh safe space was a comfortable space to be in															
Total	13/15	86.7	9/9	100.0	39/44	88.6	21/26	80.8	7/7	100.0	12/12	100.0	105.2/121.8	86.4	76.6 — 93.2
Age															
15-19	3/4	75.0	4/4	100.0	15/17	88.2	16/20	80.0	4/4	100.0	3/3	100.0	49.9/60	83.1	67.3 — 93.4
20-24	10/11	90.9	5/5	100.0	24/27	88.9	5/6	83.3	3/3	100.0	9/9	100.0	56.7/63.5	89.3	74.4 — 97.1

HIV testing uptake

Overall among all beneficiaries, 87.5% had ever had an HIV test (Table 15). Beneficiaries in the older age group were statistically significantly more likely to report ever having been tested, with almost all of the women in the 20 to 24 year age group (97.4%) having been tested, compared with 81.3% in the 15 to 19 year age group. Of all beneficiaries, 80.3% had been tested in the year before the survey, and 63.6% of all beneficiaries had been tested in the six months before the survey (Table 15). The factors associated with having had an HIV test in the year before the survey were being in the older age group, having a living mother or father, fulfilling the study definition of being NEET, having ever had sex, ever having been pregnant, and ever having used contraception (Table 16).

Among the beneficiaries who had ever had an HIV test, 27.6% reported that their last test had been at a school or a mobile clinic near the school or in the community (versus in a clinic or hospital, at a workplace, at home, at a private doctor, or in another place) (Table 17). When asked to report on quality of care criteria at their last HIV test, 85.3% reported the waiting time was reasonably short; 97.0% reported being treated in a friendly manner by the person who tested them; 96.5% reported the person who tested them was respectful of their needs; 87.5% reported that all other staff at the testing facility were friendly and respectful; 90.2% believed that their test result and other information they had shared would be kept confidential; and 96.5% reported that the health information they had received was clear and understandable (Table 17).

Table 15: HIV testing uptake among beneficiaries of the Global Fund funded AGYW Programme, 2019-2021 (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
AGYW had ever had an HIV test															
Total	56/58	96.6	58/63	92.1	121/126	96.0	86/108	79.6	59/70	84.3	88/90	97.8	450.9/515.3	87.5	83.4 — 91.0
Age															
15-19	14/15	93.3	28/33	84.8	55/58	94.8	59/80	73.8	25/35	71.4	42/43	97.7	214.5/264	81.3	75.0 — 86.5
20-24	42/43	97.7	30/30	100.0	66/68	97.1	27/28	96.4	34/35	97.1	46/47	97.9	244.3/250.9	97.4	93.3 — 99.3
AGYW had an HIV test during the past year															
Total	50/58	86.2	55/63	87.3	110/126	87.3	80/108	74.1	51/70	72.9	86/90	95.6	413.7/515.1	80.3	75.7 — 84.4
Age															
15-19	14/15	93.3	25/33	75.8	48/58	82.8	53/80	66.2	21/35	60.0	40/43	93.0	194.2/264	73.6	66.9 — 79.5
20-24	36/43	83.7	30/30	100.0	62/68	91.2	27/28	96.4	30/35	85.7	46/47	97.9	233/250.9	92.9	88.5 — 96.0
AGYW had an HIV test during the past six months															
Total	41/58	70.7	47/63	74.6	81/126	64.3	66/108	61.1	36/70	51.4	61/90	67.8	327.8/515.1	63.6	58.5 — 68.5
Age															
15-19	13/15	86.7	21/33	63.6	31/58	53.4	45/80	56.2	16/35	45.7	24/43	55.8	156.6/264	59.3	52.2 — 66.2
20-24	28/43	65.1	26/30	86.7	50/68	73.5	21/28	75.0	20/35	57.1	37/47	78.7	184.2/251	73.4	66.0 — 79.9

Table 16: Factors associated with having an HIV test in the year before the survey (n = 506).

	Had an HIV test in the year before the survey								
	No			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Age group									
15-19	35	17.9	12.4 — 24.6	223	82.1	75.4 — 87.6	0.0000	16.95	11.01 — 22.89
20-24	3	1.0	0.1 — 3.2	245	99.0	96.8 — 99.9			
Maternal orphanhood (n = 502)									
Yes	36	12.3	8.5 — 17.1	367	87.7	82.9 — 91.5	0.0011	10.11	4.22 — 16.00
No	1	2.2	0.1 — 11.5	98	97.8	88.5 — 99.9			
Paternal orphanhood (n = 471)									
Yes	28	11.7	7.6 — 17.0	306	88.3	83.0 — 92.4	0.4971	2.62	-4.95 — 10.19
No	9	9.1	3.9 — 17.3	128	90.9	82.7 — 96.1			
NEET									
No	37	11.7	8.1 — 16.2	407	88.3	83.8 — 91.9	1e-04	10.42	5.78 — 15.06
Yes	1	1.3	0.0 — 7.1	61	98.7	92.9 — 100.0			
Ever had sex (n = 503)									
Had sex	12	4.5	2.1 — 8.1	371	95.5	91.9 — 97.9	0.0000	-24.16	-34.47 — -13.86
I have not had sex yet	26	28.6	19.0 — 39.9	94	71.4	60.1 — 81.0			
Ever been pregnant									
Yes	1	0.8	0.0 — 4.1	153	99.2	95.9 — 100.0	0.0000	-13.86	-18.82 — -8.89
No	37	14.6	10.2 — 20.1	315	85.4	79.9 — 89.8			
Ever used contraception (n = 505)									
Yes	4	0.7	0.1 — 2.2	295	99.3	97.8 — 99.9	0.0000	-20.84	-27.79 — -13.88
No	33	21.6	15.0 — 29.4	173	78.4	70.6 — 85.0			
Spent time at a safe space (n = 502)									
Yes	6	9.3	3.5 — 19.2	107	90.7	80.8 — 96.5	0.6717	-1.76	-9.92 — 6.40
No	32	11.1	7.3 — 15.8	357	88.9	84.2 — 92.7			
Been helped by an organization in her community in the past 6 months (n = 502)									
Yes	3	6.2	1.0 — 18.9	56	93.8	81.1 — 99.0	0.2526	-5.01	-13.50 — 3.49
No	35	11.2	7.6 — 15.6	408	88.8	84.4 — 92.4			
Had sex with a male partner who was 5 or more years older than her during the six months before the survey (n = 378)									
No	11	5.0	2.3 — 9.3	309	95.0	90.7 — 97.7	0.1183	3.53	-0.79 — 7.86

Table 16: Factors associated with having an HIV test in the year before the survey (n = 506).

	Had an HIV test in the year before the survey								
	No			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Yes	1	1.5	0.0 — 8.1	57	98.5	91.9 — 100.0			
Had more than one male partner in 6 months before the survey (n = 383)									
No	10	4.6	2.0 — 8.8	294	95.4	91.2 — 98.0	0.8256	0.73	-5.75 — 7.20
Yes	2	3.9	0.4 — 14.4	77	96.1	85.6 — 99.6			
Had sex because she expected to receive money or goods in exchange, during the 6 months before the survey (n = 383)									
No	10	4.3	1.9 — 8.2	348	95.7	91.8 — 98.1	0.6280	-2.35	-11.92 — 7.21
Yes	2	6.6	0.7 — 22.6	23	93.4	77.4 — 99.3			

CI, Confidence Interval

Table 17: Experiences of last HIV test among beneficiaries of the Global-Fund funded AGYW Programme who had ever had an HIV test (n = 468)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Test venue was a school or mobile clinic near school or in the community															
Total	23/56	41.1	21/58	36.2	31/121	25.6	15/86	17.4	25/59	42.4	26/88	29.5	124.3/450.9	27.6	23.1 — 32.4
Age															
15-19	5/14	35.7	12/28	42.9	14/55	25.5	8/59	13.6	12/25	48.0	16/42	38.1	55.7/214.5	26.0	19.6 — 33.2
20-24	18/42	42.9	9/30	30.0	17/66	25.8	7/27	25.9	13/34	38.2	10/46	21.7	72.2/244.3	29.5	22.7 — 37.2
Waiting time for HIV test was reasonably short															
Total	46/56	82.1	47/58	81.0	107/121	88.4	74/86	86.0	50/59	84.7	74/88	84.1	384.4/450.8	85.3	81.1 — 88.8
Age															
15-19	11/14	78.6	24/28	85.7	50/55	90.9	50/59	84.7	22/25	88.0	37/42	88.1	183.4/214.5	85.5	78.8 — 90.7
20-24	35/42	83.3	23/30	76.7	57/66	86.4	24/27	88.9	28/34	82.4	37/46	80.4	207.3/244.4	84.8	78.6 — 89.8
The person who tested AGYW treated her in a friendly manner															
Total	55/56	98.2	55/58	94.8	117/121	96.7	84/86	97.7	56/59	94.9	87/88	98.9	437.3/450.9	97.0	94.7 — 98.5
Age															
15-19	13/14	92.9	26/28	92.9	53/55	96.4	58/59	98.3	23/25	92.0	41/42	97.6	206/214.5	96.0	91.8 — 98.4
20-24	42/42	100.0	29/30	96.7	64/66	97.0	26/27	96.3	33/34	97.1	46/46	100.0	237.5/244.4	97.2	92.8 — 99.3
The person who tested AGYW was respectful of her needs															
Total	55/56	98.2	57/58	98.3	119/121	98.3	81/86	94.2	57/59	96.6	87/88	98.9	435.3/450.9	96.5	93.7 — 98.4
Age															
15-19	14/14	100.0	28/28	100.0	55/55	100.0	57/59	96.6	23/25	92.0	42/42	100.0	209.8/214.5	97.8	94.2 — 99.5
20-24	41/42	97.6	29/30	96.7	64/66	97.0	24/27	88.9	34/34	100.0	45/46	97.8	231.6/244.3	94.8	88.8 — 98.1
All other staff at the testing facility treated AGYW in a friendly and respectful way															
Total	51/56	91.1	45/58	77.6	106/121	87.6	78/86	90.7	49/59	83.1	71/88	80.7	394.3/450.9	87.5	83.7 — 90.6
Age															
15-19	13/14	92.9	24/28	85.7	50/55	90.9	54/59	91.5	22/25	88.0	33/42	78.6	193.5/214.6	90.2	84.9 — 94.1
20-24	38/42	90.5	21/30	70.0	56/66	84.8	24/27	88.9	27/34	79.4	38/46	82.6	205.5/244.4	84.1	77.8 — 89.2
AGYW believes her test result and the information she shared during the testing service would be kept confidential															
Total	52/56	92.9	50/58	86.2	114/121	94.2	76/86	88.4	53/59	89.8	78/88	88.6	406.7/450.8	90.2	86.5 — 93.2
Age															
15-19	14/14	100.0	23/28	82.1	52/55	94.5	54/59	91.5	22/25	88.0	39/42	92.9	197.8/214.5	92.2	87.4 — 95.6

Table 17: Experiences of last HIV test among beneficiaries of the Global-Fund funded AGYW Programme who had ever had an HIV test (n = 468)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
20-24	38/42	90.5	27/30	90.0	62/66	93.9	22/27	81.5	31/34	91.2	39/46	84.8	216.1/244.4	88.5	81.8 — 93.3
The health information provided during the HIV testing was clear and understandable															
Total	53/56	94.6	55/58	94.8	118/121	97.5	83/86	96.5	59/59	100.0	81/88	92.0	434.9/450.9	96.5	93.9 — 98.1
Age															
15-19	11/14	78.6	28/28	100.0	54/55	98.2	56/59	94.9	25/25	100.0	38/42	90.5	201.3/214.5	93.8	87.9 — 97.4
20-24	42/42	100.0	27/30	90.0	64/66	97.0	27/27	100.0	34/34	100.0	43/46	93.5	238.2/244.4	97.5	94.5 — 99.1

Coverage of HIV prevention interventions and services

Coverage of PrEP among AGYW at risk of HIV infection

Among the 351 AGYW beneficiaries who were identified as being at risk of HIV infection and potentially eligible for PrEP, defined as AGYW who had sex within the 12 months before the survey and did not identify as HIV-positive, we have described the extent to which they were motivated to use PrEP as well as the potential barriers to motivation in Table 18. Most participants reported that they would want to use PrEP if it was available to them (58.0%), ranging from 42.2% in Nelson Mandela Bay to 71.4% in Thabo Mofutsanyana district, and that if PrEP was freely available to them, they would "definitely or probably" want to use it (62.9%), ranging from 46.7% in Nelson Mandela Bay to 74.6% in Thabo Mofutsanyana district. The difference between age groups for these two indicators of motivation was not statistically significant.

Potential barriers in motivation to use PrEP include inadequate knowledge and issues of self-efficacy (confidence) (Table 18). With regards to inadequate knowledge, 58.0% of AGYW reported that they did not know about PrEP or were not sure about what it was and 38.9% of AGYW did not believe that PrEP could reduce a person's risk of getting HIV by more than 70%. With respect to self-efficacy, 10.5% of participants were not confident that they would be able to use PrEP if they wanted to, 17.7% were not confident they would be able to take PrEP every day, 16.0% were not confident they would always be able to take PrEP after a meal, 38.5% were not confident they would be able to use PrEP if they had to hide it from their partner, 13.7% were not confident they would be able to use PrEP if their friends disapproved of it, 20.0% were not confident they would be able to use PrEP if their parents and family elders disapproved and 11.3% were not confident they would be able to use PrEP if people thought they had HIV. The variation across districts for these barriers can be seen in Table 18. There was no significant difference across age groups for any of these variables.

Table 19 describes access to PrEP and potential barriers to access among beneficiaries of the AGYW programme who are at risk of HIV infection and potentially eligible for PrEP, as previously defined (n = 351). In terms of access, 43.8% of beneficiaries reported that if they wanted to take PrEP, it would be easy or very easy for them to get to a place where PrEP is provided, ranging across districts from 30.4% in Bojanala to 54.0% in Thabo Mofutsanyana. Beneficiaries (47.0%) also reported that if/when they want to use PrEP, they knew a place where someone like them could easily get it, varying from 42.9% (in Ehlanzeni) to 60.3% (in Thabo Mofutsanyana). However, in terms of access deficits, 75.9% of AGYW had never been offered PrEP, 66.4% have never had instructions or counselling on how to use PrEP, 8.6% believed it would

cost too much to get to the clinic/service to get PrEP, 29.7% would worry about lack of privacy or confidentiality at a PrEP service, 9.9% believed the opening hours of the PrEP clinic/service would not suit them, 14.4% believed it was far to go to the PrEP clinic/service, 34.1% would worry about people thinking they were HIV positive if they went to a PrEP clinic/service and 22.6% believed that the negative attitudes of the health workers at a PrEP clinic/service would make it difficult for them to get PrEP. Participants in the 15 to 19 year age group were more likely to believe that the opening hours of the PrEP clinic/service would not suit them (16.4%; 95% CI: 9.4 — 25.8%) compared to the 20 to 24 year age group (4.3%; 95% CI: 2.1 — 7.7%). There is no statistically significant difference between age groups for all other variables in Table 19.

Among all participants, 41 reported that they had ever taken PrEP. Among participants who had had sex in the year before the survey and who reported that they were not living with HIV, we explored the factors associated with having ever taken PrEP:

- Participants who reported they had ever received instructions or counselling on how to use PrEP PrEP were statistically significantly more likely to have ever taken PrEP, compared to those who had not received instructions or counselling (30.0% versus 0.4%; p <0.001).
- Participants who believed that PrEP could reduce a person's risk of getting HIV by more than 70% were statistically significantly more likely to have ever used PrEP, compared with participants who did not believe this (12.9% versus 5.6%; p = 0.021).
- Participants who reported that they had used a condom at last sex were statistically significantly more likely to have ever used PrEP, compared with those who had not used a condom at last sex (14.0% versus 5.2%; p = 0.025).
- Participants who reported they had ever been offered PrEP were statistically significantly more likely to have ever taken PrEP, compared to those who had not been offered (41.0% versus 0.0%; p <0.001).
- When comparing participants who had ever taken PrEP with those who had not, there were no statistically significant differences by age group, socio-economic status, or whether they had been enrolled in an educational institution at the beginning of 2020.

Of the participants who had ever taken PrEP, 18 were taking PrEP at the time of the survey. Among the 18 beneficiaries who had ever taken PrEP and were taking PrEP at the time of the survey, 63.7% took PrEP effectively, defined in this study as taking PrEP every day or most days, although given the small sample

size the 95% CI is very wide (33.5 — 87.6%), indicating the true estimate could be anywhere between 33.5% and 87.6%. We have not presented district disaggregation for this variable

Poor quality of PrEP services are a potential barrier to the effective use of PrEP. The 41 AGYW who had ever used PrEP reported instances of experiencing poor quality PrEP services at their last consultation as follows: that waiting times were too long at PrEP services (27.7%), health care workers did not ask about their main concerns about PrEP (22.1%), health care workers did not talk with them about side effects (41.1%), health care worker did not ask them about missing or skipping taking the PrEP pills (34.0%), health care worker did not ask AGYW about their sexual relationships and sexual behaviour (16.8%), health care workers spoke about their sexual relationships and sexual behaviour in a judgemental way (14.3%), health care workers who gave PrEP did not treat them in a friendly manner (5.4%), health care workers who gave PrEP were not respectful of their needs (5.4%), other clinic staff members (receptionist, cleaners, security guards) did not all treat AGYW in a friendly and respectful way (3.0%), health care workers did not check whether they might have symptoms of an STI (26.9%) and health workers did not check whether they were using family planning (such as the injection, pill, implant or IUD (20.1%). There were no statistically significant differences for the variables describing poor quality PrEP services between the younger and older age groups.

Among the 18 participants who were taking PrEP at the time of the survey, 8 reported that they had not taken PrEP every day in the past month. Reasons for missing or skipping PrEP pills in the past month included that they had forgotten to take PrEP pills (64.6%), the place where they got their PrEP pills was too far (31.3%), they had one faithful partner who they trusted (22.8%), because of the side effects when taking PrEP (31.3%), they did not believe they were at risk of HIV (22.8%), and they were unable to get PrEP pills because of COVID-19 and the lockdown (31.1%).

Table 18: Motivation to use PrEP and barriers to motivation among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of HIV infection and potentially eligible for PrEP (n = 351)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
AGYW would want to use PrEP if it was available to her															
Total	23/44	52.3	29/46	63.0	50/83	60.2	42/70	60.0	19/45	42.2	45/63	71.4	201.4/347.4	58.0	51.7 — 64.1
Age															
15-19	4/10	40.0	14/20	70.0	15/28	53.6	22/44	50.0	6/17	35.3	15/20	75.0	73.1/145.2	50.3	40.4 — 60.3
20-24	19/34	55.9	15/26	57.7	35/55	63.6	20/26	76.9	13/28	46.4	30/43	69.8	140/214.7	65.2	56.8 — 72.9
If PrEP was freely available to her, AGYW would definitely or probably want to use it															
Total	23/44	52.3	32/46	69.6	58/83	69.9	45/70	64.3	21/45	46.7	47/63	74.6	218.6/347.2	62.9	56.7 — 68.9
Age															
15-19	4/10	40.0	15/20	75.0	19/28	67.9	24/44	54.5	7/17	41.2	16/20	80.0	80.9/145.3	55.7	45.6 — 65.5
20-24	19/34	55.9	17/26	65.4	39/55	70.9	21/26	80.8	14/28	50.0	31/43	72.1	150.3/214.6	70.0	62.0 — 77.3
AGYW did not know about PrEP or was not sure about what it was															
Total	22/44	50.0	27/46	58.7	42/83	50.6	45/70	64.3	28/45	62.2	39/63	61.9	203.6/347.4	58.6	52.4 — 64.7
Age															
15-19	5/10	50.0	11/20	55.0	17/28	60.7	29/44	65.9	10/17	58.8	13/20	65.0	88.5/145.2	60.9	50.9 — 70.3
20-24	17/34	50.0	16/26	61.5	25/55	45.5	16/26	61.5	18/28	64.3	26/43	60.5	120.2/214.6	56.0	47.2 — 64.5
AGYW did not believe that PrEP could reduce a person's risk of getting HIV by more than 70%															
Total	22/44	50.0	12/46	26.1	26/83	31.3	28/70	40.0	25/45	55.6	12/63	19.0	135/347.4	38.9	32.9 — 45.1
Age															
15-19	4/10	40.0	7/20	35.0	8/28	28.6	20/44	45.5	10/17	58.8	6/20	30.0	60.9/145.2	41.9	32.3 — 52.0
20-24	18/34	52.9	5/26	19.2	18/55	32.7	8/26	30.8	15/28	53.6	6/43	14.0	72.2/214.7	33.6	25.8 — 42.2
AGYW was not confident she would be able to use PrEP if she wanted to															
Total	4/44	9.1	6/46	13.0	6/83	7.2	10/70	14.3	2/45	4.4	0/63	0.0	36.6/347.4	10.5	6.9 — 15.3
Age															
15-19	1/10	10.0	3/20	15.0	3/28	10.7	8/44	18.2	2/17	11.8	0/20	0.0	20.9/145.2	14.4	8.2 — 22.8
20-24	3/34	8.8	3/26	11.5	3/55	5.5	2/26	7.7	0/28	0.0	0/43	0.0	14.5/214.6	6.8	3.0 — 12.7
AGYW was not confident she would be able to take PrEP every day															

Table 18: Motivation to use PrEP and barriers to motivation among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of HIV infection and potentially eligible for PrEP (n = 351)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Total	6/44	13.6	7/46	15.2	13/83	15.7	16/70	22.9	6/45	13.3	3/63	4.8	61.3/347.3	17.7	13.0 — 23.1
Age															
15-19	2/10	20.0	4/20	20.0	3/28	10.7	13/44	29.5	1/17	5.9	1/20	5.0	31.4/145.3	21.6	13.9 — 31.1
20-24	4/34	11.8	3/26	11.5	10/55	18.2	3/26	11.5	5/28	17.9	2/43	4.7	29.5/214.7	13.7	8.5 — 20.5
AGYW was not confident she would always be able to take PrEP after a meal															
Total	7/44	15.9	6/46	13.0	19/83	22.9	10/70	14.3	8/45	17.8	2/63	3.2	55.6/347.3	16.0	11.8 — 21.0
Age															
15-19	2/10	20.0	1/20	5.0	7/28	25.0	9/44	20.5	1/17	5.9	0/20	0.0	25.5/145.2	17.6	10.6 — 26.6
20-24	5/34	14.7	5/26	19.2	12/55	21.8	1/26	3.8	7/28	25.0	2/43	4.7	30.3/214.7	14.1	9.3 — 20.2
AGYW was not confident she would be able to use PrEP if she had to hide it from her partner															
Total	20/44	45.5	27/46	58.7	31/83	37.3	22/70	31.4	18/45	40.0	19/63	30.2	133.8/347.4	38.5	32.6 — 44.7
Age															
15-19	6/10	60.0	10/20	50.0	12/28	42.9	16/44	36.4	4/17	23.5	6/20	30.0	59.5/145.2	41.0	31.4 — 51.1
20-24	14/34	41.2	17/26	65.4	19/55	34.5	6/26	23.1	14/28	50.0	13/43	30.2	79.1/214.6	36.9	29.0 — 45.3
AGYW was not confident she would be able to use PrEP if her friends disapproved of it															
Total	8/44	18.2	11/46	23.9	7/83	8.4	9/70	12.9	6/45	13.3	2/63	3.2	47.6/347.3	13.7	9.7 — 18.5
Age															
15-19	1/10	10.0	5/20	25.0	3/28	10.7	8/44	18.2	2/17	11.8	0/20	0.0	22.4/145.3	15.4	9.1 — 23.8
20-24	7/34	20.6	6/26	23.1	4/55	7.3	1/26	3.8	4/28	14.3	2/43	4.7	22.1/214.6	10.3	6.2 — 15.8
AGYW was not confident she would be able to use PrEP if her parents and family elders disapproved															
Total	10/44	22.7	13/46	28.3	16/83	19.3	12/70	17.1	10/45	22.2	9/63	14.3	69.6/347.4	20.0	15.4 — 25.3
Age															
15-19	4/10	40.0	7/20	35.0	7/28	25.0	8/44	18.2	4/17	23.5	4/20	20.0	36/145.2	24.8	16.8 — 34.3
20-24	6/34	17.6	6/26	23.1	9/55	16.4	4/26	15.4	6/28	21.4	5/43	11.6	37.3/214.7	17.4	11.5 — 24.7
AGYW was not confident she would be able to use PrEP if people thought she had HIV															
Total	8/44	18.2	6/46	13.0	9/83	10.8	7/70	10.0	4/45	8.9	1/63	1.6	39.1/347.3	11.3	7.7 — 15.8
Age															
15-19	1/10	10.0	2/20	10.0	5/28	17.9	5/44	11.4	1/17	5.9	0/20	0.0	16.1/145.1	11.1	5.8 — 18.7

Table 18: Motivation to use PrEP and barriers to motivation among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of HIV infection and potentially eligible for PrEP (n = 351)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
20-24	7/34	20.6	4/26	15.4	4/55	7.3	2/26	7.7	3/28	10.7	1/43	2.3	21.8/214.6	10.2	5.8 — 16.2

Table 19: Access to PrEP and barriers to access among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of HIV infection and potentially eligible for PrEP (n = 351)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
If AGYW wanted to take PrEP, it would be easy or very easy for her to get to a place where PrEP is provided															
Total	22/44	50.0	14/46	30.4	36/83	43.4	30/70	42.9	23/45	51.1	34/63	54.0	152/347.2	43.8	37.6 — 50.0
Age															
15-19	5/10	50.0	6/20	30.0	9/28	32.1	16/44	36.4	6/17	35.3	12/20	60.0	55/145.2	37.9	28.5 — 48.0
20-24	17/34	50.0	8/26	30.8	27/55	49.1	14/26	53.8	17/28	60.7	22/43	51.2	106/214.6	49.4	40.7 — 58.2
If/when AGYW wanted to use PrEP, she knows a place where someone like her could easily get it															
Total	23/44	52.3	20/46	43.5	41/83	49.4	30/70	42.9	23/45	51.1	38/63	60.3	163.2/347.3	47.0	40.8 — 53.3
Age															
15-19	5/10	50.0	9/20	45.0	12/28	42.9	15/44	34.1	6/17	35.3	10/20	50.0	57.3/145.1	39.5	30.1 — 49.5
20-24	18/34	52.9	11/26	42.3	29/55	52.7	15/26	57.7	17/28	60.7	28/43	65.1	116.3/214.7	54.2	45.4 — 62.8
AGYW has never been offered PrEP															
Total	25/44	56.8	30/46	65.2	62/83	74.7	62/70	88.6	28/45	62.2	53/63	84.1	263.6/347.3	75.9	70.6 — 80.7
Age															
15-19	4/10	40.0	18/20	90.0	23/28	82.1	41/44	93.2	9/17	52.9	16/20	80.0	114.6/145.2	79.0	69.4 — 86.6
20-24	21/34	61.8	12/26	46.2	39/55	70.9	21/26	80.8	19/28	67.9	37/43	86.0	150.5/214.6	70.1	62.0 — 77.4
AGYW has never had instructions or counselling on how to use PrEP															
Total	23/44	52.3	30/46	65.2	53/83	63.9	51/70	72.9	28/45	62.2	48/63	76.2	230.5/347.4	66.4	60.3 — 72.0
Age															
15-19	5/10	50.0	15/20	75.0	21/28	75.0	35/44	79.5	9/17	52.9	14/20	70.0	103.3/145.2	71.1	61.3 — 79.7
20-24	18/34	52.9	15/26	57.7	32/55	58.2	16/26	61.5	19/28	67.9	34/43	79.1	129.5/214.7	60.3	51.5 — 68.7
AGYW believes it would cost too much to get to the clinic/service to get PrEP															
Total	1/44	2.3	2/46	4.3	4/83	4.8	11/70	15.7	1/45	2.2	2/63	3.2	29.8/347.4	8.6	5.1 — 13.3
Age															
15-19	0/10	0.0	0/20	0.0	2/28	7.1	8/44	18.2	1/17	5.9	0/20	0.0	15/145.2	10.3	5.1 — 18.1
20-24	1/34	2.9	2/26	7.7	2/55	3.6	3/26	11.5	0/28	0.0	2/43	4.7	14.1/214.7	6.6	2.6 — 13.2
AGYW would worry about lack of privacy or confidentiality at a PrEP service															
Total	14/44	31.8	8/46	17.4	17/83	20.5	28/70	40.0	8/45	17.8	16/63	25.4	103.1/347.4	29.7	24.0 — 35.9
Age															

Table 19: Access to PrEP and barriers to access among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of HIV infection and potentially eligible for PrEP (n = 351)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
15-19	3/10	30.0	5/20	25.0	5/28	17.9	22/44	50.0	2/17	11.8	7/20	35.0	52.3/145.2	36.0	26.7 — 46.2
20-24	11/34	32.4	3/26	11.5	12/55	21.8	6/26	23.1	6/28	21.4	9/43	20.9	47.1/214.7	21.9	15.2 — 29.9
AGYW believes the opening hours of the PrEP clinic/service would not suit her															
Total	6/44	13.6	2/46	4.3	4/83	4.8	9/70	12.9	4/45	8.9	6/63	9.5	34.3/347.3	9.9	6.4 — 14.5
Age															
15-19	3/10	30.0	1/20	5.0	1/28	3.6	9/44	20.5	1/17	5.9	2/20	10.0	23.9/145.2	16.4	9.4 — 25.8
20-24	3/34	8.8	1/26	3.8	3/55	5.5	0/26	0.0	3/28	10.7	4/43	9.3	9.3/214.7	4.3	2.1 — 7.7
AGYW believes it is far to go to the PrEP clinic/service															
Total	4/44	9.1	3/46	6.5	11/83	13.3	15/70	21.4	3/45	6.7	4/63	6.3	49.9/347.4	14.4	10.0 — 19.6
Age															
15-19	1/10	10.0	0/20	0.0	3/28	10.7	11/44	25.0	2/17	11.8	1/20	5.0	23.8/145.2	16.4	9.6 — 25.3
20-24	3/34	8.8	3/26	11.5	8/55	14.5	4/26	15.4	1/28	3.6	3/43	7.0	26.9/214.7	12.5	7.2 — 19.7
AGYW would worry about people thinking she was HIV positive if she went to a PrEP clinic/service															
Total	13/44	29.5	14/46	30.4	32/83	38.6	23/70	32.9	17/45	37.8	27/63	42.9	118.4/347.4	34.1	28.3 — 40.2
Age															
15-19	3/10	30.0	6/20	30.0	11/28	39.3	16/44	36.4	5/17	29.4	10/20	50.0	50.7/145.2	34.9	25.9 — 44.8
20-24	10/34	29.4	8/26	30.8	21/55	38.2	7/26	26.9	12/28	42.9	17/43	39.5	70.3/214.7	32.8	25.1 — 41.2
AGYW believes that the negative attitudes of the health workers at a PrEP clinic/service would make it difficult for her to get PrEP															
Total	11/44	25.0	11/46	23.9	10/83	12.0	19/70	27.1	8/45	17.8	18/63	28.6	78.5/347.3	22.6	17.5 — 28.4
Age															
15-19	1/10	10.0	5/20	25.0	4/28	14.3	13/44	29.5	2/17	11.8	8/20	40.0	32.8/145.2	22.6	15.0 — 31.8
20-24	10/34	29.4	6/26	23.1	6/55	10.9	6/26	23.1	6/28	21.4	10/43	23.3	43.5/214.6	20.3	13.7 — 28.2

Coverage of male condoms among AGYW at risk of HIV infection

We asked participants whether they had procured condoms from any of a list of places in the six months before the survey. Almost half (49.4%) had not procured condoms during that time. The most common sources of condoms were a clinic or hospital (36.1%) or a school or college (11.4%). However, condoms were also obtained from mobile clinics (6.9%), an NGO in the community (4.3%), a pharmacy (3.1%), a safe space (2.9%), a workplace (0.2%), and an unspecified "other" source (3.0%). Among the 351 AGYW beneficiaries who were identified as being at risk of HIV infection (AGYW who had sex within the 12 months before the survey and did not identify as HIV-positive), we have described the extent to which they were motivated to use male condoms in Table 20. Most AGYW (88.9%) reported that they would want to use male condoms when having sex, ranging from 79.4% to 93.2% across districts. If condoms were freely available, 89.1% of AGYW reported that they would "definitely or probably" want to use them, ranging from 84.1% to 92.9% across districts, and 86.3% of AGYW plan to use male condoms the next time they have sex, ranging from 80.4% to 93.2% across districts. There was no statistically significant difference between age groups for these variables.

Potential barriers in motivation to use male condom are also described in Table 20 and may include inadequate knowledge or attitudes/outcome expectancies. Pertaining to inadequate knowledge, 43.7% of beneficiaries had never had instructions or counselling on how to use male condoms and 33.3% did not think that male condoms reduce an HIV-negative person's risk of getting HIV by 70% or more when they have sex with someone who has HIV. With regards to outcome expectancies, 15.2% of AGYW agreed or strongly agreed that if they asked their current or most recent main partner/boyfriend to use a condom, he would get angry. There was no significant difference between age groups for these barriers.

Access to male condoms and barriers to access among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of HIV infection are described in Table 21. If/when AGYW want to use male condoms, 88.8% know a place where someone like them can easily get them, ranging across districts from 80.0% (in Nelson Mandela Bay) to 97.8%% (in Bojanala). Beneficiaries in the older age group (95.5; 95% CI: 90.7- 98.2%) were more likely to know a place where they could easily get male condoms compared to those in the younger age group (81.2%; 95% CI: 72.1 - 88.3%). If AGYW want to get male condoms, 82.7% report that it would be easy or very easy to get them, ranging across districts from 73.3% (in Nelson Mandela Bay) to 90.5% (in Thabo Mofutsanyana). In terms of the barriers to accessing male condoms, 22.7% of AGYW find it difficult to get male condoms because of the lack of privacy and confidentiality when getting them, 36.0% of AGYW are embarrassed to get male condoms, 5.4% of AGYW

find it difficult to get male condoms because it is expensive to get them, 5.6% of AGYW find it difficult to get male condoms because the place where they can get them is not open when they have time to go, 20.7% of AGYW have to travel far to get male condoms, 31.6% of AGYW are worried someone will see them getting male condoms and 6.9% of AGYW find it difficult to get male condoms for other reasons. AGYW (25.8%) were sometimes or often unable to get male condoms because of COVID-19 or the lockdown. There were no condoms or AGYW didn't know if there were condoms at the safe space, according to a minority (7.0%) of AGYW. Most AGYW (85.1%) reported that no one from an organisation in their community had provided them with condoms or linked them to people who could provide them in the month before they participated in the survey.

Table 22 describes the extent to which beneficiaries of the AGYW programme were effectively using male or female condoms and the barriers to effective use of these HIV prevention measures. Over half (51.7%) of the survey participants reported that their partner and them had used condoms throughout sex, the last time they had sex, ranging across districts from 44.4% (in Thabo Mofutsanyana) to 56.5% (in Bojanala). The percentage of AGYW who used condoms throughout sex the last time they had sex with or boy or man was 60.3% (95% CI: 50.3 - 69.7%) in the younger age group compared to 42.9% in the older age group (95% CI: 34.5 - 51.7%). This is not a statistically significant difference. Only 23.9% of beneficiaries used condoms (male or female) 90% or more of the time with the last boy or man with whom they had sex (ranging from 20.6% in Thabo Mofutsanyana to 30.4% in Bojanala district) and 22.2% used condoms (male or female) 90% or more of the time with the boy or man with whom they had sex before the last sex partner (ranging from 13.6% in Klipfontein to 36.5% in Thabo Mofutsanyana district). AGYW did not use condoms 100% of the time when they had sex for multiple reasons: 12.9% of AGYW reported that they forgot to use them, 19.5% reported that they did not have condoms, 7.8% reported that the place where they get their condoms was far away, 1.6% reported that the place where they get their condoms was not open when they had free time, 4.6% said it was because of the negative attitudes of health care workers who gave them condoms, 2.6% were worried what their partners would think if they asked to use condoms, 11.5% reported that their sexual partner did not want them to use condoms, 28.8% said they had one faithful partner who they trusted, 13.5% did not like using condoms, 2.4% reported that there had been a stock-out and they did not have condoms for them, 4.4% did not think they were at risk of getting HIV, 11.2% of AGYW reported other reasons and 10.1% reported that they did not know why they had not used condoms 100% of the time. There was no statistically significant difference between age groups for the potential barriers to effective use.

