

CDC Wonder - Introduction

Welcome to the Data Science Tasksheet Series. This series supplements the Iowa State University Geospatial Technology Training Program short course series. The tasksheets are designed to provide quick, easy instructions for performing mapping and data analysis tasks.

The Center of Disease Control and Prevention (CDC) a public health institute is a subsidiary of the Department of Health and Human Services. The CDC offers health related data to the public available at the CDC WONDER (Wide-ranging Online Data for Epidemiologic Research) website for free. In this tasksheet you will learn how to navigate the CDC Wonder website. You will explore CDC datasets then filter and refine your data to specific regions and causes. Finally displaying the results in a data table to observe and sort.

1. Getting Started

- Navigate to <https://wonder.cdc.gov>. To access the CDC Wonder homepage.
- In the center of the page are links to different datasets. Select **Detailed Mortality**, or **Compressed Mortality** depending on your dataset needs.
- You can read the dataset documentation for Detailed Mortality here: <https://wonder.cdc.gov/wonder/help/ucd.html#>, and for Compressed Mortality here: <https://wonder.cdc.gov/wonder/help/cmf.html>. This tasksheet will show the **Detailed Mortality** data.
- After clicking Detailed Mortality, on the next page read through the Data Use Restrictions and select **I Agree** to continue.

The screenshot shows the CDC WONDER homepage. The 'Underlying Cause of Death' link is circled in red. Below the homepage, there is a section titled 'About Underlying Cause of Death, 1999-2018' which includes a 'Data Use Restrictions' section. The 'I Agree' button is circled in red.

2. Organizing Table Layout

- To select mortality data by county and by state, select **State** in the **Group Results By** box, and select **County** for the second box below. Notice: *State must come before County in the selection.*

3. Select Location

- The next options below filters your area of interest. To select all the counties in Iowa and the state total, select **Iowa** from the list of states, then click the **Open** button. A list of all the counties will expand below.
- From the list click on **19197 (Wright County, IA)** to highlight and select it. Scroll to the top of the county list, then holding down the Shift key, click on **19 Iowa**. This should highlight and select the whole list of counties including the state.

The screenshot shows the 'Organize table layout' section of the CDC WONDER website. The 'Iowa' option is selected in the 'Group Results By' box. The '19197 (Wright County, IA)' option is selected in the 'Select location' box. The 'Open' button is highlighted.

- c. Scroll through the Currently Selected box to make sure all the counties you want are included in the selection.
- d. If you are not interested in selecting data by different demographics characteristics, you can skip box 3 Select Demographics, and move on to box 4 Select year and month.

4. Select Year and Month

- a. Click on a year to select it. Again, you can use the Shift or Control Keys to select a range or multiple years of data. Select the range of years **2014-2018**. Notice: the data will be aggregated for the time frame you select. If you are interested in data for a specific month, select a year and click the Open button to access the months.
- b. If you are not interested in filtering by day of week, autopsy, or place of death skip box 5.

5. Select Cause of Death

- a. In this section you can select the cause of death by choosing the **ICD-10 Codes** or by selecting **Drug/Alcohol Induced Causes**. For example, if you wanted to select all accidental deaths due to falls, you would open the **V01-Y89** category, then open **W00-W59** and select the **W00-W19 (Falls)** category.
- b. For this tasksheet the **Drug/Alcohol Induced Causes** radio button is selected. Both **Drug-induced causes** and **Alcohol-induced causes** are selected.

6. Other Options

- a. If you want your results to display every county you selected, make sure to check the **Show Zero Values** and **Show Suppressed Values** boxes. When your query is completed, click the **Send** button.
- b. Your results table will show the state, county, number of deaths, population, and the crude rate per 100,000 people.

CDC Centers for Disease Control and Prevention
ICD-10: Leading Causes, Reporting Hospital

CDC WONDER

Underlying Cause of Death, 1999-2018 Results

State	County	Deaths	Population	Crude Rate Per 100,000
Iowa (19)	Adair County, IA (19001)	15	15,891	Unsuppressed
Iowa (19)	Adair County, IA (19002)	Suppressed	15,891	Suppressed
Iowa (19)	Adair County, IA (19003)	20	65,524	28.8
Iowa (19)	Adair County, IA (19004)	Suppressed	62,441	Suppressed
Iowa (19)	Adair County, IA (19005)	11	28,329	Unsuppressed
Iowa (19)	Adair County, IA (19006)	27	128,321	21.0
Iowa (19)	Adair County, IA (19007)	111	864,312	16.7
Iowa (19)	Adair County, IA (19008)	20	114,408	21.1
Iowa (19)	Adair County, IA (19009)	12	124,099	Unsuppressed
Iowa (19)	Adair County, IA (19010)	17	105,493	Unsuppressed
Iowa (19)	Adair County, IA (19011)	12	105,387	Unsuppressed
Iowa (19)	Adair County, IA (19012)	11	73,857	Unsuppressed
Iowa (19)	Adair County, IA (19013)	10	48,975	Unsuppressed
Iowa (19)	Adair County, IA (19014)	Suppressed	105,871	Suppressed
Iowa (19)	Adair County, IA (19015)	19	66,107	Unsuppressed
Iowa (19)	Adair County, IA (19016)	15	92,375	Unsuppressed
Iowa (19)	Adair County, IA (19017)	63	214,594	28.6
Iowa (19)	Adair County, IA (19018)	13	17,555	Unsuppressed
Iowa (19)	Adair County, IA (19019)	Suppressed	66,357	Suppressed
Iowa (19)	Adair County, IA (19020)	Suppressed	66,357	Suppressed
Iowa (19)	Adair County, IA (19021)	15	81,839	Unsuppressed
Iowa (19)	Adair County, IA (19022)	15	88,119	Unsuppressed
Iowa (19)	Adair County, IA (19023)	49	216,636	20.7
Iowa (19)	Adair County, IA (19024)	12	65,476	Unsuppressed
Iowa (19)	Adair County, IA (19025)	50	419,464	11.9

- c. Notice: if you selected multiple years the population is aggregated so that it can be accurately compared to the number of deaths for the crude rate data field. Deaths are also aggregated and are reflective of the filter/query you selected.

Contact:

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