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Figure S1. Location of the six healthcare facilities included in the study¹

¹ Each circle indicates the location of a study healthcare facility.

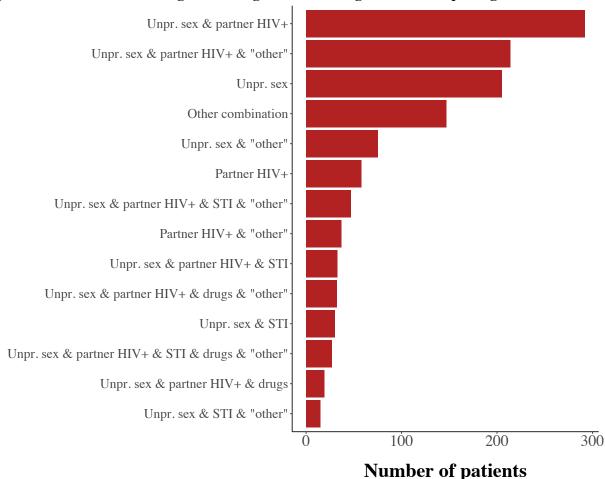


Figure S2. Reasons for having been categorized as being at risk of acquiring HIV

Abbreviations and definitions: Unpr. sex = Answered 'yes' to "In the past six months, have you had unprotected (condom-less) sex?"; partner HIV+ = Answered 'yes' to "In the past six months, have you had sex with partners who are HIV-positive or whose HIV status you did not know?"; STI = Answered 'yes' to "In the past six months, have you had a sexually transmitted infection?"; drugs = Answered 'yes' to "In the past six months, have you had sex under the influence of alcohol and/or drugs?"; "other" = Answered 'yes' to "In the past six months, have you been using post-exposure prophylaxis (PEP)?" and/or "In the past six months, have you experienced or do you expect any situations which you consider to be risky for acquiring HIV?"

Figure S3. Poster promoting PrEP that was displayed in all healthcare facilities throughout the study period

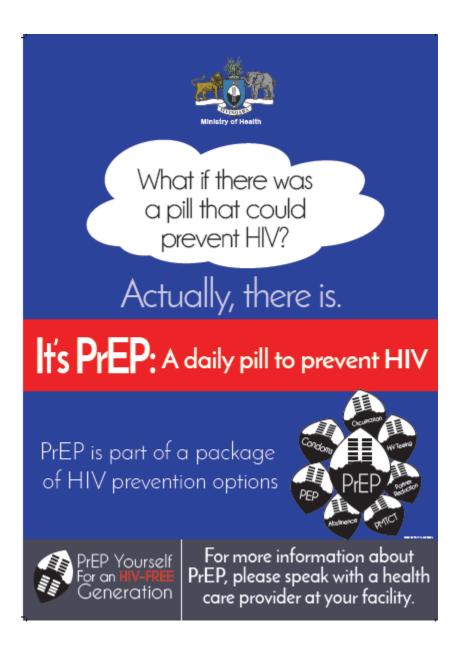
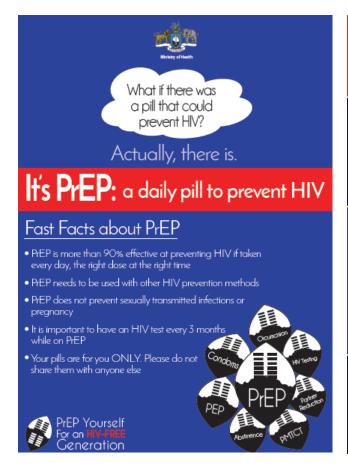


Figure S4. Pamphlet on PrEP available at all healthcare facilities throughout the study period



What does PrEP stand for?

Pre: Before

xposure: coming into contact with HIV rophylaxis: a pill to prevent infection

How should I take PrEP?

- 1 pill once a day with or without food
- Take it at the same time everyday
- If you forget, take it as soon as you remember but do not take more than 1 pill in one day

Why should I take PrEP?

To prevent HIV infection as an HIV-negative person likely to come in contact with HIV

How safe is PrEP

Some peop effects when taking PrEP, but they usuall go away in a coupl of weeks

How often do I need to visit the health facility?

First visit HIV and blood test screening

Get your first PrEP supply for one month

One month later HIV test

Get a 2 month refill of PrEP

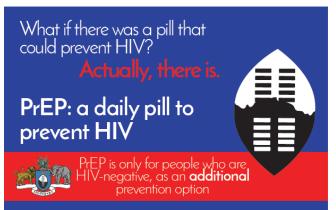
Two months later HIV test

Get a 3 month refill of PrEP

Every 3 months HIV test while at risk for HIV Get a 3 month refill of PrEP Blood test screening

For more information about PrEP, please see a health care provider at one of the following PrEP demonstration sites: Hhohho Region - Hhukwini Clinic | Horo Clinic | Lobamba Clinic | Mbabane PHU Ndvwabangeni Nazarene Clinic | Ndzingeni Nazarene Clinic | Ntfonjeni Clinic | Siphocosini Clinic Manzini Region - King Sobhuza II PHU | Luyengo Clinic | PSI/New Start Clinic Shiselweni Region - Dwaleni Clinic | FTM Clinic | Gege Clinic | Lavumisa Clinic Magubheleni Clinic | Mahlandle Clinic | Mashobeni Clinic | Nhlangano Health Center | SOS Clinic Nhlangano Fixed Testing Site | Tfokotani Clinic | Zombodze Clinic

Figure S5. Palm card on PrEP available at all healthcare facilities throughout the study period



Pre: Before

Exposure: coming into contact with HIV

Prophylaxis: a pill to prevent infection

For more information about PrEP, please see a health care provider at one of the following PrEP demonstration sites:

Hhohho Region - FLAS Mbabane | Hhukwini Clinic | Horo Clinic | Ndvwabangeni Nazarene Clinic | Ndzingeni Nazarene Clinic | Ntfonjeni Clinic | Siphocosini Clinic

Shiselweni Region - Dwaleni Clinic | FTM Clinic | Gege Clinic | Magubheleni Clinic Mahlandle Clinic | Mashobeni Clinic | Nhlangano Health Center | SOS Clinic Nhlangano Satellite HIV Testing Site | Tfokotani Clinic | Zombodze Clinic Manzini Region - FLAS Manzini

Figure S6. Form used to screen whether clients were at risk of acquiring HIV

PrEP for HIV Prevention: Part Facility name:		nent	END DATE: 31/03/2019 Ministry of Health	[insert serial Date: DD M]
Consent for screening:	□ Yes →	☐ First time	PrEP Screening	☐ Repeat so	creening	
	□ No					
Sex:	☐ Male	☐ Female	☐ Transgender	r		
DOB: DD MM YYYY						
Reason for visit: PrEP	□ VCT	□ OPD	☐ STI treatmer	nt 🗆	ANC	□ PNC
□ FP	☐ Other,		☐ Referral #			
Relationship status:	☐ Single, no re	•	☐ One partner☐ One partner☐			
Partner HIV status:	☐ Negative	☐ Positive	☐ Unknown	☐ No answe	er	
If partner HIV-positive: Education: HIV test date: DD MM YYYY	☐ Partner on A☐ None☐ Primary☐ Non-reactive		Partner NOT on ART ☐ Secondary ☐ Tertiary nate ☐ Reactive →	☐ Unknowr☐ Unknowr☐ Linked to Al		RT status
HTS register #:						
Perceived risk: On a scale of 1-5,	how high does tl	ne client percei	ve his/ her risk to ge	t HIV. Circle th	e correct n	umber.
1: No risk 2: Low risk	3: Some risk	4: High risk	_			
In the past SIX months:						
Have you had unprotected	(condom-less) sex	?			☐ Yes	□ No
Have you had sex with parti	ners who are HIV	positive or who	se HIV status you di	d not know?	☐ Yes	□ No
3. Have you had a sexually tra	nsmitted infection	n?			☐ Yes	□ No
4. Have you been using post-e	xposure prophyla	ixis (PEP)?			☐ Yes	□ No
5. Have you had sex under the	influence of alco	hol and/or druք	gs?		☐ Yes	□ No
Have you experienced or do acquiring HIV? If yes, specification		situations which	you consider to be	risky for	□ Yes	□ No
If known, indicate if the client be	longs to any of th	ne following tar	get populations (tic	k any that appl	ly) :	
Young woman 16 – 25 years	☐ Yes	□ No	Othe	er at risk as per	rick acces	sment:
In sero-discordant relationship:	☐ Yes	□ No □	Unknown	□ Yes □		silient.
Sex worker:	☐ Yes		Unknown	□ 1C3	110	
MSM:	☐ Yes			s, specify:		
Client with current STI:	☐ Yes		Unknown			
Pregnant:	☐ Yes	EDD: DD MN LMP: DD MN				
Lactating:		□ No				
Comments:						
Conclusion:				ided counsellin	ng on:	
☐ Client at substantial risk for HI\ → Continue with eligibili			· [Condoms VMMC → □		or VMMC
☐ Client at substantial risk for HIV → Discuss, offer and/ or	/ / infection and N O	o interest in Pri	ervices	Delayed sexu Reducing # of STIs Partner testir	f sexual pai	rtners
☐ Client not at substantial risk fo → Discuss, offer and/ or		V prevention se	andinos E	Test and Star Other, specif	t	

