

Describing HIV prevalence & risky sexual behaviours among adolescent girls & young women in South Africa

Pivotal basics for preventing pregnancy & HIV

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Background

Evidence shows a year-on-year rise of teenage pregnancies (10-19 years) between 2017-2021 in South Africa*

COVID-19 related impacts on health have manifested as constrained access to contraceptives, a crisis of teenage pregnancies and increased risk for HIV acquisition.



*Barron et al., 2022. Teenage births and pregnancies in South Africa, 2017 - 2021 - a reflection of a troubled country: Analysis of public sector data. S Afr Med J. 2022 Apr 1;112(4):252-258.

Aim

To estimate HIV prevalence and related risk behaviours among adolescent girls and young women (AGYW) aged 15-24 years using the 2017 South African national HIV prevalence survey*

*known as SABSSM

Simbayi, et al., 2019. *South African National HIV Prevalence, Incidence, Behaviour and Communication Survey, 2017*. Cape Town: HSRC Press.



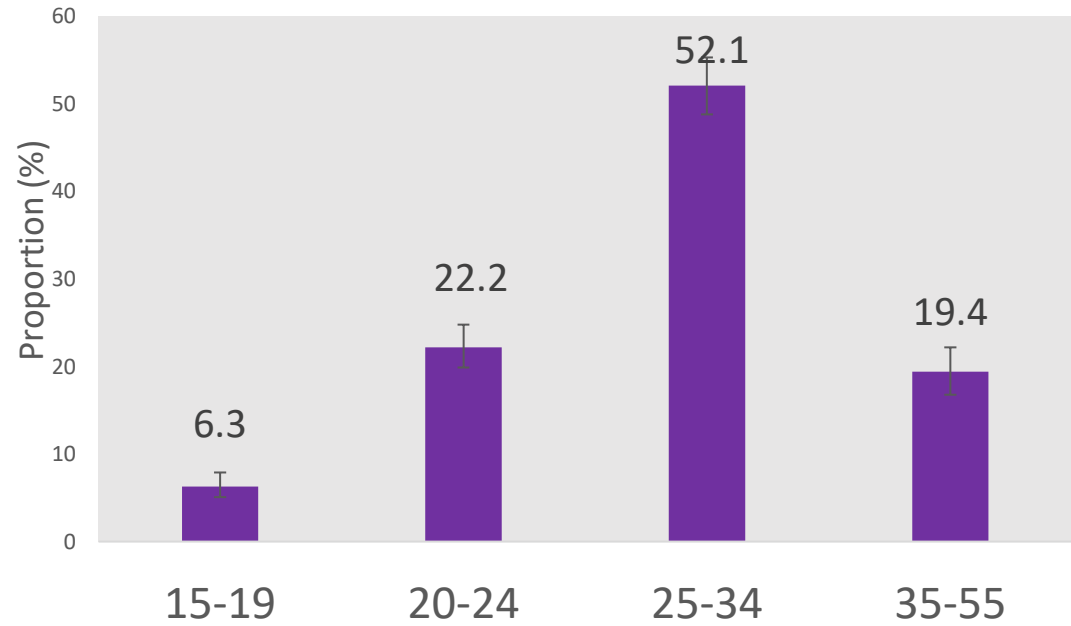
Methods

- Data were collected between December 2016 to February 2018 in all nine provinces, using a cross-sectional multi-stage stratified cluster design.
- The sample for the analyses presented here consisted of AGYW aged 15-19- and 20–24-years who reported being sexually active during the 12 months preceding the survey.
- Analyses were conducted for two subsamples: 1) those who reported a pregnancy during the preceding 24 months or current pregnancy during the survey (referred to as *recently pregnant AGYW*) and those who did not report a recent pregnancy (referred to as *other AGYW*).
- All analyses were conducted using Stata version 15.0.
- Column proportions were reported for recently pregnant AGYW (yes/no).
- Weighted descriptive statistics were used to report HIV prevalence & self-reported sexual risk behaviours including condom use, age mixing (age disparate sex), age at sexual debut and multiple sexual partners among the two AGYW groups (i.e., recently pregnant AGYW (yes/no).
- Univariate and multivariate models were constructed.

