

Generalizability: leDEA as a Yard Stick

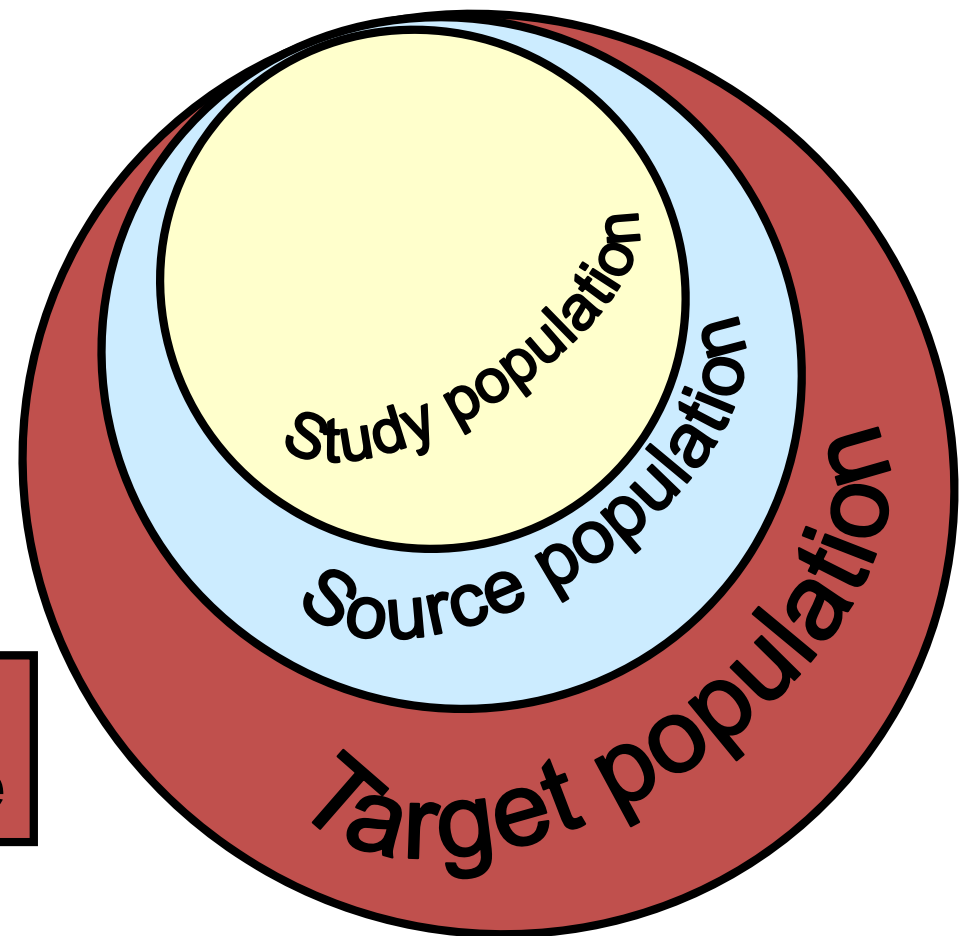
June 23, 2016