Table 20: Motivation to use male condoms with partners and barriers to motivation among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of HIV infection (n = 351)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
AGYW would want to use male condoms when having sex															
Total	41/44	93.2	39/46	84.8	73/83	88.0	64/70	91.4	37/45	82.2	50/63	79.4	308.7/347.3	88.9	84.7 — 92.3
Age															
15-19	8/10	80.0	16/20	80.0	23/28	82.1	41/44	93.2	12/17	70.6	16/20	80.0	124.6/145.2	85.8	78.0 — 91.7
20-24	33/34	97.1	23/26	88.5	50/55	90.9	23/26	88.5	25/28	89.3	34/43	79.1	192.8/214.7	89.8	83.3 — 94.5
If condoms were freely available to her, AGYW would definitely or probably want to use them															
Total	40/44	90.9	39/46	84.8	71/83	85.5	65/70	92.9	38/45	84.4	53/63	84.1	309.4/347.4	89.1	84.9 — 92.4
Age															
15-19	9/10	90.0	16/20	80.0	22/28	78.6	41/44	93.2	14/17	82.4	18/20	90.0	128.1/145.1	88.3	81.1 — 93.4
20-24	31/34	91.2	23/26	88.5	49/55	89.1	24/26	92.3	24/28	85.7	35/43	81.4	192.7/214.8	89.8	83.7 — 94.1
AGYW plans to use male condoms the next time she has sex															
Total	41/44	93.2	37/46	80.4	71/83	85.5	61/70	87.1	37/45	82.2	53/63	84.1	299.8/347.3	86.3	81.6 — 90.2
Age															
15-19	8/10	80.0	16/20	80.0	24/28	85.7	38/44	86.4	12/17	70.6	17/20	85.0	120.8/145.2	83.2	74.7 — 89.7
20-24	33/34	97.1	21/26	80.8	47/55	85.5	23/26	88.5	25/28	89.3	36/43	83.7	187.6/214.7	87.4	80.6 — 92.5
AGYW has never had instructions or counselling on how to use male condoms															
Total	10/44	22.7	21/46	45.7	35/83	42.2	31/70	44.3	31/45	68.9	34/63	54.0	151.8/347.4	43.7	37.6 — 50.0
Age															
15-19	1/10	10.0	13/20	65.0	13/28	46.4	22/44	50.0	14/17	82.4	12/20	60.0	69.6/145.2	47.9	38.1 — 57.9
20-24	9/34	26.5	8/26	30.8	22/55	40.0	9/26	34.6	17/28	60.7	22/43	51.2	80.8/214.7	37.6	29.5 — 46.3
AGYW did not think that male condoms reduce an HIV-negative person's risk of getting HIV by 70% or more when they have sex with someone who has HIV															
Total	19/44	43.2	10/46	21.7	24/83	28.9	21/70	30.0	26/45	57.8	16/63	25.4	115.5/347.4	33.3	27.6 — 39.3
Age															
15-19	2/10	20.0	6/20	30.0	13/28	46.4	15/44	34.1	6/17	35.3	4/20	20.0	47.7/145.1	32.9	24.1 — 42.6
20-24	17/34	50.0	4/26	15.4	11/55	20.0	6/26	23.1	20/28	71.4	12/43	27.9	61.6/214.7	28.7	21.5 — 36.8
AGYW agrees or strongly agrees that if she asked her current or most recent main partner/boyfriend to use a condom, he would get angry															
Total	5/44	11.4	5/46	10.9	20/83	24.1	11/70	15.7	3/45	6.7	8/63	12.7	52.8/347.2	15.2	11.0 — 20.2
Age															

Table 20: Motivation to use male condoms with partners and barriers to motivation among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of HIV infection (n = 351)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	(Freq/N)	%	(Freq/N)	%	(Freq/N)	%	(Freq/N)	%	(Freq/N)	%	(Freq/N)	%	(Freq/N)	%	95% CI
15-19	2/10	20.0	3/20	15.0	6/28	21.4	7/44	15.9	2/17	11.8	1/20	5.0	24/145.2	16.5	9.9 — 25.2
20-24	3/34	8.8	2/26	7.7	14/55	25.5	4/26	15.4	1/28	3.6	7/43	16.3	32.9/214.7	15.3	9.6 — 22.6

Table 21: Access to male condoms and barriers to access among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of HIV infection (n = 351)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
If/when AGYW wants to use male condoms, she knows a place where someone like her can easily get them															
Total	40/44	90.9	45/46	97.8	76/83	91.6	60/70	85.7	36/45	80.0	61/63	96.8	308.6/347.4	88.8	84.1 — 92.6
Age															
15-19	8/10	80.0	19/20	95.0	24/28	85.7	35/44	79.5	11/17	64.7	19/20	95.0	117.8/145.2	81.2	72.1 — 88.3
20-24	32/34	94.1	26/26	100.0	52/55	94.5	25/26	96.2	25/28	89.3	42/43	97.7	204.9/214.7	95.5	90.7 — 98.2
If AGYW wants to get male condoms, it would be easy or very easy for her to get them															
Total	37/44	84.1	40/46	87.0	68/83	81.9	58/70	82.9	33/45	73.3	57/63	90.5	287.1/347.3	82.7	77.5 — 87.1
Age															
15-19	9/10	90.0	16/20	80.0	21/28	75.0	34/44	77.3	11/17	64.7	17/20	85.0	113.7/145.2	78.3	69.5 — 85.6
20-24	28/34	82.4	24/26	92.3	47/55	85.5	24/26	92.3	22/28	78.6	40/43	93.0	189.1/214.7	88.1	81.9 — 92.7
AGYW finds it difficult to get male condoms because of the lack of privacy and confidentiality when getting them															
Total	5/44	11.4	9/46	19.6	13/83	15.7	21/70	30.0	9/45	20.0	25/63	39.7	78.8/347.3	22.7	17.6 — 28.5
Age															
15-19	1/10	10.0	3/20	15.0	6/28	21.4	17/44	38.6	4/17	23.5	9/20	45.0	40.9/145.2	28.2	19.9 — 37.8
20-24	4/34	11.8	6/26	23.1	7/55	12.7	4/26	15.4	5/28	17.9	16/43	37.2	35.1/214.7	16.3	10.6 — 23.6
AGYW is embarrassed to get male condoms															
Total	8/44	18.2	32/46	69.6	42/83	50.6	18/70	25.7	11/45	24.4	43/63	68.3	125.1/347.3	36.0	30.3 — 42.0
Age															
15-19	3/10	30.0	16/20	80.0	14/28	50.0	15/44	34.1	3/17	17.6	15/20	75.0	58.1/145.2	40.0	30.7 — 49.9
20-24	5/34	14.7	16/26	61.5	28/55	50.9	3/26	11.5	8/28	28.6	28/43	65.1	71.4/214.7	33.3	25.9 — 41.3
AGYW finds it difficult to get male condoms because it is expensive to get them															
Total	3/44	6.8	0/46	0.0	5/83	6.0	4/70	5.7	3/45	6.7	5/63	7.9	18.9/347.3	5.4	3.0 — 9.0
Age															
15-19	1/10	10.0	0/20	0.0	0/28	0.0	4/44	9.1	2/17	11.8	0/20	0.0	10.2/145.2	7.0	2.7 — 14.4
20-24	2/34	5.9	0/26	0.0	5/55	9.1	0/26	0.0	1/28	3.6	5/43	11.6	8.4/214.7	3.9	1.8 — 7.3
AGYW finds it difficult to get male condoms because the place where she can get them is not open when she has time to go															
Total	3/44	6.8	1/46	2.2	6/83	7.2	4/70	5.7	2/45	4.4	3/63	4.8	19.5/347.4	5.6	3.1 — 9.2
Age															

Table 21: Access to male condoms and barriers to access among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of HIV infection (n = 351)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
15-19	0/10	0.0	0/20	0.0	2/28	7.1	3/44	6.8	1/17	5.9	0/20	0.0	7/145.2	4.8	1.6 — 10.7
20-24	3/34	8.8	1/26	3.8	4/55	7.3	1/26	3.8	1/28	3.6	3/43	7.0	11.7/214.7	5.4	2.4 — 10.3
AGYW has to travel far to get male condoms															
Total	4/44	9.1	8/46	17.4	10/83	12.0	23/70	32.9	5/45	11.1	7/63	11.1	71.8/347.3	20.7	15.6 — 26.6
Age															
15-19	1/10	10.0	3/20	15.0	2/28	7.1	13/44	29.5	1/17	5.9	2/20	10.0	27.9/145.2	19.2	11.9 — 28.4
20-24	3/34	8.8	5/26	19.2	8/55	14.5	10/26	38.5	4/28	14.3	5/43	11.6	48.7/214.6	22.7	15.3 — 31.6
AGYW is worried someone will see her getting male con															
Total	6/44	13.6	27/46	58.7	34/83	41.0	18/70	25.7	9/45	20.0	40/63	63.5	109.8/347.3	31.6	26.1 — 37.5
Age															
15-19	2/10	20.0	13/20	65.0	13/28	46.4	11/44	25.0	4/17	23.5	16/20	80.0	47.5/145.2	32.7	24.2 — 42.1
20-24	4/34	11.8	14/26	53.8	21/55	38.2	7/26	26.9	5/28	17.9	24/43	55.8	69.4/214.6	32.3	24.6 — 40.8
AGYW finds it difficult to get male condoms for other reasons															
Total	1/44	2.3	3/46	6.5	4/83	4.8	7/70	10.0	2/45	4.4	6/63	9.5	24/347.3	6.9	4.0 — 11.0
Age															
15-19	0/10	0.0	2/20	10.0	2/28	7.1	6/44	13.6	1/17	5.9	3/20	15.0	13.9/145.2	9.6	4.8 — 16.7
20-24	1/34	2.9	1/26	3.8	2/55	3.6	1/26	3.8	1/28	3.6	3/43	7.0	8.1/214.7	3.8	1.3 — 8.5
AGYW was sometimes or often unable to get male condoms because of COVID-19 or the lockdown.															
Total	8/44	18.2	3/46	6.5	18/83	21.7	26/70	37.1	11/45	24.4	9/63	14.3	89.6/347.3	25.8	20.3 — 31.9
Age															
15-19	0/10	0.0	3/20	15.0	2/28	7.1	17/44	38.6	6/17	35.3	1/20	5.0	35.6/145.2	24.5	16.6 — 33.9
20-24	8/34	23.5	0/26	0.0	16/55	29.1	9/26	34.6	5/28	17.9	8/43	18.6	53.5/214.6	24.9	17.5 — 33.6
There were no condoms or AGYW doesn't know if there were condoms at the safe space															
Total	3/44	6.8	0/46	0.0	7/83	8.4	7/70	10.0	1/45	2.2	0/63	0.0	24.2/347.3	7.0	4.0 — 11.2
Age															
15-19	2/10	20.0	0/20	0.0	3/28	10.7	4/44	9.1	0/17	0.0	0/20	0.0	13.1/145.2	9.0	3.9 — 17.1
20-24	1/34	2.9	0/26	0.0	4/55	7.3	3/26	11.5	1/28	3.6	0/43	0.0	14.3/214.7	6.6	2.7 — 13.3

Table 21: Access to male condoms and barriers to access among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of HIV infection (n = 351)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
In the past month, no one from an organisation involved in this research has provided the AGYW with condoms or linked her to people who could provide them.															
Total	37/44	84.1	34/46	73.9	67/83	80.7	63/70	90.0	41/45	91.1	49/63	77.8	295.7/347.3	85.1	80.5 — 89.0
Age															
15-19	9/10	90.0	17/20	85.0	23/28	82.1	42/44	95.5	16/17	94.1	17/20	85.0	132.5/145.2	91.3	84.7 — 95.7
20-24	28/34	82.4	17/26	65.4	44/55	80.0	21/26	80.8	25/28	89.3	32/43	74.4	169.8/214.6	79.1	71.3 — 85.6

Table 22: Effective use of condoms (male or female) and barriers to the effective use of condoms among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of HIV infection (n = 351)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
The last time AGYW had sex with a boy or man, she and her partner used condoms throughout sex															
Total	20/44	45.5	26/46	56.5	43/83	51.8	38/70	54.3	21/45	46.7	28/63	44.4	179.6/347.3	51.7	45.4 — 57.9
Age															
15-19	5/10	50.0	13/20	65.0	16/28	57.1	29/44	65.9	9/17	52.9	9/20	45.0	87.6/145.2	60.3	50.3 — 69.7
20-24	15/34	44.1	13/26	50.0	27/55	49.1	9/26	34.6	12/28	42.9	19/43	44.2	92.1/214.7	42.9	34.5 — 51.7
AGYW used male or female condoms 90% or more of the time with the last boy or man with whom she had sex															
Total	11/44	25.0	14/46	30.4	18/83	21.7	16/70	22.9	11/45	24.4	13/63	20.6	82.9/347.3	23.9	18.8 — 29.5
Age															
15-19	1/10	10.0	7/20	35.0	6/28	21.4	12/44	27.3	2/17	11.8	7/20	35.0	33.9/145.2	23.4	15.8 — 32.4
20-24	10/34	29.4	7/26	26.9	12/55	21.8	4/26	15.4	9/28	32.1	6/43	14.0	46.8/214.7	21.8	15.4 — 29.3
AGYW used male or female condoms 90% or more of the time with the boy or man she had sex with before the last sex partner															
Total	6/44	13.6	10/46	21.7	19/83	22.9	17/70	24.3	9/45	20.0	23/63	36.5	77.2/347.3	22.2	17.3 — 27.8
Age															
15-19	1/10	10.0	3/20	15.0	6/28	21.4	9/44	20.5	2/17	11.8	5/20	25.0	25.8/145.2	17.8	11.1 — 26.3
20-24	5/34	14.7	7/26	26.9	13/55	23.6	8/26	30.8	7/28	25.0	18/43	41.9	56.6/214.7	26.4	19.0 — 34.8
AGYW did not use condoms 100% of the time when she had sex because she forgot to use them															
Total	8/44	18.2	4/46	8.7	8/83	9.6	11/70	15.7	3/45	6.7	5/63	7.9	44.8/347.4	12.9	8.9 — 17.8
Age															
15-19	1/10	10.0	1/20	5.0	2/28	7.1	8/44	18.2	1/17	5.9	3/20	15.0	18.6/145.2	12.8	6.9 — 21.1
20-24	7/34	20.6	3/26	11.5	6/55	10.9	3/26	11.5	2/28	7.1	2/43	4.7	25.2/214.7	11.7	6.8 — 18.4
AGYW did not use condoms 100% of the time when she had sex because she did not have condoms															
Total	12/44	27.3	6/46	13.0	16/83	19.3	12/70	17.1	12/45	26.7	11/63	17.5	67.6/347.3	19.5	14.9 — 24.8
Age															
15-19	1/10	10.0	2/20	10.0	7/28	25.0	7/44	15.9	4/17	23.5	1/20	5.0	23.3/145.2	16.0	9.7 — 24.2
20-24	11/34	32.4	4/26	15.4	9/55	16.4	5/26	19.2	8/28	28.6	10/43	23.3	43.7/214.7	20.4	14.0 — 28.0
AGYW did not use condoms 100% of the time when she had sex because the place where she gets her condoms is far away															
Total	1/44	2.3	0/46	0.0	8/83	9.6	8/70	11.4	3/45	6.7	4/63	6.3	27.1/347.3	7.8	4.7 — 12.1
Age															

Table 22: Effective use of condoms (male or female) and barriers to the effective use of condoms among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of HIV infection (n = 351)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
15-19	1/10	10.0	0/20	0.0	2/28	7.1	7/44	15.9	1/17	5.9	0/20	0.0	15.7/145.2	10.8	5.3 — 18.9
20-24	0/34	0.0	0/26	0.0	6/55	10.9	1/26	3.8	2/28	7.1	4/43	9.3	11.4/214.6	5.3	2.3 — 10.2
AGYW did not use condoms 100% of the time when she had sex because the place where she gets her condoms was not open when she had free time															
Total	1/44	2.3	0/46	0.0	0/83	0.0	1/70	1.4	2/45	4.4	4/63	6.3	5.5/347.4	1.6	0.5 — 3.8
Age															
15-19	0/10	0.0	0/20	0.0	0/28	0.0	1/44	2.3	1/17	5.9	1/20	5.0	2.6/145.2	1.8	0.2 — 6.2
20-24	1/34	2.9	0/26	0.0	0/55	0.0	0/26	0.0	1/28	3.6	3/43	7.0	1.9/214.6	0.9	0.2 — 2.5
AGYW did not use condoms 100% of the time when she had sex because of the negative attitudes of health workers who give her condoms															
Total	0/44	0.0	2/46	4.3	3/83	3.6	5/70	7.1	1/45	2.2	4/63	6.3	16/347.3	4.6	2.2 — 8.2
Age															
15-19	0/10	0.0	2/20	10.0	1/28	3.6	5/44	11.4	1/17	5.9	2/20	10.0	11.4/145.2	7.8	3.5 — 14.6
20-24	0/34	0.0	0/26	0.0	2/55	3.6	0/26	0.0	0/28	0.0	2/43	4.7	2.5/214.6	1.2	0.2 — 3.6
AGYW did not use condoms 100% of the time when she had sex because she was worried about what her partner would think if she asked to use condoms															
Total	0/44	0.0	0/46	0.0	3/83	3.6	2/70	2.9	2/45	4.4	4/63	6.3	8.9/347.4	2.6	1.0 — 5.3
Age															
15-19	0/10	0.0	0/20	0.0	1/28	3.6	2/44	4.5	1/17	5.9	2/20	10.0	5.1/145.2	3.5	1.0 — 8.7
20-24	0/34	0.0	0/26	0.0	2/55	3.6	0/26	0.0	1/28	3.6	2/43	4.7	3.2/214.7	1.5	0.4 — 4.0
AGYW did not use condoms 100% of the time when she had sex because her sexual partner did not want her to use condoms															
Total	7/44	15.9	5/46	10.9	14/83	16.9	6/70	8.6	4/45	8.9	4/63	6.3	39.8/347.3	11.5	8.0 — 15.8
Age															
15-19	3/10	30.0	4/20	20.0	5/28	17.9	4/44	9.1	3/17	17.6	0/20	0.0	22.1/145.2	15.2	8.8 — 23.8
20-24	4/34	11.8	1/26	3.8	9/55	16.4	2/26	7.7	1/28	3.6	4/43	9.3	20.8/214.7	9.7	5.4 — 15.7
AGYW did not use condoms 100% of the time when she had sex because she has one faithful partner who she trusts															
Total	15/44	34.1	17/46	37.0	15/83	18.1	22/70	31.4	8/45	17.8	26/63	41.3	100.1/347.3	28.8	23.3 — 34.8
Age															
15-19	2/10	20.0	3/20	15.0	2/28	7.1	15/44	34.1	5/17	29.4	7/20	35.0	37.5/145.2	25.8	17.6 — 35.5
20-24	13/34	38.2	14/26	53.8	13/55	23.6	7/26	26.9	3/28	10.7	19/43	44.2	64.8/214.6	30.2	22.7 — 38.6
AGYW did not use condoms 100% of the time when she had sex because she does not like using condoms															

Table 22: Effective use of condoms (male or female) and barriers to the effective use of condoms among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of HIV infection (n = 351)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Total	7/44	15.9	7/46	15.2	7/83	8.4	11/70	15.7	4/45	8.9	9/63	14.3	47/347.4	13.5	9.5 — 18.5
Age															
15-19	2/10	20.0	3/20	15.0	3/28	10.7	10/44	22.7	3/17	17.6	3/20	15.0	27.8/145.2	19.2	12.0 — 28.3
20-24	5/34	14.7	4/26	15.4	4/55	7.3	1/26	3.8	1/28	3.6	6/43	14.0	17.1/214.7	8.0	4.3 — 13.1
AGYW did not use condoms 100% of the time when she had sex because there was a stock-out and they did not have condoms for her															
Total	2/44	4.5	0/46	0.0	1/83	1.2	2/70	2.9	1/45	2.2	3/63	4.8	8.5/347.3	2.4	0.9 — 5.3
Age															
15-19	0/10	0.0	0/20	0.0	0/28	0.0	1/44	2.3	1/17	5.9	1/20	5.0	2.6/145.2	1.8	0.2 — 6.2
20-24	2/34	5.9	0/26	0.0	1/55	1.8	1/26	3.8	0/28	0.0	2/43	4.7	5.7/214.7	2.7	0.6 — 7.4
AGYW did not use condoms 100% of the time when she had sex because she does not think she is at risk of getting HIV															
Total	3/44	6.8	1/46	2.2	3/83	3.6	4/70	5.7	0/45	0.0	2/63	3.2	15.3/347.3	4.4	2.1 — 7.9
Age															
15-19	2/10	20.0	1/20	5.0	1/28	3.6	3/44	6.8	0/17	0.0	1/20	5.0	11/145.2	7.6	2.9 — 15.5
20-24	1/34	2.9	0/26	0.0	2/55	3.6	1/26	3.8	0/28	0.0	1/43	2.3	5.9/214.7	2.7	0.6 — 7.6
AGYW did not use condoms 100% of the time when she had sex because of other reasons															
Total	4/44	9.1	6/46	13.0	8/83	9.6	9/70	12.9	5/45	11.1	3/63	4.8	39.1/347.4	11.2	7.6 — 15.9
Age															
15-19	1/10	10.0	5/20	25.0	1/28	3.6	4/44	9.1	1/17	5.9	1/20	5.0	14/145.2	9.6	4.7 — 17.0
20-24	3/34	8.8	1/26	3.8	7/55	12.7	5/26	19.2	4/28	14.3	2/43	4.7	28.2/214.6	13.1	7.6 — 20.7
AGYW does not know why she did not use condoms 100% of the time when she had sex															
Total	4/44	9.1	3/46	6.5	6/83	7.2	8/70	11.4	6/45	13.3	11/63	17.5	35.1/347.3	10.1	6.7 — 14.5
Age															
15-19	0/10	0.0	1/20	5.0	2/28	7.1	5/44	11.4	2/17	11.8	2/20	10.0	12.1/145.2	8.3	3.9 — 15.1
20-24	4/34	11.8	2/26	7.7	4/55	7.3	3/26	11.5	4/28	14.3	9/43	20.9	22.4/214.7	10.4	5.8 — 16.9

Coverage of female condoms

Table 23 describes knowledge about and access to female condoms among the beneficiaries of the AGYW programme. Among all 515 participants, only 33.1% knew what a female condom was, ranging from 18.5% in Ehlanzeni district to 50.0% in Klipfontein and King Cetshwayo districts. More women in the 20 to 24 year age group (42.2%; 95% CI: 34.7 - 50.0) knew what a female condom was compared to the 15 to 19 year age group (27.8%; 95% CI: 21.6 - 34.7). Over half (59.5%) of AGYW had seen a female condom, ranging across districts from 48.1% (in Ehlanzeni) to 75.9% (in Klipfontein). Women in the 20 to 24 year age group (71.6%; 95% CI: 63.7 - 78.6) were statistically more likely to have seen a female condoms than women in the younger age group (53.3%; 95% CI: 46.1 - 60.4). A minority of AGYW (30.2%) had ever received instructions or counselling on how to use female condoms, ranging from 14.8% in Ehlanzeni to 51.7% in Klipfontein.

In terms of access, 51.8% of AGYW knew a place where they could get female condoms if they wanted to get them (ranging from 40.7% to 72.4% across districts) and 39.0% believed that it would be easy to get female condoms if they wanted to get them (ranging from 31.5% to 51.7% across districts) (Table 23). Access to female condoms as indicated by both of these variables was significantly higher in the older age group compared to the younger age group. A small percentage of AGYW (15.3%) procured female condoms in the six months before the survey, ranging from 7.4% (in Ehlanzeni) to 32.8% (in Klipfontein). A statistically higher percentage of older women (20 – 24 years old) had procured female condoms in the six months before the survey (23.5%; 95% CI: 17.5 - 30.3) compared to women who were 15 to 19 years old (9.1%; 95% CI: 5.3 - 14.4). Very few AGYW procured female condoms from a safe space in their community (0.9%), an NGO (1.5%) or a mobile clinic (0.9%). Few AGYW had ever used a female condom (5.0%) or used a female condom in the six months before the survey (1.7%).

Table 23: Knowledge about and access to female condoms among all 515 AGYW beneficiaries of the Global-Fund funded AGYW programme, and use of female condoms among AGYW beneficiaries who had ever had sex (n = 389)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
AGYW knew what a female condom was															
Total	29/58	50.0	21/63	33.3	63/126	50.0	20/108	18.5	26/70	37.1	37/90	41.1	170.7/515.2	33.1	28.6 — 37.9
Age															
15-19	8/15	53.3	9/33	27.3	21/58	36.2	14/80	17.5	11/35	31.4	12/43	27.9	73.4/264	27.8	21.6 — 34.7
20-24	21/43	48.8	12/30	40.0	42/68	61.8	6/28	21.4	15/35	42.9	25/47	53.2	106/250.8	42.2	34.7 — 50.0
AGYW had seen a female condom															
Total	44/58	75.9	44/63	69.8	80/126	63.5	52/108	48.1	45/70	64.3	65/90	72.2	306.8/515.3	59.5	54.3 — 64.6
Age															
15-19	13/15	86.7	19/33	57.6	31/58	53.4	34/80	42.5	19/35	54.3	28/43	65.1	140.8/264	53.3	46.1 — 60.4
20-24	31/43	72.1	25/30	83.3	49/68	72.1	18/28	64.3	26/35	74.3	37/47	78.7	179.6/250.9	71.6	63.7 — 78.6
AGYW had received instructions or counselling on how to use a female condom															
Total	30/58	51.7	21/63	33.3	57/126	45.2	16/108	14.8	23/70	32.9	34/90	37.8	155.8/515.2	30.2	25.9 — 34.9
Age															
15-19	8/15	53.3	11/33	33.3	21/58	36.2	11/80	13.8	10/35	28.6	9/43	20.9	68.6/264	26.0	20.0 — 32.7
20-24	22/43	51.2	10/30	33.3	36/68	52.9	5/28	17.9	13/35	37.1	25/47	53.2	93.7/250.9	37.3	30.2 — 44.9
AGYW knew a place she could get female condoms if she wanted to use them															
Total	42/58	72.4	29/63	46.0	75/126	59.5	44/108	40.7	41/70	58.6	60/90	66.7	267/515.2	51.8	46.7 — 57.0
Age															
15-19	9/15	60.0	7/33	21.2	30/58	51.7	29/80	36.2	16/35	45.7	25/43	58.1	111.3/264	42.2	35.2 — 49.4
20-24	33/43	76.7	22/30	73.3	45/68	66.2	15/28	53.6	25/35	71.4	35/47	74.5	163.6/250.9	65.2	57.1 — 72.7
AGYW believed it would be easy or very easy to get female condoms if she wanted to use them															
Total	30/58	51.7	20/63	31.7	60/126	47.6	34/108	31.5	29/70	41.4	44/90	48.9	200.7/515.2	39.0	34.1 — 44.0
Age															
15-19	8/15	53.3	7/33	21.2	20/58	34.5	21/80	26.2	11/35	31.4	15/43	34.9	83/264	31.4	24.9 — 38.5
20-24	22/43	51.2	13/30	43.3	40/68	58.8	13/28	46.4	18/35	51.4	29/47	61.7	128.5/250.9	51.2	43.2 — 59.1
AGYW had procured female condoms in the six months before the survey															
Total	19/58	32.8	10/63	15.9	23/126	18.3	8/108	7.4	16/70	22.9	7/90	7.8	78.8/515.2	15.3	12.0 — 19.0
Age															

Table 23: Knowledge about and access to female condoms among all 515 AGYW beneficiaries of the Global-Fund funded AGYW programme, and use of female condoms among AGYW beneficiaries who had ever had sex (n = 389)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
15-19	4/15	26.7	4/33	12.1	5/58	8.6	4/80	5.0	2/35	5.7	2/43	4.7	24/264	9.1	5.3 — 14.4
20-24	15/43	34.9	6/30	20.0	18/68	26.5	4/28	14.3	14/35	40.0	5/47	10.6	58.9/250.9	23.5	17.5 — 30.3
AGYW had procured female condoms from a safe space in her community															
Total	1/58	1.7	2/63	3.2	2/126	1.6	0/108	0.0	0/70	0.0	1/90	1.1	4.7/515.2	0.9	0.3 — 2.1
Age															
15-19	1/15	6.7	1/33	3.0	0/58	0.0	0/80	0.0	0/35	0.0	1/43	2.3	3.2/264	1.2	0.1 — 4.6
20-24	0/43	0.0	1/30	3.3	2/68	2.9	0/28	0.0	0/35	0.0	0/47	0.0	3.3/250.9	1.3	0.3 — 3.8
AGYW had procured female condoms from an NGO in her community															
Total	0/58	0.0	2/63	3.2	6/126	4.8	0/108	0.0	1/70	1.4	2/90	2.2	7.9/515.2	1.5	0.7 — 2.8
Age															
15-19	0/15	0.0	0/33	0.0	1/58	1.7	0/80	0.0	0/35	0.0	1/43	2.3	0.9/264	0.4	0.0 — 1.5
20-24	0/43	0.0	2/30	6.7	5/68	7.4	0/28	0.0	1/35	2.9	1/47	2.1	8.6/250.9	3.4	1.5 — 6.6
AGYW had procured female condoms from a mobile clinic															
Total	2/58	3.4	0/63	0.0	1/126	0.8	0/108	0.0	2/70	2.9	0/90	0.0	4.6/515.2	0.9	0.3 — 2.1
Age															
15-19	1/15	6.7	0/33	0.0	0/58	0.0	0/80	0.0	1/35	2.9	0/43	0.0	3/263.9	1.2	0.1 — 4.7
20-24	1/43	2.3	0/30	0.0	1/68	1.5	0/28	0.0	1/35	2.9	0/47	0.0	2.5/250.9	1.0	0.2 — 2.9
AGYW had ever used a female condom															
Total	3/52	5.8	3/51	5.9	5/89	5.6	3/74	4.1	2/52	3.8	6/71	8.5	18.9/380.7	5.0	2.8 — 8.0
Age															
15-19	1/13	7.7	2/21	9.5	0/29	0.0	2/48	4.2	0/19	0.0	1/26	3.8	7.1/162.7	4.4	1.3 — 10.4
20-24	2/39	5.1	1/30	3.3	5/60	8.3	1/26	3.8	2/33	6.1	5/45	11.1	13.1/232.1	5.6	2.7 — 10.2
AGYW had used a female condom in the six months before the survey															
Total	1/52	1.9	0/51	0.0	3/89	3.4	1/74	1.4	1/52	1.9	0/71	0.0	6.4/380.7	1.7	0.6 — 3.9
Age															
15-19	0/13	0.0	0/21	0.0	0/29	0.0	1/48	2.1	0/19	0.0	0/26	0.0	1.6/162.7	1.0	0.0 — 5.4
20-24	1/39	2.6	0/30	0.0	3/60	5.0	0/26	0.0	1/33	3.0	0/45	0.0	4.6/232	2.0	0.6 — 4.7

HIV prevention cascades for PrEP and male condoms stratified by age, SES, and behavioural factors associated with HIV

We aimed to describe coverage by age, socioeconomic status, sexual behaviour (as an indicator of HIV risk) among AGYW who had sex within the 12 months before the survey and did not identify as HIV-positive. Therefore, we constructed PrEP and condom cascades, stratified by age group, by SES, and stratified by HIV risk behaviours and factors.

HIV prevention cascades for PrEP

Overall HIV prevention cascade for PrEP

Among AGYW who had sex within the past 12 months and did not identify as HIV-positive (n = 351), 62.9% reported that they "definitely or probably" wanted to use PrEP and 43.8% found it easy or very easy to access PrEP (Figure 1). However, only 8.3% had ever used prep (not shown in the cascade), 3.7% were currently using PrEP and 3.0% used PrEP every day or most days in the past month.

Since the sample realization for this process evaluation was lower than planned, we did not construct HIV prevention cascades by district. Figure 2 and 3 depict HIV prevention cascades for PrEP stratified by age and socio-economic status, respectively.

HIV prevention cascades for PrEP stratified by age group

With regards to Figure 2, there were significantly more AGYW in the 20 to 24 year age group (70.0%) who reported that they "definitely or probably" wanted to use PrEP compared to the 15 to 19 year age group (55.7%). However, there were no noteworthy differences between the age groups in terms of access to, use and effective use of PrEP.

HIV prevention cascades for PrEP stratified by socio-economic status

Figure 3 compares the HIV prevention cascades of participants who were identified as having a relatively high socio-economic status compared to those who had a relatively low socio-economic status. There were no noteworthy differences in the cascades by socio-economic status.

HIV prevention cascade for PrEP stratified by number of male sex partners in the past six months

Figure 4 compares participants who had had more than one male partner in the six months before the survey to those who did not. There are no significant differences between the two cascades.

HIV prevention cascades for PrEP stratified by having had transactional sex in the past six months

Figure 5 compares the HIV prevention cascades of participants who reported they had had transactional sex in the past six months, versus those who had not. There were no noteworthy differences in the cascades by whether the participant reported transactional sex.

HIV prevention cascade for PrEP stratified by whether reported an age disparate sexual relationship in the past six months

Figure 6 compares the HIV prevention cascades of participants who reported that the last boy or man they had sex within the past six months was five or more years older than her, versus those who did not report an age disparate sexual relationship. There were no noteworthy in the cascades.

HIV prevention cascade for PrEP stratified by fear of sexual partner

Figure 7 describes HIV prevention cascade stratified by whether the participant reported she had been afraid of her sexual partner in the past six months, or not. There were no noteworthy differences in the cascades by fear of sexual partner.

HIV prevention cascade for PrEP stratified by alcohol use

Figure 8 describes HIV prevention cascade stratified by whether the participant had six or more alcoholic drinks on one occasion every month or not. There were no noteworthy differences in the cascades by alcohol use

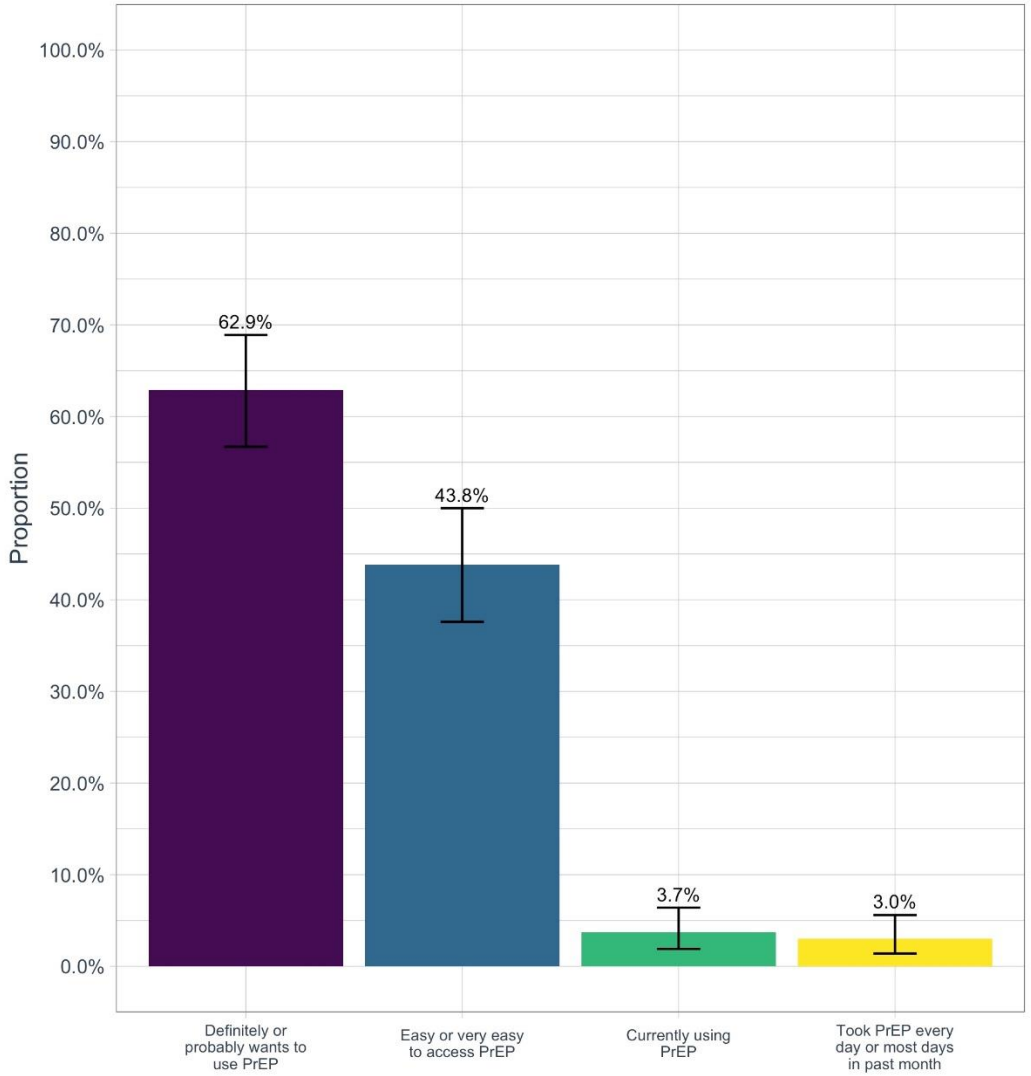

Figure 1: Motivation to use, access to, use and effective use of PrEP by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive (n = 351).

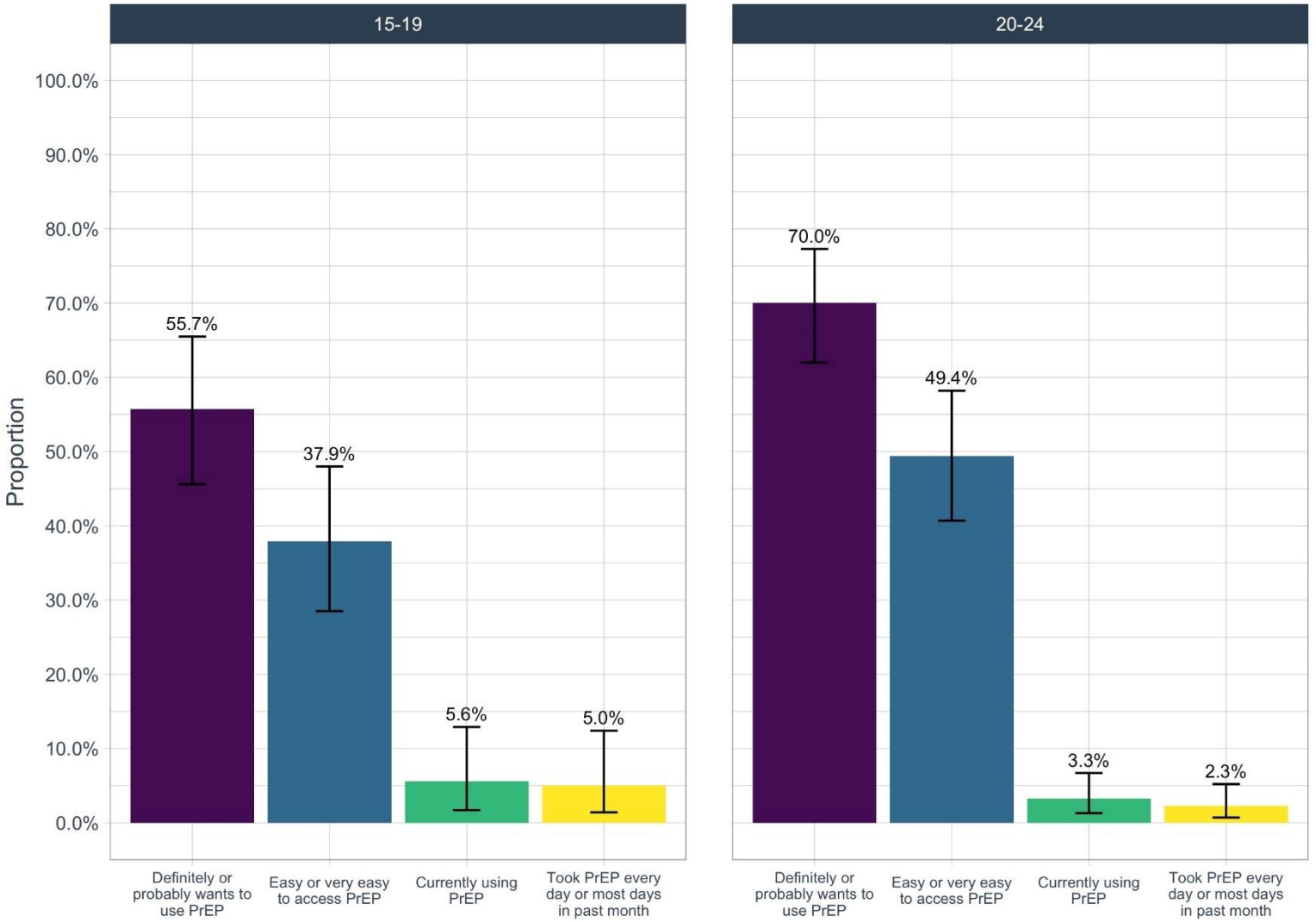

Figure 2: Motivation to use, access to, use and effective use of PrEP by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive, by age (n = 351).

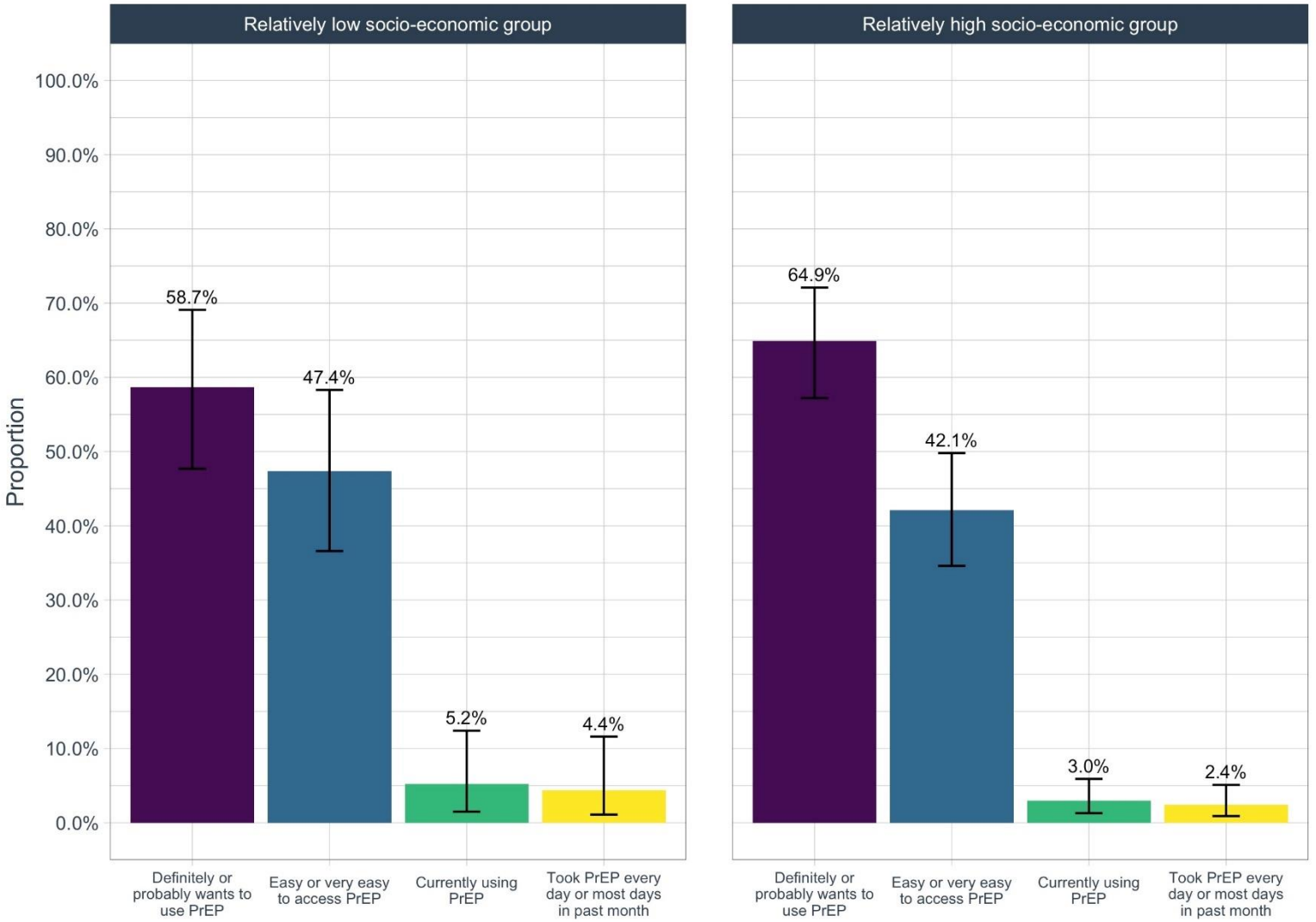

Figure 3: Motivation to use, access to, use and effective use of PrEP by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive, by socio-economic status (n = 351).

