

CD4+T-cell count at cART initiation among migrant men and women living in Western Europe

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Background

- Timely initiation of combined antiretroviral treatment (cART) is key to improve prognosis at the individual level and to reduce further transmission.
- A large proportion of people living with HIV in Western Europe are migrants, and health inequalities may exist that result in later initiation of cART in migrant populations
- Migrants are heterogeneous and local studies often lack sample size for the adequate disaggregation by country of origin. Further, given the gender differences in health seeking behaviours, stratification by sex is required.
- The objective** was to evaluate CD4+T-cell counts at ART initiation by geographical origin (GO) and sex throughout 2004-2012 within the European Collaboration of HIV Cohorts (COHERE).

Methods

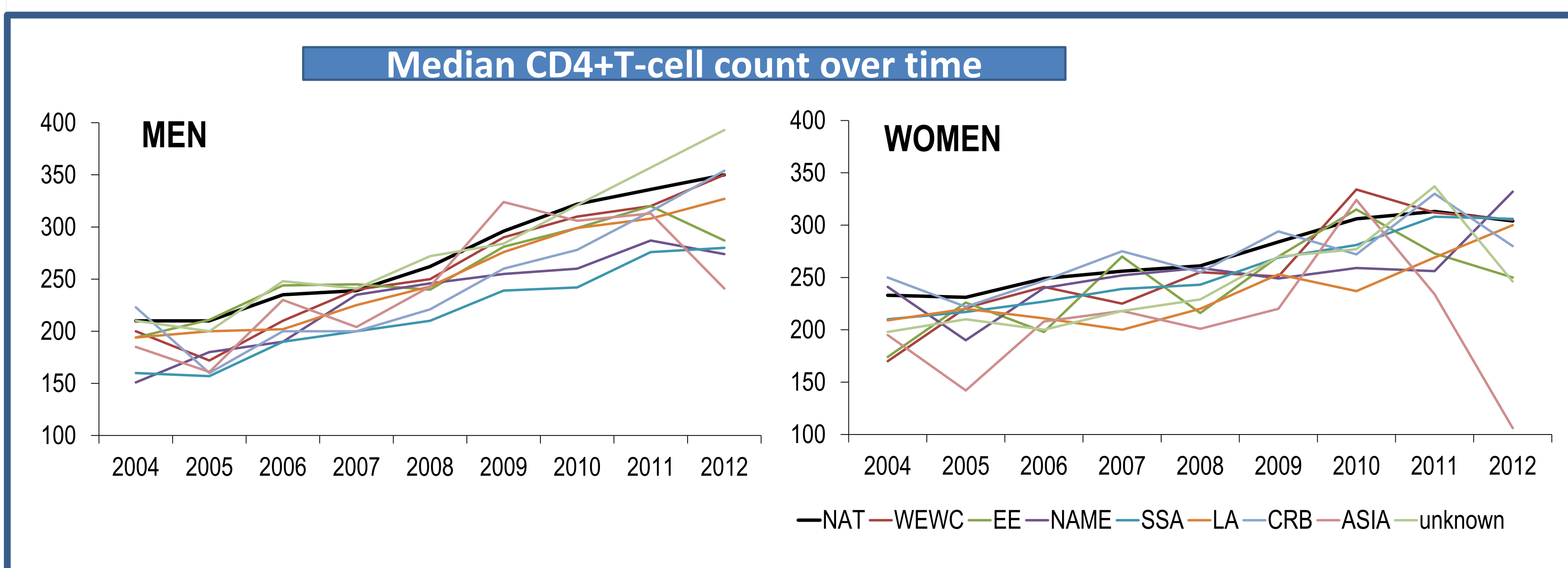
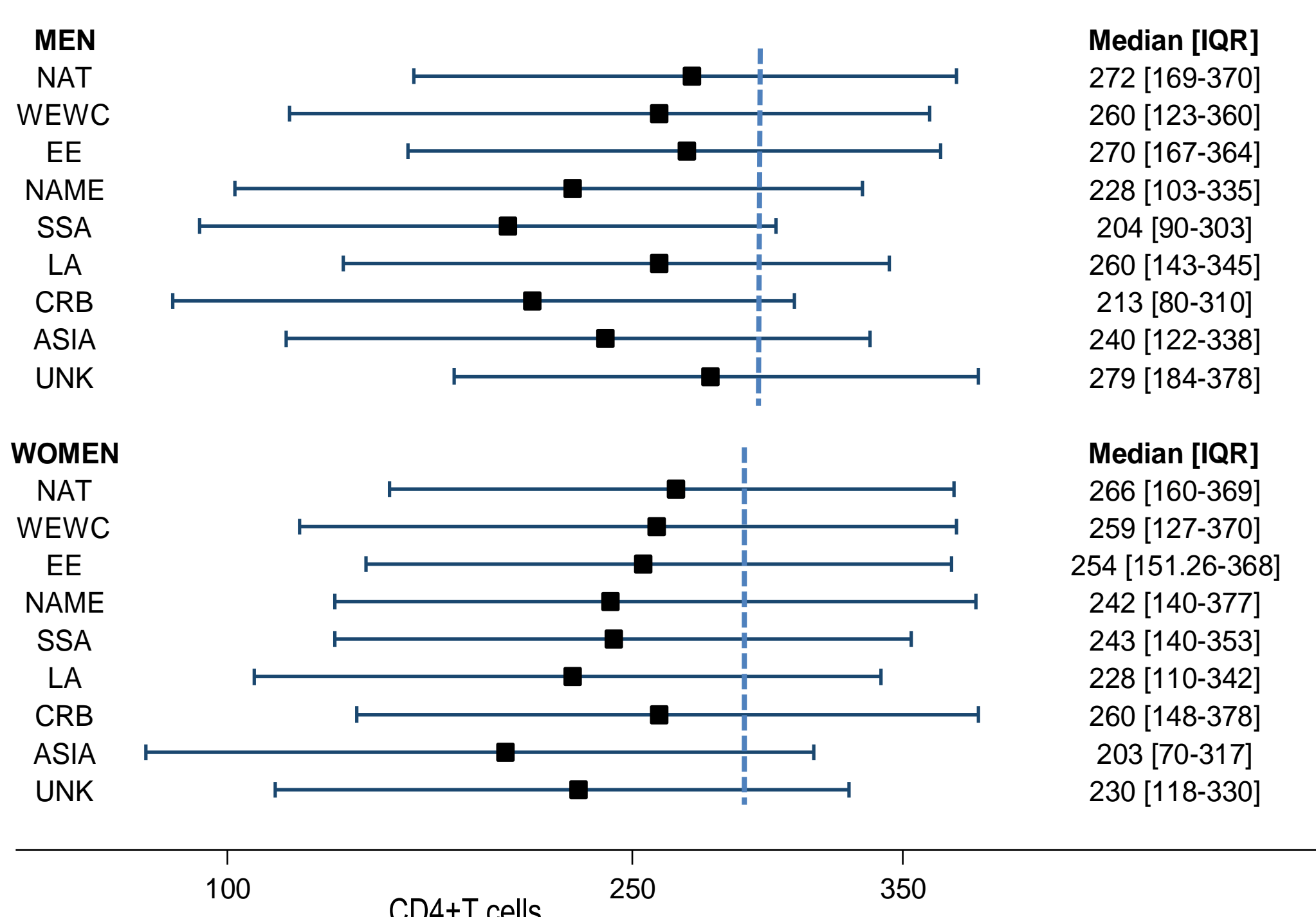
Study design and population

