The Ivorian Cervical Cancer Screening Cascade: A 10-Year Program Evaluation According To HIV Status

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BACKGROUND

- The 2030 global cervical cancer (CC) elimination strategy recommends to achieve a 70% coverage for CC screening and 90% of precancerous lesions treated in eligible women.
- We evaluated progress towards these WHO CC elimination targets according to HIV status in Côte d'Ivoire during the 2010-2021 period.

METHODS

- A CC screening registry was initiated in Cote d'Ivoire since 2010, collecting standardized individual-level data from all health facilities offering visual inspection with acetic acid (VIA).
- Initially restricted to the economic capital (Abidjan), the registry progressively expanded to the three most populated administrative regions accounting for almost half of nationwide eligible women.
- The CC screening coverage was estimated based on the *2021 population census* and *Spectrum 2023* (HIV national database) in women aged 25-49 years from the general population and in WLHIV, respectively.
- CC screening and care cascade indicators were compared according to HIV status, using Chi-square test.
- Access to cryotherapy/thermal ablation and associated factors were analyzed through a logistic regression model.

RESULTS

- A total of **66,268 women aged 34 years** [IQR: 28-41] in median were screened for CC, **17.0% being WHIV**.

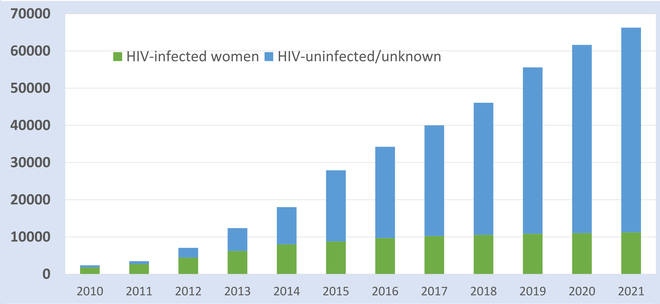


Figure 1. Cumulated trends in CC screening program participation over time in 3 administrative regions, according to HIV status [2010-2021]

Access to cryotherapy was low and declined over time, particularly in WLHIV, raising the need to improve/expand integration of precancerous lesion treatment in integrated HIV services and primary healthcare facilities Overcoming delivery gaps and implement monitoring/tracing strategies for positively screened women is a priority as HPV-based primary screening is being scaled-up in the country.

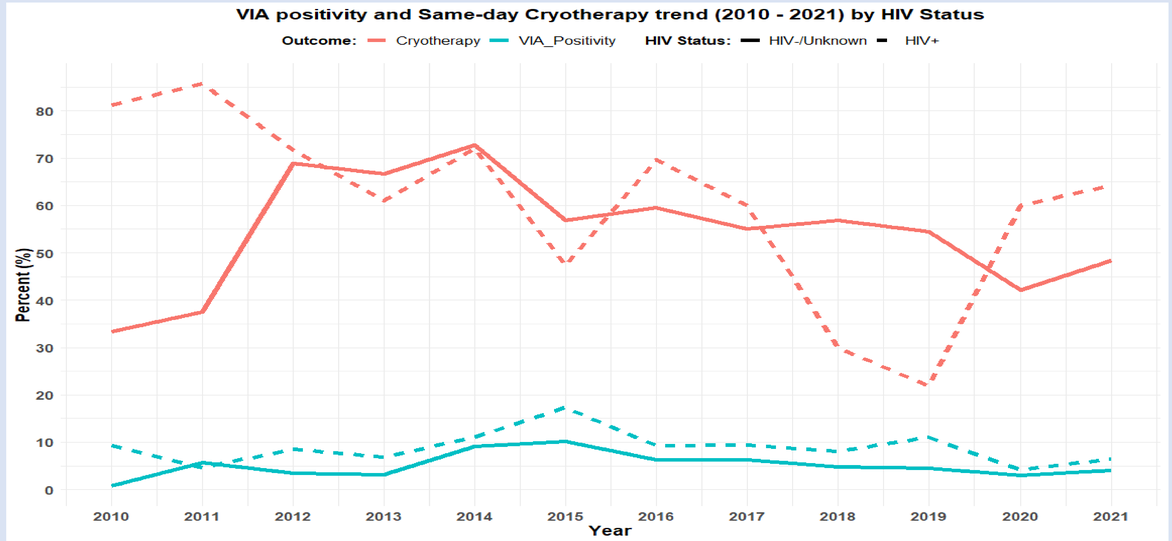


Figure 2: Trends in VIA positivity and access to same-day cryotherapy over the 2010-2021 period according to HIV status

- The estimated CC screening coverage was **4.4% [95%CI (2.6-5.2)]** overall, and **14.8% [95%CI (14.6-15.1)]** in WLHIV. Among the 4,210 VIA-positive women, **3,500 (83.1%)** were eligible for same-day cryotherapy/thermal ablation (83.9% in WLHIV).
- **Access to same-day treatment** was **59.1% (65.2% in WLHIV, p<0.001).**
- Access to same-day treatment declined over time, particularly in WLHIV: from 72.8% to 44.2% (p<0.001), but was higher in those screened in HIV specialized clinics (81.6%) versus HIV-integrated facilities (53.2%), p<0.001).
- In multivariate analysis, access to same-day treatment was higher in WLHIV [aOR= 1.55 [CI: (1.32-1.84)] and women screened in secondary level [aOR=1.82 (CI: 1.49-2.23)] or tertiary level facilities [aOR=1.79 (CI: 1.54-2.09)] compared to primary level facilities.

Table 1. Associated factors to access-to-same-day cryotherapy in Cote d'Ivoire (N=2,067)

Variables	Access to same-day cryotherapy n(%)	aOR	(95 % CI)	p value
Age at screening (years)				**0.010**
< 30	537 (56.0)	1		
[30 - 40[	921 (62.0)	1.27	[1.07 – 1.50]	
[40 - 50[	598 (58.0)	1.06	[0.88 – 1.27]	
HIV Status				**<0.001**
Negative/ Unknown	1,521 (57.0)	1		
Positive	546 (65.0)	1.49	[1.26 – 1.76]	
Health pyramid level				**<0.001**
Primary	918 (53.0)	1		
Secondary	364 (65.0)	2.04	[1.61 – 2.61]	
Tertiary	785 (66.0)	1.62	[1.38 – 1.91]	
Region				**0.004**
Abidjan	1,583 (57.0)	1		
Bouake	324 (69.0)	1.40	[1.12 – 1.75]	
Daloa	160 (59.0)	0.79	[0.58 – 1.08]	

CONCLUSIONS

- In 2021, CC screening program performances remained particularly low in Cote d'Ivoire regarding the 2030 CC elimination goals.
- Access to treatment was unacceptably low, particularly in WLHIV, raising the need to improve/expand integration of cryotherapy/thermal ablation in integrated HIV services and primary healthcare facilities.
- Overcoming delivery gaps and implement monitoring/tracing strategies for positively screened women is a priority as HPV-based primary screening is being scaled-up in the country.

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