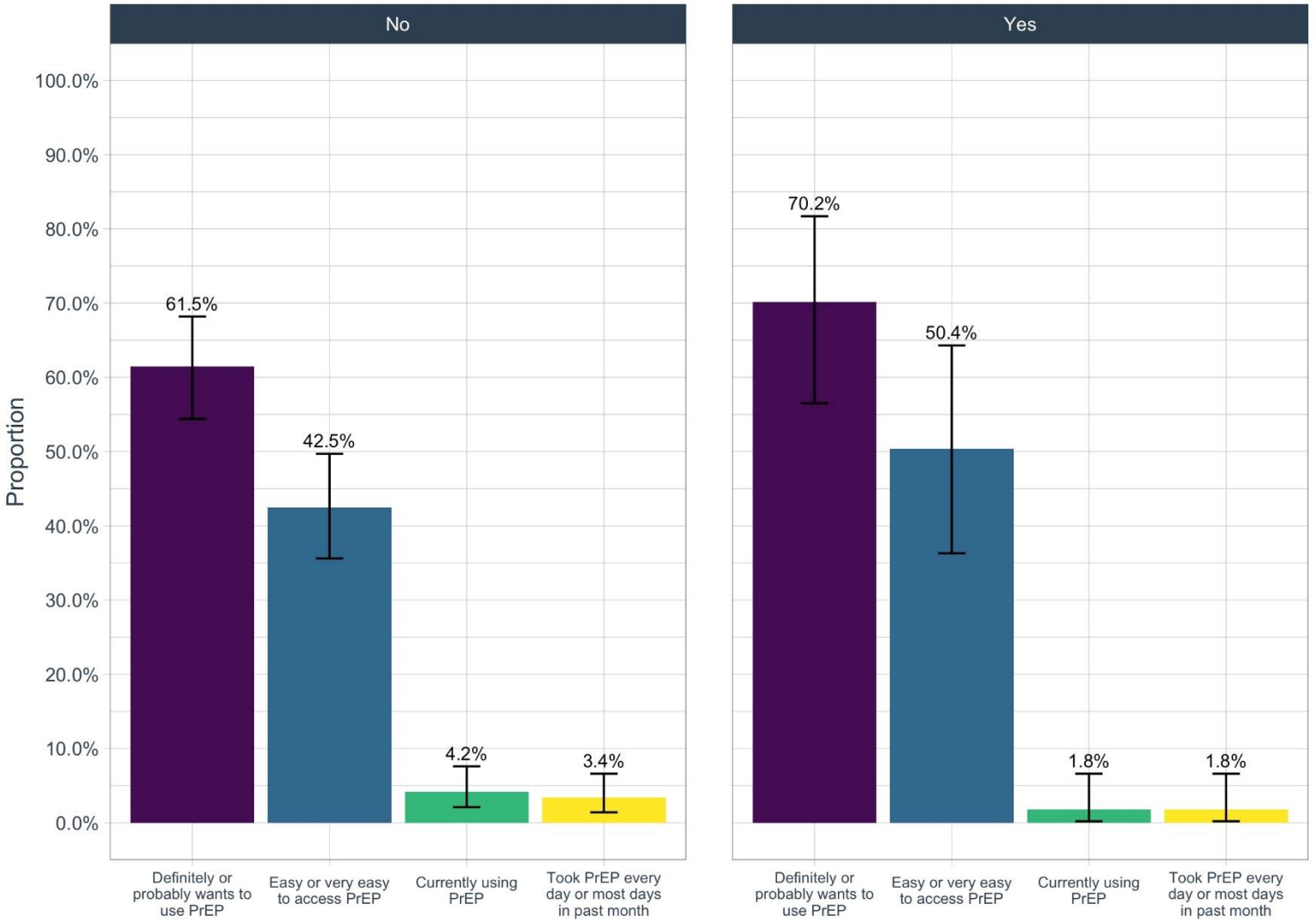

Figure 4: Motivation to use, access to, use and effective use of PrEP by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive, sorted by AGYW who had more than one male partner in the past six months or not (n = 349).

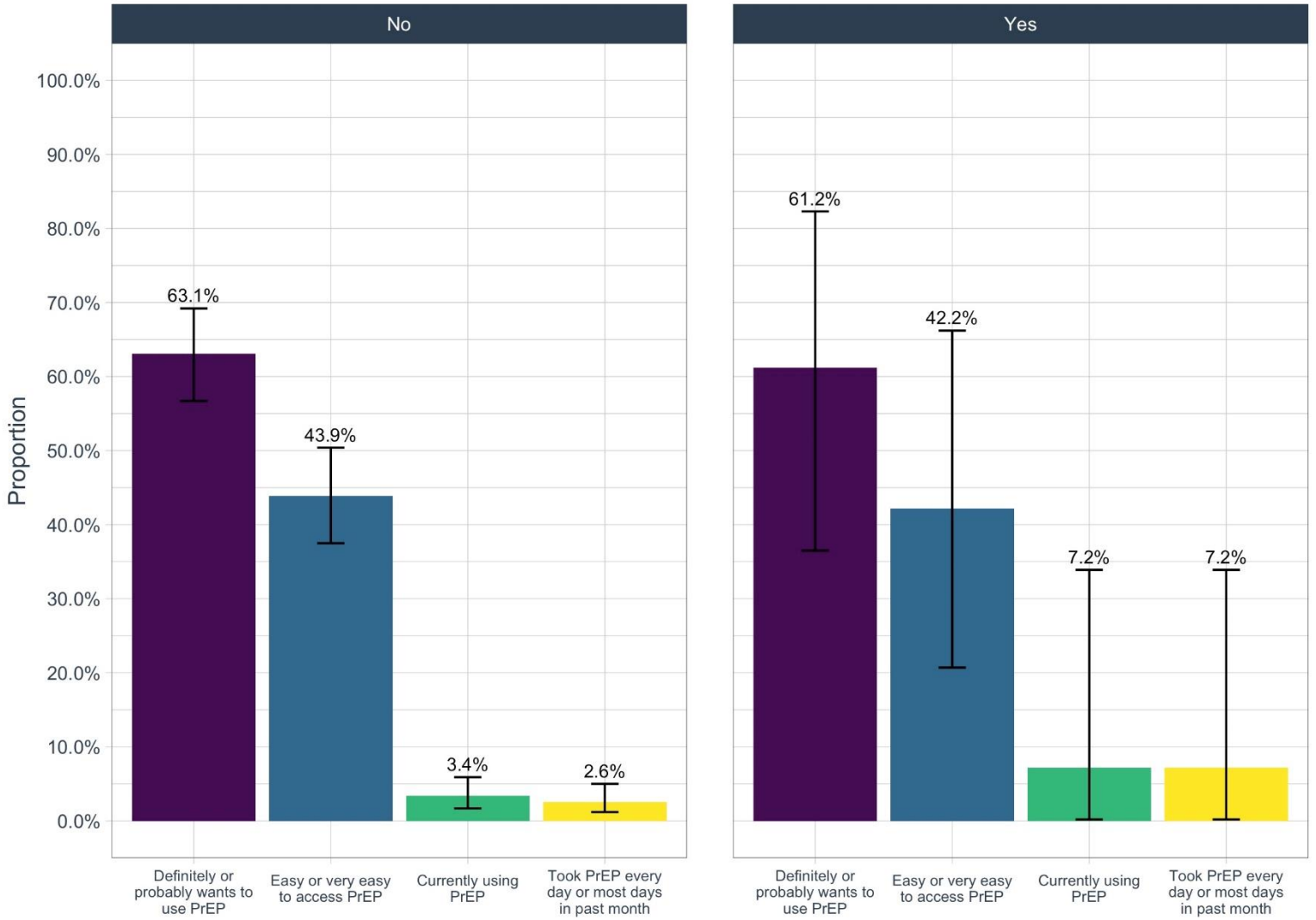

Figure 5: Motivation to use, access to, use and effective use of PrEP by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive, sorted by AGYW who had had any transactional sex in the past six months or not (n = 351).

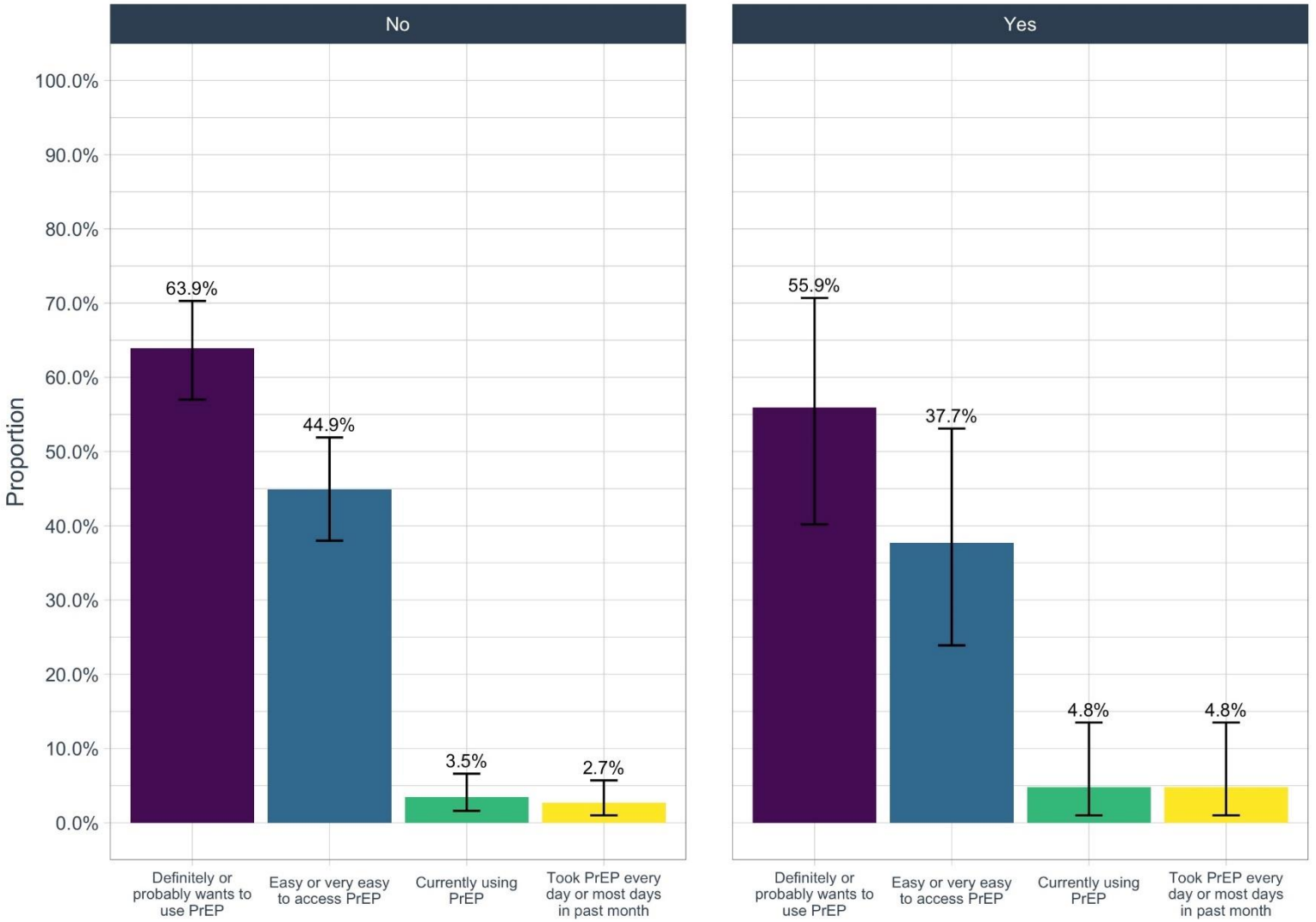

Figure 6: Motivation to use, access to, use and effective use of PrEP by AGYW who had had sex within the 12 months before the survey and who were not HI-positive, sorted by whether or not the last boy or man with whom the AGYW had sex was five or more years older (n = 347).

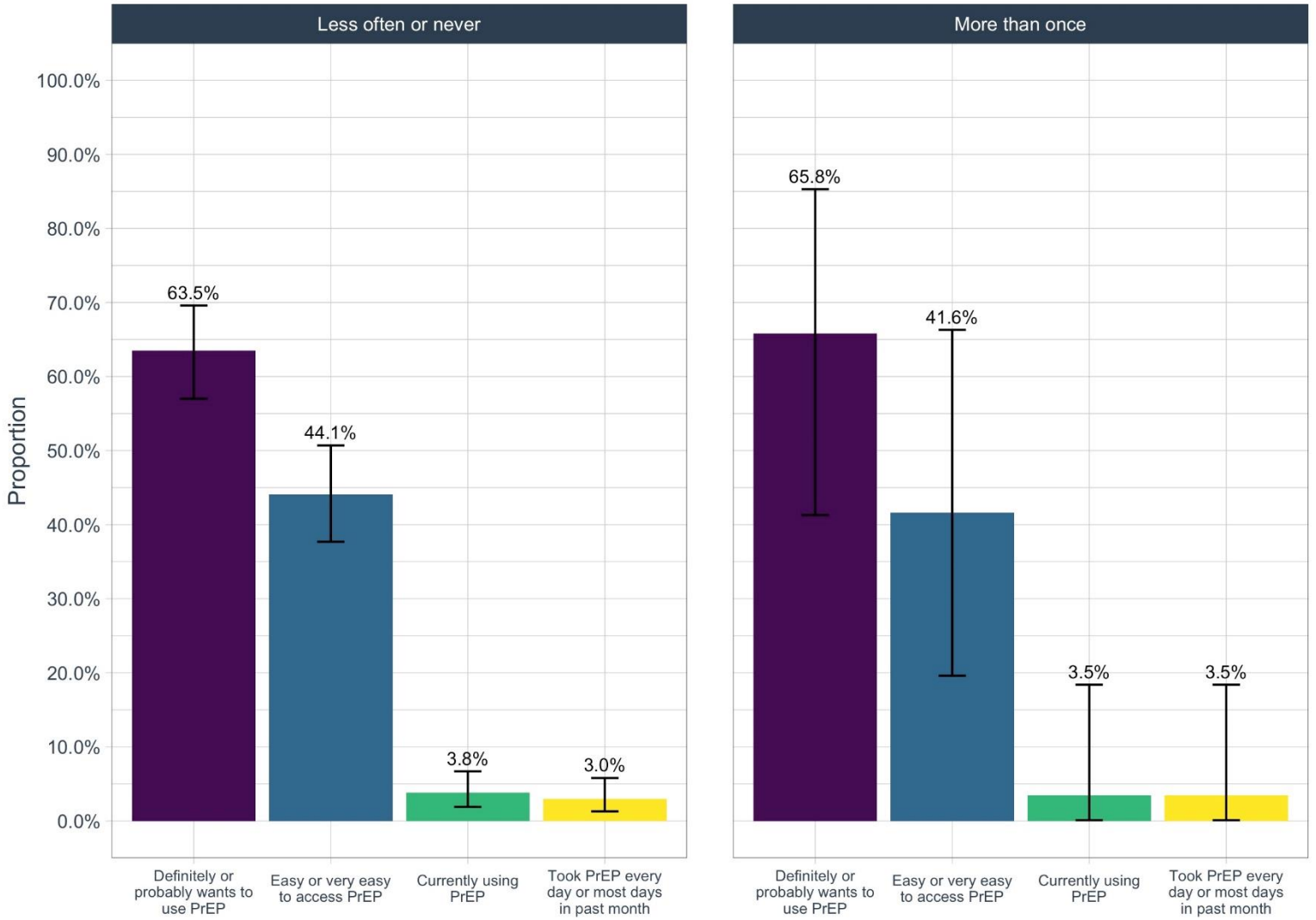

Figure 7: Motivation to use, access to, use and effective use of PrEP by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive, divided into AGYW who had been afraid of their partner in the past six months and AGYW who had not (n = 348)

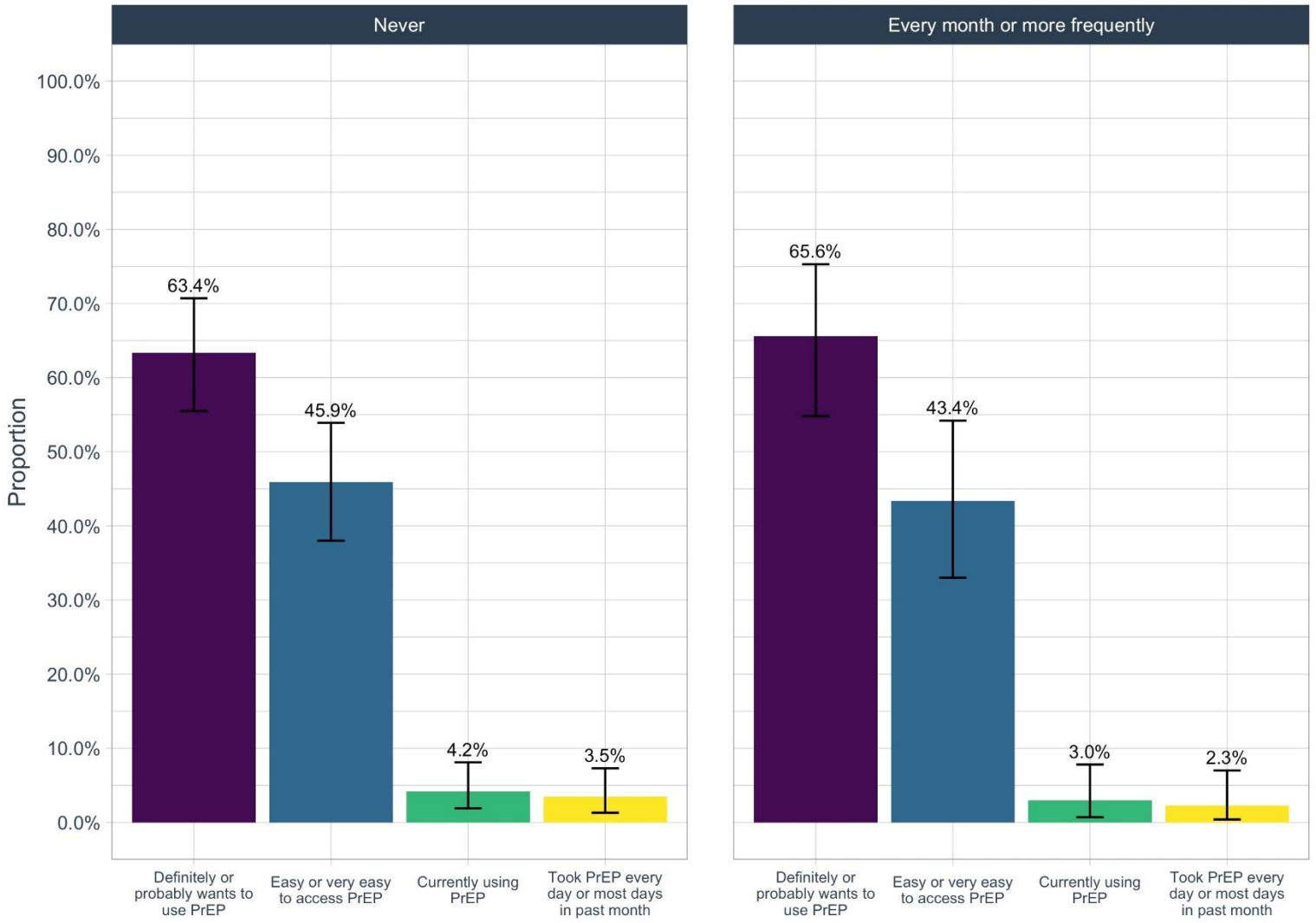

Figure 8: Motivation to use, access to, use and effective use of PrEP by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive, divided into AGYW who had never had six or more drinks on one occasion and AGYW who had six or more drinks on one occasion every month or more (n = 343).

HIV prevention cascades for male condoms

Overall HIV prevention cascade for male condoms

Figure 9 presents the overall male condom cascade for all AGYW who had sex within the past 12 months and did not identify as HIV-positive. Most AGYW (89.1%) reported that they "definitely or probably" wanted to use male condoms, 82.7% found it easy or very easy to access male condoms and 89.7% used condoms at least once with their last two partners. However, only 22.3% of AGYW used condoms 90-100% of the time with their last partner, or for those who reported more than one partner, with their last two partners.

HIV prevention cascades for male condoms stratified by age

Figure 10 compares the HIV prevention cascade for male condoms for AGYW in the 15 to 19 year age group versus the 20 to 24 year age group. However, there are no noteworthy differences between the cascades for younger and older age groups.

HIV prevention cascades for male condoms stratified by socio-economic status

Figure 11 compares the HIV prevention cascades of participants who were identified as having a relatively high socio-economic status compared to those who had a relatively low socio-economic status. There were no noteworthy differences in the cascades by socio-economic status.

HIV prevention cascade for male condoms stratified by number of male sex partners in the past six months

Figure 12 compares the HIV prevention cascades of participants who reported they had had more than one male sexual partner in the past six months, versus those who had not. There were no noteworthy differences in motivation to use, access to and use of male condoms between those who reported they had had more than one male sex partner and those who had not. However, AGYW who had had more than one male sexual partner in the past six months were statistically less likely to effectively use male condoms (7.8%) compared to those who had not (26.2%).

HIV prevention cascade for male condoms stratified by having had transactional sex in the past six months

Figure 13 compares the HIV prevention cascades of participants who reported they had had transactional sex in the past six months, versus those who had not. There were no noteworthy differences in the cascades by whether the participant reported transactional sex.

HIV prevention cascade for male condoms stratified by whether reported an age disparate sexual relationship in the past six months

Figure 14 compares the HIV prevention cascades of participants who reported that the last boy or man they had sex within the past six months was five or more years older than her, versus those who did not report an age disparate sexual relationship. There were no noteworthy in the cascades.

HIV prevention cascade for male condoms stratified by fear of sexual partner

Figure 15 describes HIV prevention cascade stratified by whether the participant reported she had been afraid of her sexual partner in the past six months, or not. There were no noteworthy differences in the cascades by fear of sexual partner.

HIV prevention cascade for male condoms stratified by alcohol use

Figure 16 describes HIV prevention cascade stratified by whether the participant had six or more alcoholic drinks on one occasion every month or not. There were no noteworthy differences in the cascades by alcohol use

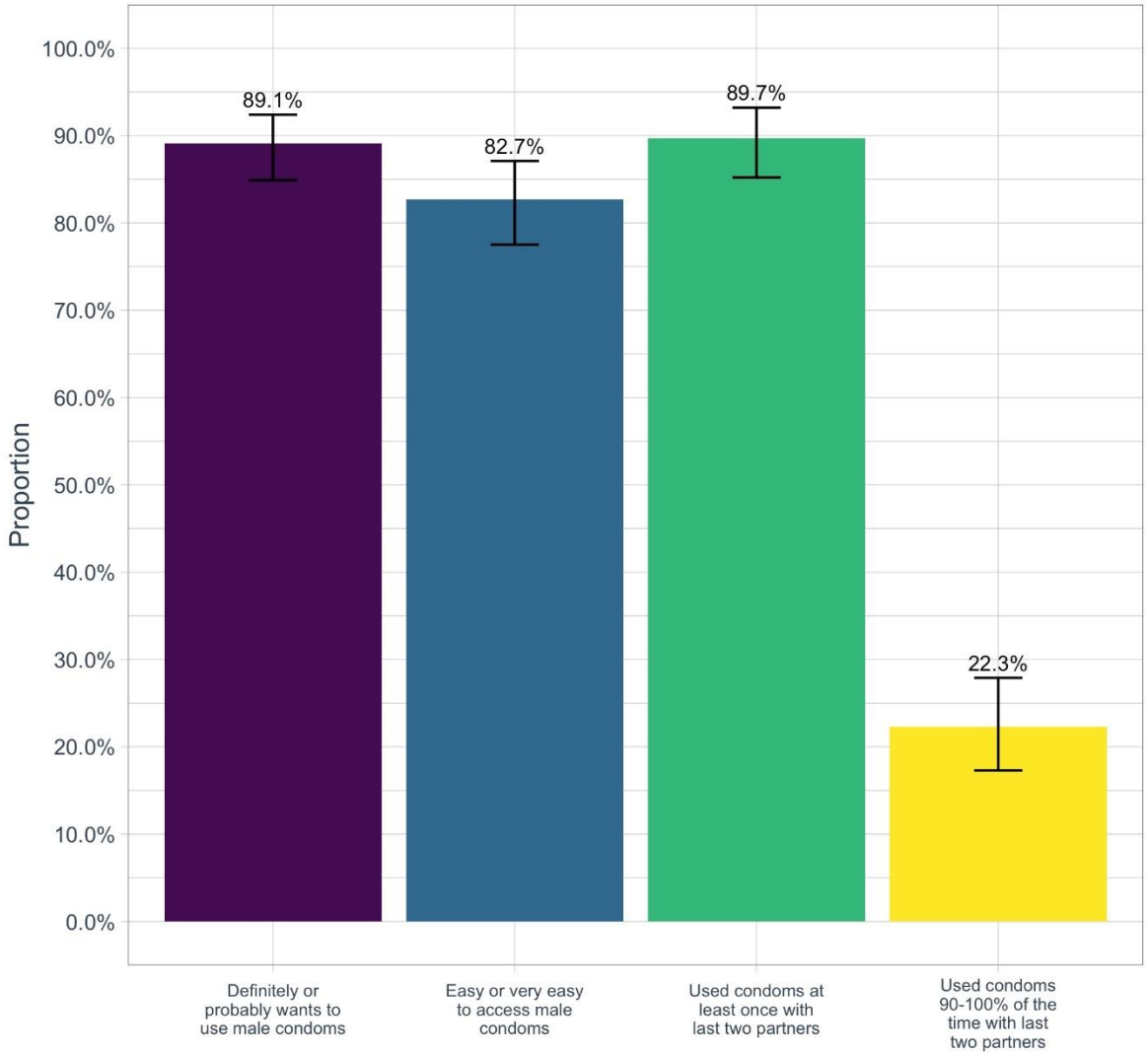

Figure 9: Motivation to use, access to, use and effective use of male condoms by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive (n = 351).

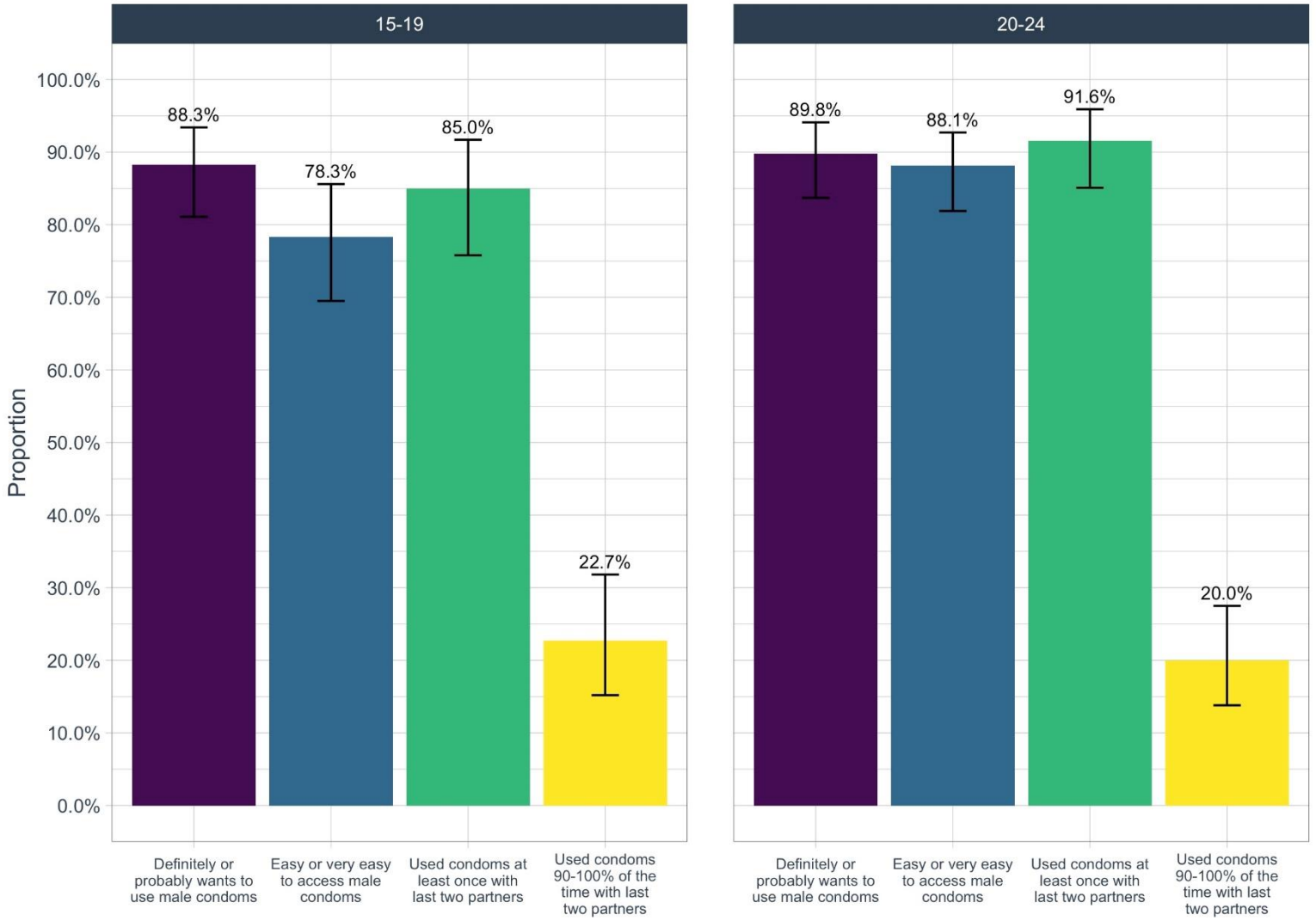

Figure 10: Motivation to use, access to, use and effective use of male condoms by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive, by age (n = 351).

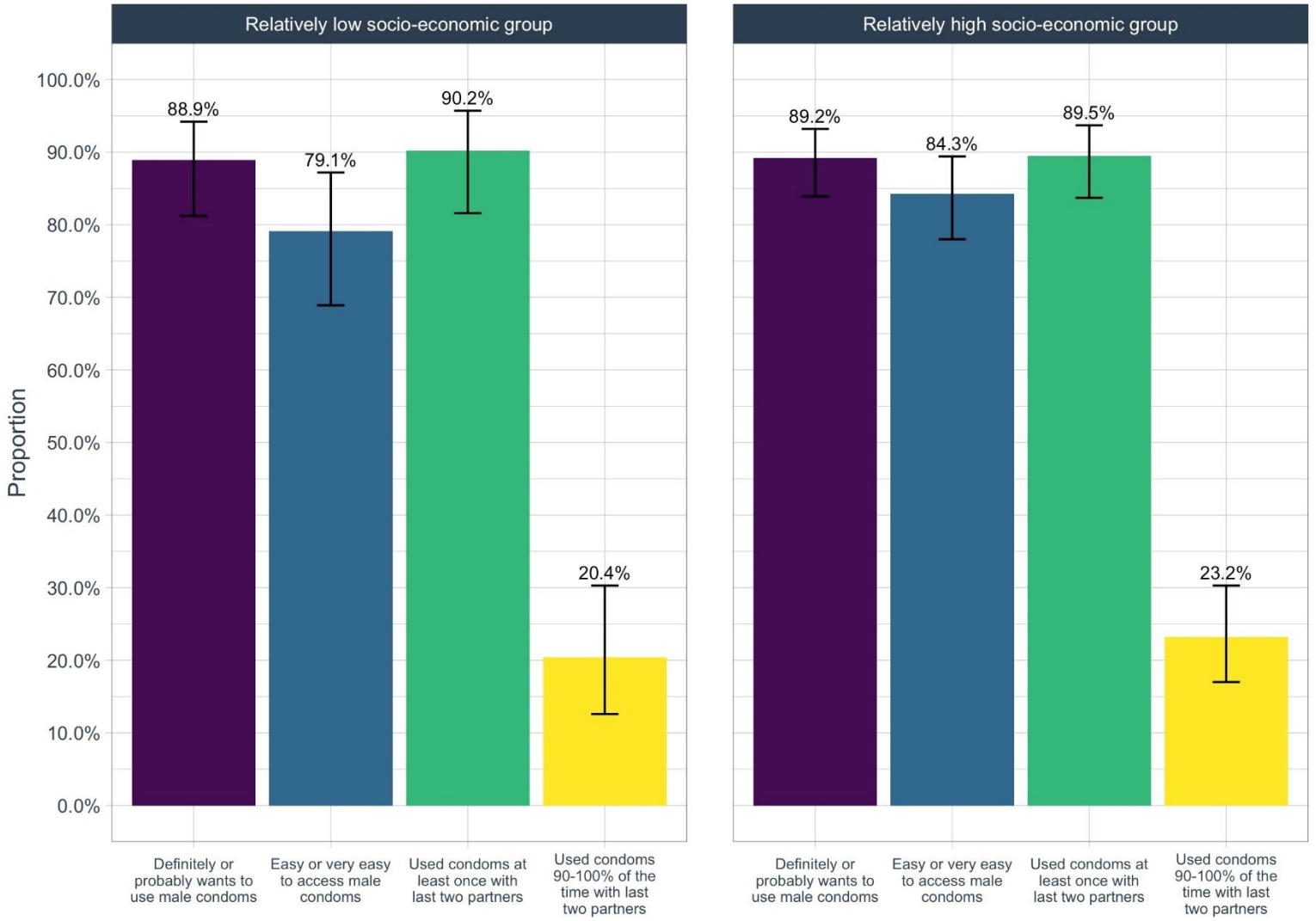

Figure 11: Motivation to use, access to, use and effective use of male condoms by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive, by socio-economic status (n = 351).

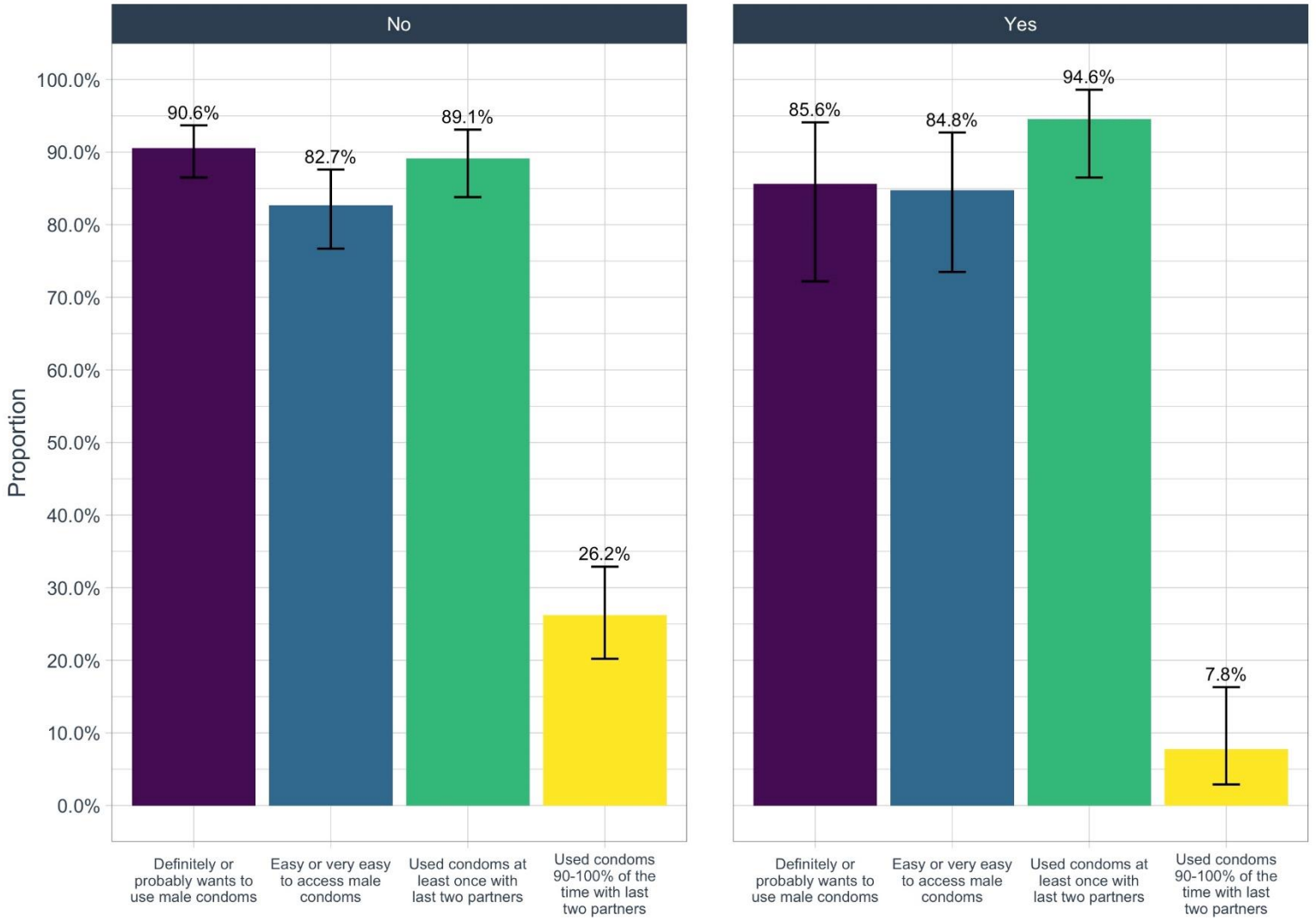

Figure 12: Motivation to use, access to, use and effective use of male condoms by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive, sorted by AGYW who had more than one male partner in the past six months or not (n = 349).

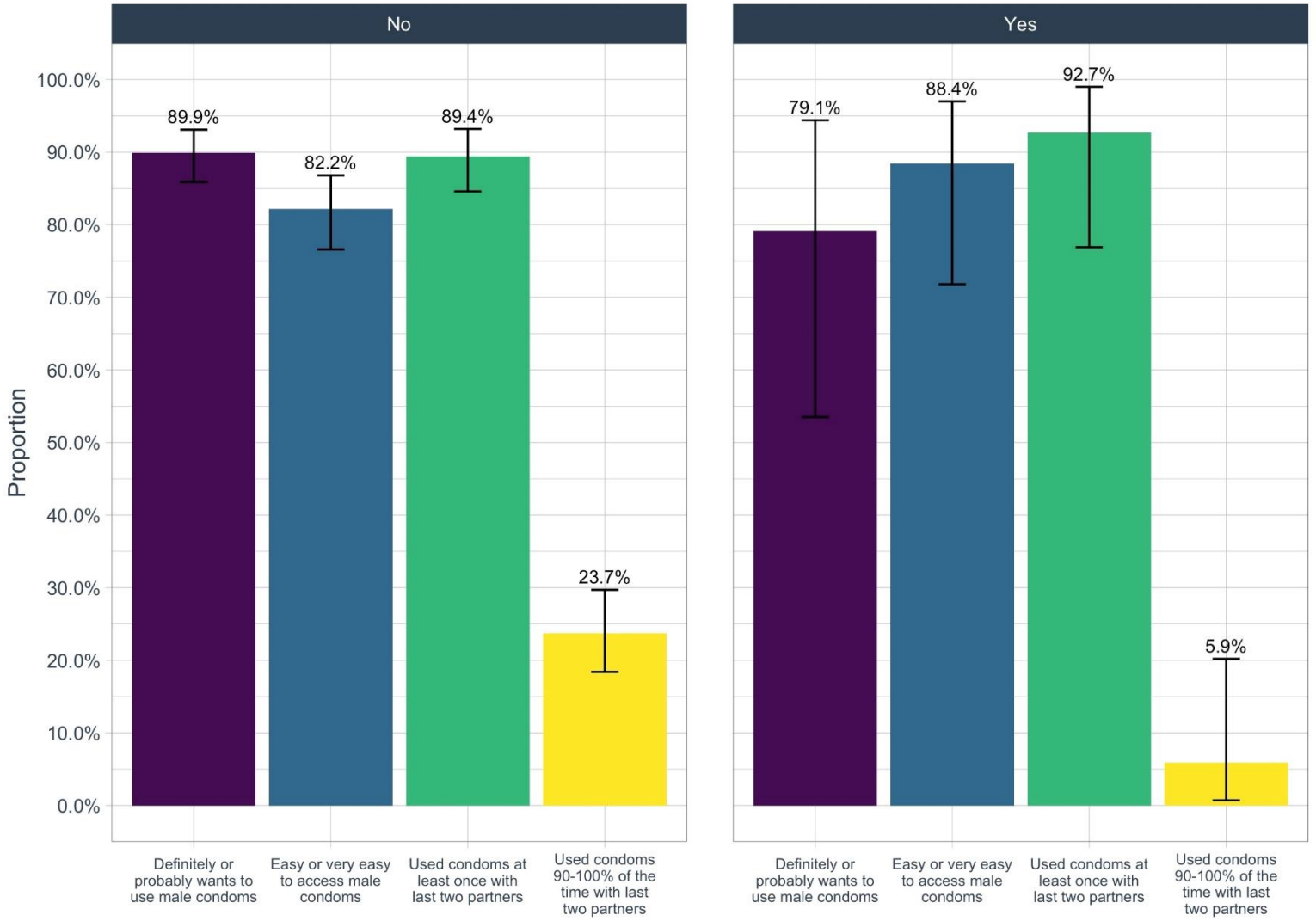

Figure 13: Motivation to use, access to, use and effective use of male condoms by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive, sorted by AGYW who had had any transactional sex in the past six months or not (n = 351).

