Life expectancy in key populations of adults with HIV in the US and Canada

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Background

- Life expectancy (LE) in adults with HIV is nearing that of the general population
- Adults with HIV and co-infected with hepatitis C (HCV) may have a shorter LE than adults with HIV
- The US National HIV/AIDS Strategy specifies key populations that have been shown to have a greater burden of negative health outcomes, including Black men who have sex with men (MSM), Black women, Hispanic adults, and people who inject drugs (PWID)
- ***The objective of our study was to estimate life expectancy (LE) among key populations and among those with HCV***

Methods

Study population: NA-ACCORD participants

- Similar demographic characteristics to persons with HIV in the US (according to CDC HIV Surveillance data) and the Medical Monitoring Project (a nationally-representative survey of adults with HIV who are receiving outpatient medical care in the US and Puerto Rico)
- **N=92,451** ART users under observation from 1 Jan 2005 to 31 Dec 2015

Death

- NA-ACCORD cohorts use active and passive death ascertainments, including matching to provincial (in Canada) and national (in the US) death registries

Covariates to define key populations

- Age estimated from year of birth, sex, race/ethnicity from self-report, HIV transmission risk (MSM, PWID)

Statistical approach

- Adults were followed from Jan 1, 2005 or ART initiation (whichever came first) to:
  - date of death
  - loss to follow up (i.e. date of last CD4 or HIV RNA measurement + 1.5 years)
  - administrative censoring at 31 Dec 2015
- LE were estimated using standard 10-year abridged life table methodology

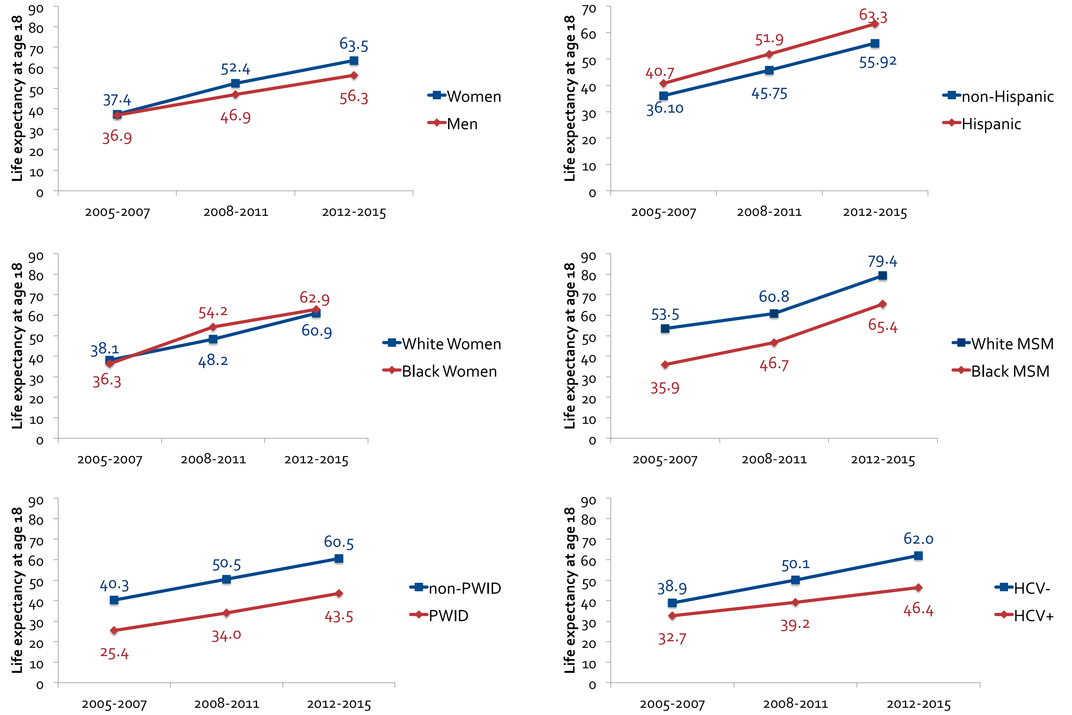
Results

Table 1. Characteristics of all ART initiators at baseline (defined as Jan 1, 2005, or ART initiation, whichever came later)

Characteristics	All ART initiators N=92,451 n	%
Age		
18-39	30,153	33%
40-49	31,136	34%
50-59	22,678	24%
≥60	8,484	9%
Male	77,460	84%
Race/ethnicity		
White	35,361	38%
Black	36,910	40%
Hispanic	10,500	11%
Other/Unknown	9,680	11%
Hepatitis C infection	21,065	23%
CD4 cell count (cells/mm^3)		
median (IQR)	345	(197, 530)
<200	22,363	24%
200-349	22,325	24%
350-499	18,398	20%
≥500	25,026	27%
Missing	4,339	5%
Clinical AIDS diagnosis	16,665	18%
Median years of follow-up (IQR)	5.4	(3.0, 9.6)

Please attend the themed discussion "***The persistent challenge of late presentation and mortality" (Tuesday 1:30-2:30pm, Ballroom B)*** to see additional life expectancy estimates from the NA-ACCORD

Figure 2. Life expectancy at age 18 in ART initiators in key populations (N=92,415), 2005-2015



Conclusions

- **The impact of the "treat all" era may further increase LE, but not narrow the persistent differences in LE for Black (vs White) MSM, PWID (vs non-PWID), and those with HCV (vs. uninfected)**
  - sensitivity analysis restricting to non-PWID showed similar LE by HCV status (data not shown)
- Increased LE in Hispanics vs. non-Hispanics is reflective of the US general population
- *Limitation:* LE estimates may be overestimated if participants underrepresent those who are less likely to remain in care after ART initiation
- *Limitation:* Low frequency of deaths occurred in the 2012-2015 period and may result in unstable estimates

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