through TRUGENE HIV-1 Genotyping assay. Phylogenetic analyses were performed by the maximum likelihood method with MEGA software.

**Results** Among the 101 sequences analysed, 54 (53.5%) were HIV-1 subtype B and 47 (46.5%), non-B subtypes. The recent infection rate was 22.2% (n=12) and 19.1% (n=09) for subtypes B and non-B. In non-B subtypes there was a significant decrease in CD4+ T cells count between recent and long-term infections compared to subtype B (p=0.002). There was no statistical difference in viral load levels and infection status for the analysed subtypes.

**Conclusion** Decreases in CD4+ T cells count in the course of infection by non-B subtypes may indicate a propensity for disease progression by these variants. Thus, genotyping, antiretroviral resistance, and infection status assessments are important for monitoring local epidemics.

### Abstracts

#### P3.123 POPULATION GROWTH AND EVOLUTIONARY HISTORY OF HIV-1 B AND F SUBTYPES IN THE NORTHEAST BRAZIL

1. Kleidaldão Oliveira de Lima, 2Ético Leal, 3Ana Maria Salustiano Cavalcanti, 4Daniela Medeiros Salustiano, 5Helôsia Ramos Lacerda. Post-gradient in Tropical Medicine, Federal University of Pernambuco, Recife, PE, Brazil; 2Hospital das Clínicas, Federal University of Pernambuco, Recife, PE, Brazil; 3Institute of Biotechnology, Federal University of Paraíba, João Pessoa, PB, Brazil; 4Sector of Virology, Central Laboratory of Public Health, Recife, PE, Brazil

**Introduction** Despite low prevalence in the world, the HIV-1 subtype F is expanding in the state of Pernambuco, Northeast - Brazil, being the most prevalent subtype after subtype B. Increase of the frequency of other recombinants BF in the region, denoting the high capacity of recombination of subtype F with B. Thus, the objective of this work was to characterise the transmission dynamics between subtypes B and F in the state of Pernambuco, Northeast - Brazil.

**Methods** One hundred and fifty-six sequences of HIV-1 infected individuals were obtained from five Voluntary and Counselling Testing Centres (VCTs) in the state of Pernambuco (Northeast - Brazil), of which 103 were HIV-1 B and 53, HIV-1 F. Samples were collected between 2002 and 2009. We used the Bayesian Markov chain Monte Carlo (BMCMC) coalescent framework to estimate the ancestral genealogy, phylo-dynamics and evolutionary parameters such as nucleotide substitution rates per year and time to the most common ancestor (tMRCA) with BEAST package version 1.8.1.

**Results** Pattern of population growth are similar between subtype B in Brazil and in Pernambuco showing a pattern of steep exponential growth followed by a plateau in the diversity. Population dynamics of subtype F shows a moderate growth phase continuously expanding and the beginning of infection started later than that of global subtype F infection. The coalescent method also provided the date of introduction of HIV-1 in Pernambuco since the inferred time to the most recent common ancestor (tMRCA) was 1978 (95% CI: 1971–1981) and 1982 (95% CI: 1977–1986) respectively for the subtypes B and F.

**Conclusion** Introduction of subtype B occurred earlier in other regions of Brazil than in Pernambuco (Northeast, Brazil). Subtype F is in population expansion around the world and in Brazil. In addition, introduction of subtype F in Pernambuco (Northeast) was later than in the country (1982, CI95%: 1977–1986). These findings support the hypothesis that the viral variability of HIV-1 is increasing in Brazil with the spread of subtypes non-B.

#### P3.124 ADOLESCENTS LIVING WITH HIV/AIDS – DIFFERENT APPROACHES IN DIFFERENT MODES OF HIV TRANSMISSION

1. Kyaw-Min Htut, 1Myo-Myo Mon, 2Ye Aung. Ministry of Health And Sports, Yangon, Myanmar Burma; 3Save The Children, Yangon, Myanmar Burma

**Introduction** Recently, the number of adolescents infected with HIV has been increasing worldwide, but there is still little information available on the characteristics of this population. The aim of this study is to compare the characteristics of adolescents living with HIV attending a Sexually Transmitted Infection (STI) Referral Centre according to the modes of transmission.