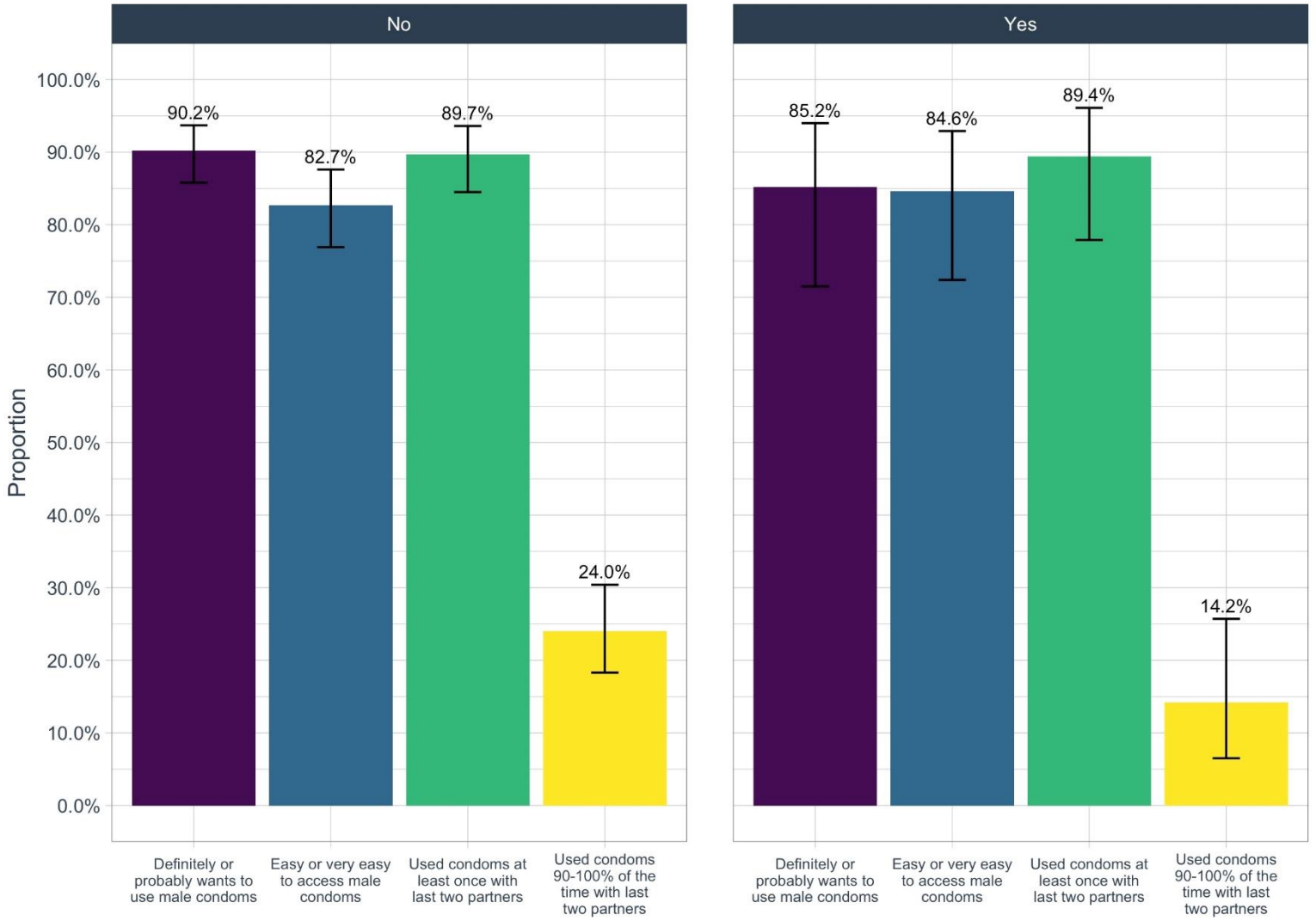

Figure 14: Motivation to use, access to, use and effective use of male condoms by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive, sorted by whether the last boy or man with whom AGYW had sex was five or more years older (n = 347).

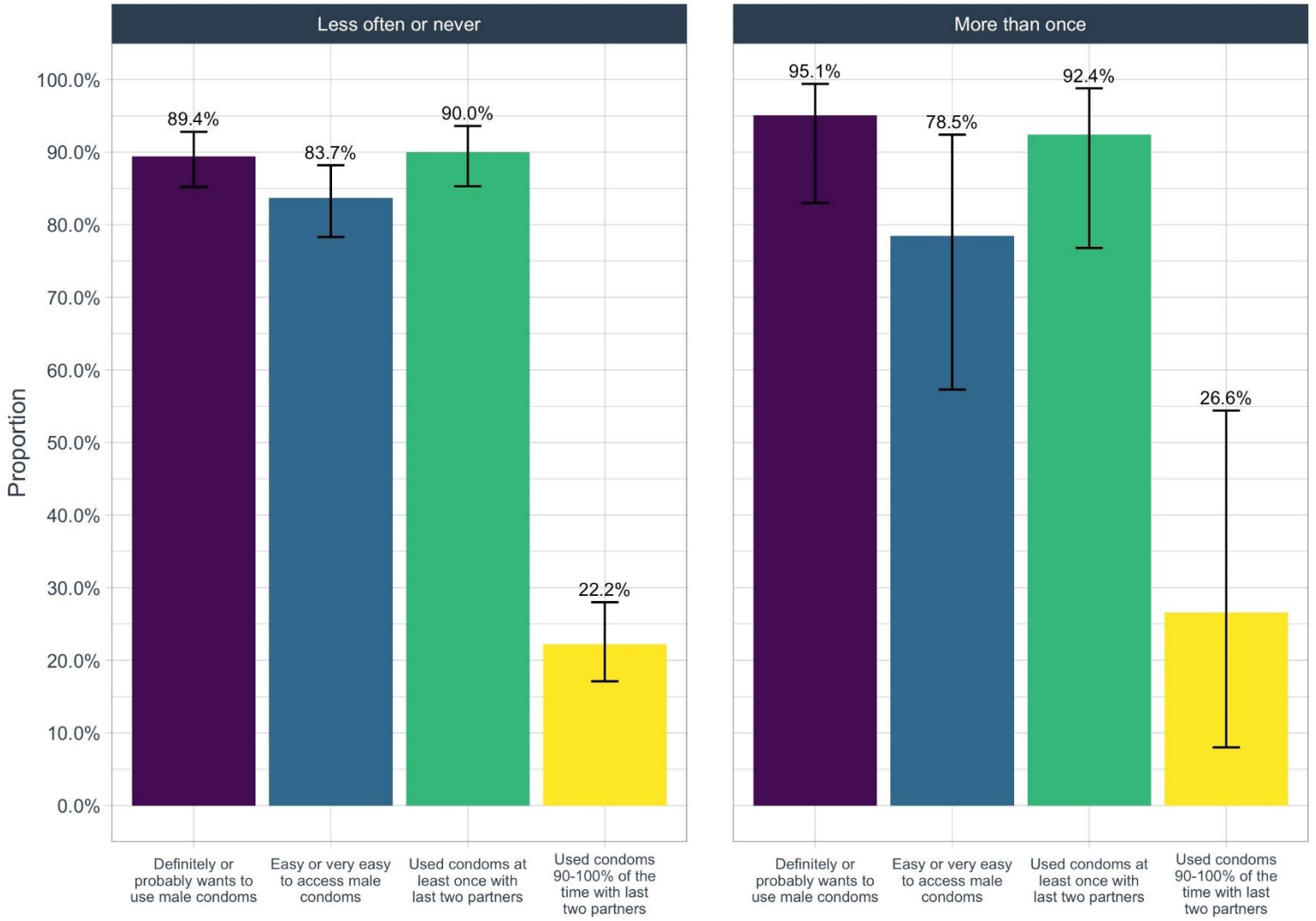

Figure 15: Motivation to use, access to, use and effective use of male condoms by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive, divided by AGYW who had been afraid of their partner in the past six months and AGYW who had not (n = 348).

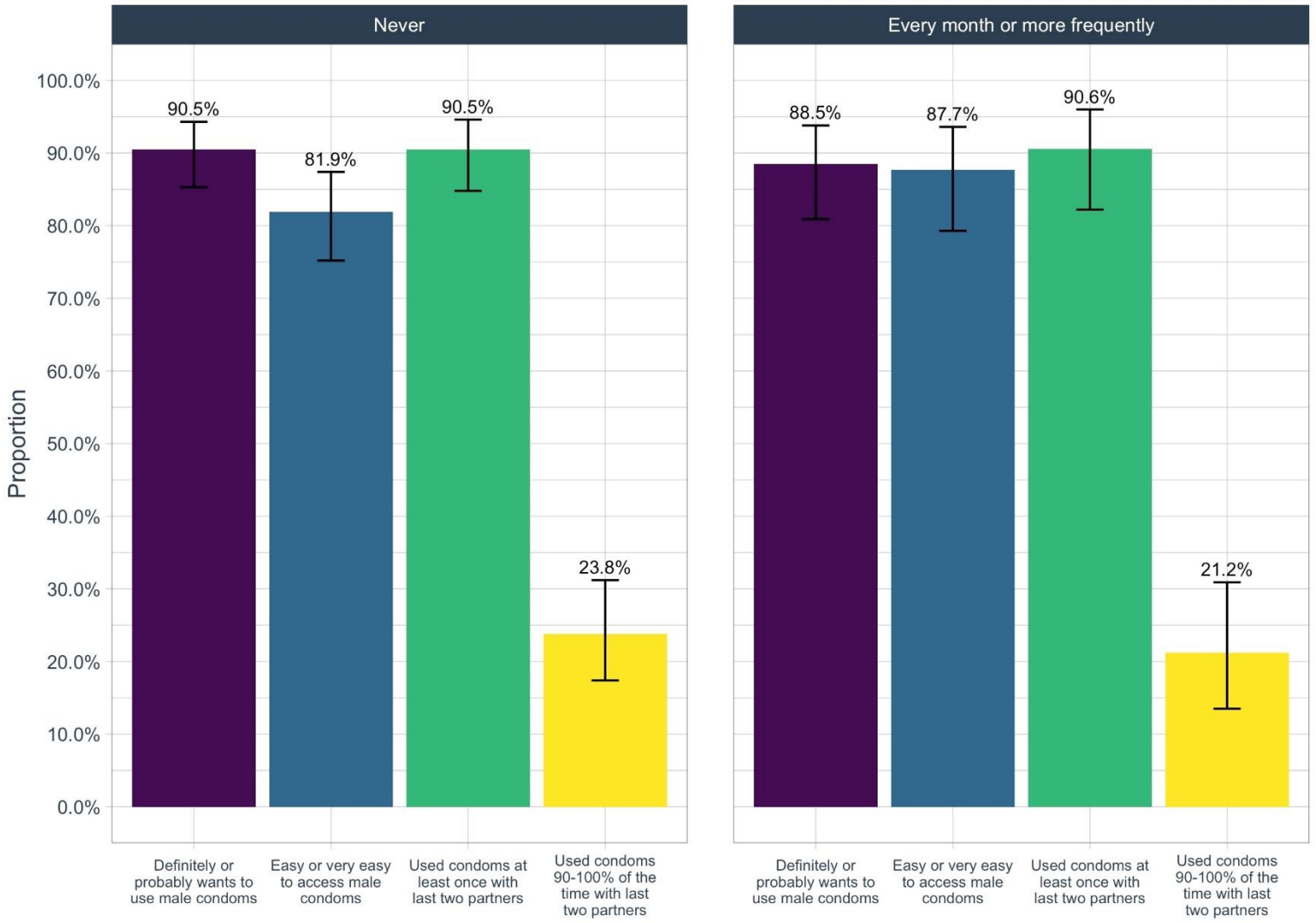

Figure 16: Motivation to use, access to, use and effective use of male condoms by AGYW who had had sex within the 12 months before the survey and who were not HIV-positive, divided by AGYW who had never had six or more drinks on one occasion and AGYW who had six or more drinks on one occasion every month or more (n = 343).

Factors associated with effective coverage of HIV prevention interventions

Tables 24-28 explore the relationship between factors that may act as barriers to motivation, access and use of PrEP and condoms among AGYW who were sexually active in the past 12 months and did not identify as HIV-positive.

Factors associated with effective coverage of PrEP

Table 24 describes the factors associated with motivation to use PrEP. Factors which are significantly associated with motivation to use PrEP will be highlighted here:

- There were 22 more per 100 AGYW motivated to use PrEP among AGYW who believed that PrEP could reduce a person's risk of getting HIV by more than 70% compared to those who did not believe this (95% CI: 9.65 —34.34).
- Among AGYW who agreed they would be able to use PrEP if they wanted to, there were 39 more AGYW per 100 who were motivated to use PrEP compared to those who disagreed (95% CI: 18.03 — 60.29).
- There were 30 more AGYW per 100 who were motivated to use PrEP in the group that agreed that they were confident they could take PrEP every day, compared to those who disagreed with this statement (95% CI: 13.57 — 47.45).
- Among participants who agreed that they were confident that they would be able to take PrEP after a meal, there were nearly 34 more participants motivated to use PrEP compared to those who disagreed (95% CI: 17.13 — 50.62).
- There were 27 more AGYW per 100 motivated to use PrEP in the group who agreed that they were confident that they could take PrEP if their friends disapproved of it compared to those who disagreed (95% CI: 8.21 — 45.70) and 21 more AGYW per 100 motivated to use PrEP in the group who were confident that they could take PrEP if their parents and family elders disapproved of it compared to those who disagreed (95% CI: 6.55 — 36.59).
- Among AGYW who agreed that they were confident that they could use PrEP if others thought they had HIV, there were 28 more AGYW per 100 motivated to use PrEP compared to those who disagreed with this statement (95% CI: 8.94 — 48.40).
- There was no significant association between participant's age, relative socio-economic status, being sure about what PrEP was, being confident to use PrEP even if AGYW had to hide it from their partner and motivation to use PrEP.

As shown in Table 25 on the factors associated with PrEP access, only two of the factors tested in this analysis had a significant association with AGYW's access to PrEP:

- There were 34 more AGYW per 100 who reported having access to PrEP among AGYW who have been offered PrEP compared to those who have not been offered PrEP (95% CI: 20.58 — 47.75).
- There were 30 more AGYW per 100 who reported having access to PrEP among AGYW who had received instructions or counselling on how to use PrEP compared to those who had not (95% CI: 16.36 — 43.66).
- There is also some evidence for an association between age and access to PrEP ($p = 0.05$). Among participants in the 20 to 24 year age group, there were 13 more AGYW per 100 who had access to PrEP compared to adolescent girls in the 15 to 19 year age group (95% CI: 0.01 — 26.81).
- There was no significant association between access to PrEP and relative socio-economic status, believing that it would cost too much to get to the clinic/service to get PrEP, worrying about lack of privacy or confidentiality at the PrEP service, believing the opening hours of the PrEP clinic/service would not suit you, believing that it is too far to go to the PrEP clinic/service, worrying that people would think AGYW had HIV if she went to the PrEP clinic/service or believing that the negative attitudes of healthcare workers would make it difficult to get PrEP.

Table 24: Factors associated with motivation for PrEP, among AGYW who were sexually active in the previous 12 months, did not self-identify as an HIV positive person, and answered the question about motivation (n = 297).

	Motivated to Use PrEP if Available								
	No or No Opinion			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Age group									
15-19	30	31.6	21.8 — 42.8	85	68.4	57.2 — 78.2	0.1235	9.65	-2.50 — 21.80
20-24	41	22.0	15.5 — 29.7	141	78.0	70.3 — 84.5			
Relative socio-economic status									
Relatively low socio-economic group	28	31.0	20.8 — 42.7	66	69.0	57.3 — 79.2	0.2935	6.83	-5.89 — 19.55
Relatively high socio-economic group	43	24.1	17.2 — 32.2	160	75.9	67.8 — 82.8			
AGYW knew about PrEP and was sure about what it was									
Yes	28	27.5	18.1 — 38.5	78	72.5	61.5 — 81.9	0.7728	1.81	-10.48 — 14.10
No	43	25.6	18.4 — 34.0	148	74.4	66.0 — 81.6			
AGYW did believed that PrEP could reduce a person's risk of getting HIV by more than 70% (n = 287)									
Believed	26	16.4	10.2 — 24.3	153	83.6	75.7 — 89.8	0.0006	-21.99	-34.34 — -9.65
Did not believe	41	38.4	28.0 — 49.7	67	61.6	50.3 — 72.0			
AGYW was confident she would be able to use PrEP if she wanted to									
Disagree	15	56.9	34.9 — 77.2	12	43.1	22.8 — 65.1	0.0006	16.74	-8.94 — 42.42
Unsure	20	40.2	24.5 — 57.6	29	59.8	42.4 — 75.5		39.16	18.03 — 60.29
Agree	36	17.8	12.1 — 24.8	185	82.2	75.2 — 87.9			
AGYW was confident she would be able to take PrEP every day									
Disagree	25	48.6	32.3 — 65.1	23	51.4	34.9 — 67.7	0.0018	16.06	-6.66 — 38.77
Unsure	13	32.5	16.9 — 51.6	29	67.5	48.4 — 83.1		30.51	13.57 — 47.45
Agree	33	18.1	12.0 — 25.5	174	81.9	74.5 — 88.0			
AGYW was confident she would always be able to take PrEP after a meal									
Disagree	24	51.7	35.4 — 67.8	24	48.3	32.2 — 64.6	0.0005	15.06	-8.70 — 38.82
Unsure	14	36.7	19.3 — 57.1	24	63.3	42.9 — 80.7		33.88	17.13 — 50.62
Agree	33	17.9	11.9 — 25.2	178	82.1	74.8 — 88.1			
AGYW was confident she would be able to use PrEP if she had to hide it from her partner (n - 296)									
Disagree	35	32.4	23.0 — 43.1	88	67.6	56.9 — 77.0	0.2180	5.94	-13.09 — 24.96
Unsure	11	26.5	11.7 — 46.6	25	73.5	53.4 — 88.3		11.44	-1.29 — 24.17
Agree	25	21.0	13.2 — 30.8	112	79.0	69.2 — 86.8			

Table 24: Factors associated with motivation for PrEP, among AGYW who were sexually active in the previous 12 months, did not self-identify as an HIV positive person, and answered the question about motivation (n = 297).

	Motivated to Use PrEP if Available								
	No or No Opinion			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
AGYW was confident she would be able to use PrEP if her friends disapproved of it									
Disagree	18	48.8	30.5 — 67.4	20	51.2	32.6 — 69.5	0.0277	16.29	-13.30 — 45.89
Unsure	7	32.5	11.3 — 60.9	15	67.5	39.1 — 88.7		26.96	8.21 — 45.70
Agree	46	21.8	15.8 — 29.0	191	78.2	71.0 — 84.2			
AGYW was confident she would be able to use PrEP if her parents and family elders disapproved									
Disagree	26	41.1	27.4 — 55.8	40	58.9	44.2 — 72.6	0.0069	-4.16	-31.14 — 22.83
Unsure	9	45.2	21.8 — 70.3	15	54.8	29.7 — 78.2		21.57	6.55 — 36.59
Agree	36	19.5	13.3 — 26.9	171	80.5	73.1 — 86.7			
AGYW was confident she would be able to use PrEP if people thought she had HIV									
Disagree	17	50.3	30.7 — 69.8	16	49.7	30.2 — 69.3	0.0179	11.25	-21.54 — 44.05
Unsure	7	39.1	14.0 — 69.4	12	60.9	30.6 — 86.0		28.67	8.94 — 48.40
Agree	47	21.6	15.7 — 28.6	198	78.4	71.4 — 84.3			

CI, Confidence Interval

Note on risk difference: The first category is the reference category (“unexposed group”). The first risk difference compares the second group to the first. The second risk difference compares the third group to the first.

Table 25: Factors associated with access to PrEP, among AGYW who were sexually active in the previous 12 months, did not self-identify as an HIV positive person, and who had answered the question about access (n = 298).

	Access to PrEP								
	Does not have easy access or doesn't know			Easy access					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Age group									
15-19	61	56.4	45.3 — 67.1	54	43.6	32.9 — 54.7	0.0517	13.41	0.01 — 26.81
20-24	78	43.0	34.5 — 51.8	105	57.0	48.2 — 65.5			
Relative socio-economic status									
Relatively low socio-economic group	40	44.9	33.3 — 56.9	55	55.1	43.1 — 66.7	0.4073	-5.91	-19.88 — 8.06
Relatively high socio-economic group	99	50.8	42.4 — 59.3	104	49.2	40.7 — 57.6			
AGYW has been offered PrEP									
Yes	10	19.9	9.7 — 34.2	38	80.1	65.8 — 90.3	0.0001	-34.17	-47.75 — -20.58
No	129	54.1	46.5 — 61.6	121	45.9	38.4 — 53.5			
AGYW has had instructions or counselling on how to use PrEP									
Yes	19	26.9	16.2 — 40.0	57	73.1	60.0 — 83.8	0.0001	-30.01	-43.66 — -16.36
No	120	56.9	48.9 — 64.7	102	43.1	35.3 — 51.1			
AGYW believes it would cost too much to get to the clinic/service to get PrEP									
No	127	48.0	41.0 — 55.1	152	52.0	44.9 — 59.0	0.4353	-10.35	-36.27 — 15.57
Yes	12	58.4	30.8 — 82.5	7	41.6	17.5 — 69.2			
AGYW would worry about lack of privacy or confidentiality at a PrEP service									
No	102	47.8	39.9 — 55.8	118	52.2	44.2 — 60.1	0.6158	-3.84	-18.80 — 11.11
Yes	37	51.6	38.2 — 64.9	41	48.4	35.1 — 61.8			
AGYW believes the opening hours of the PrEP clinic/service would not suit her									
No	126	49.2	42.1 — 56.3	148	50.8	43.7 — 57.9	0.8309	2.68	-21.82 — 27.18
Yes	13	46.5	22.7 — 71.5	11	53.5	28.5 — 77.3			
AGYW believes it is far to go to the PrEP clinic/service									
No	121	48.2	41.0 — 55.5	145	51.8	44.5 — 59.0	0.6325	-5.04	-25.69 — 15.60
Yes	18	53.3	32.6 — 73.2	14	46.7	26.8 — 67.4			
AGYW would worry about people thinking she was HIV positive if she went to a PrEP clinic/service									

Table 25: Factors associated with access to PrEP, among AGYW who were sexually active in the previous 12 months, did not self-identify as an HIV positive person, and who had answered the question about access (n = 298).

	Access to PrEP								
	Does not have easy access or doesn't know			Easy access					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
No	92	46.3	38.0 — 54.7	106	53.7	45.3 — 62.0	0.2560	-8.21	-22.24 — 5.81
Yes	47	54.5	42.4 — 66.3	53	45.5	33.7 — 57.6			
AGYW believes that the negative attitudes of the health workers at a PrEP clinic/service would make it difficult for her to get PrEP									
No	112	50.1	42.3 — 57.8	118	49.9	42.2 — 57.7	0.5617	4.73	-11.24 — 20.70
Yes	27	45.4	30.9 — 60.4	41	54.6	39.6 — 69.1			

CI, Confidence Interval

Note on risk difference: The first category is the reference category ("unexposed group"). The first risk difference compares the second group to the first. The second risk difference compares the third group to the first.

Factors associated with effective coverage of male condoms

Table 26 describes the factors associated with motivation to use male condoms with partners among AGYW who participated in the programme. We found no statistically significant associations between motivation to use male condoms and: age; relative socio-economic status; receiving instructions or counselling on how to use male condoms; the belief that male condoms reduce an HIV-negative person's risk of getting HIV by 70% or more when having sex with someone who has HIV; and agreeing/strongly agreeing that asking AGYW's current or most recent main partner/boyfriend to use a condom would make him angry.

Table 27 presents the factors associated with access to male condoms:

- There were 10 more AGYW per 100 in the 20 to 24 year age group who reported that they had access to male condoms compared to women in the 15 to 19 year age group (95% CI: 1.10 — 19.69).
- Among AGYW who found it difficult to get male condoms for unspecified reasons, there were 34 fewer AGYW per 100 had access to male condoms compared to those who did not find it difficult to get male condoms for unspecified reasons (95% CI: -59.73 — -9.31).
- We found no statistically significant associations between perceived access to male condoms and: relative socio-economic status; reporting that privacy and confidentiality made it difficult to get condoms; being embarrassed to get male condoms; believing it was expensive to get them; reporting that the opening hours of condom suppliers was inconvenient; having to travel far to get male condoms; being worried someone will see them getting male condoms; being unable to get male condoms because of COVID-19 and the lockdown; and having been provided with condoms or linked to people who could provide them by someone from an organisation involved in this research in the past month.

Table 28 describes the factors associated with effective use of male or female condoms. Several factors had a statistically significant association with the effective use of male or female condoms:

- There were 17 fewer AGYW per 100 effectively using condoms in the group who reported that not having condoms was a barrier, compared to those who did not report this (95% CI: -26.11 — -8.51).
- Among AGYW who reported as a barrier that they were worried about what their partner would think if they asked to use condoms, there were almost 21 fewer AGYW per 100 effectively using

condoms compared to those who were not worried what their partners would think (95% CI: -27.73 — -13.75).

- There were 16 fewer AGYW per 100 who were effectively using condoms in the group of AGYW who reported as a barrier that their partners did not want to use condoms compared to AGYW whose sexual partners did not oppose condoms (95% CI: -26.89 — -6.44).
- Among AGYW who reported as a barrier to condom use that they have one faithful partner who they trusted, there were 28 fewer AGYW per 100 effectively using condoms compared to those who did not report this barrier (95% CI: -35.82 — -21.26).
- There were 21 fewer AGYW per 100 who were effectively using condoms in the group of AGYW who reported that their dislike for condoms was a barrier to use, compared to those who did not report that this (95% CI: -29.38 — -13.34).
- Among AGYWs who reported stock-outs were a barrier to condom use, there were 23 fewer AGYW per 100 effectively using condoms compared to those who did not report this (95% CI: -28.25 — -17.77). (We did not gather information about at which condom distribution point the stock-out occurred.)
- There were 17 fewer AGYW per 100 effectively using condoms in the group that reported as a barrier that they did not think they were at risk of getting HIV compared to those who did not report this barrier (95% CI: -29.82 — -5.25).
- There were 15 fewer AGYW per 100 who were effectively using condoms in the group who reported other, unspecified reasons for not using them compared to those who did not report other reasons (95% CI: -25.71 — -5.74).
- We found no statistically significant associations between using condoms effectively and: age; socio-economic status; reporting as a barrier forgetting to use them; reporting as a barrier that the place where AGYW gets her condoms is far away; reporting as a barrier that the place where AGYW gets her condoms was not open when she had free time; reporting as a barrier the negative attitudes of health workers who give condoms; and not knowing the reason for not using condoms 100% of the time.

Table 26: Factors associated with motivation to use condoms, among AGYW who were sexually active in the previous 12 months, did not self-identify as an HIV positive person, and answered the question about motivation (n = 348).

	Motivated to Use Condoms if Available								
	No or No Opinion			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Age group									
15-19	17	10.7	5.8 — 17.7	120	89.3	82.3 — 94.2	0.7159	1.29	-5.64 — 8.21
20-24	25	9.4	5.7 — 14.5	186	90.6	85.5 — 94.3			
Relative socio-economic status									
Relatively low socio-economic group	12	9.8	4.8 — 17.5	96	90.2	82.5 — 95.2	0.9461	-0.25	-7.43 — 6.94
Relatively high socio-economic group	30	10.1	6.3 — 15.1	210	89.9	84.9 — 93.7			
AGYW has had instructions or counselling on how to use male condoms									
Yes	19	8.7	5.0 — 13.9	167	91.3	86.1 — 95.0	0.4231	-2.85	-9.81 — 4.11
No	23	11.6	6.6 — 18.5	139	88.4	81.5 — 93.4			
AGYW did not think that male condoms reduce an HIV-negative person's risk of getting HIV by 70% or more when they have sex with someone who has HIV (n = 345)									
Believed	25	9.6	5.8 — 14.7	205	90.4	85.3 — 94.2	0.6697	-1.59	-8.90 — 5.72
Did not believe	17	11.2	5.9 — 18.8	98	88.8	81.2 — 94.1			
AGYW agrees or strongly agrees that if she asked her current or most recent main partner/boyfriend to use a condom, he would get angry (n = 346)									
Disagree	35	10.1	6.7 — 14.4	261	89.9	85.6 — 93.3	0.9627	-0.24	-10.38 — 9.90
Agree	7	10.3	3.0 — 24.1	43	89.7	75.9 — 97.0			

CI, Confidence Interval

Note on risk difference: The first category is the reference category ("unexposed group"). The first risk difference compares the second group to the first. The second risk difference compares the third group to the first.

Table 27: Factors associated with access to male condoms, among AGYW who were sexually active in the previous 12 months, did not self-identify as an HIV positive person, and who answered the question about access (n = 347).

	Access to Male Condoms								
	Difficult access or unsure			Easy access					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Age group									
15-19	29	21.9	14.3 — 31.2	108	78.1	68.8 — 85.7	0.0300	10.39	1.10 — 19.69
20-24	25	11.5	7.2 — 17.1	185	88.5	82.9 — 92.8			
Relative socio-economic status									
Relatively low socio-economic group	20	19.8	11.8 — 30.1	88	80.2	69.9 — 88.2	0.3253	5.11	-5.01 — 15.23
Relatively high socio-economic group	34	14.7	9.8 — 20.8	205	85.3	79.2 — 90.2			
AGYW finds it difficult to get male condoms because of the lack of privacy and confidentiality when getting them									
No	37	15.6	10.8 — 21.4	228	84.4	78.6 — 89.2	0.6042	-2.95	-14.12 — 8.22
Yes	17	18.5	9.6 — 30.8	65	81.5	69.2 — 90.4			
AGYW is embarrassed to get male condoms									
No	33	17.6	11.9 — 24.6	161	82.4	75.4 — 88.1	0.4311	3.57	-5.30 — 12.45
Yes	21	14.0	8.1 — 21.9	132	86.0	78.1 — 91.9			
AGYW finds it difficult to get male condoms because it is expensive to get them									
No	47	15.2	10.9 — 20.4	280	84.8	79.6 — 89.1	0.1386	-19.71	-44.63 — 5.22
Yes	7	34.9	12.6 — 63.5	13	65.1	36.5 — 87.4			
AGYW finds it difficult to get male condoms because the place where she can get them is not open when she has time to go									
No	48	16.1	11.7 — 21.5	280	83.9	78.5 — 88.3	0.7632	-2.57	-19.56 — 14.42
Yes	6	18.7	5.4 — 40.9	13	81.3	59.1 — 94.6			
AGYW has to travel far to get male condoms									
No	39	15.0	10.4 — 20.7	251	85.0	79.3 — 89.6	0.3459	-5.84	-18.03 — 6.35
Yes	15	20.9	10.8 — 34.5	42	79.1	65.5 — 89.2			
AGYW is worried someone will see her getting male condoms									
No	37	18.0	12.5 — 24.7	176	82.0	75.3 — 87.5	0.2405	5.37	-3.56 — 14.29
Yes	17	12.6	6.6 — 21.1	117	87.4	78.9 — 93.4			
AGYW finds it difficult to get male condoms for other reasons									
No	46	13.8	9.8 — 18.7	278	86.2	81.3 — 90.2	0.0296	-34.52	-59.73 — -9.31
Yes	8	48.4	23.0 — 74.4	15	51.6	25.6 — 77.0			
AGYW was sometimes or often unable to get male condoms because of COVID-19 or the lockdown. (n = 344)									

Table 27: Factors associated with access to male condoms, among AGYW who were sexually active in the previous 12 months, did not self-identify as an HIV positive person, and who answered the question about access (n = 347).

	Access to Male Condoms								
	Difficult access or unsure			Easy access					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
No	18	10.4	5.8 — 16.8	168	89.6	83.2 — 94.2	0.0213	-8.69	-20.08 — 2.70
Yes	14	19.1	9.9 — 31.6	61	80.9	68.4 — 90.1		-16.10	-28.10 — -4.09
No need	22	26.5	16.2 — 39.0	61	73.5	61.0 — 83.8			
In the past month, someone from an organisation involved in this research has provided the AGYW with condoms or linked her to people who could provide them.									
No	49	17.3	12.5 — 23.1	238	82.7	76.9 — 87.5	0.1948	7.10	-3.53 — 17.72
Yes	5	10.2	2.9 — 23.9	55	89.8	76.1 — 97.1			

CI, Confidence Interval

Note on risk difference: The first category is the reference category ("unexposed group"). The first risk difference compares the second group to the first. The second risk difference compares the third group to the first.

Table 28: Factors associated with effective use of male condoms, among AGYW who were sexually active in the previous 12 months, did not self-identify as an HIV positive person, and who answered the questions about effective use (n = 348).

	Effective Use of Male Condoms								
	Did not use condoms 90% of the time			Used condoms at least 90% of the time with last 2 partners					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Age group									
15-19	105	75.7	66.1 — 83.7	33	24.3	16.3 — 33.9	0.5129	-3.50	-13.96 — 6.96
20-24	169	79.2	72.1 — 85.1	41	20.8	14.9 — 27.9			
Relative socio-economic status									
Relatively low socio-economic group	89	79.6	69.7 — 87.4	21	20.4	12.6 — 30.3	0.5772	3.01	-7.56 — 13.58
Relatively high socio-economic group	185	76.6	69.4 — 82.8	53	23.4	17.2 — 30.6			
AGYW forgot to use condoms									
No	240	76.1	69.9 — 81.5	69	23.9	18.5 — 30.1	0.0907	-11.39	-23.98 — 1.21
Yes	34	87.5	71.3 — 96.4	5	12.5	3.6 — 28.7			
AGYW did not have condoms									
No	213	74.2	67.5 — 80.1	66	25.8	19.9 — 32.5	0.0005	-17.31	-26.11 — -8.51
Yes	61	91.5	82.6 — 96.7	8	8.5	3.3 — 17.4			
The place where AGYW gets her condoms is far away									
No	254	76.9	70.9 — 82.1	70	23.1	17.9 — 29.1	0.3215	-8.77	-25.57 — 8.04
Yes	20	85.6	61.8 — 97.3	4	14.4	2.7 — 38.2			
The place where AGYW gets her condoms was not open when she had free time									
No	267	77.3	71.5 — 82.3	73	22.7	17.7 — 28.5	0.0908	-19.11	-28.37 — -9.85
Yes	7	96.4	79.1 — 100.0	1	3.6	0.0 — 20.9			
AGYW reported that the negative attitudes of health workers who give her condoms is a barrier									
No	261	76.8	70.9 — 82.0	72	23.2	18.0 — 29.1	0.0546	-16.53	-28.74 — -4.32
Yes	13	93.3	72.6 — 99.6	2	6.7	0.4 — 27.4			
AGYW was worried about what her partner would think if she asked to use condoms									
No	264	77.0	71.3 — 82.1	73	23.0	17.9 — 28.7	0.0240	-20.74	-27.73 — -13.75
Yes	10	97.8	87.1 — 100.0	1	2.2	0.0 — 12.9			
AGYW's sexual partner does not want her to use condoms									
No	237	75.6	69.4 — 81.1	71	24.4	18.9 — 30.6	0.0048	-16.67	-26.89 — -6.44
Yes	37	92.3	78.8 — 98.4	3	7.7	1.6 — 21.2			

Table 28: Factors associated with effective use of male condoms, among AGYW who were sexually active in the previous 12 months, did not self-identify as an HIV positive person, and who answered the questions about effective use (n = 348).

	Effective Use of Male Condoms								
	Did not use condoms 90% of the time			Used condoms at least 90% of the time with last 2 partners					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
AGYW has one faithful partner who she trusts									
No	174	69.3	62.0 — 75.9	71	30.7	24.1 — 38.0	0.0000	-28.54	-35.82 — -21.26
Yes	100	97.8	92.9 — 99.7	3	2.2	0.3 — 7.1			
AGYW does not like using condoms									
No	231	74.6	68.3 — 80.3	72	25.4	19.7 — 31.7	0.0001	-21.36	-29.38 — -13.34
Yes	43	96.0	85.9 — 99.6	2	4.0	0.4 — 14.1			
AGYW reported that there was a stock-out and they did not have condoms for her									
No	265	77.0	71.2 — 82.1	74	23.0	17.9 — 28.8	0.0164	-23.01	-28.25 — -17.77
Yes	9	100.0	NaN — NaN						
AGYW did not think she was at risk of getting HIV									
No	262	76.8	70.9 — 81.9	73	23.2	18.1 — 29.1	0.0434	-17.54	-29.82 — -5.25
Yes	12	94.3	71.4 — 99.9	1	5.7	0.1 — 28.6			
AGYW did not use condoms 100% of the time when she had sex because of other reasons									
No	243	75.8	69.6 — 81.2	70	24.2	18.8 — 30.4	0.0091	-15.72	-25.71 — -5.74
Yes	31	91.5	79.1 — 97.8	4	8.5	2.2 — 20.9			
AGYW does not know why she did not use condoms 100% of the time when she had sex									
No	241	76.5	70.5 — 81.9	69	23.5	18.1 — 29.5	0.1691	-10.23	-24.31 — 3.85
Yes	33	86.7	67.8 — 96.7	5	13.3	3.3 — 32.2			

CI, Confidence Interval

Note on risk difference: The first category is the reference category (“unexposed group”). The first risk difference compares the second group to the first. The second risk difference compares the third group to the first.

Coverage of HIV care interventions and services

The questions to assess the coverage of HIV treatment and care were limited to participants who reported they were living with HIV. Of all the participants in the AGYW survey, 15 (2.9%) reported that they were living with HIV. Participants who reported that they were living were HIV were statistically significantly more likely to report they had ever had sex compared with those who reported they were HIV negative or did not know their status (80.0% versus 75.6%). Participants living with HIV were statistically significantly more likely to report that they were maternal orphans (33.3% versus 19.3%). There were no statistically significant differences by self-reported HIV status in age group, enrolment in an educational institution or ever having been pregnant.

Among the HIV positive AGYW, 83.7% said they ever received education or counselling about taking ARVs/ART, all of them (100%) had ever taken ARVs/ART, most (96.0%) had started taking ARVs within three months of being diagnosed, and 100% were taking them at the time of the survey. Almost all (96.0%) reported they had a viral load test within the year before the survey. Only 6.3% of the 15 HIV positive participants could remember their viral load at last test, and they reported the measures to be 586, 1300 and 5000 respectively). When asked whether, at their last viral load test, their viral load had been detectable, 34.9% reported it was detectable, 26.6% reported that it was undetectable, 37.4% said they had not been told and 1.1% could not remember. When asked whether, at their last viral load test, their viral load was suppressed, 9.2% reported that it had been suppressed, 33.8% reported unsuppressed, 50.9% reported that they had not been told, and 6.2% reported that they did not know.

Regarding access to ART during COVID-19 lockdown, all participants living with HIV (100%) reported they had had no problems getting their ARVs during COVID-19 lockdown, while 16.5% reported to have missed one or more appointments for collection ARVs because of COVID-19 or the lockdown.

Regarding quality of the HIV care services at their last health service appointment, (38.0%) reported a reasonably short waiting time. The majority (58.6%) said that the healthcare worker had asked them about their main concerns about ARVs and their health. Regarding side effects, 41.9% reported that the healthcare worker talked with them about the side effects of ARVs. Regarding adherence, half (50.1%) said the health worker had asked them about missing or skipping the ARV pills. Most (67.6%) reported that the health worker had spoken about their treatment in a non-judgmental way. All participants living with HIV (100%) said the health worker who gave them ARVs had treated them in a friendly manner, 89.2% said the health worker was respectful of their needs, and 67.6% said all other clinic staff also treated them in a friendly and respectful way. The majority of the participants living with HIV (63.0%) reported

that the health worker had explained how viral load affects the risk of passing HIV to sexual partners during sex, 25.1% said the health worker had asked whether they wished to become pregnant, and 34.4% reported that the health worker had asked they were using contraception.

With regards to self-reported adherence, 61.6% of the participants living with HIV said in the month before the survey they took their ARVs 90-100% of the time, 72.4% said they always or almost always took their ARV pills in the way they are supposed to, and 57.2% said they did a very good or excellent job of taking their ARV pills in the way they are supposed to. However, one in five (24.7%) said they missed taking their ARV pills because of COVID-19 or the lockdown.

Only 12 of the 15 participants living with HIV reported that they had ever had sex. Among those who had ever had sex, 50.4% reported that they had used a condom 90-100% of the times when they had sex with their last male partner.

Coverage of pregnancy prevention interventions and services

Among participants who reported that they had ever had sex, injectable contraceptives (32.9%) and male condoms (24.9%) were the most commonly reported contraceptive methods used at last sex (Table 29). AGYW in the younger age group were statistically significantly more likely to report using male condoms (37.4%), compared with those in the older age group (11.8%).

To assess the coverage of pregnancy prevention interventions and services, all participants were asked questions about their motivation to use contraceptives and about barriers to motivation, and the results are presented in Table 30. Of all the participants in the AGYW survey, 373 (72.6%) said they would want to use contraceptives the next time they had sex, ranging across districts from 66.7% (Bojanala) to 85.6% (Thabo Mofotsanyana). Statistically significantly more AGYW in the 20 to 24 year group (82.0%; 95% CI: 75.8 – 87.1) said they would want to use contraceptives the next time they had sex compared to the 15 to 19 year old group (66.5%; 95% CI: 59.5 – 73.0). When AGYW were asked if they would want to use contraceptives, most (62.7%) reported they would "definitely or probably" want to use them, with a statistically significant difference between participants in the 20 to 24 year old age group, (77.4%; 95% CI: 70.9 – 83.0) compared to the 15 to 19 year old age group (54.0%; 95% CI: 46.7 – 61.1). The proportion who would "definitely or probably" want to use contraception varied across by district ranging from 59.3% (Ehlanzeni) to 86.7% (Thabo Mofotsanyana). The majority of the AGYW (68.9%) reported that they planned to use contraceptives the next time they had sex, with statistically significantly more AGYW in the 20 to 24 year old age group (77.7%; 95% CI: 70.6 – 83.8) than those in the 15 to 19 year old age group (62.9%; 95% CI: 55.8 – 69.6) planning to use contraceptives the next time they had sex, and ranging across districts from 65.1% (King Cetshwayo) to 86.2% (Klipfontein) (Table 30). Beliefs about safety of the different contraceptive methods were assessed as these beliefs influence motivation to use contraceptives. More than half (58.1%) of the AGYW believed it was safe for young women to use the injection, the implant (22.1%), and the pill (48.0%).

Barriers to motivation to use contraceptives, such as negative attitudes and misconceptions about specific contraceptive methods, are also described in Table 30. Overall, the majority (65.4%) of the AGYW believed that the injection makes the body change in unpleasant ways, while only 27.2% believed so about the pill. Over a third (37.9%) believed that the implant causes irregular bleeding, and 36.7% believed the implant makes it difficult to fall pregnant when it is removed (Table 30).

Table 31 reports on access to contraceptives and barriers to access. Most AGYW (89.6%) reported that they knew a place where someone like them could easily get contraceptives if/when they wanted to use

them, and there was no statistically significant difference between age groups. Most participants (72.5%) reported that it would be easy or very easy for them to get contraceptives if they wanted them, with statistically significantly more AGYW in the 20 to 24 year age group (84.1%; 95% CI: 76.9 – 89.8) reporting ease of access compared with the 15 to 19 year group (65.5%; 95% CI: 58.4 – 72.1%), and ranging across districts from 60.2% (Ehlanzeni) to 87.9% (Klipfontein).

