



## Evidence-Based Public Health Practice: Using Research and Data to Improve Your Programs Week I, Part 2: Data Sources

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## Week I, Part 2: Agenda

- Week I, Part 2 – Data Sources
  - Types of data sources
  - Working with data sources
    - How to access
    - How to use
    - How to display
  - Using data sources for community assessments
    - *Healthy People 2010*

## Step 2: Quantify the Issue Types of Data Sources

- Vital Statistics
- Reportable diseases
- Screening surveys
- Disease registries
- Morbidity surveys
- Hospital Data
- Other

## Step 2: Quantify the Issue Types of Data Sources

- Vital Statistics
  - Birth and death statistics
  - Reported to CDC & compiled regularly
  - Limitations to mortality data
    - Chronic illnesses
    - Multiple cases of death
    - Lack of standardization of diagnosis criteria
    - Stigmas attached to certain diseases
    - Completeness of records
    - Changes in ICD codes over time

## Step 2: Quantify the Issue Types of Data Sources

- Vital Statistics (cont'd)
  - Limitations to birth data
    - Birth certificates have changed over time
      - Ex: 1993-1994 birth data
      - <http://www.sph.uth.tmc.edu/charting/caveats.htm>
    - Incomplete birth certificates
      - Midwives in south Texas?
    - Self-reported data
      - Alcohol/smoking during pregnancy

## Vital Statistics

- Reportable diseases
  - Lists of notifiable diseases at <http://www.cdc.gov/epo/dphsi/phs/infdis.htm>
  - Limitations
    - Changes throughout the years
      - Chlamydia example
    - Data only as good as reporting
    - Medical attention not always sought

## Step 2: Quantify the Issue

### Types of Data Sources

- Registries
  - Tracks all occurrences of type of disease or condition or category of disease or condition
    - Birth defects
    - Cancer
      - SEER
- Limitation
  - Cooperation of agencies and medical facilities as well as adequate funding.

## Step 2: Quantify the Issue

### Types of Data Sources

- Screening surveys
  - Ad hoc basis
  - Health fairs (community or employer-based)
  - Limitations
    - Consistency of data gathering
    - Permission for data use

## Step 2: Quantify the Issue Types of Data Sources

- Morbidity Surveys
  - Sample data
  - National Health And Nutrition Examination Survey, National Health Interview Survey, BRFSS, YRBSS, National Survey on Drug Use & Health

## Step 2: Quantify the Issue Types of Data Sources

- Hospital Discharge Data
  - Track chronic conditions that lead to hospital stays without mortality
    - Strokes, asthma, heart attacks, etc.
  - Limitations
    - Purchase from the state
      - <http://www.dshs.state.tx.us/thcic/hospitals/HospitalData.shtm>
    - Confidentiality issues

## Step 2: Quantify the Issue

### Types of Data Sources

- Volunteer Providers
  - Can be just-in-time for non-notifiable diseases
  - “Task force” oriented, i.e. system created to meet a specific need during a specific time

#### Other

- Linked records
  - Birth/infant death

## Step 2: Quantify the Issue

### Sources Consulted

- Buehler, J.W. (1998). Surveillance. In: Rothman KJ, Greenland S. Modern epidemiology (3rd ed., 435-57). Philadelphia, PA: Lippencott-Raven.
- Friis, R.H. and Sellers, T.A. (2009). Sources of Data for Use in Epidemiology. *Epidemiology for Public Health Practice*. (4th ed.). Boston: Jones & Bartlett.

## Step 2: Quantify the Issue How to Access Data Sources

CHARTing Home

CHARTing Partners

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Common Data Problems

Glossary of Terms

Rates & Formulas

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**Data for:**

Cause of Illness or Death

Maternal & Child Health

Sociodemographic & Community Characteristics

Environmental Data

Other Resources

- CHARTing Health Information for Texas
  - Links to county level data covering a broad variety of data

<http://www.sph.uth.tmc.edu/charting>

## Step 2: Quantify the Issue CHARTing: Data for Cause of Illness

CHARTing Home

CHARTing Partners

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Common Data Problems

Glossary of Terms

Rates & Formulas

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**Data for:**

Cause of Illness or Death

Maternal & Child Health

Sociodemographic & Community Characteristics

Environmental Data

Other Resources

- [Mortality Data-- All Causes](#)
- [Cancer](#)
- [Cardiovascular Disease](#)
- [Other Chronic Diseases](#)
- [Infectious Diseases](#)
- [Maternal Health, Childbirth, and Children](#)
- [Occupational Health Data](#)
- [Sexually Transmitted Infections](#)
- [Suicide, Accidents, and Injuries](#)
- [Other Sources](#)

## Step 2: Quantify the Issue

### CHARTing: Data for Cause of Illness

#### Mortality Data-- All Causes

[County Overviews](#)  
[Cancer](#)  
[Cardiovascular Disease](#)  
[Other Chronic Diseases](#)  
[Infectious Diseases](#)  
[Maternal Health, Childbirth, and Children](#)  
[Occupational Health Data](#)  
[Sexually Transmitted Infections \(including](#)  
[Suicide, Accidents, and Injuries](#)  
[Other Causes](#)

## Step 2: Quantify the Issue

### CHARTing: Mortality Data

- Big 3 for mortality
  - CDC Wonder
  - Texas Health Data: Death Data
    - TDSHS
  - VitalWeb
- All cover underlying (i.e. *single*) cause
- Multiple cause data difficult to get
  - HP2010 target for diabetes mortality
    - All-cause mortality

## Step 2: Quantify the Issue CHARTing: Birth Data

- Big 3 birth data sources
  - CDC Wonder
  - Texas Health Data: Birth Data
    - TDSHS
  - VitalWeb
- Other types of data
  - Birth defects
  - Fetal mortality
  - Linked birth/death data

Cause of Illness or Death

Maternal & Child Health

Sociodemographic &  
Community Characteristics

Environmental Data

## Step 2: Quantify the Issue HP2010 Workbook

- Excel Spreadsheet (1997-2003 format)
- Includes *select* focus areas (out of 28) from *select* HP 2010 objectives (out of 467)
- Has data for HP2010 target, US, & Texas
- Links to source of county-level data

Other Resources

Handouts

HP2010 Workbook (Excel)

Data from Other States

## Step 2: Quantify the Issue HP2010 Workbook-- Benefits

- Create an overview of county health issues
- Links to HP2010 objectives information
  - Help set realistic program goals
- Quickly determine information gaps
- Sources of comparison
  - US → Texas → County

## Step 2: Quantify the Issue HP2010 Workbook

- Table of Contents
  - About Your County
  - Census Links and Tables
  - Neighborhood Demographics
  - Access to Health Care
  - Cancer
  - Diabetes
  - Environmental Health
  - Heart Disease and Stroke

## Step 2: Quantify the Issue HP2010 Workbook

- Table of Contents (*cont'd*)
  - HIV
  - Immunization and Disease
  - Injury & Violence Prevention
  - Mental Health and Disorders
  - Nutrition & Overweight
  - Occupational Safety & Health
  - Oral Health
  - Sexually Transmitted Disease
  - Substance Abuse
  - Tobacco Use

## Questions?

<http://www.sph.uth.tmc.edu/charting>