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Access Local Health Data Using the Colorado Health Information Dataset (CoHID)

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Introduction

The need for access to population-based health data at the community level is crucial for monitoring health status and planning interventions.[1-4] The actual availability of such data falls far short of the ideal. In the United States, collection, analysis, reporting, and transfer of health data at the state and national levels occurs regularly.[3] However, data are not routinely published at the local or community level.

Several state health departments have developed interactive database query systems for use by the general public, public health practitioners, and research communities.[5] These systems often give users the ability to select different geographic levels when they query the data. Ongoing evaluations and new initiatives by governmental agencies encourage further development and use of such systems by state health departments.

Colorado Health Information Dataset

The Colorado Health Information Dataset (CoHID) is a combined effort of local and state public health agencies. Its purpose is to provide health and demographic data for review and analysis. Using Internet-based technologies, users may query and summarize from a variety of datasets. CoHID resides within the Center for Health & Environmental Information and Statistics (CHEIS), a division of the Colorado Department of Public Health and Environment (CDPHE), and has been supported by Preventive

Sample of data set variables on CoHID:

Birth Statistics
Low-weight births
Teen births
Entry into prenatal care
Pre-term births
Parents' race/ethnicity, age and education

Death Statistics
All causes of deaths
Race/ethnicity
Age
Gender
Age-adjusted rates

Population Statistics
Age
Gender

Behavioral Risk Factors
Alcohol, tobacco and drug use
High blood pressure
Cholesterol
Cancer screening
Physical activity
Overweight
Nutrition
Health insurance
Dental care
Diabetes
And more!

Birth Defects Statistics
Mother's age
Race/ethnicity
Year of event
Diagnostic category

Cancer Incidence Statistics
Age
Race/ethnicity
Gender
Cancer site
Year

Health Block Grant and Health Alert Network/Training funds. CoHID's governing board, which includes representatives from both local and state health agencies, sets priorities for the addition of new modules and features to CoHID.

Basic Technical Facts About CoHID

CoHID is an interactive, Web-based data mart application. Built on HTML forms, it uses both client-side (Javascript) and server-side (SQL, CGI) scripting to fulfill a user's request. SAS/IntrNet® is the server application that brokers the data. Upon submission of a completed form from a user's browser, a customized Web page is dynamically served back, based on the queries contained in the submitted form.

CoHID was primarily designed for non-technical users. Using standard HTML form elements such as drop-down menus, radio buttons and text boxes, the user may choose from a number of data sets. The rapid return of results to the user's browser encourages further exploration. Contextual assistance is available if the user has difficulties understanding the data, interpreting results, or building a successful query.

How to Use CoHID

Currently available data sets include birth, death, population, behavioral risk factor statistics, birth defects, and cancer incidence. Plans are in place to add more datasets to CoHID each year. Under development now, injury hospitalizations and the Colorado Pregnancy Risk Assessment Monitoring System (PRAMS) will be available by summer 2003.

For technical reasons, it is necessary to use Microsoft® Internet Explorer to query CoHID at this time. The following are procedures can be used to generate community level health statistics from CoHID.

A. Open the CoHID home page directly at www.cdphe.state.co.us/cohid/ or through the Health Statistics Section page at www.cdphe.state.co.us/hs.

A. CoHID home page

B. Select a data set from the list on the left side of the page. The query page of the selected data set will appear on your computer screen. Begin building the query by following the instructions on the query page. The following example uses the birth statistics data set.

Step 1: Select an area or areas for which you would like to get information. If you want to get statistics about particular zip codes, you need to first select Colorado as your area or a county to which the zip codes correspond, and then enter the five-digit zip codes. Currently, you must limit your choice of areas to six or fewer areas on the birth, death, and population data sets. In this example, three counties (Boulder, Denver, and Gunnison) are selected, and no zip codes are entered.

Step 2: Select a year or a range of years. In this example, data for 1998-2001 will be returned.

Step 3: Select mother's race/ethnicity, mother's education, mother's age, and prenatal care. For mother's age, you can either select from the predetermined age categories or enter your own age range.

