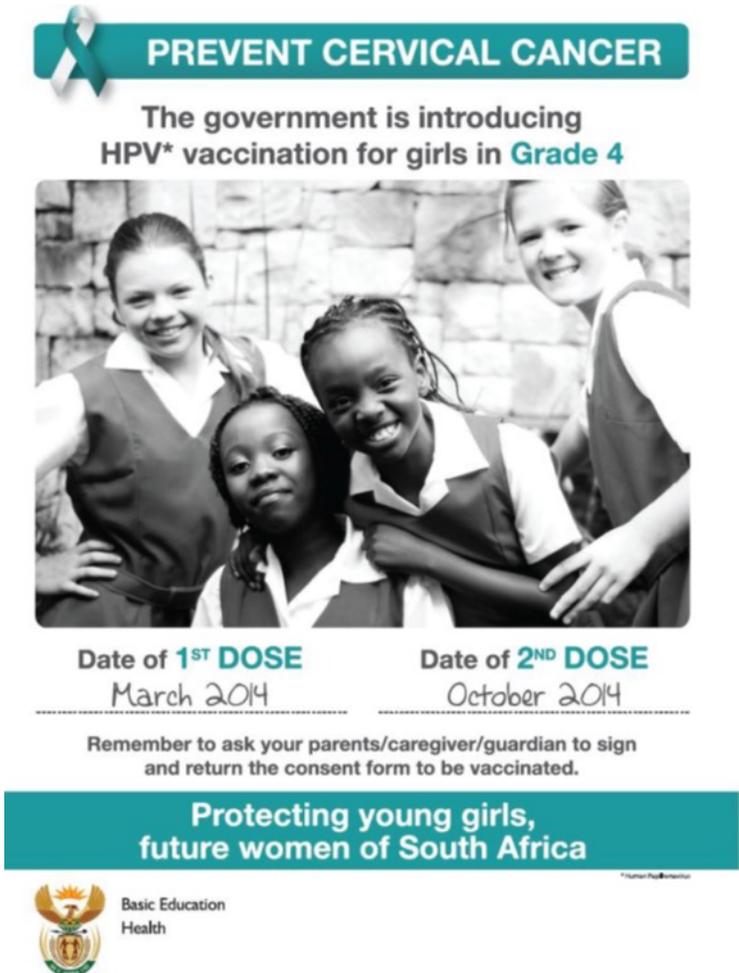




# Population impact of a single HPV vaccine dose on HPV 16/18 prevalence among South African adolescent girls

- South Africa launched a national, school-based HPV vaccination programme in 2014
- Two doses of bivalent vaccine are offered to girls  $\geq 9$  years old in grade 4 in a bi-annual campaign
- Administrative coverage rates for first dose are high, lower for the second
  - 1d coverage 75% pre-COVID19
  - 2d coverage 54%
- No impact evaluation to date

A promotional poster for the HPV vaccination campaign in South Africa. At the top left is a teal ribbon icon. The main title is "PREVENT CERVICAL CANCER" in white text on a teal background. Below this, it states "The government is introducing HPV\* vaccination for girls in Grade 4". A central photograph shows four young girls in school uniforms smiling. Below the photo, two boxes indicate the "Date of 1ST DOSE" as "March 2014" and the "Date of 2ND DOSE" as "October 2014". A note asks parents to sign consent forms. At the bottom, a teal banner reads "Protecting young girls, future women of South Africa". The logo for Basic Education Health is in the bottom left corner.

**PREVENT CERVICAL CANCER**

The government is introducing HPV\* vaccination for girls in **Grade 4**

Date of **1<sup>ST</sup> DOSE**  
March 2014

Date of **2<sup>ND</sup> DOSE**  
October 2014

Remember to ask your parents/caregiver/guardian to sign and return the consent form to be vaccinated.