Barriers to access, however, were reported by the participants with 44.4% of AGYW reporting that they had never been offered contraceptives (Table 31). Across the age groups, there was a statistically significant difference with more AGYW in the 15 to 19 year group (55.2%; 95% CI: 47.9 – 62.4) than those in the 20 to 24 year old age group (25.7%; 95% CI: 19.2 – 33.1 reporting that they had never been offered contraceptives. The district proportions ranged from 13.8% (Klipfontein) to 50.4% (Bojanala) who had never been offered contraceptives. When AGYW were asked about concerns regarding lack of privacy or confidentiality at the family planning service provider, a small proportion (22.8%) indicated they would be worried about this, with 26.0% of AGYW in the 15 to 19 year old group and 14.7% in the 20 to 24 year group reporting concerns. The reporting of confidentiality concerns ranged across districts from 12.1% (Klipfontein) to 30.6% (Ehlanzeni). Many participants (33.0%) reported that they would experience embarrassment getting contraceptives, with a statistically significantly higher proportion of the AGYW in the 15 to 19 year age group (42.4%; 95% CI: 35.5 – 49.5) compared to the 20 to 24 year old group (20.7%; 95% CI: 15.3 – 27.0). The proportions who reported they would be embarrassed ranged across the districts from 17.2% (Klipfontein) to 58.9% (Thabo Mofotsanyana) (Table 31). About a third of the AGYW (32.4%) believed that the negative attitudes of health workers at the family planning services would make it difficult for the them to get contraceptives, ranging across the districts from 20.6% (King Cetshwayo) to 52.2% (Thabo Mofotsanyana). There was no statistical significance between the two age groups in regarding health worker negative attitudes as a barrier (Table 31). Other barriers to contraceptive access reported by the participants were concerns about being seen at the service (22.0%), the belief that it was far to go to the service provider (17.3%), the belief that it would cost too much to get contraceptives (8.5%), the belief that the opening hours of the service would not suit them (6.1%) and the belief that their partner would not want them to get contraceptives (6.0%).

Among all AGYW in the study, 300 (58.3%) reported they had ever used contraceptives. Of the 300 AGYW who ever used contraceptives, 188 (62.7%) reported they were currently using contraceptives at the time of the survey. Table 32 presents reasons for not using contraceptives all the time among AGYW who reported using contraceptives at the time of the survey. The most frequently reported reasons were that

had been unable to get contraceptives because of COVID-19 or the lockdown (34.0%), they didn't like the side effects of contraceptives (18.3%), they had forgotten to take them (12.4%), negative attitudes of healthcare workers who provided the contraceptives (11.6%), they had run out of pills/injection (9.7%), the place they got their contraceptives was far away (8.0%), and they wanted to get pregnant (6.7%).

Table 33 presents participants reports on the quality of care they had received at the family planning services the last time they had attended these services. We only asked these questions to participants who had ever used contraceptives. A little over a third (36.9%) of AGYW who had ever used contraceptives reported that the waiting time was too long (35.8% in the 15 to 19 year age group and 37.3% in the 20 to 24 year age group). The districts proportions for reporting that the waiting time was too long ranged from 23.1% (Bojanala) to 48.9% (Ehlanzeni). Almost half (48.1%) of the AGYW who ever used contraceptives reported that the healthcare worker did not check whether they were satisfied with the family planning method they were using (42.1% in the 15 to 19 year age group and 49.3% in the 20 to 24 year age group. Nearly half (44.2%) of the AGYW were not told about the different family planning methods available to them (39.9 in the 15 to 19 year age group and 46.0% in the 20 to 24 year age group). Interestingly, 14.1% of AGYW who ever used contraceptives reported they did not receive the family planning method of their choice (19.8% in the 15 to 19 year age group and 8.4% in the 20 to 24 year age group). About 1 in 10 AGYW (10.3%) felt that the healthcare worker did not treat them in a friendly manner (9.8% in the 15 to 19 year age group and 10.2% in the 20 to 24 year age group. With regards to other clinic staff members, 22.8% of the AGYW reported that not all other clinic workers treated them in a friendly and respectful way (25.3% in the 15 to 19 year age group and 18.1% in the 20 to 24 year age group).

We investigated whether there was an association between reporting having received the family planning method of choice and the method the AGYW reported using at last sex (Tables 34). There were 12 more AGYW per 100 who felt they had received the family planning method of their choice among those using injectable contraceptives, compared with those not using injectable contraceptives (95% CI: 2.67 — 21.86). There were 17 fewer AGYW per 100 who felt they had received the family planning method of their choice among those using male condoms, compared with those not using male condoms (95% CI: -33.16 — -0.36). We considered female condoms, IUD, diaphragms, male and female sterilization for this analysis, but fewer than 5 participants had used any particular one of these methods, so we did look for their association with the reporting they had received the contraceptive method of their choice.

We also investigated whether there was as association between feeling pushed by the health worker towards a specific family planning method, and the method the AGYW reported using at last sex (Table

35). There were 11 fewer AGYW per 100 who felt pushed towards a specific method among those using injectable contraceptives, compared with those not using injectable contraceptives (95% CI: -21.67 —-1.13). There were no associations between feeling pushed and other contraceptive methods used at last sex. As mentioned above, fewer than 5 participants had used any one of female condoms, IUD, diaphragms, male and female sterilization so they were not included in this analysis.

Table 29: Among those who reported that they had ever had sex, these were the contraceptive methods used at last sex (n = 389)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Injection															
Total	25/52	48.1	20/51	39.2	29/89	32.6	16/74	21.6	24/52	46.2	26/71	36.6	125.3/380.6	32.9	27.7 — 38.5
Age															
15-19	8/13	61.5	10/21	47.6	5/29	17.2	6/48	12.5	9/19	47.4	7/26	26.9	47.1/162.7	29.0	20.7 — 38.3
20-24	17/39	43.6	10/30	33.3	24/60	40.0	10/26	38.5	15/33	45.5	19/45	42.2	91.8/232	39.6	31.7 — 47.8
Pill															
Total	2/52	3.8	1/51	2.0	8/89	9.0	5/74	6.8	5/52	9.6	6/71	8.5	24.9/380.6	6.5	4.0 — 10.0
Age															
15-19	0/13	0.0	0/21	0.0	2/29	6.9	1/48	2.1	3/19	15.8	3/26	11.5	6/162.7	3.7	1.4 — 7.7
20-24	2/39	5.1	1/30	3.3	6/60	10.0	4/26	15.4	2/33	6.1	3/45	6.7	22.4/232	9.6	5.1 — 16.3
Implant															
Total	4/52	7.7	3/51	5.9	7/89	7.9	2/74	2.7	2/52	3.8	4/71	5.6	19.3/380.7	5.1	3.0 — 8.0
Age															
15-19	2/13	15.4	1/21	4.8	0/29	0.0	1/48	2.1	0/19	0.0	2/26	7.7	7.3/162.7	4.5	1.2 — 11.2
20-24	2/39	5.1	2/30	6.7	7/60	11.7	1/26	3.8	2/33	6.1	2/45	4.4	15.9/232.1	6.8	3.6 — 11.7
Male condom															
Total	9/52	17.3	1/51	2.0	14/89	15.7	31/74	41.9	11/52	21.2	3/71	4.2	94.7/380.6	24.9	19.6 — 30.8
Age															
15-19	3/13	23.1	0/21	0.0	7/29	24.1	27/48	56.2	7/19	36.8	2/26	7.7	60.8/162.7	37.4	28.4 — 47.0
20-24	6/39	15.4	1/30	3.3	7/60	11.7	4/26	15.4	4/33	12.1	1/45	2.2	27.3/232	11.8	6.9 — 18.4
Female condom															
Total	1/52	1.9	0/51	0.0	0/89	0.0	4/74	5.4	0/52	0.0	1/71	1.4	9.5/380.6	2.5	0.8 — 5.7
Age															
15-19	1/13	7.7	0/21	0.0	0/29	0.0	4/48	8.3	0/19	0.0	1/26	3.8	8.9/162.7	5.5	1.8 — 12.2
20-24	0/39	0.0	0/30	0.0	0/60	0.0	0/26	0.0	0/33	0.0	0/45	0.0	0/232	0.0	NaN — NaN
IUD															
Total	0/52	0.0	0/51	0.0	1/89	1.1	0/74	0.0	0/52	0.0	2/71	2.8	1.2/380.6	0.3	0.0 — 1.2
Age															
15-19	0/13	0.0	0/21	0.0	0/29	0.0	0/48	0.0	0/19	0.0	0/26	0.0	0/162.7	0.0	NaN — NaN
20-24	0/39	0.0	0/30	0.0	1/60	1.7	0/26	0.0	0/33	0.0	2/45	4.4	1.4/232	0.6	0.1 — 2.5

Table 29: Among those who reported that they had ever had sex, these were the contraceptive methods used at last sex (n = 389)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Diaphragm															
Total	0/52	0.0	0/51	0.0	0/89	0.0	0/74	0.0	0/52	0.0	0/71	0.0	0/380.6	0.0	NaN — NaN
Age															
15-19	0/13	0.0	0/21	0.0	0/29	0.0	0/48	0.0	0/19	0.0	0/26	0.0	0/162.7	0.0	NaN — NaN
20-24	0/39	0.0	0/30	0.0	0/60	0.0	0/26	0.0	0/33	0.0	0/45	0.0	0/232	0.0	NaN — NaN
Female sterilization															
Total	0/52	0.0	0/51	0.0	0/89	0.0	0/74	0.0	0/52	0.0	0/71	0.0	0/380.6	0.0	NaN — NaN
Age															
15-19	0/13	0.0	0/21	0.0	0/29	0.0	0/48	0.0	0/19	0.0	0/26	0.0	0/162.7	0.0	NaN — NaN
20-24	0/39	0.0	0/30	0.0	0/60	0.0	0/26	0.0	0/33	0.0	0/45	0.0	0/232	0.0	NaN — NaN
Male sterilization															
Total	0/52	0.0	1/51	2.0	0/89	0.0	0/74	0.0	0/52	0.0	0/71	0.0	0.9/380.7	0.2	0.0 — 1.3
Age															
15-19	0/13	0.0	1/21	4.8	0/29	0.0	0/48	0.0	0/19	0.0	0/26	0.0	0.7/162.7	0.4	0.0 — 2.5
20-24	0/39	0.0	0/30	0.0	0/60	0.0	0/26	0.0	0/33	0.0	0/45	0.0	0/232	0.0	NaN — NaN

Table 30: Motivation to use contraceptives and barriers to motivation among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of pregnancy (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
AGYW would want contraceptives the next time she has sex															
Total	49/58	84.5	42/63	66.7	87/126	69.0	76/108	70.4	53/70	75.7	77/90	85.6	373.8/515.1	72.6	67.7 — 77.0
Age															
15-19	12/15	80.0	22/33	66.7	36/58	62.1	50/80	62.5	25/35	71.4	33/43	76.7	175.5/264	66.5	59.5 — 73.0
20-24	37/43	86.0	20/30	66.7	51/68	75.0	26/28	92.9	28/35	80.0	44/47	93.6	205.7/250.9	82.0	75.8 — 87.1
AGYW would definitely or probably want to use contraceptives															
Total	41/58	70.7	42/63	66.7	75/126	59.5	64/108	59.3	43/70	61.4	78/90	86.7	323.1/515.3	62.7	57.6 — 67.6
Age															
15-19	10/15	66.7	22/33	66.7	27/58	46.6	38/80	47.5	21/35	60.0	34/43	79.1	142.4/264	54.0	46.7 — 61.1
20-24	31/43	72.1	20/30	66.7	48/68	70.6	26/28	92.9	22/35	62.9	44/47	93.6	194.1/250.9	77.4	70.9 — 83.0
AGYW does not have plans to fall pregnant now or in a few years															
Total	55/58	94.8	61/63	96.8	123/126	97.6	103/108	95.4	66/70	94.3	85/90	94.4	493.4/515.3	95.8	93.2 — 97.6
Age															
15-19	15/15	100.0	31/33	93.9	56/58	96.6	78/80	97.5	34/35	97.1	43/43	100.0	257.1/264	97.4	94.4 — 99.0
20-24	40/43	93.0	30/30	100.0	67/68	98.5	25/28	89.3	32/35	91.4	42/47	89.4	236.2/250.9	94.1	88.6 — 97.5
AGYW plans to use contraceptives the next time she has sex															
Total	50/58	86.2	42/63	66.7	82/126	65.1	69/108	63.9	51/70	72.9	77/90	85.6	355/515.2	68.9	63.9 — 73.6
Age															
15-19	12/15	80.0	24/33	72.7	31/58	53.4	46/80	57.5	24/35	68.6	32/43	74.4	166/264	62.9	55.8 — 69.6
20-24	38/43	88.4	18/30	60.0	51/68	75.0	23/28	82.1	27/35	77.1	45/47	95.7	195/250.9	77.7	70.6 — 83.8
AGYW believes it is safe for young women to use the injection															
Total	49/58	84.5	40/63	63.5	57/126	45.2	55/108	50.9	50/70	71.4	64/90	71.1	299.5/515.2	58.1	52.9 — 63.2
Age															
15-19	11/15	73.3	17/33	51.5	22/58	37.9	37/80	46.2	24/35	68.6	33/43	76.7	138/264.1	52.3	45.0 — 59.4
20-24	38/43	88.4	23/30	76.7	35/68	51.5	18/28	64.3	26/35	74.3	31/47	66.0	166/250.8	66.2	58.2 — 73.5
AGYW believes the injection is a good method to prevent pregnancy among young women															
Total	51/58	87.9	46/63	73.0	73/126	57.9	70/108	64.8	60/70	85.7	68/90	75.6	359.2/515.3	69.7	64.7 — 74.4
Age															

Table 30: Motivation to use contraceptives and barriers to motivation among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of pregnancy (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
15-19	13/15	86.7	23/33	69.7	29/58	50.0	51/80	63.7	30/35	85.7	32/43	74.4	178.7/264	67.7	60.8 — 74.1
20-24	38/43	88.4	23/30	76.7	44/68	64.7	19/28	67.9	30/35	85.7	36/47	76.6	182.3/250.9	72.6	64.9 — 79.5
AGYW believes it is safe for young women to use the implant															
Total	15/58	25.9	12/63	19.0	31/126	24.6	20/108	18.5	19/70	27.1	29/90	32.2	113.8/515.1	22.1	18.1 — 26.5
Age															
15-19	3/15	20.0	5/33	15.2	10/58	17.2	13/80	16.2	10/35	28.6	12/43	27.9	48.7/264	18.5	13.4 — 24.5
20-24	12/43	27.9	7/30	23.3	21/68	30.9	7/28	25.0	9/35	25.7	17/47	36.2	68.5/251	27.3	20.7 — 34.7
AGYW believes the implant is a good method to prevent pregnancy among young women															
Total	27/58	46.6	23/63	36.5	58/126	46.0	43/108	39.8	36/70	51.4	41/90	45.6	221.3/515.1	43.0	37.9 — 48.1
Age															
15-19	7/15	46.7	12/33	36.4	23/58	39.7	31/80	38.8	19/35	54.3	23/43	53.5	110.4/264.1	41.8	34.8 — 49.0
20-24	20/43	46.5	11/30	36.7	35/68	51.5	12/28	42.9	17/35	48.6	18/47	38.3	113.8/250.9	45.4	37.6 — 53.3
AGYW believes the pill is a good method to prevent pregnancy among young women															
Total	35/58	60.3	28/63	44.4	51/126	40.5	53/108	49.1	41/70	58.6	51/90	56.7	255/515.1	49.5	44.3 — 54.7
Age															
15-19	11/15	73.3	13/33	39.4	21/58	36.2	35/80	43.8	28/35	80.0	26/43	60.5	132.7/264	50.3	43.1 — 57.4
20-24	24/43	55.8	15/30	50.0	30/68	44.1	18/28	64.3	13/35	37.1	25/47	53.2	131.5/251	52.4	44.5 — 60.2
AGYW believes it is safe for young women to use the pill															
Total	34/58	58.6	21/63	33.3	57/126	45.2	54/108	50.0	33/70	47.1	44/90	48.9	247.4/515.1	48.0	42.9 — 53.2
Age															
15-19	9/15	60.0	11/33	33.3	25/58	43.1	36/80	45.0	18/35	51.4	22/43	51.2	122.6/264	46.5	39.3 — 53.7
20-24	25/43	58.1	10/30	33.3	32/68	47.1	18/28	64.3	15/35	42.9	22/47	46.8	129.4/250.9	51.6	43.6 — 59.5
AGYW believes the injection makes the body change in unpleasant ways															
Total	34/58	58.6	41/63	65.1	77/126	61.1	73/108	67.6	53/70	75.7	54/90	60.0	337.2/515.3	65.4	60.4 — 70.2
Age															
15-19	8/15	53.3	20/33	60.6	36/58	62.1	53/80	66.2	25/35	71.4	24/43	55.8	167.8/264.1	63.6	56.4 — 70.3
20-24	26/43	60.5	21/30	70.0	41/68	60.3	20/28	71.4	28/35	80.0	30/47	63.8	168.7/250.9	67.2	59.5 — 74.3
AGYW believes the implant causes irregular bleeding															

Table 30: Motivation to use contraceptives and barriers to motivation among AGYW beneficiaries of the Global-Fund funded AGYW programme who were at risk of pregnancy (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Total	18/58	31.0	31/63	49.2	58/126	46.0	37/108	34.3	24/70	34.3	33/90	36.7	195.3/515.2	37.9	33.0 — 43.0
Age															
15-19	3/15	20.0	14/33	42.4	20/58	34.5	27/80	33.8	14/35	40.0	13/43	30.2	88.1/264	33.4	26.9 — 40.3
20-24	15/43	34.9	17/30	56.7	38/68	55.9	10/28	35.7	10/35	28.6	20/47	42.6	110.3/250.8	43.9	36.2 — 51.9
AGYW believes the implant makes it difficult to fall pregnant when it is removed															
Total	10/58	17.2	24/63	38.1	40/126	31.7	48/108	44.4	28/70	40.0	23/90	25.6	188.8/515.1	36.7	31.7 — 41.8
Age															
15-19	0/15	0.0	15/33	45.5	19/58	32.8	36/80	45.0	19/35	54.3	9/43	20.9	98.6/264	37.4	30.7 — 44.4
20-24	10/43	23.3	9/30	30.0	21/68	30.9	12/28	42.9	9/35	25.7	14/47	29.8	83.1/250.8	33.1	25.7 — 41.2
AGYW believes the pill makes the body change in unpleasant ways															
Total	17/58	29.3	19/63	30.2	37/126	29.4	27/108	25.0	20/70	28.6	18/90	20.0	140/515.1	27.2	22.8 — 31.9
Age															
15-19	4/15	26.7	11/33	33.3	18/58	31.0	22/80	27.5	14/35	40.0	9/43	20.9	77.9/263.9	29.5	23.3 — 36.4
20-24	13/43	30.2	8/30	26.7	19/68	27.9	5/28	17.9	6/35	17.1	9/47	19.1	58.9/250.8	23.5	17.4 — 30.5

Table 31: Access to contraceptives and barriers to access among AGYW beneficiaries of the Global-Fund funded AGYW programme (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
If/when AGYW wanted to use contraceptives, she knows a place where someone like her could easily get them															
Total	55/58	94.8	59/63	93.7	118/126	93.7	92/108	85.2	61/70	87.1	86/90	95.6	461.5/515.2	89.6	85.8 — 92.6
Age															
15-19	14/15	93.3	29/33	87.9	52/58	89.7	68/80	85.0	29/35	82.9	41/43	95.3	230.3/264.1	87.2	81.8 — 91.5
20-24	41/43	95.3	30/30	100.0	66/68	97.1	24/28	85.7	32/35	91.4	45/47	95.7	233.5/250.9	93.1	86.9 — 96.9
If AGYW wanted to use contraceptives, it would be easy or very easy for her to get them															
Total	51/58	87.9	54/63	85.7	96/126	76.2	65/108	60.2	58/70	82.9	69/90	76.7	373.7/515.2	72.5	67.5 — 77.2
Age															
15-19	13/15	86.7	26/33	78.8	37/58	63.8	44/80	55.0	27/35	77.1	31/43	72.1	173/264.1	65.5	58.4 — 72.1
20-24	38/43	88.4	28/30	93.3	59/68	86.8	21/28	75.0	31/35	88.6	38/47	80.9	211/250.9	84.1	76.9 — 89.8
AGYW has never been offered contraceptives															
Total	8/58	13.8	34/63	54.0	65/126	51.6	58/108	53.7	15/70	21.4	34/90	37.8	228.8/515.2	44.4	39.3 — 49.6
Age															
15-19	1/15	6.7	21/33	63.6	44/58	75.9	52/80	65.0	11/35	31.4	23/43	53.5	145.8/264	55.2	47.9 — 62.4
20-24	7/43	16.3	13/30	43.3	21/68	30.9	6/28	21.4	4/35	11.4	11/47	23.4	64.5/250.9	25.7	19.2 — 33.1
AGYW would worry about lack of privacy or confidentiality at family planning service provider															
Total	7/58	12.1	9/63	14.3	19/126	15.1	33/108	30.6	18/70	25.7	27/90	30.0	117.7/515.2	22.8	18.6 — 27.6
Age															
15-19	0/15	0.0	6/33	18.2	11/58	19.0	29/80	36.2	10/35	28.6	11/43	25.6	68.6/264	26.0	20.1 — 32.7
20-24	7/43	16.3	3/30	10.0	8/68	11.8	4/28	14.3	8/35	22.9	16/47	34.0	36.9/250.9	14.7	9.7 — 20.9
AGYW would feel embarrassed to get contraceptives															
Total	10/58	17.2	29/63	46.0	46/126	36.5	32/108	29.6	26/70	37.1	53/90	58.9	169.9/515.1	33.0	28.3 — 37.9
Age															
15-19	5/15	33.3	18/33	54.5	28/58	48.3	30/80	37.5	17/35	48.6	29/43	67.4	111.9/264	42.4	35.5 — 49.5
20-24	5/43	11.6	11/30	36.7	18/68	26.5	2/28	7.1	9/35	25.7	24/47	51.1	51.9/250.9	20.7	15.3 — 27.0
AGYW believes it would cost too much to get contraceptives															
Total	3/58	5.2	1/63	1.6	8/126	6.3	15/108	13.9	2/70	2.9	3/90	3.3	43.6/515.2	8.5	5.6 — 12.1
Age															
15-19	1/15	6.7	0/33	0.0	2/58	3.4	11/80	13.8	2/35	5.7	2/43	4.7	23.3/264	8.8	5.0 — 14.0

Table 31: Access to contraceptives and barriers to access among AGYW beneficiaries of the Global-Fund funded AGYW programme (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
20-24	2/43	4.7	1/30	3.3	6/68	8.8	4/28	14.3	0/35	0.0	1/47	2.1	20.6/250.9	8.2	4.1 — 14.5
AGYW believes the opening hours of the family planning clinic would not suit her															
Total	6/58	10.3	4/63	6.3	8/126	6.3	5/108	4.6	4/70	5.7	6/90	6.7	31.2/515.1	6.1	3.9 — 8.8
Age															
15-19	0/15	0.0	2/33	6.1	0/58	0.0	4/80	5.0	2/35	5.7	2/43	4.7	9.8/264	3.7	1.6 — 7.3
20-24	6/43	14.0	2/30	6.7	8/68	11.8	1/28	3.6	2/35	5.7	4/47	8.5	20.1/250.9	8.0	4.7 — 12.6
AGYW believes it is far to go to the family planning clinic/service															
Total	9/58	15.5	5/63	7.9	15/126	11.9	26/108	24.1	10/70	14.3	8/90	8.9	89/515.1	17.3	13.4 — 21.8
Age															
15-19	3/15	20.0	0/33	0.0	3/58	5.2	23/80	28.7	7/35	20.0	4/43	9.3	52/264	19.7	14.1 — 26.3
20-24	6/43	14.0	5/30	16.7	12/68	17.6	3/28	10.7	3/35	8.6	4/47	8.5	34.3/250.9	13.7	8.9 — 19.7
AGYW would worry about people seeing her getting contraceptives															
Total	8/58	13.8	19/63	30.2	31/126	24.6	20/108	18.5	19/70	27.1	35/90	38.9	113.2/515.1	22.0	18.0 — 26.4
Age															
15-19	4/15	26.7	11/33	33.3	19/58	32.8	18/80	22.5	13/35	37.1	19/43	44.2	73.7/264	27.9	21.9 — 34.6
20-24	4/43	9.3	8/30	26.7	12/68	17.6	2/28	7.1	6/35	17.1	16/47	34.0	37.8/250.9	15.1	10.3 — 20.9
AGYW believes that the negative attitudes of the health workers at the family planning clinic/service would make it difficult for her to get contraceptives															
Total	20/58	34.5	26/63	41.3	26/126	20.6	36/108	33.3	23/70	32.9	47/90	52.2	166.7/515.2	32.4	27.7 — 37.3
Age															
15-19	5/15	33.3	12/33	36.4	15/58	25.9	30/80	37.5	15/35	42.9	23/43	53.5	95.3/264	36.1	29.4 — 43.2
20-24	15/43	34.9	14/30	46.7	11/68	16.2	6/28	21.4	8/35	22.9	24/47	51.1	65.6/250.9	26.1	19.7 — 33.4
AGYW believes her partner would not want her to go get contraceptives															
Total	1/58	1.7	3/63	4.8	10/126	7.9	8/108	7.4	1/70	1.4	10/90	11.1	31.1/515.2	6.0	3.8 — 9.0
Age															
15-19	0/15	0.0	1/33	3.0	2/58	3.4	8/80	10.0	0/35	0.0	6/43	14.0	16.2/264	6.1	3.2 — 10.5
20-24	1/43	2.3	2/30	6.7	8/68	11.8	0/28	0.0	1/35	2.9	4/47	8.5	13.1/251	5.2	2.8 — 8.8

Among all participants, 300 reported they had ever used contraceptives. Of the participants who had ever used contraceptives, 188 were using contraceptives at the time of the survey.

Table 32: Reason for not using contraceptives all the time among AGYW beneficiaries of the Global-Fund funded AGYW programme who reported using contraceptives at the time of the survey (n = 188)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Forgot to take															
Total	5/32	15.6	2/25	8.0	8/43	18.6	2/17	11.8	1/30	3.3	4/41	9.8	19.6/158.6	12.4	7.4 — 19.0
Age															
15-19	1/8	12.5	1/12	8.3	4/8	50.0	1/9	11.1	0/14	0.0	1/15	6.7	7.7/61.1	12.6	4.6 — 26.0
20-24	4/24	16.7	1/13	7.7	4/35	11.4	1/8	12.5	1/16	6.2	3/26	11.5	12.4/108.3	11.4	5.4 — 20.5
Ran out of pills/injection															
Total	1/32	3.1	0/25	0.0	3/43	7.0	5/17	29.4	1/30	3.3	4/41	9.8	15.4/158.7	9.7	4.7 — 17.2
Age															
15-19	0/8	0.0	0/12	0.0	1/8	12.5	1/9	11.1	0/14	0.0	1/15	6.7	2.5/61.1	4.2	0.5 — 14.1
20-24	1/24	4.2	0/13	0.0	2/35	5.7	4/8	50.0	1/16	6.2	3/26	11.5	15.5/108.3	14.3	6.0 — 27.1
Place I get my contraceptives is far away															
Total	3/32	9.4	0/25	0.0	7/43	16.3	1/17	5.9	2/30	6.7	0/41	0.0	12.7/158.6	8.0	4.1 — 13.7
Age															
15-19	0/8	0.0	0/12	0.0	2/8	25.0	1/9	11.1	1/14	7.1	0/15	0.0	3.8/61.1	6.2	1.5 — 16.3
20-24	3/24	12.5	0/13	0.0	5/35	14.3	0/8	0.0	1/16	6.2	0/26	0.0	8.2/108.3	7.6	3.4 — 14.2
The place where I get my contraceptives is not open when I had free time															
Total	0/32	0.0	1/25	4.0	1/43	2.3	2/17	11.8	1/30	3.3	1/41	2.4	6.7/158.6	4.2	1.3 — 10.1
Age															
15-19	0/8	0.0	0/12	0.0	1/8	12.5	1/9	11.1	1/14	7.1	0/15	0.0	3.1/61.1	5.1	0.9 — 15.2
20-24	0/24	0.0	1/13	7.7	0/35	0.0	1/8	12.5	0/16	0.0	1/26	3.8	4.2/108.3	3.9	0.4 — 13.8
Because of the negative attitude of health workers who give me the contraceptives															
Total	5/32	15.6	1/25	4.0	4/43	9.3	3/17	17.6	2/30	6.7	5/41	12.2	18.4/158.6	11.6	6.6 — 18.5
Age															
15-19	0/8	0.0	1/12	8.3	0/8	0.0	1/9	11.1	1/14	7.1	1/15	6.7	3.3/61.1	5.4	1.1 — 15.3

Table 32: Reason for not using contraceptives all the time among AGYW beneficiaries of the Global-Fund funded AGYW programme who reported using contraceptives at the time of the survey (n = 188)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
20-24	5/24	20.8	0/13	0.0	4/35	11.4	2/8	25.0	1/16	6.2	4/26	15.4	15/108.3	13.8	6.7 — 24.3
I was worried someone would find out I was on family planning															
Total	2/32	6.2	1/25	4.0	1/43	2.3	1/17	5.9	2/30	6.7	4/41	9.8	8.3/158.7	5.2	2.2 — 10.3
Age															
15-19	0/8	0.0	1/12	8.3	0/8	0.0	1/9	11.1	0/14	0.0	2/15	13.3	2.8/61.1	4.5	0.7 — 14.2
20-24	2/24	8.3	0/13	0.0	1/35	2.9	0/8	0.0	2/16	12.5	2/26	7.7	4.2/108.3	3.9	1.4 — 8.6
My sexual partner does not want me to use contraceptives															
Total	2/32	6.2	0/25	0.0	3/43	7.0	0/17	0.0	2/30	6.7	2/41	4.9	6.6/158.6	4.2	1.8 — 8.2
Age															
15-19	1/8	12.5	0/12	0.0	0/8	0.0	0/9	0.0	1/14	7.1	0/15	0.0	3/61.1	5.0	0.4 — 19.0
20-24	1/24	4.2	0/13	0.0	3/35	8.6	0/8	0.0	1/16	6.2	2/26	7.7	5/108.3	4.6	1.6 — 10.2
My parents did not want me to take contraceptives															
Total	1/32	3.1	0/25	0.0	2/43	4.7	1/17	5.9	0/30	0.0	4/41	9.8	5.6/158.6	3.5	1.1 — 8.4
Age															
15-19	0/8	0.0	0/12	0.0	0/8	0.0	1/9	11.1	0/14	0.0	1/15	6.7	1.8/61.1	3.0	0.1 — 13.5
20-24	1/24	4.2	0/13	0.0	2/35	5.7	0/8	0.0	0/16	0.0	3/26	11.5	3.4/108.3	3.1	0.8 — 8.0
My friends did not approve of contraceptive use															
Total	1/32	3.1	0/25	0.0	1/43	2.3	0/17	0.0	0/30	0.0	2/41	4.9	2.3/158.6	1.5	0.3 — 4.5
Age															
15-19	0/8	0.0	0/12	0.0	0/8	0.0	0/9	0.0	0/14	0.0	1/15	6.7	0.2/61.1	0.4	0.0 — 2.0
20-24	1/24	4.2	0/13	0.0	1/35	2.9	0/8	0.0	0/16	0.0	1/26	3.8	2/108.3	1.8	0.3 — 6.0
I am not currently sexually active															
Total	0/32	0.0	1/25	4.0	2/43	4.7	0/17	0.0	1/30	3.3	2/41	4.9	3.7/158.7	2.3	0.7 — 5.4
Age															
15-19	0/8	0.0	0/12	0.0	1/8	12.5	0/9	0.0	0/14	0.0	1/15	6.7	0.9/61.1	1.5	0.1 — 6.4
20-24	0/24	0.0	1/13	7.7	1/35	2.9	0/8	0.0	1/16	6.2	1/26	3.8	3.1/108.3	2.9	0.6 — 8.0
I want to get pregnant															
Total	2/32	6.2	0/25	0.0	1/43	2.3	2/17	11.8	4/30	13.3	2/41	4.9	10.6/158.7	6.7	2.9 — 12.7

Table 32: Reason for not using contraceptives all the time among AGYW beneficiaries of the Global-Fund funded AGYW programme who reported using contraceptives at the time of the survey (n = 188)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Age															
15-19	1/8	12.5	0/12	0.0	0/8	0.0	1/9	11.1	0/14	0.0	0/15	0.0	3.9/61.1	6.3	0.7 — 21.4
20-24	1/24	4.2	0/13	0.0	1/35	2.9	1/8	12.5	4/16	25.0	2/26	7.7	7.8/108.3	7.2	2.4 — 15.8
I don't like the side effects of being on contraceptives															
Total	7/32	21.9	2/25	8.0	8/43	18.6	4/17	23.5	4/30	13.3	8/41	19.5	29/158.7	18.3	12.1 — 25.9
Age															
15-19	1/8	12.5	2/12	16.7	1/8	12.5	3/9	33.3	1/14	7.1	3/15	20.0	10.7/61.1	17.4	7.6 — 32.1
20-24	6/24	25.0	0/13	0.0	7/35	20.0	1/8	12.5	3/16	18.8	5/26	19.2	17.6/108.3	16.3	9.3 — 25.6
There was a stockout and they did not have contraceptives for me															
Total	1/32	3.1	0/25	0.0	2/43	4.7	0/17	0.0	1/30	3.3	4/41	9.8	4.3/158.6	2.7	0.9 — 6.0
Age															
15-19	0/8	0.0	0/12	0.0	0/8	0.0	0/9	0.0	1/14	7.1	0/15	0.0	0.8/61.1	1.3	0.0 — 6.9
20-24	1/24	4.2	0/13	0.0	2/35	5.7	0/8	0.0	0/16	0.0	4/26	15.4	3.6/108.3	3.3	1.0 — 8.1
I do not think I'm at risk of getting pregnant															
Total	6/32	18.8	0/25	0.0	0/43	0.0	0/17	0.0	1/30	3.3	2/41	4.9	7.9/158.7	5.0	2.1 — 9.7
Age															
15-19	3/8	37.5	0/12	0.0	0/8	0.0	0/9	0.0	0/14	0.0	0/15	0.0	6.8/61.1	11.2	2.5 — 29.0
20-24	3/24	12.5	0/13	0.0	0/35	0.0	0/8	0.0	1/16	6.2	2/26	7.7	3.2/108.3	2.9	0.9 — 6.8
I was unable to get contraceptives I needed because of COVID or the lockdown															
Total	14/32	43.8	3/25	12.0	12/43	27.9	8/17	47.1	10/30	33.3	9/41	22.0	53.9/158.6	34.0	26.0 — 42.7
Age															
15-19	3/8	37.5	1/12	8.3	4/8	50.0	5/9	55.6	7/14	50.0	3/15	20.0	24.5/61.2	40.0	25.4 — 56.1
20-24	11/24	45.8	2/13	15.4	8/35	22.9	3/8	37.5	3/16	18.8	6/26	23.1	30.4/108.4	28.1	18.4 — 39.5

Table 33: Reports of poor quality of family planning services among AGYW beneficiaries of the Global-Fund funded AGYW programme who had ever used contraceptives (n = 300)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Waiting time was too long															
Total	16/45	35.6	9/39	23.1	18/58	31.0	22/45	48.9	17/52	32.7	17/61	27.9	101.7/275.4	36.9	30.4 — 43.8
Age															
15-19	3/11	27.3	2/17	11.8	1/9	11.1	12/24	50.0	10/22	45.5	6/21	28.6	37.1/103.7	35.8	24.9 — 48.0
20-24	13/34	38.2	7/22	31.8	17/49	34.7	10/21	47.6	7/30	23.3	11/40	27.5	70.9/190.1	37.3	28.6 — 46.7
Health worker did not check AGYW's satisfaction about the family planning method															
Total	19/45	42.2	18/39	46.2	20/58	34.5	26/45	57.8	28/52	53.8	24/61	39.3	132.4/275.4	48.1	41.3 — 54.9
Age															
15-19	2/11	18.2	10/17	58.8	3/9	33.3	12/24	50.0	12/22	54.5	6/21	28.6	43.6/103.7	42.1	30.8 — 54.1
20-24	17/34	50.0	8/22	36.4	17/49	34.7	14/21	66.7	16/30	53.3	18/40	45.0	93.8/190.1	49.3	40.2 — 58.5
AGYW was not told about the different family planning methods available to her															
Total	12/45	26.7	23/39	59.0	19/58	32.8	23/45	51.1	26/52	50.0	31/61	50.8	121.9/275.5	44.2	37.5 — 51.1
Age															
15-19	2/11	18.2	10/17	58.8	2/9	22.2	12/24	50.0	10/22	45.5	6/21	28.6	41.4/103.7	39.9	28.8 — 51.9
20-24	10/34	29.4	13/22	59.1	17/49	34.7	11/21	52.4	16/30	53.3	25/40	62.5	87.4/190.1	46.0	37.0 — 55.2
Health worker did not ask AGYW which family planning method she would most like															
Total	13/45	28.9	14/39	35.9	12/58	20.7	23/45	51.1	22/52	42.3	17/61	27.9	103.6/275.5	37.6	31.0 — 44.5
Age															
15-19	1/11	9.1	6/17	35.3	3/9	33.3	17/24	70.8	11/22	50.0	6/21	28.6	45.7/103.7	44.1	32.5 — 56.1
20-24	12/34	35.3	8/22	36.4	9/49	18.4	6/21	28.6	11/30	36.7	11/40	27.5	54.1/190.2	28.5	20.8 — 37.2
AGYW was steered/pushed towards getting a specific method															
Total	2/45	4.4	9/39	23.1	7/58	12.1	10/45	22.2	8/52	15.4	17/61	27.9	45.7/275.6	16.6	11.8 — 22.3
Age															
15-19	1/11	9.1	4/17	23.5	0/9	0.0	6/24	25.0	3/22	13.6	7/21	33.3	18.6/103.7	17.9	10.1 — 28.4
20-24	1/34	2.9	5/22	22.7	7/49	14.3	4/21	19.0	5/30	16.7	10/40	25.0	30.7/190.2	16.2	10.0 — 24.1
AGYW did not receive the family planning method of her choice															
Total	2/45	4.4	5/39	12.8	2/58	3.4	10/45	22.2	12/52	23.1	6/61	9.8	38.9/275.6	14.1	9.5 — 19.8
Age															

Table 33: Reports of poor quality of family planning services among AGYW beneficiaries of the Global-Fund funded AGYW programme who had ever used contraceptives (n = 300)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
15-19	0/11	0.0	3/17	17.6	0/9	0.0	8/24	33.3	7/22	31.8	1/21	4.8	20.5/103.6	19.8	11.7 — 30.3
20-24	2/34	5.9	2/22	9.1	2/49	4.1	2/21	9.5	5/30	16.7	5/40	12.5	16/190.2	8.4	4.1 — 14.8
AGYW did not feel involved in the decision regarding her family planning															
Total	8/45	17.8	10/39	25.6	8/58	13.8	12/45	26.7	15/52	28.8	6/61	9.8	61.3/275.5	22.2	16.8 — 28.5
Age															
15-19	1/11	9.1	5/17	29.4	2/9	22.2	8/24	33.3	9/22	40.9	2/21	9.5	27.5/103.7	26.5	17.1 — 37.7
20-24	7/34	20.6	5/22	22.7	6/49	12.2	4/21	19.0	6/30	20.0	4/40	10.0	33.5/190.2	17.6	11.3 — 25.6
AGYW did not believe the information she shared would be kept confidential															
Total	3/45	6.7	2/39	5.1	3/58	5.2	4/45	8.9	6/52	11.5	1/61	1.6	20.5/275.5	7.4	4.2 — 11.9
Age															
15-19	0/11	0.0	1/17	5.9	0/9	0.0	3/24	12.5	3/22	13.6	0/21	0.0	7.8/103.6	7.5	2.8 — 15.7
20-24	3/34	8.8	1/22	4.5	3/49	6.1	1/21	4.8	3/30	10.0	1/40	2.5	11.6/190.2	6.1	2.7 — 11.5
Health worker who gave family planning did not treat AGYW in a friendly manner															
Total	2/45	4.4	4/39	10.3	5/58	8.6	7/45	15.6	5/52	9.6	2/61	3.3	28.3/275.5	10.3	6.4 — 15.5
Age															
15-19	0/11	0.0	2/17	11.8	0/9	0.0	4/24	16.7	3/22	13.6	0/21	0.0	10.1/103.6	9.8	4.2 — 18.5
20-24	2/34	5.9	2/22	9.1	5/49	10.2	3/21	14.3	2/30	6.7	2/40	5.0	19.4/190.2	10.2	5.2 — 17.6
Other clinic staff members (receptionist, cleaners, security guards) did not all treat AGYW in a friendly and respectful way															
Total	12/45	26.7	10/39	25.6	6/58	10.3	10/45	22.2	18/52	34.6	9/61	14.8	62.9/275.5	22.8	17.4 — 29.0
Age															
15-19	1/11	9.1	7/17	41.2	1/9	11.1	6/24	25.0	10/22	45.5	4/21	19.0	26.2/103.7	25.3	16.3 — 36.1
20-24	11/34	32.4	3/22	13.6	5/49	10.2	4/21	19.0	8/30	26.7	5/40	12.5	34.5/190.2	18.1	11.8 — 26.0

Table 34: Association between receiving the family planning method of choice and the family planning method used at last sex, among AGYW who had ever had sex (n = 275).

