

Overview: Medication Error Visual Analytic Dashboard

The Medication Error Visual Analytic dashboard provides dynamic visual summaries of medication error data. Statewide summary data is available to all users but only appears (and is applicable) to the visualizations on the Medication Error Details tab of the dashboard.

Data on the Dashboard aligns with the information in closed Medication Error Incident reports. The data appears in *near-real-time*. There is a one-day delay between the date the Medication Error is closed and when it appears on the dashboard.

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Note: Internet Explorer is no longer supported when attempting to view the dashboards within EIM. Other Internet browsers such as Chrome and Edge are still supported.

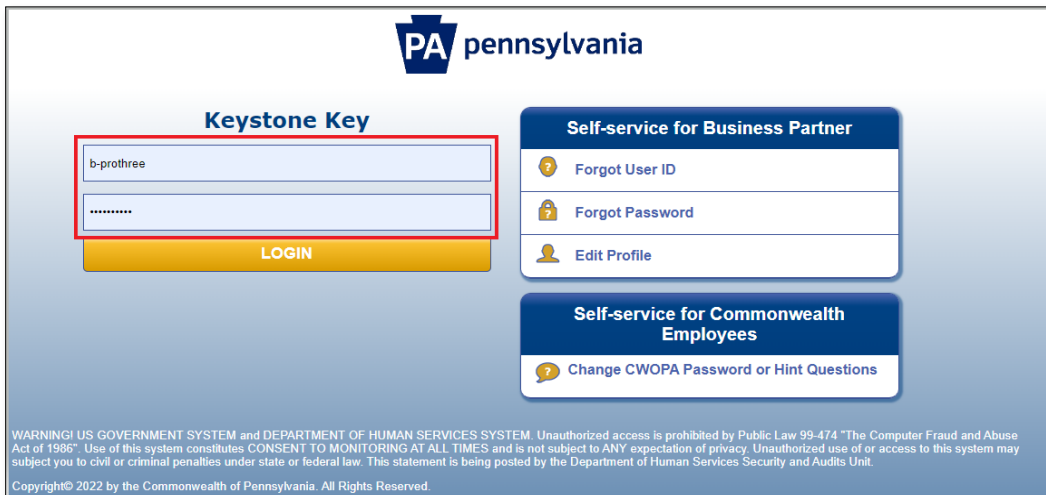
Medication Error Visual Analytic Dashboard Overview

The following table describes how to access the Medication Error Visual Analytic Dashboard and provides a brief overview of the dashboard's features.

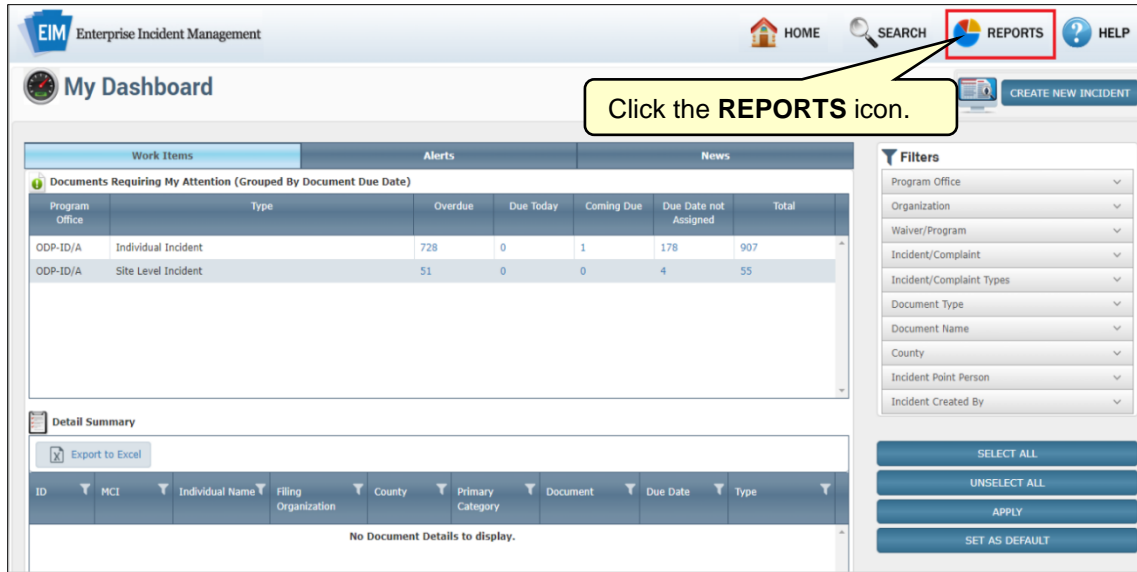
To access the dashboard, log into EIM.