**Methods** A cross-sectional study evaluating adolescents between 10 and 19 years of age, carried out from January to August 2012, at the STI Referral centre in Bavía, Brazil. Socio-demographic and clinical data were obtained by reviewing charts and analysed through SPSS 20.0.

**Results** A total of 123 adolescents living with HIV were attended during the study period, 76.3% (90/118) of them acquired the virus through vertical transmission (VT), whereas 22.9% (27/118) acquired via sexual transmission (ST). Regarding the adolescents with VT, the group was younger than the ST, with 93.7%<16 years old (p<0.01, OR 20.35, 95% CI 6.70–61.83); 78.9% attended school (p<0.01, OR 0.15, 95% CI 0.04–0.61), 62.1% did not work (p=0.02), 53.2% denied use of alcohol (p<0.01, OR 0.07, 95% CI 0.01–0.65), and 98.7% also denied sexual debut (p<0.01, OR <0.01, 95% CI 0.00–0.03). On the other hand, patients with a ST infection started their sexual life earlier, with a mean age of 12.9 (-17.74 years, 93.8% of them had had previous gestation (p<0.01, OR 27.5, 95% CI 2.89–262.3), 75.0% had HPV co-infection (p<0.01, OR 11.5, 95% CI 2.03–64.78) and 88.9% had another STI in the period (p<0.01, OR 45.71, 95% CI 5.30–394.42). The VT group showed rates of 93.5% of AIDS diagnosis (p<0.01, OR 72., 95% CI 16.41–315.98) and 100% (p=0.01) had had opportunistic infections; 93.1% performed genotyping (p=0.02, OR 5.87, 95% CI 1.27–27.09) and 85.4% used ART (p<0.01, OR 8.54, 95% CI 2.72–26.85).

**Conclusion** We observed two distinct groups, defined according to the modes of transmission, both showing specific characteristics. Thus, it is evident the need of customise the health care and promotion according to each group.

#### P3.125 KNOWLEDGE ON SEXUALLY TRANSMITTED INFECTIONS/ HIV, SEXUAL RISK BEHAVIOURS AND UTILISATION OF DROP-IN-CENTRES AMONG KEY AFFECTED POPULATION IN MYANMAR

1. Kyaw-Min Htut, 1Myo-Myo Mon, 2Ye Aung. Ministry of Health And Sports, Yangon, Myanmar Burma; 3Save The Children, Yangon, Myanmar Burma

**Introduction** Despite low prevalence in the world, the HIV-1 subtype F is expanding in the state of Pernambuco, Northeast - Brazil, being the most prevalent subtype after subtype B. Increase of the frequency of other recombinants BF in the region, denoting the high capacity of recombination of subtype F with B. Thus, the objective of this work was to characterise the transmission dynamics between subtypes B and F.

**Methods** One hundred and fifty-six sequences of HIV-1 infected individuals were obtained from five Voluntary and Counselling Testing Centres (VCTs) in the state of Pernambuco (Northeast - Brazil), of which 103 were HIV-1 B and 53, HIV-1 F. Samples were collected between 2002 and 2009. We used the Bayesian Markov chain Monte Carlo (BMCMC) coalescent framework to estimate the ancestral genealogy, phylo-dynamics and evolutionary parameters such as nucleotide substitution rates per year and time to the most common ancestor (tMRCA) with BEAST package version 1.8.1.

**Results** Pattern of population growth are similar between subtype B in Brazil and in Pernambuco showing a pattern of steep exponential growth followed by a plateau in the diversity. Population dynamics of subtype F shows a moderate growth phase continuously expanding and the beginning of infection started later than that of global subtype F infection. The coalescent method also provided the date of introduction of HIV-1 in Pernambuco since the inferred time to the most recent common ancestor (tMRCA) was 1978 (95% CI: 1971–1981) and 1982 (95% CI: 1977–1986) respectively for the subtypes B and F.

**Conclusion** Introduction of subtype B occurred earlier in other regions of Brazil than in Pernambuco (Northeast, Brazil). Subtype F is in population expansion around the world and in Brazil. In addition, introduction of subtype F in Pernambuco (Northeast) was later than in the country (1982, CI95%: 1977–1986). These findings support the hypothesis that the viral variability of HIV-1 is increasing in Brazil with the spread of subtypes non-B.