

DFID SRH & HIV RPC at the XVI International AIDS Conference, Toronto, 2006

Abstract

CDC0362 - Prevalence and incidence trends in rural population in Northern Tanzania during 1994-2004

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Background: ANC surveillance data suggests stabilizing HIV levels in Tanzania. Cohort data provide solid evidence for prevalence and incidence trends. Incidence measures are particularly useful in era of anti-retroviral treatment.

Methods: The Kisesa open cohort study conducted 19 rounds of household based demographic surveillance and 4 rounds of HIV sero-surveillance between 1994 and 2005. HIV testing was anonymous, based on informed consent without result disclosure. The estimated date of sero-conversion was randomly allocated between the date of the last negative and first positive tests for individual sero-converters to obtain person-years at risk of infection.

Results: 14 664 adults were interviewed and donated blood specimens for HIV testing in at least one of the four serological surveys. The age adjusted HIV prevalence increased steadily between 1994 and 2001, more gradually thereafter (Chi square for trend=30.2, P<0.001). The age adjusted HIV incidence increased sharply between the first and second intervals, remaining at a high level in the third. The sharpest increase in incidence was observed among males aged 15-19 years between 2000 and 2004. A notable decline occurred in males aged 35-39 years between 1994 and 1998.

Survey dates	1994-95	1997-98	2000-01	2003-04
Eligible population 15-44 years	7125	7555	8568	9918
No. of participants (% of eligible)	5770 (81%)	6222 (82.4%)	5738 (67.0%)	7000 (70.6%)
No. HIV positive / tested	341 / 5770	415 / 6222	470 / 5738	574 / 7000
HIV prevalence % adjusted for age and sex (95% CI)	5.9 (5.3-6.5)	6.6 (6.0-7.3)	8.0 (7.3-8.7)	8.3 (7.5-9.1)
Incident cases and total person-years at risk (in preceding interval)	NA	80 / 10179	162 / 12492	176 / 13119
HIV incidence rate per 1000 adjusted for age and sex (95% CI)	NA	6.8 (5.4-8.4)	10.8 (9.3-12.6)	11.7 (10.1-13.6)

Conclusions: HIV spread is continuing suggesting a need for more intensive AIDS control efforts and ART interventions. The levelling off in prevalence is most likely due to HIV mortality, as incidence continues to be high.