

Participant Flow

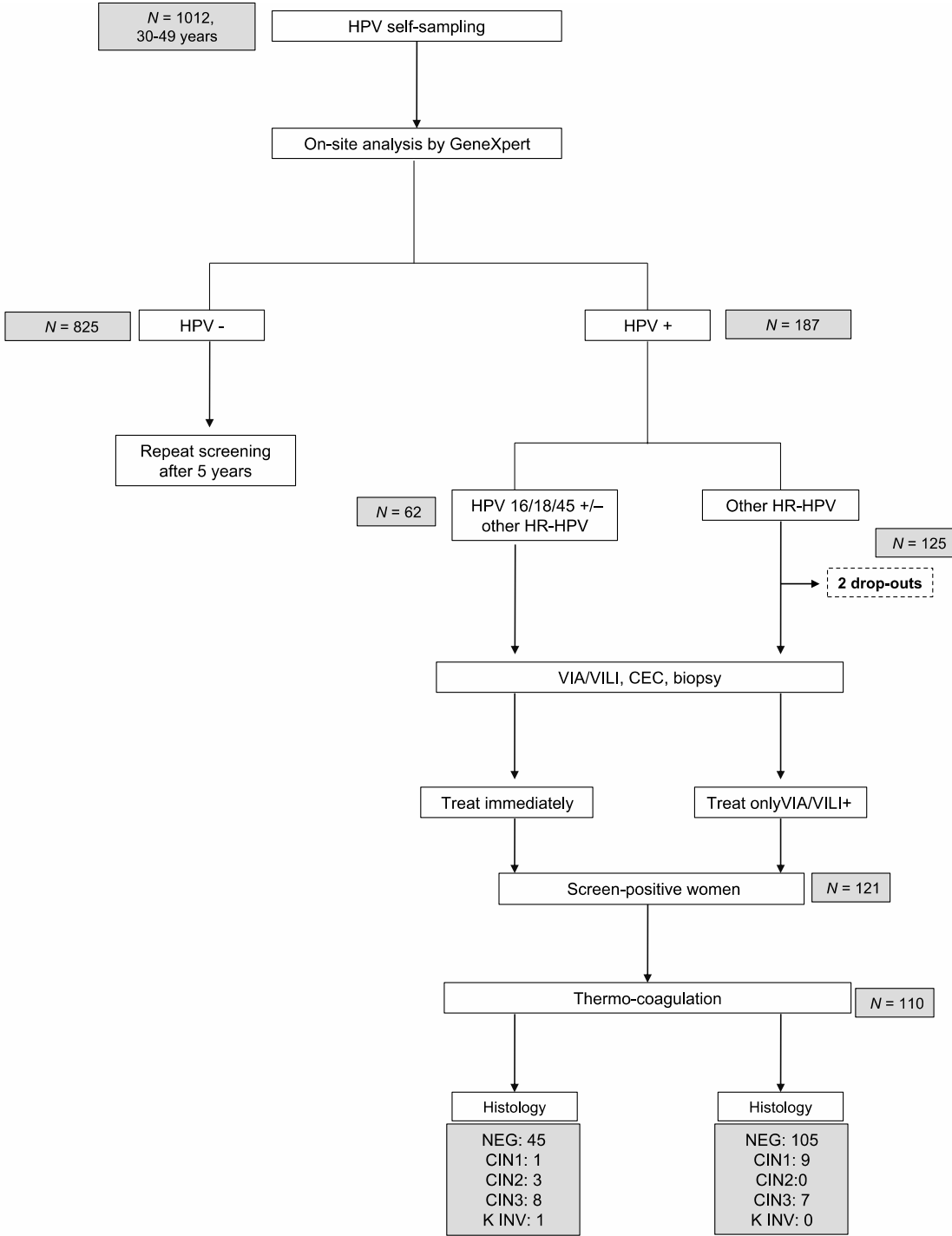


Figure 1. Study flowchart. *N*, number; HPV, human papillomavirus; VIA, visual inspection with acetic acid; VILI, visual inspection with Lugol's iodine; ECC, endocervical curettage; NEG, absence of cervical intraepithelial neoplasia at biopsy and/or ECC; CIN1, cervical intraepithelial neoplasia grade 1; CIN2, cervical intra-epithelial neoplasia grade 2; CIN3, cervical intraepithelial neoplasia grade 3.

