PHC 6003: Epidemiology Prevention of Chronic Disease

Guest Lecture:
Precision Public Health Library Guide
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What is Precision Public Health?

"If precision medicine is about providing the right treatment to the right patient at the right time, precision public health can be simply viewed as providing the right intervention to the right population at the right time." - Dr. Muin Khoury

**Precision Medicine and Precision Public Health: Two Peas in a Pod**
PPH@UF

• In early 2017 a precision public health initiative was established at the University of Florida

• The initiative integrated university-wide programs to develop an infrastructure for PPH research and practice

• Working with external consultants, such as Dr. Khoury, Director of the CDC's Office of Public Health Genomics, the workgroup is developing tools and methods to promote precision public health research and practice at UF

• The workgroup is sponsoring and mentoring MPH interns in the development of PPH focused case studies

• These case studies are reverse-engineered and methodologies disseminated on this Library Guide
PRINCIPLES OF “FAIR DATA”

FAIR Data Challenges

• Time to find relevant high-quality data
• Lengthy complex data access procedures
• Paywalls make access costly
• Re-use copyright/lack of data sharing
• Data alignment (periodicity and granularity)
• Interoperable data formats
PPH@UF- Library Guide

• Publicly available

• Access via Health Science Center Library website:
  • Library.health@ufl.edu
  • Select tab “Need Help?”
  • LibGuides > Public Health > Precision Public Health

Direct access via URL
https://guides.uflib.ufl.edu/precisionpublichealth
Public Health Surveillance

• “Public health surveillance is the ongoing, systematic collection, analysis, interpretation, and dissemination of data regarding a health-related event for use in public health action to reduce morbidity and mortality and to improve health”- Centers for Disease Control

• Data disseminated by a public health surveillance system can be used for immediate public health action, program planning and evaluation, and formulating research hypotheses.
Uses of public health surveillance data

• Guide immediate action
• Measure the burden of a disease
• Monitor trends in the burden of a disease
• Guide the planning, implementation, and evaluation of programs
• Evaluate public policy
• Detect changes in health practices and the effects of these changes
• Prioritize the allocation of health resources
• Describe the clinical course of disease
• Provide a basis for epidemiologic research

Reference: https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5013a1.htm
Public Surveillance Data

http://guides.uflib.ufl.edu/precisionpublichealth/datalibrary

SURVEILLANCE & INJURY SURVEILLANCE

https://wonder.cdc.gov/ (Wide-ranging Online Data for Epidemiological Research)
https://nsduhweb.rti.org/respweb/homepage.cfm (National Survey of Drug use and health)
https://www.samhsa.gov/data/ (Substance Abuse and Mental Health)
https://www.nfirs.fema.gov/ (National Fire Incident Reporting System)
https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars (Fatality Analysis Reporting System)
https://www.facs.org/quality-programs/trauma/top/center-programs/ntdb (National Trauma Databank)
https://nemsis.org/ (National Emergency Medical Services Information System)
https://www.bls.gov/iif/oshcoi1.htm (Census of Fatal Occupational Injuries)
https://aapcc.org/data-system (American Association of Poison Control Centers)
https://www.cdc.gov/nssp/index.html (National Syndromic Surveillance Program)
https://www.cdc.gov/chronicdisease/data/surveillance.htm (Chronic Disease Surveillance)
https://www.cdc.gov/surveillancepractice/a_z.html (CDC Surveillance Resource Center A-Z Index)
Florida Charts
Community Health Assessment Resource Tool Set

### Coronary Heart Disease Deaths

#### Cause of Death
- **Year**: 2017
- **Rate Type**: Age-Adjusted
- **Measure Type**: Single Year
- **Age Range**: select ages
- **10-Year report**: View 10 year report

#### Alachua County vs Florida

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<th>Count</th>
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#### Coronary Heart Disease Age-Adjusted Death Rate, Single Year Rates

- **Florida**: 92.9
- **60.0 - 84.0**: 105.5
- **84.0 - 95.0**: 105.5
- **96.0 - 120.0**: 105.5
- **120.0 - 220.0**: 105.5
Public Health Surveillance Dataset

- National Health Interview Survey (NHIS) - National Cardiovascular Disease Surveillance Dataset
# About this Dataset

**Updated**  
**July 9, 2018**

**Data Last Updated**  
June 27, 2017

**Metadata Last Updated**  
July 9, 2018

**Date Created**  
June 24, 2016

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**Common Core**

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**Data Dictionary**

https://chronicdata.cdc.gov/Heart-Disease-Stroke-Prevention/National-Health-Interview-Survey-NHIS-National-Car/fwms-azgu

**References**

- https://www.cdc.gov/dhdsp/index.htm
- https://www.cdc.gov/dhdsp/maps/dtm/data_sources.htm

**Dataset Information**

**Glossary/Methodology**

https://www.cdc.gov/dhdsp/maps/dtm/glossary.htm
Access/ Interoperable
Dataset Formats

Data and Resources

- csv
- rdf
- json
- xml

http://guides.uflib.ufl.edu/precisionpublichealth/dataformats
More and More Data

• Check the LibGuide often always adding more data

• This tool is currently being developed into an open data catalog
  • Will expose more information about the data (curation and metadata)
    • improves researchers selection of relevant data sources
    • = more time to devote to solving complex public health issues
Questions?

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https://guides.uflib.ufl.edu/precisionpublichealth