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BACKGROUND

Transgender women (TW) are particularly vulnerable to HIV infection. Cross-sectional studies have shown that they experience a lower rate of antiretroviral therapy (ART) uptake. However, no longitudinal study has studied time interval between care entry and ART initiation, nor its evolution over time. This study aims to :

- Describe the **evolution of time intervals** between the 3 stages of the continuum of care: care entry, initiation of ART, and achievement of an undetectable viral load (VL <200 copies/mL).
- Assess factors associated with **time to ART initiation after care entry**.

METHODS

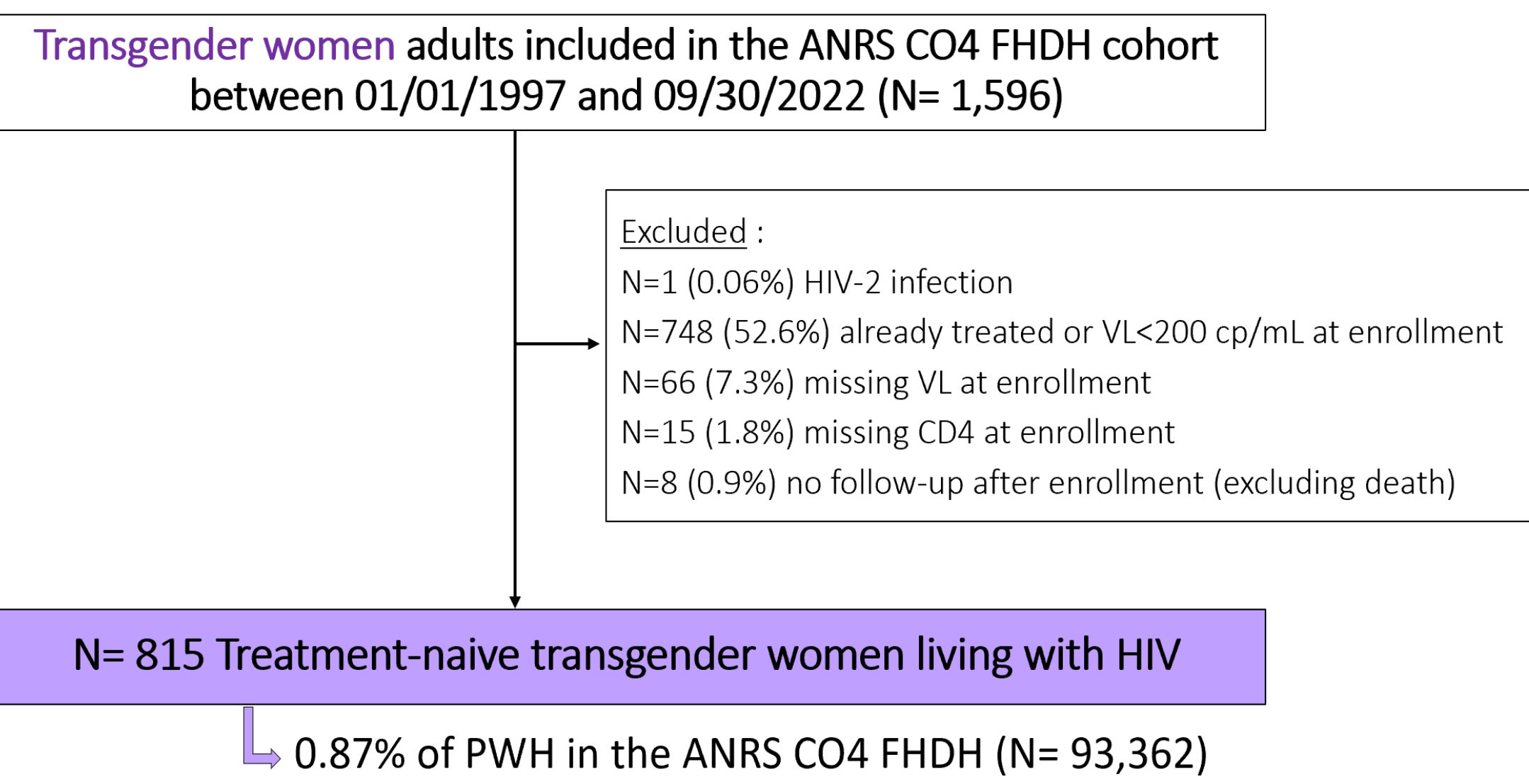
Data source

French Hospital Database on HIV (ANRS CO4 FHDH)

- Prospective multicentric cohort with ongoing enrollment since 1989.
- N=172 hospitals in France ; >105 000 PWH followed in 2022.
- Representative of PWH (people with HIV) receiving care in France⁴.

Population selection : Treatment-naïve transgender women (TW) living with HIV-1, enrolled between 1997 and 2022.

Figure 1. Flow chart of the population



Statistical Analysis

- Factors associated with the time to ART initiation after enrollment in FHDH (care entry) were estimated using a Cox model for each of the following period : 1997-2004 ; 2005-2012 ; 2013-2022.
- Adjusted for age, geographic origin, time between diagnosis and care entry, immuno-virological status, and year of enrollment.

