

# NCHS Data Access Tools

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Office of the Director Intern

NCHS Board of Scientific Counselors Meeting

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# Purpose of Internship

- **Review the various data access tools at NCHS**
  - Include both those in use and in development
  - Describe
    - Purpose
    - Audience
    - Data included
    - Cost
    - Usage
- **Review tools from other statistical agencies**
- **Suggest methods for providing users information to help decide what tool to use**

## List of Access Tools

- **Active**

- Data Online Query System (DOQS)
- Health Data Interactive (HDI)
- Healthy People 2020
- Health Indicators Warehouse (HIW)
- Web-based Injury Statistics Query and Reporting System (WISQARS)
- CDC Wide-ranging Online Data for Epidemiologic Research (WONDER)
- VitalStats

- **In progress**

- Online Analytic Real time System (OARS)

## List of Access Tools (cont.)

- **Tools that do not provide data estimates**
  - NCHS Survey Measures Catalog
  - Resource Query Tool (in progress)
  - ICD-10-CM look-up tool (in progress)
  
- **Data/databases that are not access tools**
  - National Death Index
  - Linked data
  - Compressed Mortality File

## Overview of current access tools

Data system	DOQS	HDI	HP2020	HIW	WISQARS	WONDER	VitalStats	OARS
NHANES		*	*	*				
NHCS	# (ED-only)	*	*	*				
NVSS-mortality		*	*	*	#	§		
NVSS-natality		*	*	*		§	§	
NSFG			*	*				
NHIS		*	*	*				§
SLAITS			*	*				

Legend:

Select pre-tabulated estimates \*

Limited query system #

Extensive query system §

# **OVERVIEW OF TOOLS**

## **Data Online Query System (DOQS)**

- **Query system on selected group of variables**
- **Targets non-statistical users needing health care estimates**
- **Currently 2005-2010 NHAMCS-ED only**
- **Launched in 2014**
- **Approximately 150 users/month**
- **Uses free software from Utah DOH, plus 2 staff FTE**

**<http://www.cdc.gov/nchs/doqs/index.htm>**

## Health Data Interactive (HDI)

- Pre-tabulated estimates in modifiable tables
- Targets non-statistical users of health estimates
- Includes data from almost all NCHS data systems
- On-going for over 15 years
- Approximately 8000 users/month
- Approximately \$23K for contract, plus one contract programmer and 2 FTE

<http://www.cdc.gov/nchs/hdi.htm>

## Healthy People 2020

- Pre-tabulated estimates in tables
- Targets people interested in HP2020 objectives; non-statistical
- Includes data from NCHS as well as other governmental and non-governmental sources
- New for this decade
- Sponsored by ODPHP; cost is in NCHS FTEs

<http://www.healthypeople.gov/2020/data-search/Search-the-Data>

## **Health Indicators Warehouse (HIW)**

- **Pre-tabulated estimates**
- **Targets non-statistical users wanting health-related estimates and the developer community**
- **Only NCHS project providing API access to data**
- **Includes data from approximately 180 data systems**
- **Initially released in 2011**
- **Almost 10,000 users/month**
- **Approximately \$525K for contract, 3 staff FTE and other staff providing data from Health United States and HP2020**

**<http://www.healthindicators.gov/>**

# Web-based Injury Statistics Query and Reporting System (WISQARS)

- Limited query system
- Targets non-statistical persons interested in injury estimates
- Mortality data from NCHS, but also other data sources
- Fairly long-term project
- No cost to NCHS

<http://www.cdc.gov/injury/wisqars/index.html>

## VitalStats

- Data file extract to create modifiable tables
- Targets internal and external persons with some knowledge of natality data
- Includes data from fetal deaths and births
- On-going for over 8 years
- Approximately 3000 users/month
- Approximately \$23K for contract, approximately 2 weeks of staff time

<http://www.cdc.gov/nchs/VitalStats.htm>

## **CDC WONDER**

- **In-depth query system sponsored by CSELS**
- **Targets persons with some knowledge of statistical and health terms**
- **Includes data from NVSS**
- **Long-term project**
- **Approximately 50.1K queries/month for NCHS data**
- **No cost to NCHS. Some staff time involved in data uploads**

