WHO, UNAIDS & MeSH Theme Issue: Improving Global and National Responses to the HIV Epidemic Through High Quality HIV Surveillance Data
Sample Size Calculations for Population Size Estimation Studies Using Multiplier Methods With Respondent-Driven Sampling Surveys

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Background: While guidance exists for obtaining population size estimates using multiplier methods with respondent-driven sampling surveys, we lack specific guidance for making sample size decisions.

Objective: Guide the design of multiplier method population size estimation studies using respondent-driven sampling surveys to reduce the random error around the estimate obtained.

Feasibility of Establishing HIV Case-Based Surveillance to Measure Progress Along the Health Sector Cascade: Situational Assessments in Tanzania, South Africa, and Kenya

Richelle Harkerode, Sandra Schwarz, James Hargraves, Andrew Bouillé, Jim Todd, Serge Xuereb, Brian Rice

Background: To track the HIV epidemic and responses to it, WHO recommends 10 global indicators to collect information along the HIV care cascade. Patient diagnosis and medical record data, harmonized through case-based surveillance, can be used to measure 8 of these.

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Strengthening Routine Data Systems to Track the HIV Epidemic and Guide the Response in Sub-Saharan Africa

Brian Rice, Andrew Bouillé, Stef Baral, Matthias Egger, Paul Mee, Elizabeth Fearon, Georges Reniers, Jim Todd, Sandra Schwarz, Sharon Weir, George Rutherford, James Hargraves

Background: To reduce HIV incidence and mortality a new phase of the response is required, where routine data are optimally utilised to accelerate prevention outreach, reduce HIV transmission, and promote optimal HIV care for all.

Objective: Present priorities for action to improve the demand, supply and use of routine HIV data. Guided by the principles of case-based surveillance, to explain how data systems that collect individual-level data from a range of sources can be enhanced and used to facilitate the development of user-friendly tools.

Sampling Key Populations for HIV Surveillance: Results From Eight Cross-Sectional Studies Using Respondent-Driven Sampling and Venue-Based Snowball Sampling

Amrita Rao, Shauna Stahlman, James Hargraves, Sharon Weir, Jessie Edwards, Duncan Kochelani, Brian Rice, Mpmulelo Mavimbela, Stefan Baral

Background: In using regularly collected or existing surveillance data to characterize engagement in HIV services among marginalized populations, differences in sampling methods may produce different pictures of the target population thereby suggesting different priorities for response.

Objective: Use existing data to evaluate the sample distribution of eight studies of female sex workers and men who have sex with men who were recruited using different sampling approaches in Manzini, Swaziland and Yaoundé, Cameroon.

HIV Surveillance of Key Populations: Opportunities for Enhanced Strategic Use of Surveys, Medical Records, and Program Data

Sharon Weir, Stefan D. Baral, Jessie K. Edwards, Sabrina Zadrazivy, James Hargraves, Jinakou Zhao, Keith Sabin

Background: Normative guidelines from WHO recommend tracking strategic information indicators among key populations. UNAIDS promote indicators and targets to monitor progress in the global response to the HIV epidemic. These include the 90-90-90 targets, which require a realignment of surveillance data, routinely collected data to characterize engagement in HIV services among marginalized populations, differences in sampling methods may produce different pictures of the target population thereby suggesting different priorities for response.

Objective: Describe current challenges for monitoring HIV-related SI indicators among key populations and identify future opportunities to enhance the use of surveillance data, programmatic data, and medical record data to describe the HIV epidemic among key populations and measure coverage of HIV prevention, care and treatment programs.

Measuring Sexual Behaviour Stigma to Inform Effective HIV Prevention and Treatment Programs for Key Populations

Shauna Stahlman, James R Hargraves, Laurel Sprague, Anne L Stangl, Stefan D Baral

Background: The levels of coverage of HIV treatment and prevention services needed to change the trajectory of the HIV epidemic among key populations, including gay men and other men who have sex with men and sex workers, have consistently been shown to be limited by stigma.

Objective: Propose an agenda for the goals and approaches of a sexual behaviour surveillance program that addresses key populations, with a focus on collecting surveillance data from members of key population groups (regardless of HIV status), people living with HIV who are also members of key populations, members of non-key populations, and health workers.

