DEPARTMENT OF HEALTH

Keyboard-only and Assistive Technology Users

GUIDE FOR NAVIGATING AND ACCESSING DATA FROM MDH DATA VISUALIZATIONS

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Background

Minnesota Department of Health (MDH) is increasing use of data visualizations to convey trends in data it collects on various Minnesota health measures. In the past, data were usually reported in PDF documents or on HTML webpages. The option of using newer data visualization software products like Tableau allows more options for depicting data to be shared, but instructions may be needed for people who cannot view the data or use a mouse.

This document provides some tips for accessing data directly from a data visualization without the use of a mouse, though these tips may not function adequately for all data sets or all users. Anyone who would like to obtain data from a visualization in an alternative format is invited to contact the MDH program that created the document to make a request. Please have a description of the data that you are trying to access so that we can find the appropriate staff to fulfill your request.

Tips for Accessing Data from a Data Visualization

The data visualizations are often assembled into a group of components called a dashboard. Tableau dashboards appearing on MDH's website can be navigated by using the "Tab" key. For screen reader users, the Heading 1 (Title) of the Tableau dashboard should be announced before proceeding into the other components of the dashboard.

Filters

Filters allow a person accessing the dashboard to select subsets of the data that interests them most. Examples of filters are drop-down menus, check boxes, and radio buttons. These filters can be reached by tabbing to them. Filter names and the state of the filter (such as "collapsed" or "check-box unchecked") are announced by assistive technologies such as a screen reader. By using a combination of the space bar, arrow keys, and tab, users can make selections from the filters. (Assistive technology will announce instructions that Tableau has included.) At times, the filters are difficult to exit when using keyboard-only. We suggest using the Escape key to "back out" of the filter, then using the Tab key to continue within the browser. MDH has been communicating with Tableau to suggest improvements for this issue.

Graphics

Data are often presented as bar charts, tables, maps, pie charts, or a combination of various data visual presentation methods. In some cases, within these graphics more data is available for users who can use a mouse to hover over the graphic. For example, a mouse can be used to

hover over a specific Minnesota county on a map to show more information about that county. For users who cannot use a mouse to hover over the graphic or those who would like to have the data for more analysis, there are options for downloading the data described below.

Access to Data for Keyboard-only Users

In most cases, users can tab to a graphic containing underlying data by using the Tab key or its equivalent. The graphic will be highlighted with a line around the outside so that visual users who tab to the graphic with the keyboard can identify when the graphic has been selected. On pages with several graphics available, be sure that the graphic has been selected so that the data download option is ready. If the embedded graphic is not selected, the data download option will not be available.

When the graphic is selected, the Enter Key can be pressed to download the data used to create the visualization.

These selections will show up in all of the following graphs/tables.

Number of Self-Harm Injuries by Cause, Year, Visit type: *ED & Hospitalized*, and County: *All*

Select Hospital Visit Type(s)
☑ ED
☑ Hospitalized

	2016 ⤵	2017	2018	2019	2020
Drug poisoning	6,249	6,524	6,279	6,015	5,838
Cut/stabbing	2,608	2,932	2,930	2,799	2,739
Other/unspecified	922	1,114	1,124	984	909
Poisoning, non-drug	345	314	341	278	237
Burn/fire	110	102	99	103	108
Struck by/against	87	91	100	84	52
Suffocation	74	70	79	49	75
Firearm	51	64	66	89	83
Motor vehicle traffic crash	48	52	56	46	41
Fall	48	60	79	69	62
Drowning	7	18	11	12	17
Environmental	6	3	6	6	3
Non-traffic crash	4	11	8	1	4

Select County(ies)
(All) ▼

When the graphic is reached by tabbing, it is highlighted in blue. Tapping the Enter key will show the data in a new browser tab.

Hospital visits for self harm by cause of injury and year. The data are filtered by year: All and county: All.

The data will open in a new tab in a browser. These data can then be explored directly in the browser tab by using the Tab key or the arrow keys. The data can also be downloaded into another software application, such as Microsoft Excel. If the data do not download on the first attempt, try reloading the page and attempt the download again. If the data are still not available, please contact the program that published the data, usually found at the bottom or right side of the page.

Note: At times, an MDH program needs to turn off the data download option for legal reasons. When this is the case, the MDH program should offer the data set used to create the data visualization in another format, such as downloadable spreadsheet. If you need the data in another way, please contact the program that published the data.

Access to Data for Screen Reader Users

Most assistive technology will announce when a graphic has been reached. The title of the graphic should be announced, or the preceding filter should provide context about the content

of the graphic. Tableau has instructions for navigating the graphic that will be announced by the screen reader. A screen reader will announce when a graphic has been reached and will inform the user to select "ESC" to clear data sections. A screen reader will announce to press Enter to open the view data window.

The data will open in a new tab in a browser and should be filtered to match the selection made in the filters. These data can be explored from the browser using the Tab key or the arrow keys, but they can also be downloaded into a spreadsheet or other software for further use or analysis.

Note: At times, an MDH program needs to turn off the data download option for legal reasons. When this is the case, the MDH program should offer the data set used to create the data visualization in another format, such as downloadable spreadsheet. If you need the data in another way, please contact the program that published the data.

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To obtain this information in a different format, call: 651-201-4989.