



## The Epidemic of HIV Infection-2005

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The AIDS epidemic continues to ravage the resource-restricted regions of the world; 40-50 million infected, 25-30 million died and up to 40 million orphans predicted by the end of the decade, reduction of life expectancy of up to 30 years in some countries in Africa with reduction of 20-30% of gross domestic product in some of their struggling democracies. Essentially a Tsunami like death toll occurs every 3-4 weeks but mostly goes unreported. The most rapidly rising rates are in Eastern Europe but South African countries are reporting infection rates of 15-30% of its population while the vast populations of India and China appear to be becoming smoldering bombshells of HIV infections.

Hope is slowly emerging as prevention programs, long ignored are starting to show remarkable benefits. Museveni's ABC program appears to have been responsible for a reduction of 23% to 6% in infection rates in Uganda. Reductions are also reported from Ethiopia and Rwanda. Antiretroviral treatment also reduces transmission as demonstrated in Taiwan which reported a 53% reduction during the HAART era.

The roll-out of ART on a massive scale will have an enormous impact on mortality rates from HIV/AIDS in countries lucky enough to receive these drugs. It is however critical that well-trained clinicians, counselors, lab techs, clinical HIV pharmacists and reliable drug distributions be in place to manage the roll-out. Even with well developed systems in place, drug resistance will likely emerge and remains a concern. In Thailand, exposure to a single dose of Nevirapine for MTCT, markedly reduced the effectiveness of NNRTI regimens when given later in life. Drug-resistance continues to climb in cases of acute HIV infection in the west. Well trained providers must be skilled in insisting of rigorous adherence to ART; new single daily dose regimens will certainly help.

As the AIDS epidemic reaches its 25<sup>th</sup> year, new challenges and new opportunities are emerging but for the 1<sup>st</sup> time, there may be hope at the end of the tunnel.