The HIV cascade of care in a community sample of men who have sex with men (MSM) in Vancouver, British Columbia

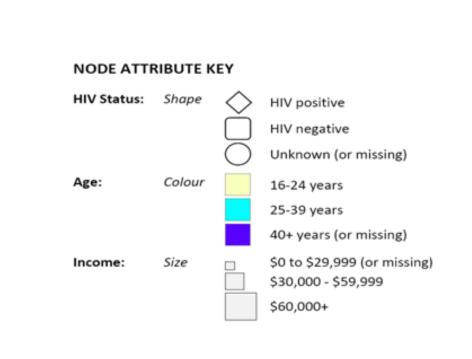
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Background

• We developed estimates of HIV prevalence, undiagnosed infection and community viral load (VL) from a cohort of MSM in Vancouver, using respondent-driven sampling as a recruitment strategy.



Methods

- Participants were aged ≥16 years, gender identified as a man and reported having had sex with a man in the past six months.
- Most participants were recruited by referrals from peers who previously participated with multiple waves of recruitment to reach different social networks with a minority recruited as "seeds" to initiate the chains of peer referrals from February 2012 February 2014.
- Participants completed a self-administered computer-based survey and a nurse-administered point-of-care HIV test.
- For HIV positive participants, we conducted VL and CD4 cell count tests and linked their data with the BC HIV/AIDS Drug Treatment Program.
- Frequency estimates are reported both as the crude values and the *RDS adjusted* figures which incorporate *network size, likelihood of recruitment and homophily* (the extent to which recruits are similar to the individual whom recruited them)

Results

- We recruited 719 participants, of whom 119 (16.6%) were seeds. (Figure 1)
- The median age was 33 years (IQR 26 47)
- 539 (75.0%) identified as Caucasian, 50 (7.0%) as Aboriginal, 72 (10.0%) as Asian 31 (4.3%) as Latin American and 27 (3.8%) as other ethnicities.
- 50.2% of participants resided in downtown Vancouver, 31.4 % resided in other parts of Vancouver and 18.4 % resided in suburbs.
- A total of 84.5% (268/317) of those who self-reported as HIV negative or unknown had tested for HIV in the past two years.
- HIV prevalence was 27.7 % (199/719), but declined after RDS adjustment (23.0%). All but 4 (98.0%) were aware of their diagnosis.
- Among the HIV positive participants, the median CD4 count was 550 (IQR $380-730 \text{ cells/}\mu\text{L})$
- 82.9% (165/199) of the HIV-infected men in this sample were receiving ART for at least one day in the previous 3 months.
- 81.8 % (162/198) had a VL <200 copies/mL.

Conclusion

- We found a high prevalence of HIV, but also encouragingly low levels of undiagnosed infections and unsuppressed VL, in a community sample of MSM in Vancouver.
- These data suggest a degree of success in encouraging MSM in Vancouver to test and get treated early.
- RDS can be successfully applied to recruit a community-based sample of MSM and adjust for biases in recruitment

Figure 1 – Recruitment chains of study sample

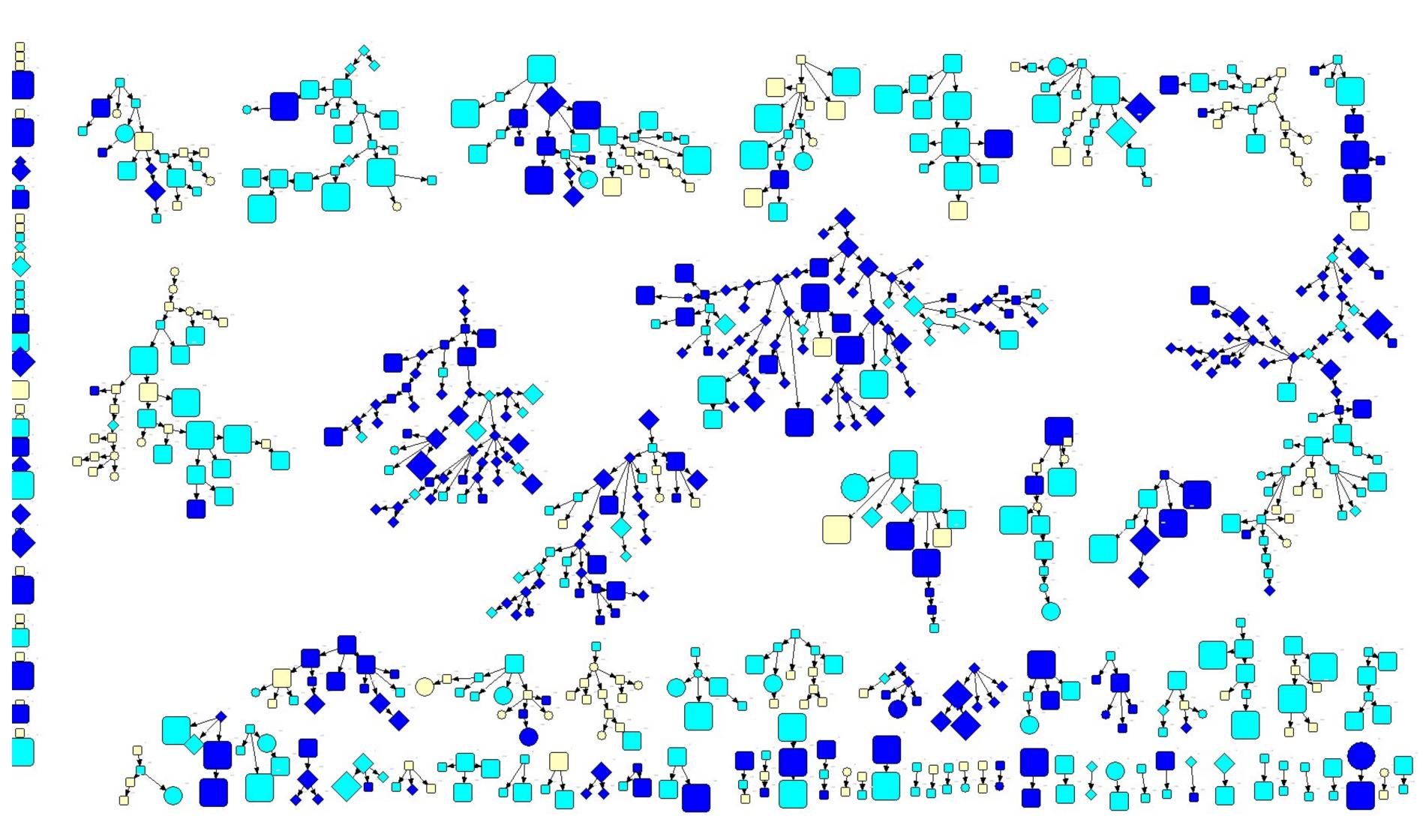


Table 1. HIV care cascade of HIV positive Momentum Study participants

