Oral Communication   Session/Topic: HIV: Walking along the continuum of care

N.   Title:

OC 71 **Impact of social determinants on antiretroviral therapy access and outcomes entering the era of universal treatment for HIV-infected people**

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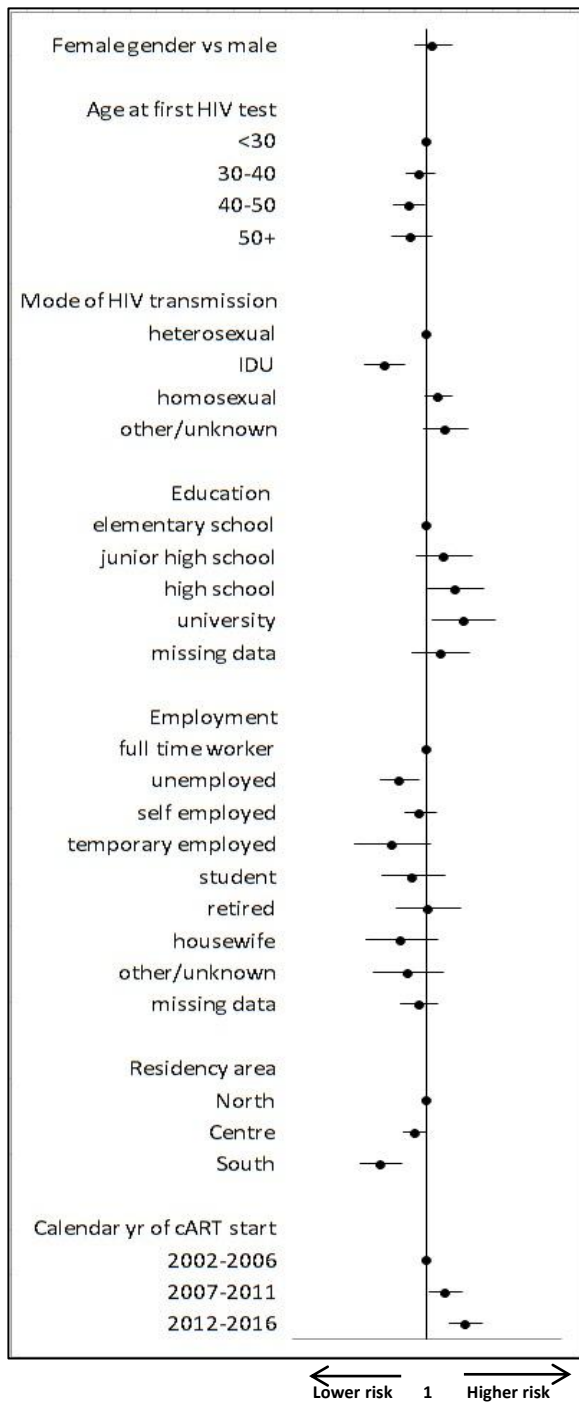
Abstract:

Background: Social determinants are known to be a driving force of health inequalities, even in high income countries. Aim of our study was to determine if these factors can limit ART access, outcome and retention in care of people living with HIV (PLHIV).

Methods: All ART naïve HIV+ patients (pts) of Italian nationality enrolled in the Icona Cohort from 2002 to 2016 were included. The association of socio-demographic characteristics (age, sex, risk factor for HIV infection, educational level, occupational status and residency area) with time to: ART initiation (from the first positive anti-HIV test), ART regimen discontinuation, and first HIV-RNA <50 cp/mL, were evaluated by Cox regression analysis, Kaplan Meier method and log-rank test.

