# Literature Review

## CHAPTER 1

### Global epidemiology Report of HIV

United Nations Acquired Immune Deficiency Syndrome (UNAIDS) global report 2012 approximates 34 million people have been infected by Human Immune deficiency Virus (HIV) by the end of 2011 [UNAIDS 2012]. Though the report shows that the global trend of new HIV infections (figure 2) and HIV-related deaths (figure 3) per year is declining, the current number of HIV infections is the highest since 1990 (figure 1). There is a huge difference in the HIV prevalence by age and sex, among the countries around the global. Figure 4 shows the clear intensity of HIV infections by regions all over the world. Sub-Saharan Africa region is the most HIV aggravated region; there are 23.5 million HIV positive people. UNAIDS estimates that approximately 1 in every 20 adults are HIV infected (UNAIDS). This is 25 or more times the HIV prevalence in any other region of the world. Countries in Sub-Saharan Africa also have varying HIV prevalence (figure 5). The next severely affected regions are Caribbean and Eastern Europe, Central Asia, South Asia, South-East Asia and East Asia. UNAIDS targets to decline the HIV transmission by 50%, provide anti-retroviral drugs to 15 million HIV positive people and increase the annual global investment to US $ 24 billion in low and middle-income countries by 2015.

### Introduction to HIV

HIV is a retrovirus, which has two strands of Ribo Nucleic Acid (RNA) as the genetic material. The most common modes of the virus infection are sex transmission, intravenous drug usage, transfusion of infected blood and mother to child transmission at birth.