

HARD-TO-REACH POPULATIONS IN JAPAN

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Abstract. The objective of this study was to assess the trends of sampling locations and methods of studying hard-to-reach populations conducted in Japan. We accessed a Japanese medical database on 30 September 2005 to review 5 study types of hard-to-reach populations conducted in Japan: men who have sex with men, homeless, sex workers, undocumented migrants, and injecting drug users. We then categorized their sampling locations and methods. We found 298 articles on hard-to-reach populations published from 1983 to September 2005. Of the 285 studies sampled, approximately 92% were facility-based studies and the rest were community-based. This tendency was consistent in each subgroup; the majority of the studies were conducted among patients in medical facilities. Our study shows the majority of studies on hard-to-reach populations in Japan adopted a convenience sampling method and were facility-based. We suggest the utilization of comparatively valid techniques, such as time-location or respondent driven sampling to more clearly understand these populations.

INTRODUCTION

Since the Joint United Nations Program on HIV/AIDS/World Health Organizations working group on global HIV/AIDS and STI surveillance recommended the development of second-generation surveillance systems, the importance of behavioral surveillance has been widely recognized (UNAIDS, 2000). Second generation surveillance systems aim to create a customized HIV surveillance system for each country by focusing on behavioral data collection in populations with high levels of risky behavior in young people. Accumulated behavioral data along with HIV prevalence data will help track dynamicity of the epidemic over time.

UNAIDS names certain groups that are at greater risk for contracting and passing on

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HIV infection than others: injecting drug users, men who have sex with men, and sex workers and their clients (UNAIDS/WHO, 2000). Those groups are also known as hard-to-reach populations, as their stigmatized or illegal status makes it difficult to contact them. Not only is access difficult, but the lack of a reliable sampling frame prevents researchers from studying these hard-to-reach populations (Diaz *et al*, 2005).

With a knowledge of these obstacles, UNAIDS encourages behavioral data collection in these populations, and recommends researchers assure confidentiality by documenting sampling techniques clearly and conducting consistent studies (UNAIDS/WHO, 2000). We noticed a scarcity of behavioral data on hard-to-reach populations in Japan. Thus, we conducted a literature review to assess the sampling trends, locations and methods of hard-to-reach population studies conducted in Japan.

MATERIALS AND METHODS

We reviewed studies of hard-to-reach

Table 1

Number of articles by location and method of sampling in studies of hard-to-reach populations conducted in Japan from 1983 to the end of September, 2005.

Total	Facility-based				Community-based			Others		
	Convenience sampling				Random sampling			Several locations/methods	Unknown	
	Medical facilities	Public health offices	Institutes ^f	Organizations ^g	Gathering spot	Events	Voter's list in 5 big cities			
MSM ^a	172	148	3	2	1	1	9	1	0	7
Homeless ^b	57	29	10	5	0	3	8	0	1	1
SW ^c	47	36	2	4	1	0	0	0	1	3
Overstayed ^d	16	14	0	1	0	0	1	0	0	0
IDU ^e	6	6	0	0	0	0	0	0	0	0

^aSearched with the following keywords: male homosexual person (*dansei-douseiai-sha*), male homosexuality (*dansei-douseia*), homosexuality (*douseia*), and MSM.

^bSearched with the keyword, homeless (*houmu-lesu*)

^cSearched with the following keywords: sex industry worker (*sei-sangyou-jyuji-sha*), sex industry work (*sei-sangyou-jyuji*), sex entertainment worker (*sei-fuzoku-jyuji-sha*), sex entertainment work (*sei-fuzoku-jyuji*), prostitute (*baishun-fu*), sex worker (*sekkusu-wa-ka*), and commercial sex worker (*comaashalu-sekkusu-wa-ka*),

^dSearched with the following keyword: unqualified stayers (*shikakugai-taizai-sha*), unqualified stay (*shikakugai-taizai*), illegal stayers (*fuhou-taizai-sha*), illegal stay (*fuhou-taizai*), overstayers (*chouka-taizai-sha*), and overstay (*chouka-taizai and ohba-sute*).

^eSearched with the following keywords: injecting drug users (*mayaku-chuusha-jouyou-sha*), injecting drug (*mayaku-chuusha*), drug users (*mayaku-jyouyou-sha*) drug use (*mayaku-jyouyou*), and intravenous drug users (*kejyoumyaku-mayaku-jouyou-sha*).

^fInstitutes imply public institute other than medical facilities and public health offices, such as watch houses, jails, medical examiner offices, or rehabilitation centers.

^gOrganizations imply community organizations or like-minded groups.

populations in the *Igaku-chuo-zasshi* (Japan Central Revue de Médecine) database, whose online archives contain 5 million articles dating back to 1983. We accessed the database on 30 September 2005 and identified 298 articles associated with five types of hard-to-reach populations from 1983 to the end of September, 2005: men who have sex with men (MSM), homeless, sex workers (SW), undocumented migrants, and injecting drug users (IDU). We then categorized the sampling locations and methods of each article by subgroup. Finally, we grouped them in two ways:

1) facility-based or community-based, and 2) convenience sampling or random sampling. We could not categorize sampling locations and methods of some studies for the following two reasons: 1) usage of several locations and methods (n=2), and 2) no indication of sampling locations or methods (n=11). We excluded review articles or articles that were not relevant to hard-to-reach populations.

RESULTS

The *Igaku-chuo-zasshi* contained 298 articles on hard-to-reach populations from

1983 to the end of September 2005. The Table shows that 262 studies were facility-based and 23 were community-based. Of these 285 studies, only one study employed random sampling, the rest used the convenience sampling.

The total number of articles on each subgroup was as follows: 172 on MSM; 57 on homeless; 47 on CSWs; 16 on undocumented migrants; and 6 on IDUs. Regardless of the group type, the majority of studies were facility-based. Even among those facility-based studies, the majority of researchers recruited their participants in medical facilities.

DISCUSSION

This study revealed that facility-based design, particularly medical facilities, has been a common practice in conducting studies on hard-to-reach populations in Japan. Our study also shows dependency on convenience sampling in studies of hard-to-reach populations. This confirms difficulties in applying systemic sampling methods or lack of reliable sampling frames for studies on these populations.

Japan can be classified as an HIV low prevalence country (Walker *et al*, 2001) since Japan has an HIV prevalence of 0.1% in the general adult population (age 15-49 years), though specific groups have a high prevalence, 19.4%, among men who have sex with men in major urban areas (UNAIDS, 2004). In concentrated epidemic countries, solid behavioral data both in the highest risk groups and in the general adult population in urban areas is essential to formulate effective programs (Brown, 2003). The data enable us to focus resources where they will have the greatest impact, which will help prevent generalized epidemics.

Although it is difficult to conduct studies

on hard-to-reach populations, researchers need to utilize comparatively valid techniques, such as Time-Location Sampling or Respondent Driven Sampling, to deepen their understanding of behavioral patterns (Heckathorn *et al*, 2002; Magnani *et al*, 2005). Collection of quality data over time will contribute to HIV prevention and care programs in Japan.

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