Results: A total of 8,023 HIV-pos pts (82% males, median age at first pos anti-HIV test 36 years, IQR: 29-44) were included: 6,214 (77.5%) started ART during the study period. Women, intravenous drug users (IDUs) and residents in Southern Italy presented the lowest levels of education and the highest rate of unemployment compared to other groups. Females, pts aged >50 yrs, unemployed vs employed, and people with lower educational levels presented the lowest CD4 count at ART initiation compared to other groups. The overall median time to ART initiation was 0.6 years (yrs) (IQR 0.1-3.7), with a significant decrease over time [2002-2006=3.3 yrs (0.2-9.4); 2007 -2011=1.0 yrs (0.1-3.9); 2012-2016=0.2 yrs (0.1-2.1), p<0.001]. By multivariate analysis (after adjustment for CD4 count, viral load, pregnancy status, and smoking), females (p<0.01), IDUs (p<0.001), and housewives (p=0.18) presented a longer time to ART initiation, while older people (per 10 yrs increase) (p<0.001), subjects with higher educational levels (p<0.001), unemployed (p=0.02) and students (p<0.001) were more likely to initiate ART. Moreover, IDUs, unemployed vs stable employed, and pts with lower educational levels showed a lower 1-year probability of achieving HIV-RNA suppression (Figure 1a), while females, older patients, MSM, housewives and unemployed had higher 1-year risk of first-line ART discontinuation (Figure 1b).

Conclusions: Despite median time to ART start decreased from 2002 to 2016, socio-demographic factors still contribute to disparities in ART initiation, outcome and durability.
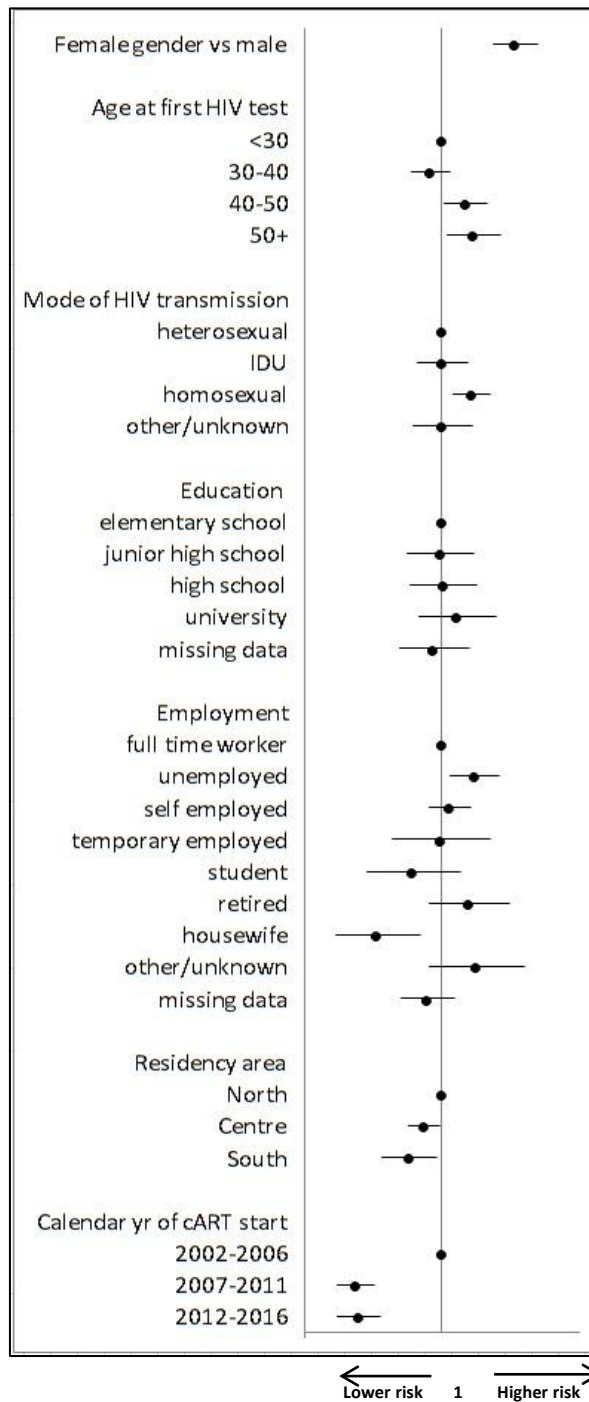
Figure 1. Multivariable model* of factors associated with **(a)** virological response (HIV-RNA <50) and with **(b)** treatment change / discontinuation for any cause.

(*Adjusted for CD4 count, viral load, pregnancy status, smoking)