Baseline Characteristics

Table 1. Socio-demographic and clinical characteristics of study participants ($n = 1012$).

Variable	<i>N</i>	%
Total	1012	
Age (mean \pm SD), y	39.6 \pm 5.6	
Age groups, y		
30–34	232	23.0
35–39	257	25.4
40–44	280	27.7
≥ 45	241	23.9
Marital status		
Without a partner	55	5.5
With a partner	954	94.5
Education		
Unschooling	7	0.7
Primary education	223	22.2
Secondary education	618	61.5
Tertiary education	157	15.6
Work		
Employee	404	40.0
Independent	267	26.4
Housewife	259	25.6
Farmer	49	4.9
Other	31	3.1
Age at menarche (mean \pm SD), y	14.8 \pm 1.8	
Age of first sexual intercourse (mean \pm SD), y	18.0 \pm 2.5	
Number of sexual partners (mean \pm SD)	3.7 \pm 2.7	
Number of pregnancies, (mean \pm SD)	5.5 \pm 2.3	
Number of children (mean \pm SD)	4.5 \pm 1.9	
Age at first delivery (mean \pm SD), y	21.8 \pm 4.0	
Contraception		
Pill	18	1.8
Injectable	35	3.5
Intrauterine device	46	4.6
Condom	111	11.0
Other	87	8.6
None	709	70.5
Antecedents of cytological screening		
Yes	222	22.0
No	788	88.0
Family history of cervical cancer		
Yes	64	6.3
No	882	87.4
I don't know	64	6.3

N, number; SD, standard deviation; y, years.

Outcome Measures

Secondary outcomes

1.

Table 2. Disease status.

Variable	<i>N</i>	%
Overall HPV prevalence	187	18.5
HPV prevalence by type		
HPV 16	18	9.6
HPV 18/45	29	15.5
Other HR-HPV	125	66.8
HPV 16+ other HR-HPV	2	1.1
HPV 18/45+ other HR-HPV	13	7.0
Disease status — VIA/VILI		
Pathological	107	57.8
Non pathological	78	42.2
Pathological VIA/VILI according to HPV type		
HPV 16	17	15.9
HPV 18/45	30	28.0
Other HR-HPV	60	56.1
Histological diagnosis		
Negative	150	83.8
CIN1	10	5.6
CIN2+	19	10.6

N, number; HPV, human papillomavirus; CIN1, cervical intraepithelial neoplasia grade 1; CIN2+, cervical intraepithelial neoplasia grade 2 or worse.

2.

Table 3. Age-stratified performance of VIA/VILI and HPV 16/18/45 genotyping for detection of high-grade cervical lesions among the 185 HR-HPV-positive women who underwent VIA/VILI.

Lesion	[<i>n</i> lesions]	Sensitivity % (95 % CI)	Specificity % (95 % CI)	PPV % (95 % CI)	NPV % (95 % CI)
Disease threshold	[10]				
CIN2+ for women					
30–39 years old					
VIA/VILI		80.0 (0.34–96.3)	44.7 (34.8–55.0)	13.3 (6.7–24.9)	95.5 (82.7–98.9)
HPV 16(+)		30.0 (7.6–69.0)	94.7 (87.7–87.8)	37.5 (8.6–79.3)	92.7 (85.3–96.5)
HPV 18/45(+)		30.0 (7.6–69.0)	79.8 (70.3–86.8)	13.6 (4.0–37.2)	91.5 (82.9–95.9)
HPV 16/18/45(+)		60.0 (24.3–87.5)	74.5 (64.5–82.4)	20.0 (8.8–39.2)	94.6 (86.2–98.0)
Disease threshold	[9]				
CIN2+ for women					
≥40 years old					
VIA/VILI		88.9 (37.4–99.1)	47.9 (33.8–62.3)	19.4 (8.5–38.1)	96.9 (79.1–99.6)
HPV 16(+)		44.4 (13.4–80.4)	87.8 (77.2–93.9)	33.3 (10.9–67.1)	92.1 (81.9–96.7)
HPV 18/45(+)		42.9 (9.1–85.0)	78.8 (67.0–87.2)	12.5 (2.6–43.0)	88.1 (76.7–94.4)
HPV 16/18/45(+)		66.7 (26.1–91.9)	66.7 (54.1–77.2)	21.4 (9.4–41.7)	93.6 (81.3–98.0)
Disease threshold	[19]				
CIN2+ for women					
all ages					
VIA/VILI		84.2 (57.8–95.3)	45.6 (38.0–53.5)	15.6 (9.7–24.0)	96.1 (88.2–98.8)
HPV 16(+)		36.8 (17.3–62.0)	91.9 (86.4–95.2)	35.0 (16.4–59.6)	92.5 (87.1–95.7)
HPV 18/45(+)		26.3 (10.4–52.4)	79.4 (72.3–85.0)	13.2 (5.4–28.9)	90.1 (83.8–94.1)
HPV 16/18/45(+)		63.2 (38.0–82.7)	71.3 (63.7–77.8)	20.7 (11.9–33.4)	94.2 (88.2–97.2)