Enter your log in ID and Password, then click the LOGIN button.

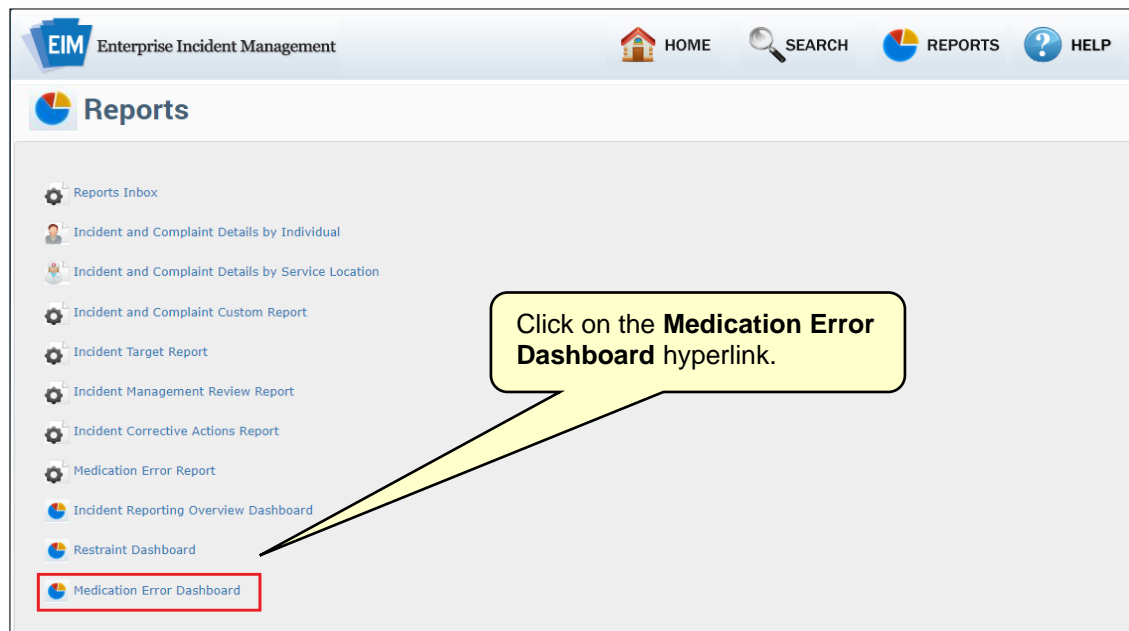
The screenshot shows the EIM login page. At the top, there is a header with the Pennsylvania logo and the text "pennsylvania". Below the header, the page is divided into two main sections: "Keystone Key" and "Self-service for Business Partner". The "Keystone Key" section contains a login form with two input fields: one for the user ID (containing "b-prothree") and one for the password (containing "*****"). Below the input fields is a yellow "LOGIN" button. The "Self-service for Business Partner" section contains three links: "Forgot User ID", "Forgot Password", and "Edit Profile". Below this section is another section titled "Self-service for Commonwealth Employees" with a link "Change CWOPA Password or Hint Questions". At the bottom of the page, there is a small disclaimer: "WARNING! US GOVERNMENT SYSTEM and DEPARTMENT OF HUMAN SERVICES SYSTEM. Unauthorized access is prohibited by Public Law 99-474 'The Computer Fraud and Abuse Act of 1986'. Use of this system constitutes CONSENT TO MONITORING AT ALL TIMES and is not subject to ANY expectation of privacy. Unauthorized use of or access to this system may subject you to civil or criminal penalties under state or federal law. This statement is being posted by the Department of Human Services Security and Audits Unit. Copyright© 2022 by the Commonwealth of Pennsylvania. All Rights Reserved."

The EIM **My Dashboard** screen displays.



