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# Burden of AIDS-defining Conditions among Adults with Perinatal HIV in North America, 2000-2022

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## INTRODUCTION

**Adults with perinatally acquired HIV may be at higher risk of AIDS-defining conditions (ADC) than adults with non-PHIV**



Received suboptimal ART during childhood



HIV acquisition interfered with immune system development



Challenges during transition from pediatric to adult HIV care

**To describe the incidence of AIDS-defining conditions from 2000-2022 among adults aged 18-40 with perinatal HIV during adult HIV care and compare them with non-perinatal HIV**

Adults with **perinatally acquired HIV did not experience a greater incidence of AIDS-defining conditions (ADC) in adult HIV care** vs. adults with non-perinatally acquired HIV. Continued engagement in HIV care provides opportunities for ADC prevention.

## PARTICIPANT CHARACTERISTICS

| | Perinatal (*N* = 455) | Male-to-male sexual contact (*N* = 15,858) | Persons who inject drugs (*N* = 1,237) | Heterosexual contact (*N* = 5,400) |
|---|---|---|---|---|
| *Sex and race, n (%)* | | | | |
| Non-Black male | 51 (11%) | 6,626 (42%) | 728 (59%) | 476 (9%) |
| Black male | 112 (25%) | 6,496 (41%) | 150 (12%) | 1,075 (20%) |
| Non-Black female | 63 (14%) | | 133 (11%) | 784 (15%) |
| Black female | 151 (33%) | | 45 (4%) | 2,311 (43%) |
| *Characteristics at study entry* | | | | |
| Age, median (IQR) | 21.6 (19.3, 25.2) | 27.1 (23.9, 30.9) | 28.4 (24.9, 32.1) | 27.4 (23.6, 31.6) |
| Year, median (IQR) | 2013 (2011, 2017) | 2014 (2011, 2017) | 2014 (2010, 2018) | 2013 (2009, 2017) |
| CD4 <200, *n* (%) | 86 (19%) | 1,531 (10%) | 108 (9%) | 820 (15%) |

