Primary Goal

To determine what is driving high TB rates among Hispanics in Tarrant County, Texas.
What do we know about TB in the United States?
Reported TB Cases by Race/Ethnicity*  
United States, 2006

- Hispanic or Latino (30%)
- Black or African-American (27%)
- Asian (24%)
- White (17%)
- Native Hawaiian or Other Pacific Islander (<1%)
- American Indian or Alaska Native (1%)

*All races are non-Hispanic. Persons reporting two or more races accounted for less than 1% of all cases.
Number of TB Cases in U.S.-born vs. Foreign-born Persons United States, 1993–2006*

No. of Cases

0 5000 10000 15000 20000

U.S.-born Foreign-born

*Updated as of April 6, 2007.
Primary MDR TB in U.S.-born vs. Foreign-born Persons, United States, 1993–2006* 

% Resistant


U.S.-born Foreign-born

*Updated as of April 6, 2007.

Note: Based on initial isolates from persons with no prior history of TB. MDR TB defined as resistance to at least isoniazid and rifampin.
What do we know about TB in Texas?
Total TB Cases by State in 2006

- California: 2,726 cases
- Texas: 1,510 cases
- New York: 1,175 cases
- Florida: 980 cases
- Illinois: 521 cases
TB Cases by Race/Ethnic Group in Texas 2007

- Hispanic: 48%
- Black: 21%
- Other: 15%
- White: 16%
Percent of TB Cases in Each Race/Ethnic Group by Origin in Texas 2007
Characteristics of TB patients in Houston, Texas

Foreign-born patients were significantly more likely than were US-born patients to be Hispanic or Asian and have traveled outside of the United States in the last 6 months preceding the onset of tuberculosis.

Foreign-born patients were significantly less likely that US-born patients to smoke, to use alcohol, to use illicit drugs, to have a history of homelessness or to have a history of incarceration.
MATERIALS AND METHODS

Analysis was performed on data collected on persons newly diagnosed with TB at the Tarrant County Health Department (TCHD) between January 1, 1993 and December 31, 2006, a total of 830 cases. Cross tabulations were run for different risk factors using SPSS.
Foreign Born
Hispanics Compared to All Other Races

(X^2(2) = 114.14, P < 0.01)
Risk Factors
Hispanics Compared to All Other Races

- **Unemployed**
  - Hispanic: 17.8%
  - All Other: 27.6%
  - $(X^2(2) = 7.65, P < 0.01)$

- **Ever in Jail**
  - Hispanic: 21.8%
  - All Other: 37.6%
  - $(X^2(2) = 16.46, P < 0.01)$

- **Ever Homeless**
  - Hispanic: 5.1%
  - All Other: 23.7%
  - $(X^2(2) = 33.65, P < 0.01)$

- **Alcoholic**
  - Hispanic: 17.7%
  - All Other: 29.4%
  - $(X^2(2) = 10.61, P < 0.01)$

- **Drug User**
  - Hispanic: 17.3%
  - All Other: 28.2%
  - $(X^2(2) = 9.38, P < 0.01)$
Risk Factors
Foreign born Compared to Native born Hispanics

Within Race

Unemployed
Ever in Jail
Ever Homeless
Alcoholic
Drug User

Unemployed
Not statistically significant
Ever in Jail
(X²(2) = 11.73, P < 0.01)

Ever Homeless
(X²(2) =17.83, P < 0.01)
Alcoholic Diagnosed
Not statically significant

Drug User
(X²(2) = 14.65, P < 0.01)
Risk Factors Among Native Born Hispanics Compared to All Other Races

Unemployed
Not statistically significant

Ever in Jail
Not statistically significant

Ever Homeless
(\(X^2(2) = 17.89, P < 0.05\))
Alcoholic Diagnosed
Not statistically significant

Drug User
Not statistically significant
Risk Factors Among Foreign Born Hispanics Compared to All Other Races

Unemployed
- Hispanic: 14.8%
- All Other: 16.1%
- (X^2(2) = 7.11, P < 0.01)

Ever in Jail
- Not statistically significant

Ever Homeless
- Not statistically significant

Alcoholic Diagnosed
- Hispanic: 1.3%
- All Other: 1.0%
- (X^2(2) = 8.89, P < 0.01)

Drug User
- Hispanic: 14.7%
- All Other: 5.4%
- (X^2(2) = 13.83, P < 0.01)
Strain 210
Hispanics Compared to All Other Races

Within Race

All
Foreign Born
Native Born

Hispanic
All Other

All
Foreign Born
Native Born

(X2(1) = 23.65, P < 0.01)
Not statistically significant
(X2(1) = 5.25, P < 0.05)
Summary

Hispanics do account for a disproportionate number of TB cases in Tarrant County.

Foreign-born individuals are responsible for a large majority of these cases.

Information on strain 210 and other recent research shows that the Hispanic foreign born have unique strains of TB that they bring with them from their country of origin and they do not play a significant part in the active spread of the disease in Tarrant County.

The characteristics of foreign born TB patients in Tarrant County do resemble those of TB patients in Houston in relation to risk factors.
Conclusions

Foreign born Hispanics are increasing the number of TB cases in Tarrant County by bringing the disease with them from their native country.

Although the foreign born do not contribute significantly to the spread of TB among the native born, they do bring in drug resistant stains. If the drug resistant strains are brought into the country there is concern that they may be spread to the native born population.
Literature Cited