The group studied

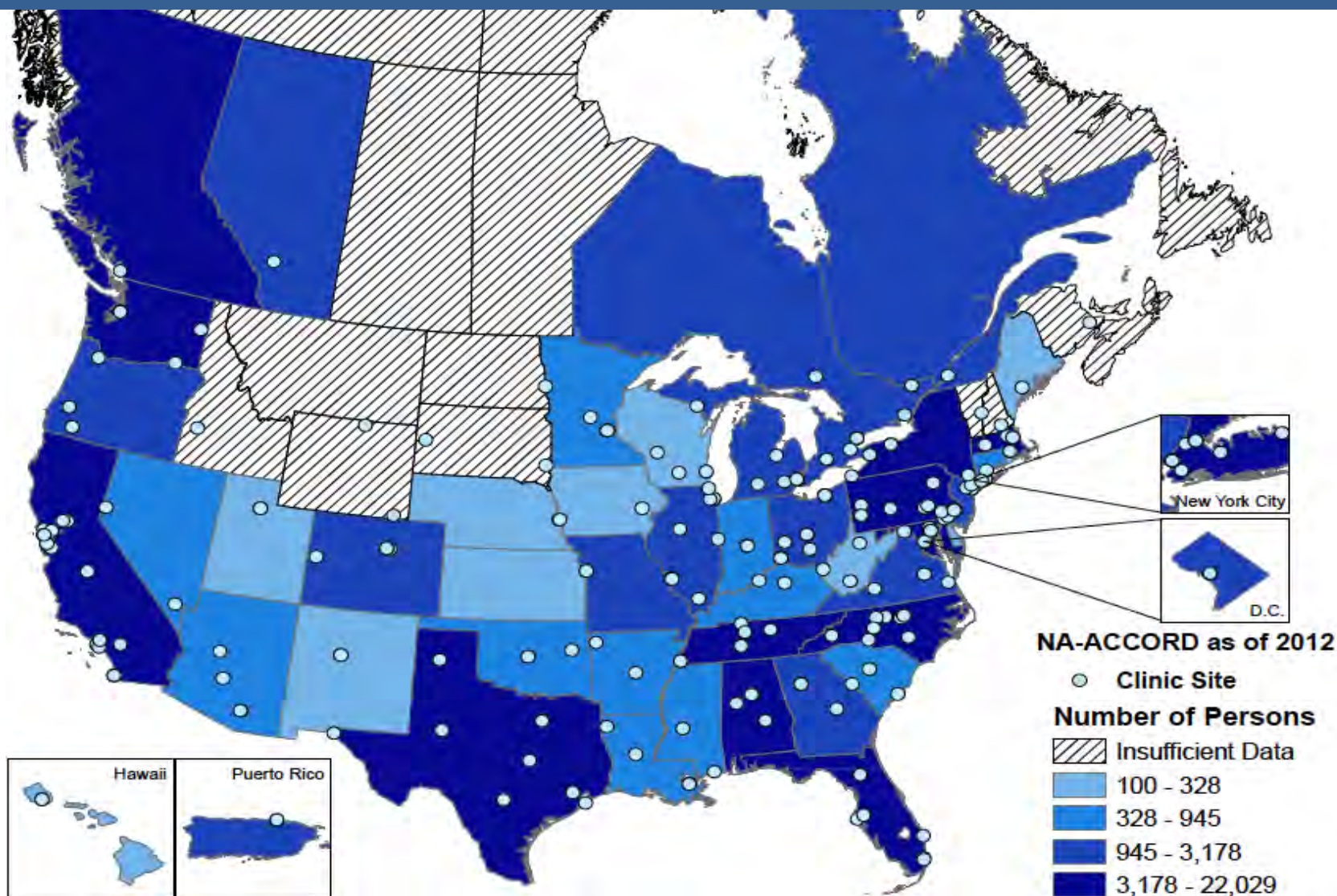
The group from whom the study population is drawn

