

**COVID-19 AND ITS IMPACT ON HIV RISK BEHAVIOUR
AND USE OF HIV PREVENTION METHODS IN SELECTED AREAS IN
MANICALAND, EAST ZIMBABWE**



INTERIM RESULTS FROM A GENERAL POPULATION SURVEY

Second Update: February 25 to June 14, 2021

Background

In this study, we aim to find out how the COVID-19 pandemic and local responses to it have affected HIV risk behaviours and use of HIV prevention methods in the general population. The study is being done in eight sites in Manicaland province – two high-density suburbs in Mutare city, two small towns, two large-scale agricultural estates, and two subsistence farming areas – where baseline data on the immediate pre-COVID-19 situation and recent telephone contact details for study participants are available from a survey conducted in 2018/2019. Two rounds of a telephone-based household census and survey are planned – the first is in progress currently; the second will be conducted later this year or early in 2022 (whenever is most useful). In each round, the fieldwork will be carried out in two phases, with one site from each socio-economic stratum included in each phase. In each site, a random sample of two-thirds of household members aged 15 years and above will be eligible for individual interviews. A longitudinal qualitative study is being run in parallel with the surveys.

This second report provides an update on the results on a selection of key indicators for the period February 25th to June 14th, 2021. Indicator definitions are given in the Appendix. A more complete analysis (to include formal statistical analyses) will be conducted shortly after the data collection has been completed. The study is being funded by the Bill and Melinda Gates Foundation.

Current status of the survey

Data collection for the first survey began in February, 2021 and is expected to run until the early July 2021. The current report includes data provided by 7085 people who were interviewed between February 25th, 2021 and June 14th, 2021. As at June 14th, the study sites in first phase of the survey were almost finished and those in the second phase were about 2/3rds complete.

Status of the local COVID-19 epidemic and response

The national COVID-19 lockdown introduced on January 2nd, 2021 was still in place when the survey started but was eased shortly afterwards on March 1st, 2021. The national COVID-19 situation reports indicate that the cumulative numbers of confirmed COVID-19 cases and deaths countrywide up to June 14th were 40,077 and 1,635 respectively. Numbers of cases and deaths were low from March to May 2021 but cases picked up at the end of May and a new national lockdown was implemented on June 14th, 2021.

In Manicaland province, 449 new cases of COVID-19 were confirmed and 15 new deaths occurred from the start of the survey to June 14th; bringing the totals since the beginning of the pandemic to 4,138 confirmed cases and 203 deaths respectively. A COVID-19 outbreak was detected at a boarding school in one of the study areas around April 16th, 2021 with approximately 200 cases being reported. At national level, up to June 14th, 693,568 people had received the first dose of a vaccine and 414,635 people had received their second dose.

The results of the survey to date on the effects of the COVID-19 epidemic and response on the study population are shown in Table 1. The average score on the knowledge index is similar for men and women and has been consistent at around 61% throughout the survey period to date. The main gaps in knowledge are lack of knowledge about the risks of infection from touching a person with the virus, touching surfaces which have the virus on them, touching one's eyes, nose or mouth with unclean hands, and contact with bodily fluids from an infected person. Self-reported compliance with Government regulations and guidance

on COVID-19 safety precautions has also been consistent at around 75% but dropped slightly to 71% in the first half of June. Personal risk perception of becoming infected with the COVID-19 virus is low and fell to 13.5% between May-early June 2021 from 18.4% between February-April 2021 (OR=0.69; 95% confidence interval [95% CI], 0.60-0.78; $p<0.001$).

Women's average number of social contacts increased slightly from 10 per day at the end of the latest national COVID-19 lockdown to 13 per day in early June 2021. Men had higher numbers of contacts overall and the trend followed a similar pattern increasing from 16 per day to 18 per day.[‡]

1.9% of survey respondents (up from 1.7% at May 14th) reported having had a confirmed symptomatic case of COVID-19 at some point since the beginning of the pandemic. The rate remains higher for women (2.3%) than for men (1.3%). Confirmed asymptomatic cases remain low (0.3%). However, 2.3% of women and men who had not been tested suspected they had had COVID-19 and also reported having had common symptoms of the disease since April 2020.

Vaccine hesitancy is low (20%), is higher in women (24%) than in men (14%), and has continued to reduce over time (30% in February-March 2021; 17% in May 2021; 12% in early June 2021). Vaccine coverage in older people and other vulnerable groups increased rapidly from 2% in February-March to 32% in June.