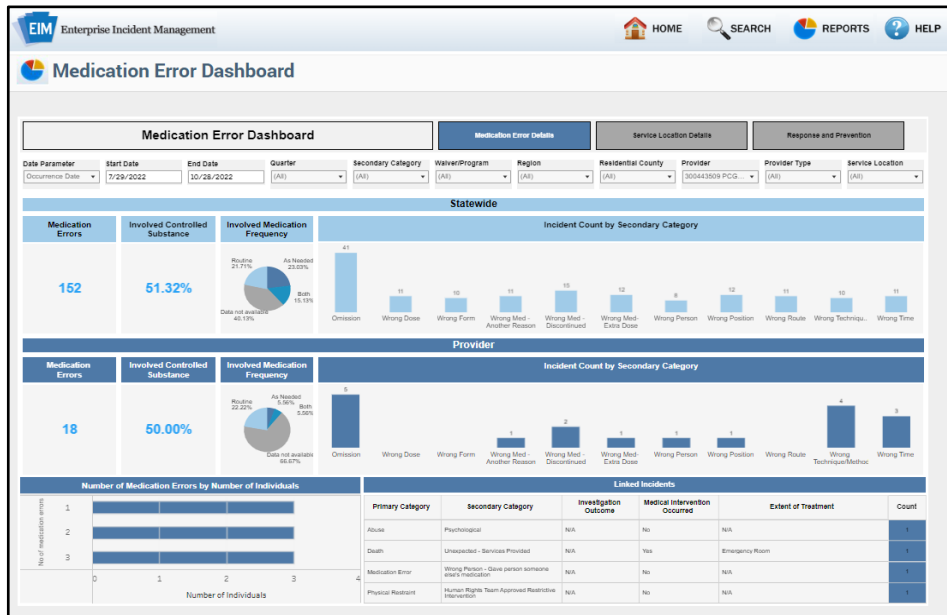
Program Office	Type	Overdue	Due Today	Coming Due	Due Date not Assigned	Total
ODP-ID/A	Individual Incident	728	0	1	178	907
ODP-ID/A	Site Level Incident	51	0	0	4	55

The Reports screen displays.

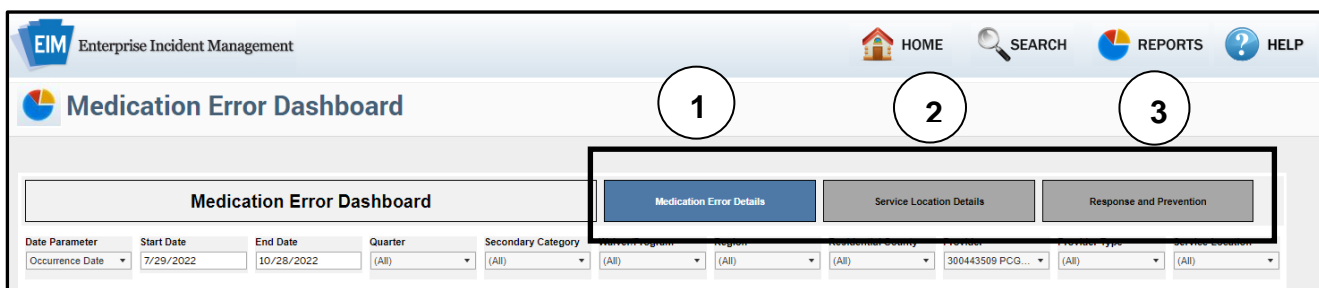


- Reports Inbox
- Incident and Complaint Details by Individual
- Incident and Complaint Details by Service Location
- Incident and Complaint Custom Report
- Incident Target Report
- Incident Management Review Report
- Incident Corrective Actions Report
- Medication Error Report
- Incident Reporting Overview Dashboard
- Restraint Dashboard
- Medication Error Dashboard

After clicking the hyperlink, the Medication Error Visual Analytic Dashboard displays. The default view of the Dashboard is the Medication Error Details tab. Users may click on additional tabs to view visualizations of different data.