Initial & Date (Data Staff): ____

Initial & Date (Clinic Staff): ____

PrEP for HIV Prevention: Part B Eligibility assessment

Acute HIV Infection (AHI) In the past 3 days have you had any of the following	STI symptom screening In the past 3 days have you had any symptom	s of an STI?
symptoms?	Genital sore or ulcer ☐ Yes	□ No
Sore throat	Vaginal/penile/anal discharge ☐ Yes	□ No
Fever	Vulval/penile itching /burning ☐ Yes	□ No
Night sweats ☐ Yes ☐ No	Lower abdominal pain	□ No
Swollen glands	Scrotal swelling	□ No
Mouth ulcers ☐ Yes ☐ No	Inguinal bubo	□ No
Headache	Differential diagnosis:	
Rash	RPR / Syphilis (if symptomatic) Yes	□ No
Generalized body pain ☐ Yes ☐ No	Date tested: DD MM YYYY	
Intense fatigue ☐ Yes ☐ No	Result: □ Non-reactive □ Reactive → [□ Rx given
Possible exposure to HIV in the last 14 days: ☐ Yes ☐ No ☐ ≥1 symptom + possible exposure → Suspect AHI, defer PrEP initiation ☐ ≥1 symptom + no exposure → Differential diagnosis: ☐ Head of the last 14 days: ☐ Yes ☐ No	Hepatitis B test and vaccination HBsAg test date: DD MM YYYY Result: If HBsAg positive: AST result ALT result Management Vaccination: Not done Reported Docu	
Known NCDs: Serum creatinine		
HPT: Yes No Date sample drawn: DD MM YYYY	Pasult: umal/1 (140 – Age) x wei	
	Result:µmol/ L	(in μmol/L
DM: Yes No Weight: kg	(140-Age) x we Serum creatinine	
Eligibility checklist (tick all that apply)		
1. Participant is ≥16 years	☐ Yes	□ No
2. HIV test is non-reactive	☐ Yes ☐	□ No
3. At substantial risk for HIV infection	☐ Yes ☐	□No
4. Do not suspect acute HIV infection	☐ Yes	□ No
5. Baseline creatinine taken	☐ Yes ☐	□ No
6. Baseline HBsAg taken	☐ Yes ☐	□ No
7. Participant is > 40 kg		□ No
8. Participant is willing/ able to come of follow up appoint	2.163	□ No
9. No contraindications to TDF (see guidelines)	☐ Yes	□ No
Eligible for PrEP:	ding Other services offered/ provided:	
Informed consent signed: Yes No	orrad	
PrEP initiation: ☐ Yes ☐ No ☐ Default FrEP deferred next review date: DD MM YYYY	erreu	
	[
Comments:		

Figure S7. T-shirt that was part of the PrEP Promotion Package



Figure S8. Flipchart that was part of the PrEP Promotion Package

See separate document.

Figure S9. Booklet for clients that was part of the PrEP Promotion Package

See separate document.

Figure S10. Self-risk assessment form that was part of the PrEP Promotion Package

Αı	M I AT RISK FOR HIV?	/MM	/ YYYY
	mplete the self-risk assessment below by ticking 'y e questions about your HIV risk behaviour in the p a		
	Age: Gender: \square Female \square Male \square Tr	ansgen	der
is y	hat do you think		
ln	the past SIX months:	Yes	No
1.	Have you had unprotected (condom-less) sex?		
2.	Have you had sex with partners who are HIV positive or whose HIV status you did not know?		
3.	Have you had a sexually transmitted infection (STI)?		
4.	Have you been using post-exposure prophylaxis (PEP)?		
5.	Have you had sex under the influence of alcohol and/or drugs?		
6.	Have you experienced or do you expect any situations, which you consider to be risky for getting HIV?		
Α	ny 'yes' answer may mean that you are at risk for H	IIV infe	ction.
	re you interested in learning OYes ON The provent HIV?	No	
	ve this card to your counsellor or nurse to discuss nd determine if PrEP may be the right option for you back of this card for more information about HIV presented.	ou Se	e the

Figure S11. PrEP client file

			National ID No.							
			First name:							
DrFI	P Client f	fila	Surname:							
FILI	Chefft	IIC	DOB:		Sex:		\top	М	F	TG
			Physical address:							
			Telephone:	_						
			Education:							
Facility name:										
			Occupation:							
			Relationship status:	MMLYYYY	MMTY	vvv	1/13	4 Y Y Y	/V 3	IM I
PrEP initiation date:	DDIA		(Update every 6 months)				1			
FIEF IIIIdadoii date.	0011		Single							
			Partner, not living together							
			Partner, living together							
PrEP ID:			Multiple partners							
	□ OPD	□ PNC	тог	rics		ммүү		ck if topic		
Preferred service			A. What is PrEP? B. Who is PrEP for?			_		-		
delivery point:	□ VCT	☐ FP	C. Safety and Effectiveness		-					
delivery point.	□ ANC	☐ Other:	D. Advantages of taking PrEP							
	L ANC	Li Ottiei.	E. How does PrEP work?							
			F. What is the process of gett		o take it?			<u> </u>		
			G. Ways to support adherence H. Discussing PrEP with other		-			\vdash		
			PrEP and alcohol or recrea		-	_		\vdash		
			J. No STI protection other th							
			K. No contraceptive effects							
			L. Starting PrEP							
			M. Pausing & Restarting PrEP N. Stopping PrEP		\rightarrow			-	-	_
			N. Stopping PrEP O. HIV Testing		-+			\vdash		
			P. Minor side-effects							
			Q. Kidney side-effects							
			R. Hepatitis B							
			S. PrEP during pregnancy and					_		
			T. What's the difference bets					-	-	-
			U. Health monitoring while or V. Population specific topics,		\rightarrow		-	\vdash	-	-
			v. ropulation specific topics,	apacity.		_				

PrEP=HIV pre-exposure prophylaxis; OPD=Outpatient department; VCT=HIV voluntary counseling and testing; ANC=Antenatal care; PNC=Postnatal care; FP=Family planning; DOB=Date of birth; STI=Sexually transmitted infection

Figure S12. PrEP clinical appointment form

Visit date	Months	HIV	Cr	Cl calculat	ion		Screening	Į.	Cour	selling	PrEP	# month	Next visit		Commer		Sigr	natur
DD MM YY	on PrEP	test results (R / NR)	Wt (kg)	Serum creat	CrCl ml/min	FP	STI	Side effects	Ongoing HIV risk? (Y/N)	Adherence # of missed doses last 7d	Status	refill provided	date DD MM Y		include) clinical no as require	tes		
									(1,11)									
														\top		\exists		
																T		
P codes		ST	I codes			Side effec	t codes			PrEP Stat	tus		Baseline an	d F/U	Lab sch	edule		
P = pregnant (OCP = oral cor			UD = genit	al ulcer I discharge		A = abdom			NOTE:	A= Active						onth		- 10
C = condoms	itraceptives			abdominal		S = skin ra: Nau = nau			NOTE.	R= Resta	rt insferred out		HTS	0 X	1 3 X X	_	_	12 X
inj = injectable			N= scrotal			V = vomiti		Fi	II ADR form	RIP = Dea			Creatinine	X	X X	X	_	X
IUD = intraute			= inguinal	_		H = heada	-	fe	or all Grade	1	No longer at	risk	HBsAg	Х		+		
BTL = bilateral	tubal ligatio	n O	= other			D = diarrhe			3 / 4 side		Persistent sid		RPR/ Syph	Wh	en indica	ted		-
N = none		N	= None				adenopath		effects	STOP 3: I	No longer wa	nts PrEP	Pregnancy	Wh	en indica	ted		

Table S1. Characteristics of the six healthcare facilities included in the study

Facility name	Ownership	Catchment area ¹	Monthly patient volume ²	ART clients ³	Nurses	HIV testing counselors	Peer supporters ⁴
Ndvwabangeni	Mission	14,868	1,031	101	5	1	4
Ntfonjeni	Government	12,875	1,758	229	4	1	2
Siphocosini	Mission	9,666	1,145	586	5	1	2
Hhukwini	Government	7,658	905	74	5	0	3
Horo	Government	14,317	1,884	761	5	1	4
Ndzingeni	Government	7,445	521	162	5	1	2

ART=Antiretroviral therapy

¹ Estimated population size in the facility's catchment area in 2016.

² Mean monthly number of primary healthcare visits between August 2016 and July 2017.

³ Total number of clients on antiretroviral therapy between August 2016 and July 2017.

⁴ Peer supporters include HIV expert clients and mother-to-mother mentors (M2M).

Table S2. Characteristics of clients who underwent an HIV risk assessment, by healthcare facility

Table S2. Characteristics of chents who underwent an HIV risk assessment, by healthcare facility	derwent an HIV	risk assessm	ent, by nealtho	are facility		
Healthcare facility	Ndvwabangeni	Ntfonjeni	Siphocosini	Hhukwini	Horo	Ndzingeni
n	365	345	562	260	311	325
Female, n (%)	293 (80.3)	292 (85.1)	375 (67.8)	216 (83.1)	264 (85.2)	210 (65.0)
Age, mean (SD)	28.2 (9.3)	28.1 (8.4)	30.2 (9.7)	28.4 (10.2)	29.3 (15.7)	28.7 (8.3)
Age group, n (%)						
16-25 years	154 (42.9)	149 (43.8)	184 (33.1)	116 (45.0)	135 (44.0)	125 (39.3)
26-35 years	139 (38.7)	136 (40.0)	235 (42.3)	100 (38.8)	122 (39.7)	142 (44.7)
36-45 years	50 (13.9)	47 (13.8)	92 (16.5)	27 (10.5)	36 (11.7)	32 (10.1)
>45 years	16 (4.5)	8 (2.4)	45 (8.1)	15 (5.8)	14 (4.6)	19 (6.0)
Education, n (%)						
No formal schooling	30 (10.3)	11 (3.3)	7 (1.9)	1 (0.4)	9 (3.4)	11 (4.2)
Some or completed primary school	100 (34.2)	59 (17.5)	57 (15.4)	65 (27.2)	54 (20.1)	60 (22.8)
Some or completed secondary school	151 (51.7)	251 (74.5)	263 (71.3)	170 (71.1)	185 (69.0)	175 (66.5)
Some or completed tertiary education	11 (3.8)	16 (4.7)	42 (11.4)	3 (1.3)	20 (7.5)	17 (6.5)
Relationship status, n (%)						
Multiple partners	9 (3.0)	19 (5.6)	30 (7.9)	16 (6.6)	6 (2.1)	55 (20.7)
One partner, living together	111 (37.5)	154 (45.6)	145 (38.2)	88 (36.5)	91 (32.0)	99 (37.2)
One partner, not living together	169 (57.1)	154 (45.6)	187 (49.2)	127 (52.7)	178 (62.7)	104 (39.1)
Single, no relationship	7 (2.4)	11 (3.3)	18 (4.7)	10 (4.1)	9 (3.2)	8 (3.0)
Member of a priority population, n (%)						
Any priority population1	203 (55.6)	238 (69.0)	223 (39.7)	185 (71.2)	203 (65.9)	131 (40.3)
Women aged 16 to 25 years	113 (31.0)	143 (41.4)	116 (20.6)	105 (40.4)	126 (40.5)	80 (24.6)
Pregnant women	55 (15.1)	68 (19.7)	26 (4.6)	59 (22.7)	54 (17.4)	21 (6.5)
Women who are breastfeeding	38 (10.4)	74 (21.4)	34 (6.0)	57 (21.9)	59 (19.0)	19 (5.8)
Relationship with an HIV-positive partner	62 (17.0)	46 (13.3)	57 (10.1)	36 (13.8)	46 (14.8)	28 (8.6)
Sex worker	0 (0.0)	0 (0.0)	1 (0.2)	0 (0.0)	0 (0.0)	0 (0.0)
Men having sex with men	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

