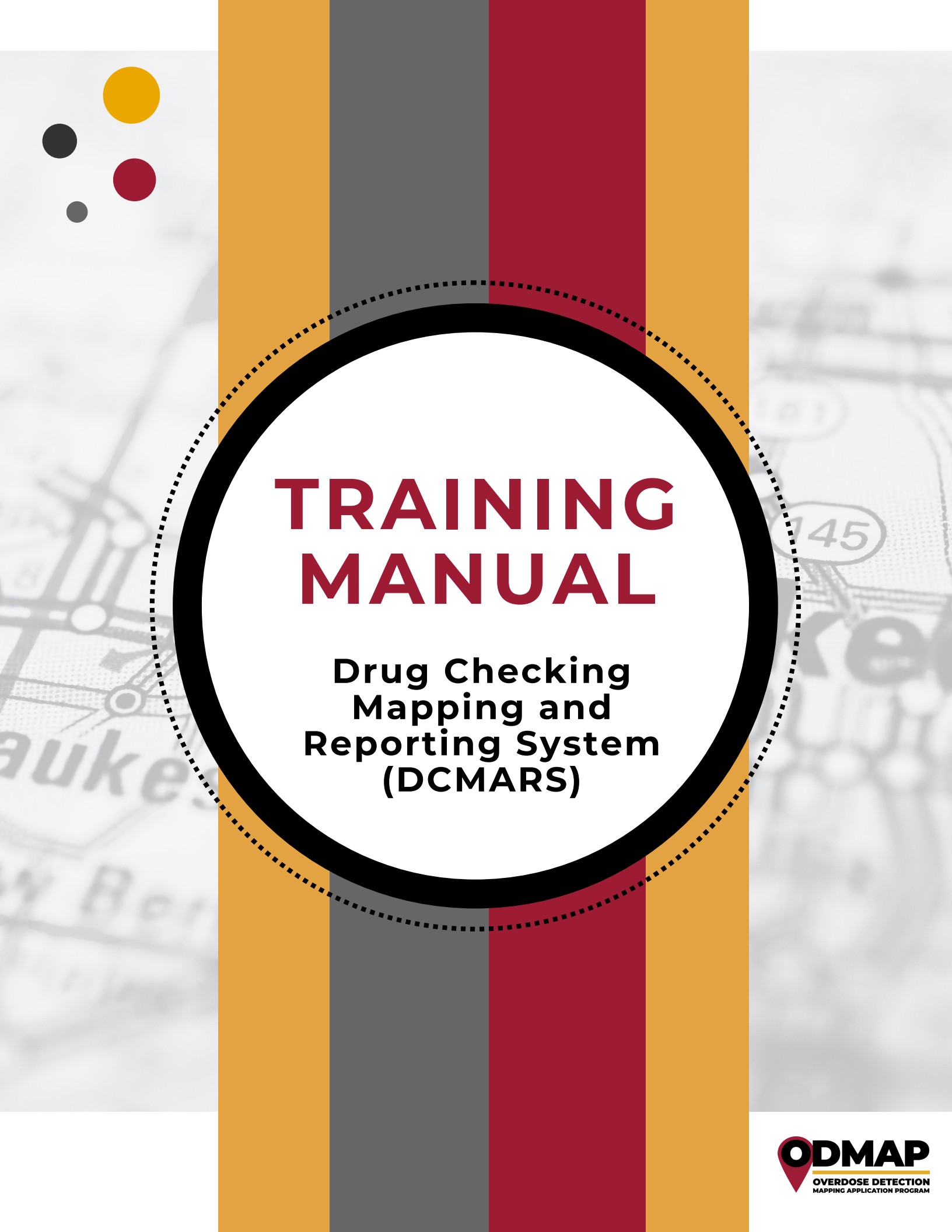




TRAINING MANUAL

**Drug Checking
Mapping and
Reporting System
(DCMARS)**

OVERVIEW

The Drug Checking Mapping and Reporting System (DCMARS) is a near real-time drug-checking data collection and visualization application that is implemented through the Overdose Detection Mapping Application Program (ODMAP). The layer and data collection tool was developed in collaboration with the City of Milwaukee Health Department through their 2022 Comprehensive Opioid, Stimulant, and Substance Use Program (COSSUP) grant, called the Milwaukee Drug Rapid-Testing and Outreach Program (MDROP).