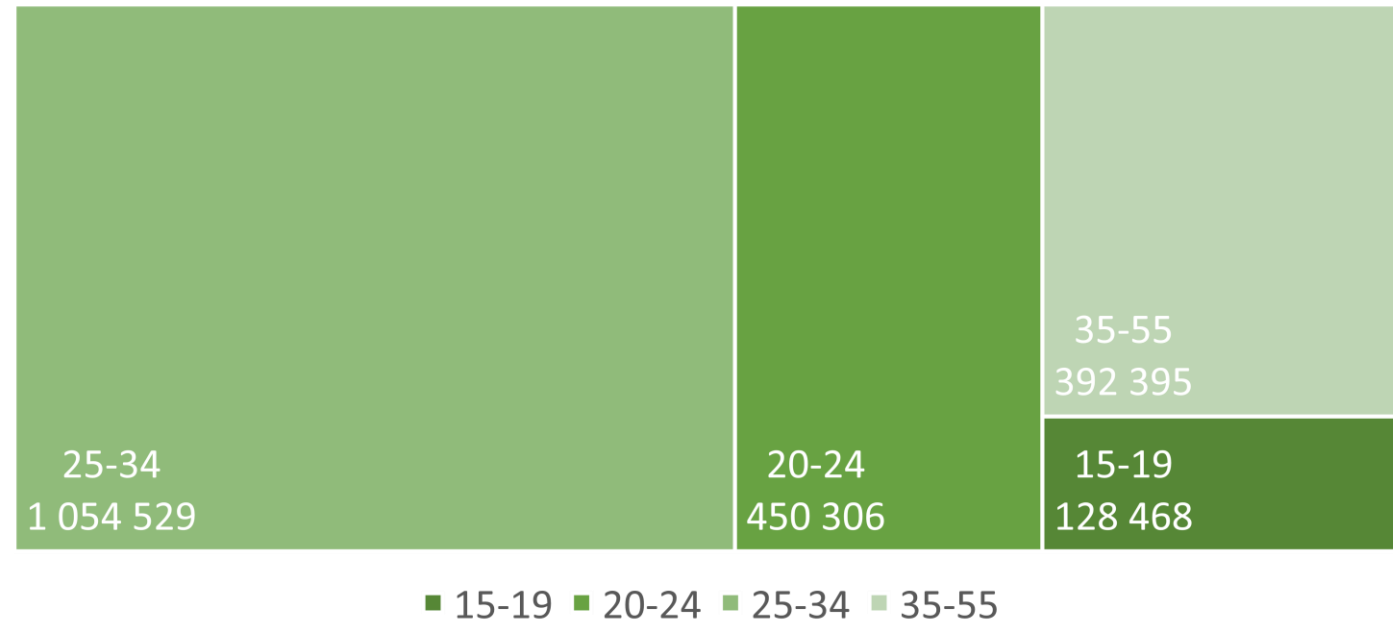
Results

There were significant differences by age ($p < 0.001$) among females aged 15 to 55 years ($N = 2128$) who reported a recent pregnancy.

- 6.3% (95% CI 5.1-7.9) of AGYW were aged 15-19 years, equating to $n = 128\,468$ (95% CI 98\,047-158\,889).
- 22.2% (95% CI 19.9-24.8) of AGYW were aged 20-24 years, equating to $n = 450\,306$ (95% CI 390\,021-510\,592).