Current STI	14 (3.8)	20 (5.8)	55 (9.8)	8 (3.1)	18 (5.8)	18 (5.5)
Attended specifically for PrEP	19 (6.4)	10 (2.9)	32 (8.4)	11 (4.5)	18 (6.3)	18 (6.7)
Abbreviations: PPP=Pre-exposure prophylaxis Promotion Package: SD=standard deviation	ion Package; SD=sta	andard deviation				

¹ Priority populations were women between 16 and 25 years of age, those in a relationship with an HIV-positive partner, sex workers, men having sex with men, those with a current sexually transmitted infection, pregnant women, and lactating women.

 $Table \ S3. \ Summary \ and \ illustrating \ quotes \ for \ healthcare \ workers' \ views \ on \ PrEP \ and \ the \ training \ they \ received \ on \ PrEP$

01 4	I a
Observation 11 11 11 11 11 11 11 11 11 11 11 11 11	Supporting quote
Healthcare workers generally expressed that the training was 'good' and 'comprehensive'. A prominent reason given for this positive assessment was that healthcare workers felt that PrEP was a "real" tool. In this vein, interviewees often compared PrEP to condoms, which they felt was not a "real" tool because they are frequently not used. A second common reason given for the positive assessment of the trainings was that healthcare workers appreciated the opportunity for training and professional development in general, independently of the particular topic of the training.	"For most people who attended the training, it was their first time hearing about PrEP. Some have once heard of it but they didn't have comprehensive information. But after they did the awareness about PrEP, it was a huge success. I think the number of nurses who attended the training was high. Also there were some who wanted to initiate PrEP – as in, not patients but the health workers. They felt like this thing should start with them I remember this one day someone who was sitting next to me said you know this PrEP that arrived off late. It will really help us, especially we who attend the training because there are lots of things that happen at the trainings."
Healthcare workers criticized that the trainings lacked practical sessions, during which they could practice the PrEP initiation process and organization of the required paper work.	"More time is needed. Some trainings, they last up to two weeks because in some instances there are practicals. Okay, let me give an example. Like you find that when you come back to work you have forgotten most of the things. So, I think there should have been time for practicals and get to see the inside of it, in terms of reporting and documentation. You find that sometimes we do have the information and see the patients but when it comes to documentation, there are things that get left behind."
Healthcare workers expressed motivation to provide PrEP during both rounds of interviews. In the first round of interviews (conducted in September 2017), healthcare workers had concerns that PrEP may cause resistance to antiretroviral therapy and a fall in condom use, which would increase sexually transmitted infections and teen pregnancy. However, these concerns were not raised during the second round of interviews (conducted in July 2018). Instead, healthcare workers expressed the impression that both resistance to antiretroviral therapy and condom use were high in Eswatini, and PrEP would do little to change this. However, concerns about clients' ability to adhere to PrEP persisted throughout both rounds of interviews.	"I find it [PrEP] to be a good strategy because my safety is dependent on me, unlike with a condom where you have to decide with a partner. And the female condom failed." "I think I like PrEP, but not as a stand-alone HIV prevention strategy. PrEP should still be used together with the other existing prevention methods, like condoms for instance, to help boost the prevention effect. The reason I am encouraging combination prevention is because PrEP helps prevent HIV and the condom helps prevent STIs. So if these are used together, 100% safety is assured." "It[PrEP]'s a great tool, a great idea. But I understand why my clients don't want to take a pill every day. It requires a lot of commitment if you take it. And if you take it incorrectly, I think the risk is greater than if you use your normal condoms. And I have tried PrEP on a personal level. It was tough. The things I experienced, and as much as I know them and I educate my patients on them, I think we need to work around the drugs that we use; find friendlier drugs."

control phase of the study Table S4. Summary and illustrating quotes for interviewees' views on PrEP promotion activities implemented during the

Promotion	Pros	Cons	Example quotations
component			
Morning talk	"Popular", familiar, "a long-	Latecomers to facilities miss	"It's good to have PrEP in these talks People come to here for
	standing practice", a way to "pique	talks, repetition of talks fatigues	these morning talks sometimes just to learn things and meet with
	interest"	clients and providers	people they know. They might not be here for any illness at all"
			(Healthcare worker, male, control phase).
Risk	Familiar to counselors and clients	Exceptionally long format (~40	"I think it helped me, as for me on how to counsel people and the
assessment		min.) inhibits use, awkward and	knowledge that they gave us I think it is it which gave us the know
form		prying questions for clients,	how when you come across a client, this is how you will then be in a
		clients disclose desire to lie	position to talk to that client" (Healthcare worker, female, control
			phase).
			"Eish, it is long (risk assessment form). And they don't want to
			answer me truthfully. These questions, you will find them giving
			different responses because they are worried" (Healthcare worker,
			female, control phase).

came to KZN and they spent money, they investigated, they invested,				
professionalism that is used for big companies. Look at MTM. They				
It's okay, but it's not clever or dynamic. You need the same level of				
"It's like this with HIV prevention everywhere. It's not professional.				
(Several respondents, control phase)				
Litsemba LemaSwati ("Swazi Hope")	the culture in Eswatini.			
Siyancoba ("We are conquering")	and do not resonate enough with			
Lihlumela LemaSwati ("Swazi Sprout")	Materials are not professional			
Lihawu ("Shield")	age or gender-specific.			
Phephisa ("Protect" in siSwati (but "Sorry" in Zulu))	Counselling materials are not			
Words for PrEP:	Pamphlet.			
	Not enough information on the			
(Stakeholder, female, control phase).	effects.			
know it's from our government. From people that they can trust"	manage short and long term side			
"It's important to have this here (points to MoH logo). Then they will	No information on how to	pamphlet possible.		
	'foreigners' evident.	Sharing and ability to hide		
(Decline client, female, control phase).	Priorities and agendas of	shields.	palm card	pal
our people from this disease, against the people that bring it to us"	No SiSwati words used for PrEP.	'strength' communicated via	pamphlet &	paı
"I like the shields, they make this ours. We are protecting ourselves,	Little ownership by Eswatini.	'Independence', 'protection' and	ter,	Poster,

control phase).	
network in the area now. That's what we need" (Stakeholder, male,	
word and used it to sell their network, which I think is the biggest	
they found an old word that was vibey, it was organic. They took that	

PrEP=HIV pre-exposure prophylaxis.

Table S5. Summary and illustrating quotes for interviewees' views on PrEP promotion activities during the intervention phase

of the study

PPP Modality	Pros	Cons	Example quotations
Self-completion risk	Personal questions regarding sexual	Illiterate clients unable to read and	"What I first liked about the self-risk assessment is
assessment form	activity can be answered alone.	understand the questions fully.	that the client does it themselves. They came to you
(SRAF)	SRAF less time consuming, and more	'Everyone is high risk' which renders the	after they have ranked themselves on where they
	practical than the HW-administered risk	SRAF largely unnecessary.	stand, yes whether they see that they are at risk or
	assessment.		not at risk or if the danger is minor. Yes, so I liked
			that the client will come knowing that they need
			PrEP and that makes the job easier for us"
			(Healthcare worker, female, PPP phase).
			"The difficulty of the self-risk assessment is that
			when you give it to some people they will take more
			than 15 minutes trying to fill it because they are not
			educated when the questions are just five. It is that
			and sometimes you find that there is no time"
			(Healthcare worker, male, PPP phase).
PrEP t-shirts	Ownership of t-shirt is an incentive to	Hierarchy created by red and blue t-shirts.	"If you have the t-shirt then people can see that this
	promote PrEP.	Unprofessional as t-shirts do not have a	person knows about PrEP and information about it.
	Travel to clinic wearing t-shirts allows	collar.	They can read you and see that you have
	information to be received by a wider		information" (Discontinue client, female, PPP
	audience.		phase).

(Healthcare worker, male, PPP phase).			
question it helps you to remember things fast"			
talking to the client and also when they ask you a			
key points that you have to talk about when you are		sufficiently.	
"It helps you remember some of the things and the	Too long and not available in all clinics.	'Difficult' clients can be counselled	Flipchart
worker, male, PPP phase).			
or there is so and so from here" (Healthcare			
can easily say there is the community leader from,			
be able to identify them, so that even the patients			
others so that the people from the community can			
offer PrEP, or a nurse from Ntfonjeni among			
could also be HTC from each of the facilities that			
choose to use PrEP and things like that. If there			
they can say how PrEP has helped them, why they			
been using PrEP, they could also be added and			
truths about PrEP. We also have people that have			
If you ask the nurse they answer you about the			
people through one on one talk, like we are talking.			
"I think if the information could be dialogued to			
	the video.		
female, PPP phase).	Dramatization and dialogue missing from		
to her friends and her family" (New uptake client,	in the video.	to learn about PrEP.	
But she should not only talk to me. She should talk	including men and older women present	during the day, allowing for more people	
"I know these people (in the video), that is nice.	No respected people from the community,	Video shown at different time points	PrEP Video
professional" (HW, Female, PPP phase).			
"They should be smarter, with a collar. It feels more			

phase).			
copy to refer to" (Continue client, male, PPP			
a problem while the booklet means I always have a			
Moving chairs around in order to read the poster is			
on the wall which can be a problem to read.			
convenient for me unlike the poster that is placed			
"I loved that I can take the booklet anywhere			
me" (Continue client, female, PPP phase).			
read it anytime. There is enough information for		home and to be shared with others.	
"I like the booklet because I can take it home and	No 'cons' were stated.	Enables PrEP information to be taken	Booklet
long" (Healthcare worker, female, PPP phase).			
"This, I've never used it. I can't use it. It's too			

PrEP=HIV pre-exposure prophylaxis

Table S6. The proportion of respondents in each subgroup (columns) who ranked the PrEP promotion component (row) in the top three of eight ranks.

