

## Epidemiologic and Formative Studies for HIV Prevention Research in Phnom Penh, Cambodia

**Project Staff:** UCSF: Kimberly Page-Shafer, Ellen Stein; Soleak Sim; National Center for HIV, AIDS, Dermatology and STDs and National Institute for Public Health: Saphonn Vonthanak, Mean Chhi Vun, Ly Penh Sun, Nhem Thouk; National Centre in HIV Epidemiology and Clinical Research, University of New South Wales: John Kaldor, Iona Millwood, Phillip Cunningham, Robert Oelrichs

**Project Description:** This project consists of two studies:

*(1) Assessment of HIV incidence and HIV risk behaviors among clients seeking HIV testing in Phnom Penh, Cambodia.*

This study is being conducted among male and female clients at the Anonymous HIV Testing Clinic in Phnom Penh. The primary objectives of this study are: (1) To estimate population incidence in newly identified cases of HIV-1 infection in individuals seeking HIV testing using the Calypte HIV-1 BED enzyme immunoassay (BED-EIA) test on venous samples; (2) To identify groups at high risk of newly acquiring HIV infection by assessing associated HIV risk behaviors with incident HIV infections using an anonymous interviewer-administered questionnaire linked to de-identified venous samples (3) To develop an archive of clinical specimens that may be utilized for future research projects related to newly identified HIV infections, such as transmission of antiretroviral drug resistance. This study will inform prevention programs and prevention research regarding risk and target populations.

*(2) Establishment of reference ranges for hematology, chemistry, & CD4-positive lymphocyte parameters in the adult Cambodian population*

In this study, 200 blood specimens from healthy male and female adult blood donors at the Cambodian Blood Bank, Phnom Penh shall be tested for Hematology (CBC and Prothrombin Time/INR), Chemistry and CD4 positive Lymphocyte parameters in the National Institute for Public Health, National Public Health Laboratory. Collated data shall be statistically analysed to derive population reference ranges for these parameters in male and female Cambodian adults. Access to accurate reference ranges is an essential part of interpreting clinical laboratory assays. The population distribution of reference ranges is known to vary by gender and by population. In Cambodia, no published national reference ranges exist for Hematology, Chemistry and CD4 positive Lymphocyte Parameters, which are therefore usually interpreted using values established in Caucasian populations.

**Significance:** These epidemiology and laboratory studies provide essential biological information which will inform future HIV preventive and therapeutic clinical trials in Cambodia.

**Project End Date:** December 2006