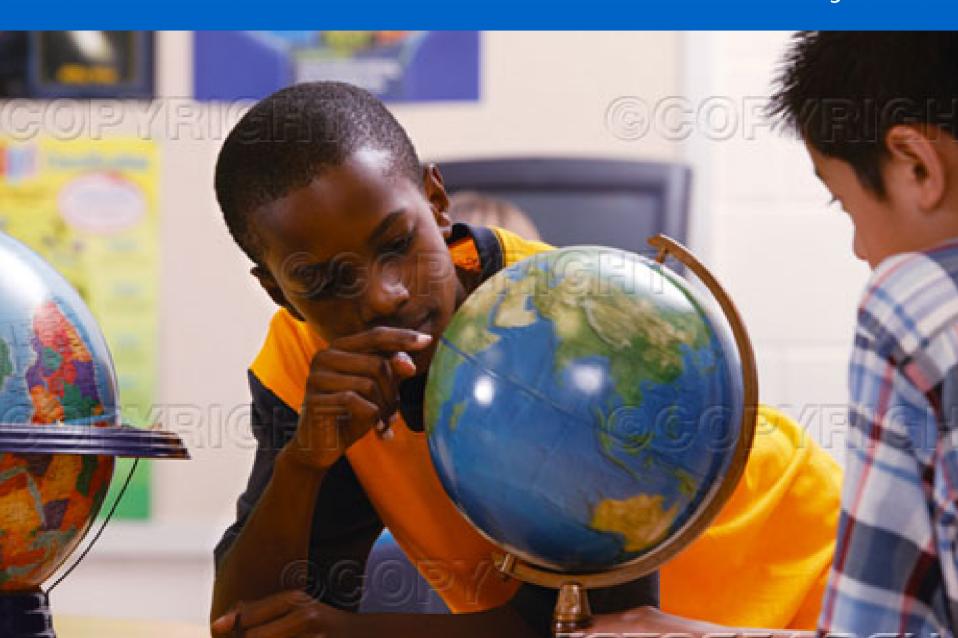
#### In Honor of Dr. Katherine Hsu on World TB Day



### Tuberculosis & Children

Kim Connelly Smith, MD, MPH



### WHO Global Plan 2006-2015

- Cost: \$56 billion over 10 years compare: \$250 billion/3 yrs on war
- Savings:
  - 50 million patients treated
  - 14 million lives saved



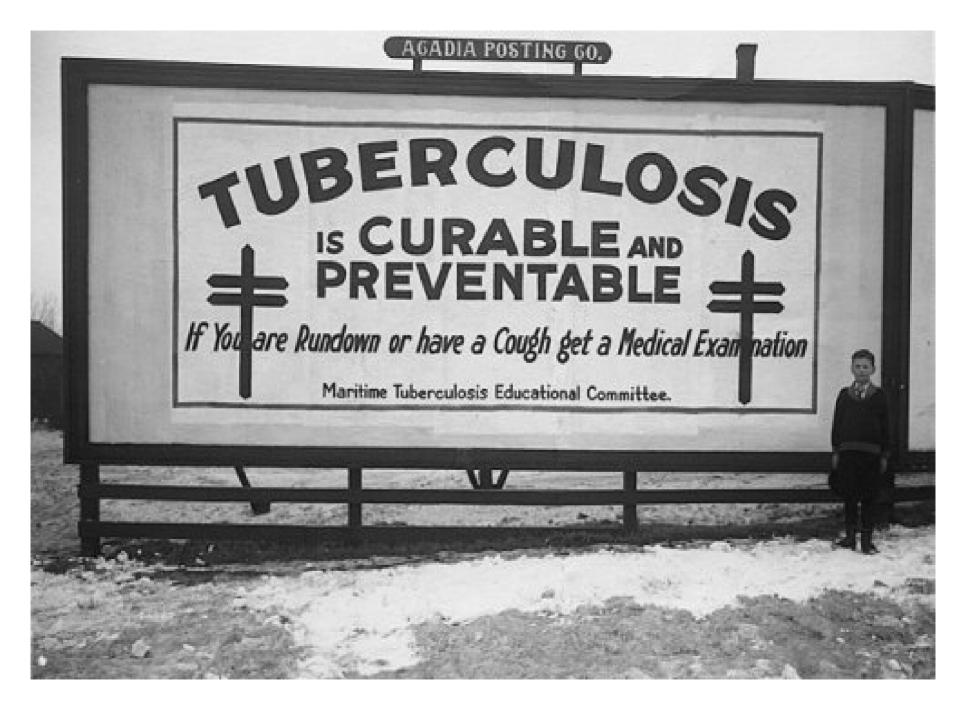


## My First Pedi TB Case

- 15 month old at UTMB, Galveston, 1987
  - 10 days progressive fussiness & decreased appetite
  - 3 days inability to walk or sit up
  - Diagnosis: TB meningitis
- Family history
  - Dad with pulmonary TB diagnosed 5 months earlier on appropriate treatment
  - Mom diagnosed with LTBI on INH
  - Baby initial TST 0mm @ 10 months
    - no CXR
    - no treatment
    - lost to follow up

# Keys to preventing new TB cases in children

- Contact investigation
- Early referral
- Prophylactic treatment
- Follow up source case sensitivities
- Follow up TB skin testing
- Treatment of LTBI



Tuberculosis is not (only) a health problem. It is a social, economic and political disease. It manifests itself wherever there is neglect, exploitation, illiteracy and widespread violation of human rights.

Director, South Asia Panos Institute

### TB kills:

- 5000 people each day
- 2 million people each year
- 250,000 children each year
- in patients with HIV/AIDS, TB is the leading cause of death
- among young women in developing countries, TB is the leading infectious cause of death

### Worldwide

1 in 3 people are infected with TB

 In developing countries about 40% are infected by 15 years of age

 Untreated LTBI in children is the future source of new TB cases

### International TB Control Strategy

 Focus is on adult active pulmonary TB, which is the source of most TB infection in children

 Historically, children & adolescents have not been addressed as vulnerable groups

# TB Infection and TB disease in Children are Sentinel Events

 Because they represent recent transmission from adults with infectious pulmonary TB

 Young children exposed to or infected with TB require evaluation and therapy ASAP



# Unique Challenges of TB Disease in Children

- more difficult diagnosis
- nonspecific signs and symptoms
- fewer mycobacteria
- fewer positive bacteriologic tests
- increases risk for progression from LTBI to active disease, especially infants and children less than 5 years of age

# Special Challenges with Pediatric TB in developing countries

- 50% of children with TB have no symptoms
- chest radiographs are often not available
- AFB smear is the main diagnostic test in most developing countries
- most children have negative AFB smears and cultures
- Therefore many children with TB disease are missed (smear & culture negative, no symptoms and no chest x-ray)

# Social, political and financial commitment are needed to stop TB

#### What can be done:

- new diagnostic tests to find patients
- shorter treatments
- effective vaccines
- reduce stigma of the disease
- affordable access to health care for everyone

The majority of tuberculosis patients throughout the world do not have the basic medical care that they need and deserve. Why? Because it is not free and they have no money to buy it, because it is not available in their community, because there is an unreliable supply of medication or a lack of health care workers to monitor treatment, or because such strong social stigma is attached to TB in their community that they feel they should hide their illness.

Archbishop Desmond Tutu

Tuberculosis has long been linked with social stigma and discrimination. We can change this by recognizing TB as a curable disease just like any other. Every person with tuberculosis has the right to be treated for his or her disease. No one can deny that. So let us stop denying them this basic human right.

**Archbishop Desmond Tutu** 



