



# **HPV testing using self-collected versus doctor-collected cervical samples for cervical cancer screening and the acceptance of women towards self-sampling**

**T.A TIITI**

# Aim of the study

- This study aims to determine the sensitivity of self-collected samples to doctor-collected samples for HPV DNA and mRNA testing and in addition to evaluate the acceptance of women towards self-sampling for cervical cancer screening


# Objectives

- To investigate the sensitivity of self-collected samples and doctor-collected samples for HPV testing screening among women attending gynaecology clinics at DGMAH
- To determine the prevalence of HR HPV infection in self-collected samples compared to doctor-collected samples

- To determine the prevalence of HR HPV E6/E7 mRNA in self-collected samples compared to doctor-collected samples
- To evaluate the acceptance of self-sampling for cervical cancer screening among women attending gynaecology clinics at DGMAH

# Study Population

Doctor-collected and  
self-collected samples from  
women aged  $\geq 18$  years



Attending  
gynaecology  
clinics at DGMAH

# Sample collection

A self-collection cervical health screening kit manufactured by Ilex South Africa (Pty) Ltd is used

A speculum is used to open the vaginal canal and a Cervex-Brush<sup>®</sup> Combi is used to collect cervical cells





Self-collection health screening kit



Cervex-Brush® Combi

# Sample Processing



Abbott m2000



Aptima system



# Sample size

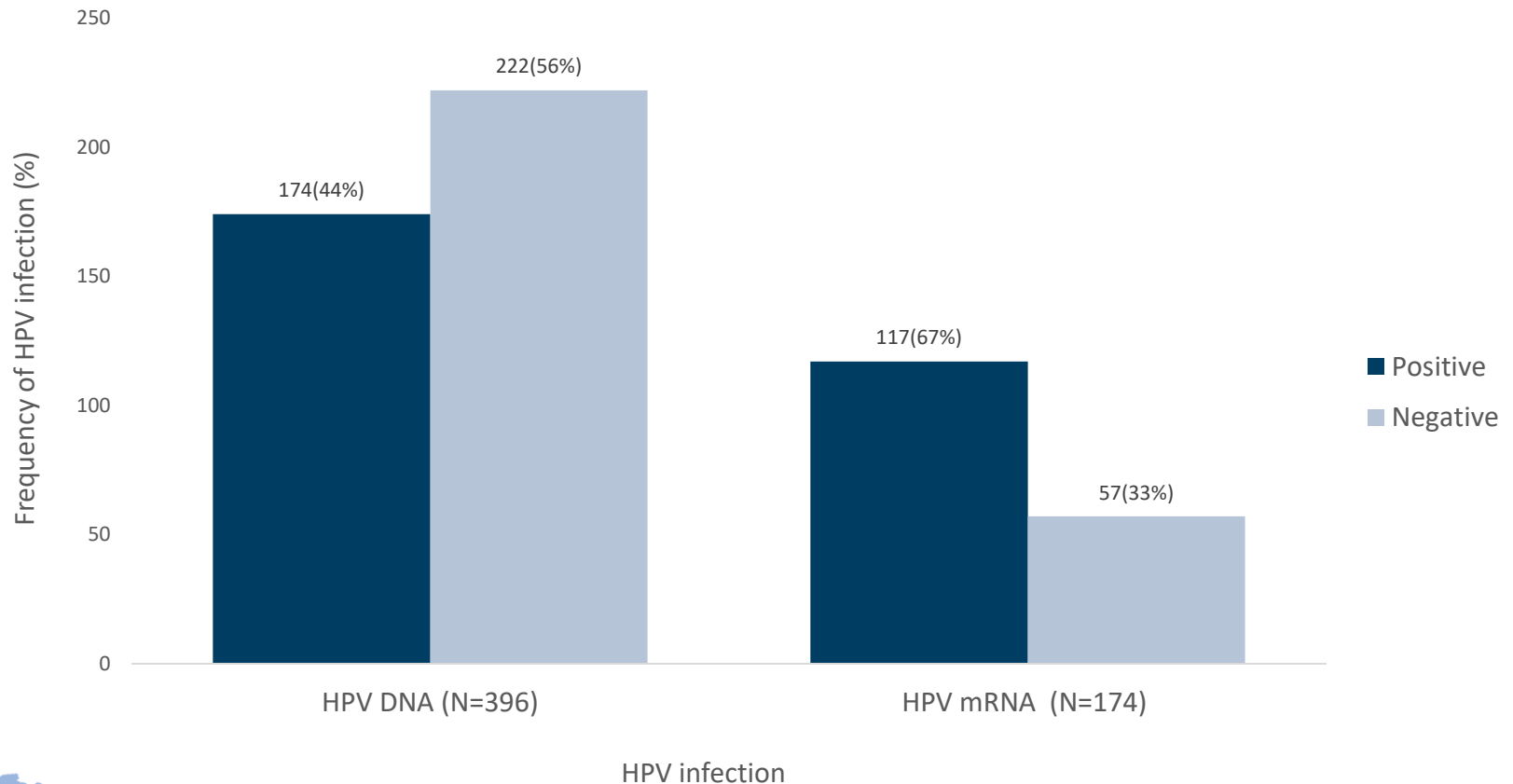
- Sample size = 450
- Analysed samples thus far (HPV DNA and HPV mRNA) = 396