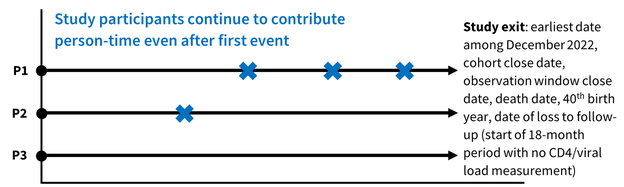
## METHODS

14 US and Canadian clinical cohorts of adults ≥ 18 with HIV and had ≥ 2 care visits within 12 months of enrollment

18-40 years old during follow-up from 2000-2022

Did not exclude people with history of ADC

### ADCs modeled as recurring events



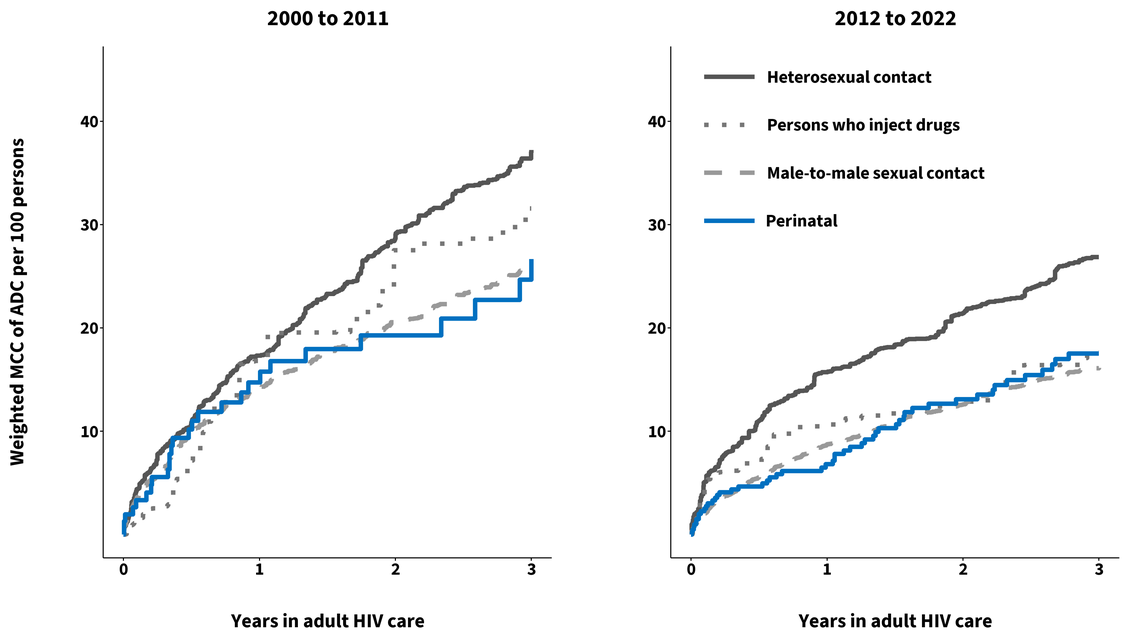

**Study entry**: latest date among January 2000, cohort open date, observation window open date, enrollment date

Perinatal: Proxy for transition to adult HIV care

Non-perinatal HIV groups **weighted** to make similar with perinatal HIV using a **propensity score model (sex, race, age, calendar year, CD4)**

**Weighted mean cumulative count (MCC)**: average number of ADC events expected per 100 participants by three years in adult HIV care

## Weighted mean cumulative number (MCC) of AIDS-defining conditions (ADC) among participants living with HIV aged 18-40 in North America, 2000-2022




## WEIGHTED MCC DIFFERENCES

per 100 persons, at 3 years of adult HIV care (bootstrapped 95% CI)

| Reference group: Perinatal | 2000 to 2011 | 2012 to 2022 |
|---|---|---|
| **Male-to-male sexual contact** | -1 (-17, 15) | -1 (-12, 8) |
| **Persons who inject drugs** | 5 (-20, 34) | 0 (-15, 19) |
| **Heterosexual contact** | 11 (-8, 31) | 9 (-5, 23) |

## CONCLUSIONS

- Within each calendar era, weighted MCCs of ADCs among participants with perinatally acquired HIV were similar to participants with non-perinatally acquired HIV
- Within each HIV acquisition risk group, weighted MCCs of ADCs were lower between 2000-2011 vs. 2012-2022

## ACKNOWLEDGMENTS

The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health. This work was supported by National Institutes of Health grants U01AI069918, F31AI124794, F31DA037788, G12MD007583, K01AI093197, K01AI131895, K23EY013707, K24AI065298, K24AI118591, K24DA000432, KL2TR000421, N01CP01004, N02CP055504, N02CP91027, P30AI027757, P30AI027763, P30AI027767, P30AI036219, P30AI050409, P30AI050410, P30AI094189, P30AI110527, P30MH62246, R01AA016893, R01DA011602, R01DA012568, R01 AG053100, R24AI067039, U01AA013566, U01AA020790, U01AI038855, U01AI038858, U01AI068634, U01AI068636, U01AI069432, U01AI069434, U01DA036629, U01DA036935, U10EY008057, U10EY008052, U10EY008067, U01HL146192, U01HL146193, U01HL146194, U01HL146201, U01HL146202, U01HL146203, U01HL146204, U01HL146205, U01HL146208, U01HL146240, U01HL146241, U01HL146242, U01HL146245, U01HL146333, U24AA020794,U54MD007587, UL1RR024131, UL1TR000004, UL1TR000083, Z01CP010214 and Z01CP010176; contracts CDC-200-2006-18797 and CDC-200-2015-63931 from the Centers for Disease Control and Prevention, USA; contract 90047713 from the Agency for Healthcare Research and Quality, USA; contract 90051652 from the Health Resources and Services Administration, USA; grants CBR-86906, CBR-94036, HCP-97105 and TGF-96118 from the Canadian Institutes of Health Research, Canada; Ontario Ministry of Health and Long Term Care; and the Government of Alberta, Canada. Additional support was provided by the National Institute Of Allergy And Infectious Diseases (NIAID), National Cancer Institute (NCI), National Heart, Lung, and Blood Institute (NHLBI), Eunice Kennedy Shriver National Institute Of Child Health & Human Development (NICHD), National Human Genome Research Institute (NHGRI), National Institute for Mental Health (NIMH) and National Institute on Drug Abuse (NIDA), National Institute On Aging (NIA), National Institute Of Dental & Craniofacial Research (NIDCR), National Institute Of Neurological Disorders And Stroke (NINDS), National Institute Of Nursing Research (NINR), National Institute on Alcohol Abuse Alcoholism (NIAAA), National Institute on Deafness and Other Communication Disorders (NIDCD), and National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK).

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This research has been facilitated by the infrastructure and resources provided by the Johns Hopkins University Center for AIDS Research, an NIH funded program (1P30AI094189), which is supported by the following NIH Co-Funding and Participating Institutes and Centers: NIAID, NCI, NICHD, NHLBI, NIDA, NIA, NIGMS, NIDDK, NIMHD. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH.