

## WHAT ABOUT TUBERCULOSIS?

(From American Lung Association and Michigan Department of Community Health)

**HISTORY:** Tuberculosis has been traced back to ancient times. Often, it was thought to be a hereditary condition. It was sometimes referred to as “the white plague”, or “consumption.” In 1859, the first sanatorium was developed when it was thought the “the cure” was isolating people into a place where they would have rest, special nourishing food, and fresh air. In the 1940’s and 1950’s, drug treatment was developed, the first being Streptomycin.

**TRANSMISSION:** It was discovered that Tuberculosis was a contagious bacteria, spread through droplets from the respiratory tract with coughing, sneezing. The organism was *Mycobacterium tuberculosis*.

Transmission depends on more than one factor:

1. The infectiousness of the case. (How sick is the infected person? Are they coughing a lot?)
2. The environment of exposure (Was it a fairly small enclosed area such as an elevator, bus, airplane, small room?)
3. How long did the exposure take place? ( 5 minutes or 5 hours?)
4. How virulent is the organism? (Some strains of Tuberculosis are more virulent than others)

### WHO WILL DEVELOP THE DISEASE?

- 10% of infected persons with normal immune systems develop TB at some point in life.
- Conditions that increase the risk of progression to TB Disease:
- HIV infection, substance abuse, recent infection with *M. tb*, chest x-ray findings suggestive of previous TB; diabetes mellitus, silicosis, prolonged corticosteroid therapy, cancer of the head and neck, hematologic and reticuloendothelial diseases, end-stage renal disease, intestinal bypass or gastrectomy, chronic malabsorption syndromes, and low body weight (10% or more below ideal)

**WHERE DOES TUBERCULOSIS AFFECT THE BODY?** The most common site of Tuberculosis infection is the lungs. In Michigan, 67% of cases are located in the lungs.

Other sites that the organism may infect includes:

- Pleura (The external lining of the lungs.)
- Central Nervous system
- Lymphatic system
- Genitourinary systems
- Bones and Joints
- Disseminated in several sites

**DRUG RESISTANT TUBERCULOSIS:** There has been a significant increase in cases of Tuberculosis that are resistant to drug treatment. There are two types of drug resistant TB:

- Primary resistance develops in persons initially infected with resistant organisms.
- Secondary resistance (acquired) develops during TB therapy.

### HOW WIDESPREAD IS TUBERCULOSIS?

- 2-3 million deaths/year from TB disease
- 8 million new TB cases annually
- 1/3 of the world population has TB infection (5% are in the USA)