Component	All	Healthcare workers	New, refill, and cycling clients	Discontinue or decline clients
	n=69	n=21	n=21	n=27
Palm card	36%	24%	48%	37%
Poster	39%	33%	29%	52%
Pamphlet	22%	19%	29%	19%
Video	29%	57%	14%	19%
Self-risk assessment	38%	48%	29%	37%
Booklet	57%	43%	62%	63%
T-shirt	45%	43%	52%	41%
Flipchart	25%	33%	19%	22%

PrEP=HIV pre-exposure prophylaxis

respondents with at least one of the PPP components that they ranked in the top three of the eight components Table S7. Stepwise coverage of respondent preferences by adding one PPP component at a time to cumulatively "cover"

Subgroup	PPP component selected (in order from top to bottom)	Additional number of respondents covered by adding PPP component	Number of respondents not yet covered by cumulative components	Percent of previously uncovered respondents covered by adding PPP component to set	Total cumulative preference coverage
All healthcare	Booklet	39	30	39/69 (57%)	57%
workers and	Poster	16	14	16/30 (53%)	80%
clients (n=69)	Video	8	6	8/14 (57%)	91%
	Self-risk assessment	4	2	4/6 (67%)	97%
Healthcare	Video	12	9	12/21 (57%)	57%
workers (n=21)	T-shirt or	6	3	6/9 (67%)	86%
	Booklet				
	Self-assessment or flipchart	2	1	2/3 (67%)	95%
Opt-in clients	Booklet	13	8	13/21 (62%)	62%
(n=21)	Palm card or	4	4	4/8 (50%)	81%
	Pamphlet				
	Pamphlet or Palm card	ω	1	3/4 (75%)	95%
Opt-out clients	Booklet	17	10	13/27 (63%)	63%
(n=27)	Poster	7	3	7/10 (70%)	89%
	Palm card or	2	1	2/3 (67%)	96%
	T-shirt				
DDD=DrFD promotion package	nackage				

PPP=PrEP promotion package

Table S8. CONSORT checklist for stepped-wedge cluster-randomized trials*

Topic	Item no	Checklist item	Section
Title and abstract			
	1a	Identification as a SW-CRT in the title.	Title
	1b	Structured summary of trial design, methods, results, and	Abstract
		conclusions	
Introduction			
Background and	2a	Scientific background. Rationale for using a cluster design and	Methods, Study design (para
objectives		rationale for using a stepped wedge design.	1)
	2b	Specific objectives or hypotheses.	Introduction, para 2
Methods			
Study design	3a	Description and diagram of trial design including definition of	Methods, Study design (para
		cluster, number of sequences, number of clusters randomised	1) and Table 1
		to each sequence, number of periods, duration of time between	
		each step, and whether the participants assessed in different	
		periods are the same people, different people, or a mixture.	
	3b	Important changes to methods after trial commencement (such	Not applicable
		as eligibility criteria), with reasons	
Participants	4a	Eligibility criteria for clusters and participants.	Methods, Study setting (para
			1) and Study design (para 1)
	4b	Settings and locations where the data were collected.	Methods, Study setting (para
			1)
Interventions	5	The intervention and control conditions with sufficient details	Methods, Control phase (para
		to allow replication, including whether the intervention was	1-3) and Intervention phase
		maintained or repeated, and whether it was delivered at the	(para 1)
		cluster level, the individual participant level, or both.	
Outcomes	6	Completely defined prespecified primary and secondary	Methods, Endpoints (para 1)
		outcome measures, including how and when they were	
		assessed.	
Sample size	7a	How sample size was determined. Method of calculation and	Methods, Statistical power
		relevant parameters with sufficient detail so the calculation can	(para 1)

		be replicated. Assumptions made about correlations between outcomes of participants from the same cluster.	
	7b	When applicable, explanation of any interim analyses and stopping guidelines.	Not applicable
Randomisation			
Sequence generation	8a	Method used to generate the random allocation to the	Methods, Study design (para
		sequences of treatments.	1)
	8b	Type of randomisation; details of any constrained	Methods, Study design (para
		randomisation or stratification, if used.	1)
Allocation	9	Specification that allocation was based on clusters; description	Methods, Study design (para
concealment		of any methods used to conceal the allocation from the clusters	1)
mechanism		until after recruitment.	
Implementation	10a	Who generated the randomisation schedule, who enrolled	Methods, Study setting (para
		clusters, and who assigned clusters to sequences.	1) and Study design (para 1)
	10b	Mechanism by which individual participants were included in	Methods, Control phase (para
		clusters for the purposes of the trial (such as complete	1-3)
		enumeration, random sampling; continuous recruitment or	
		ascertainment; or recruitment at a fixed point in time),	
		including who recruited or identified participants.	
	10c	Whether, from whom and when consent was sought and for	Methods, Control phase (para
		what; whether this differed between treatment conditions.	1-3)
Blinding	11a	If done, who was blinded after assignment to sequences (eg,	Methods, Study design (para
		cluster level participants, individual level participants, those	1)
		assessing outcomes) and how.	
	11b	If relevant, description of the similarity of treatments.	Not applicable
Statistical methods	12a	Statistical methods used to compare treatment conditions for	Methods, Data analysis (para
		primary and secondary outcomes including how time effects,	1-2)
		clustering and repeated measures were taken into account.	
	12b	Methods for additional analyses, such as subgroup analyses,	Methods, Data analysis (para
		sensitivity analyses, and adjusted analyses.	1-2)
Results			
Participant flow	13a	For each treatment condition or allocated sequence, the	Figure 2
(a diagram is		numbers of clusters and participants who were assessed for	

eligibility, were randomly assigned, received intended treatments, and were analysed for the primary outcome. For each treatment condition or allocated sequence, losses and exclusions for both clusters and participants with reasons. 14a Dates defining the steps, initiation of intervention, and deviations from planned dates. Dates defining recruitment and follow-up for participants. 14b Why the trial ended or was stopped. Baseline characteristics for the individual and cluster levels as applicable for each treatment condition or allocated sequence. 15 Baseline characteristics for the individual and cluster levels as applicable for each treatment condition and whether the analysis for each treatment condition and whether the analysis was according to the allocated schedule. 17a For each primary and secondary outcome, results for each treatment condition, and the estimated effect size and its precision (such as 95% confidence interval); any correlations (or covariances) and time effects estimated in the analysis. 17b For binary outcomes, presentation of both absolute and relative effect sizes is recommended. Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing prespecified from exploratory. 19 Important harms or unintended effects in each treatment condition. 20 Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses.	Discussion, para 4	Generalisability (external validity, applicability) of the trial findings. Generalisability to clusters or individual participants, or both (as relevant).	21	Generalisability
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eligibility, were randomly assigned, received intended treatments, and were analysed for the primary outcome. For each treatment condition or allocated sequence, losses and exclusions for both clusters and participants with reasons. Dates defining the steps, initiation of intervention, and deviations from planned dates. Dates defining recruitment and follow-up for participants. Why the trial ended or was stopped. Baseline characteristics for the individual and cluster levels as applicable for each treatment condition or allocated sequence. The number of observations and clusters included in each analysis for each treatment condition and whether the analysis was according to the allocated schedule. For each primary and secondary outcome, results for each treatment condition, and the estimated effect size and its precision (such as 95% confidence interval); any correlations (or covariances) and time effects estimated in the analysis. For binary outcomes, presentation of both absolute and relative effect sizes is recommended. Results of any other analyses performed, including subgroup		analyses and adjusted analyses, distinguishing prespectited from exploratory		
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eligibility, were randomly assigned, received intended treatments, and were analysed for the primary outcome. For each treatment condition or allocated sequence, losses and exclusions for both clusters and participants with reasons. 14a Dates defining the steps, initiation of intervention, and deviations from planned dates. Dates defining recruitment and follow-up for participants. 14b Why the trial ended or was stopped. 15 Baseline characteristics for the individual and cluster levels as applicable for each treatment condition or allocated sequence. 16 The number of observations and clusters included in each analysis for each treatment condition and whether the analysis was according to the allocated schedule. 17a For each primary and secondary outcome, results for each treatment condition, and the estimated effect size and its precision (such as 95% confidence interval); any correlations (or covariances) and time effects estimated in the analysis. For binary outcomes, presentation of both absolute and		relative effect sizes is recommended.		
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treatments, and were analysed for the primary outcome. 13b For each treatment condition or allocated sequence, losses and exclusions for both clusters and participants with reasons. 14a Dates defining the steps, initiation of intervention, and deviations from planned dates. Dates defining recruitment and follow-up for participants. 14b Why the trial ended or was stopped. 15 Baseline characteristics for the individual and cluster levels as applicable for each treatment condition or allocated sequence. sed 16 The number of observations and clusters included in each analysis for each treatment condition and whether the analysis was according to the allocated schedule. For each primary and secondary outcome, results for each		treatment condition, and the estimated effect size and its		estimation
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eligibility, were randomly assigned, received intended treatments, and were analysed for the primary outcome. 13b For each treatment condition or allocated sequence, losses and exclusions for both clusters and participants with reasons. 14a Dates defining the steps, initiation of intervention, and deviations from planned dates. Dates defining recruitment and follow-up for participants. 14b Why the trial ended or was stopped. 15 Baseline characteristics for the individual and cluster levels as applicable for each treatment condition or allocated sequence. 16 The number of observations and clusters included in each analysis for each treatment condition and whether the analysis was according to the allocated schedule.	Package (para 1)			
treatments, and were analysed for the primary outcome. 13b For each treatment condition or allocated sequence, losses and exclusions for both clusters and participants with reasons. 14a Dates defining the steps, initiation of intervention, and deviations from planned dates. Dates defining recruitment and follow-up for participants. 14b Why the trial ended or was stopped. 15 Baseline characteristics for the individual and cluster levels as applicable for each treatment condition or allocated sequence. sed 16 The number of observations and clusters included in each analysis for each treatment condition and whether the analysis	Effects of the PrEP Promotion	was according to the allocated schedule.		
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treatments, and were analysed for the primary outcome. 13b For each treatment condition or allocated sequence, losses and exclusions for both clusters and participants with reasons. 14a Dates defining the steps, initiation of intervention, and deviations from planned dates. Dates defining recruitment and follow-up for participants. 14b Why the trial ended or was stopped. 15 Baseline characteristics for the individual and cluster levels as applicable for each treatment condition or allocated sequence.	Table 1			
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eligibility, were randomly assigned, received intended treatments, and were analysed for the primary outcome. 13b For each treatment condition or allocated sequence, losses and exclusions for both clusters and participants with reasons. 14a Dates defining the steps, initiation of intervention, and deviations from planned dates. Dates defining recruitment and follow-up for participants. 14b Why the trial ended or was stopped.	Results, Sample	Baseline characteristics for the individual and cluster levels as	15	Baseline data
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eligibility, were randomly assigned, received intended treatments, and were analysed for the primary outcome. 13b For each treatment condition or allocated sequence, losses and exclusions for both clusters and participants with reasons. 14a Dates defining the steps, initiation of intervention, and deviations from planned dates. Dates defining recruitment and		follow-up for participants.		
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eligibility, were randomly assigned, received intended treatments, and were analysed for the primary outcome. 13b For each treatment condition or allocated sequence, losses and exclusions for both clusters and participants with reasons.	Methods, Study design (para	Dates defining the steps, initiation of intervention, and	14a	Recruitment
eligibility, were randomly assigned, received intended treatments, and were analysed for the primary outcome. 13b For each treatment condition or allocated sequence, losses and		exclusions for both clusters and participants with reasons.		
	Figure 2	For each treatment condition or allocated sequence, losses and	13b	
		treatments, and were analysed for the primary outcome.		recommended)
		eligibility, were randomly assigned, received intended		strongly