Step 3.	Mother's Characteristics	
		Maternal Race
		All ▾
		Maternal Ethnicity
		All ▾
		Maternal Education
		All ▲ / 0 - 8 years ▾
		Maternal Age
		All ▾
		or Minimum Age Maximum Age
		[ ] [ ]
		Prenatal Care
		All ▲ / 1st month ▾

Step 4: Select baby's characteristics such as gender of baby, birth weight, gestational age, and plurality of birth. If weight of baby is selected from the list of predetermined categories, the selection for "Low Birth Weight Category" needs to be "Not Selected."

Step 4.	Baby's Characteristics	Gender of Baby
		All ▾
		Low Birth Weight Category
		Not Selected ▾
		or Weight of Baby
		All ▲ / <500 grams ▾
		Gestational Age
		All ▲ / Under 20 weeks ▾
		Plurality of Birth
		☑ All ☐ Singleton ☐ Twin ☐ Triplet
		☐ Quadruplet ☐ Quintuplet or higher

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Step 5: Select father's race/ethnicity, education, and age.

Step 6: If a general fertility rate is desired, check the "yes" box. The fertility rate is measured by the number of live births per 1,000 women of childbearing age (commonly ages 15-44). An age-specific rate can be calculated to measure change for a particular age group.

Step 7: Decide how the results will be displayed. On the CoHID birth data set, the data can be displayed by county, year, or maternal age. In this example, county is selected so the results will be displayed by county.
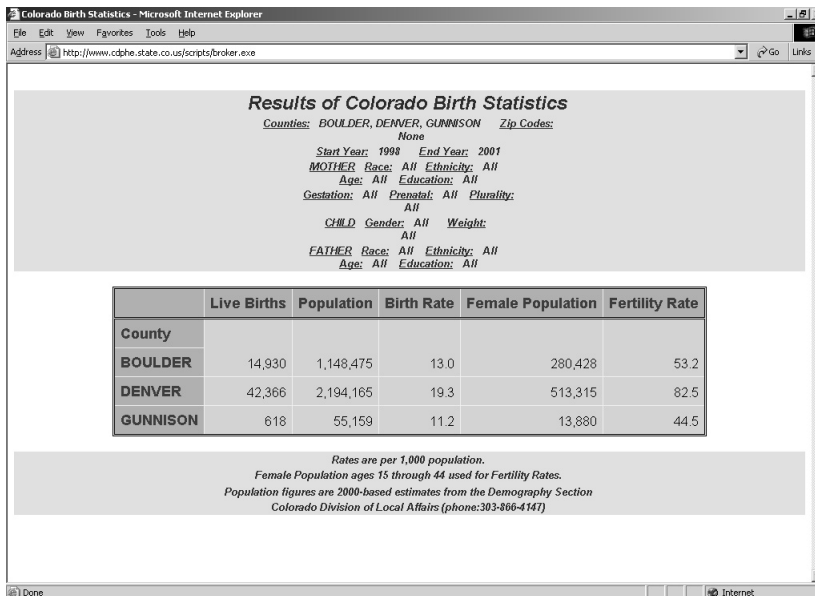

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Step 8: If a customized title is desired on the results page, enter the title here. Otherwise, leave the box blank and the predetermined title will be displayed on the results page.

Step 8.	Report Title	(Optional) Type in your preferred Report Title

C. Click the "Submit" button. Depending on the query you are running, you should get the results back within seconds to several minutes.

C. Sample results page

Results of Colorado Birth Statistics

Counties: BOULDER, DENVER, GUNNISON   Zip Codes: None
Start Year: 1998   End Year: 2001
MOTHER Race: All Ethnicity: All
Age: All Education: All
Gestation: All Prenatal: All Plurality: All
CHILD Gender: All   Weight: All
FATHER Race: All Ethnicity: All
Age: All Education: All

County	Live Births	Population	Birth Rate	Female Population	Fertility Rate
BOULDER	14,930	1,148,475	13.0	280,428	53.2
DENVER	42,366	2,194,165	19.3	513,315	82.5
GUNNISON	618	55,159	11.2	13,880	44.5

Rates are per 1,000 population.
Female Population ages 15 through 44 used for Fertility Rates.
Population figures are 2000-based estimates from the Demography Section
Colorado Division of Local Affairs (phone:303-866-4147)

The CoHID home page provides links to detailed information about each data set, as well as definitions of terms, descriptions of statistical methods, and guidance in the interpretations of results. Links to some local health departments, state and national resources are also available.

For more information or questions, please contact the CoHID development team at cohid@state.co.us or the Health Statistics Section at 303-692-2160.

References

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