S14.4 MONITORING THE FINISH-LINE: INTEGRATED GLOBAL CRITERIA AND PROCESSES FOR VALIDATION OF EMTCT OF SYPHILIS AND HIV


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Background The global community is committed to elimination of mother-to-child transmission (EMTCT) of HIV and syphilis as public health problems. International and regional goals have been set, and countries are scaling up programmes towards EMTCT. Regional initiatives in the Americas, Asia-Pacific, and Africa have approached control of MTCT of HIV and syphilis as an integrated process. Prior to this work, there were no internationally standardised processes and criteria to validate EMTCT of HIV or syphilis.

Methods As the global community prepares to assess progress towards global health goals in 2015 and beyond, standardised processes and criteria are needed to assess and validate EMTCT of HIV and syphilis across widely varying epidemiologic and programmatic contexts. This presentation will review the process for development of minimum global processes and criteria, provide a description of global validation targets and indicators, explain validation procedures, including maintenance of validation status, and describe next steps at the global, regional, and national levels.

Results These guidelines are intended for use by national, regional, and global validation committees; national AIDS, sexually transmitted infection, maternal, and child health programme managers; monitoring and evaluation (M&E) officers; policy-makers; and international partners. Currently there are at least 4 regions moving forward with establishment of regional processes for validation, and several countries have expressed interest in applying for validation of EMTCT of HIV and/or syphilis.

Conclusions As experience is gained through establishment of global and regional validation processes, additional guidance and tools will be developed to complement these initial minimum global standards. Although it is recognised that not all countries are able to meet these criteria at this time, these criteria can also serve as aspirational targets for countries for 2015 and beyond and an opportunity to improve programmes and monitoring systems, reduce disparities within countries, and highlight models of success.

S15.1 FREQUENT VIRAL INTRODUCTIONS SUSTAIN LOCAL HIV EPIDEMICS IN RURAL AFRICA


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Background It is often assumed that local sexual networks play a dominant role in HIV spread in sub-Saharan Africa. However, the extent to which continued HIV transmission in rural African communities, home to two-thirds of the continent’s population, is driven by intra-community sexual networks versus viral introductions from outside of communities remains unknown.

Methods We analysed the spatial dynamics of HIV transmission in rural Rakai District, Uganda using population-based cohort data on 14594 individuals within 46 communities experiencing a generalised HIV epidemic (prevalence 12.2%, incidence ~1.2 per 100 person years). We applied spatial clustering statistics, phylogenetic analyses, and probabilistic transmission models to quantify the relative contributions of viral introductions versus local HIV transmission, including household transmission, to HIV incidence.

Results Individuals in households with incident (n = 189) or prevalent (n = 1597) HIV-infected persons were 3.2 (95% CI: 2.7–3.7) times more likely to be HIV-infected, compared to the population in general, but spatial clustering outside of households was weak and confined to distances <500m. There was high viral diversity: only 34% of infected persons phylogenetically clustered with at least one other participant. One-third of phylogenetic clusters were individuals sharing a household. Of the remaining two-thirds, 71% crossed community boundaries. We estimate that 59% (95% CI: 32–44%) of viral transmissions occurred within stable household partnerships and that 40% (95% CI: 34–42%) of transmissions were from named extra-household sexual contacts, of which 62% (95% CI: 55–70%) were non-stable partners from outside the community.

Interpretation: External HIV introductions into rural communities are common and account for a substantial proportion of new HIV infections in Rakai, Uganda. Our findings suggest that combination HIV prevention will most effectively control local HIV epidemics when implemented at broad spatial scales, and imply a need to identify key populations serving as sources of introduced infections into general populations.