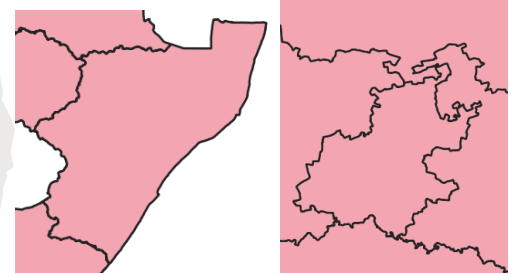
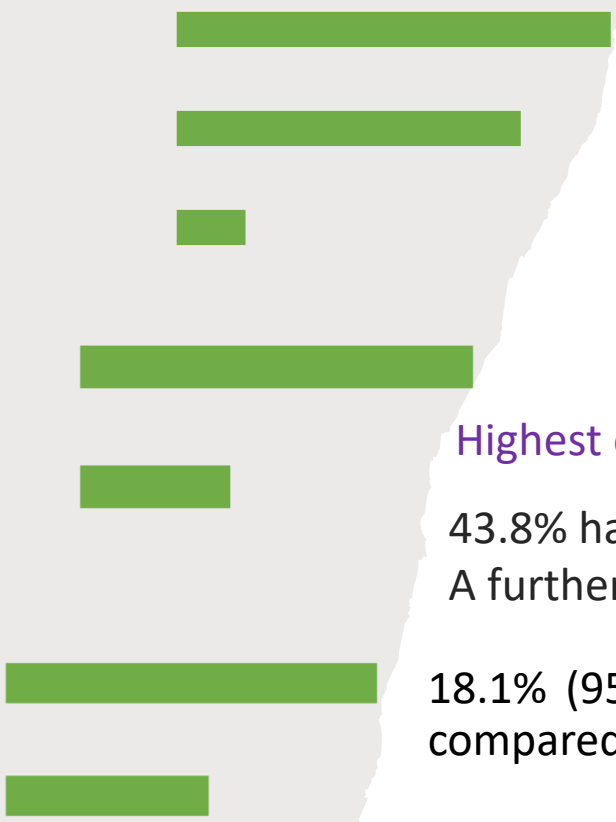
age (years) of recently pregnant females



Number of recently pregnant women

Demographics

AGYW 15-24 years



Provinces with the highest proportion of recently pregnant AGYW:
KwaZulu-Natal at 23.2% (95% CI 18.4-28.9)
Gauteng at 20.1% (95% CI 14.4-27.3)

Highest education level among recently pregnant AGYW

Half (50.5%, 95% CI 44.8-56.2) of the recently pregnant AGYW had some secondary school level education.

40% (95% CI 34.3-46.0) had completed secondary school.

Approximately 8% (95% CI 5.4-10.9) had no formal or primary school level education.

Highest education level among AGYW who did not report a pregnancy

43.8% had completed some secondary school.

A further 46.7% (95% CI 42.7-50.6) completed secondary school.

18.1% (95% CI 14.1-23.0) of recently pregnant AGYW **were students/learners** compared to 33.1% (95% CI 29.9-36.5) who did not report a recent pregnancy.

Marital status



Among recently pregnant AGYW, the majority were unmarried, however 9% were married (95% CI 6.5-12.4)

Demographics

AGYW 15-24 years



Unemployment

72.5% (95% CI 67.4-77.1) of recently pregnant AGYW were unemployed, compared to 52.1% (95% CI 48.5-55.7) unemployed among AGYW who did not report a recent pregnancy.



Salary/earnings

A lower proportion of recently pregnant AGYW reported they received support in the form of salaries & earnings (6.9%, 95% CI 4.8-9.8) compared to AGYW who did not report a recent pregnancy (14.2%, 95% CI 11.7-17.1).



Reliance on government pensions/grants

However, a higher proportion of recently pregnant AGYW reported receiving government pensions and grants (11.7%, 95% CI 8.3-16.2) compared to AGYW who did not report a recent pregnancy (4.5%, 95% CI 3.2-6.2).



Risky Sexual Behaviour: condom use with main sex partner

How often do you use a condom with your partner?

Response options:

every time/almost every time/
sometimes/never

AGYW 15-24 years



Inconsistent condom use was reported as follows:
34.1% (95% CI 29.0-39.7) of recently pregnant AGYW reported they used a condom sometimes with their partner compared to 25.5% (95% CI 22.7-28.6) among AGYW who did not report a recent pregnancy.