DCMARS allows for agencies to submit, visualize, analyze, and monitor drug checking information in their jurisdiction to support:

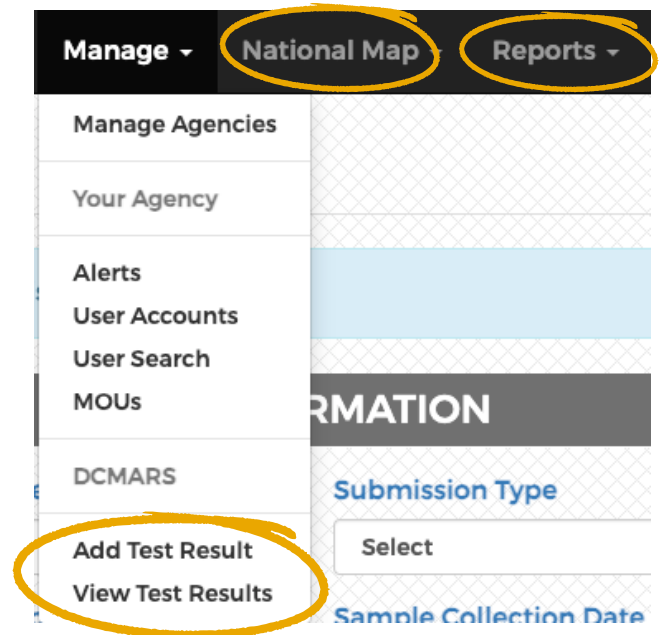
- Increased understanding of changing and emerging polysubstance use trends.
- Education, outreach, and harm reduction efforts based on real-time substance trends.
- Public health and public safety partnerships.

DCMARS contains three components within the ODMAP site:

- **Adding/Viewing Test Results** - allows users to add, view, edit, and delete test results.
- **Drug Checking GIS Layer** - allows users, within the National Map, to select the Drug Checking (Limited Coverage) layer in order to visualize drug checking results by neighborhood in addition to access test information via a pop-up window.
- **DCMARS Reports** - driven by Microsoft Power BI, users have access to a variety of bookmarked reports along with the ability to filter and create personalized visualizations from the drug checking data.

Accessing DCMARS from ODMAP Homepage

- **Add/View Test Results:** Accessed under the "Manage" tab. Specific permissions required to access this page.
- **Drug Checking GIS Layer:** Accessed under the "National Map" tab.
- **DCMARS Reports:** Accessed under the "Reports" tab. Specific permissions required to access this page.



ADDING NEW TEST RESULTS

Adding New Test Result

This section guides users through the process of creating and submitting new test results, detailing each required and optional field. To add a test result, click on “Add Test Result” under the “Manage” tab on the ODMAP homepage. This will take you to the “Create Test Result” page. Here, all fields highlighted in BLUE are required for successful submission.

Case Information:

- **Collection Agency/Site Type:** Select the type of agency or site from which the sample was collected.
- **Collection Agency/Site Name:** Specify the name of the collection agency or site.
- **Submission Type:** Choose the method or type of submission.
- **Case Number:** Enter a unique identifier for the case (e.g., PD12345 or 2025-001).
- **Sample Number:** Provide a unique identifier for the sample.
- **Sample Collection Date:** Enter the date the sample was collected (e.g., 06/26/2025).
- **What was tested:** Specify what was analyzed in the test.
- **Overdose?:** Indicate if the case involves an overdose.

Location Information:

- **Use An Address:** Select this option to manually enter a street address.
- **Use Coordinates:** Select this option to enter latitude and longitude coordinates.
- **Use Neighborhood:** Select this option to specify a neighborhood from the drop-down menu.

ODMAP Home Contact Overdoses Manage National Map Reports Sys Admin Account

Create Test Result

All BLUE fields are required for successful submission of this form.

