

Evidence-Based Public Health Practice: Using Research and Data to Improve Your Programs

Week 2: Data Sources

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Week 2: Agenda

- Week 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

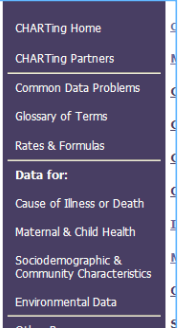
- Linked records
 - Birth/infant death

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

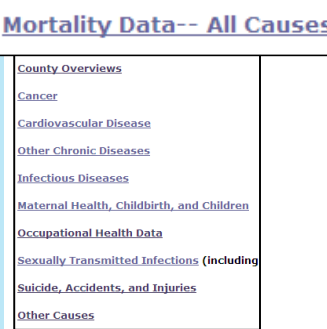
- CHARTing Health Information for Texas
 - Links to county level data covering a broad variety of data



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



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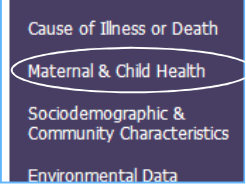


Step 2: Quantify the Issue CHARTing: Mortality Data

- 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

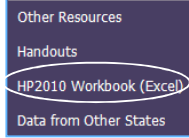
Step 2: Quantify the Issue CHARTing: Birth Data

- 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



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



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>