The group to whom inferences will be made

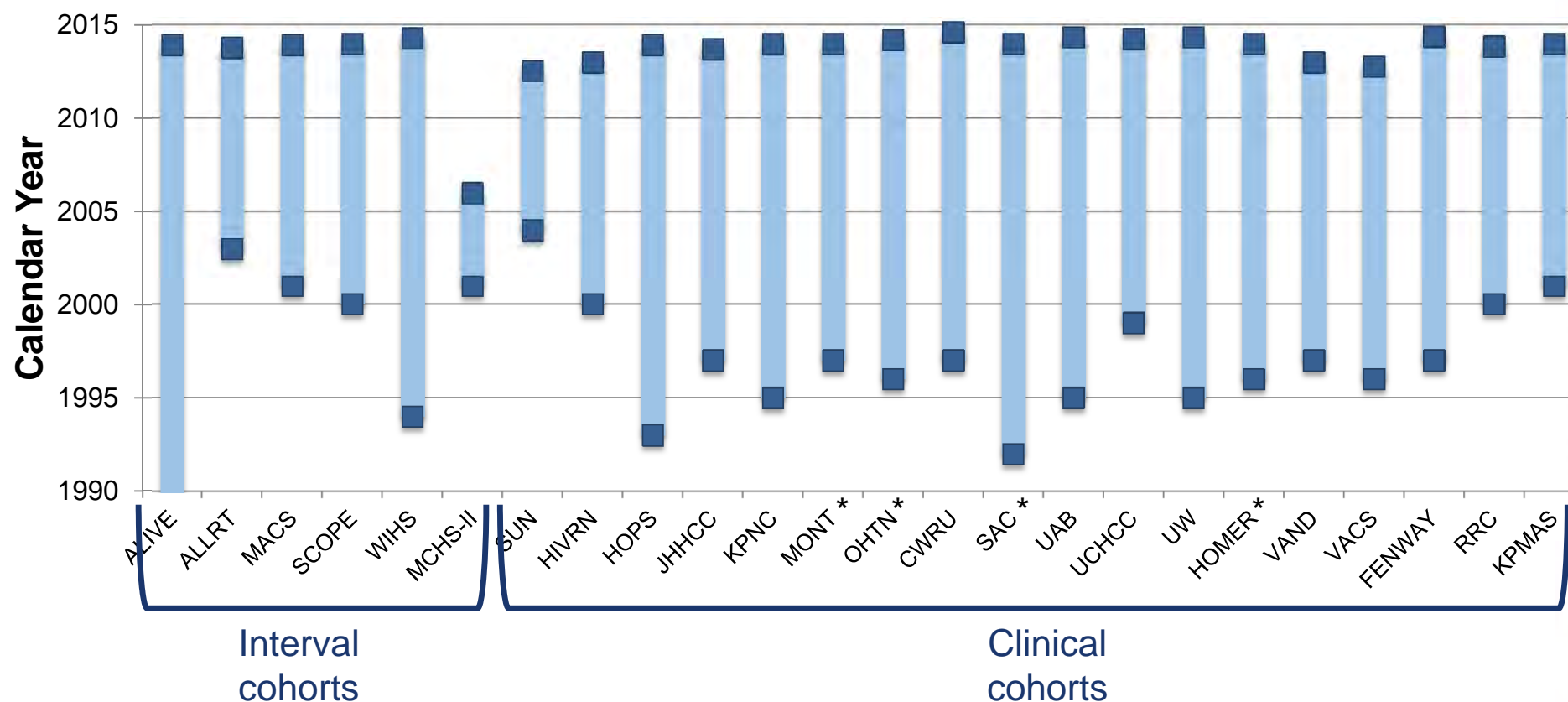


To whom can results be generalized?

Slide courtesy of the Epidemiology Department, Johns Hopkins Bloomberg School of Public Health



Participants from: 50 US states, 3 US territories, and 9 Canadian Provinces
>200 Study Sites



* Canadian cohorts

| | All HIV-infected Participants N=157,701 |
|---|---|
| Total Follow-up* | 1,007,332 person-years |
| Median (IQR) Follow-up (in years) | 5.0 (2.2, 9.9) |
| Deaths | 32,494 |
| Median (IQR) Age at Death (in years) | 50.9 (43.9, 58.2) |

1 year, or 12/31/2013

- 80-90% of diagnosed HIV+ adults link into care within 3-5 years
- Median survival with HIV without treatment is 3 years
- NA-ACCORD study population is similar in demographics compared to PLWH in the US
 - NA-ACCORD has slightly less females, Blacks, Hispanics, and IDUs compared to PLWH

Gardner, et al. CID, 2011.

Enger, et al. JAMA, 1996.

Althoff KN, et al. Annals Intern Med, 2012.

*Table. Demographic Characteristics of NA-ACCORD Participants in U.S. Clinical Cohorts Compared With PLWH-US as of 31 December 2008**

| Characteristic | PLWH-US, n (%)† | NA-ACCORD, n (%) |
|------------------------------|-----------------|------------------|
| Total participants | 655 966 | 26 030 |
| Age | | |
| 18–19 y | 3764 (1) | 38 (0) |
| 20–24 y | 21 197 (3) | 468 (2) |
| 25–29 y | 39 603 (6) | 1164 (4) |
| 30–34 y | 54 895 (8) | 1863 (7) |
| 35–39 y | 83 935 (13) | 3128 (12) |
| 40–44 y | 121 465 (19) | 4765 (18) |
| 45–49 y | 128 546 (20) | 5455 (21) |
| 50–54 y | 94 957 (14) | 4236 (16) |
| 55–59 y | 57 359 (9) | 2658 (10) |
| 60–64 y | 28 141 (4) | 1345 (5) |
| ≥65 y | 22 103 (3) | 910 (3) |
| Sex | | |
| Female | 175 392 (27) | 5472 (21) |
| Male | 480 570 (73) | 20 558 (79) |
| Race/ethnicity | | |
| White, not Hispanic | 214 895 (33) | 10 541 (40) |
| Black, not Hispanic | 310 622 (47) | 10 429 (40) |
| Hispanic | 113 944 (17) | 3481 (13) |
| Other/unknown | 16 506 (3) | 1579 (6) |
| HIV transmission risk | | |
| Male-to-male sexual contact | 306 613 (47) | 11 231 (43) |
| Injection drug use‡ | 157 286 (24) | 4194 (16) |
| Heterosexual contact | 184 266 (28) | 7485 (29) |
| Other/unknown | 7801 (1) | 3120 (12) |

