EPIDEMIOLOGY OF TUBERCULOSIS IN THE CARIBBEAN

A Bird’s Eye View

Brendan C Bain, DM, MPH, FRCPE
Consultant: Infectious Diseases and Public Health

IUATLD Course on “Using Epidemiology for Data-driven Decision-making in TB Programs”, Denver CO Feb 24, 2016

I have no known conflict of interest

Outline of presentation

• The Caribbean – geography and politics
• Epidemiology of Tuberculosis in the Caribbean
• Prospects for eliminating autochthonous TB in the Caribbean
• Summary
Learning Objectives

Upon completion of this training, participants will be able to:

• Identify three mainland countries which are considered part of the Caribbean
• Discuss the strengths and limitations of epidemiological data from Caribbean countries
• Explain how health systems strengthening could benefit epidemiologic practice and improve patient outcomes in the Caribbean

A bird’s eye view

THE CARIBBEAN

THE CARIBBEAN – Ethnicities;
Languages

Epidemiology of Tuberculosis in the Caribbean
EPIDEMIOLOGY OF TUBERCULOSIS IN THE CARIBBEAN

From available data
Using Epidemiology for Data-Driven Decision-Making in Tuberculosis Programs
February 24, 2016

Estimated TB Incidence per 100,000 pop., (2014)
Top 10 Caribbean countries

Source: Global Tuberculosis Report 2015, WHO

Estimated TB Incidence (2014)
Comparison with North America

Source: Global Tuberculosis Report 2015, WHO


Source: TB in the Americas 2013
Trends in Estimated TB Incidence: USA and Canada, 1990-2011

Source: Tuberculosis in the Americas: Regional Report 2012, PAHO/WHO

Trends in Estimated TB Incidence per 100,000 pop., 1990-2011

Source: Tuberculosis in the Americas: Regional Report 2012, PAHO/WHO

Trends in Estimated TB Incidence in Caribbean island countries 1990-2011

New TB cases per 100,000 population

Source: Tuberculosis in the Americas: Regional Report 2012, PAHO/WHO
HIV and TB

“Stoked by HIV, TB remains a substantial cause of mortality in developing countries despite available cure for this disease.”

Charles, Macarthur and Pape, Jean William, 2006

Percentage of persons with TB disease with known HIV status, 2014

Source: Global Tuberculosis Report 2015, WHO

Top 8 Caribbean Countries by estimated HIV prevalence among incident TB cases, 2014

Source: Global Tuberculosis Report 2015, WHO
Using Epidemiology for Data-Driven Decision-Making in Tuberculosis Programs

February 24, 2016

PROSPECTS FOR ELIMINATING AUTOCHTHONOUS TB IN THE CARIBBEAN

What should we do?

How should we do it?

The Six WHO “Building Blocks” for strengthening Health Systems

- Human Resources
- Finances
- Leadership and Governance (Stewardship)
- Strategic Information
- Equipment, Facilities & Supplies
- Service Delivery
An optimal health system for TB

LEADERSHIP, MANAGEMENT, OVERSIGHT

SURVEILLANCE  LABORATORY PRACTICE  CASE INVESTIGATION

WORKFORCE CAPACITY AND COMPETENCY  INFORMATION AND DATA SYSTEMS  ORGANIZATION AND SYSTEMS CAPACITY

Adapted from the Public Health Foundation, Washington, DC

Some Good News for TB programs

• July 2013 Launch of the Caribbean Public Health Agency (CARPHA)
  – Merger of five Caribbean health institutions
• New laboratory strengthening programs
  – CARPHA
  – CDC
  – Caribbean MedLabs Foundation
• Opportunities for research

Challenges to TB program success

• Diverse Situational Factors
  – Political instability in some places
  – State of Public Health Services
  – Variable HIV/TB program collaboration
  – The Built Environment
  – Overcrowded living/working conditions & poor ventilation
  – Variation in Poverty and Education levels
  – Natural disasters
• Competition with other health issues
  – Non-communicable diseases
  – Emerging infectious diseases
• Finances
SUMMARY

Thinking from a Managerial Viewpoint

• The countries with the largest populations and with overcrowded cities have the highest burden of TB
• A systems strengthening approach is likely to help countries toward the goal of eliminating endogenous TB
• Competition with other health concerns tends to lower interest in TB
• Cross-program collaboration offers practical advantages

Thinking from an Epidemiologic Viewpoint

• Caribbean data tends to get lost in Global Reports because of regional grouping
• We must continue to
  – highlight TB Epidemiology in the worst affected countries
  – maintain action plans to tackle risk factors and reduce the burden of disease
• Several Caribbean countries are close to eliminating TB
EPIDEMIOLOGY OF TUBERCULOSIS IN THE CARIBBEAN

A Bird's Eye View

THANK YOU

medical.educational2015@gmail.com