**<http://wonder.cdc.gov/>**

## **Online Analytic Real time System (OARS)**

- **In-depth query system**
- **Targets persons interested in State estimates from NHIS**
- **Includes data from NHIS, public data plus state and detailed race variables**
- **Still in development**
- **Involved analysis including perturbing data, cell size checks**
- **Annual cost not yet determined**

**[OARS developmental site](#)**

# **REVIEW OF NCHS INTERNET SITE**

## DATA ACCESS

CDC WONDER

Data Linkage

Data Visualization Gallery

Health Data Interactive

Health Indicators Warehouse 

National Death Index

Public-use Data Files

Research Data Center

VitalStats

- Home page section on data access includes
  - Tools
  - Data
  - Type of access

## Data Access

### Data Access

Data Linkage

Interactive Tables and Databases

National Death Index

Public-Use Data Files

### Related Sites

[NCHS Data Visualization Gallery](#)

[Research Data Center](#)

[NCHS Home](#)



## Accessing Data from the National Center for Health Statistics

[NCHS Data Access and Resources Guide](#) [PDF - 477 KB]

The National Center for Health Statistics (NCHS) supports biomedical and health services research by providing researchers with access to important health statistics information and data from our surveys, indexes, and record linkage program.

We disseminate public-use data files through interactive tables, online querying tools, and direct download through our FTP file server. Our Research Data Center allows access to restricted data and offers several modes of access on-site at our facility.

In this Data Access section, you will find a full complement of resources and tools to aid you in your research. Please explore the navigation bar (left) to find the one best suited to your research needs. Each component provides a full description of services offered, instructions for accessing data, and contact information in case you have any questions.

The mission of the NCHS is to provide statistical information that will guide actions and policies to

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### Contact Us:

National Center for Health Statistics  
3311 Toledo Rd  
Room 5419  
Hyattsville, MD 20782-2064

1 (800) 232-4636

TTY:

1 (888) 232-6348

[Contact CDC-INFO](#)

- Data access page
  - Tools
  - Data
  - One type of access

## Data Access

### Data Access

Data Linkage

### ► Interactive Tables and Databases

NCHS DOQS

Health Data Interactive

VitalStats

National Death Index

Public-Use Data Files

### Related Sites

[NCHS Data Visualization Gallery](#)

[Research Data Center](#)

### Important Information

[Data Release Policy](#)

[Data User Agreement](#)

[NCHS Home](#) > [Data Access](#)



## Interactive Tables and Databases

NCHS provides researchers with important health data through specialized data access tools and resources, including microdata, tables, and reports.



[Health Data Interactive](#) provides tables with national health statistics for infants, children, adolescents, adults, and older adults. Tables can be customized by age, gender, race/ethnicity, and geographic location to explore different trends and patterns.



[VitalStats](#) is a collection of vital statistics products (including tables, data files, and reports) that allows users to access and examine vital statistics and population data interactively. Users can access prebuilt tables and reports for quick access to statistics. Data files can also be used to create tables by choosing from over 100 variables.



[The Health Indicators Warehouse](#) serves as the federal data hub for measurable characteristics that describe the health of a population (such as life expectancy, mortality, disease incidence or prevalence, or other health states); determinants of health (such as health behaviors, health risk factors, physical environments, and socioeconomic environments); and health care access, quality, and use.

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- Interactive Tables and Databases page
  - DOQS appears
  - Different tools on left navigation bar and list

## **Internet Review Process**

- **Oversite of Internet pages not formally established**
- **Work group formed**
  - Representatives from all Divisions/Offices in Center
- **Purpose**
  - Review current site and suggest changes/modifications
  - Recommend process for ongoing oversight
- **Group had first meeting in the beginning of Sept**

# **CONCLUSIONS**

## **Preliminary Data Access Conclusions**

- **All data sources are represented in interactive table systems**
- **Some data systems not represented in query systems**
- **Each tool unique, requiring separate learning curve**
- **Tools created outside of data divisions**
  - Tend to be more topic oriented
  - Have not received assistance or standardized vetting from data source staff
- **Data access also involves raw data access by non-researchers**
  - Clear and complete metatags
  - Open format files

## **Next Steps**

- **Write-up full descriptions of access tools**
- **Create text to include on Interactive Tools and Databases page to guide users**
- **Lead internet work group**
- **Co-organize a discussion of data access tools during Interchange meeting in November**
- **Co-head work group of federal statistical agencies on data tools**