	Received the family planning method of her choice								
	No			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Injection									
No	21	19.2	11.5 — 29.1	119	80.8	70.9 — 88.5	0.0142	12.26	2.67 — 21.86
Yes	11	6.9	3.0 — 13.3	124	93.1	86.7 — 97.0			
Pill									
No	30	13.3	8.5 — 19.5	221	86.7	80.5 — 91.5	0.9187	0.95	-17.29 — 19.19
Yes	2	12.4	1.1 — 41.0	22	87.6	59.0 — 98.9			
Implant									
No	31	14.0	9.0 — 20.3	222	86.0	79.7 — 91.0	0.0838	9.68	-0.22 — 19.58
Yes	1	4.3	0.1 — 22.0	21	95.7	78.0 — 99.9			
Male condom									
No	23	9.9	5.7 — 15.6	211	90.1	84.4 — 94.3	0.0579	-16.76	-33.16 — -0.36
Yes	9	26.6	12.3 — 45.7	32	73.4	54.3 — 87.7			

CI, Confidence Interval

Table 35: Association between being pushed towards a specific family planning method and the family planning method used at last sex, among AGYW who had ever had sex (n = 278).

	Was pushed towards getting a specific method								
	No			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Injection									
No	113	78.0	68.2 — 86.0	28	22.0	14.0 — 31.8	0.0320	-11.40	-21.67 — -1.13
Yes	119	89.4	82.0 — 94.6	18	10.6	5.4 — 18.0			
Pill									
No	211	84.0	77.8 — 89.1	43	16.0	10.9 — 22.2	0.6486	5.43	-17.40 — 28.25
Yes	21	78.6	48.1 — 95.7	3	21.4	4.3 — 51.9			
Implant									
No	212	83.4	77.1 — 88.6	44	16.6	11.4 — 22.9	0.8715	-1.71	-22.54 — 19.12
Yes	20	85.1	53.7 — 98.4	2	14.9	1.6 — 46.3			
Male condom									
No	199	86.4	80.4 — 91.1	37	13.6	8.9 — 19.6	0.1175	13.89	-2.75 — 30.52
Yes	33	72.5	53.4 — 87.0	9	27.5	13.0 — 46.6			

CI, Confidence Interval

Pregnancy prevention cascades

Overall pregnancy prevention cascade

Among the AGYW who had had sex in the past 12 months (n= 360), 72.3% reported they "definitely or probably" wanted to use contraceptives, 80.0% said it was easy or very easy to access contraceptives, while 65.5% had used a contraceptive method in the past 6 months (Figure 17). Only 28.1% of the participants who had had sex in the past 12 months reported that they had used a contraceptive method 90-100% of the time in the past 6 months.

Pregnancy prevention cascade stratified by age

Significantly more of the AGYW in the older age group reported effective use of a contraceptive method compared with those in the younger age group. Among the 15 to 19 year old AGYW, 64.5% "definitely or probably" want to use contraceptives, 75.9% said it is easy or very easy to access contraceptives, 61.9% said they used a contraceptive method in the past 6 months, and only 18.9% said they had used a contraceptive method 90-100% of the time in the past 6 months (Figure 18). Among the AGYW in the 20 to 24 year old age group, 80.5% said they would "definitely or probably" use contraceptives, 84.4% said it is easy or very easy to access them, 70.9% used a contraceptive method in the past 6 months, and 36.5% used a contraceptive method 90-100% of the time in the past 6 months.

Pregnancy prevention cascade stratified by socio-economic status

Figure 19 compares the pregnancy prevention cascades of participants in the lower SES group with those in the higher SES group. There were no noteworthy differences in coverage between these groups.

Pregnancy prevention cascade stratified by number of male sex partners in the past six months

Figure 20 compares the pregnancy prevention cascades of participants who reported they had had more than one male sexual partner in the past six months, versus those who had not. There were no noteworthy differences between those who reported they had had more than one male sex partner and those who had not.

Pregnancy prevention cascade stratified by having had transactional sex in the past six months

Figure 21 compares the pregnancy prevention cascades of participants who reported they had had transactional sex in the past six months, versus those who had not. There were no noteworthy differences in the cascades by whether the participant reported transactional sex.

Pregnancy prevention cascade stratified by whether reported an age disparate sexual relationship in the past six months

Figure 22 compares the pregnancy prevention cascades of participants who reported that the last boy or man they had sex within the past six months was five or more years older than her, versus those who did not report an age disparate sexual relationship. There were no noteworthy in the cascades.

Pregnancy prevention cascade stratified by fear of sexual partner

Figure 23 describes pregnancy prevention cascade stratified by whether the participant reported she had been afraid of her sexual partner in the past six months, or not. There were no noteworthy differences in the cascades by fear of sexual partner.

Pregnancy prevention cascade stratified by alcohol use

Figure 24 describes pregnancy prevention cascade stratified by whether the participant had six or more alcoholic drinks on one occasion every month or not. There were no noteworthy differences in the cascades by alcohol use.

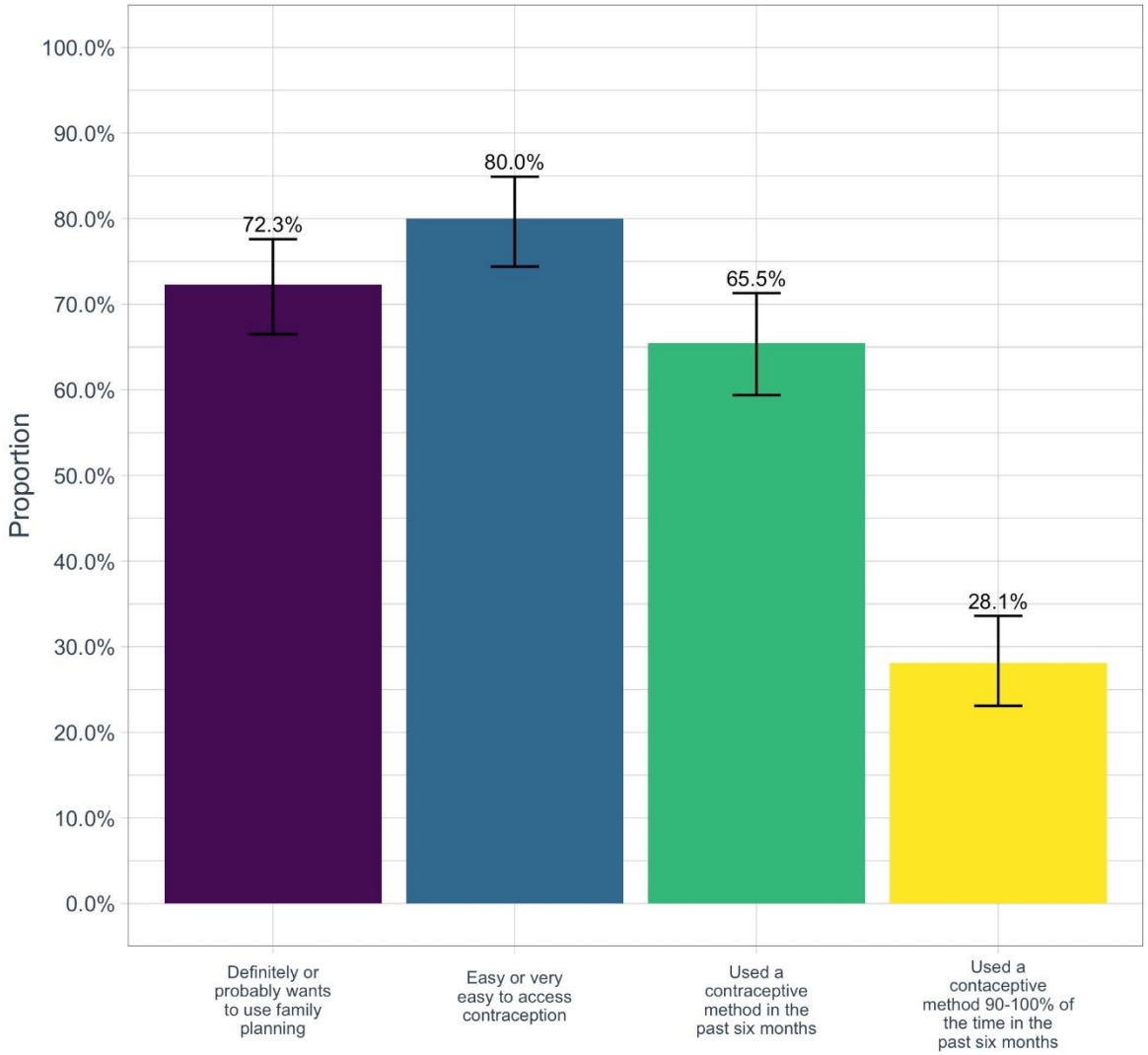

Figure 17: Motivation to use, access to, use and effective use of family planning by AGYW who had had sex within the 12 months before the survey (n = 360).

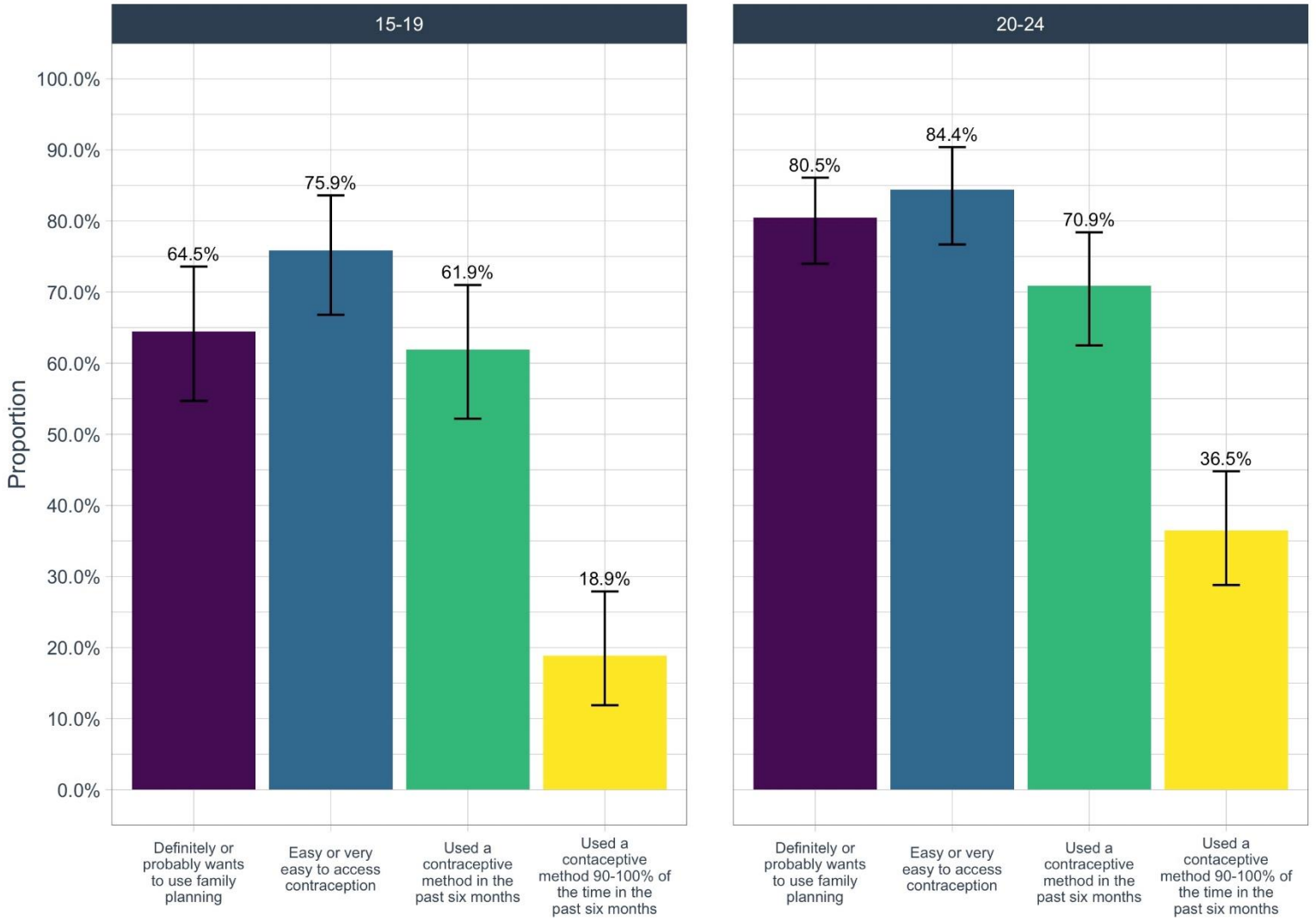

Figure 18: Motivation to use, access to, use and effective use of family planning by AGYW who had had sex within the 12 months before the survey, by age (n = 360).

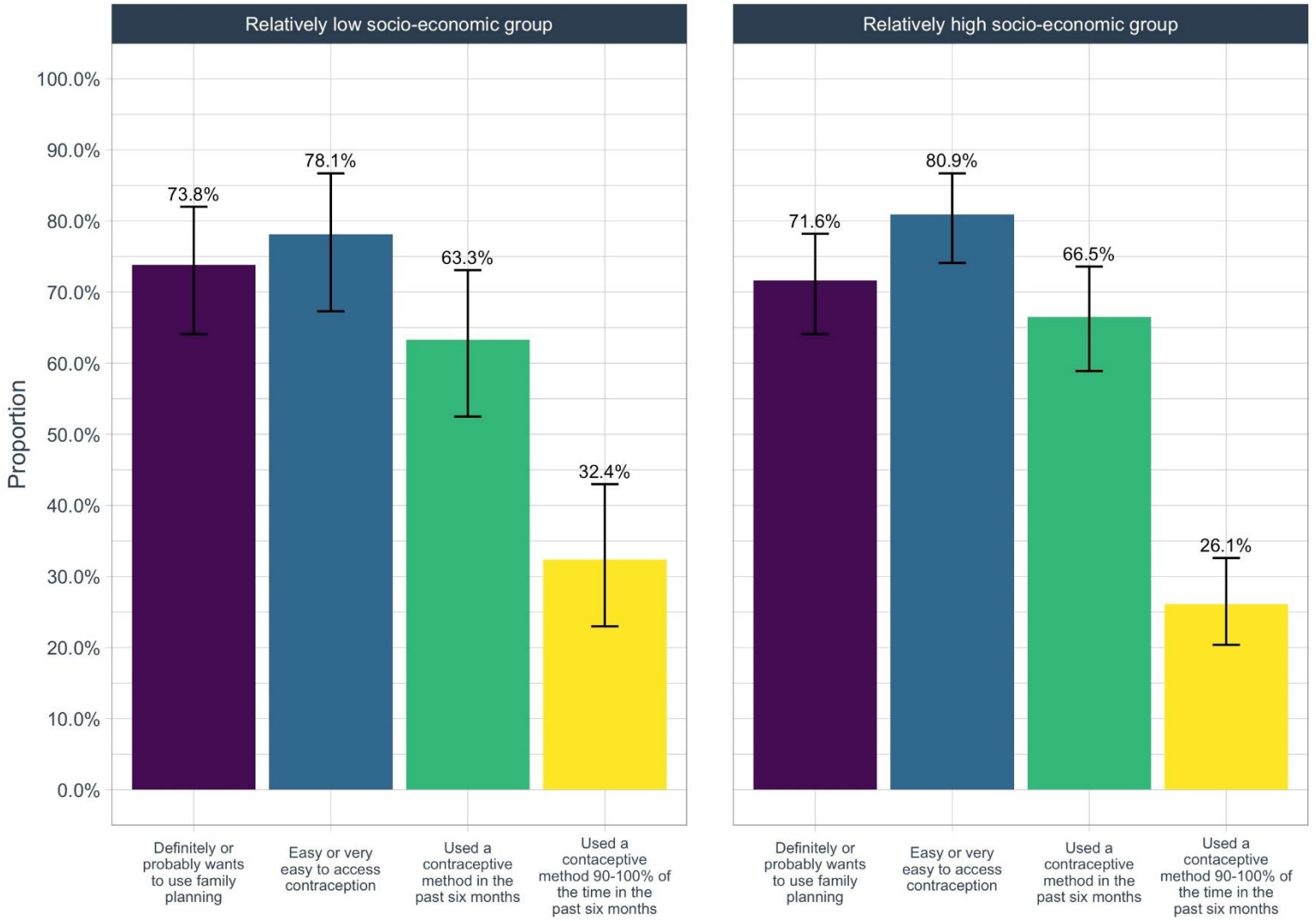

Figure 19: Motivation to use, access to, use and effective use of family planning by AGYW who had had sex within the 12 months before the survey, by socio-economic status (n = 360).

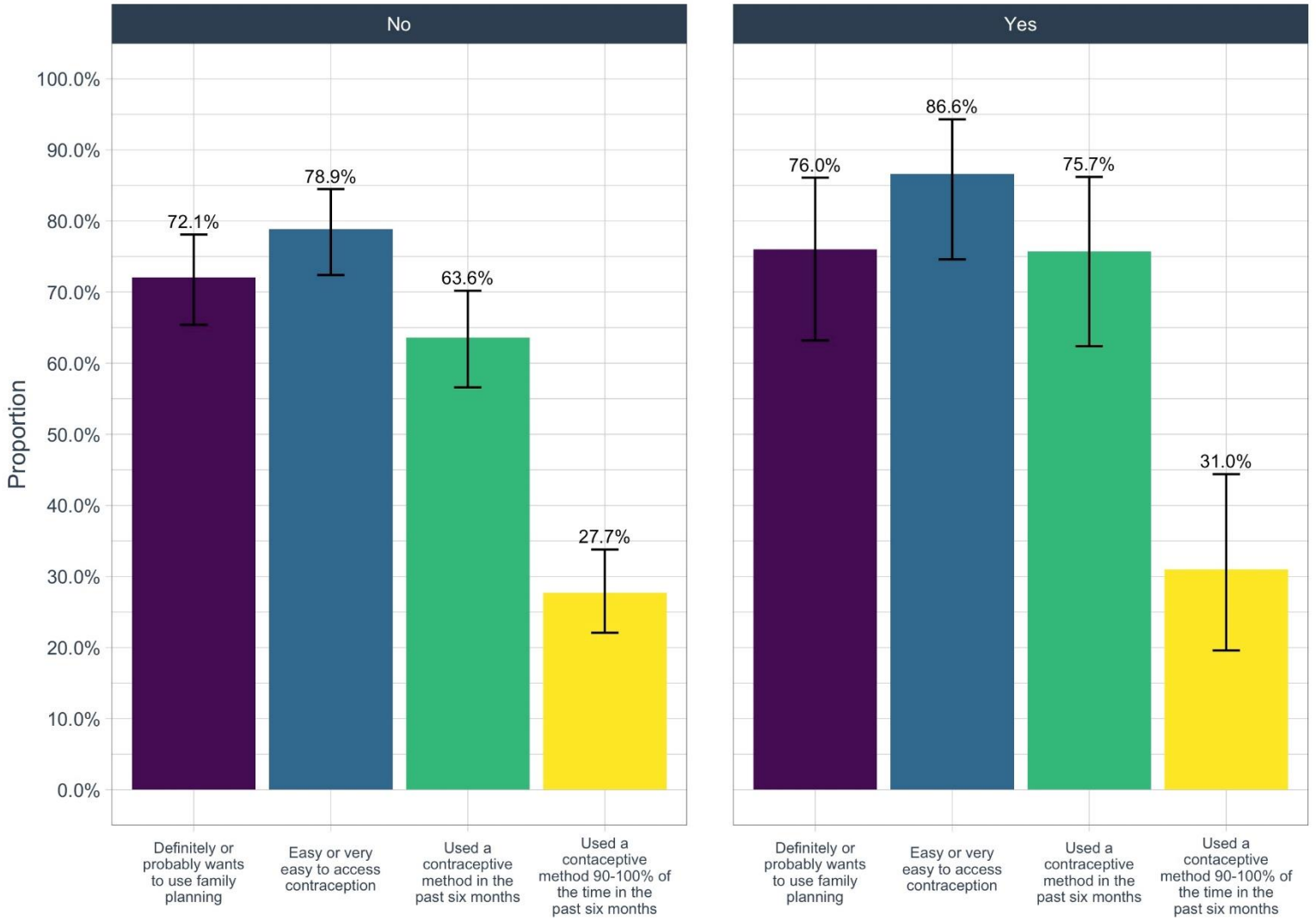

Figure 20: Motivation to use, access to, use and effective use of family planning by AGYW who had had sex within the 12 months before the survey, sorted by AGYW who had more than one male partner in the past six months or not (n = 360).

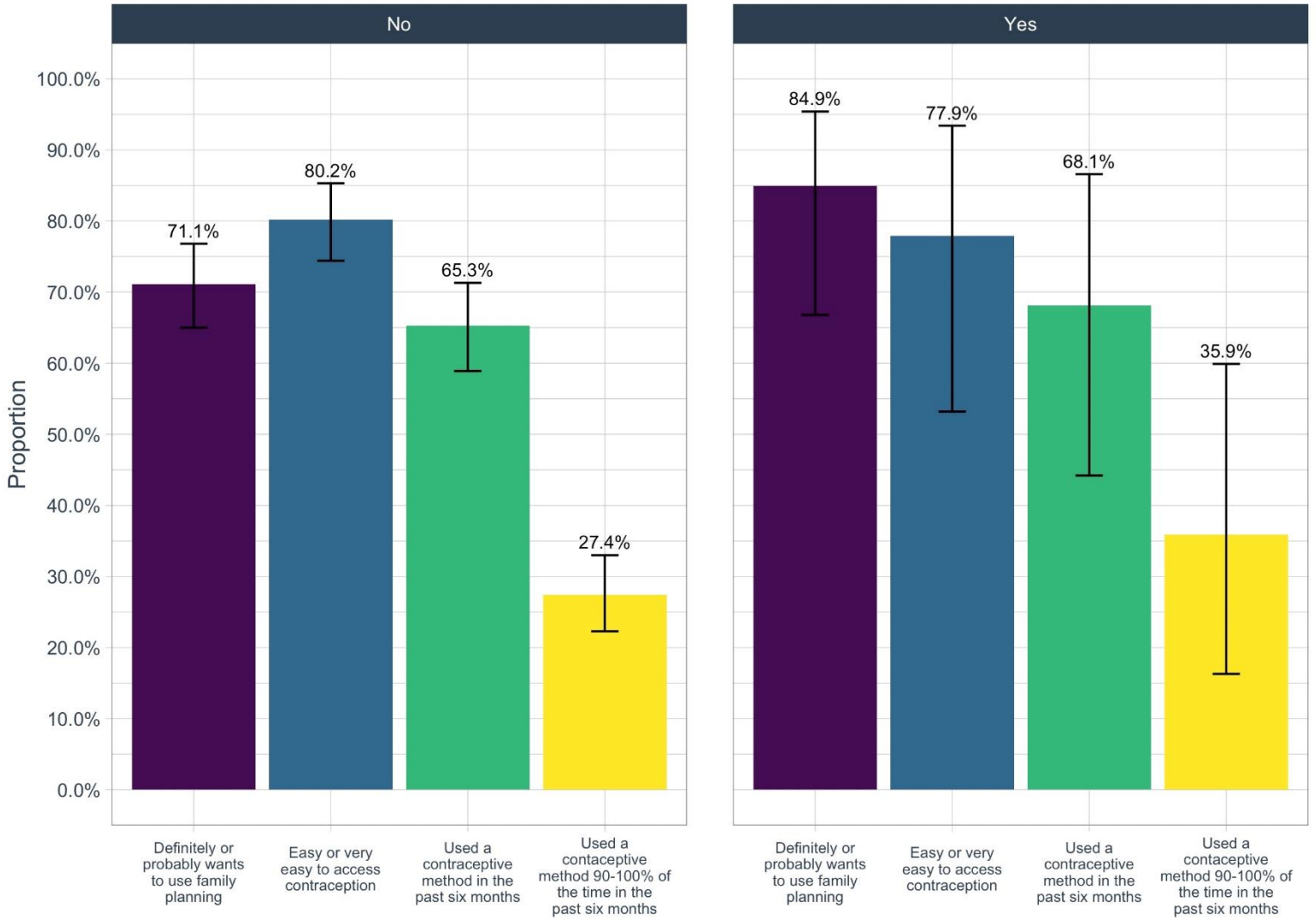

Figure 21: Motivation to use, access to, use and effective use of family planning by AGYW who had had sex within the 12 months before the survey, sorted by AGYW who had had any transactional sex in the past six months or not (n = 360).

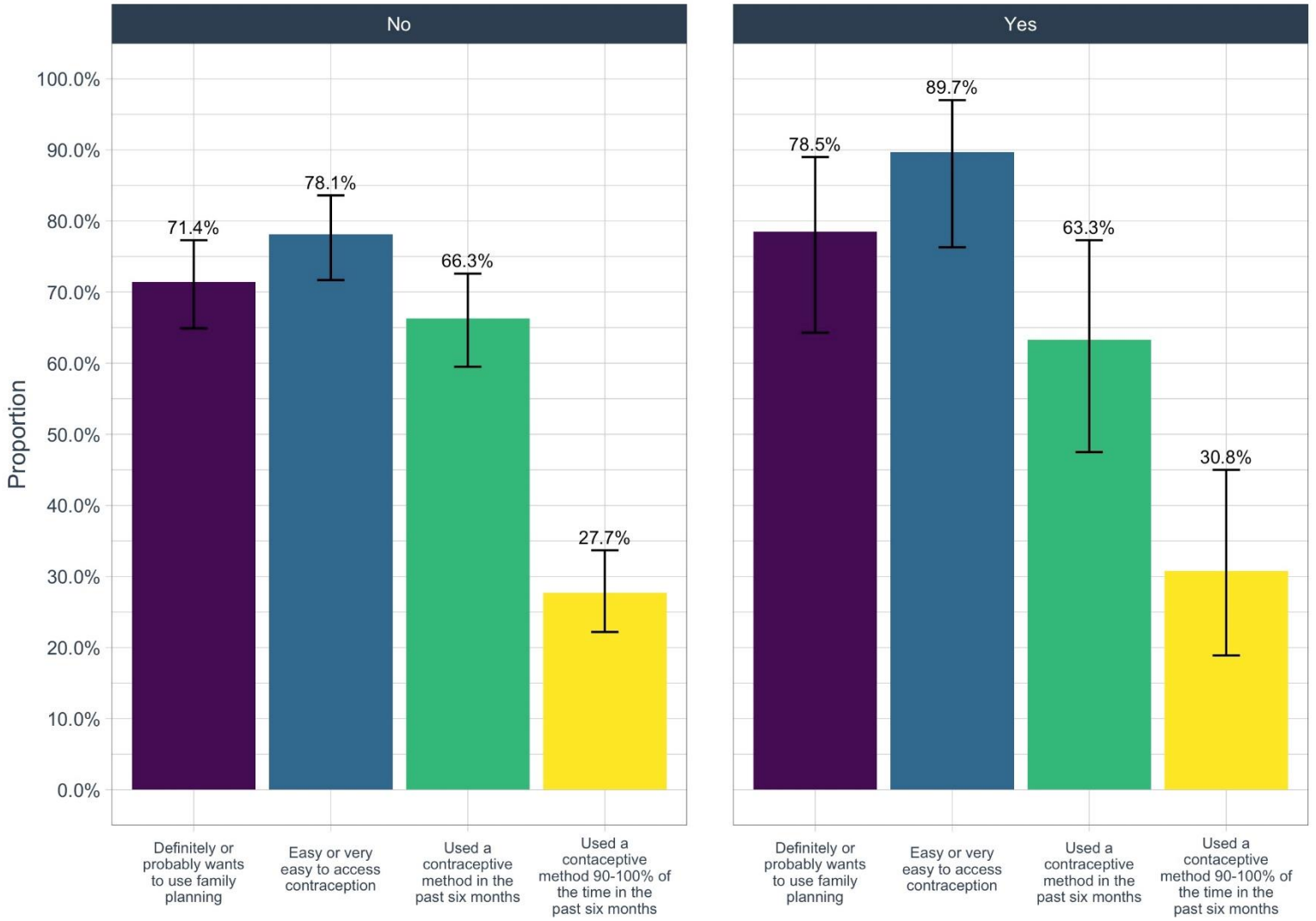

Figure 22: Motivation to use, access to, use and effective use of family planning by AGYW who had had sex within the 12 months before the survey, divided by whether the last boy or man with whom AGYW had sex was five or more years older (n = 355).

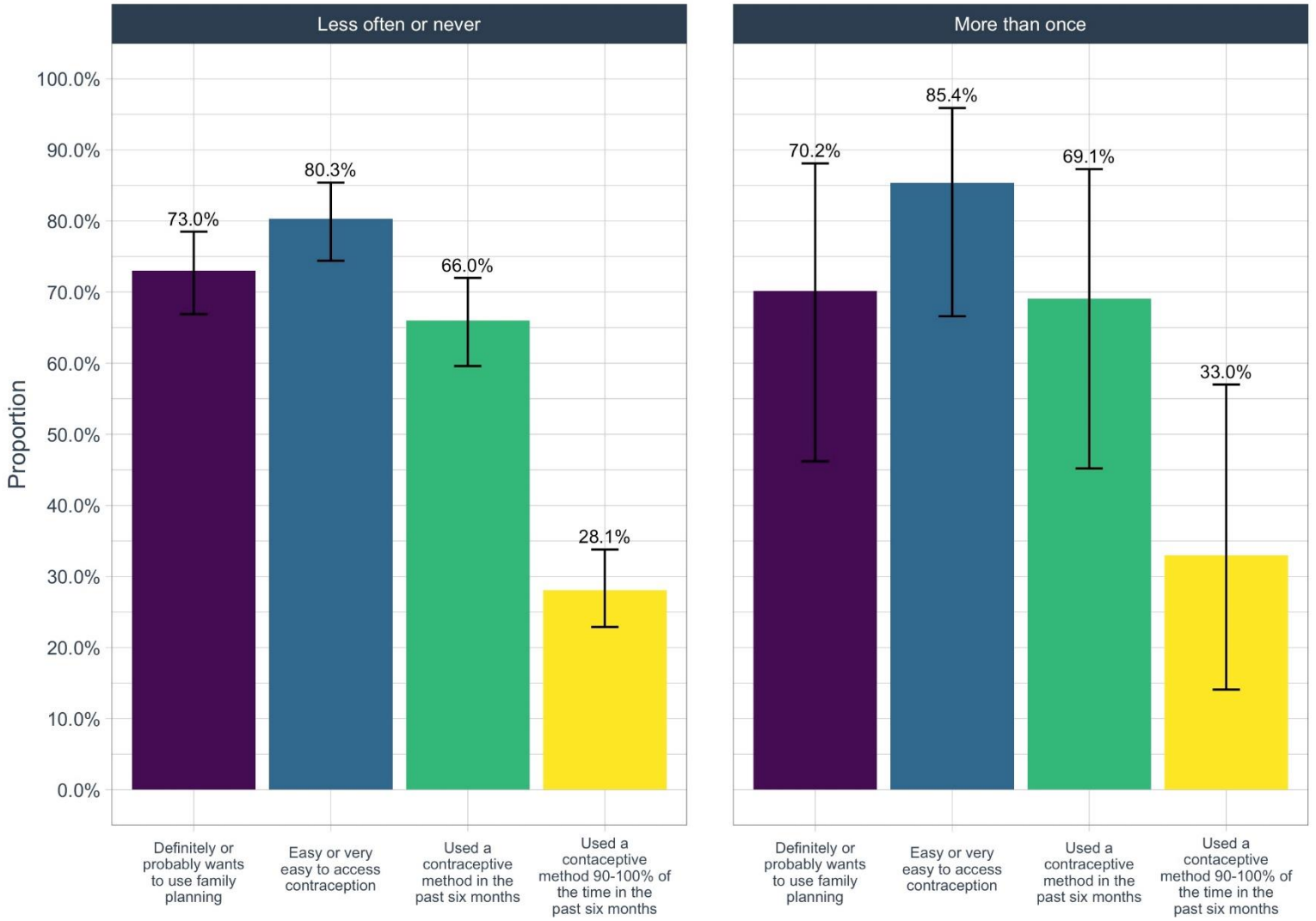

Figure 23: Motivation to use, access to, use and effective use of family planning by AGYW who had had sex within the 12 months before the survey, divided by AGYW who had been afraid of their partner in the past six months and AGYW who had not (n = 357).

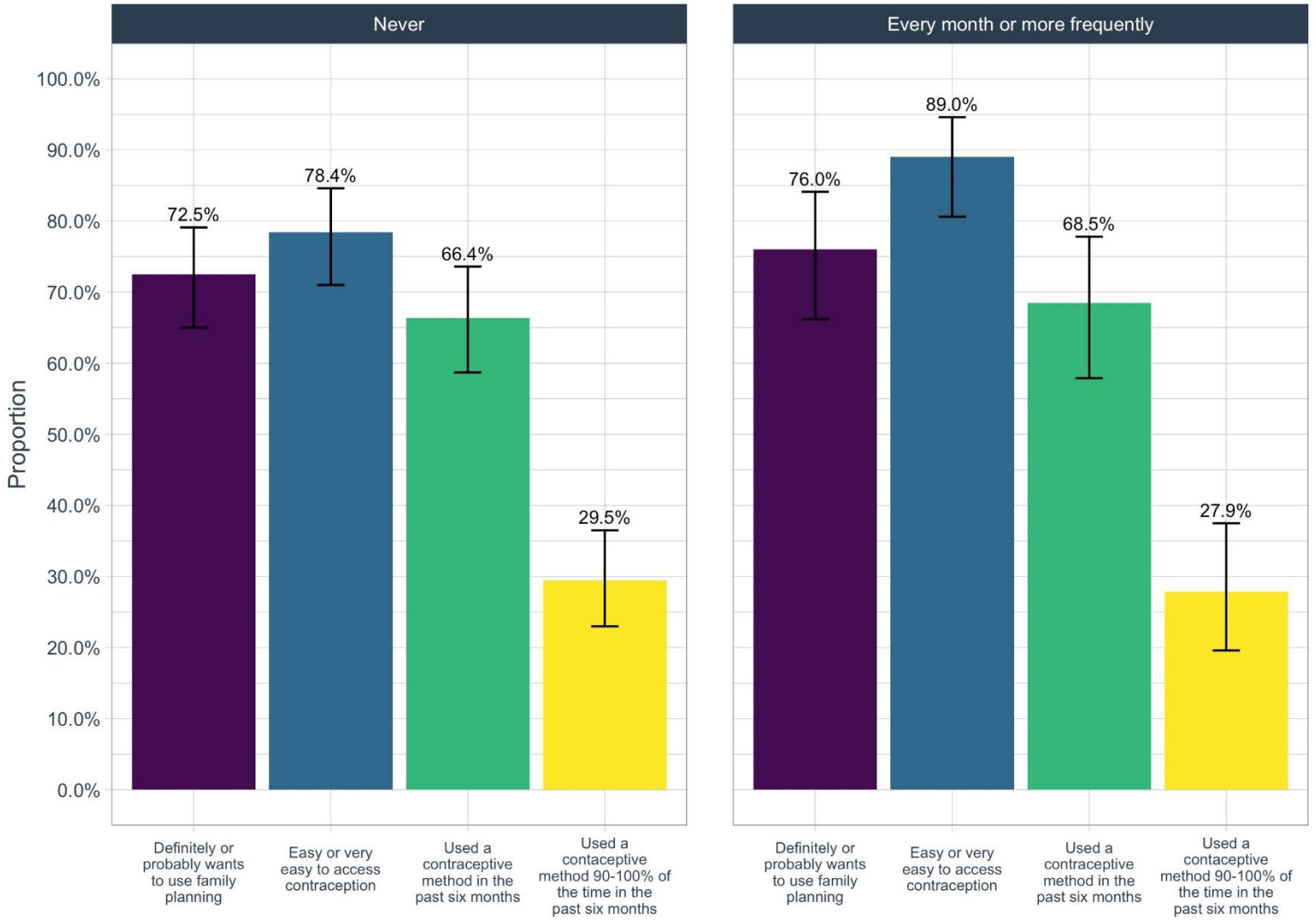

Figure 24: Motivation to use, access to, use and effective use of family planning by AGYW who had had sex within the 12 months before the survey, divided by AGYW who had never had six or more drinks on one occasion and AGYW who had six or more drinks on one occasion every month or more (n = 352).

Factors associated with effective coverage of pregnancy prevention interventions

Tables 36-38 explore factors associated with motivation, access and use of contraceptives.

Factors associated with motivation to use contraceptives

Table 36 describes the factors associated with motivation to use contraceptives among participants who were at risk of pregnancy and who answered the questions about motivation. Factors which are significantly associated with motivation to use contraceptives are highlighted below:

- There were 23 more AGYW per 100 motivated to use contraceptives in the 20 to 24 year old age group compared with the 15 to 19 year age group (95% CI: 14.17 —32.31).
- Among participants believed it is safe to for young women to use the injection, there were 32 more AGYW per 100 who were motivated to use contraception compared with those who did not believe this (95% CI: 19.81 — 45.55).
- Among AGYW who believed that the injection is a good method to prevent pregnancy among young women, there were 35 more AGYW per 100 who were motivated to use contraception, compared with those who did not believe this (95% CI: 20.57 — 48.82). AGYW who were unsure whether the injection was a good method were also more likely to be motivated, compared with those who did not believe the injection was a good method for young women.
- Among the participants who believed it is safe for young women to use the implant, there were 20 more AGYW per 100 who were motivated to use contraceptives compared to those who did not believe this (95% CI: 8.31 – 31.41).
- Among the participant who believed it is safe for young women to use the pill, there were 14 more AGYW per 100 who were motivated to use contraceptives compared to those who did not believe this (95% CI: 2.74 — 25.92).
- Among participants who believed that the contraceptive injection makes the body change in unpleasant ways, there were 21 fewer AGYW per 100 who were motivated to use contraception compared with those who did not believe this (95% CI: -32.75 — -9.63)
- Among participants who were unsure whether the contraceptive injection makes the body change in unpleasant ways, there were 25 fewer AGYW per 100 who were motivated to use contraception compared with those who did not believe this (95% CI: -40.92 — -10.22).

Factors associated with access to contraceptives

Table 37 shows the factors associated with access to contraceptives among AGYW who were at risk of pregnancy. We highlight the significant factors below:

- There were 21 more AGYW per 100 in the 20 to 24 year old age group who reported it was easy to access contraceptives compared to the 15 to 19 year old age group (95% CI: 12.39 – 29.82).
- Among the AGYW who had ever been offered contraceptives there were 24 more per 100 AGYW who reported easy access to contraceptives compared to those who had never been offered (95% CI: 14.95 – 33.60).
- Among AGYW who reported that they worried about lack of privacy or confidentiality at family planning service providers there were 14 fewer AGYW per 100 who reported easy access to contraceptives compared to those who did not worry about lack of privacy or confidentiality (95% CI: -26.23 – -2.02).
- Among AGYW who believed it would cost too much to get contraceptives, there were 26 fewer AGYW per 100 who reported easy access to contraceptives compared to those who did not reported this barrier (95% CI: -46.55 – -6.76).
- Among AGYW who believed it was far to go to the family planning service, there were 29 fewer AGYW per 100 who reported easy access to contraceptives compared with those who did not believe it was far (95% CI: -42.80 – -15.10).
- There were no significant associations between access to contraceptives and: relative socio-economic status; AGYW's feeling embarrassed to get contraceptives, worrying about being seen getting contraceptives, the opening hours of the clinic not suiting AGYW, the negative attitudes of healthcare workers, and the belief that her partner would not want her to get contraceptives.

Factors associated with effective use of contraceptives

Table 38 shows factors associated with effective use of contraceptives among AGYW who had ever used contraceptives (n= 297), and the significant factors are highlighted below:

- Among 20 to 24 year old AGYW, there were 13 more AGYW per 100 who used contraceptives effectively (90-100% of the time) in the past six months compared to the 15 to 19 year old group (95% CI: 0.08 – 26.63).
- Among participants who reported running out of contraceptives, there were 24 fewer AGYW per 100 who used contraceptives effectively in the past six months compared to those who did not report running out of contraceptives (95% CI: 6.89 – 41.19).
- Among participants who reported the opening hours of contraceptive services were inconvenient to them, there were 38 fewer AGYW per 100 who used contraceptives effectively compared to those who did not report this (95% CI: -47.74 – -29.49).
- Among participants who were not sexually active around the time of the survey, there were 30 fewer AGYW per 100 who used contraceptives effectively compared with those who were sexually active around the time of the survey (95% CI: -48.39 – -12.23).
- Among AGYW who did not like the side effects of contraceptives, there were 30 fewer AGYW per 100 who used contraceptives effectively compared to those who did report side effects were a barrier (95% CI: -42.31 – -18.66).
- Among AGYW wo reported there had been a stock-out of contraceptives, there were 29 fewer AGYW per 100 who used contraceptives effectively compared with participants who did not report a stock-out of contraceptives - (95% CI: -45.87 – -13.00).
- Among participants who reported COVID-19 or the lockdown as the barrier to accessing contraceptives, there were 26 fewer per 100 AGYW who used contraceptives effectively compared to those who did not report COVID-19 or the lockdown as the barrier (95 % CI: -42.34 – -10.35).
- Among AGYW who reported that they had been steered/pushed towards a specific contraceptive method, there were 21 fewer AGYW per 100 who used contraceptives effectively compared with those who were not steered/pushed (95% CI: -36.58 – -5.46)
- Among AGYW who reported they had received the contraceptive method of their choice there were 31 more AGYW per 100 who used contraceptives effectively, compared with AGYW who had not received the method of their choice (95% CI: 16.77 – 46.12).
- Among AGYW who believed the information she shared at the contraceptive service would be kept confidential, there were 21 more AGYW per 100 who used contraceptives effectively, compared with those who did not believe their confidentiality would be respected (95% CI: 3.08 – 39.83)

- There were no significant associations between effective use of contraceptives and relative socio-economic status; reporting forgetting to take contraceptives; reporting the contraceptive service was far away; being concerned that someone would find out the AGYW was using contraception; resistance from sexual partners, parents, or friends towards contraceptive use; fertility intentions; and pregnancy risk perception. There were also no significant associations between effective use of contraception and the following indicators of service quality: waiting time at clinic; whether the health worker checked that the AGYW was satisfied with her contraceptive method; whether the AGYW was told about the different methods available to her; whether the health worker asked the AGYW which method she would most like; whether the AGYW felt involved in the decision regarding her family planning; and whether the health worker at the family planning service and whether other staff at the service had treated the AGYW in a friendly, respectful manner.