Interpretation	22	Interpretation consistent with results, balancing benefits and	Discussion, para 1-3
		harms, and considering other relevant evidence.	
Other information			
Registration	23	Registration number and name of trial registry.	Methods, para 1
Protocol	24	Where the full trial protocol can be accessed, if available.	Not applicable
Funding	25	Sources of funding and other support (such as supply of	Funding, para 1
		drugs), and the role of funders.	
Research ethics	26	Whether the study was approved by a research ethics	Methods, Ethics, para 1
review		committee, with identification of the review committee(s).	
		Justification for any waiver or modification of informed	
		consent requirements.	
			1

Campbell MJ, Lilford RJ, Weijer C, Forbes AB, Grimshaw JM. Reporting of stepped wedge cluster randomised trials: extension of the CONSORT 2010 statement with explanation and elaboration. *BMJ*. 2018; 363:k1614. doi: 10.1136/bmj.k1614. JA, Dixon-Woods M, Aldcroft A, Doussau A, Grayling M, Kristunas C, Goldstein CE, Campbell MK, Girling A, Eldridge S, * This checklist was taken from the following publication: Hemming K, Taljaard M, McKenzie JE, Hooper R, Copas A, Thompson

Table S9. Recommended procedures during each healthcare facility visit

Visit	Recommended procedures
First (screening) visit	Conduct HIV testing and counselling
Counsellor/clinician visit	Educate about the risk, benefits and limitations of PrEP
	Behavior risk assessment
	Evaluate for eligibility, willingness and readiness to take oral PrEP
	STI screening, contraceptive counselling and services
	Take baseline bodyweight
	• Last menstrual period and contraceptive use (for women; if pregnancy
	suspected, obtain a pregnancy test (However, pregnancy is not a
	contraindication for PrEP)
	Adherence counselling
	Discuss combination prevention
	• Laboratory evaluation: Creatinine to calculate Creatinine Clearance,
	Hepatitis B Surface Antigen (HBsAg) screen, pregnancy test, STI screening
	→ If no contraindication to TDF and the client is eligible and ready, prescribe
	fixed dose TDF 300mg/3TC 300mg one tablet once daily for 30 days.
	→ Provide follow up date after 28 days
Visit 2 (month 1)	HIV testing and counselling
Counsellor/clinician visit	Assess tolerability, side effects and effective use
	Actively manage side-effects
	Adherence and risk reduction counselling
	Review of laboratory results
	Offer Hepatitis B Virus vaccination if available and HBsAg negative
	Provide two-month TDF/3TC prescription and follow-up date

Visits months 3, 9, 15, 18	HIV testing and counselling
Counsellor-led visits	Assess tolerability, side effects and effective use
	HIV risk review and assessment for PrEP continuation
	Discuss combination prevention
	Support adherence counselling
	Three-month TDF/3TC refill
Visits months 6, 12, 18	HIV testing and counselling
Clinician-led visits	Assess tolerability, side effects and effective use
	Measure and record body weight
	HIV risk review and assessment for PrEP continuation
	Discuss combination prevention
	Support adherence counselling
	STI screen including urine dipstick and rapid syphilis test if clinically
	indicated.
	Measure serum creatinine and calculate creatinine clearance
	• 3 month TDF/3TC refill

PrEP=HIV pre-exposure prophylaxis; STI=sexually transmitted infection; TDF=Tenofovir disoproxil; 3TC=Lamivudine

Table S10. Final version of interview guides used for qualitative in-depth interviews

TOOL – IN DEPTH CLIENT INTERVIEWS – PREP UPTAKE (NEW CLIENT)

Client experiences with uptake and use of HIV pre-exposure prophylaxis in Eswatini

As we went over in the consent, all of the information you provide will be kept confidential. Just as a reminder our interview will probably last around 45-60 minutes. Do you have any questions before we begin? May I start the recording? [Start recording]

Good [afternoon/morning] thank you for participating today! I have asked you to meet with me in the hopes of learning more about your experience with pre-exposure prophylaxis (PrEP) and themes related to how to improve your experience learning about, accessing and taking PrEP. Some of the questions I will ask you may not want to answer and that is fine. Remember that your answers are confidential and participation is completely voluntary. Also please keep in mind that there are no right or wrong answers, I am interested in anything you can share with me.

Questions for participants who initiated PrEP:

Ouestion

- 1. I'd like to ask you a few questions about PrEP in general.
 - a. What did you think when you heard about this pill?
 - b. Were there any things that you wondered about when you first heard about this pill?
 - c. If you could have had more information, what would you have liked to know?
 - d. What made you think that PrEP might make sense for you?
- 2. Now please walk me through your story from when you heard about PrEP until now. If you don't mind, I'll interrupt sometimes to get more details.
 - a. Probe on what made you think that PrEP would be effective?
 - b. Probe on what makes you feel good about starting on PrEP?
 - c. Probe on what makes you think you will be able to take the pill every day?
- 3. Please tell me about any hesitations, concerns or worries you have regarding starting PrEP?
- 4. When you need to collect your pills for PrEP, what will be the steps you need to take?
 - a. Are there some things that you can imagine will make it hard to collect the pills?
 - b. Are there some things that will make it easy to collect the pills?
 - c. What do you think the health facility or others who design health promotion programs could do to make it easier for you to collect your PrEP pills?
 - d. Can you tell me about how you feel asking for PrEP here?

- 5. In your opinion, what are the reasons that someone would not take PrEP?
- 6. Please tell me whether you think PrEP is more useful for men or for women or is there no difference?
- 7. Please tell me about some things that would make it hard for people like you and people you know to get PrEP?
 - a. How could things be changed to make it easier for you and others in Swaziland to get and routinely take PrEP?
- 8. Do you know anyone else who is currently taking PrEP?
 - a. How was their experience starting on PrEP different or similar to yours?
 - b. How did you and this person come to start talking about PrEP?
- 9. Now you are going to start taking PrEP, can you tell me about who else will benefit in your family or your friends as a result of this?
 - a. Probe on why they think they will/will not benefit?
 - b. Probe on thoughts regarding children benefiting.
 - c. Probe on thoughts regarding other family members benefiting.
 - d. Probe on community and society benefit.
- 10. Some people are taking PrEP because a family member, friend or colleague advised them to. Did anyone advise you to take PrEP?
 - a. Did anyone tell you not to take PrEP?
 - b. If yes, can you tell me about who they are?
 - c. Please tell me about any family members, friend or colleagues that would try to stop you from taking PrEP?
- 11. Do you think PrEP is a topic that men and women in Swaziland feel comfortable discussing with friends and/or partners? Why or why not?
 - a. Probe on discussing health
 - b. Probe on discussing HIV
 - c. Probe on discussing sex
- 12. Now, I would like to discuss something a bit more intimate. Please remember that all information you share is confidential and will only be shared with the research team for purposes of improving access to PrEP. Ok? (pause). I would like to talk about your intimate life in relation to PrEP (pause). How do you think PrEP may affect your sexual life?
 - a. Has it affected or might it affect, whether or how you discuss HIV status with partners?
 - b. How might it effect whether you use condoms?
 - c. How might it effect on the number of sexual partners you may have?
- 13. Lots of people are HIV positive in Swaziland. Can you tell me about how you have remained HIV negative?
 - a. Probe on sexual creativity