CASE INFORMATION

Collection Agency/Site Type (Select) **Collection Agency/Site Name** (Select) **Submission Type** (Select)

Case Number (Text) **Sample Number** (Text, Ex: 87UEA31T) **Sample Collection Date** (Text, 06/23/2025) **What was tested** (Select)

Overdose? (Select)

LOCATION INFORMATION

☐ Use An Address
☐ Use Coordinates
☐ Use Neighborhood

SUSPECTED SUBSTANCE INFORMATION

Suspected Substance (Select) **Substance** (Text) **Sensation** (Select) **Sensation** (Text)

Texture (Select) **Texture Description** (Select)

Color/Markings (Text)

ACTUAL SUBSTANCE RESULT

Test Date (Text, MM/DD/YYYY)

Actual Substance (Select) **Substance** (Text)

Notes (Text)

Add Another **Submit**

ADDING AND MANAGING TEST RESULTS

Adding New Test Result, cont.

Suspected Substance Information:

- **Suspected Substance:** Select a suspected substance from the dropdown menu.
- **Substance:** Enter the name of the substance.
- **Add Substance:** Click to add multiple suspected substances.
- **Sensation:** Describe any sensations observed or reported related to the substance.
- **Add Sensation:** Click to add multiple sensations.
- **Texture:** Describe the texture of the suspected substance.
- **Texture Description:** Provide a detailed description of the texture.
- **Color/Markings:** Describe the color and any distinctive markings of the substance.

Actual Substance Result:

- **Test Date:** Enter the date the test was performed (e.g., MM/DD/YYYY).
- **Actual Substance:** Select the actual substance identified from the test using the drop down menu.
- **Substance:** Lists the actual substances added or delete the selected substances.
- **Add Substance:** Click to add one or more actual substances to the case.
- **Notes:** Add any relevant notes or additional information about the test result.

After adding all results, you can either submit the current test results, or, if you have additional results to enter, you can select "Add Another".

The image shows two stacked web forms. The top form, titled 'SUSPECTED SUBSTANCE INFORMATION', contains fields for 'Suspected Substance' (a dropdown menu), 'Substance' (a text input), 'Sensation' (a dropdown menu), and 'Sensation' (a text input). Below these are 'Add Substance' and 'Add Sensation' buttons. Further down are 'Texture' (a dropdown menu), 'Texture Description' (a text input), and 'Color/Markings' (a large text area). The bottom form, titled 'ACTUAL SUBSTANCE RESULT', contains a 'Test Date' (MM/DD/YYYY) field, 'Actual Substance' (a dropdown menu), 'Substance' (a text input), and an 'Add Substance' button. At the bottom of this form is a 'Notes' text area. Both forms have 'Add Another' and 'Submit' buttons at the very bottom.

Managing Test Results

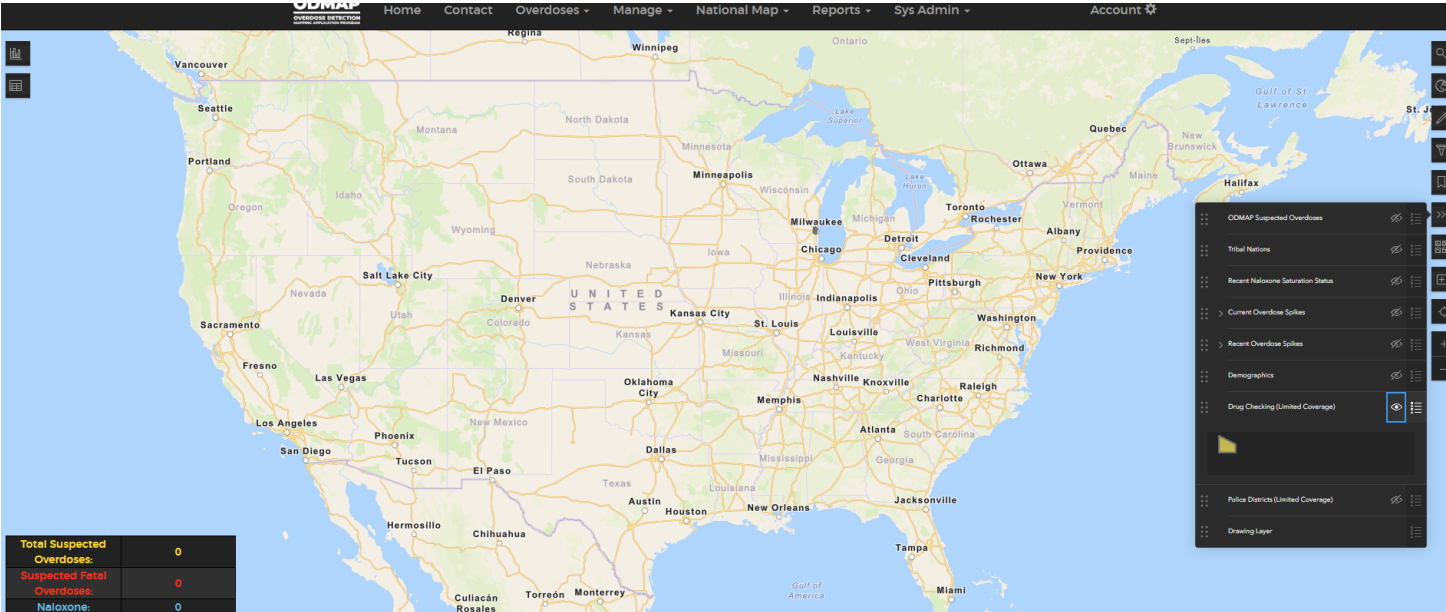
After clicking on "View Test Results" from the "Manage" tab on the ODMAP homepage, the "Manage DCMARS" page provides a tabular overview of all submitted test results, allowing users to case information ordered by the most recently submitted test.