**Protecting young girls, future women of South Africa**

Basic Education Health



## Primary objectives

- Measure the population impact of the **national 2-dose vaccine schedule**, delivered in Grade 4 to  $\geq 9$ -year-old girls, in protecting against infection with HPV 16 and 18
- Measure the population impact of a **1-dose vaccine schedule**, delivered as a catch-up, to AGYW in Grade 10 in one district, in protecting against infection with HPV 16 and 18

## Secondary objective

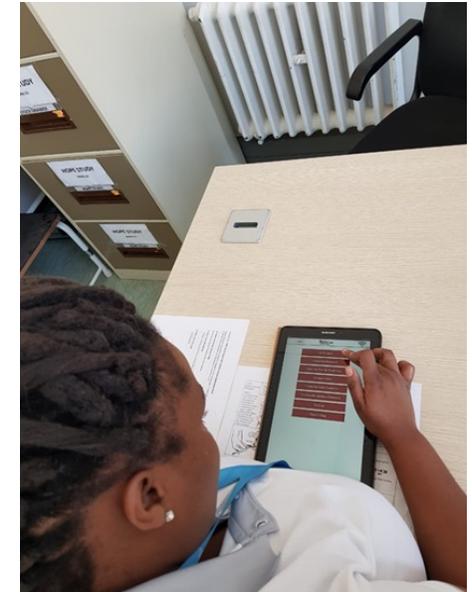
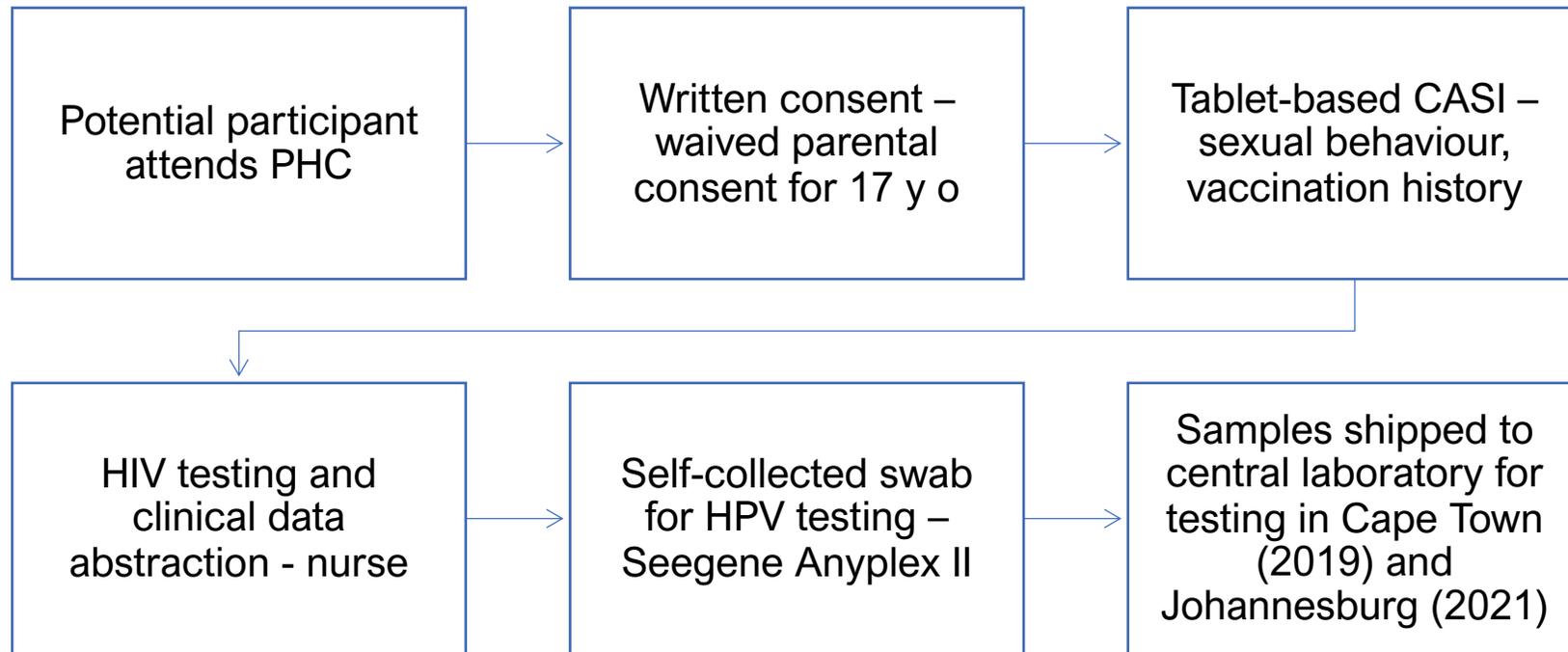
- Determine whether HIV infection status affects the impact of both HPV vaccine schedules.