The proportion of women reporting violence from male intimate partners within the last 12 months was high (8.6%) in February-April 2021 - i.e. just after the end of the last national COVID-19 lockdown - and has fallen to 5.0% in early June 2021 (OR=0.56; 95% CI, 0.44-0.73; $p<0.001$).

In the Manicaland study areas, 8.9% of women and 4.3% of men reported experiencing mental health problems in the pre-COVID-19 period. These levels had increased to 20.1% of women and 13.5% of men at the end of the last national lockdown (February-March 2021) but have come down to 16.2% and 10.4%, respectively, in early June 2021 (OR for women and men combined =0.79; 95% CI, 0.70-0.91; $p<0.001$).

Impact of COVID-19 on HIV risk and use of prevention services

The results of the survey to date on the effects of the COVID-19 pandemic on HIV risk behaviours and on use of HIV services in the study population are shown in Table 2. Results on similar indicators from the 2018/19 pre-COVID-19 survey are shown for comparison. Some caution should be exercised in interpreting differences between the results of the two surveys bearing in mind the change in data collection methods from face-to-face interviews in 2018/19 to telephone-based interviews in 2021, that intensified VMMC and PrEP promotion activities were implemented amongst young people for 6 months after the 2018/19 survey in parts of the study sites, and that the new data so far have been collected predominantly from the first four of the eight study sites. In some cases, sample sizes are small particularly in the current survey which is still in progress. Survey data on sexual risk behaviours can be subject to participation, recall and social desirability biases.

There were no differences in the proportions of male and female respondents reporting at least one non-regular sexual partner in the last 12 months between February and mid-June 2021 compared to the pre-COVID-19 period (15.7% *versus* 15.4% for men; 5.8% *versus* 6.2% for women). The proportions of sexually-active respondents reporting more than one partner in the last month were lower in the current survey period for both men (2.2% *versus* 3.2%) and women (0.8% *versus* 1.1%). However, this proportion had increased for men and women combined between May-early June 2021 compared to February-April 2021 (1.7% *versus* 1.0%; OR=1.72; 95% CI, 1.05-2.85; $p=0.023$).

Amongst men and women whose most recent sexual partner was a non-regular partner, the proportion who reported using condoms all or most of the time in the last 2 weeks rose slightly to 86.5% in the current survey period from 83.4% in the pre-COVID-19 period. People who are continuing to have casual partners in the COVID-19 period may be disproportionately those who do use condoms on a consistent basis. However, the numbers of such individuals are quite small. In both periods, most survey respondents with non-regular sexual partners were motivated to use condoms and felt they could access them (lack of access

increased only slightly to 2.4% from 1.2%) and lack of capacity to use condoms effectively (e.g. due to low skills, low self-efficacy or lack of partner support) was the main barrier to use (>45% in both periods).

Uptake of VMMC in the last month in young men in Manicaland fell to 2.0% between February and early June 2021 from 3.8% prior to the COVID-19 pandemic. Lack of motivation to take-up VMMC actually declined to 26.6% from 44.2% (i.e. *more* men reported wanting to get circumcised) but reports of lack of access to VMMC services amongst those wanting to be circumcised increased to 18.7% from 10.5%. Reports of lack of capacity to take up VMMC services amongst young men with motivation and access to these services also increased to 63.4% from 42.8%.

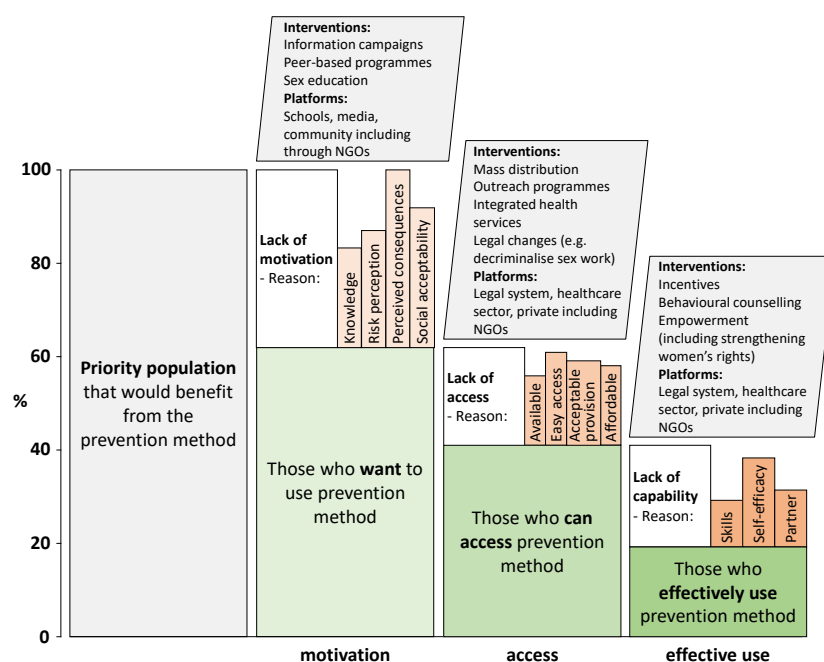
Use of PrEP amongst sexually-active HIV-negative adolescent girls and young women was very low (0.5%) in the study areas prior to COVID-19 and had increased only marginally (to 1.2%) in the current survey period despite intensive promotion activities in some of the study areas. Lack of motivation to use PrEP fell to 83.0% from 92.1% and lack of access to PrEP services fell to 16.0% from 23.3%, possibly due to increases in knowledge of PrEP and local provision, but lack of capacity to use PrEP effectively was reduced only slightly to 89.7% from 91.3%.

Self-reports of HIV testing in the last 12 months amongst sexually-active HIV-negative individuals were high (>60%) in both sexes and did not reduce following the COVID-19 outbreak. Perhaps surprisingly, reports of lack of access to HIV testing services actually fell to 5.2% in the current survey period from 8.2% in the pre-COVID-19 period. This reduction was particularly strong in women (to 2.1% from 5.9%).

In the current survey, 9.4% of men and 11.5% of women with recent symptoms of sexually transmitted infections (STIs) reported not having sought treatment within one week. The proportion of women who delayed seeking treatment fell steadily from 21.3% in February-March 2021 to 5.6% in early June 2021.

There is no evidence in the data for a reduction in self-reported recent cessation or inconsistent adherence to ART in the current survey period (8.9%) compared to the pre-COVID-19 period (8.5%); or for a change in adherence between the immediate post January lockdown period (February-April 2021) and the most recent period (May-early June 2021) (8.90% *versus* 8.85%; OR=0.99; 95% CI, 0.56-1.76; *p*=1.0).

Figure: Illustrative HIV prevention cascade elaborating gaps in implementation of an HIV prevention method in a hypothetical priority population, explanatory factors that may contribute to these gaps, and intervention approaches and platforms that may be appropriate to address these factors.





COVID-19 AND IT'S IMPACT ON HIV RISK AND USE OF HIV PREVENTION METHODS

Table 1: COVID-19 INDICATORS 14 June 2021

Indicator	Combined					Males					Females				
	Month ending:					Month ending:					Month ending:				
	28 Jul '21	29 Jun '21	28 May '21	27 Apr '21	26 Mar '21	28 Jul '21	29 Jun '21	28 May '21	27 Apr '21	26 Mar '21	28 Jul '21	29 Jun '21	28 May '21	27 Apr '21	26 Mar '21
	Cumulative					Cumulative					Cumulative				
1 COVID-19 knowledge index (%)	61	61	60	60	64	60	61	60	60	61	61	62	61	60	65
2 COVID-19 compliance index (%)	74	71	74	75	76	72	69	72	73	75	76	74	76	77	76
3 COVID-19 risk perception (%)	16	14	13	19	17	18	7	15	22	17	15	6	12	18	16
4 Social contacts	13	15	14	13	12	17	18	18	17	16	11	13	11	11	10
SARS-CoV-2 cases															
5a Confirmed symptomatic (%)	1.9	2.1	2.2	1.6	1.4	1.3	1.5	1.1	0.9	1.9	2.3	2.6	2.9	2.0	1.0
5b Confirmed asymptomatic (%)	0.3	0.3	0.5	0.0	0.2	0.2	0.3	0.3	0.0	0.0	0.3	0.3	0.7	0.1	0.3
5c Suspected (%)	2.3	2.5	2.4	2.6	1.5	1.9	0.7	2.2	2.7	1.2	2.7	4.0	2.5	2.5	1.6
6 COVID-19 vaccine hesitancy (%)	20	12	17	23	30	14	11	13	14	20	24	12	19	28	36
7 COVID-19 vaccine coverage (%)	16	32	24	6	2	15	29	19	5	5	16	33	26	6	1
8 Intimate partner violence (%)	6.8	3.7	5.8	8.4	8.9	8.8	10.4	7.2	6.8	13.5	6.8	3.7	5.8	8.4	8.9
9 Mental health problems (%)	14.8	13.6	12.9	16.2	17.5	8.8	10.4	7.2	6.8	13.5	18.8	16.2	16.6	21.9	20.1
Total number of participants	7085	1492	2260	2229	1104	2862	681	902	848	431	4223	811	1358	1381	673

COVID-19 AND ITS IMPACT ON HIV RISK AND USE OF HIV PREVENTION METHODS



Table 2: HIV RISK INDICATORS 14 June 2021

Indicator	Combined				Males				Females								
	Cumulative	Pre-COVID	Month ending:	Pre-COVID	Cumulative	Pre-COVID	Month ending:	Pre-COVID	Cumulative	Pre-COVID	Month ending:	Pre-COVID					
	28 Jul '21	29 Jun '21	28 May '21	27 Apr '21	28 Jul '21	29 Jun '21	28 May '21	27 Apr '21	28 Jul '21	29 Jun '21	28 May '21	27 Apr '21					
HIV risk behaviours																	
1 Non-regular partner(s) in last 12 months	9.5	9.6	9.8	8.8	10.6	8.5	15.7	15.4	13.4	15.0	18.2	15.8	6.2	7.1	5.0	6.6	4.2
2 Multiple partners in last month	1.3	1.9	1.7	1.7	1.2	0.7	2.2	3.2	2.3	2.9	1.6	1.8	1.1	1.2	1.0	0.9	0.0
3 Unprotected sex at last sex with a non-regular partner	13.5	16.6	15.9	11.0	13.8	15.0	23.5	17.2	25.7	19.6	25.3	25.0	7.3	8.1	5.7	7.6	8.9
Gaps in condom cascade for people with non-regular partners																	
4a Lack of motivation	5.2	5.4	9.7	5.3	5.9	4.4	12.1	5.3	17.2	11.4	12.5	6.0	2.5	3.8	1.5	2.3	3.5
4b Lack of access	2.4	1.2	3.7	1.4	2.0	3.5	1.7	1.2	1.4	1.1	2.3	1.8	3.7	8.8	1.8	1.4	6.7
4c Lack of capacity to use effectively	52.9	46.6	100.0	66.7	40.0	40.0	28.6	46.5	100.0	100.0	75.0	100.0	70.0	100.0	50.0	100.0	50.0
Gaps in VMMC cascade																	
5 VMMC uptake in last month																	
5a Lack of motivation																	
5b Lack of access																	
5c Lack of capacity to use effectively																	
Gaps in PrEP cascade																	
6 Currently using PrEP																	
6a Lack of motivation																	
6b Lack of access																	
6c Lack of capacity to use effectively																	
Gaps in HIV testing cascade																	
7 HTS uptake in last 12 months	65.7	59.5	63.8	68.4	56.4	51.1	64.2	52.3	60.3	68.6	62.7	63.3	67.4	66.3	68.9	69.2	67.7
7a Lack of motivation	5.9	8.7	4.9	5.0	7.1	5.9	4.5	10.2	5.4	3.4	5.3	3.9	5.3	4.3	5.0	6.4	4.8
7b Lack of access	5.2	8.2	6.0	3.2	5.1	8.5	11.3	12.0	13.5	8.6	12.5	11.6	2.1	1.0	0.7	1.7	6.9
7c Lack of capacity to use effectively	26.4	28.9	28.7	25.5	24.7	29.0	24.2	33.9	26.4	22.2	24.3	25.5	27.3	30.0	26.9	24.9	30.8
8 Delayed seeking STI treatment	11.3	N/A	7.0	9.8	10.4	19.2	9.4	N/A	14.3	9.1	11.1	0.0	11.5	N/A	9.9	10.3	21.3
9 Gaps in ART adherence	8.9	8.5	11.8	7.6	9.9	5.8	12.0	11.0	14.7	10.1	11.7	14.3	7.6	10.3	6.5	9.2	4.0
Total number of participants	7085	9803	1492	2260	2229	1104	2862	4074	681	902	848	431	4223	5729	1358	1381	673

APPENDIX

Notes on construction of COVID-19 and HIV risk indicators

COVID-19 indicators

COVID-19 knowledge index: Constructed using responses to questions on five ways in which the new coronavirus can spread from person-to-person. These are from droplets from coughing and sneezing; touching people who have the virus; touching surfaces with the virus; touching eyes, nose and mouth with unclean hands; and contact with body fluids from an infected person. Greater weight given to correct answers that are given spontaneously.