On this page, a user can edit, update, or delete a test case. A user will be prompted to confirm that they wish to delete a case once they click on the "Delete" button.

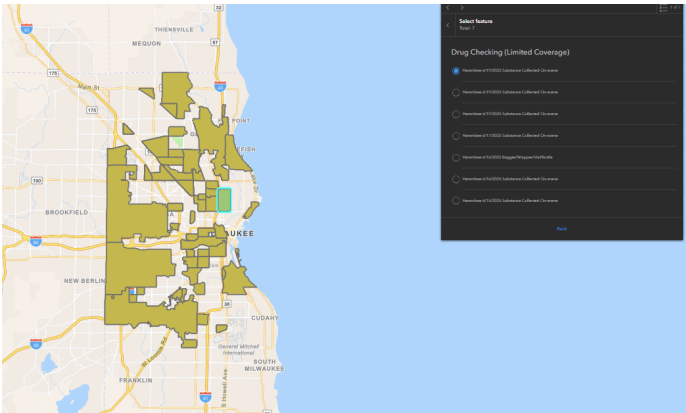
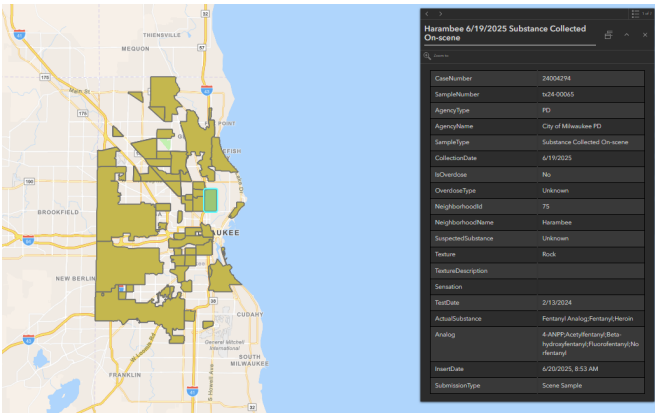
The image shows a web page titled 'Manage DCMARS - Delete Test Result'. It features a confirmation message: 'Are you sure you want to delete this?'. Below this is a section titled 'Location Information' which displays the following details: Submitted By: ehacker@cdcfoundation.org, Submitted On: 06/24/2025 12:52, Case Number: 11111111, Agency: West Allis FD, Sample Type: Swab of Subject, and Neighborhood: West Allis. At the bottom of this section are two buttons: 'Delete' (green) and 'Cancel' (red).

USING THE DRUG CHECKING LAYER

On the National Map, the DCMARS layer can be accessed from the “Open Layers/Legends Panel” icon on the right. Click the visibility icon (eye symbol) next to the layer name to toggle the layer on/off.