Table 36: Factors associated with motivation to use contraceptives, among AGYW who were at risk of pregnancy and who answered the question about motivation (n = 502).

	Motivated to use contraceptives now								
	No, or no opinion			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Age group									
15-19	103	45.5	38.2 — 53.0	152	54.5	47.0 — 61.8	0.0000	23.24	14.17 — 32.31
20-24	56	22.3	16.9 — 28.4	191	77.7	71.6 — 83.1			
Relative socio-economic status									
Relatively low socio-economic group	43	30.4	22.2 — 39.7	102	69.6	60.3 — 77.8	0.1908	-6.93	-17.27 — 3.40
Relatively high socio-economic group	116	37.3	31.3 — 43.7	241	62.7	56.3 — 68.7			
AGYW plans to become pregnant (n = 500)									
No immediate plans	154	35.8	30.7 — 41.1	327	64.2	58.9 — 69.3	0.3327	11.25	-9.70 — 32.20
Within the next year	5	24.5	7.5 — 50.8	14	75.5	49.2 — 92.5			
AGYW believes it is safe for young women to use the injection									
Disagree	46	57.7	45.3 — 69.4	44	42.3	30.6 — 54.7	0.0000	14.95	-1.26 — 31.16
Unsure	41	42.8	31.2 — 54.9	58	57.2	45.1 — 68.8		32.68	19.81 — 45.55
Agree	72	25.0	19.5 — 31.3	241	75.0	68.7 — 80.5			
AGYW believes the injection is a good method to prevent pregnancy among young women									
Disagree	38	63.2	48.8 — 76.0	30	36.8	24.0 — 51.2	0.0001	22.44	3.60 — 41.27
Unsure	29	40.7	27.1 — 55.5	39	59.3	44.5 — 72.9		34.69	20.57 — 48.82
Agree	92	28.5	23.1 — 34.4	274	71.5	65.6 — 76.9			
AGYW believes it is safe for young women to use the implant									
Disagree	76	42.1	34.3 — 50.2	136	57.9	49.8 — 65.7	0.0046	6.71	-4.81 — 18.23
Unsure	57	35.4	26.9 — 44.6	108	64.6	55.4 — 73.1		19.86	8.31 — 31.41
Agree	26	22.2	14.2 — 32.2	99	77.8	67.8 — 85.8			
AGYW believes the implant is a good method to prevent pregnancy among young women (n = 501)									
Disagree	39	38.8	28.5 — 49.8	84	61.2	50.2 — 71.5	0.2233	-0.74	-14.42 — 12.93
Unsure	58	39.5	30.4 — 49.2	93	60.5	50.8 — 69.6		8.26	-4.16 — 20.67
Agree	62	30.5	23.6 — 38.2	165	69.5	61.8 — 76.4			
AGYW believes the pill is a good method to prevent pregnancy among young women (n = 501)									
Disagree	52	39.2	29.9 — 49.1	92	60.8	50.9 — 70.1	0.0439	-5.33	-19.99 — 9.33
Unsure	39	44.5	32.9 — 56.6	62	55.5	43.4 — 67.1		9.99	-1.41 — 21.38

Table 36: Factors associated with motivation to use contraceptives, among AGYW who were at risk of pregnancy and who answered the question about motivation (n = 502).

	Motivated to use contraceptives now								
	No, or no opinion			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Agree	67	29.2	22.7 — 36.4	189	70.8	63.6 — 77.3			
AGYW believes it is safe for young women to use the pill (n = 501)									
Disagree	50	41.7	32.1 — 51.9	89	58.3	48.1 — 67.9	0.0084	-2.37	-16.63 — 11.89
Unsure	48	44.1	33.3 — 55.3	73	55.9	44.7 — 66.7		14.33	2.74 — 25.92
Agree	60	27.4	21.0 — 34.6	181	72.6	65.4 — 79.0			
AGYW believes the injection makes the body change in unpleasant ways									
Disagree	11	16.3	7.7 — 28.8	64	83.7	71.2 — 92.3	0.0014	-25.57	-40.92 — -10.22
Unsure	35	41.9	29.9 — 54.5	62	58.1	45.5 — 70.1		-21.19	-32.75 — -9.63
Agree	113	37.5	31.4 — 43.9	217	62.5	56.1 — 68.6			
AGYW believes the implant causes irregular bleeding									
Disagree	14	33.2	18.2 — 51.3	31	66.8	48.7 — 81.8	0.1414	-6.75	-24.02 — 10.52
Unsure	91	40.0	32.8 — 47.5	167	60.0	52.5 — 67.2		3.60	-13.79 — 20.99
Agree	54	29.6	22.4 — 37.7	145	70.4	62.3 — 77.6			
AGYW believes the implant makes it difficult to fall pregnant when it is removed (n = 501)									
Disagree	19	33.0	20.5 — 47.6	51	67.0	52.4 — 79.5	0.8329	-1.34	-15.97 — 13.29
Unsure	81	34.3	27.5 — 41.7	177	65.7	58.3 — 72.5		-4.10	-19.50 — 11.30
Agree	58	37.1	28.7 — 46.1	115	62.9	53.9 — 71.3			
AGYW believes the pill makes the body change in unpleasant ways (n = 501)									
Disagree	36	28.0	19.5 — 37.8	100	72.0	62.2 — 80.5	0.1601	-11.42	-23.02 — 0.19
Unsure	76	39.4	31.8 — 47.5	152	60.6	52.5 — 68.2		-7.69	-20.42 — 5.04
Agree	46	35.7	26.5 — 45.7	91	64.3	54.3 — 73.5			

CI, Confidence Interval

Table 37: Factors associated with access to contraceptives, among AGYW who were at risk of pregnancy and who answered the question about access (n = 507).

	Access to contraceptives								
	Does not have easy access or unsure			Easy access					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Age group									
15-19	80	35.2	28.2 — 42.6	178	64.8	57.4 — 71.8	0.0000	21.11	12.39 — 29.82
20-24	34	14.1	9.2 — 20.2	215	85.9	79.8 — 90.8			
Relative socio-economic status									
Relatively low socio-economic group	30	24.8	16.6 — 34.6	115	75.2	65.4 — 83.4	0.7483	-1.68	-11.95 — 8.59
Relatively high socio-economic group	84	26.5	21.0 — 32.5	278	73.5	67.5 — 79.0			
AGYW has been offered contraceptives									
Yes	38	15.0	10.2 — 21.0	256	85.0	79.0 — 89.8	0.0000	-24.28	-33.60 — -14.95
No	76	39.3	31.5 — 47.5	137	60.7	52.5 — 68.5			
AGYW would worry about lack of privacy or confidentiality at family planning service provider									
No	77	22.7	17.8 — 28.2	317	77.3	71.8 — 82.2	0.0272	-14.13	-26.23 — -2.02
Yes	37	36.8	25.9 — 48.8	76	63.2	51.2 — 74.1			
AGYW would feel embarrassed to get contraceptives									
No	64	25.8	20.1 — 32.2	247	74.2	67.8 — 79.9	0.9019	-0.61	-10.37 — 9.14
Yes	50	26.4	18.8 — 35.1	146	73.6	64.9 — 81.2			
AGYW believes it would cost too much to get contraceptives									
No	99	23.7	19.1 — 28.8	376	76.3	71.2 — 80.9	0.0188	-26.66	-46.55 — -6.76
Yes	15	50.3	30.1 — 70.5	17	49.7	29.5 — 69.9			
AGYW believes the opening hours of the family planning clinic would not suit her									
No	105	26.7	21.9 — 32.0	369	73.3	68.0 — 78.1	0.0886	12.11	-0.30 — 24.52
Yes	9	14.6	5.2 — 30.1	24	85.4	69.9 — 94.8			
AGYW believes it is far to go to the family planning clinic/service									
No	81	20.9	16.3 — 26.0	353	79.1	74.0 — 83.7	0.0003	-28.95	-42.80 — -15.10
Yes	33	49.8	36.2 — 63.4	40	50.2	36.6 — 63.8			
AGYW would worry about people seeing her getting contraceptives									
No	79	25.0	19.8 — 30.8	296	75.0	69.2 — 80.2	0.4435	-4.41	-15.61 — 6.78
Yes	35	29.4	19.9 — 40.5	97	70.6	59.5 — 80.1			

Table 37: Factors associated with access to contraceptives, among AGYW who were at risk of pregnancy and who answered the question about access (n = 507).

	Access to contraceptives								
	Does not have easy access or unsure			Easy access					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
AGYW believes that the negative attitudes of the health workers at the family planning clinic/service would make it difficult for her to get contraceptives									
No	65	24.8	19.2 — 31.0	264	75.2	69.0 — 80.8	0.4753	-3.67	-13.72 — 6.38
Yes	49	28.4	20.4 — 37.7	129	71.6	62.3 — 79.6			
AGYW believes her partner would not want her to go get contraceptives									
No	107	25.4	20.8 — 30.6	367	74.6	69.4 — 79.2	0.4659	-8.67	-30.91 — 13.57
Yes	7	34.1	14.0 — 59.5	26	65.9	40.5 — 86.0			

CI, Confidence Interval

Table 38: Factors associated with effective use of contraceptives, among AGYW who had ever used a family planning method and who answered the questions about effective use (n = 297).

	Used a contraceptive method 90-100% of the time in the past six months								
	No			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Age group									
15-19	67	66.9	55.2 — 77.2	36	33.1	22.8 — 44.8	0.0517	13.35	0.08 — 26.63
20-24	96	53.5	45.1 — 61.8	98	46.5	38.2 — 54.9			
Relative socio-economic status									
Relatively low socio-economic group	49	55.4	43.2 — 67.2	41	44.6	32.8 — 56.8	0.5097	-4.68	-18.55 — 9.20
Relatively high socio-economic group	114	60.1	51.9 — 68.0	93	39.9	32.0 — 48.1			
Had sex while not using family planning because AGYW forgot to take contraceptives									
No	150	58.2	51.0 — 65.1	119	41.8	34.9 — 49.0	0.7479	-3.44	-24.11 — 17.23
Yes	13	61.6	39.7 — 80.6	15	38.4	19.4 — 60.3			
Had sex while not using family planning because AGYW ran out of pills/injection									
No	142	54.8	47.6 — 61.8	125	45.2	38.2 — 52.4	0.0146	-24.04	-41.19 — -6.89
Yes	21	78.8	58.5 — 92.3	9	21.2	7.7 — 41.5			
Had sex while not using family planning because the place she gets her contraceptives is far away									
No	150	57.0	49.9 — 63.9	125	43.0	36.1 — 50.1	0.1544	-15.81	-34.91 — 3.28
Yes	13	72.8	50.9 — 88.8	9	27.2	11.2 — 49.1			
Had sex while not using family planning because the place where she gets her contraceptives is not open when she had free time									
No	154	57.2	50.3 — 63.9	132	42.8	36.1 — 49.7	0.0135	-38.62	-47.74 — -29.49
Yes	9	95.9	84.1 — 99.7	2	4.1	0.3 — 15.9			
Had sex while not using family planning because of the negative attitude of health workers who give contraceptives									
No	149	58.7	51.6 — 65.7	116	41.3	34.3 — 48.4	0.9206	1.04	-19.44 — 21.52
Yes	14	57.7	36.6 — 76.9	18	42.3	23.1 — 63.4			
Had sex while not using family planning because AGYW was worried someone would find out she was on family planning									
No	156	58.9	52.0 — 65.6	126	41.1	34.4 — 48.0	0.7034	5.97	-25.10 — 37.03
Yes	7	53.0	21.4 — 82.9	8	47.0	17.1 — 78.6			
Had sex while not using family planning because AGYW's sexual partner did not want her to use contraceptives									
No	157	59.3	52.4 — 65.9	126	40.7	34.1 — 47.6	0.4139	12.99	-18.14 — 44.11
Yes	6	46.3	16.6 — 78.2	8	53.7	21.8 — 83.4			

Table 38: Factors associated with effective use of contraceptives, among AGYW who had ever used a family planning method and who answered the questions about effective use (n = 297).

	Used a contraceptive method 90-100% of the time in the past six months								
	No			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Had sex while not using family planning because AGYW's parents did not want her to take contraceptives									
No	157	57.9	51.0 — 64.6	129	42.1	35.4 — 49.0	0.2939	-17.91	-45.09 — 9.26
Yes	6	75.8	40.5 — 95.9	5	24.2	4.1 — 59.5			
Had sex while not using family planning because AGYW's friends did not approve of contraceptive use									
No	162	58.8	52.0 — 65.4	130	41.2	34.6 — 48.0	0.6530	12.28	-45.20 — 69.76
Yes	1	46.5	2.9 — 95.4	4	53.5	4.6 — 97.1			
Had sex while not using family planning because AGYW was not currently sexually active									
No	154	57.5	50.5 — 64.2	131	42.5	35.8 — 49.5	0.0352	-30.31	-48.39 — -12.23
Yes	9	87.8	60.4 — 98.8	3	12.2	1.2 — 39.6			
Had sex while not using family planning because AGYW wanted to get pregnant									
No	155	58.3	51.3 — 65.0	127	41.7	35.0 — 48.7	0.7024	-5.40	-32.17 — 21.36
Yes	8	63.7	33.7 — 87.4	7	36.3	12.6 — 66.3			
Had sex while not using family planning because AGYW didn't like the side effects of being on contraceptives									
No	109	50.8	42.9 — 58.7	115	49.2	41.3 — 57.1	0.0000	-30.48	-42.31 — -18.66
Yes	54	81.3	70.3 — 89.6	19	18.7	10.4 — 29.7			
Had sex while not using family planning because there was a stock-out and they did not have contraceptives for AGYW									
No	153	56.8	49.8 — 63.6	129	43.2	36.4 — 50.2	0.0310	-29.44	-45.87 — -13.00
Yes	10	86.3	63.8 — 97.3	5	13.7	2.7 — 36.2			
Had sex while not using family planning because AGYW did not think she was at risk of getting pregnant									
No	153	58.1	51.1 — 64.9	126	41.9	35.1 — 48.9	0.5478	-8.05	-33.14 — 17.04
Yes	10	66.1	37.6 — 88.0	8	33.9	12.0 — 62.4			
AGYW was unable to get contraceptives she needed because of COVID or the lockdown (n = 295)									
No	67	48.1	38.4 — 57.9	83	51.9	42.1 — 61.6	0.0057	-13.81	-28.82 — 1.20
Yes	49	61.9	49.2 — 73.6	35	38.1	26.4 — 50.8		-26.34	-42.34 — -10.35
No need	45	74.5	59.0 — 86.4	16	25.5	13.6 — 41.0			
The last time AGYW went for family planning the waiting time was too long (n = 289)									
No	97	53.6	45.0 — 62.1	94	46.4	37.9 — 55.0	0.1028	-11.35	-24.75 — 2.04

Table 38: Factors associated with effective use of contraceptives, among AGYW who had ever used a family planning method and who answered the questions about effective use (n = 297).

	Used a contraceptive method 90-100% of the time in the past six months								
	No			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Yes	59	65.0	53.4 — 75.4	39	35.0	24.6 — 46.6			
Health worker did not check AGYW's satisfaction about the family planning method (n = 283)									
Yes, she/he checked	71	53.1	43.4 — 62.7	78	46.9	37.3 — 56.6	0.1510	-9.71	-22.95 — 3.53
No, she/he did not check	81	62.8	52.7 — 72.2	53	37.2	27.8 — 47.3			
AGYW was not told about the different family planning methods available to her									
No	90	56.6	47.4 — 65.5	73	43.4	34.5 — 52.6	0.5011	-4.46	-17.39 — 8.47
Yes	73	61.1	50.8 — 70.6	61	38.9	29.4 — 49.2			
Health worker asked AGYW which family planning method she would most like (n = 291)									
Yes	100	56.0	47.5 — 64.2	91	44.0	35.8 — 52.5	0.4245	-5.59	-19.30 — 8.11
No	59	61.6	49.6 — 72.6	41	38.4	27.4 — 50.4			
AGYW was steered/pushed towards getting a specific method (n = 293)									
Yes	35	75.6	58.8 — 88.2	18	24.4	11.8 — 41.2	0.0148	21.02	5.46 — 36.58
No	124	54.6	47.1 — 62.0	116	45.4	38.0 — 52.9			
AGYW received the family planning method of her choice (n = 289)									
Yes	126	53.3	45.9 — 60.6	126	46.7	39.4 — 54.1	0.0007	-31.44	-46.12 — -16.77
No	30	84.7	67.0 — 95.2	7	15.3	4.8 — 33.0			
AGYW felt involved in the decision regarding her family planning (n = 289)									
Yes	122	55.4	47.6 — 63.0	109	44.6	37.0 — 52.4	0.1735	-10.93	-26.30 — 4.45
No	35	66.3	51.2 — 79.4	23	33.7	20.6 — 48.8			
AGYW believed the information she shared would be kept confidential (n = 263)									
Yes	133	57.9	50.4 — 65.1	111	42.1	34.9 — 49.6	0.0647	-21.45	-39.83 — -3.08
No	13	79.3	56.9 — 93.4	6	20.7	6.6 — 43.1			
Health worker who gave family planning treated AGYW in a friendly manner (n = 294)									
Yes	145	58.5	51.4 — 65.4	124	41.5	34.6 — 48.6	0.8286	-2.52	-25.34 — 20.30
No	16	61.1	36.5 — 82.0	9	38.9	18.0 — 63.5			
Other clinic staff members (receptionist, cleaners, security guards) treated AGYW in a friendly and respectful way (n = 286)									
Yes	115	56.8	48.9 — 64.5	106	43.2	35.5 — 51.1	0.2511	-8.92	-24.01 — 6.17

Table 38: Factors associated with effective use of contraceptives, among AGYW who had ever used a family planning method and who answered the questions about effective use (n = 297).

	Used a contraceptive method 90-100% of the time in the past six months								
	No			Yes					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
No	43	65.8	51.1 — 78.5	22	34.2	21.5 — 48.9			

CI, Confidence Interval

The impact of COVID-19 and the lockdown on AGYW's lives, sexual and reproductive health, and health care access

Table 39 shows the participants' report about the impact of COVID-19 and the lockdown on their lives, health, and access to health care. Overall, 22.5% of participants were unable to go to a clinic or doctor when they needed to (23.5% in the 15 to 19 year old group and 20.5% in the 20 to 24 year old group). Across districts the proportion of participants who were unable to go to a clinic or doctor when they needed ranged from 11.1% (Bojanala) to 29.3% (Klipfontein). When AGYW were asked about the ability to get the medicines they needed, 34.9% said they were unable to get the medicines they needed because of COVID-19 and the lockdown, (35.6% in the 15 to 19 year old group and 29.8% in the 20 to 24 year old group).

With regards to contraception, 22.5% of all AGYW said they were unable to get the contraceptives they needed, with 23,5% among the 15 to 19 year old AGYW and 20.5% among n the 20 to 24 year old age group (Table 39). Challenges with accessing condoms were reported by 21.0% of all AGYW (18.8% in the 15 to 19 year old age group and 22.4% in the 20 to 24 year old age group). About 1 in 10 (11.3%) of AGYW reported they were unable to obtain PrEP because of COVID-19 and the lockdown, (12.9% in the 15 to 19 year old age group and 7.8% in the 20 to 24 year old age group). Most (69.8%) of AGYW reported that she or a family member experienced financial problems during COVID-19 and the lockdown, with statistically significantly more reporting financial problems in the 20 to 24 year old age group (79.0%; 95% CI: 72.3 – 84.8) compared with the 15 to 19 year old age group (63.8%; 95% CI: 56.8 – 70.4), and varying by district from 56.7% (Thabo Mofotsanyana) to 87.9% (Klipfontein).

Concerns about food running out due to lack of money during COVID-19 and the lockdown were reported by 73.4% of all AGYW (68.8% in the 15 to 19 year old age group and 78.7 in the 20 to 24 year old age group). A substantial proportion (24.0%) of the AGYW reported they had gone a day and night without food due to lack of money during COVID-19 and the lockdown (23.3% in the 15 to 19 year old and 23.8% reported by the 20 to 24 year old age group). Almost half (44.5%) of the AGYW reported they had been unable to continue with their studies because of COVID-19 and the lockdown (42.5% in the 15 to 19 year old group and 45.5% in the 20 to 24 year old age group). Many participants (67.1%) reported they had become more distressed and anxious during COVID-19 and the lockdown (63.5% in the 15 to 19 year old and 74.2% in the 20 to 24 year old group). Half (49.6%) of the AGYW reported they had found it harder to get to the emotional support they needed during COVID-19 and the lockdown (52.4% in the 20 to 24 year old group and 46.9% in the 15 to 19 year old group (Table 39). Some participants reported that since the

pandemic and the lockdown, there was more violence in their home (14.1%), and that they were more worried about being physically abused (12.1%) emotionally abused (22.1%) or sexually abused (6.6%). We did not ask participants to report on whether they had experienced violence.

Table 39: The impact of COVID-19 and the lockdown on the lives, health and access to health care among beneficiaries of the Global-Fund funded AGYW programme, 2019-2021 (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
AGYW was unable to get to the clinic or to a doctor when she needed because of COVID-19 and the lockdown															
Total	17/58	29.3	7/63	11.1	16/126	12.7	31/108	28.7	15/70	21.4	16/90	17.8	116.1/515	22.5	18.3 — 27.3
Age															
15-19	4/15	26.7	3/33	9.1	4/58	6.9	24/80	30.0	10/35	28.6	9/43	20.9	62.1/264	23.5	17.6 — 30.3
20-24	13/43	30.2	4/30	13.3	12/68	17.6	7/28	25.0	5/35	14.3	7/47	14.9	51.4/251	20.5	14.4 — 27.7
AGYW was unable to get the medicine she needed because of COVID-19 and the lockdown															
Total	19/58	32.8	9/63	14.3	29/126	23.0	54/108	50.0	20/70	28.6	6/90	6.7	179.6/515.2	34.9	29.9 — 40.1
Age															
15-19	2/15	13.3	7/33	21.2	14/58	24.1	41/80	51.2	11/35	31.4	1/43	2.3	93.9/264.1	35.6	28.8 — 42.8
20-24	17/43	39.5	2/30	6.7	15/68	22.1	13/28	46.4	9/35	25.7	5/47	10.6	74.7/250.9	29.8	22.5 — 37.9
AGYW was unable to get the contraception she needed because of COVID-19 and the lockdown															
Total	17/58	29.3	7/63	11.1	16/126	12.7	31/108	28.7	15/70	21.4	16/90	17.8	116.1/515.1	22.5	18.3 — 27.3
Age															
15-19	4/15	26.7	3/33	9.1	4/58	6.9	24/80	30.0	10/35	28.6	9/43	20.9	62.1/264	23.5	17.6 — 30.3
20-24	13/43	30.2	4/30	13.3	12/68	17.6	7/28	25.0	5/35	14.3	7/47	14.9	51.4/251	20.5	14.4 — 27.7
AGYW was unable to get condoms because of COVID-19 and the lockdown															
Total	14/58	24.1	3/63	4.8	19/126	15.1	31/108	28.7	12/70	17.1	9/90	10.0	108.1/515.1	21.0	16.8 — 25.7
Age															
15-19	2/15	13.3	3/33	9.1	3/58	5.2	22/80	27.5	7/35	20.0	1/43	2.3	49.6/264	18.8	13.4 — 25.3
20-24	12/43	27.9	0/30	0.0	16/68	23.5	9/28	32.1	5/35	14.3	8/47	17.0	56.3/250.9	22.4	15.9 — 30.1
AGYW was unable to get the PrEP pills she needed because of COVID-19 and the lockdown															
Total	9/58	15.5	2/63	3.2	7/126	5.6	19/108	17.6	2/70	2.9	1/90	1.1	58.1/515.1	11.3	8.0 — 15.3
Age															
15-19	2/15	13.3	1/33	3.0	0/58	0.0	17/80	21.2	2/35	5.7	0/43	0.0	34/264	12.9	8.2 — 18.9
20-24	7/43	16.3	1/30	3.3	7/68	10.3	2/28	7.1	0/35	0.0	1/47	2.1	19.5/250.9	7.8	4.2 — 12.9
AGYW or her family members experienced financial problems during COVID-19 and the lockdown															
Total	51/58	87.9	38/63	60.3	88/126	69.8	74/108	68.5	47/70	67.1	51/90	56.7	359.7/515.1	69.8	64.9 — 74.4
Age															

Table 39: The impact of COVID-19 and the lockdown on the lives, health and access to health care among beneficiaries of the Global-Fund funded AGYW programme, 2019-2021 (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
15-19	13/15	86.7	17/33	51.5	38/58	65.5	50/80	62.5	19/35	54.3	21/43	48.8	168.4/263.9	63.8	56.8 — 70.4
20-24	38/43	88.4	21/30	70.0	50/68	73.5	24/28	85.7	28/35	80.0	30/47	63.8	198.2/250.9	79.0	72.3 — 84.8
AGYW was worried that her food would run out due to lack of money during COVID-19 and the lockdown															
Total	45/58	77.6	39/63	61.9	96/126	76.2	80/108	74.1	52/70	74.3	59/90	65.6	378/515.1	73.4	68.7 — 77.7
Age															
15-19	10/15	66.7	19/33	57.6	45/58	77.6	56/80	70.0	23/35	65.7	25/43	58.1	181.6/264	68.8	61.8 — 75.2
20-24	35/43	81.4	20/30	66.7	51/68	75.0	24/28	85.7	29/35	82.9	34/47	72.3	197.5/250.9	78.7	71.9 — 84.5
AGYW went a day and night without food because of lack of money during COVID-19 and the lockdown															
Total	17/58	29.3	11/63	17.5	34/126	27.0	26/108	24.1	16/70	22.9	9/90	10.0	123.7/515.2	24.0	19.8 — 28.7
Age															
15-19	3/15	20.0	5/33	15.2	15/58	25.9	20/80	25.0	9/35	25.7	6/43	14.0	61.5/264	23.3	17.6 — 29.8
20-24	14/43	32.6	6/30	20.0	19/68	27.9	6/28	21.4	7/35	20.0	3/47	6.4	59.8/250.9	23.8	17.6 — 31.1
AGYW was unable to continue her studies during COVID-19 and the lockdown															
Total	18/58	31.0	25/63	39.7	58/126	46.0	57/108	52.8	25/70	35.7	22/90	24.4	229.5/515.1	44.5	39.4 — 49.7
Age															
15-19	3/15	20.0	15/33	45.5	30/58	51.7	40/80	50.0	9/35	25.7	9/43	20.9	112.2/264	42.5	35.5 — 49.7
20-24	15/43	34.9	10/30	33.3	28/68	41.2	17/28	60.7	16/35	45.7	13/47	27.7	114.3/250.9	45.5	37.6 — 53.6
AGYW's relationships with family members got worse during COVID-19 and the lockdown															
Total	20/58	34.5	12/63	19.0	35/126	27.8	31/108	28.7	16/70	22.9	19/90	21.1	140.9/515.1	27.4	22.9 — 32.2
Age															
15-19	5/15	33.3	5/33	15.2	12/58	20.7	23/80	28.7	10/35	28.6	7/43	16.3	69.6/263.9	26.4	20.2 — 33.3
20-24	15/43	34.9	7/30	23.3	23/68	33.8	8/28	28.6	6/35	17.1	12/47	25.5	72.6/250.9	28.9	22.1 — 36.6
AGYW became more distressed and anxious during COVID-19 and the lockdown															
Total	44/58	75.9	32/63	50.8	98/126	77.8	69/108	63.9	48/70	68.6	52/90	57.8	345.6/515.1	67.1	62.1 — 71.8
Age															
15-19	12/15	80.0	18/33	54.5	43/58	74.1	46/80	57.5	24/35	68.6	19/43	44.2	167.5/264	63.5	56.4 — 70.1
20-24	32/43	74.4	14/30	46.7	55/68	80.9	23/28	82.1	24/35	68.6	33/47	70.2	186.3/250.9	74.2	67.1 — 80.5
There was more violence in AGYW's home during COVID-19 and the lockdown															

Table 39: The impact of COVID-19 and the lockdown on the lives, health and access to health care among beneficiaries of the Global-Fund funded AGYW programme, 2019-2021 (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Total	12/58	20.7	7/63	11.1	21/126	16.7	14/108	13.0	9/70	12.9	3/90	3.3	72.9/515.1	14.1	10.8 — 18.1
Age															
15-19	3/15	20.0	3/33	9.1	7/58	12.1	11/80	13.8	5/35	14.3	0/43	0.0	35.5/264	13.4	8.9 — 19.3
20-24	9/43	20.9	4/30	13.3	14/68	20.6	3/28	10.7	4/35	11.4	3/47	6.4	37.9/250.9	15.1	10.2 — 21.3
AGYW found it harder to get the emotional support she needed from people who usually support her during COVID-19 and the lockdown															
Total	31/58	53.4	23/63	36.5	59/126	46.8	59/108	54.6	33/70	47.1	33/90	36.7	255.4/515.1	49.6	44.4 — 54.7
Age															
15-19	7/15	46.7	10/33	30.3	23/58	39.7	43/80	53.8	16/35	45.7	14/43	32.6	123.8/264	46.9	39.8 — 54.1
20-24	24/43	55.8	13/30	43.3	36/68	52.9	16/28	57.1	17/35	48.6	19/47	40.4	131.6/250.9	52.4	44.5 — 60.3
AGYW felt more worried about being physically abused by people close to her during COVID-19 and the lockdown															
Total	7/58	12.1	6/63	9.5	12/126	9.5	17/108	15.7	7/70	10.0	6/90	6.7	64.2/515.2	12.5	9.2 — 16.4
Age															
15-19	3/15	20.0	2/33	6.1	4/58	6.9	15/80	18.8	4/35	11.4	1/43	2.3	38.4/264	14.6	9.7 — 20.7
20-24	4/43	9.3	4/30	13.3	8/68	11.8	2/28	7.1	3/35	8.6	5/47	10.6	24.8/250.9	9.9	5.9 — 15.2
AGYW felt more worried about being emotionally abused by people close to her during COVID-19 and the lockdown															
Total	15/58	25.9	18/63	28.6	36/126	28.6	19/108	17.6	12/70	17.1	19/90	21.1	113.9/515.2	22.1	18.1 — 26.5
Age															
15-19	5/15	33.3	9/33	27.3	13/58	22.4	11/80	13.8	7/35	20.0	7/43	16.3	51.8/264	19.6	14.3 — 25.9
20-24	10/43	23.3	9/30	30.0	23/68	33.8	8/28	28.6	5/35	14.3	12/47	25.5	70.7/250.9	28.2	21.4 — 35.8
AGYW felt more worried about being sexually abused during COVID-19 and the lockdown															
Total	6/58	10.3	7/63	11.1	8/126	6.3	5/108	4.6	3/70	4.3	10/90	11.1	33.9/515.1	6.6	4.4 — 9.4
Age															
15-19	1/15	6.7	4/33	12.1	3/58	5.2	3/80	3.8	3/35	8.6	5/43	11.6	15.5/264	5.9	3.2 — 9.9
20-24	5/43	11.6	3/30	10.0	5/68	7.4	2/28	7.1	0/35	0.0	5/47	10.6	19/250.9	7.6	4.0 — 12.7
AGYW tested positive for COVID-19															
Total	0/58	0.0	0/63	0.0	3/126	2.4	1/108	0.9	3/70	4.3	0/90	0.0	6.8/515.2	1.3	0.5 — 2.9
Age															
15-19	0/15	0.0	0/33	0.0	2/58	3.4	0/80	0.0	2/35	5.7	0/43	0.0	3/264	1.1	0.3 — 2.9

Table 39: The impact of COVID-19 and the lockdown on the lives, health and access to health care among beneficiaries of the Global-Fund funded AGYW programme, 2019-2021 (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
20-24	0/43	0.0	0/30	0.0	1/68	1.5	1/28	3.6	1/35	2.9	0/47	0.0	4.6/250.9	1.8	0.3 — 6.2
A member of AGYW's household tested positive for COVID-19															
Total	11/58	19.0	3/63	4.8	16/126	12.7	11/108	10.2	16/70	22.9	12/90	13.3	65.1/515.2	12.6	9.5 — 16.3
Age															
15-19	3/15	20.0	3/33	9.1	7/58	12.1	9/80	11.2	10/35	28.6	7/43	16.3	37.6/264	14.3	9.7 — 19.9
20-24	8/43	18.6	0/30	0.0	9/68	13.2	2/28	7.1	6/35	17.1	5/47	10.6	26.1/250.9	10.4	6.4 — 15.7

Well-being and mental health

We included a well-being measure, in the questionnaire, the Mental Health Continuum Short-Form (45). This measure has shown good psychometric properties for a South African context (30). A series of questions ask how the participant has been feeling during the past month. The scale contains questions about three dimensions of well-being: hedonic emotional well-being (being happy, interested in life, and satisfied with life); eudaimonic social well-being (social contribution, social integration, social actualization or growth, social acceptance and social coherence); and eudaimonic psychological well-being (self-acceptance, environmental master, positive relations with others, personal growth, autonomy, purpose in life). The response options include “never”, “once or twice”, “about once a week”, “about 2 or 3 times a week”, “almost every day” and “ever day”. People can be classified as *flourishing* or *languishing* in regard to emotional wellbeing. To classify participants as flourishing, they needed to report that they experienced ‘everyday’ or ‘almost everyday’ at least seven of the symptoms, with at least one from the hedonic cluster. To classify participants as "languishing", they needed to report that they ‘never’ or ‘once or twice’ experienced at least seven of the symptoms, with at least one from the hedonic cluster. Table 40 shows the prevalence of participants who were defined as flourishing (60.9%) and those defined as languishing (16.1%). Those who were not classified as either flourishing or languishing can be considered as having moderate mental health (https://www.psytoolkit.org/survey-library/mhc-sf.html#refs).

We also included a measure of mental health because mental health is a factor that influences service uptake. We used the CES-D-10, which is a brief depressive symptom screener which has been validated in South Africa (32). It measures depressive symptoms in the past week. Questions include three items on depressed affect, five items on somatic symptoms, and two on positive affect, with scoring ranging from *“rarely or none of the time”* (score of 0) to *“all of the time”* (score of 3). Scoring is reversed for items reflecting positive affect statements. Total scores can range from 0 to 30 and higher scores reflect greater severity of depressive symptoms. We used a cut-off score of 12 to classify AGYW as having a high risk of depression, as recommended for South African populations by Baron and colleagues (32). Table 41 shows that 28.8% of the participants were at high risk of depression.

Table 40: Well-being among AGYW based on responses to the Mental Health Continuum Short-Form (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
AGYW who were flourishing															
Total	34/58	58.6	40/63	63.5	82/126	65.1	64/108	59.3	39/70	55.7	64/90	71.1	313.5/515.2	60.9	55.7 — 65.8
Age															
15-19	9/15	60.0	24/33	72.7	45/58	77.6	52/80	65.0	20/35	57.1	32/43	74.4	175.8/264	66.6	59.4 — 73.2
20-24	25/43	58.1	16/30	53.3	37/68	54.4	12/28	42.9	19/35	54.3	32/47	68.1	129.2/250.9	51.5	43.5 — 59.4
AGYW who were languishing															
Total	8/58	13.8	8/63	12.7	24/126	19.0	18/108	16.7	13/70	18.6	3/90	3.3	82.9/515.1	16.1	12.5 — 20.2
Age															
15-19	5/15	33.3	6/33	18.2	9/58	15.5	14/80	17.5	8/35	22.9	2/43	4.7	51.2/264	19.4	14.0 — 25.8
20-24	3/43	7.0	2/30	6.7	15/68	22.1	4/28	14.3	5/35	14.3	1/47	2.1	35.7/251	14.2	9.2 — 20.6

Table 41: AGYW classified as at high risk of depression based on a cut-off of 12 on their CES-D-10 score (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
AGYW at high risk for depression															
Total	17/58	29.3	21/63	33.3	39/126	31.0	29/108	26.9	21/70	30.0	18/90	20.0	148.2/515.2	28.8	24.3 — 33.6
Age															
15-19	2/15	13.3	9/33	27.3	13/58	22.4	20/80	25.0	10/35	28.6	11/43	25.6	62.5/264	23.7	18.0 — 30.1
20-24	15/43	34.9	12/30	40.0	26/68	38.2	9/28	32.1	11/35	31.4	7/47	14.9	87/250.9	34.7	27.4 — 42.5

Intervention coverage and well-being

We assessed whether coverage of the interventions provided in the AGYW programme was associated with improved well-being. Table 42 shows that none of the coverage measures were statistically significantly associated with AGYWs being classified as flourishing. (The confidence intervals for the risk differences all included zero.) Likewise, Table 43 shows that none of the coverage measures were statistically significantly associated with AGYWs being classified as languishing.

Table 42: Associations between intervention coverage factors and whether AGYW were flourishing, among all AGYW who had a flourishing score (n = 513).

	Wellbeing								
	Not flourishing			Flourishing					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Motivated to use PrEP (n = 419)									
Yes	113	40.5	33.9 — 47.3	202	59.5	52.7 — 66.1	0.3189	6.16	-5.86 — 18.19
No	40	34.3	24.3 — 45.5	64	65.7	54.5 — 75.7			
Has easy access to PrEP (n = 420)									
Yes	71	33.2	26.0 — 41.2	144	66.8	58.8 — 74.0	0.0584	-10.54	-21.36 — 0.28
No	82	43.8	35.7 — 52.1	123	56.2	47.9 — 64.3			
Currently using PrEP (n = 41)									
Yes	11	57.4	28.4 — 83.0	7	42.6	17.0 — 71.6	0.1228	27.36	-6.26 — 60.97
No	7	30.0	11.5 — 55.0	16	70.0	45.0 — 88.5			
Took PrEP every day or most days in the past month (n = 17)									
Yes	7	60.5	25.0 — 89.2	5	39.5	10.8 — 75.0	0.6253	15.63	-42.00 — 73.26
No	3	44.9	5.2 — 90.8	2	55.1	9.2 — 94.8			
Motivated to use male condoms (n = 507)									
Yes	164	38.8	33.5 — 44.4	277	61.2	55.6 — 66.5	0.8624	-1.35	-16.59 — 13.89
No	23	40.2	25.9 — 55.8	43	59.8	44.2 — 74.1			
Has easy access to male condoms (n = 508)									
Yes	146	39.6	33.9 — 45.6	242	60.4	54.4 — 66.1	0.5989	3.09	-8.42 — 14.59
No	41	36.6	26.6 — 47.4	79	63.4	52.6 — 73.4			
Used condoms at least once with last two partners (n = 370)									
No	5	30.5	9.1 — 60.8	10	69.5	39.2 — 90.9	0.3498	-12.73	-38.23 — 12.77
Yes	142	43.2	37.1 — 49.6	213	56.8	50.4 — 62.9			
Used condoms 90-100% of the time with last one or two partners (n = 389)									
No	121	41.8	35.2 — 48.6	182	58.2	51.4 — 64.8	0.6792	-2.92	-16.73 — 10.88
Yes	34	44.7	32.3 — 57.7	52	55.3	42.3 — 67.7			
Motivated to use contraceptives (n = 502)									
Yes	126	39.7	33.5 — 46.2	217	60.3	53.8 — 66.5	0.7456	1.74	-8.76 — 12.24
No	60	38.0	29.5 — 47.1	99	62.0	52.9 — 70.5			
Has easy access to contraceptives (n = 507)									
Yes	146	39.7	34.0 — 45.6	247	60.3	54.4 — 66.0	0.6032	3.15	-8.72 — 15.01

Table 42: Associations between intervention coverage factors and whether AGYW were flourishing, among all AGYW who had a flourishing score (n = 513).

	Wellbeing								
	Not flourishing			Flourishing					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
No	41	36.5	26.1 — 47.9	73	63.5	52.1 — 73.9			
Used a contraceptive method in the past six months (n = 500)									
No	77	38.3	30.8 — 46.3	141	61.7	53.7 — 69.2	0.6179	-2.57	-12.68 — 7.53
Yes	113	40.9	34.1 — 48.0	169	59.1	52.0 — 65.9			
Used a contraceptive method 90-100% of the time in the past six months (n = 500)									
No	134	39.2	33.3 — 45.4	223	60.8	54.6 — 66.7	0.7174	-2.05	-13.17 — 9.06
Yes	56	41.3	31.8 — 51.3	87	58.7	48.7 — 68.2			

CI, Confidence Interval

Table 43: Associations between intervention coverage factors and whether AGYW were languishing, among all AGYW who had a languishing score (n = 513).

