Detection of Recent HIV Infection Using the Standardized Testing Algorithm for Recent HIV Seroconversion: New Public Health Opportunities for Prevention


Issues
The long period of time between acquisition of HIV and the manifestations of disease hinders prevention efforts. As a result:
•SYS measures are present.
•must capture and prevent all epidemics in their entirety.
•Our approach: rapid identification and timely public health measures to intervene in ongoing transmission.

The long period of time between acquisition of HIV and the manifestations of disease hinders prevention efforts. As a result:
•HIV prevention would greatly benefit from a simple means to rapidly identify recently infected individuals.
•Detection of recent HIV infections is important for:
- Estimating routes of transmission, especially drug and needle use.
- Pinpointing where transmission is occurring right now for precise targeting of prevention interventions.
- STARHS also provides the means of estimating population-level HIV sero-incidence.

Figure 1: How the detuned ELISA works

- The Standardized Testing Algorithm for Recent HIV Seroconversion (STARHS, also known as the Sensitive/Less Sensitive EIA), now makes this possible.

Conclusions
- STARHS also provides a basis to estimate HIV incidence.
- The San Francisco Department of Public Health has integrated the S/LS EIA into its labs.
- Increases in public health and prevention programs for persons recently seroconverting are underway.
- and contributed to prioritization and prevention planning.
- Evaluation of clinical applications of STARHS and development of prevention interventions for persons recently seroconverting are underway.

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Results
- Proportion of newly detected HIV infections that are recent
- Investigations estimate 20% of all new infections are missed.
- STARHS also provides the means of estimating population-level HIV sero-incidence.

Figure 2: Applications of the Detuned ELISA in San Francisco

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- the San Francisco Department of Public Health has integrated the S/LS EIA into its labs.
- Evaluation of clinical applications of STARHS and development of prevention interventions for persons recently seroconverting are underway.

Figure 3: Detection of Early HIV Infection at Counseling and Testing Sites, San Francisco, 1999

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Figure 4: HIV Incidence among MSM at Anonymous Testing Sites by Race/ethnicity, SF 1996-99

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Figure 5: HIV Prevalence and Incidence among MSM at Anonymous Testing Sites by Race/ethnicity, SF 1996-99

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Figure 6: Proportion of recently infected and old infections among persons recently diagnosed with HIV in San Francisco: July 1998 - June 1999

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Figure 7: HIV incidence among persons diagnosed with HIV infection at the anonymous AIDS clinic in San Francisco: 1994 - 1998

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