The boundaries on the layer represent neighborhoods. To select a specific neighborhood, click within the boundary. This will bring up a pop-up window which provides test result information. If available, users can access other test results for a neighborhood by either clicking the left/right arrows in the top left or clicking the three bullet points in the top right. The latter option will bring up a list of test results allowing users to select a specific result.



UTILIZING REPORTS

This section enables users to dive deeper into the data by providing filters and multiple pre-made bookmarks. Users can show or hide the Filters and Bookmarks panes by clicking anywhere along the top of these sections. The default table (All Results) will appear to users first. Here, you can sort the table alphabetically (A to Z, Z to A) by clicking on each column name.

There are three icons to the top right of each visualization (table, bar chart, etc.): Filters/slicers, personalize this visual, and focus mode.

Filters

To apply filters, click on the filter icon. You can also activate filters by clicking within the table/visualization. This action will bring up all columns included in the table/visualization for the user to filter accordingly.

<https://learn.microsoft.com/en-us/power-bi/consumer/end-user-report-filter>

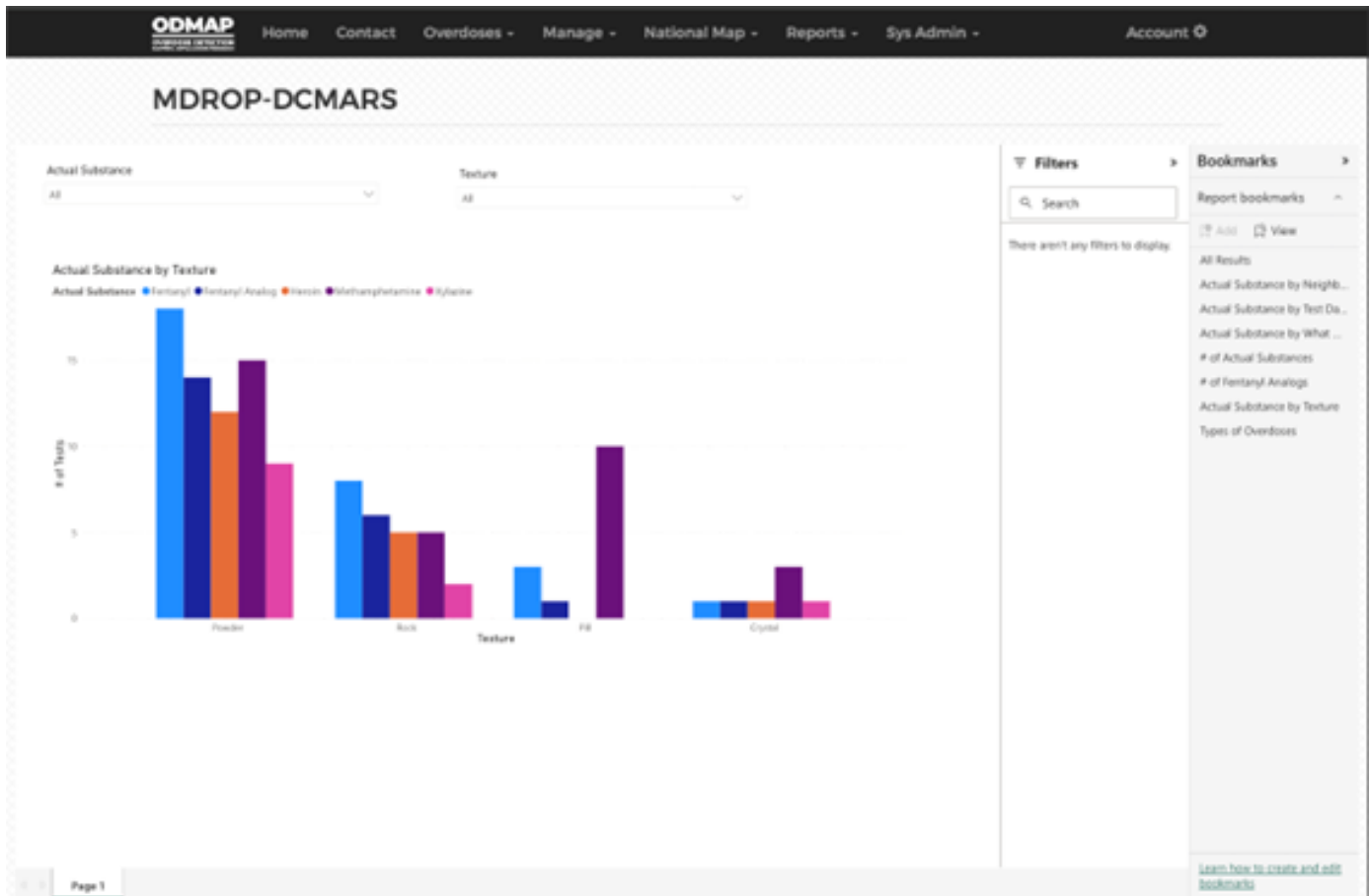
Personalize This Visual

Selecting this icon allows users to create their own visualization. To start, click on Visualization type to bring up a list of available visualizations.

<https://learn.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-types-for-reports-and-q-and-a>