- b. Probe on any other forms of protection
- c. Probe on conversations with partners
- 14. Thinking about your sexual partner/s, how do you think they will feel about you taking PrEP?
 - a. How would you feel if you found that your partner/s were taking PrEP?
- 15. Please tell me about how you feel about PrEP in comparison with other HIV prevention methods?
- 16. Now let's think about the future. How do you envision plans in the coming months in relation to PrEP, if at all? What is your view of how you will take PrEP in the coming months?
 - a. What are some life events or other factors that would influence whether you would continue to take PrEP in the future?
 - b. What are some circumstances that you could imagine would make it very hard for you to stay on PrEP?
 - c. What could people do to help you overcome this challenge?
- 17. Thinking about the future, please tell me what you think remaining HIV negative means for your future aspirations?
 - a. Probe on future education plans.
 - b. Probe on future work plans.
 - c. Probe on plans in relation to having a family/ adding to family.
- 18. Please tell me about whether you feel at high or low risk for HIV.
 - a. Probe on why
- 19. Please tell me about how important it is for you to remain HIV negative.
- 20. Can you tell me about other health concerns you have generally?
- 21. Is there a time earlier in life when, looking back now, you wish you would have had access to PrEP? Please tell me about it.
- 22. I'd like to ask you about some of the PrEP promotion materials which are being used.
 - a. When you came to the facility, did you watch a video on PrEP? If yes, can you tell me how you felt about the video?
 - b. Please tell me what you think about the counselling flip chart. Can you tell me how this has influenced how you feel about PrEP?
 - c. What do you think about the risk assessment form?
 - d. Please tell me about what you like and why
 - e. Please tell me about what you don't like and why
 - f. Please tell me about what you would change
- 23. To conclude, what would be your recommendation to improve your experience with PrEP?
- 24. What do you think is the biggest challenge to preventing new HIV infections in Swaziland?

- 25. And finally, is there anything that I didn't ask you that I should have asked you?
- 26. Is there anything else that you would like to add?

We have come to the conclusion of the topics I had prepared to discuss today.

THANK YOU FOR YOUR TIME!

QUALITATIVE TOOL – IN DEPTH CLIENT INTERVIEWS – PREP DECLINE

Client motivations to decline PrEP offer

As we went over in the consent, all of the information you provide will be kept confidential. Just as a reminder our interview will probably last around 45-60 minutes. Do you have any questions before we begin? May I start the recording? [Start recording]

Good [afternoon/morning] thank you for participating today! I have asked you to meet with me in the hopes of learning more about your experience with HIV prevention services offered in this facility and more specific about pre-exposure prophylaxis (PrEP). Some of the questions I will ask, you may not want to answer and that is fine. Remember that your answers are confidential and participation is completely voluntary. Also please keep in mind that there are no right or wrong answers, I am interested in anything you can share with me.

Questions for participants who did not initiate PrEP

Question

- 1. I'd like to ask you a few questions about PrEP in general.
 - a. What did you think when you heard about PrEP?
 - b. Were there any things that you wondered about when you first heard about PrEP?
 - c. If you could have had more information, what would you have liked to know?
 - d. What made you think that PrEP doesn't make sense for you?
 - e. What are your concerns regarding PrEP?
- 2. Let us imagine that there is a woman. She does not know her husband's HIV status. She thinks he may have other sexual partners.
 - a. Would it make sense for her to take PrEP?
 - b. What would be some of the benefits for a person like her taking PrEP?
 - c. What would be some of the drawbacks?
- 3. Let us imagine that there is a man. He knows his wife is HIV positive. He is negative.
 - a. Would it make sense for him to take PrEP?
 - b. What would be some of the benefits for a person like him taking PrEP?
 - c. What would be some of the drawbacks of him taking PrEP?
- 4. Do you think PrEP is a topic that men and women in Swaziland feel comfortable discussing with friends and/or partners? Why or why not?
 - a. Probe on discussing health.
 - b. Probe on discussing HIV
 - c. Probe on discussing sex.
- 5. Please tell me whether you think PrEP is more useful for men or for women or is there no difference?

- 6. Some people are taking PrEP because a family member, friend or colleague advised them to. Did anyone advise you to take PrEP?
 - a. Did anyone advise you not to take PrEP?
 - b. If yes, can you tell me about who they are?
 - c. Please tell me about any family members, friend or colleagues that would try to stop you from taking PrEP?
 - d. Why did they advise you not to take PrEP?
- 7. In your opinion, what are the reasons that someone would not take PrEP?
- 8. Do you know anyone who is currently taking PrEP?
 - a. Have you ever discussed PrEP with another person?
 - b. How did the conversation go?
- 9. Lots of people are HIV positive in Swaziland. Can you tell me about how you have remained HIV negative?
 - a. Probe on sexual creativity.
 - b. Probe on using any other forms of protection.
 - c. Probe on conversations with partners.
- 10. Please tell me about how at risk of acquiring HIV you feel.
 - a. Probe on whether a risk assessment form was completed
 - b. Probe on what the client thinks about the risk assessment form
- 11. Now that you have declined PrEP, how will you remain HIV negative?
- 12. Is there a time earlier in life when, looking back now, you wish you would have had access to PrEP? Please tell me about it.
- 13. Can you imagine a time in the coming months or years when you might be willing to come back to learn more about PrEP or to request PrEP medicines?
- 14. I'd like to ask you about some of the PrEP promotion materials which are being used.
 - a. When you came to the facility, did you watch a video on PrEP? If yes, can you tell me how you felt about the video?
 - b. Please tell me what you think about the counselling flip chart. Can you tell me how this has influenced how you feel about PrEP?
 - c. Please tell me about any of the materials that have made you think that PrEP is not right for you
 - d. Please tell me about what you like and why
 - e. Please tell me about what you don't like and why
 - f. Please tell me about what you would change
- 15. To conclude, what would be your recommendation to improve your experience with PrEP?
- 16. And finally, is there anything that I didn't ask you that I should have asked you?
- 17. Is there anything else that you would like to add?

We have come to the conclusion of the topics I had prepared to discuss today.

THANK YOU FOR YOUR TIME!

QUALITATIVE TOOL – IN DEPTH CLIENT INTERVIEWS – PREP CONTINUED USE

Client experiences with use of HIV pre-exposure prophylaxis in Eswatini

As we went over in the consent, all of the information you provide will be kept confidential. Just as a reminder our interview will probably last around 45-60 minutes. Do you have any questions before we begin? May I start the recording? [Start recording]

Good [afternoon/morning] thank you for participating today! I have asked you to meet with me in the hopes of learning more about your experience with pre-exposure prophylaxis (PrEP) and themes related to how to improve your experience learning about, accessing and taking PrEP. Some of the questions I will ask you may not want to answer and that is fine. Remember that your answers are confidential and participation is completely voluntary. Also please keep in mind that there are no right or wrong answers, I am interested in anything you can share with me.

Question

- 1. I'd like to ask you a few questions about PrEP in general.
 - a. What did you think when you heard about this pill?
 - b. Were there any things that you wondered about when you first heard about this pill?
 - c. If you could have had more information, what would you have liked to know?
 - d. What made you think that PrEP might make sense for you?
- 2. Now please walk me through your story from when you heard about PrEP until now. If you don't mind, I'll interrupt sometimes to get more details.
 - a. What made you feel good about starting on PrEP?
 - b. What made you feel concerned or worried about starting PrEP?
 - c. What has helped you take the pill every day?

- 3. Now that you have been on PrEP for a while, what has been your experience?
 - a. What have been some of the good experiences?
 - b. What have been some of the challenges?
 - c. Any medical challenges?
 - d. Any adverse effects or side effects from the pill?
 - e. Please tell me about how you dealt with the side effects?
 - f. Any challenges in terms of taking the pill every day?
 - g. Any tips or tricks that have made it easy for you to remember to take the pill every day?
 - h. Any challenges in terms of getting a refill?
 - i. Any tips or tricks that have made it easy for you to come back to get refills from the health facility?
 - j. What do you think the health facility or others who design health promotion programs could do to make it easier for you and people like you to start and stay on PrEP?
 - k. Can you tell me about how you feel asking for PrEP here?
 - 1. Have you had any health tests since you started PrEP?
 - m. How do you feel about these regular health check-ups?
- 4. Can you think of reasons why people would not want to take PrEP?
- 5. Now, I would like to discuss something a bit more intimate. Please remember that all information you share is confidential and will only be shared with the research team for purposes of improving access to PrEP. Ok? (pause). I would like to talk about your intimate life in relation to PrEP (pause). Have you discussed PrEP with your partner?
 - a. Probe on how the conversation went
 - b. Probe on whether they were supportive / not supportive
- 6. How (if at all) has PrEP affected your sexual life?
 - d. Has it affected whether or how you discuss HIV status with partners?
 - e. Has it had any effect on whether you use condoms or other prevention methods?
 - f. Has it had any effect on the number of sexual partners you may have?
- 7. Is PrEP a topic that men and women in Swaziland feel comfortable discussing with friends and/or partners? Why or why not?
 - a. Probe on discussing health
 - b. Probe on discussing HIV
 - c. Probe on discussing sex
- 8. Do you know anyone else who is currently taking PrEP?
 - a. Probe on how did they and the person come to start talking about PrEP
 - b. Probe on how their experience starting on PrEP similar of different to the person
 - c. Probe on any challenges they faced and what they do to overcome these challenges
- 9. Please tell me about how you feel about PrEP in comparison with other HIV prevention methods?
 - a. Probe on other HIV prevention methods being used if any in addition to PrEP.

