Women with HIV Have High Overall Burden and Early Accrual of Non-AIDS Comorbidities

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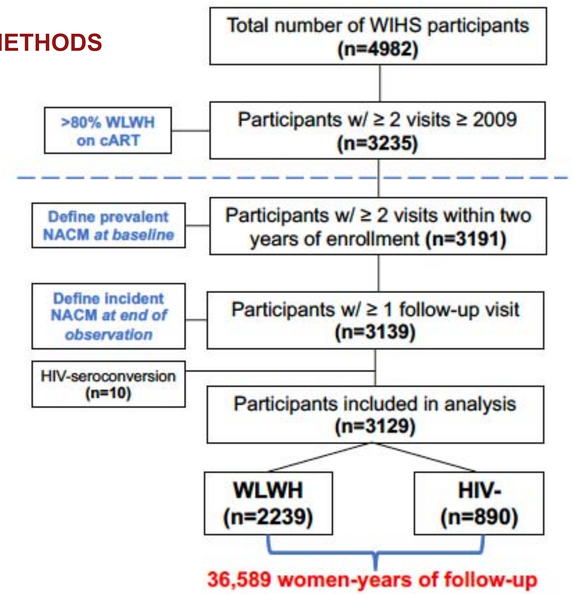
BACKGROUND

- Persons with HIV are living longer and non-AIDS comorbidities (NACM) increasingly account for morbidity and mortality in this population
- HIV may accelerate aging-related NACM development
- The incidence of NACM in women living with HIV (WLWH) is poorly characterized

METHODS

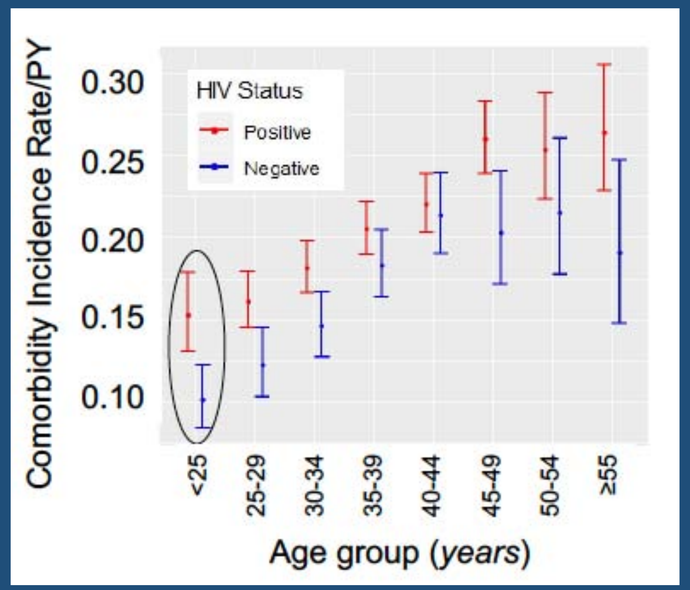


- Age, demographic, clinical covariates and 10 prevalent NACM were determined at enrollment
- Incident NACM assessed from enrollment – 03/31/2018
- Poisson regression estimated incidence rate ratios (IRR) comparing accrual of incident NACM by HIV serostatus and age group using partially-adjusted (HIV, age) and fully-adjusted (HIV, age, covariates) models

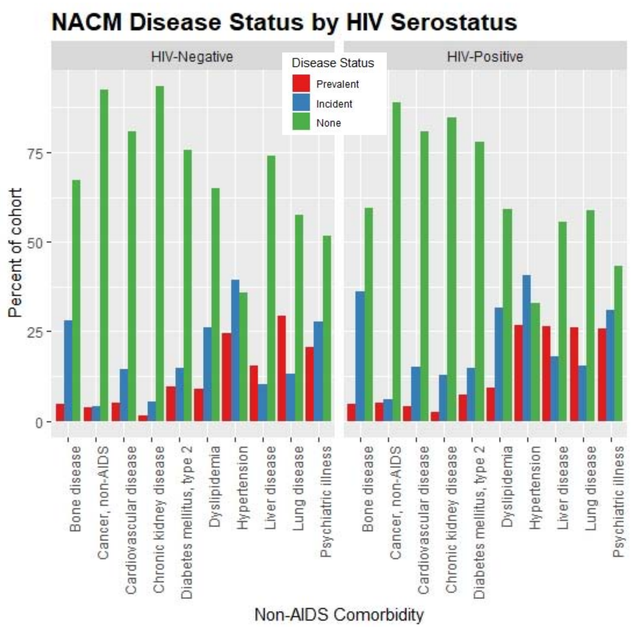
RESULTS – at study enrollment

- Median age was 37yrs, 65% were black, 47% currently smoked, median BMI was 28 kg/m^2
- WLWH had median CD4 count of 484 cells/mm^3, 69% were on cART, 45% were virologically suppressed
- Mean NACM count was higher among WLWH vs HIV- women (1.4 vs 1.2, p=0.006) though only prevalent liver disease and psychiatric illness differed by HIV serostatus

Women <25 yrs had the greatest NACM IRR (HIV+/HIV-) compared with all other age groups.



RESULTS – from enrollment to end of observation



- The distribution of NACM as prevalent, incident or none for the cohort over the study period is shown in the Figure (left)
- In <u>partially-adjusted models</u>, incident NACM burden was greater in WLWH compared with HIV- women (0.20/PY vs 0.16/PY; IRR 1.21, 95% CI 1.13-1.29)
- Incidence was higher in WLWH vs HIV- women for (IRR; 95% CI):
  - Chronic kidney disease (3.14; 1.80-5.49)
  - Liver disease (2.56; 1.85-3.54)
  - Psychiatric illness (1.38; 1.02-1.86)
  - Hyperlipidemia (1.36; 1.14-1.62)
  - Bone disease (1.35; 1.14-1.58)
- In <u>fully-adjusted models</u>, incident NACM burden was higher among WLWH vs HIV- women in most age strata (Figure above, HIV*age interaction p=0.046)

RESULTS CONTINUED

Age (*yrs*)	aIRR (HIV+ vs HIV-)	95% CI
<25	1.50	1.21, 1.87
25-29	1.32	1.10, 1.58
30-34	1.24	1.09, 1.42
35-39	1.12	1.004, 1.25
40-44	1.03	0.92, 1.16
45-49	1.28	1.07, 1.53
50-54	1.18	0.95, 1.46
≥55	1.38	1.04, 1.84

- A higher incident NACM burden was associated with age at enrollment, HIV serostatus, race, BMI, income, type of residence, current smoking, current crack/cocaine use; not marital status, education, nor current alcohol use

CONCLUSIONS

- WLWH had higher baseline and incident NACM burden than HIV- women
- Incident differences were most dramatic among women aged <25yrs, a group for whom routine comorbidity screening does not exist
- More data are needed to inform best practices for NACM screening and management among WLWH, particularly young women

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