Making Use of Epidemiology Resources

CDC EXCITE website http://www.cdc.gov/EXCITE

http://www.cdc.gov/tb/statistics/reports/2011/default.htm

TB Surveillance

http://www.cdc.gov/tb/statistics/reports/2011/default.htm

Descriptive Data

person

TB Case Rates by Age Group and Sex,
United States, 2011

Cases per 100,000

Under 5 · 5-14 · 15-24 · 24-44 · 45-64 · ≥65
■ Male □ Female

place

TB Case Rates,* United States, 2011

● D.C.

☐ ≤ 3.4 (2011 national average)
■ >3.4

*Cases per 100,000.

time

Reported TB Cases
United States, 1982–2011*

*Updated as of June 25, 2012.

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Sources of TB Surveillance Information

Reported Tuberculosis in the United States, 2011
http://www.cdc.gov/tb/statistics/reports/2011/default.htm

Tuberculosis in the United States, 2011 (Slide Set)
http://www.cdc.gov/tb/statistics/surv/surv2011/default.htm

Online Tuberculosis Information System (OTIS)
OTIS is a query-based system containing information on TB cases reported to CDC. http://wonder.cdc.gov/tb.html

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Online Tuberculosis Information System (OTIS)

Online Tuberculosis Information System (OTIS) Data - Windows Internet Explorer

CDC WONDER

Online Tuberculosis Information System (OTIS) Data

Online Tuberculosis Information System

Current Tuberculosis Case Reports

- 1993 - 2009: By age groups, race / ethnicity, sex, vital status, year reported, state, metropolitan area, several patient risk factors, directly observed therapy, disease verification criteria and multi-drug resistant TB.
  Data Request   More information

Archive Tuberculosis Case Reports

- 1993 - 2008: By age groups, race / ethnicity, sex, vital status, year reported, state, metropolitan area, several patient risk factors, directly observed therapy, disease verification criteria and multi-drug resistant TB.
  Data Request   More information
- 1993 - 2007: By age groups, race / ethnicity, sex, vital status, year reported, state, metropolitan area, several patient risk factors, directly observed therapy, disease verification criteria and multi-drug resistant TB.
  Data Request   More information
- 1993 - 2006: By age groups, race / ethnicity, sex, vital status, year reported, state, metropolitan area, several patient risk factors, directly observed therapy, disease verification criteria and multi-drug resistant TB.
  Data Request   More information
- 1993 - 2005: By age groups, race / ethnicity, sex, vital status, year reported, state, metropolitan area, several patient risk factors, directly observed therapy, disease verification criteria and multi-drug resistant TB.
  Data Request   More information
- 1993 - 2004: By age groups, race / ethnicity, sex, vital status, year reported, state, metropolitan area, several patient risk factors, directly observed therapy, disease verification criteria and multi-drug resistant TB.
  Data Request   More information

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OTIS 2009 TB Data Request - Windows Internet Explorer

CDC WONDER

OTIS 2009 TB Data Request

Request Form | Results | Map | Chart | About

Online Tuberculosis Information System   Dataset Documentation   Data Use Restrictions   How to Use WONDER   Reset

Make all desired selections and then click any **Send** button one time to send your request.

1. Organize table layout: Send Help

Group Results By Age Groups, Broad   Note:
And By None   Don't group by both **State** and **MSA** or by both **Broad** and **Standard** Age Groups.
And By None
And By None
And By None

Optional Measures (Check box to include in results.)
☐ Incidence Rate per 100,000
☐ Completion of Therapy Within One Year
☐ Percentage Tested for Drug Susceptibility to Isoniazid
☐ Percentage Tested for Drug Susceptibility to Isoniazid & Rifampin
Title

2. Select location and years: Send Help

Pick between: State   Year
State ◉ The United States   All Years
MSA ○   Alabama   2005-2009
         Alaska   1993
         Arizona   1994
         Arkansas   1995
         California   1996
         Colorado   1997
         Connecticut   1998

Hint: Use Ctrl + Click for multiple selections, or Shift + Click for a range.

