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

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Results

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 collective data on HIV immigration 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 hemorrhia, naive to cART at enrolment, initiating cART during follow-up and with available CD4+ T-cell count at cART initiation.

- Variables
  - Migrants were persons who originated in a country different to where they were accessing care and were grouped into: Western Europe and Western Countries in North America, Australia and New Zealand (WEWC); Eastern Europe (EE); North Africa & The Middle East (NAME); Sub-Saharan Africa (SSA); Latin America (LA); The Caribbean (CRB); and rest of the Asian Continent and Oceania (ASIA).
  - Otherwise were native population (NAT).
  - CD4+ T-cell count at cART initiation were the closest CD4 measurement within the previous 6 months to +7 days of cART.

Statistical analysis

- All analyses were stratified by sex.
- CD4+ T-cell counts medians and IQR were calculated for each group and for the different study years.
- Effect of GO over median CD4+ T-cell count at cART initiation was estimated using Median regression, adjusted by age (<25:25-34:35-49:50), transmission category (MSM, HTX, IDU/other, unknown), pre-cART AIDS (yes; no) calendar period as defined by the economic crisis (2004-2008:2009-2012) and co-infection with HBV or HCV (negative; positive; unknown). Bootstrap was used for the confidence intervals.
- All analyses were conducted using stata (V.12.0MP).

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.