	Wellbeing								
	Not languishing			Languishing					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
Motivated to use PrEP (n = 419)									
Yes	279	86.1	80.7 — 90.5	36	13.9	9.5 — 19.3	0.2252	6.06	-3.71 — 15.83
No	83	80.0	69.9 — 88.0	21	20.0	12.0 — 30.1			
Has easy access to PrEP (n = 420)									
Yes	189	87.2	81.0 — 91.9	26	12.8	8.1 — 19.0	0.2007	5.37	-2.82 — 13.55
No	174	81.8	74.5 — 87.8	31	18.2	12.2 — 25.5			
Currently using PrEP (n = 41)									
Yes	14	72.9	41.2 — 93.3	4	27.1	6.7 — 58.8	0.1187	-22.30	-48.80 — 4.20
No	22	95.2	75.5 — 99.9	1	4.8	0.1 — 24.5			
Took PrEP every day or most days in the past month (n = 17)									
Yes	10	72.6	28.8 — 97.0	2	27.4	3.0 — 71.2	0.9126	2.99	-50.16 — 56.14
No	3	69.6	20.1 — 97.8	2	30.4	2.2 — 79.9			
Motivated to use male condoms (n = 507)									
Yes	375	83.1	78.5 — 87.1	66	16.9	12.9 — 21.5	0.1131	-7.69	-17.03 — 1.66
No	61	90.8	78.5 — 97.3	5	9.2	2.7 — 21.5			
Has easy access to male condoms (n = 508)									
Yes	336	84.3	79.4 — 88.5	52	15.7	11.5 — 20.6	0.8263	0.98	-7.78 — 9.74
No	101	83.4	74.2 — 90.3	19	16.6	9.7 — 25.8			
Used condoms at least once with last two partners (n = 370)									
No	10	69.5	39.2 — 90.9	5	30.5	9.1 — 60.8	0.3129	-13.28	-38.49 — 11.93
Yes	302	82.8	77.4 — 87.3	53	17.2	12.7 — 22.6			
Used condoms 90-100% of the time with last one or two partners (n = 389)									
No	256	82.7	77.1 — 87.5	47	17.3	12.5 — 22.9	0.6959	2.28	-9.10 — 13.65
Yes	72	80.4	67.9 — 89.7	14	19.6	10.3 — 32.1			
Motivated to use contraceptives (n = 502)									
Yes	295	84.0	78.7 — 88.4	48	16.0	11.6 — 21.3	0.9884	0.06	-7.99 — 8.11
No	136	83.9	76.1 — 90.0	23	16.1	10.0 — 23.9			
Has easy access to contraceptives (n = 507)									
Yes	342	85.0	80.2 — 88.9	51	15.0	11.1 — 19.8	0.4882	3.28	-5.99 — 12.55

Table 43: Associations between intervention coverage factors and whether AGYW were languishing, among all AGYW who had a languishing score (n = 513).

	Wellbeing								
	Not languishing			Languishing					
Variable	n	%	95% CI	n	%	95% CI	p-value	Risk Difference (%)	95% CI
No	94	81.7	71.7 — 89.3	20	18.3	10.7 — 28.3			
Used a contraceptive method in the past six months (n = 500)									
No	190	85.9	79.7 — 90.8	28	14.1	9.2 — 20.3	0.2500	4.47	-3.12 — 12.05
Yes	236	81.4	75.3 — 86.6	46	18.6	13.4 — 24.7			
Used a contraceptive method 90-100% of the time in the past six months (n = 500)									
No	306	83.9	78.8 — 88.1	51	16.1	11.9 — 21.2	0.6877	1.76	-6.81 — 10.33
Yes	120	82.1	73.5 — 88.9	23	17.9	11.1 — 26.5			

CI, Confidence Interval

Alcohol use

Table 44 presents the findings for each of the three AUDIT-C measures. A minority of participants (15.0%) reported that they drank alcohol two or more times a month, 40.1% reported that they drank three or more drinks on a typical day when they drank, and 2.7% reported binge drinking on a monthly or more frequent occurrence. The median AUDIT-C score was 1 (interquartile range (IQR): 0 to 3). In the 15 to 19 year age group, the median score was 1 (IQR: 0 to 3), while it was 2 (IQR: 0 to 3.9) in the 20 to 24 year age group. Based on the recommendation of a South African study (35), a cut-off score of greater than or equal to 2 indicates hazardous drinking.

Table 44: Alcohol use by AGYW beneficiaries of the Global Fund funded AGYW Programme, 2019-2021 (n = 515)

	Klipfontein		Bojanala		King Cetshwayo		Ehlanzeni		Nelson Mandela Bay		Thabo Mofutsanyana		Total		
Variable	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**(Freq/N)**	**%**	**95% CI**
Drank alcohol 2 or more times a month															
Total	14/58	24.1	12/63	19.0	11/126	8.7	15/108	13.9	13/70	18.6	9/90	10.0	77.4/515.1	15.0	11.6 — 19.0
Age															
15-19	6/15	40.0	3/33	9.1	3/58	5.2	8/80	10.0	5/35	14.3	4/43	9.3	35.5/264	13.5	8.7 — 19.6
20-24	8/43	18.6	9/30	30.0	8/68	11.8	7/28	25.0	8/35	22.9	5/47	10.6	51.1/250.9	20.4	14.2 — 27.7
Drank 3 or more drinks on a typical day															
Total	30/58	51.7	42/63	66.7	34/126	27.0	37/108	34.3	32/70	45.7	45/90	50.0	206.8/515.2	40.1	35.2 — 45.2
Age															
15-19	7/15	46.7	18/33	54.5	15/58	25.9	24/80	30.0	12/35	34.3	17/43	39.5	91.1/264.1	34.5	27.9 — 41.6
20-24	23/43	53.5	24/30	80.0	19/68	27.9	13/28	46.4	20/35	57.1	28/47	59.6	120.4/250.9	48.0	40.1 — 56.0
Binge drinking (6 or more drinks on one occasion) on a monthly or more frequent occurrence															
Total	1/58	1.7	7/63	11.1	4/126	3.2	0/108	0.0	2/70	2.9	9/90	10.0	13.8/515.1	2.7	1.6 — 4.2
Age															
15-19	0/15	0.0	2/33	6.1	1/58	1.7	0/80	0.0	1/35	2.9	1/43	2.3	3.2/264.1	1.2	0.4 — 2.9
20-24	1/43	2.3	5/30	16.7	3/68	4.4	0/28	0.0	1/35	2.9	8/47	17.0	11.9/250.9	4.7	2.5 — 8.1
Median, IQR and 95% CI for the median, of Audit-C Score															
Total	2	0-4	2	1-4	0	0-2	1	0-3	2	0-3.8	2	0-3	1	0 — 3	1 — 2
Age															
15-19	3	1.2-4	2	0-2	0	0-2	1	0-2	1	0-4	1	0-2	1	0 — 3	1 — 2
20-24	2	0-4	4	2-5	0	0-2	2	1-3	2	1-3	2	0.2-4	2	0 — 3.9	1 — 2

IQR: interquartile range

Discussion

Sample realization

We have shown that the Sub-Recipients were unable to contact many of the beneficiaries we sampled for inclusion in the survey. The proportion of the sampled beneficiaries that the SR was unable to contact (to ask whether they would be willing to be called by a HERStory study team member to be invited to the study) ranged by district from 32.7% to 74.6%. According to the AGYW programme theory of change, a beneficiary's service plan, developed through the core intervention, will identify the "layered" services she needs, and over time she will be willing and able to participate in, or take up the layered services to meet her needs. Implicit in this assumption is that she retained in the AGYW programme, so that the programme implementers can facilitate her access to the relevant layered services. The finding that such a high proportion of enrolled beneficiaries was uncontactable suggests that the programme implementers would be unable to successfully retain a cohort of beneficiaries over time to ensure their needs are met through the programme. The qualitative process evaluation that accompanies this report suggests that there might be a need to re-design the enrollment session in which AGYW first have contact with the programme. If implementers build a rapport with AGYW clients, and if AGYW have a positive experience of the first session and perceive potential benefits of the programme, it might be easier to maintain contact with the AGYW over time. This would mean that the implementers would be able to reach those who need layered services and provide further support to them. This would mean that the implementers would be able to reach those who need layered services and provide further support to them. On the other hand, it is possible that the difficulty of contacting beneficiaries was a unique and unexpected challenge that arose due to COVID-19.

The overall sample realization of 23.8% suggests that the findings of this survey reflect a select group of beneficiaries, and this limitation is discussed further below.

We also compared the profile of the AGYW survey participants with that of the participants of the representative household survey in six districts in which the Global Fund funded AGYW programme was being implemented in the 2016 to 2019 grant period who were aged 15 to 19 years (https://www.samrc.ac.za/intramural-research-units/healthsystems-herstory). In both surveys, almost all participants were South African, and unmarried. Estimates of maternal, paternal and double orphanhood were similar and were reported by 20.8%; 34.9% and of 11.2% of AGYW in the representative household survey and by 19.1%, 27.7% and 9.0% of AGYW beneficiaries of the AGYW programme in the

present survey. There were similar levels of reporting that the participant or a household member had been a day and night without eating because of lack of food: 18.5% in the representative household survey and 19.2% in the present survey. A comparison of household assets across the surveys suggests that the present survey of programme beneficiaries represents a group of AGYW who are more advantaged. For example, 73.9% of participants in the representative household survey reported they lived in a household with electricity in working order, while 96.6% of participants in the present survey reported this. However, it is important to note that the districts in which these two surveys were conducted did not overlap completely.

Coverage of AGYW programme services and interventions

In total, 27.6% of all beneficiaries knew of an NGO in her community which provided "a safe space for young women to hang out and receive support", 23.6% spent time at a safe space in their community in the past year, and 14.7% had received the "My Journey" diary. It is very possible that our estimates of knowledge of safe spaces and use of safe spaces are underestimates, given that there was no consistent branding of safe spaces (or most other components of the AGYW programme) and it was difficult to know what words to use when describing to participants what we meant by a safe space.

Participants were asked what services they had received in the month before the survey: 23.7% of beneficiaries reported having received HIV testing from an NGO in their community, and 9.0% reported receiving family planning from an NGO in her community in the past month.

Participants reported very high levels of HIV testing, with 87.5% having ever been tested and 80.3% having been tested in the year before the survey. It is not known whether the tests were provided through the AGYW programme, though it is noteworthy that more than a quarter of the most recent HIV tests were obtained at school or community sites, suggesting the AGYW programme played an important role in HIV testing coverage.

Our results suggest that coverage of HIV prevention services was high at the safe spaces set up for the Global-Fund funded AGYW programme. Almost half (47.6%) of AGYW who used the safe space reported having an HIV test at the safe space, 66.2% reported that condoms were available at the safe space and 79.5% reported that information about health services for young women were available at the safe space. Furthermore, 86.4% of beneficiaries who had utilised a safe space said that the safe space was a comfortable space to be in which suggests that going to the safe space was a positive experience for AGYW and a safe environment in which to receive HIV prevention services.

PrEP coverage

PrEP coverage for the beneficiaries of the AGYW programme was low. Among all participants, only 41 had ever taken PrEP and 18 were taking PrEP at the time of the survey. Furthermore, not all (63.7%) participants currently taking PrEP were effectively using PrEP as they did not take their PrEP pills every day or most days. It is possible that the evaluation occurred before the widespread implementation of PrEP among beneficiaries, and at a time when it was difficult for the programme to procure the necessary PrEP supplies, as supported by our finding that most participants (75.9%) reported that they had never been offered PrEP. According to the principal recipients, the procurement of PrEP through the National Department of Health was first delayed by seven months, and then there were barriers to ensuring a constant supply. The My Hope records show that fewer beneficiaries were referred for PrEP initiation or re-initiation in the first two six-month periods of the grant, compared to the second two six-month periods, as shown in the record review report accompanying this report. This might explain the low estimate for effective use of PrEP, and this suggests a follow-up evaluation, perhaps using the routine records, to assess PrEP coverage in the last year of the grant period would be valuable. We found that 8.3% of AGYW who were potentially at risk of HIV infection had ever used PrEP, but only 3.7% were using it at the time of the survey. This drop in use might have been associated with PrEP access difficulties related to procurement of supplies by the PRs, or related to reaching AGYW during the COVID-19 pandemic and lockdown. This is supported by the finding that 11.3% of participants reported that they had not been able to get the PrEP pills they needed because of COVID-19 and the lockdown.

According to the theory of change, if adolescent girls and young women are identified through various entry points and have their risks and vulnerabilities assessed and, if AGYW are linked to the biomedical, behavioural and structural HIV prevention interventions they need, then that may lead to positive heath and behavioral outcomes. However, if we follow the logic of the HIV prevention cascade for PrEP (Figure 1), which defines the population in need of PrEP as all beneficiaries who had sex within the 12 months before the survey and do not identify as HIV-positive, we see that the percentage of AGYW who are motivated to use PrEP (62.9%) and have access to PrEP (43.8%) is significantly higher than the percentage of AGYW who are currently using PrEP (3.7%) and effectively using PrEP (3.0%) (Figure 1). Our findings suggest that the theory of change did not hold true for the coverage of PrEP in the AGYW programme and this is likely due to delays in the implementation of the PrEP service, due to the difficulties of procuring PrEP for the AGYW programme.

Nevertheless, it is important to acknowledge that even though PrEP is a relatively new HIV prevention strategy, our results show relatively high levels of knowledge about PrEP, and motivation to use PrEP among AGYW, especially among older AGYW. These factors relate to PrEP awareness which is the focus of the first three steps in Nunn *et al.*'s PrEP care continuum (46). These steps include: (1) "identifying individuals at highest risk for contracting HIV"; (2) "increasing HIV risk awareness among those individuals"; and (3) "enhancing PrEP awareness". The next four steps focus on PrEP uptake and finally the last two steps relate to adherence to PrEP. HIV testing is a core part of the PrEP continuum, and our study shows very high rates of HIV testing: overall, 80.3% of participants had been tested in the year before the survey, and in the month before the survey, a quarter of participants had been tested for HIV. According to the PrEP care continuum, addressing PrEP awareness will increase the uptake of PrEP. Thus, knowledge about PrEP and motivation to use PrEP are important precursors to PrEP uptake and our findings suggest that there is a substantial population of beneficiaries who would be amenable to using PrEP. The qualitative evaluation which accompanies this report has identified some of the concerns beneficiaries have around PrEP and its effects/side-effects. To further increase motivation for PrEP, these concerns and misconceptions could be addressed using information, education, and communication interventions.

PrEP is usually recommended for individuals at a higher risk of HIV-infection such as people who have multiple sexual partners or people who are not able to negotiate condom usage (47). We found that there were no significant differences in motivation, access, use and effective use of PrEP between groups of beneficiaries reporting HIV risk factors such as multiple partners, age disparate partners, and groups of beneficiaries not reporting such risk factors (Figure 4 – 8). If we assume that survey participants' reports about their HIV risk behaviours were accurate, our findings suggest that participants' risks and vulnerabilities may not have been accurately assessed through the risk assessment which forms part of the core package, as described in the theory of change. If the risks and vulnerabilities had been accurately identified during the AGYW programme risk assessment, AGYW engaging in higher HIV risk sexual activities (multiple sexual partners, age disparate sexual relationships and transactional sex) or who reported other factors which put them at higher risk of HIV (alcohol use, fear of partner) might have received targeted services to improve motivation, access and use of PrEP, thus increasing the coverage of PrEP for these higher risk groups. As mentioned above, one possible reason that we did not see higher coverage of PrEP in beneficiaries at higher risk of HIV might be because, at the time of the survey, the PrEP services had not yet been fully implemented in the six districts and that acceptability of PrEP is still

in flux as a relatively new HIV prevention technology. There are many reasons why women engaging in high risk sexual activities might not be empowered to use PrEP which will be discussed below.

Factors associated with PrEP coverage

The factors associated with AGYW's **motivation** to use PrEP in our analyses include knowing that PrEP could reduce a person's risk of acquiring HIV by 70% or more, and having the confidence to take PrEP at the appropriate time and no matter whether other people (friends, parents, or family elders) disapproved or might think that the AGYW had HIV. These findings highlight that suboptimal knowledge about PrEP and social attitudes towards PrEP constitute barriers in AGYW's motivation to use PrEP. A study in Soweto, South Africa, found that even if young women knew where to access sexual and reproductive health services, they were constrained by problematic social attitudes towards their sexual health from healthcare workers, family, and community members (48). Based on the barriers identified in our study, interventions which could increase AGYW's motivation to use PrEP may include educational campaigns delivered in schools, healthcare settings, communities and through the media (49) (http://strive.lshtm.ac.uk/resources/hiv-prevention-cascade). Interventions to shift social norms regarding PrEP could also be effective especially when delivered through peers and social networks.

Our analyses on the factors associated with **access** to PrEP highlighted that having ever received instructions or counselling on how to use PrEP and having been offered PrEP were associated with perceived easy access to PrEP. These results highlight that suboptimal physical access to PrEP education, counselling and provision are barriers to accessing PrEP for AGYW. There is also some evidence to suggest that access to PrEP is higher among older participants. This positive association between PrEP coverage and age has been described previously in a study by Fearon et al. on HIV prevention cascades for female sex workers in Zimbabwe (12).

While we did not look at the factors associated with the **effective use** of PrEP given the low levels of PrEP use in the study population, we assume that the barriers to motivation and access will also influence the effective use of PrEP. In terms of interventions to tackle the outlined barriers, educational campaigns will be important in improving access to, and motivation for using PrEP (49). However, structural interventions such as increasing the number of settings in which AGYW may be offered PrEP, especially among adolescent girls (15-19 years old), could also improve PrEP coverage among AGYW.

Condom coverage

We constructed HIV prevention cascades for male condoms illustrating motivation to use, and access to male condoms, as well as use and effective use of male or female condoms among AGYW in need of HIV prevention, defined as those who had had sex within the 12 months before the survey and did not identify as HIV-positive. The overall cascade (Figure B) demonstrates very high levels of motivation to use condoms (89.1%), access to condoms (82.7%), and use of condoms (89.7%), suggesting the potential for positive outcomes related to HIV prevention. However, the indicator for use of condoms was not very strict as AGYW were classified as having used condoms if they used condoms at least once with their last two sexual partners. In this study, the indicator for effective use of condoms was having used condoms 90-100% of the time with the last two sexual partners. Despite very high levels of motivation and access, the level of effective use of condoms was low (22.3%). These cascades suggest that the AGYW programme theory of change holds true in that AGYW who need condoms are motivated to use them and have accessed condoms. The factors which prevent AGYW from effectively using condoms are described below. Our study suggests that interventions need to address these factors to reduce this gap in the coverage cascade. It must be noted that we did not have an independent indicator for use and effective use of FEMALE condoms, but since only 1.7% of participants had used a female condom in the past six months, this is unlikely to have affected the results substantially.

While using condoms is recommended when engaging in oral, vaginal or anal sex with a partner whose HIV and STI status is unknown, condoms are particularly important when engaging in high risk sexual activity such as having multiple sexual partners, age disparate sexual relationships and transactional sex. We have shown that AGYW who had more than one male sex partner in the six months before the survey were less likely to effectively use condoms (7.8%) compared to those who did not (26.2%). Effective condom usage was also lower among women engaging in transactional sex (5.9% versus 23.7%) and age disparate relationships (14.2% versus 24.0%) compared to those who were not, although these differences were not statistically significant. Again, this suggests that participants' risks and vulnerabilities, as described in the theory of change, may not have been accurately assessed through the risk assessment tool as part of the core services. If they had, AGYW engaging in high risk sexual behaviours could have been given targeted education and counselling to improve the effective use of condoms. Nevertheless, there are multiple reasons why AGYW do not use condoms effectively, some of which are very difficult for programmes to address. This will be explored in more detail below.

Factors associated with condom coverage

There were no factors in our analysis found to be associated with **motivation** to use male condoms with partners including age, socio-economic status, knowledge about condoms and social norms. On the other hand, age was the main factor associated with reported **access** to male condoms with more women in the 20 to 24 year age group reporting that they had access to male condoms compared to the 15 to 19 year age group. A Zimbabwean study among female sex workers found age was a factor associated with effective use of condoms, for which access is a precursor, among older sex workers (12). This suggests that interventions which aim to improve access to male condoms should target adolescent girls. AGYW also reported that there were other, unspecified reasons for not having access to male condoms, implying that there are barriers to accessing condoms which we may not have included in our analysis. We suspect that the lack of significant associations between potential barriers and motivation to use, or access to condoms is because motivation to use (89.1%) and access to (82.7%) male condoms was very high in this study.

The factors associated with **effective use** of condoms, which was relatively low in this study (22.3%), are numerous. The barriers to using condoms effectively included not having condoms or lack of access to condoms due to stock-outs, being worried about what your partner may think if you asked to use condoms or opposition from sexual partners on the issue of condom usage, not believing you were at risk of HIV, disliking condoms or having a faithful partner who you trust. Thus, interventions to improve adherence to condoms will need to address barriers to physically accessing condoms as well as AGYW's personal beliefs about HIV risk and condoms, their intentions to use condoms, and finally empower women to negotiate condom usage with their partners. As recommended for PrEP uptake, structural interventions which increase the availability of condoms and the number of settings in which AGYW's can access condoms (e.g. schools, clinics, community centres and safe spaces) could improve access and thus effective use of (adherence to) condoms (49). Risk-reduction counselling may also improve adherence to condoms and economic or gender empowerment may enable young women to choose their sexual partners and negotiate condom use (http://strive.lshtm.ac.uk/resources/hiv-prevention-cascade). There is also a need to promote condom use among boys and men, the sexual partners of AGYW.

Other unspecified reasons were also highlighted as a barrier to effectively using condoms, suggesting that the reasons why AGYW do not use condoms effectively are complicated and further information from qualitative interviews may be needed to understand this issue more comprehensively.

Female condom coverage

Female condoms are a female-initiated HIV prevention barrier method which empower women to negotiate condom usage with their partners. Less than half of all beneficiaries (39.0%) of the AGYW programme believed that it would be easy or very easy to access condoms, 30.2% of AGYW had received counselling and instructions on how to use female condoms and only 1.7% of AGYW had used a female condom in the past six months. While we do not report on motivation to use female condoms and there may be multiple reasons why AGYW choose not to use female condoms, it is clear from these findings that access to female condoms is low in the study population. This may be the result of the global imbalance in funding for and distribution of female condoms versus male condoms which is widely reported in the literature, although South Africa does have targets to try and rectify this imbalance (50).

Coverage of HIV care services and interventions

Our assessment of the coverage of HIV treatment and care services was limited by the small number of participants who reported they were living with HIV (15 participants), affecting the precision of the estimates. Our findings demonstrate excellent access to and coverage of HIV treatment and care services, which is a prerequisite to achieving viral suppression and reducing HIV transmission to sexual partners. All beneficiaries living with HIV were taking ART and almost all (96.0%) had had their viral load test within a year before the survey. Most AGYW (90.0%) said they started taking ARVs within three months of diagnosis.

There was somewhat contradictory evidence about the effect of COVID-19 on coverage of HIV treatment. Encouragingly, all AGYW living with HIV reported they had had no problems accessing their ART during COVID-19 or the lockdown. However, 16.5% reported they had missed one or more appointments for collecting their ART because of COVID-19 and the lockdown, and 24.7% said they missed taking their ART pills because of COVID-19 and the lockdown. This implies the need for special interventions to increase the accessibility of HIV treatment during crises such as the COVID-19 pandemic.

Another encouraging finding with regards to HIV treatment and care services was the positive experience participants reported with the healthcare workers who provided them ART services. All participants living with HIV reported that at their last clinic appointment for HIV treatment, healthcare workers had treated them in a friendly manner and had been respectful towards them. Not all reported the same experience with other clinic staff members, with 67.6% reporting that all other clinic staff members had been friendly and respectful towards them.

While we have shown that there were high levels of access to HIV treatment, the participants living with HIV reported suboptimal levels of adherence to the ART regimen: only 61.6% reported they had taken their ART medication 90-100% of the time and only 57.2% said they did a very good or excellent job of taking their ART in the way they are supposed to. These findings imply the need to strengthen interventions to promote adherence to ART regimens.

Coverage of pregnancy prevention services and interventions

Contraception commodities and services are important to prevent unintended pregnancy which can have a devastating impact of the health and well-being and educational attainment of AGYW. Our study reveals that among beneficiaries who reported they had had sex in the year before the survey, motivation to use contraception (72.3%) and ease of access to contraceptive services (80.0%) were relatively high. Beneficiaries also reported a relatively high level of contraceptive use: most (65.5%) reported using contraceptives in the six months before the survey. This finding is similar to the findings of the 2016 national Demographic and Health Survey (51), which reported that 60.4% of the 15 to 19 year old women and 61.0% of the 20 to 24 year old women were using a modern contraceptive at the time of the survey. Despite relatively high levels of contraceptive use in the six months before the survey among AGYW who had had sex in the year before the survey, relatively few (28.1%) reported using contraceptives effectively, defined in this study as 90%-100% of the time in the six months before the survey. The Demographic and Health Survey did not include a measure of effective use, and therefore we are unable to compare our effective use findings to national estimates. It is important to note that "COVID-19 or the lockdown" one of the most cited reasons that participants in this study did not use contraceptives all the time. It is possible that our estimates of the effective use of contraceptives reflected the time in which the survey was conducted. Participants reported that they had had fewer sexual partners and less sex as a result of the lockdown, and this might have resulted in lower than usual uptake and use of contraceptives.

Our results show significant differences in effective use of contraceptives between the 15 to 19 year age group (18.9%) versus the 20 to 24 year age group (36.5%). We also found significant differences in other indicators of access to and use of contraceptives, disadvantaging adolescents. These findings highlight the importance of interventions to improve contraceptive access and use among adolescents. In other studies, both "demand-side" factors (such as health-seeking behavior) and "supply-side" factors (such as limited availability of youth-friendly and responsive health services and healthcare workers' attitudes) have led to improved contraception access and uptake among adolescents (52, 53). Therefore, in our setting, it is important to continue to strengthen current interventions to prevent unintended pregnancies

by more effectively generating demand (through, for example, comprehensive and appropriate contraceptive education and information interventions, community mobilization and empowering adolescent girls), as well by more effectively increasing the supply of high quality services aligned with the reproductive preferences of clients.

Quality of care is an important attribute of contraceptive services, and high quality can facilitate higher levels of coverage among populations. This is especially true for AGYW, and particularly adolescent girls, as they generally require special attention. Relatively few of the participants of this study who had ever used contraception reported that they had been treated in an unfriendly manner by the health worker at their last consultation (10.3%), or reported that they had concerns that the information they shared would not be kept confidential (7.4%). Nevertheless, negative experiences among the minority might possibly deter AGYW from accessing contraceptive services (54, 55).

On the other hand, a relatively large proportion of participants of this study reported that the waiting time had been too long (36.9%), that the health worker had not checked whether they were satisfied with their contraceptive method (48.1%), that the health worker did not ask them which contraceptive method they would most like to use (37.6%), or that they had not felt involved in the decisions regarding their family planning (22.2%). These are important aspects of people-centred care which could be the focus of future interventions to improve the quality of contraceptive services for AGYW.

If we assume that all the participants who had had sex in the year before the survey were at risk of pregnancy, and if we further assume that most of them did not plan to become pregnant, then we conclude that our study has demonstrated an unmet need for contraception. The AGYW programme theory of change is based on the assumption that beneficiaries' risks and vulnerabilities will be assessed through the core intervention and a service plan will be designed to meet their needs. Our findings suggest that needs for contraception might not have be accurately assessed through the risk and vulnerability assessment which is part of the core service, or that these needs were accurately assessed but the AGYW programme implementers had not been able to ensure the beneficiaries received the needed contraceptive services. Nevertheless, it is worth noting the high motivation for contraception and the perceived easy access to contraceptives reported by the beneficiaries. These are precursors to the effective use of contraception, and this highlights a window of opportunity for improving effective use of contraceptives.

Factors associated with pregnancy prevention coverage

We explored factors associated with effective coverage of pregnancy prevention interventions to identify gaps in the prevention cascade. The factors that were associated with gaps in **motivation** to use contraceptives were: being in the younger age group; beliefs that the contraceptive injection was not a good pregnancy prevention method for young women and that it made the body change in unpleasant ways; and beliefs that the contraceptive injection, implant and pill were not safe for young women. With reference to the prevention cascade approach (http://strive.lshtm.ac.uk/resources/hiv-prevention-cascade), these gaps point to "demand-side" gaps and interventions to address them could include information and education interventions on pregnancy prevention, and awareness campaigns about contraceptives. The provision of information and education campaigns and awareness through mass media and other platforms has shown positive results in the HIV prevention strategies, as well as in sexual and reproductive health programs, and these interventions are recommended to improve effective coverage of pregnancy prevention interventions (25, 52). These are particularly important for adolescent girls, who have lower levels of motivation and relatively high levels of unintended pregnancies. Policies that support age-appropriate pregnancy prevention interventions and sex education could help improve coverage among younger AGYW.

Our findings also suggest that there are negative beliefs about, and perceptions of contraceptives among AGYW which contribute to the gap in motivation to use contraceptives. These findings are not new. Jonas et al (2020) reported as a barrier negative beliefs and perceptions of contraceptives (56). The findings imply a need for health providers to consider AGYW's beliefs and concerns about the side effects of contraceptive methods and work with AGYW to find a contraceptive method that they are happy with. Information and education campaigns on the safety and efficacy of contraceptive use for AGYW might also improve motivation to use contraceptives.

We found that the factors significantly associated with gaps in **access** to contraception were: being in the younger age group; never having been offered contraception; believing that it was difficult to access contraceptives; believing that it would cost too much to get contraceptives; and believing that it was far to go to the contraception services. These gaps are on the "supply side" and thus appropriate interventions to address them might include provision of contraception services in more accessible spaces including schools, community halls and other platforms where young women congregate. Our findings indicate that if safe spaces were more widely accessed by AGYW, these might be appropriate places to

provide contraceptive services. At policy level, interventions to engage schools to eliminate barriers to provision of pregnancy prevention services in the school premises are important, as are interventions to extend provision to the private sector, such as to retail pharmacies. These intervention approaches are likely to improve contraception services coverage. Furthermore, they may contribute to efforts to ensure a continuous supply even during difficult and unprecedented times such as during the COVID-19 and the lockdown periods.

We have shown that the factors associated with gaps in the **effective use** of contraceptives among AGYW who had ever used contraceptives were: being in the younger age group; not being sexually active at the time of the survey; disliking the side effects of contraceptives; AGYW reporting that they had run out of contraceptives; perceiving the service opening hours to be inconvenient; having experienced a stock-out of contraceptives at the service; and reporting COVID-19 or the lockdown as a barrier to getting contraceptives. Various indicators of poor family planning service quality were also associated with gaps in effective use of contraceptives: AGYW reporting they had been steered or pushed towards a specific contraceptive method; reporting they had not received the contraceptive method of their choice; and believing that the information they shared at the contraceptive service would not be kept confidential. The perceived poor quality of contraception services among AGYW has been widely documented and there remains a need to improve the quality of such services, especially for adolescent girls. These gaps point toward the importance of policies to ensure an adequate, accessible supply of a range of contraceptive methods for AGYW, as well as interventions to improve adherence to contraceptive use among AGYW such as behavioural counselling and the provision of incentives. AGYW's concerns about side effects are important to acknowledge. It is important for service providers to offer AGYW a range of contraceptive methods, listen to their needs and concerns, and work with them to find the contraceptive method of choice. Our analyses consistently show being in the younger age group presents a gap in the coverage of pregnancy prevention interventions, and therefore it is important to tailor the interventions mentioned so that they are responsive to adolescents' needs.

Well-being and coverage

The AGYW programme funded by the Global Fund is a comprehensive, multi-component intervention, which goes beyond narrow disease-focused interventions, and includes a broad array of interventions at the biomedical, behavioural and structural levels to improve AGYW's health and well-being. Given that the AGYW programme focuses on key dimensions of young people's well-being (such as improving access to social protection and support services, promoting positive coping and self-worth, stigma), it was

important to assess the programme's impact on AGYW's well-being, based on measures that were grounded in young people's conceptualisation of well-being, such as the one we used. Ideally, such a programme will not only achieve effective coverage of HIV and pregnancy prevention and care interventions, but it will also contribute to improved health-related quality of life and improved general well-being among beneficiaries. We found that among beneficiaries of the AGYW programme there were no associations between our measures of intervention coverage and well-being. It is important to bear in mind that a cross-sectional study design such as the present study is not ideally placed to answer the question about the longitudinal impact of the intervention on well-being.

Alcohol use

Our survey found that 2.7% of beneficiaries reported binge drinking (1.2% in the younger age group and 4.7% in the older age group). These estimates are lower than those reported in a representative household survey of AGYW living in areas in which the Global Fund funded AGYW programme was implemented during the 2016-2019 grant period, which found a prevalence of 10.3% reporting binge drinking (https://www.samrc.ac.za/intramural-research-units/healthsystems-herstory). Several other studies also reported higher levels of binge drinking than we found in AGYW survey (57, 58). Interventions to prevent and treat hazardous alcohol use among AGYW beneficiaries are nonetheless very important. Alcohol impacts the acquisition and further transmission of HIV, as well as the course of HIV disease (59, 60), increasing the likelihood of having condomless sex, and the likelihood of STI and HIV acquisition. Alcohol use poses a threat to the success of HIV treatment, accelerating the progression of HIV disease through, among other factors, its effect on the immune system (60) and leading to unintentional and intentional nonadherence to the ART regimen (60, 61). For women, alcohol use undermines their ability to protect themselves from gender-based violence and pregnancy (62, 63).

Sexual relationship power

It is concerning that almost half of the survey participants reported that when their partner wants sex, they are expected to agree, and that their partner wants to know where they are all the time. Almost a third reported that they felt that their partner had more to say about important decisions that affected them than they did. The findings of this survey related to sexual relationship power imply the need for interventions to empower AGYW, as well as the need to expanding interventions for adolescent boys and young men, and male sexual partners.

The COVID-19 pandemic and its effect on coverage

By AGYW's own accounts, the COVID-19 pandemic and the lockdown had a devastating effect on their lives, health, and access to health care based on their responses to the survey questions. Regarding access to health care, 22.5% of participants were unable to go to a clinic or doctor when they needed, 34.9% said they were unable to get the medicines they needed, 22.5% said they were unable to get the contraceptives they needed, and 21.0% reported challenges accessing condom because of COVID-19 and the lockdown. Among AGYW living with HIV, one in four reported they missed taking their ARV pills because of COVID-19 and the lockdown. It is important to develop innovative ways to ensure AGYW's access to health interventions during situations like the pandemic.

Regarding livelihoods, 69.8% of the participants reported that she or a family member experienced financial problems during COVID-19 and the lockdown, 73.4% reported concerns about food running out, and 24.0% said they had gone a day and night without food due to lack of money during COVID-19 and the lockdown. Regarding education, almost half (44.5%) of the participants reported they had been unable to continue with their studies because of COVID-19 and the lockdown. Regarding health and well-being, 67.1% reported they had become more distressed and anxious during COVID-19 and the lockdown and 49.6% reported they had found it harder to get to the emotional support they needed during COVID-19 and the lockdown. Some participants reported that since the pandemic and the lockdown, there was more violence in their home (14.1%), and that they were more worried about being physically abused (12.1%) emotionally abused (22.1%) or sexually abused (6.6%).

It is important to note that the participants of this study reported potentially less HIV risk behavior (fewer sexual partners and fewer incidences of sex) during the pandemic and lockdown, but greater concerns about being victims of violence. These concerns reflect a need for interventions to protect AGYW from violence especially during situations in which their access to the usual social protection resources are undermined, such as the pandemic and lockdown.

South Africa's lockdown has been described as one of the world's strictest lockdowns (https://www.theglobeandmail.com/world/article-south-africa-begins-easing-one-of-the-worlds-strictest-coronavirus/). The response to COVID-19 in many low- and middle-income (LMICs) countries including South Africa was shaped by evidence from high-income countries (64). However, experts advise that LMICs require context-specific and locally driven solutions which address inequalities in health and socioeconomic status. Support is required for civil society organisations, such as those implementing the AGYW programme, as they have first-hand knowledge of the needs of the communities in which they

operate and the impact of the pandemic therein (3). Government-led structural interventions are also important as they can create an enabling environment for behaviour change: for example, mass distribution of condoms, contraceptives and ARVs at least during the short-term (4). However, civil society organisations can hold governments accountable and ensure these resources are distributed in an unbiased and equitable manner (3) and can support AGYW and youth to monitor the access and availability of commodities.

This survey has highlighted the difficulties beneficiaries faced during the COVID-19 pandemic. These findings are aligned with other research among young people in South Africa, which shows how the pandemic and lockdown has exacerbated the already precarious situations of young people (64). In an accompanying report on the qualitative research that was part of this process evaluation, we have described the difficulties implementers faced in providing services and interventions to their AGYW beneficiaries during COVID-19 and the lockdown, as well as the mid-stream adaptations they applied to the intervention in response to COVID-19.

Strengths and limitations of the AGYW survey

One of our objectives included to describe the coverage of the HIV and sexual and reproductive health interventions by district. We have described coverage according to age group, socioeconomic status, and HIV risk, but we have not disaggregated coverage cascades by district, given the low sample realization and the consequent relatively small district sample sizes. Our definitions of the target population for HIV prevention or pregnancy prevention interventions (the population in need of the intervention), might not have been aligned to the AGYW programme definition.

We did not have participants' consent to link the survey data with the sampled AGYW's records in the programme monitoring database. Thus, we relied on participants' self-reports of health, risks, intervention coverage, and facilitators of, and barriers to service access and use. We do not know the extent to which these self-reports were valid. Although we checked with respondents whether they were in a private, comfortable place before we conducted the telephone survey, we were not able to guarantee this privacy.

One of the important limitations of the study design is that the success of the sampling strategy was dependent on the AGYW beneficiaries being contactable by the SRs, predominantly by phone. Those who are not contactable by phone are likely to be different to, and possibly more vulnerable than those who

have working phones, and this may have introduced a bias in the study findings. To assess the potential biases that may have been introduced, we compared the profile of the survey sample of beneficiaries with the population all beneficiaries registered in the My Hope Database (Table 45). The sampling strategy included stratification by age group, being in school and district and therefore we do not comment on the comparability of these characteristics. However, we note that survey participants were a little more likely to report having ever had sex and being HIV positive compared with all beneficiaries. There was a relatively large range in the survey sample size by district as noted in Table 45, which was a consequence of the varying levels across districts of the ease/difficulty in contacting beneficiaries to invite them to the study. The range in the number of beneficiaries by district in the My Hope Database also varied substantially, which might reflect the varying targets by district.

Table 45. A comparison of the characteristics of the survey participants with the population of AGYW beneficiaries listed in the My Hope Database as at 4 June 2021

	AGYW survey		My Hope Database	
	N	%	N	%
Total (denominator for %'s)	515	100.0	249169	100.0
Age group				
15 - 19	292	56.6	156032	62.6
20 - 24	223	43.4	97391	39.1
District				
Klipfontein	58	11.3	13114	5.3
Bojanala	63	12.2	28836	11.6
King Cetshwayo	126	24.5	20153	8.1
Ehlanzeni	108	21.0	27388	11.0
Nelson Mandela Bay	70	13.6	22141	8.9
Thabo Mofutsanyana (Dihlabeng)	90	17.5	15008	6.0
Ever had sex				
Yes	381	73.9	154097	61.8
No	129	25.1	95072	38.2
HIV-status				
Yes I am HIV positive	19	3.7	5164	2.1
No I am HIV negative	454	88.2	187122	75.1
Occupation				
In school	237	46.0	151154	60.7
Employed	57	11.1	5204	2.1
Among AGYW who are not HIV positive				
Ever offered PrEP	91.2	18.6	72849	24.1

A study limitation related to the HIV prevention and pregnancy prevention cascades is that AGYW who have never had sex were excluded from the population "at risk" (the first cascade column), even though they might have chosen abstinence as an HIV/pregnancy prevention method, and even though they might have not started sex because they could not get access to HIV/pregnancy prevention methods. A limitation related measuring HIV care coverage is that the sample of participants who reported they were HIV positive was small, and therefore the estimates were not as precise/reliable as they would have been with a larger sample of HIV positive participants. In addition, we could not construct HIV care cascades.

The AGYW survey did not include AGYW who chose not to participate in the interventions or who were not able to access the interventions. The findings on the survey only reflect AGYW who had had access to the AGYW programme and who had been registered as beneficiaries and who were contactable by phone.

Our approach of "remote" interviewing over the phone had advantages, including that it could increase disclosure of socially undesirable behaviour, it reduced travel costs, it reduced the risk of COVID-19 for researchers and participants, and it facilitated access to geographically disparate participants. There were also disadvantages to the remote interviewing approach we used, including that there are potential barriers to building rapport with research participants during phone interviewing, the absence of visual cues during interviewing, potential participant distraction, and technological problems that can impact the flow of the interview. Nevertheless, the SAMRC team has experience of successfully conducting phone interviews and phone counselling on sensitive topics (46) and our team of data collectors had high levels of expertise.

Other limitations include that we were not able to link service uptake to the AGYW Programme funded by the Global Fund, given the limited branding of the interventions, and that we did not include the sexual partners of AGYW in the scope of the study, because the AGYW Programme does not specifically target them.

The results of the survey reflect coverage predominantly during the early phase of the grant period, when not all the intervention components were being widely implemented. There had been a staged roll-out of various services and interventions, and our study was conducted among beneficiaries who had been enrolled when some of the services were not yet fully implemented. A limitation of conducting the study among beneficiaries who were enrolled in the early period is that the findings do not reflect the full potential of the intervention when all components are effectively implemented. This limitation affected our estimates of intervention coverage.

Lastly, it is important to acknowledge that the results of this AGYW survey reflect coverage predominantly during various levels of lockdown. A key limitation of conducting the study in the context of the COVID-19 epidemic is that the results will not reflect the true potential of the intervention. The efficient delivery and coverage of the package of relevant interventions and services has likely been undermined by the pandemic and lockdown.

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