Transgender women born outside of France are less likely to start ART soon after care entry compared to those born in France.

RESULTS

Table 1. Characteristics at enrollment in the ANRS CO4 FHDH, by calendar periods

	1997-2004 N=207	2005-2012 N=258	2013-2022 N=350	P-value*
Age	32 (27 – 36)	31 (26 – 36)	31 (27 – 37)	0.7218
Geographic origin				0.4661
Latin America	145 (70.1)	177 (68.6)	230 (65.7)	
France	39 (18.8)	57 (22.1)	73 (20.9)	
Africa	7 (3.4)	13 (5.0)	20 (5.7)	
Other	16 (7.7)	11 (4.3)	27 (7.7)	
Included in Paris region	164 (79.2)	180 (69.8)	234 (66.9)	0.0071
Sexual HIV acquisition with a cis-man	206 (99.5)	258 (100)	348 (99.4)	0.4911
Status at care entry				0.0005
<200/mm ³ CD4 or AIDS	64 (30.9)	50 (19.4)	77 (22.0)	
200-350/mm ³ CD4	52 (25.1)	56 (21.7)	57 (16.3)	
>350/mm ³ CD4 or primary infection	91 (44.0)	152 (58.9)	216 (61.7)	
Viral load (cp/mL)				0.0064
[200 - 5 000[	30 (14.5)	40 (15.5)	43 (12.3)	
[5 000 – 100 000[	97 (46.9)	143 (55.4)	153 (43.7)	
≥100 000	80 (38.7)	75 (29.1)	154 (44.0)	
HBs Ag+	13 (6.3)	8 (3.1)	8 (2.3)	0.0433
HCV+	10 (4.8)	5 (1.9)	6 (1.7)	0.0594
Duration of follow-up in years	20 (16 – 22)	12 (10 – 14)	4 (2 – 6)	<.0001

N (%) ; median (Q25 – Q75). *Chi square or Kruskal–Wallis tests.

In 2013-2022 :
• Peru : 55%
• Brazil : 26%
• Colombia : 4%
• Argentina : 4%
• Venezuela : 4%
• Others : 7%

Table 2. Evolution of time intervals between stages of the continuum of care

	1997-2004 N=207	2005-2012 N=258	2013-2022 N=350	P-value*
Time intervals in months between:				
HIV diagnosis – enrollment in FHDH	1.8 (0.3 – 21.7)	1.1 (0.3 – 20.6)	0.4 (0 – 4.4)	<.0001
Enrollment in FHDH – ART initiation	3.5 (0 – 28.2)	4.6 (0.9 – 20.7)	0.5 (0.2 – 1.4)	<.0001
ART initiation – VL <200 cp/mL	4.6 (2.4 – 15.1)	3.7 (1.9 – 7.1)	1.7 (1.0 – 4.3)	<.0001

Median (Q25-75). *Kruskal–Wallis test.

Table 3. Factors associated with time to ART initiation after care entry, by calendar periods

	1997 – 2004 N= 202 (196/6*)	2005 – 2012 N= 253 (245/8)	2013 – 2022 N= 335 (325/10)
	HR P-value	HR P-value	HR P-value
Year of enrollment	0.94 (0.87 - 1.01) 0.0877	1.12 (1.05 - 1.19) 0.0003	1.16 (1.11 - 1.21) <0.0001
Age	0.0456	0.0247	0.7717
18-29	0.72 (0.52 - 0.99)	0.70 (0.52 - 0.93)	0.96 (0.74 - 1.24)
30-39	ref	ref	ref
>40	1.18 (0.74 - 1.90)	1.02 (0.68 - 1.53)	1.08 (0.78 - 1.50)
Origin	0.0202	0.4163	0.0111
France	ref	ref	ref
Latin America	0.66 (0.44 - 0.98)	0.81 (0.58 - 1.13)	0.69 (0.51 - 0.92)
Others	1.16 (0.67 - 2.03)	0.93 (0.57 - 1.54)	0.58 (0.39 - 0.87)
Status at care entry	<0.0001	<0.0001	0.6355
<200/mm ³ CD4 or Aids	4.57 (2.99 - 6.97)	4.12 (2.77 - 6.14)	0.94 (0.69 - 1.26)
200-350/mm ³ CD4	2.56 (1.75 - 3.74)	2.57 (1.81 - 3.67)	1.12 (0.81 - 1.55)
>350 CD4/mm ³ or primary infection	ref	ref	ref
Time diagnosis – care entry	0.3950	0.1764	0.6189
<1 month	ref	ref	ref
1-3 months	1.07 (0.69 - 1.66)	1.49 (0.97 - 2.27)	0.93 (0.62 - 1.38)
>3 months	0.83 (0.60 - 1.15)	1.13 (0.85 - 1.50)	0.88 (0.66 - 1.15)
Viral load at enrollment	0.0065	<0.0001	0.0071
<100,000 copies/mL	ref	ref	ref
≥100,000 copies/mL	1.59 (1.14 - 2.23)	2.00 (1.44 - 2.77)	1.42 (1.10 - 1.84)

Multivariable Cox model adjusted for all covariates above, for each period.