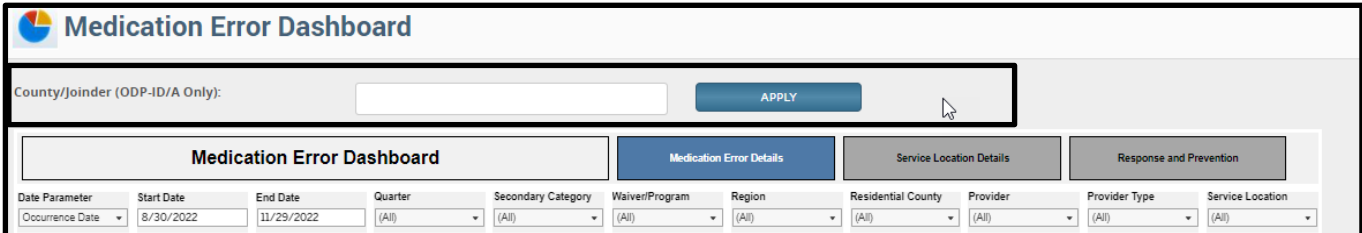


The Medication Error Visual Analytic Dashboard consists of three separate views. Users may click on tabs (Medication Error Details, Service Location Details, Response and Prevention) to view visualizations of different data.



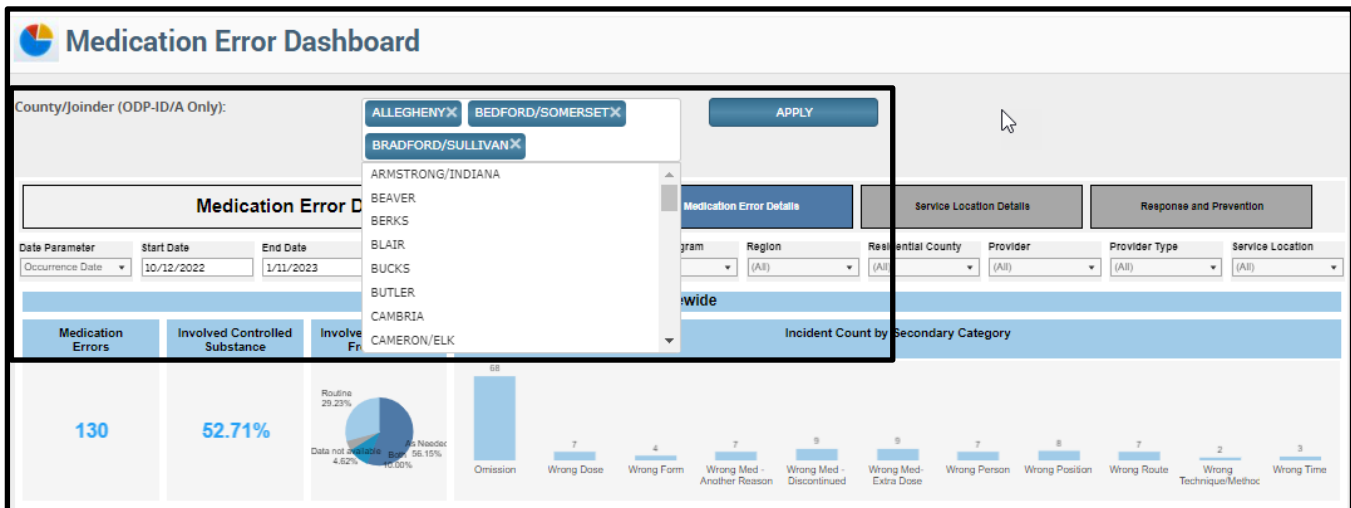
- 1. Medication Error Details:** Statewide and provider general medication error metrics
- 2. Service Location Details:** Metric information about the Service Locations where medication errors occurred and the circumstances around staff involvement in the incident that may have contributed to the occurrence of a medication error
- 3. Response and Prevention:** Metric information about responses to medication errors and the actions being done to prevent medication errors from occurring in the future. In addition, users can view the amount of time between discovery of a medication error and the entry of an incident report.

County/Administrative Entity (AE) and State users have the option to filter by County/Joinder***. This filter is hidden for all other users. The default setting for this filter is "All".



The screenshot shows the 'Medication Error Dashboard' with a filter dropdown menu open for 'County/Joinder (ODP-ID/A Only)'. The dropdown lists several counties: ALLEGHENY, BEDFORD/SOMERSET, BRADFORD/SULLIVAN, ARMSTRONG/INDIANA, BEAVER, BERKS, BLAIR, BUCKS, BUTLER, CAMBRIA, and CAMERON/ELK. The 'APPLY' button is visible next to the dropdown.

Select the County/Joinder(s) that are needed, by clicking on the box and then clicking Apply. Multiple selections are permitted.



***Please note: This filter appears on all the dashboard views. However, when applied it will always take the user back to the Medication Error Details view.

