

**ESTIMATION OF INCIDENCE OF ADULT HIV INFECTION IN
NEPAL BY MODE OF TRANSMISSION AMONG VARIOUS
EXPOSURE GROUPS**

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By

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ABSTRACT

HIV/AIDS is a global pandemic threat which takes various forms of epidemic in different countries. For Nepal, it is in the concentrated form which means that the disease is concentrated in the certain subgroups like IDUs, FSWs etc. Since the reported cases of HIV/AIDS are the underestimate, it may mislead the preventive programme making the situation more complicated. Estimation is a significant work to evaluate the real picture of incidence of HIV infection of country. Estimation of HIV infection is an essential part to consider prior to the implementation of county specific policy making, intervention programmes and mobilization of resources.

Spreadsheet, developed in collaboration with UNAIDS Reference Group on Estimates, Modelling and Projections, has been used to evaluate the expected incidence of adult HIV infection of Nepal by mode of exposure groups. The estimation was based on availability of various surveillance studies using current distribution of prevalent infections, behavioral data and patterns of risk within different sub-populations obtained from different governmental and non-governmental published and unpublished literatures. All these data were entered in the spreadsheet to estimate the incidence of adult HIV infection among various subgroups.

From the estimation, a total of 7,265 new infections were estimated to have occurred over the coming year in Nepal. It was found that new infection in Nepal is mainly transmitted through heterosexual contact (77.5%), followed by the significant proportion of new infections by MSM (17.33%), while a small but significant number were related to IDUs (4.91%). Of the total heterosexual transmission, the majority occurred among the low risk heterosexual population (26.93%) followed by partners of clients (20.48%). Other risk groups that contributed significantly to the number of new infections were sex workers (9.89%), clients (3.13%), CHS (7.53%) as well as their partners (6.24%), partners of IDUs (2.25%) and partners of MSM (1.06%). The percentage of new infection related to medical injections and blood transfusions were small, 0.09% and 0.15% respectively. Moreover, the total incidence of HIV infections in partners of the different high risk groups were found to three times higher than that of the female sex workers.

Conclusively, the incidence of HIV is contributed increasingly by the partners of various risk groups. This has shown that the HIV transition has occurred from high-risk population to the low-risk female population. A considerable increase in incidence has been found in MSM population.

Key words: concentrated epidemic, estimation, heterosexual contact, MSM, IDUs, FSWs, CHS.

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LIST OF ABBREVIATION

%	:	Percentage
ADB	:	Asian Development Bank
ADRA	:	Adventist Development Relief Agency
AIDS	:	Acquired Immune Deficiency Syndrome
AMDA	:	Association of Medical Doctors of Asia
ANC	:	Antenatal Clinic
ART	:	Anti-Retroviral Treatment
ASSA	:	Actuarial Society of South Africa
BBS	:	Biological and Behavioral Surveillance
BDS	:	Blue Diamond Society
CDC	:	Centers for Disease Control and Prevention
CHS	:	Casual Heterosexual Sex
CoFSWs	:	Clients of Female Sex Workers
CREHPA	:	Center for Research Environment Health and Population Activities
DFID	:	Department for International Development
DHS	:	Demographic and Health Surveys
DoH	:	Department of Health
DoHS	:	Department of Health Services
EFS	:	Epidemiological Fact Sheet
EPP	:	Estimation and Projection Package
FHI	:	Family Health International
FPAN	:	Family Planning Health Association of Nepal
FSWs	:	Female Sex Workers
GPA	:	Global Programme on AIDS
HIV	:	Human Immunodeficiency Virus
IBBS	:	Integrated Biological and Behavioral Surveillance
IDU	:	Intavenous Drug Use

IDUs	:	Intravenous Drug Users
MAP	:	Monitoring the AIDS Pandemic Network
M-A-R-P	:	Most At Risk Population
MDG	:	Millennium Development Goal
MoH	:	Ministry of Health
MOPE	:	Ministry Of Population and Environment
MSM	:	Men having Sex with Men
N/A	:	Not Applicable
NACO	:	National AIDS Control Organization
NCASC	:	National Centre for AIDS and STD Control
NDHS	:	Nepal Demographic and Health Surveys
NGO	:	Non-Governmental Organization
NRCS	:	Nepal Red Cross Soccity
SACTS	:	STD/AIDS Counseling and Testing Services
SAARC	:	South Asian Assosiation for Regional Cooperation
SFI	:	Surveillance, Forecasting and Impact Assessment
SIDA	:	Swedish International Development Cooperation Agency
STD	:	Sexually Transmitted Diseases
STI	:	Sexually Transmitted Infections
UNAIDS	:	Joint United Nations programmes of HIV/AIDS
UNGASS	:	United Nation's General Assembly Special Session
UNICEF	:	United Nations International Children Emergency Fund
UoH	:	University of Heidelberg
USAID	:	United States Agency for International Development
VCT	:	Volunteering, Counseling and Testing centre
WHO	:	World Health Organization
WHO-SEARO:	:	World Health Organization- South East Asia Regional Office