HIV Strategic Information in Non-European Union Countries in the World Health Organization European Region: Capacity Development Needs

Ivana Bazic-Grlj, Senad Handanagic, Jurja Ivana Cakalo, Annamaria Rinder Stengaud, George Rutherford

Background: Capacity building of the national HIV strategic information system is a core component of the response to the HIV epidemic as it enables understanding of the evolving nature of the epidemic, which is critical for program planning and identification of gaps.

Objective: To describe the results of an assessment and identify needs for further development of capacities in HIV strategic information systems in the non-European Union countries in the WHO European Region.

HIV Sentinel Surveillance Among Pregnant Women Attending Antenatal Clinics: Evolution and Current Direction

Jacob Dee, Jesus M Garcia Calleja, Kimberly Marsh, Irum Zaidi, Christopher Murrill, Mahesh Swaminathan

Background: Since the late 1980s, HIV sentinel sera surveillance among pregnant women attending select antenatal clinics based on unlinked anonymous testing has provided invaluable information for tracking HIV prevalence and trends and informing global and national HIV models in most countries with generalized HIV epidemics.

Objective: To report on the evolution and current direction of the global approach to HIV surveillance among pregnant women attending ANC’s, including the transition away from traditional UAT-based sera surveillance and toward new guidance from WHO and UNAIDS on the implementation of surveillance among pregnant women attending ANCs based on routine PMTCT program data.

Sustainable Monitoring and Evaluation Systems to Improve HIV Programs

Daniel Low-Beer, Mary Mahy Francoise Renaud, Jesus M Garcia Calleja

Background: HIV programs have provided a major impetus for investments in surveillance data, with 5-10% of HIV program budgets recommended to support data. However, there are questions concerning the sustainability of these investments.

Objective: Review surveillance priorities agreed by partners in the context of the Sustainable Development Goals. With country examples, to assess the key directions in developing person-centred monitoring systems.

Monitoring Prevention Impact of Mother-to-Child Transmission of HIV in Concentrated Epidemics With Program and Survey Data

Thi Thuy Van Nguyen, Keith Sabin, Thi Quyen Trang Ho, Al Kim Anh Le, Chika Hayashi, Masaya Kato

Background: The prevention of mother-to-child transmission of HIV program was introduced in Vietnam in 2005. Despite the scaling up of PMTCT programs, the rate of mother-to-child HIV transmission in Vietnam was estimated as high as 20% in 2013.

Objective: To assess the outcomes of PMTCT and identified factors associated with mother-to-child transmission and infant survival using survey and program data in a high HIV burden province in Vietnam.

Viral Hepatitis Strategic Information to Achieve Elimination by 2030: Key Elements for HIV Program Managers

Yvan Hutin, Daniel Low-Beer, Isabel Bergeri, PharmD, Sarah Hess, Jesus Maria Garcia-Calleja, Chika Hayashi, Antons Mozalevskis, Annamaria Steengard, Keith Sabin, Hande Harmanci, Marc Bulterys

Background: The first Global Health Sector Strategy on viral hepatitis proposes to eliminate the infection as a public health threat by 2030. As coordination between hepatitis and HIV programs aims to optimize the use of resources, guidance is also needed to align the strategic information components of the two programs.

Objective: Outline the WHO monitoring and evaluation framework for viral hepatitis B and C following an approach similar to the one for HIV.

Ensuring Inclusion of Adolescent Key Populations at Higher Risk of HIV Exposure: Recommendations for Conducting Biological Behavioural Surveillance Surveys

Lisa Grazina Johnston, Justine Sass, Jeffry Acaba, Wing-Sei Cheng, Shirley Mark Prabhu

Background: Ending AIDS depends on greater efforts to reduce new HIV infections and prevent AIDS-related deaths among key populations at highest HIV risk. Although adolescent key populations (AKP) are disproportionately affected by HIV, they have been largely ignored in HIV biological behavioural surveillance survey activities to date.

Objective: Review current ethical and sampling challenges and provides suggestions to ensure AKP are included in surveillance activities, with the aim being to enhance evidence-informed, strategic, and targeted funding allocations and programs toward ending AIDS among AKP.