

Letter to the Editor

Sample Representativeness for High Risk Groups of HIV Infection

Dr. Weidong Zhang*

China Zamilie health consulting, China

***Corresponding author:** Dr. Weidong Zhang,
China Zamilie Health Consulting, Nanwei Street 2,
100050 Beijing, China, Tel: 0086 137 1763 1164; Email:
weidongch@yahoo.de

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Because of the hidden behaviour and social marginalisation of high risk groups of HIV infection, it is difficult to get a representative samples through traditional sampling methods for the lack of sampling frame, like as snowball sampling or time location sampling, etc.

Respondent driven sampling (RDS) is a modified chain-referral method, Since RDS introduced for recruitment of at-risk population groups of HIV infection because of their hidden behaviour and social marginalisation, it is widely used for HIV/AIDS epidemiological studies for sampling participants among injecting drug users, men who have sex with men, and commercial sex workers. RDS could recruit randomly and generate a highly likely representative sample, and reduce the sample bias. The sample representativeness is a core point for epidemiological study, especially among hidden and marginalised population groups. RDS recruits samples through social network that could recruit target population from both institutional and public settings.

High risk groups of HIV infection are normally marginalized and discriminated in the society; random samples are hard to obtain in most time, making comparisons across time questionable. Even with good internal consistency, the validity of self-reported data on risk behaviour is frequently on doubt. Any conclusions about small rises or falls in infection, and surprising findings in behavioural surveillance should be cautious and investigated further for the group. Data limitation should be aware, and in HIV/AIDS surveillance, data do not need to be perfect; but they do need to be good enough to

provide a reliable evidence of the major trends in HIV infection and related risk behaviour.

However, because of the characteristics of this population group and the operational difficulties of such investigation, legal and ethical issues should be considered.

Studies across the global demonstrated the representativeness and effectiveness to recruit hard-to-reach populations; however, it needs a well-planned and rigorous protocol. At the same time, the theory and the procedures of RDS is not easy to understand for some researchers, as well as the RDS analysis tool.

Mostly, there is limited information on high risk groups of HIV infection; it is hard to track trends in risk behaviors and HIV prevalence without high quality data. Most data from surveillance results, it provides limited useful information to reflect the HIV epidemic and to evaluate the effect of current intervention programs. A majority of high risk groups has cross-contact with general population; they might serve as a bridge to transmit HIV from the high risk population to the general population.

The internet development increases the ways and opportunities for this kind of cross-contact, which also increases the opportunities for high risk group to be infected with HIV. Close attention should be paid for carrying out monitoring work in the next step.

Multiple risk behavior factors exist in the high risk groups for transmission of HIV, including multiple sexual partners, unprotected sexual intercourse, commercial sexual behavior, injecting drug use, etc.

To select a proper sampling method for local use, initial exploration of the population of interest and fully understanding of local situation are needed, like pilot focus groups or key informant survey. Geographic, cultural and social characteristics should also be considered.