- 23 Western European cohorts collecting geographical origin and/or ethnicity
- Persons included if recruited Jan 2014-Dec 2012, 18-75 years of age, with information on sex, not infected perinatally or due to hemophilia, naïve to cART at enrolment., initiating cART during follow-up and with available CD4+T-cell count at cART initiation

Results

N= 76,235	NATIVES		WESTERN EUROPE & OTHER W.C.		EASTERN EUROPE		NORTH AFRICA & MIDDLE EAST		SUBSAHARAN AFRICA		LATIN AMERICA		CARIBBEAN		ASIA/OCEANIA		UNKNOWN	
	N	(%)	N	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
MEN (N= 56,343)																		
NUMBER	41,773	(74.1)	1,430	(2.5)	625	(1.1)	887	(1.6)	5,088	(9.0)	2,400	(4.3)	809	(1.4)	998	(1.8)	2,333	(4.1)
Age [Me(IQR)]	39.9	(33.4-46.8)	40.5	(33.6-46.7)	33.8	(29.3-40.7)	39.7	(33.7-46.6)	38.7	(33.1-44.9)	34.9	(29.4-41.2)	39.7	(33.6-46.9)	36.2	(30.8-43.0)	37.8	(31.6-44.4)
Transmission																		
MSM	28,029	(67.1)	847	(59.2)	303	(48.5)	296	(33.4)	478	(9.4)	1,813	(75.5)	325	(40.2)	617	(61.8)	1,707	(73.2)
IDU	3,163	(7.6)	129	(9.0)	132	(21.1)	106	(12.0)	342	(6.7)	52	(2.2)	15	(1.9)	73	(7.3)	115	(4.9)
HTX	7,865	(18.8)	262	(18.3)	115	(18.4)	389	(43.9)	3,895	(76.6)	441	(18.4)	416	(51.4)	215	(21.5)	292	(12.5)
OTH/UNK	2,716	(6.5)	192	(13.4)	75	(12.0)	96	(10.8)	373	(7.3)	94	(3.9)	53	(6.6)	93	(9.3)	219	(9.4)
AIDS	5,574	(13.3)	230	(16.1)	80	(12.8)	189	(21.3)	1,016	(20.0)	387	(16.1)	158	(19.5)	172	(17.2)	192	(8.2)
Period																		
2004-08	22,637	(54.2)	758	(53.0)	248	(39.7)	493	(55.6)	3,197	(62.8)	1,139	(47.5)	541	(66.9)	523	(52.4)	1,293	(55.4)
2009-12	19,136	(45.8)	672	(47.0)	377	(60.3)	394	(44.4)	1,891	(37.2)	1,261	(52.5)	268	(33.1)	475	(47.6)	1,040	(44.6)
WOMEN (N= 19,892)																		
NUMBER	8,240	(41.4)	297	(1.5)	385	(1.9)	335	(1.7)	8,306	(41.8)	646	(3.3)	684	(3.4)	533	(2.7)	466	(2.3)
Age [Me(IQR)]	37.9	(30.8-46.1)	38.6	(30.6-46.6)	31.2	(27.2-38.2)	37.0	(29.4-48.0)	33.1	(28.4-39.0)	34.7	(29.0-42.3)	35.7	(29.8-44.5)	33.9	(29.7-39.7)	35.3	(29.1-42.3)
Transmission																		
IDU	1,062	(12.9)	44	(14.8)	51	(13.3)	13	(3.9)	548	(6.6)	27	(4.2)	12	(1.8)	83	(15.6)	49	(10.5)
HTX	6,502	(78.9)	207	(69.7)	294	(76.4)	284	(84.8)	7,303	(87.9)	580	(89.8)	612	(89.5)	417	(78.2)	351	(75.3)
OTH/UNK	676	(8.2)	46	(15.5)	40	(10.4)	38	(11.3)	455	(5.5)	39	(6.0)	60	(8.8)	33	(6.2)	66	(14.2)
AIDS	1,153	(14.0)	39	(13.1)	60	(15.6)	49	(14.6)	1,068	(12.9)	117	(18.1)	98	(14.3)	118	(22.1)	62	(13.3)
Period																		
2004-08	5,204	(63.2)	167	(56.2)	167	(43.4)	201	(60.0)	5,584	(67.2)	374	(57.9)	533	(77.9)	345	(64.7)	305	(65.5)
2009-12	3,036	(36.8)	130	(43.8)	218	(56.6)	134	(40.0)	2,722	(32.8)	272	(42.1)	151	(22.1)	188	(35.3)	161	(34.5)

CD4+T-Cell Counts at cART initiation



Conclusion

- From 2004 to 2012, cART has been initiated at increasingly higher counts of CD4+T-cells over time, both in native and migrant populations living in Western-Europe. This may be attributable to the trend to recommend cART at higher CD4 levels, together with the efforts to increase prompt diagnosis and treatment.
- However, the inequality gap for migrant populations is still observed, as all migrant groups had lower median CD4+T-cell counts at cART initiation, reaching statistical significance for all groups except women from Western Europe/Western Countries and women from the Caribbean; highest difference was found for women from Asia.
- This could be attributable to late HIV diagnosis and/or to delayed initiation of cART.
- Intensified efforts targeting migrants will be needed to close this gap, with potential impact at both individual and community levels.

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MEDIAN REGRESSION: Coefficient [95%Confidence Interval] p-value