Country/Code	Capital	Region	Area	Population	GDP in A\$B
UK	London	Europe	244,810	63,182,000	244,810
Algeria	Algiers	Africa	2,381,741	34,084,000	10,945
Algeria and Ba AS	Algiers	Africa	2,381,741	34,084,000	10,945
Albania	Tirana	Europe	28,748	3,000,000	3,000
American Sam AS	Washington DC	Americas	1,660,000	300,000	1,660
Andorra	Andorra la Vella	Europe	468	78,000	78
Angola	Luanda	Africa	1,246,700	18,400,000	18,400
Antigua	St. John's	Caribbean	280	100,000	100
Aruba	Oranjestad	Caribbean	193	100,000	100
Australia	Canberra	Oceania	7,688,275	22,000,000	22,000
Austria	Vienna	Europe	83,858	8,500,000	8,500
Azerbaijan	Baku	Asia	86,600	9,000,000	9,000
Bahamas	Nassau	Caribbean	13,940	400,000	400
Bahrain	Manama	Asia	780	1,200,000	1,200
Bangladesh	Dhaka	Asia	147,570	150,000,000	150,000
Barbados	Bridgetown	Caribbean	430	270,000	270
Belarus	Minsk	Europe	207,600	9,500,000	9,500
Belize	Belize City	Caribbean	22,960	400,000	400
Bermuda	Hamilton	Caribbean	54	60,000	60
Bhutan	Thimphu	Asia	38,390	2,500,000	2,500
Bolivia	Sucre	South America	1,098,580	10,000,000	10,000