From here, fill in the provided fields to create a visualization. Please note, the options will be specific to the visualization selected.

Focus Mode

Clicking on Focus Mode will expand the visual to allow for more detailed interaction and analysis.



UTILIZING REPORTS, CONT.

There are several pre-made bookmarks available:

<u>Bookmark Name</u>	<u>Visualization Type & Description</u>
All Results	Table that includes all test results
Actual Substance by Neighborhood	Bar chart showing the count of actual substances by neighborhood
Actual Substance by Test Date	Line chart showing the count of actual substances by test date
Actual Substance by Sample Type	Bar chart visualizing the count of actual substances by sample type
Actual Substance by Submission Type	Bar chart visualizing the count of actual substances by submission type
Actual Substance Combinations	Bar chart visualizing the count of actual substance combinations (all substances detected on test)
# of Actual Substances	Bar chart visualizing the count of actual substances
# of Fentanyl Analogs	Bar chart visualizing the count of fentanyl analogs detected
Actual Substance by Texture	Bar chart visualizing the count of actual substances by reported texture
Types of Overdoses	Bar charts indicating (left) the number of overdoses and (right) number of overdoses by type (unknown, fatal, or nonfatal)

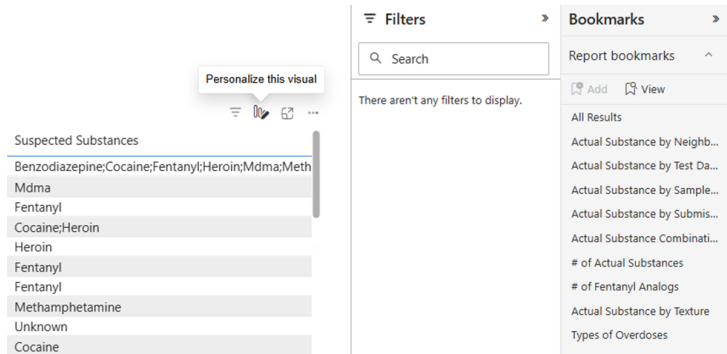
USAGE EXAMPLES

Example #1:

You would like to visualize the number of samples collected by agency type and agency name. This can be accomplished by creating either a stacked bar or column chart.

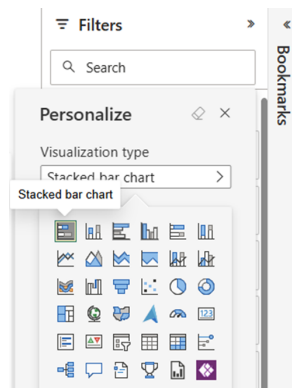
From the DCMARS page under “Reports”:

1. Hover over the default visualization type and three options will appear in the top right.



2. Click on the “Personalize this visual” icon (three vertical bar lines and edit pen).

3. Change visualization type to stacked bar chart (1st option).

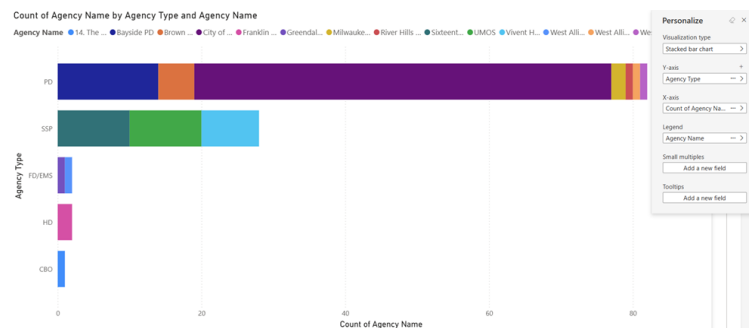


4. Y-axis: Remove all variables except for Agency Type. To do this, click on the 3 dots and select “Remove field”.

5. X-axis: Click on “Add a new field” and select TestResults à Agency Name.

6. Legend: Select Agency Name.

7. Small multiples: Click on the 3 dots and select “Remove field”.



USAGE EXAMPLES, CONT.

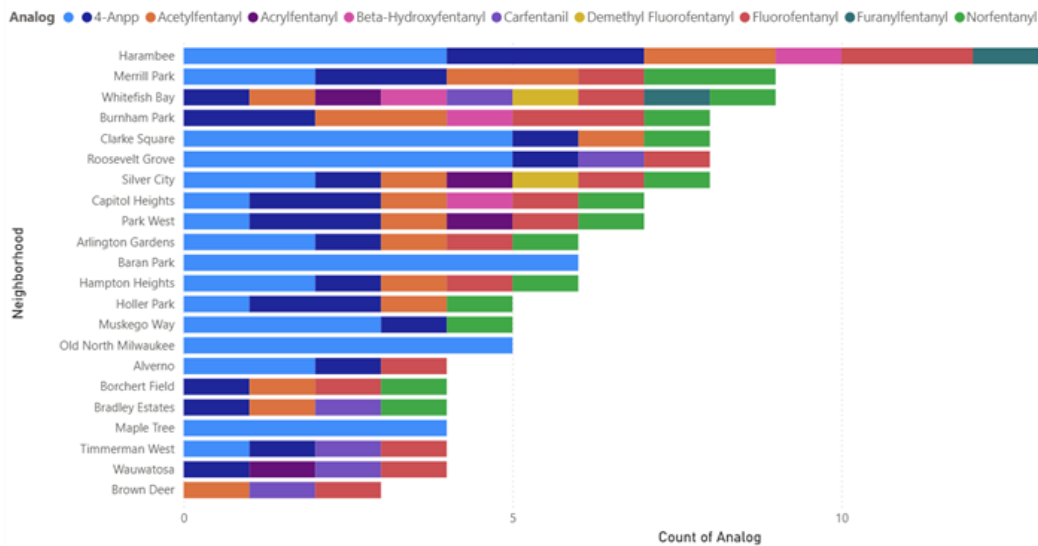
Example #2:

You would like to visualize the distribution of fentanyl analogs by neighborhood. This can be accomplished by creating either a stacked bar or column chart.

From the DCMARS page under “Reports”:

1. Hover over the default visualization and three options will appear in the top right.
2. Click on the “Personalize this visual” icon (three vertical bar lines and edit pen).
3. Change visualization type to stacked bar chart (1st option).
4. Y-axis: Remove all variables except for TestResults à Neighborhood. To do this, click on the 3 dots and select “Remove field”.
5. X-axis: Click on “Add a new field” and select TestResults_Analogs à Analog.
6. Legend: Select TestResults_Analogs à Analog.
7. Small multiples: Click on the 3 dots and select “Remove field”.

Count of Analog by Neighborhood and Analog



Filters

There aren't any filters to display.

Bookmarks

Report bookmarks

All Results

Actual Substance by Neighb...

Actual Substance by Test Da...

Actual Substance by Sample...

Actual Substance by Submis...

Actual Substance Combinati...

of Actual Substances

of Fentanyl Analogs

Actual Substance by Texture

Types of Overdoses

Personalize

Visualization type

Stacked bar chart

Y-axis

Neighborhood

X-axis

Count of Analog

Legend

Analog

Small multiples

Add a new field

Tooltips

Add a new field

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