- 10. Some people are taking PrEP because a family member, friend or colleague advised them to. Did anyone advise you to take PrEP?
 - a. Did anyone tell you not to take PrEP?
 - b. Probe on who they are
 - c. Probe on any family members, friends or colleagues that would try to stop them from taking PrEP
- 11. Now you have been taking PrEP, can you tell me about who else will benefit or has benefited as a result of this? Why do you think they will/will not benefit?
 - a. Probe regarding children benefiting.
 - b. Probe regarding other family members benefiting.
 - c. Probe regarding community and society benefit.
- 12. Now let's think about the future. How do you envision plans in the coming months in relation to PrEP, if at all? Some people who start PrEP view it as a drug that they will take forever, others view it differently. What is your view of how you will take PrEP in the coming months?
 - a. What are some life events or other factors that would influence whether you would continue to take PrEP in the future?
 - b. What are some circumstances that you could imagine would make it very hard for you to stay on PrEP?
 - c. What could be done to help you overcome this challenge?
- 13. Thinking about the future, please tell me what you think remaining HIV negative means for your future aspirations?
 - a. Probe regarding future education plans.
 - b. Probe regarding future work plans.
 - c. Probe regarding plans in relation to having a family/ adding to family.
- 14. Please tell me about what you think your HIV risk was before you started taking PrEP.
 - a. Probe on what they think their risk is now that they have PrEP
- 15. Is there a time earlier in life when, looking back now, you wish you would have had access to PrEP? Please tell me about it.
- 16. Lots of people are HIV positive in Swaziland. Can you tell me about how you remained HIV negative before PrEP?
 - a. Probe on sexual creativity
 - b. Probe on any other forms of protection
 - c. Probe on conversations with partners
- 17. Please tell me about any other HIV prevention methods you are using.
- 18. I'd like to ask you about some of the PrEP promotion materials which are being used.
 - a. Please tell me what you think about the video or counselling flip chart. Have they influenced how you feel about PrEP?
 - b. Please tell me about any of the materials that have helped you adhere.
 - c. Please tell me about what you like and why
 - d. Please tell me about what you don't like and why

- e. Please tell me about what you would change
- f. Please tell me what you think about the risk assessment form
- 19. To conclude, what would be your recommendation to improve your experience with PrEP? What would you recommend to improve others' experience and access to PrEP?
- 20. And finally, is there anything that I didn't ask you that I should have asked you?
- 21. Is there anything else that you would like to add?

We have come to the conclusion of the topics I had prepared to discuss today. **THANK YOU FOR YOUR TIME!**

QUALITATIVE TOOL – IN DEPTH CLIENT INTERVIEWS – DISCONTINUED PREP

Client experiences with uptake and use of HIV pre-exposure prophylaxis in Eswatini

As we went over in the consent, all of the information you provide will be kept confidential. Just as a reminder our interview will probably last around 45-60 minutes. Do you have any questions before we begin? May I start the recording? [Start recording]

Good [afternoon/morning] thank you for participating today! I have asked you to meet with me in the hopes of learning more about your experience with pre-exposure prophylaxis (PrEP) and themes related to how to improve your experience learning about, accessing and taking PrEP. Some of the questions I will ask you may not want to answer and that is fine. Remember that your answers are confidential and participation is completely voluntary. Also please keep in mind that there are no right or wrong answers, I am interested in anything you can share with me.

Questions for participants who discontinue PrEP:

Ouestion

- 1. I'd like to ask you a few questions about PrEP in general.
 - a. What did you think when you heard about PrEP?
 - b. Were there any things that you wondered about when you first heard about PrEP?
 - c. If you could have had more information, what would you have liked to know?
 - d. What made you think that PrEP might make sense for you?
- 2. Can you share your story of PrEP with me? From when you first heard about it until now?
 - a. Probe on which month/year
 - b. Probe on different characters that influenced PrEP use
 - c. Probe on any circumstances that may have changed over the past weeks/months
 - d. Probe on why stopped PrEP.
 - e. Probe on whether there was there anybody who they talked to about PrEP and their decision to discontinue
- 3. Please tell me about any concerns or worries you have regarding PrEP.

- 4. Please tell me about the story of getting the PrEP tablets. Where were you when this happened? Ok, you were in (this hallway, at that dispensary etc.), and who gave you the PrEP pills? Ok, the (nurse, pharmacist, doctor) gave you the pills. Now please walk me through those moments. You were waiting here and then what happened?
 - a. Were there some things that have made it hard to collect the tablets?
 - b. Were there some things that have made it easy to collect the tablets?
 - c. What could have made it easier for you to collect your PrEP tablets?
 - d. Can you tell me about how you feel asking for PrEP here?
 - e. Have you had any health check-ups since you started on PrEP?
 - f. When was your last check-up and what was checked?
 - g. How do you view these check-ups?
- 5. Please tell me about the time you left the facility to the first few days you were at home with the PrEP pills.
 - a. Where did you keep your PrEP?
 - b. Did anyone help you take your PrEP?
 - c. When did you start taking them, if at all?
 - d. How did it feel after the first few days of taking PrEP? Please tell me about your experience taking PrEP.
 - e. Did you manage to integrate taking your PrEP into your daily routine?
 - f. Can you tell me about how the pills made you feel?
 - g. How do you feel about your health since taking PrEP?

Do you think you will take PrEP again and why?

- 6. Please tell me about what influenced your ability to take PrEP?
 - a. Can you tell me about anything that could have been done to make this better for you?
- 7. Can you tell me about other HIV prevention methods you use?
 - a. Probe on if they are preferred
 - b. Probe on how often they are used
- 8. Thanks for telling me about your personal experience. Now, I'd like to get your insights about your own experience and the experience of Swazis more generally. Please tell me about things that might make it hard for people to get PrEP? How could things be changed to make it easier for you and others in Swaziland to get and routinely take PrEP?
- 9. Please tell me about anyone else you know that is taking PrEP.
 - a. What was their experience getting PrEP?
 - b. How did you come to talk about PrEP?
 - c. Are they happy with PrEP?
- 10. Some people are taking PrEP because a family member, friend or colleague advised them to. Did anyone advise you to take PrEP?
 - a. Did anyone tell you not to take PrEP or to discontinue PrEP?
 - b. If yes, can you tell me about who they are?
 - c. What do they think about PrEP?
 - d. Please tell me about any family members, friend or colleagues that would try to stop you from taking PrEP?

- 11. Now PrEP has been in Swaziland for a while, do you think PrEP is a topic that men and women feel comfortable discussing with friends, family and/or partners? Why or why not?
 - a. Probe on discussing health
 - b. Probe on discussing HIV
 - c. Probe on discussing sex
- 12. Now, I would like to discuss something a bit more intimate. Please remember that all information you share is confidential and will only be shared with the research team for purposes of improving access to PrEP. Ok? (pause). I would like to talk about your intimate life in relation to PrEP (pause). How do you think PrEP may or has affected your sexual life?
 - g. Has it affected or might it affect, whether or how you discuss HIV status with partners?
 - h. Did it effect whether you use condoms?
 - i. Did it effect the number of sexual partners you had/have?
- 13. Thinking about your sexual partner/s, how do you think they feel about you discontinuing PrEP?
 - a. How would you feel if you found that your partner/s were taking PrEP?
 - b. How would you feel if your partner was taking PrEP and then discontinued?
- 14. Lots of people are HIV positive in Swaziland. Can you tell me about how you have remained HIV negative until now?
 - a. Probe on sexual creativity
 - b. Probe on any other forms of protection
 - c. Probe on conversations with partners
- 15. Please tell me about how you feel about PrEP in comparison with other HIV prevention methods?
- 16. Please tell me about how important it is for you to remain HIV negative.
- 17. Now you have stopped taking PrEP, how will you remain negative?
- 18. Thinking about the future, please tell me what you think remaining HIV negative means for your future aspirations?
 - a. Probe on future education plans.
 - b. Probe on future work plans.
 - c. Probe on plans in relation to having a family/ adding to family.
- 19. Is there a time earlier in life when, looking back now, you wish you would have had access to PrEP? Please tell me about it.
- 20. To conclude, what would be your recommendation to improve your experience with PrEP?
- 21. Can you tell me about other health concerns you have generally?
 - a. Probe on what they are
 - b. Probe on how important they are
- 22. And finally, is there anything that I didn't ask you that I should have asked you?
- 23. Is there anything else that you would like to add?

We have come to the conclusion of the topics I had prepared to discuss today. **THANK YOU FOR YOUR TIME!**

QUALITATIVE TOOL – HEALTHCARE WORKER INTERVIEWS Health care worker's experiences with HIV pre-exposure prophylaxis in Eswatini

As we went over in the consent, all of the information you provide will be kept confidential. Just as a reminder our interview will probably last around 45 minutes. Do you have any questions before we begin? May I start the recording? [Start recording]

Good [afternoon/morning], thank you for participating today! I have asked you to meet with me in the hopes of learning more about your experience providing pre-exposure prophylaxis (PrEP). Remember that your answers are confidential and participation is completely voluntary. Also please keep in mind that there are no right or wrong answers, I am interested in anything you can share with me.

