Training course in sampling methods for surveys among populations at increased risk of HIV

19-23 December 2009, Kerman, Iran

Introduction

Populations at increased risk of HIV are often hidden and hard-to-reach groups. In most countries they include sex-workers (SWs), men who have sex with men (MSM) and injecting drug users (IDUs). These groups have been considered at increased risk in nearly all countries of the Eastern Mediterranean Region of WHO.

Experts, who have been involved in biological and behavioural HIV surveillance among these groups know how difficult it is to select a representative sample using classic sampling methods. Several alternative sampling methods have been designed to overcome this problem. Time Location Sampling (TLS) and Response Driven Sampling (RDS) are common.

In this short course, we will introduce and review the most common sampling methods for surveys among populations at increased risk of HIV. Our aim is to enable participants to choose and apply the most appropriate sampling methods for future surveys among these populations in their countries.

Learning objectives

Participants will have acquired the following knowledge and skills

- Understanding of the main concepts of bio-behavioural surveillance surveys
- Knowledge of pros and cons of classic sampling methods in HIV surveillance among populations at increased risk of HIV and other Sexually Transmitted Infections (STIs)
- Knowledge of new sampling techniques, TLS and RDS as methods for selection of a representative sample from these populations
- Ability to choose the most appropriate sampling method according to the respective country context and population to be studied
- Skills in data analysis using RDSAT software
- Ability to develop surveillance/research protocol including the methods of sampling, sample size calculation, and the main statistical strategy
- Ability to critically appraise every sampling method which has been applied for populations at increased risk of HIV

Key topics

- Populations at increased risk of HIV, hidden and hard-to-reach populations
- Bio-behavioural surveillance survey
- Representativeness/Generalisablity
- Classic probability sampling
- Classic non-probability sampling
- Time Location Sampling
- Respondent Driven Sampling
- Power estimation - sample size calculation
- Statistical module - RDSsat software

Key references:

- Magnani R, Sabin K, Saidel T, Heckathorn D, (2005). Review of sampling hard-to reach populations for HIV surveillance. AIDS. 19 Suppl 2, S67-S72.
- H. Fisher Raymond, Theresa Ick, Michael Grasso, Jason Vaudrey, Willi McFarland, (2007). Resource Guide: Time Location Sampling (TLS), San Francisco Department of Public Health, HIV Epidemiology Section, Behavioral Surveillance Unit
- http://www.respondentdrivensampling.org
- http://www.theagencyfordesign.com/clients/cdc/index.htm

Teaching Methods

Short lectures on the main concepts of different sampling methods, small group discussion about each sampling method, intensive supervision on the group activities and presentations, conducting the analysis by RDSAT on a real database.

Target Audience

Epidemiologists, social scientists, demographers and public health professionals with the following background knowledge and experience:

1. English skills: acceptable skills in read, speaking and listening to be able to communicate with others (equal IELTS 5.5-6 –academic version).
2. Social science, health and medical knowledge: general background about public health, its related topics and/or social science (medical doctor or social scientist or MS in public health / related topics)
3. HIV/AIDS knowledge: satisfactory knowledge on the epidemiology and surveillance of HIV/AIDS: desirable.
4. Field experience: experience in conducting surveys in the field of public health (e.g. reproductive health, etc.) or is working in an NGO with most-at-risk populations (IDUs, SWs & MSM).
5. Statistics and research methodology: adequate knowledge in basic statistics, sampling and sample size calculation in order to grasp the content of the workshops (general concepts about descriptive statistics, confidence interval, conventional sampling methods, logic of sample size calculation and type I and type II statistical errors)

Duration:

The course takes place in five working days.

Partners:

- Knowledge Hub for HIV/AIDS surveillance, Kerman University of Medical Sciences, Kerman, Iran
- WHO Collaborating Centre for Capacity Building in HIV Surveillance, Zagreb, Croatia
- WHO Regional Office for Eastern Mediterranean
- HIV/AIDS office, CDC, Ministry of Health, Tehran, Iran

Required documents for the primary registration

- Completed online registration form
- A short English CV
- A motivation letter expressing why you are interested in the course topic

Contact Person

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The course programme is attached

Day 1		Topic
8:30	9:00	Welcome and introduction
9:00	10:00	HIV Epidemic levels Who are the populations at increased risk of HIV?
10:00	10:15	Break
10:45	11:45	**Exercise 1**: Specify the level of epidemic and populations at increased risk in your context/country?
11:45	13:00	Steps of Bio-behavioral Surveillance Surveys among populations at increased risk?
13:00	14:00	Lunch
14:00	15:00	Principles of Sampling; Representativeness/Generalisability
15:00	15:15	Break
15:15	16:30	Probability Sampling Methods; Simple, Systematic, Cluster (PSS-PPS), Stratified, Multi stage
18:00	21:00	Welcome Ceremony - Dinner
Day 2		**Topic**
8:30	9:30	**Presentation 1**: the populations at increased risk in your country; what are their main characteristics?
9:30	10:30	Non-probability Methods; Convenience , Snowball, Targeted
10:30	10:45	Break
10:45	11:45	Time-Location Sampling (TLS) 1
11:45	13:00	**Exercise 2**: Consider a specific population at increased risk in your country and step by step, explain how you would reach members of the population by TLS?
13:00	14:00	Lunch
14:00	15:00	Time-Location Sampling (TLS) 2
15:00	15:15	Break
15:15	16:30	**Exercise 3**: (Continued)

Day 3		Topic
8:30	9:30	**Presentation 2**: How do you approach the selected population in your country by TLS method, step by step?
9:30	10:30	Respondent Driven Sampling (RDS) 1
10:30	10:45	Break
10:45	11:30	Respondent Driven Sampling (RDS) 2
11:30	13:00	**Exercise 3**: Consider a population at increased risk in your country and step by step, explain how you would reach them by RDS?
13:00	14:00	Lunch
14:00	16:00	**Exercise 3**: (Continued)
Day 4		**Topic**
8:30	9:00	**Summary** ; RDS vs TLS
9:00	10:15	Sample size calculation
10:15	10:30	Break
10:30	11:30	**Statistical module 1** : RDSAT
11:30	13:00	Exercise 4: Data interpretation
13:00	14:00	Lunch
14:00	16:00	**Statistical module 2** : RDSAT
Day 5		**Topic**
8:30	9:15	A real example ; Bio-behavioral survey (BBS) among prisoners in Iran
9:15	10:15	Other sampling methods ; Telephone-based ; Internet-based ; network-based ;
10:15	10:30	Break
10:30	12:00	**Final presentation**: Choose the best appropriate method for sampling among your targeted population, define the title, objective, main method, data collection and analysis procedures
12:00	13:00	Evaluation and goodbye party
13:00	14:00	Lunch