## Sexual health disparities between street-involved youth and peers in the general population highlight the need for targeted, early intervention among at-risk youth

Dear Editor:

Sexual and Reproductive Health day was marked on February 12, and highlighted the burden of sexually transmitted infections among Canadians. The reported rates of notifiable sexually transmitted infections (STIs), such as chlamydia and gonorrhea, are highest among youth 15 to 24 years old.[1-3] This burden impacts youth's sexual and reproductive health. "Youth," however, are comprised of diverse groups and it can be challenging to identify where interventions should be targeted to reduce the prevalence of STIs and prevent STI transmission. Evidence has indicated that street-involved youth (SY) may be at higher risk for STIs due to multiple sexual partners, poor rates of condom use, and socio-economic and sexual vulnerabilities.[4-6] However, few studies have compared the extent of health-related disparities between SY and their peers in the general population.

We reviewed data drawn from the Enhanced Street Youth Surveillance system (E-SYS)[7] Cycle 6 (2009-2011) and compared these results to data from 15-24 year olds in the general population collected through the 2009/2010 Canadian Community Health Survey (CCHS).[8] Analyses were limited to the seven urban centres participating in E-SYS: Vancouver, Edmonton, Saskatoon, Winnipeg, Toronto, Ottawa and Halifax.

When compared to their peers in the general population (unweighted n=3354, weighted n=1,651,766), a greater proportion of SY (n=1,246) were male, 15-19 years old, self-identified as being of Aboriginal origin, had lower high school completion rates, and reported poor or fair mental health (Table 1). Of note, more than seven times as many SY reported sexualities other than straight/heterosexual. With respect to sexual behaviours, a higher proportion of SY reported having ever had sexual intercourse (96.8% versus 56.6%), earlier sexual debut (median age = 14 years versus 17 years), a higher number of sexual partners (median number = 1 in last 3 months versus 1 in last 12 months) and lower levels of condom use at last intercourse (47.7% versus 70.6%). The proportion reporting a previous STI diagnosis was almost five times higher among SY (20.0% versus 4.4%). Furthermore, more SY reported regular binge drinking, and illicit drug use in the past 12 months (Table 1), both of which may be associated with higher sexual-risk-taking behaviours.

We recognize several important limitations to these analyses. There is potential for response bias: under-reporting or over-reporting of risk behaviours is possible as both surveys were interviewer-administered. Due to differences in the surveys' objectives, the methodologies used, including sampling frameworks, prevented rigorous statistical analyses between the two datasets. Possible geographic variations and heterogeneities within the SY and general population could not be explored further due to sample size restrictions.

Regardless, our findings reinforce previous calls to recognize disparities in sexual health and related factors between SY and their peers in the general population. Such information is valuable not only to inform the allocation of limited resources, but also to prioritize interventions among SY. The higher rates of sexual activity, earlier age of sexual debut, and lower rates of condom use in the SY population underscore the need for targeted and early interventions among SY in the context of STI prevention and sexual health promotion. In addition, programs and interventions could benefit from taking into account early childhood development and incorporating a social determinants of health approach. Early engagement with at-risk youth is important to preventing street-involvement and homelessness in the first place.

**Table 1.** Demographics, Sexual Behaviours and Substance Use Among Youth Aged 15-24 Years Who Took Part in Canadian Community Health Survey 2009/2010 (CCHS) and Enhanced Street Youth Surveillance (E-SYS) 2009-2010

| | CCHS 2009/2010 n=3356 % (95% CI) | E-SYS Cycle 6 n=1246 % (95% CI) |
|---|---|---|
| Demographics | | |
| Males | 51.2 (51.2-51.3) | 60.4 (57.6-63.1) |
| Age 15-19 years | 46.2 (46.2-46.3) | 48.5 (45.7-51.3) |
| Aboriginal | 3.9 (3.9-3.9) | 37.6 (34.9-40.3) |
| Born in Canada | 70.6 (71.5-71.6) | 92.5 (91.0-94.0) |
| High school completion* | 92.1 (92.1-92.2) | 30.2 (27.3-33.2) |
| Self-reported fair/poor mental health | 3.9 (3.8-3.9) | 30.6 (28.0-33.2) |
| Sexual Behaviours | | |
| Sexuality: "Straight" or "Heterosexual" | 96.6 (96.5-96.6) | 74.6 (72.2-77.0) |
| Ever had intercourse† | 56.6 (56.5-56.7) | 96.8 (95.8-97.7) |
| Age first intercourse (median, IQR‡ in Years) | 17 (16-18) | 14 (13-16) |
| Number of partners (median, IQR)§ | 1 (1-2) | 1 (1-3) |
| Condom use last intercourse‖ | 69.7 (69.6-69.8) | 44.8 (42.0-47.7) |
| Ever had an STI¶ | 4.6 (4.6-4.7) | 23.5 (21.0-25.9) |
| Substance Use | | |
| Regular binge drinking** | 13.4 (13.3-13.4) | 30.6 (28.0-33.2) |
| Illicit drug use – past 12 months | 27.1 (27.0-27.2) | 93.6 (92.2-94.9) |

* Among those 18 years and over.
† CCHS does not define intercourse; for E-SYS, ever had intercourse was defined as ever having either vaginal or anal sex.
‡ IQR=Interquartile range.
§ Last 12 months for CCHS; last 3 months for E-SYS.
‖ Asked only of those who indicated having ever had sexual intercourse.
¶ Self-reported and asked only of those who indicated having had sexual intercourse in CCHS, but asked of all E-SYS participants.
** For CCHS, regular binge drinking was defined as having 5 or more drinks on one occasion in the past 12 months, at least 2 to 3 times per month; for E-SYS, binge drinking was "drinking to get smashed or drunk."

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