COVID-19 compliance index: Constructed using responses to questions on levels of consistency of compliance with guidance on hand washing and sanitising, avoiding social gatherings, going out for non-essential reasons, wearing face masks, and on following Government regulations on safety when using public transport.

COVID-19 risk perception: Measured using a question on the respondent's perception of his or her own chances of contracting the COVID-19 virus.

Social contacts: A social contact was defined to be an interaction between two individuals – either physical, involving skin-to-skin contact such as a handshake, or non-physical, involving a two-way conversation with three or more words in the physical presence of each other but with no skin-to-skin contact. Calculated as the total number of such contacts in a day at work, on public transport, or at bars, restaurants, nightclubs or shebeens. ³In the previous report (May 2021), we showed the simple average of weekday and weekend day numbers; in this report, this has been adjusted to allow for the larger number of weekdays.

Confirmed symptomatic SARS-CoV-2 cases: Based on self-reports of having received a positive SARS-Cov-2 test result after developing common symptoms of COVID-19 disease.

Confirmed asymptomatic SARS-CoV-2 cases: Based on self-reports of having received a positive SARS-Cov-2 test result after testing for reasons other than developing common symptoms of COVID-19 disease (e.g. contacts of confirmed cases, health workers and hospital patients).

Suspected COVID-19 cases: Individuals self-reporting suspected COVID-19 disease who also reported having experienced common symptoms of COVID-19 disease (i.e. fever, cough and/or loss of sense of smell or taste) since April 2020.

COVID-19 vaccine hesitancy: Constructed using responses to Likert scale questions on how strongly respondents agreed that COVID-19 vaccines were safe, effective, compatible with their religious beliefs, and important to take.

COVID-19 vaccine coverage: Measured using a question that asks the respondent whether he or she has received the vaccine themselves. We don't currently have questions specifically about the vaccine type of about first and second doses.

Intimate partner violence: A UNAIDS Global AIDS Monitoring Report (2021) indicator for monitoring the 2016 Political Declaration on Ending AIDS based on women's reports of one or more of nine forms of physical or sexual violence in the 12 months preceding the interview.

Mental health problems: The WHO PHQ-9 scale was used to identify those with moderate, moderately severe, or severe depression.

HIV risk indicators

Non-regular partners in last 12 months: Proportion of respondents who have ever had sex reporting one or more non-regular sexual partners in the 12 months preceding the interview.

Multiple partners in last month: Proportion of respondents who have ever had sex reporting more than one sexual partner in the month preceding the interview.

Unprotected sex with recent non-regular partner: Proportion of respondents whose most recent sexual partner was a non-regular partner who report not using condoms all the time or most of the time in the last two weeks.

Gaps in the condom cascade for people with non-regular partners: Proportions of respondents with non-regular partners in the last two weeks who: 1) lacked motivation to use condoms; 2) were motivated but lacked access to condoms; and 3) were motivated and could access condoms but were unable to use them effectively. See the Figure below for a pictorial representation of the HIV prevention cascade formulation used in the study.

VMMC uptake in the last month: Proportion of previously-uncircumcised young men (ages 15-29 years) who took up VMMC in the last month.

Gaps in the VMMC cascade: Proportions of young men who: 1) lacked motivation to take up VMMC; 2) were motivated but lacked access to VMMC; and 3) were motivated and could access VMMC but lacked the capacity to take it up (e.g. due to lack of social/practical skills, self-efficacy, or partner support).

PrEP use in the last month: Number of HIV-negative young women (aged 15-24 years) who were sexually-active in the last month who reported using PrEP currently.

Gaps in the PrEP cascade: Proportions of young women who: 1) lacked motivation to take up PrEP; 2) were motivated but lacked access to PrEP; and 3) were motivated and could access PrEP but lacked the capacity to take it up (e.g. due to lack of social/practical skills, self-efficacy, or partner support).

HIV testing in the last 12 months: Proportion of sexually-active HIV-negative respondents who reported an HIV test in the last 12 months.

Gaps in the HIV testing cascade: Proportions of HIV-negative sexually-active respondents who: 1) lacked motivation to take up HIV testing; 2) were motivated but lacked access to HIV testing; and 3) were motivated and could access HIV testing but lacked the capacity to take it up in the last 12 months.

Delayed seeking STI treatment: Respondents reporting symptoms of sexually transmitted infections who took longer than 7 days to seek treatment.

Gaps in ART adherence: Proportion of people living with HIV initiated on ART who reported having stopped taking the drugs in the last year, taking the drugs occasionally or never in the last month, or forgetting to take the drugs occasionally or quite often in the last month.