A further 38.7% (95% CI 33.8-43.8) of recently pregnant AGYW said they never used a condom compared to 25.4% (95% CI 22.4-28.6) of AGYW who did not report a recent pregnancy .

Awareness of HIV status

AGYW 15-24 years



Most (84.5%, 95% CI 80.4-87.8) recently pregnant AGYW were **aware of their HIV status**, compared to the others (15.5%, 95% CI 12.2-19.6) who were **not aware of their HIV status**.

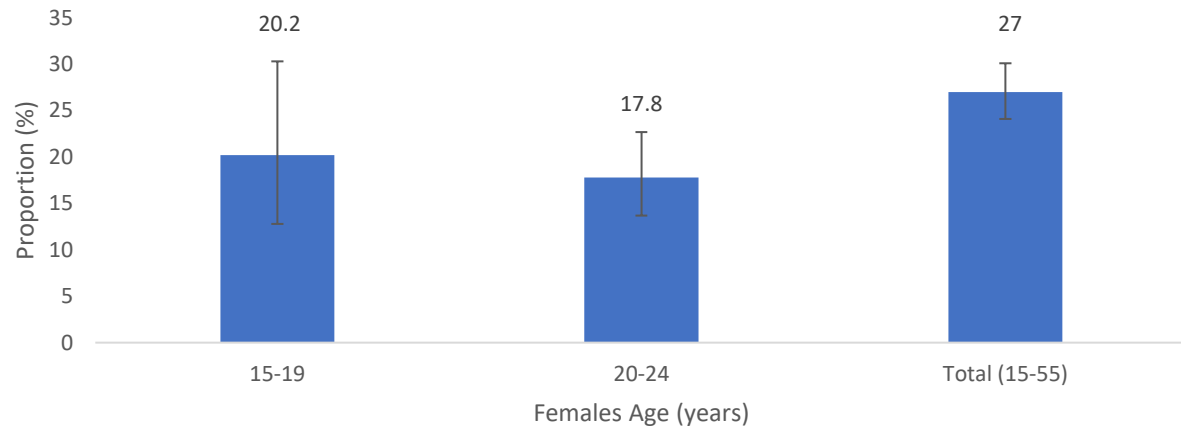


Among AGYW who did not report a recent pregnancy, 34.6% (95% CI 31.5-37.9) **did not know their HIV status**.



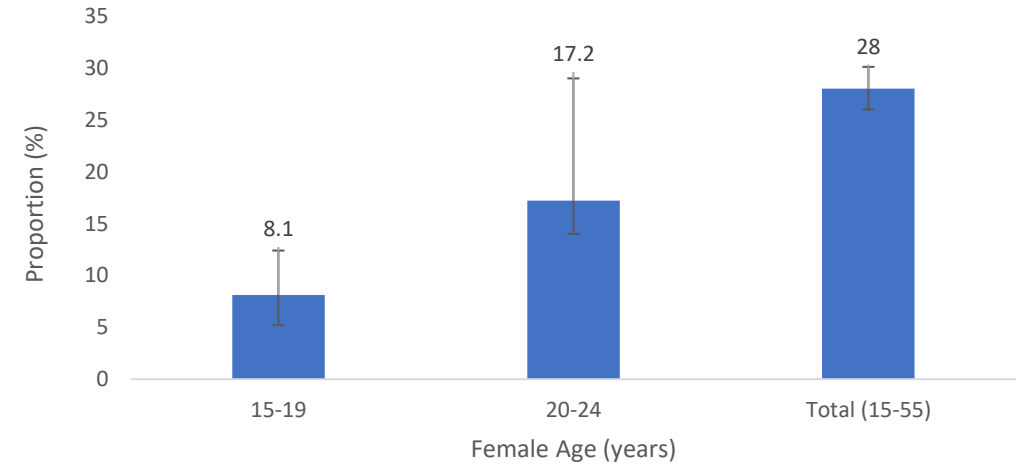
HIV status by age among pregnant & other AGYW

HIV positive recently pregnant AGYW



P<0.003

HIV positive other AGYW



P<0.000

About one in five pregnant AGYW were HIV positive

Results: Univariate



Recently pregnant AGYW with **no formal schooling or primary school as their highest education level**, were more likely to be HIV positive; compared to those with higher levels of education.