CIN2+, cervical intraepithelial neoplasia grade 2 or worse; PPV, positive predictive value; NPV, negative predictive value.

3.

Table 3

Prevalence of HPV infection among Cameroonian women by demographic characteristics

Variable	HPV prevalence* N (%)	p value	Unadjusted OR (95% CI)	p value
Overall	187 (18.5)			
Age groups, y		0.045	0.96 (0.94-0.99)*	0.015
30-34	52 (22.4)		1.00 (Reference)	0.868
35-39	56 (21.8)		0.96 (0.63-1.48)	0.025
40-44	41 (14.7)		0.59 (0.38-0.94)	0.067
≥45	38 (15.8)		0.65 (0.41-1.03)	
Marital Status		0.318		
Without a partner	13 (23.6)		—	
With a partner	174 (18.3)		—	
Education		0.879		
Unschooling	1 (14.3)		—	
Primary education	39 (17.5)		—	
Secondary education	119 (19.3)		—	
Tertiary education	27 (17.1)		—	
Work		0.832		
Employee	75 (18.6)		—	
Independent	46 (17.2)		—	
Housewife	48 (18.5)		—	
Farmer	12 (24.5)		—	
Other	6 (19.4)		—	
Age at first sexual intercourse, y [†]		0.972		
<16	24 (17.9)		—	
16-18	101 (18.8)		—	
>18	62 (18.5)		—	
Number of sexual partners [†]		0.030	1.04 (0.99-1.10)*	0.14
1	27 (15.9)		1.00 (Reference)	
2-6	134 (18.0)		1.16 (0.74-1.82)	0.520
>6	26 (28.6)		2.12 (1.15-3.91)	0.016
Age at first delivery, y †		0.871		
≤20	80 (18.0)		—	
>20	98 (18.4)		—	
Number of children		0.044	0.87 (0.80-0.95)*	0.001
0-2	38 (24.2)		1.00 (Reference)	
>2	148 (17.4)		0.66 (0.44-0.99)	0.045
Contraception		0.067		
None	140 (19.8)		1.00 (Reference)	
Hormonal	9 (10.3)		1.32 (0.68-2.53)	0.406
Condom	13 (24.5)		0.95 (0.57-1.58)	0.833
Copper Intrauterine device	21 (18.9)		0.39 (0.14-1.10)	0.074
Other	4 (8.7)		0.47 (0.23-0.96)	0.037

Abbreviations: y = years; 95% CI = 95% confidence interval; OR= odds ratio.

* OR for continuous variables indicate the change in odds for an increase of one standard deviation.

Adverse events

Thermocoagulation assessment immediately after treatment and at the 1-month control visit

	Variable	N	%
Immediately after treatment	Total women treated	110	90.9
	Pain		
	Yes	105	95.5
	No	3	2.7
	Not specified	2	1.8
	VAS pain score (mean ± SD)	3.0 ± 1.6	
	VAS pain score (median, range)	2 (1–8)	
	Desire of future pregnancy	54	49.1
At the 1-month control visit	Total women seen at the 1-month visit	109	99.1
	Pain		
	Yes	34	31.2
	No	75	68.8
	VAS pain score (mean ± SD)	0.8 ± 1.4	
	Pain duration (mean ± SD), days	2.1 ± 4.8	
	Vaginal discharge		
	Yes	108	99.1
	No	1	0.9
	Vaginal discharge duration (mean ± SD), days	16.2 ± 8.4	
	Cicatrisation		
	Yes	100	91.7
	No	9	8.3