

Tuberculosis (TB) is a common and often deadly infectious disease caused by mycobacteria, mainly mycobacterium tuberculosis (MTB). The disease usually affects the lungs, although in up to one third of cases other organs are involved (*Kumar et al., 2007*).

According to the World Health Organization (WHO), nearly 2 billion people (one third of the world) have been exposed to the tuberculosis pathogen. In 2004, around 14.6 million people had active tuberculosis disease with 9 million new cases. The annual incidence rate varies from 356 per 100.000 in Africa to 41 per 100.000 in Americas. The rise in HIV infection and the neglect of tuberculosis control programs have enabled a resurgence of tuberculosis (*WHO, 2006*).

Since tuberculosis is an infectious disease, the magnitude of the problem and its trend should be expressed in epidemiological indices. Two indices are the most relevant, the incidence of tuberculous patients excreting tubercle bacilli demonstrable by direct smear and the risk of tuberculosis infection (*Iademarco and Castro, 2003*).

Annual risk of tuberculosis infection (ARI) is the proportion found newly infected or reinfected during the course of one year. It is an index which expresses the attacking force of tuberculosis within the community. It can be derived from the estimated prevalence of infection rate or by identifying the newly infected between two tuberculin surveys. (*Chadha et al., 1999*).

In terms of incidence of tuberculosis, Egypt is ranked among the mid-level incidence countries. Tuberculosis in Egypt is considered an important public health problem. For evaluating the magnitude of this problem and its trend, there were three nationwide tuberculin surveys in years 1951, 1982, and 1997. In 2003 ARI was calculated mathematically with the help of WHO and it was found to equal 28 per 100.000 (*NTP, 2006*).