# Survey methods

S1 conducted in four provinces (GP, MP, NW, FS) , S2 in Free State only

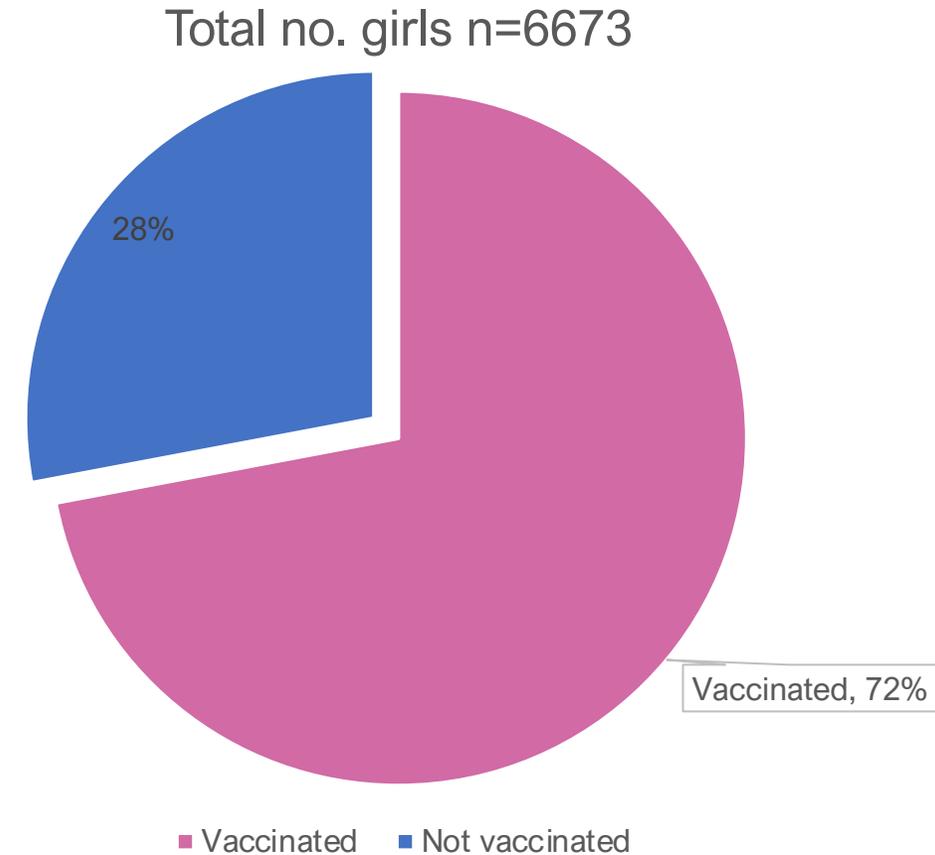


- WHO proficiency panel prior to testing
- 10% EQA at Royal Women's Hospital Australia

Vaccination status verified by provincial registers in S1, SD HPV campaign database in S2