*(Number of events/number of censored).

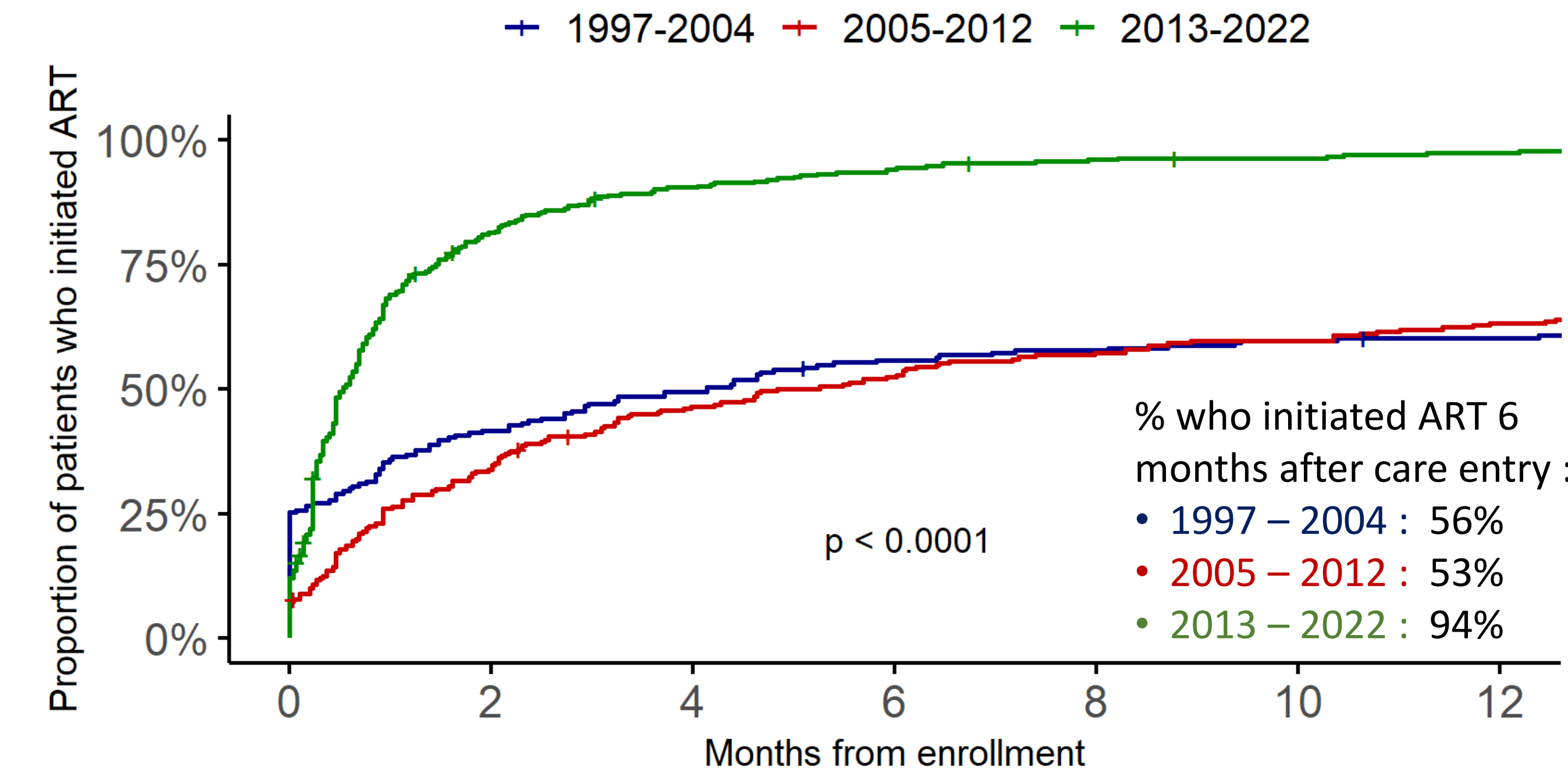
Started ART earlier.
Started ART later.

The factors associated with the time to ART initiation changed over time: the immunovirological status was significantly associated in the 1997-2004 and 2005-2012 periods, but was no longer associated in 2013-2022.

In 2013-2022, the factors associated with time to treatment were **viral load at enrollment** and **geographic origin**:

- TW with VL ≥100,000 cp/mL were 42% more likely to start treatment earlier compared to those with VL <100,000 cp/mL.
- TW born in Latin America or in other countries were less likely to start treatment earlier compared to those born in France (reduced by 31% and 42%, respectively).

Figure 2. Time to ART intiation after enrollment in FHDH, by calendar periods



CONCLUSIONS

In Transgender women followed in France, there has been an :

- Overall reduction in the time intervals between the 3 stages of the continuum of care since 1997.
- Until 2013, the delay in initiating treatment depended mainly on immunovirological status. Since the “*treat all*” policy, time to ART initiation have shortened, but disparities based on **geographic origin** persist, still hindering rapid access to treatment.