Other Notes:
1. "The United States" in the **State** list does not include Puerto Rico. Select "The United States" and Puerto Rico together, or everything but "The United States", to use all the states plus Puerto Rico.
2. Year selection can be "All Years" alone, "2005-2009" alone, or any combination of individual years.

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Atlas

♦ Recently CDC added TB data to another data query system, called Atlas

http://www.cdc.gov/nchhstp/atlas/

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Basic Epidemiology for Tuberculosis Program Staff

This resource provides a background on basic epidemiology for tuberculosis program staff. The information in this guide will assist in analyzing and making practical use of data, assessing current and evolving trends in TB morbidity, identifying risk groups and determining where to allocate staff and resources.

2nd Edition should be available by December 2012

http://www.umdnj.edu/ntbcweb/products/basicepi.htm

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The Basics

1. Introduction – Uses of Epidemiology in Tuberculosis Prevention and Control
2. What Is Epidemiology?
3. Types of Epidemiology
   - Descriptive
   - Analytic
4. Key Concepts in Epidemiology
   - Morbidity
   - Mortality
5. Presenting Program Data

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Beyond the Basics

6. Measuring Test Validity
- Sensitivity, Specificity and Predictive Values
7. Study Designs
- Odds Ratios and Relative Risks
8. Statistical Concepts
- *P*-Values
- Confidence Intervals
- Confounding Factors
- Bias
- Meta Analysis
9. Genotyping and TB control

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Putting it all Together

TB control Case Study (with answer key): *How to Use TB Surveillance Data in TB control*

Appendix I: Common Terms Used in Epidemiology

Appendix II: RVCT Form

Appendix III: National TB Program Objectives

Appendix IV: National Tuberculosis Indicators Project (NTIP)

Appendix V: Solutions for Sample Problems

Appendix VI: Suggested Reading List

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Educational Resources

Incorporating Tuberculosis into Public Health Core Curricula

The New Jersey Medical School Global Tuberculosis Institute, one of four Regional Training and Medical Consultation Centers funded by the Centers for Disease Control and Prevention, has developed TB-related teaching materials for use in core courses of MPH programs, using the Association of Schools of Public Health (ASPH) core competencies for public health disciplines and interdisciplinary domains.

This document includes a series of TB-related case studies, fact sheets and PowerPoint presentations. They were developed for use in core courses in the disciplines of Biostatistics, Epidemiology, Environmental Health Sciences, Health Policy and Management, and Social and Behavioral Sciences and to illustrate the cross-cutting domains of Communications and Informatics, Diversity and Culture, Program Planning and Public Health Biology. These materials do not require that instructors have prior knowledge of TB.

- How To Use This Material
- Learning Objectives
- Contributors and Reviewers

VIEW CURRICULUM

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http://www.umdnj.edu/ntbc/products/incorporating.html

Epidemiology

Document Name	Word	PDF
EPI Case Study 1: Incidence, Prevalence, and Disease Surveillance; Historical Trends in the Epidemiology of M. tuberculosis - *Student Version 1.0*		
EPI Case Study 2: Reliability, Validity, and Tests of Agreement in M. Tuberculosis Screening - *Student Version 1.0*		
EPI Case Study 3: Cross-Sectional, Case-Control, and Cohort Studies; Identification of TB Risk Groups and TB Risk Factors in Epidemiologic Studies - *Student Version 1.0*		
EPI Case Study 4: Using Molecular Epidemiology in a TB Contact Investigation - *Student Version 1.0*		
EPI Fact Sheet 1: Primary, Secondary, and Tertiary Prevention Fact Sheet – TB Examples - *Student Version 1.0*		
Primer on TB - *Student Version 1.0*		

INSTRUCTOR'S GUIDES

Closing

♦ Epidemiologic methods can help us to identify local, state, and national patterns of disease and their impact on local control of tuberculosis

♦ Can use epidemiological methods to find ways to improve both patient care outcomes and effectiveness of individual TB Programs

♦ Variety of TB educational and data resources

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