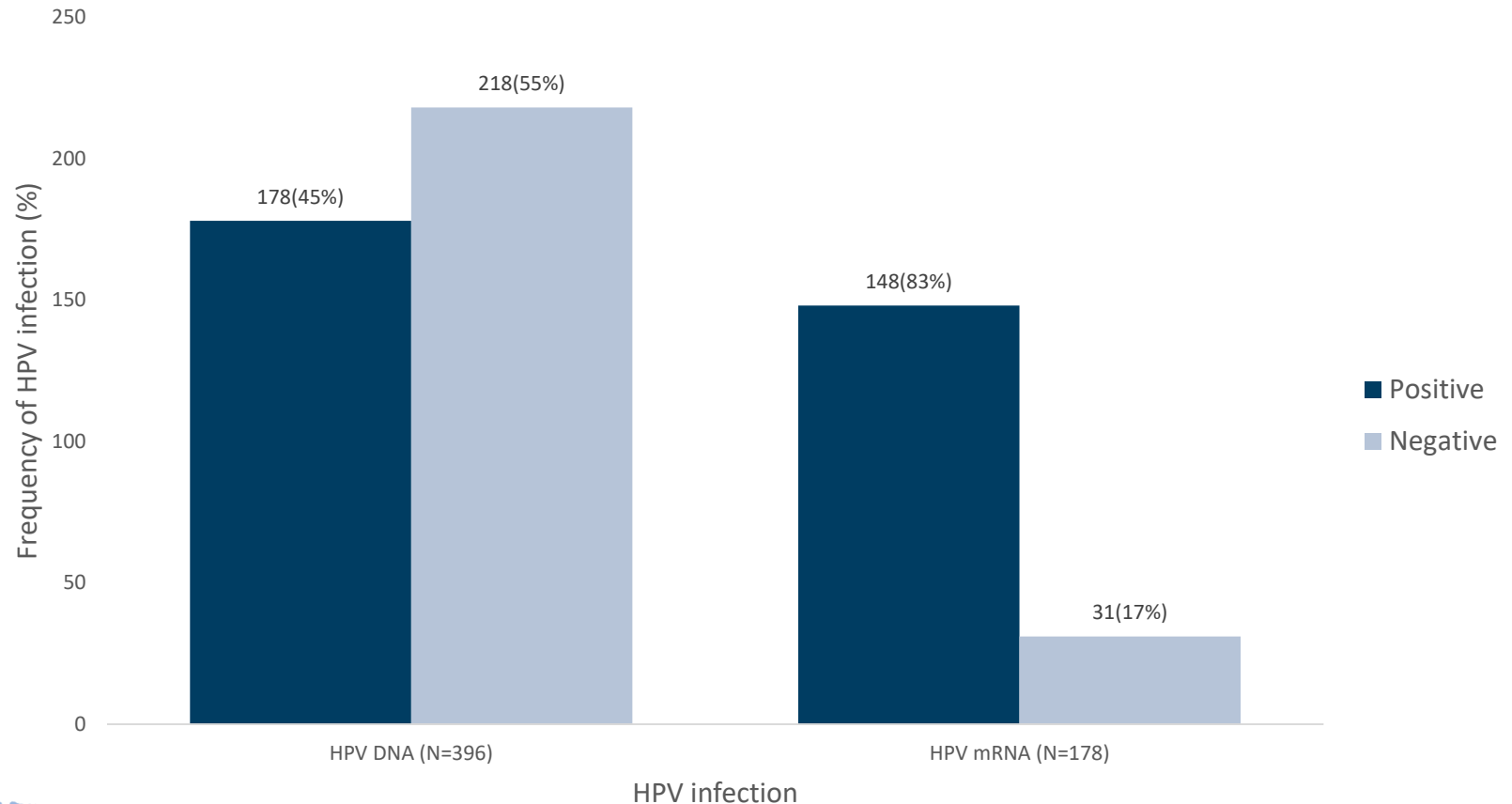
# Demographics

- The mean age was 38.1 = 10.9)
- Majority of women were younger than 40 years and were all black