AGYW **aged 20-24 years** were more likely to be HIV positive (OR, 2.2, 95% CI 1.33-3.73); compared to their younger counterparts aged 15-19 years.

Variable	Pregnant AGYW (15-24 years)			Other AGYW* (15-24 years)		
	OR	95 % CI	P value	OR	95 % CI	P value
AGYW age(years)						
15-19	<i>ref</i>			<i>ref</i>		
20-24	0.97	0.52-1.8	0.924	2.2	1.33-3.73	0.002
Race						
Other	<i>ref</i>			<i>ref</i>		
African	80.9	11.0-595.1	p<0.001	0.18	0.14-0.97	0.043
Education						
Tertiary education	<i>ref</i>			<i>ref</i>		
No formal schooling	48.24	3.7-620.91	0.003	2.1	0.44-9.74	0.361
Primary school	32.11	2.9-354.43	0.005	2.9	0.70-11.9	0.142
Some secondary school	14.0	1.6-122.3	0.017	0.81	0.23-2.82	0.744
Completed secondary school	12.6	1.4-111.6	0.023	0.67	0.19-2.36	0.525



* AGYW who indicated they did not have a recent or current pregnancy

Results: Univariate


Recently pregnant AGYW who **relied on grants/donations by private welfare organizations** (OR 13.5, 95% CI 2.9-61.9) followed by **contributions from family members/relatives** (OR 11.1, 95% CI 1.6-77.3) were more likely to be HIV positive.


Student/learner AGYW were more likely to be HIV positive (OR 1.8, 95% CI 0.16-0.68); compared to employed AGYW.




Variable	Pregnant AGYW (15-24 years)			Other AGYW (15-24 years)		
	OR	95 % CI	P value	OR	95 % CI	P value
Geotype						
urban	<i>ref</i>			<i>ref</i>		
rural informal (tribal)	1	0.59-1.86	0.879	1.2	0.72-1.85	0.544
rural (farms)	0.9	0.37-2.17	0.805	1.6	0.66-3.08	0.132
Marital status						
married	<i>ref</i>			<i>ref</i>		
never married	0.7	0.3-1.7	0.382	1.81	0.50-6.54	0.366
Employment						
employed	<i>ref</i>			<i>ref</i>		
unemployed	2.6	0.6-12.2	0.225	0.68	0.35-1.33	0.26
student/learner	1.8	0.33-10.11	0.478	0.32	0.16-0.68	0.003
Main income source in past month						
salary/earnings	<i>ref</i>			<i>ref</i>		
no income	7.1	2.1-24.2	0.002	0.63	0.32-1.26	0.191
contributions by family members/relatives	11.1	1.6-77.3	0.015	0.33	0.10-1.06	0.064
government pensions/grants	1.8	0.5-7.0	0.399	0.70	0.202-2.42	0.572
grants/donations by private welfare organizations	13.5	2.9-61.9	0.001	0.75	0.222-2.52	0.639
other sources	9.4	1.8-51.2	0.009	0.43	0.11-1.62	0.210
Awareness of HIV status						
no	<i>ref</i>			<i>ref</i>		
yes	0.6	0.3-1.2	0.163	1.04	0.68-1.59	0.849

Results: Univariate

 **Multiple sexual partners:** recently pregnant AGYW who had \geq two sexual partners were more likely to be HIV positive than their counterparts who had one partner.