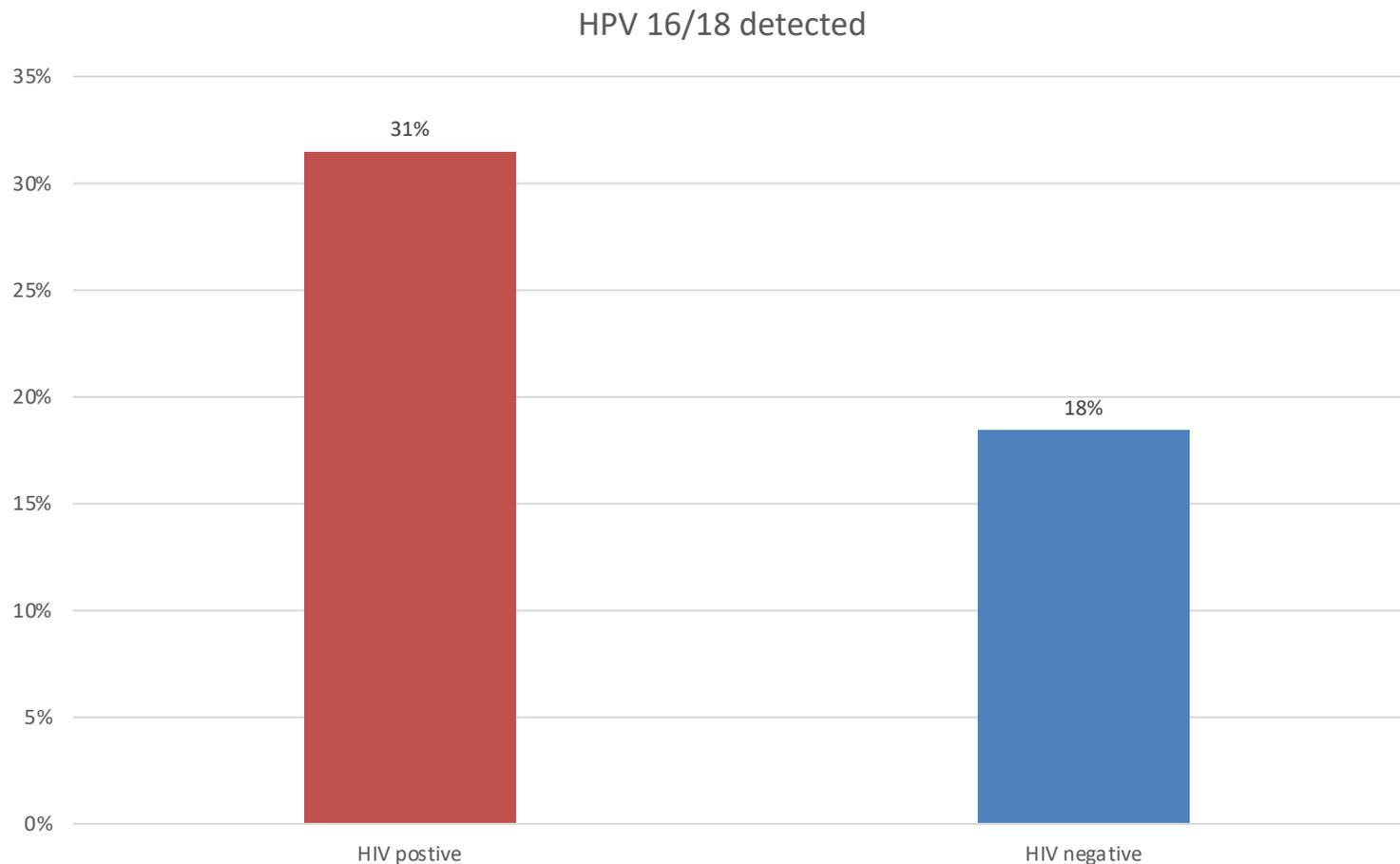
# SD HPV Vaccine coverage, by scholar



- Median age 16 years (IQR 15-17 years)
- Reasons for non-vaccination n=1867
  - Absenteeism or no signed consent 98%
  - Pregnant or breastfeeding 1.7%
  - Recent acute illness 0.3%



# HPV type 16/18 prevalence, by HIV - unvaccinated



HPV 16/18 significantly associated with 2+ partners, HIV status



# Participant characteristics, by HIV - unvaccinated



Characteristic	HIV negative N=538	%	HIV positive N=232	%	Total N=770	P value
<b>Province</b>						
Free State	316	59%	141	61%	457	0.650
Gauteng	84	16%	30	13%	114	
Mpumalanga	59	11%	30	13%	89	
North West	79	15%	31	13%	110	
<b>Age</b>						
17	261	49%	103	44%	364	0.294
18	277	51%	129	56%	406	
<b>Ever had vaginal sex</b>						
No	57	11%	76	33%	133	<b>0.009</b>
<b>Yes</b>	<b>480</b>	<b>89%</b>	<b>156</b>	<b>67%</b>	<b>636</b>	
<b>Age at first sex</b>						
<b>&lt;15 years</b>	<b>16</b>	<b>3%</b>	<b>20</b>	<b>13%</b>	<b>36</b>	<b>0.00</b>
15 years or above	352	73%	132	85%	484	
<b>No. lifetime sex partners</b>						
One	105	22%	48	31%	153	0.2
Two or more	151	31%	108	69%	259	
<b>Currently on contraception</b>						
No	101	19%	63	27%	164	0.009
<b>Yes</b>	<b>437</b>	<b>81%</b>	<b>169</b>	<b>73%</b>	<b>606</b>	
<b>Ever STI</b>						
No	341	63%	125	54%	466	0.35
Yes	65	12%	30	13%	95	



- 93% on ART
- 87% on first-line ART regimens
- 52% on ART for  $\leq 2$  years
- Median CD4+ count 475
- Median VL  $\sim 50$  copies\*



# One dose results pending

- One dose analysis in progress
  - Manuscript in preparation
- 2-dose survey launch 2023



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