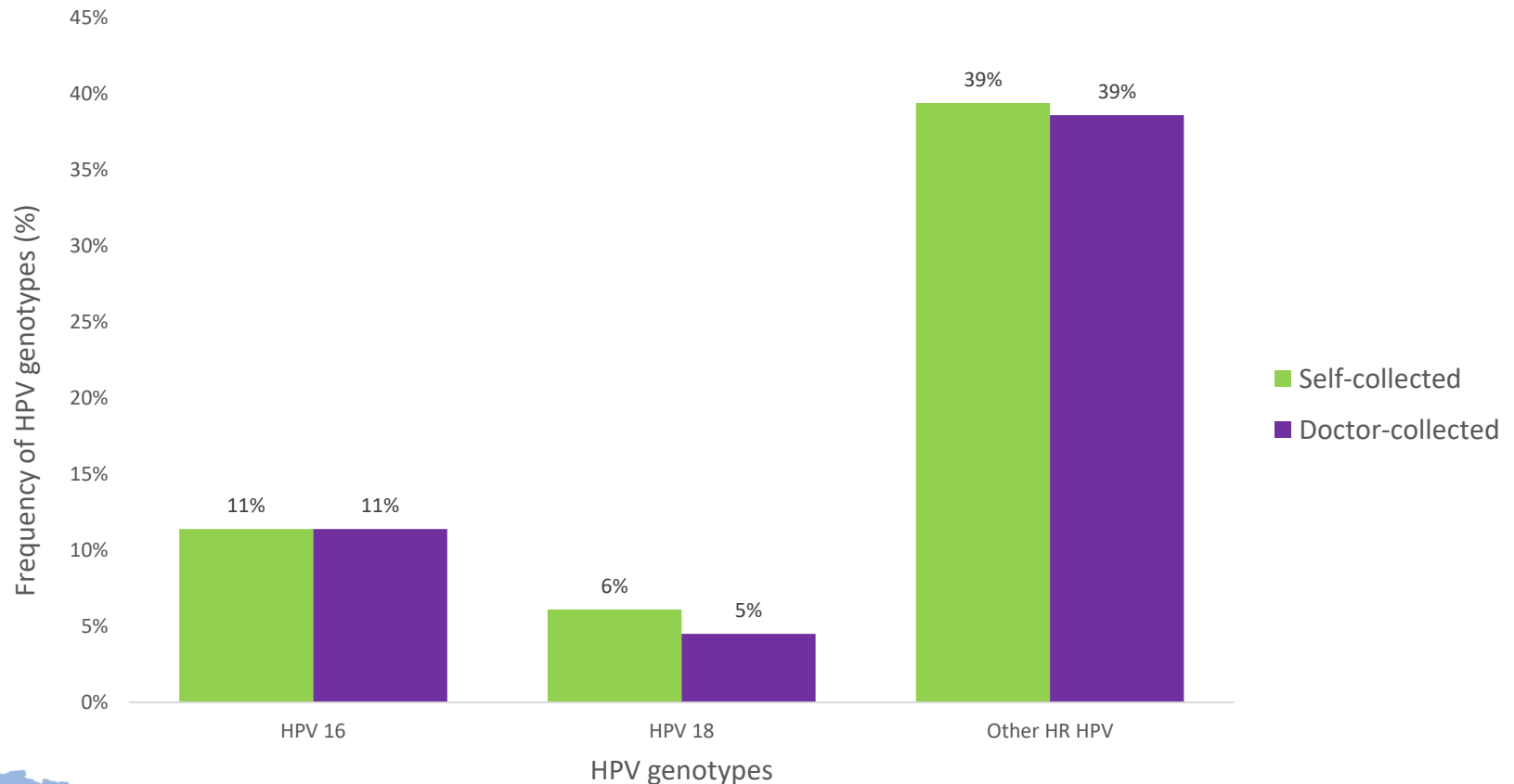
# Overall HPV Prevalence in Self-collected samples



# Overall HPV DNA Prevalence in Doctor-collected samples



# HPV genotypes in Self-collected samples vs Doctor-collected samples



# HPV DNA Agreement

SC DNA results \* LBC DNA results Crosstabulation

			LBC DNA results		
			Neg	Pos	Total
SC DNA results	Neg	Count	200	22	222
		% within SC DNA results	90.1%	9.9%	100.0%
		% within LBC DNA results	91.7%	12.4%	56.1%
	Pos	Count	18	156	174
		% within SC DNA results	10.3%	89.7%	100.0%
		% within LBC DNA results	8.3%	87.6%	43.9%
Total	Count		218	178	396
	% within SC DNA results		55.1%	44.9%	100.0%
	% within LBC DNA results		100.0%	100.0%	100.0%

Measure of agreement (kappa = 0.795)

# Acceptability towards Self-Sampling

353 samples analysed

Pain/SC

		Frequency	Percent
Valid	no	<b>300</b>	<b>85.0</b>
	yes	53	15.0
	Total	353	100.0

Worried/SC

		Frequency	Percent
Valid	no	<b>281</b>	<b>79.6</b>
	yes	72	20.4
	Total	353	100.0

Use/SC

		Frequency	Percent
Valid	no	43	12.2
	yes	<b>310</b>	<b>87.8</b>
	Total	353	100.0