# Introduction

Tuberculosis (TB) has been and continues to be one or the most significant pathogens in terms of human morbidity and mortality. phthisiology. derived from the Greek *phthisis* meaning wasting or consumption, is the historical term given to the study of TB ***(WHO, 2010)***.

Human TB has existed for thousands of years. The earliest known cases of tuberculosis were discovered in ancient Egyptian mummies. who suffered from tuberculosis of the spine, dating back to 8000-10000 BC ***(Asensio et al., 2008)***.

Tuberculosis was probably the leading cause of death in Europe and the United states in recorded history. .The incidence of tuberculosis increased dramatically in Europe until the beginning of the I9$^{th}$ century and then declined. As industrialization, urbanization, and the accompanying social trends extended beyond Europe to the United states, tuberculosis followed.

At the end of the 19$^{th}$ century, the world was awash with great expectation that tuberculosis (TB), the captain of all these men of death would soon be vanquished. Recent advances, such as the discovery of the tubercle bacillus by Koch and the development of radiography by Roentgen, heralded an unprecedented air of optimism in medicine and, indeed, throughout all of society. The dawn of the 20th century held great promise for a cure for the disease that had claimed the lives of some of the most prominent writers, musicians and statesmen of the previous century ***(Wells et al., 2007)***.

Tuberculosis was declared a global emergency by the WHO

(World health organization) in 1993 and Mycobacterium tuberculosis in now considered to be responsible for more adult deaths than is any other pathogen. control of this disease relies upon prevention through Bacillus Calmette-Guerin (BCG) vaccination or "preventive therapy" (chemoprophylaxis), and the ascertainment and treatment of cases, in particular employing the directly observed therapy short course (DOTS) approach ***(Plotkin et al., 2004)***.

In the east Mediterranean region, Egypt has a moderate TB prevalence. According to WHO the TB rate per capita in Egypt in 2007 was 139 cases per 100.000 population ***(WHO, 2010)***.

The bacilli Calmette-Guerin (BCG) vaccines are the oldest of the vaccines currently used throughout the world. They have been given to 4 billion people and have been used routinely since the 1960 in almost all countries of the world, with the exception of a few industrialized countries ***(Plotkin et al., 2004)***.

From 1947 to the present. BCG vaccination has been included in the WHO Expanded programme on immunization to strengthen the fight against infectious diseases among children in developing countries. Approximately 100 million children receive a BCG vaccine each year.

A higher standard of safety is generally expected of vaccines than other medical interventions. In contrast to most pharmaceutical products.

which are administered to ill people for curative purposes, vaccine are generally given to healthy people to prevent disease. Tolerance of adverse reactions to products given to healthy

peopleespecially health infant is substantially lower than to products administered to people who are already sick.

Although extensive studies are required for licensure of vaccine surveillance plays an important role in the regular assessment of immunization programs.