HIV-1 SEROPREVALENCE STUDY IN ROYAL THAI ARMY MILITARY CONSCRIPTS

Kana K[1], Tabprasit S[1], Chuenchitra T[1], Suphanich P[1], Thongsen N[1], Sunutarod E[2], Mason CJ[1], Meiyers M[1], Saengdidtha B[2] and Sirisopana N[1]

[1]Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand [2]Phamongkutklao College of Medicine,Royal Thai Army, Bangkok, Thailand

Abstract

Background: The first case of HIV/AIDS in Thailand was reported in 1984. It had been widely accepted that servicemen, especially conscripts in the Royal Thai Army (RTA) were one of the groups at high risk of HIV infection. When there was a reported spread of HIV in the country, the RTA carried out an immediate assessment of the HIV/AIDS situation among its personnel. The role of the RTA in conducting HIV/AIDS Surveillance involves HIV surveillance among RTA conscripts.

Objectives: To describe the temporal trends and geographic distribution for HIV-1 seroprevalence in cohorts of young men selected for service in the RTA.

Methods: Recruitment of Thai males (mostly 21-year-olds) occurs in April every year. Placement takes place twice a year in May and November. Since November 1989, the Army Institute of Pathology (AIP), King Mongkut Medical Center and the Armed Forces Research Institute of Medical Sciences (AFRIMS), in cooperation with 37 military hospitals, have conducted HIV screening among RTA conscripts in order to assess the prevalence of HIV infection among this group of Thai men. All enlistees are routinely screened for HIV-1 by enzyme-linked immunosorbent assay (ELISA) with Western Blot confirmation. This surveillance activity was conducted as a total population survey, not through a random sampling process. In order to refine the HIV prevalence analyses, geographic localization uses districts as the first administrative subunit of provinces.

Results: From 1991 through 2010, overall prevalence increased from 2.9% in 1991 to 3.7% in 1993, then consistently declined and reached 0.5% in 2004, and remain stable at 0.5% until 2010.

Conclusions: HIV surveillance among Thai male conscripts is a valuable activity, providing a long-term overview of the situation and trends of HIV for sustainable evaluation. However, standards of efficiency in managing HIV screening needs to be improved. The advantage of the centralization strategy, with Bangkok as headquarters, is its convenience of information flow, but the disadvantage is the delay in obtaining laboratory test results, as blood samples have to be sent to Bangkok and there is a continuous backlog. The RTA conscript selection by randomized lottery draw makes them a good representative for young Thai men. Prevalence of infection can be used to evaluate prevention efforts. Geographic analysis provides the ability to map prevalence rates and changes by region, so intervention efforts can be targeted the decline in prevalence over time reflects the success of the Thai HIV/AIDS prevention and program. The dramatic decline among upper north resulted form high concerns from various sectors including 100% condom use campaign.

2nd PMK & AFRIMS Joint Symposium Research Highlights on Infectious Diseases and Military Medicine, Phramongkutklao Vechvithaya Building, Phramonkutklao College of Medicine, Bangkok, Thailand, 7-8 June 2011, Abstract number 25, Poster presentation