HIV Care
Continuum



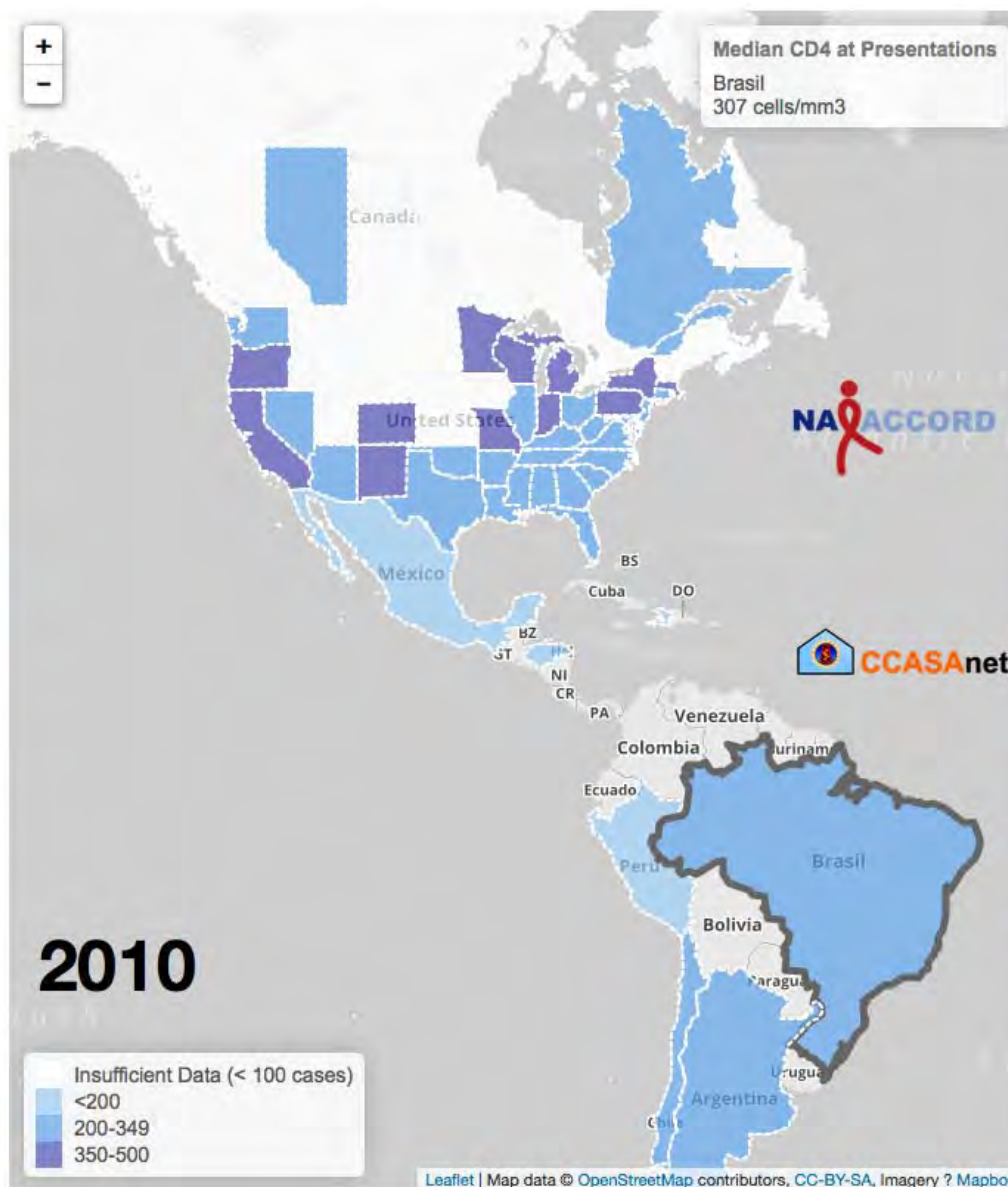
Interactive
Maps



People in
HIV care



ART use



Indicator

CD4 count at Presentation for Care

[Definition of Median CD4 Count
Indicator goes here]

Year

2010

Sex

All

Race/Ethnicity

All

Age Group

☒ All ☐ <30 ☐ 30-49 ☐ ≥50

Risk Factors

Unspeci

IDU = Injection drug
user

MSM = Men who have sex
with men

Reset Values

Generate Map

- HIV indicators that are estimated over calendar time and by sub-groups:
 - % retained in care (*HIV CC*)
 - “churn”
 - % prescribed ART (*HIV CC*)
 - % using specific ARVs
 - % with suppressed HIV RNA (*HIV CC*)
 - mean and median HIV RNA
 - mean CD4 at presentation for care
 - mean CD4 at ART initiation

www.naaccord.org

Important?

- How important is it to show generalizability?
 - Common criticism of our collaborations?
- Is it feasible to investigate generalizability?
 - Need a gold standard to compare it to
 - Geography measures are helpful
 - Other important characteristics
- How many resources would be needed?
 - Your collaboration likely has access to the data needed
 - Depends upon your gold standard

Other examples of demonstrating
generalizability in the leDEA regions