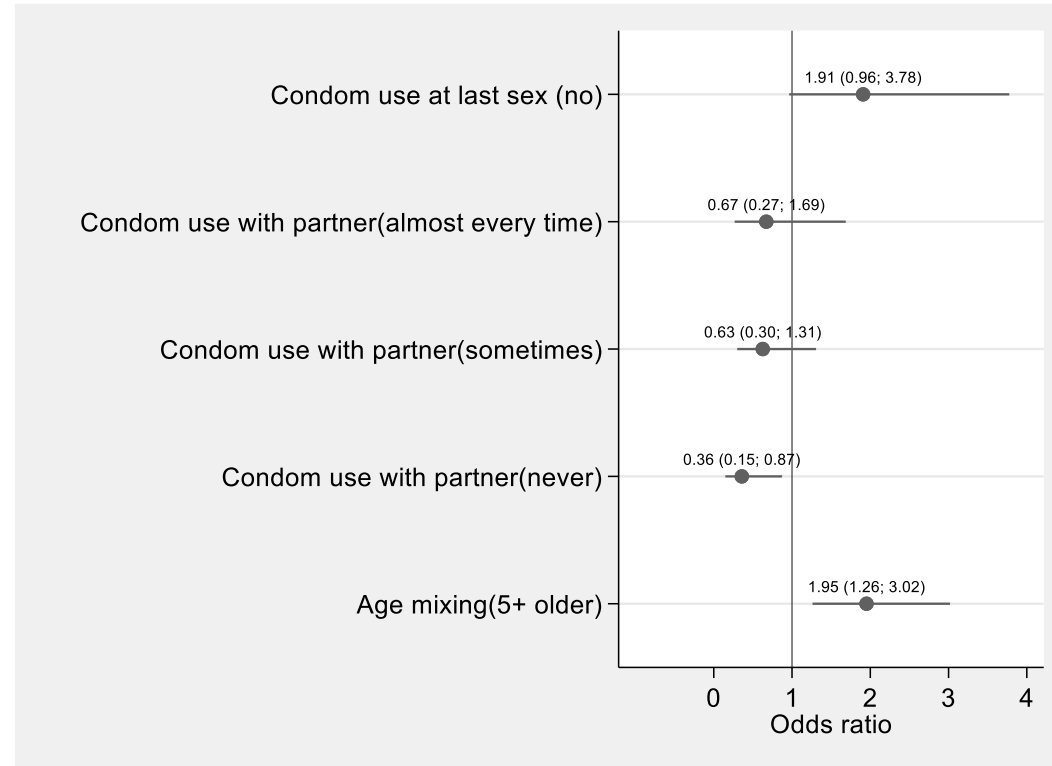
 **Age disparate sexual relationships:** AGYW who had a partner five years and older than themselves, were more likely to be HIV positive than AGYW whose partners were of similar age.

 **Risk perception:** AGYW with high self reported risk perception were more likely to be HIV positive than AGYW with low risk perception.

Variable	Pregnant AGYW (15-24 years)			Other AGYW (15-24 years)		
	OR	95 % CI	P value	OR	95 % CI	P value
Awareness of HIV status						
no	<i>ref</i>			<i>ref</i>		
yes	0.6	0.3-1.2	0.163	1.04	0.68-1.59	0.849
Risk perception						
low	<i>ref</i>			<i>ref</i>		
high	1.1	0.5-2.6	0.712	2.13	1.30-3.48	0.003
How often do you use a condom with your partner?						
every time	<i>ref</i>			<i>ref</i>		
almost every time	0.6	0.2-2.1	0.369	1.8	0.80-4.0	0.16
sometimes	0.7	0.3-1.6	0.365	1.0	0.54-1.78	0.955
Never	1.0	0.4-2.3	0.909	1.1	0.62-1.97	0.731
Condom use at last sex						
yes	<i>ref</i>			<i>ref</i>		
no	1.30	0.7-2.6	0.429	1.1	0.70-1.63	0.749
Age mixing						
\geq 5 year older age gap	<i>ref</i>			<i>ref</i>		
< 5 year age gap (five years younger or older)	0.6	0.3-1.2	0.107	0.63	0.41-0.98	0.04
Multiple partners						
1 partner	<i>ref</i>			<i>ref</i>		
two or more	2.8	1.1-7.5	0.036	0.98	0.48-2.01	0.965
Age at sexual debut						
\geq 15 years	<i>ref</i>			<i>ref</i>		
<15 years	1.3	0.4-3.8	0.689	1.6	0.73-3.35	0.247

Results Multivariate: recently pregnant AGYW

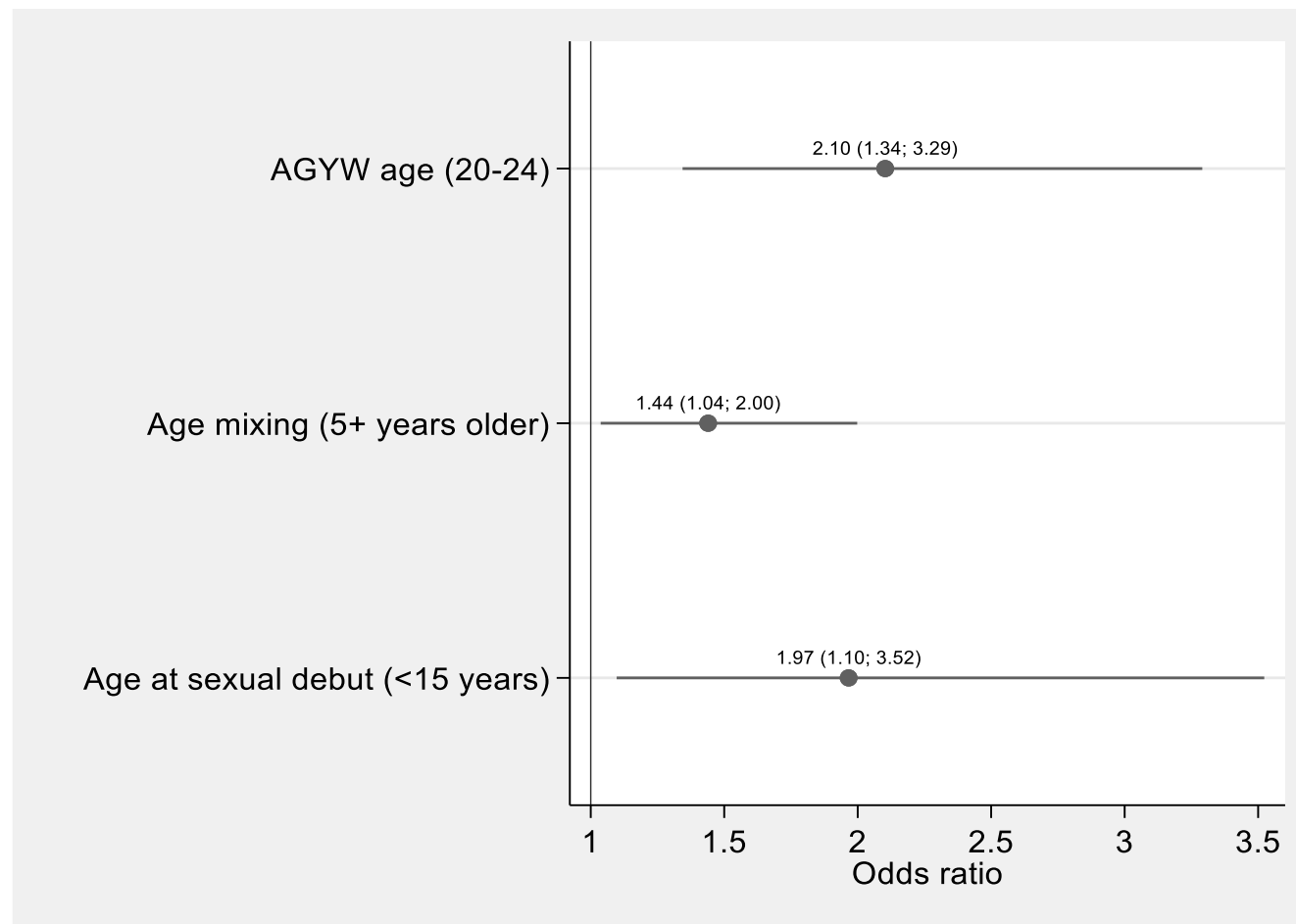
Variable	Pregnant AGYW (15-24 years)		
	aOR	95 % CI	p value
Education			
tertiary education	ref		
no formal schooling	3.33	0.30-36.51	0.325
primary school	5.21	0.56-48.36	0.146
some secondary school	1.86	0.23-15.36	0.564
completed secondary school	2.05	0.25-17.01	0.507
Main income source in past month			
salary/earnings	ref		
no income	1.81	0.60-5.44	0.288
contributions by family members/relatives	2.20	0.51-9.47	0.289
government pensions/grants	1.90	0.56-6.37	0.301
grants/donations by private welfare organizations	2.53	0.69-9.30	0.163
other sources	2.93	0.62-12.89	0.175
How often do you use a condom with your partner?			
every time	ref		
almost every time	0.67	0.27-1.69	0.396
sometimes	0.63	0.30-1.31	0.212
never	0.36	0.15-0.87	0.024*
Condom use at last sex			
yes	ref		
no	1.91	0.96-3.78	0.064
Age mixing			
< 5 year age gap (five years younger or older)	ref		
≥ 5 year older age gap	1.95	1.26-3.02	0.003*
Multiple partners			
1 partner	ref		
two or more	1.23	0.50-3.08	0.637
Age at sexual debut			
>=15 years	ref		
<15 years	1.16	0.05-0.52	0.727



Lack of condom use with a partner and being in an age disparate relationship increased likelihood of being HIV positive among pregnant AGYW

Results Multivariate: Other AGYW

Other AGYW (15-24 years)			
Variable	aOR	95 % CI	p value
AGYW age(years)			
15-19	ref		
20-24	2.11	1.34-3.29	0.001*
Employment			
employed	ref		
unemployed	1.10	0.70-1.73	0.689
student/learner	0.75	0.43-1.30	0.303
Condom use at last sex			
yes	ref		
no	0.98	0.71-1.36	0.906
Age mixing			
< 5 year age gap (five years younger or older)	ref		
≥ 5 year older age gap	1.43	1.04-2.00	0.029*
Multiple partners			
1 partner	ref		
two or more	1.20	0.67-2.14	0.532
Age at sexual debut			
≥15 years	ref		
<15 years	1.97	1.10-3.52	0.023*



AGYW aged 20-24 years, having an age disparate sexual relationship and having an early sexual debut increased the likelihood of being HIV positive among other AGYW

Key findings



Different risky sexual behaviours were associated with being HIV positive based on recent pregnancy or not.

Among all AGYW, age disparate relationships was significantly associated with being HIV positive.

Among recently pregnant AGYW, lack of condom use with a partner was significantly associated with being HIV positive.

Among AGYW who did not report a recent pregnancy, being between 20-24 years & having had an early sexual debut were significantly associated with being HIV positive.

Recommendations

Building back better



- Interventions aimed at addressing pregnancy prevention & HIV prevention need to include strategies to address the risk associated with AGYW having older sexual partners & early sexual debut.
- HIV interventions for youth should be tailored by age to address the differential risk behaviours associated with HIV acquisition & social environments.
- Messaging about consistent condom use needs to be reinforced and supported by accessibility to condoms and PrEP for all AGYW.
- Messaging should include the advantages of testing for HIV, knowing their HIV status and adding PrEP to their personal prevention strategy, coupled with consistent condom use.
 - These strategies should be promoted even for AGYW in established relationships & for AGYW using other contraception methods & if currently pregnant.

Recommendations

Building back better



- Unemployment & receiving support from government grants was higher among recently pregnant AGYW compared to AGYW not pregnant; this is consistent with findings on teenage & youth pregnancies being more prevalent in low socio-economic contexts. Therefore addressing social & structural drivers of HIV need to be prioritized.
- These results affirm the need for interventions to improve sexual education, contraception education & access, retainment in school, & poverty alleviation, to be targeted & tailored for AGYW living in low socio-economic contexts.