Questions for healthcare workers involved in PrEP provision

- 1. Can you tell me a little bit about yourself?
 - a. How long have you worked in healthcare?
 - b. What do you enjoy about your job?
 - c. What is it that makes your job difficult?
- 2. As I mentioned earlier, the main focus of our discussion is PrEP. This facility has been implementing PrEP for a few months now. What has been your role in PrEP provision at this facility?
- 3. Do you feel your perceptions of PrEP have changed since you first started to offer PrEP? If yes, in which way?
- 4. How do you feel about PrEP?
- 5. How do you feel PrEP compares with other HIV prevention methods?
- a. Probe on ease of use
- b. Probe on effectiveness
- c. Probe on desirability
- d. Probe on availability
 - 6. Now I want to talk about offering PrEP to patients.
- a. For whom does PrEP make sense?
- b. What is your personal opinion about who should be offered PrEP?
- c. What are some of the things that you have to think about as a provider in this facility when to offer PrEP?
- d. What are some of the things that you have to think about as a provider in this facility how to offer PrEP?
- e. What are some of the things that you have to think about as a provider in this facility to whom to offer PrEP?
 - 7. Who should not be offered PrEP?
 - 8. Has there been a time when you or colleagues hesitated or decided against offering PrEP?
 - 9. This facility has started using the PrEP promotion packages. Do you feel the PPP has influenced the way you are providing PrEP to clients? If yes, in which way?
 - 10. Can you tell me your experience in using the following PPP components? Please tell me what you like or not like about it and what is easy or difficult about it:
 - PrEP video

- HIV self- risk assessment card
- PrEP counselling card
- PrEP client information booklet
- PrEP T-shirt
- 11. PrEP is offered at your clinic and other clinics. Do you see the clinic-centred approach as the best way of delivering PrEP?
 - a. Probe on who is and who is not reached by clinics
- 12. How has offering PrEP services affected your day-to-day workload in the facility, if at all?
- 13. What do you think the long term effect of PrEP will mean for your workload?
- 14. Please tell me about how you feel about your job. Do you think having PrEP will change this?
- 15. Is there anything you feel you need (that you currently do not have) that could support you to adequately implement PrEP at your facility?
- 16. Can you walk me through / describe a time when you had a particularly interesting or difficult client that you were advising or initiating regarding PrEP?
- a. Probe on sexual partners
- b. Probe on home / social situation
- c. Probe on how they advised them
- 17. How have clients responded when you recommend that they use PrEP?
 - a. Have clients that you have interacted with had a positive experience with it?
 - b. What benefits and challenges did they highlight?
- 18. How do you think we can improve retention of clients on PrEP?
- 19. What do you do when a client misses an appointment/s?
- 20. How do you think we can help clients adhere?
 - 21. Is PrEP a topic that men and women in Swaziland feel comfortable discussing with friends and/or partners? Why or why not?
 - a. Probe on discussing health
 - b. Probe on discussing sex
 - c. Probe on discussing HIV
 - 22. Some people are taking PrEP because a family member, friend or colleague advised them to. Do you know if any of your clients were advised to take PrEP? Did anyone tell them not to take PrEP?
 - a. If yes, can you tell me about who they are?
 - b. Please tell me about any family members, friend or colleagues that would try to stop your clients from taking PrEP?
 - 23. Do you feel that offering PrEP has changed your perceptions or awareness about your own HIV risk?
 - 24. Can you tell me about your own personal HIV prevention strategy and if you would/are taking PrEP and why?
- 25. What do you think is the biggest challenge to preventing new HIV infections in Swaziland?
- 26. Do you have any suggestion on how to improve PrEP uptake in your facility?
 - 27. Is there anything I didn't ask you that I should have asked you in relation to PrEP?
 - 28. Is there anything else you would like to tell me?

We have come to the conclusion of the topics I had prepared to discuss today. Are there any further comments you would like to add? **THANK YOU FOR YOUR TIME!**

QUALITATIVE TOOL - PREP STAKEHOLDERS INTERVIEWS

PrEP stakeholders in Eswatini

As we went over in the consent, all of the information you provide will be kept confidential. Just as a reminder our interview will probably last around 45-60 minutes. Do you have any questions before we begin? May I start the recording? [Start recording]

Good [afternoon/morning] thank you for participating today! I have asked you to meet with me in the hopes of learning more about your experience with health education, information and communication material related to pre-exposure prophylaxis (PrEP), and to learn your thoughts about PrEP in general. As an intervention for the PrEP demonstration project in Hhohho region, we are trying to have some initial information gathering on the design for the most feasible, acceptable and sustainable PrEP Promotion Package. Some of the questions I will ask you may not want to answer and that is fine. Remember that your answers are confidential and participation is completely voluntary. Also please keep in mind that there are no right or wrong answers, I am interested in anything you can share with me.

Questions for PrEP stakeholders:

Question

- 1. To begin, I was hoping you could tell me a bit more about yourself?
 - a. Can you tell me a bit more about your position and responsibilities?
 - b. How do you fit within the PrEP "world"?
- 2. Can you tell me where you first heard about PrEP?
 - a. What were your very first thoughts upon hearing about this prevention regimen?
- 3. Sadly, HIV has been around a long time. And in recent decades, a lot of interventions and programs to address HIV have been introduced in Swaziland. How do you feel about PrEP as an additional HIV prevention strategy?
 - a. What are some things about PrEP that make you feel hopeful?
 - b. What are some things about PrEP that make you feel skeptical?
- 4. Now I would like to show you some of the information, education and communication material that are available at select facilities in relation to PrEP.
 - a. Have you seen this before?
 - b. Please tell me some words that come to your mind when you see this flyer/poster. There are no right or wrong words.
 - c. Is there anything you like about this? Please tell me more about that.
 - d. Is there anything you don't like about this. Please tell me more about that.
 - e. If you could change the message/ content, is there anything you would like to change? What would you add? What would you remove? Please explain.
- 5. From your experience, which methods have you seen working in other health related interventions in the past? When I say "working," I mean that the interventions compelled patients to seek the care that the message intended.
 - a. What do you think it was about those interventions that made them work well?
 - b. How could we adapt the effective ingredients of that intervention for PrEP? Please provide as much detail as possible.

- 6. Thanks for this lively conversation. I want to now talk about some bigger picture issues in relation to PrEP. By bigger picture, I mean some of the larger forces that can affect the day-to-day routines of getting a treatment regimen like PrEP introduced as part and parcel of care provided in facilties. Please tell me about some of the "bigger forces" that have affected the introduction and uptake of PrEP.
 - a. Probe on novelty or newness of PrEP
 - b. Probe on PrEP and issues of morality/ social mores/ social pressure
 - c. Probe on PrEP and risk compensation
 - d. Probe on economic situation in country
 - e. Probe on political situation in country
 - i. What do you feel is needed in order to get PrEP adopted in Swaziland as a National policy?
- 7. We are nearing the end. Now, I'd like to think about the future in relation to PrEP. What do you envision as the future of PrEP?
 - a. If we assume for a moment that PrEP would continue what are some of your hopes, plans, concerns in relation to PrEP?
- 8. We are trying to make the most effective, informative PrEP messaging possible and to make it easier for people to access PrEP. Can you think of anything else that we should consider (whether a big issue in relation to PrEP as a topic or a specific suggestion in relation to the IEC materials) in order to make PrEP accessible, affordable and available to people in Swaziland?
- 9. Is there anything I haven't asked you that I should have asked you?

We have come to the conclusion of the topics I had prepared to discuss today. Are there any further comments you would like to add? **THANK YOU FOR YOUR TIME!**

Text S1. Qualitative data collection and design of the PrEP Promotion Package

In the qualitative component of the study, we conducted one-on-one semi-structured in-depth interviews) with 212 respondents including clients who initiated PrEP on the day of the interview (n=49), continued their PrEP regimen for at least three months (n=27), took up PrEP but later discontinued (n=22), and declined PrEP despite being counseled and identified as being at risk of acquiring HIV (n=29). We also interviewed 55 healthcare workers (nurses, nursing assistants, expert clients, HIV testing counselors, and mentor mothers), and 30 policymakers and implementation stakeholders (Ministry of Health officials, non-governmental organization members, members of foreign government agencies, and community activists). Respondents were selected using purposive sampling that aimed to identify respondents who would provide rich data and, for clients, who reflect the characteristics (by sex, ten-year age groups, and type of PrEP client, with types constituting those who took up PrEP on the day of the interview, declined PrEP, discontinued PrEP, and have been on PrEP for at least three months) of the patient population at the study healthcare facilities. Clients within these groups were selected on a first-come, firstserved basis. The interviews were conducted by six Emaswati research assistants who were fluent in both Siswati and English and had at least completed high school. KB and SAM conducted interviews (in English) with policymakers and implementation stakeholders. The research assistants were trained for five days by KB and SAM to collect qualitative data using interview guides, which were piloted and improved continuously during the study period. The final versions of the interview guides are shown in Table S10. Interviews were conducted in a location and language of the respondent's choosing. Daily debriefing sessions between the interviewers and KB and SAM were conducted throughout the study period to discuss findings and refine lines of inquiry(35). Interviews were recorded, transcribed, translated into English, and quality-controlled.

In September 2017 – during the control phase of the study – we conducted the first round of interviews with 50 PrEP clients, 26 healthcare workers, and 30 policymakers and implementation stakeholders, asking for their feedback in relation to the PrEP poster, pamphlet, palm card, morning education talk, and risk assessment form and for suggestions for alternative materials. Themes from the feedback on these prototype materials focused largely on their design, content, and method of delivery. The results from these first-round interviews were presented to the Eswatini Ministry of Health, along with recommendations in relation to the content and language used in the paper materials, the use of a video to explain PrEP within clinics, providing all healthcare workers with a t-shirt that 'advertised' PrEP, and a detailed PrEP information support flip-chart for all healthcare workers. The Ministry of Health then revised existing, and developed additional, PPP materials within three months of this feedback meeting. The resulting PPP components formed the final PPP that was implemented in the intervention phase of the steppedwedge randomized trial. In July 2018 – when all facilities had implemented the PPP for at least two months – we again conducted in-depth interviews with 82 clients and 29 healthcare workers. During this second round of interviews, we specifically asked for feedback in relation to all control and new features of the PPP. Respondents were shown examples of the existing and new PPP components, either in their working or pictorial form. When the in-depth interviews were nearing completion, respondents were asked to rank all PPP components from one to eight, with one being the favorite PPP component and eight the least. Participants could decline to rank materials if for any reason they felt unable to state a preference. Sixty-eight of the 111 intervention phase interviews included the ranking exercise.

The brainstorming on possible PPP components, prototypes of which were shown to interviewees in the first-round interviews, as well as the study team's recommendation to the Ministry of Health for additional PPP components was guided by Social Cognitive Theory. This theory posits that there are three domains that influence behavior change: i) personal factors (one's sense of self-efficacy); ii) behavioral factors (one's ability and experience in enacting behavior); iii) and environmental factors (the existence of goods, supplies, and factors that create an enabling environment for change)(36). The PPP's flipchart and client booklet aimed to improve clients' and healthcare workers' knowledge and sense of self-efficacy. The video and T-shirts aimed to provide an enabling environment for change for patients. The self-risk assessment forms aimed to affect all three domains of behavior change by informing patients of their risk, raising patients' self-efficacy by being able to undergo a risk assessment conveniently and at their own pace, and serving as a reminder for change by being displayed in the waiting room.