Enterprise Incident Management Medication Error Visual Analytic Dashboard



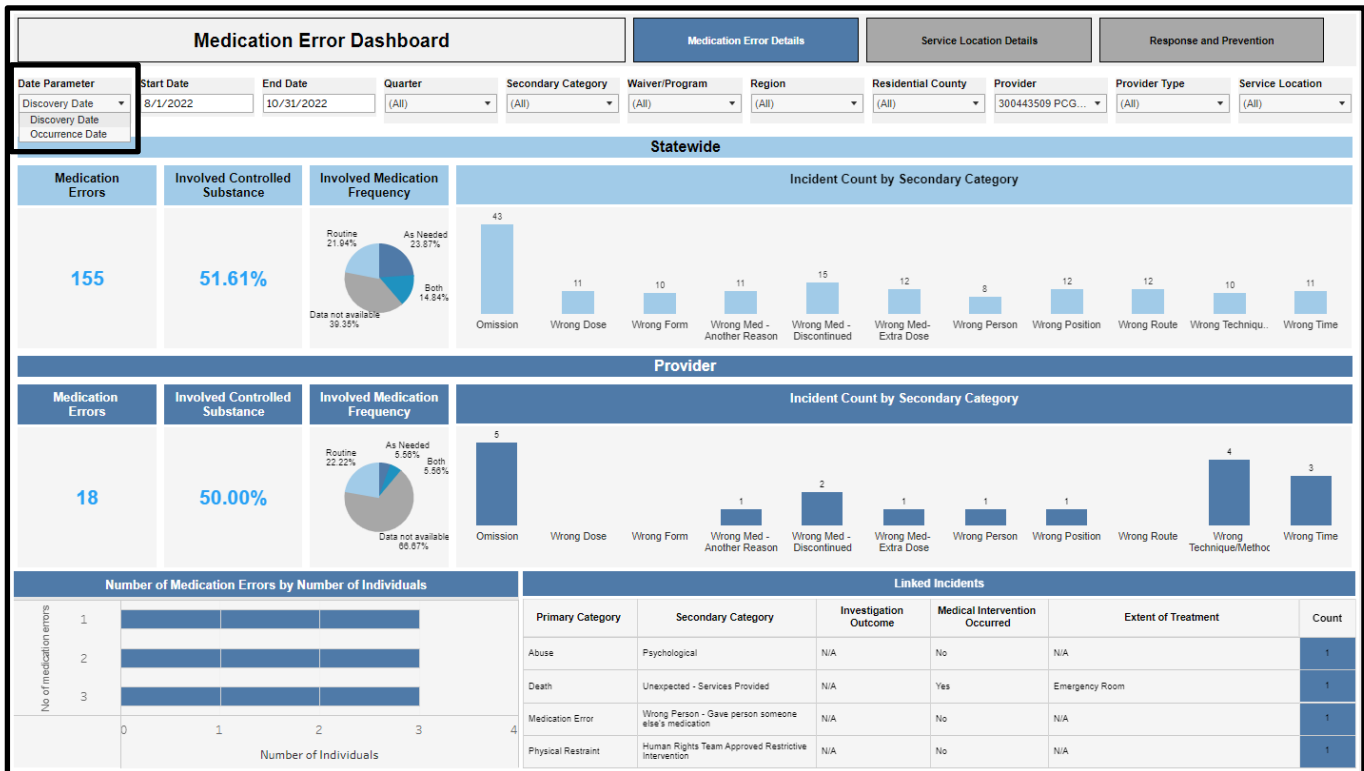
Users can apply filters on the dashboard to aid in data visualizations. Users may further explore data visualizations by combining these filters with dynamic data elements on the dashboard charts. When no data is available for a visualization based on the selected filters, the visualization will not appear on the dashboard.

Medication Error Dashboard				Medication Error Details		Service Location Details		Response and Prevention		
Date Parameter	Start Date	End Date	Quarter	Secondary Category	Waiver/Program	Region	Residential County	Provider	Provider Type	Service Location
Occurrence Date	8/1/2022	10/31/2022	(All)	(All)	(All)	(All)	(All)	300443509 PCG...	(All)	(All)

- Date Parameter
- Date Range-Start Date-End Date
- Quarter
- Secondary Category
- Waiver/Program
- Region
- Residential County
- Provider
- Provider Type
- Service Location

Note: These filters appear on all views of the dashboard. Once a filter is applied it will filter data across all dashboard views.

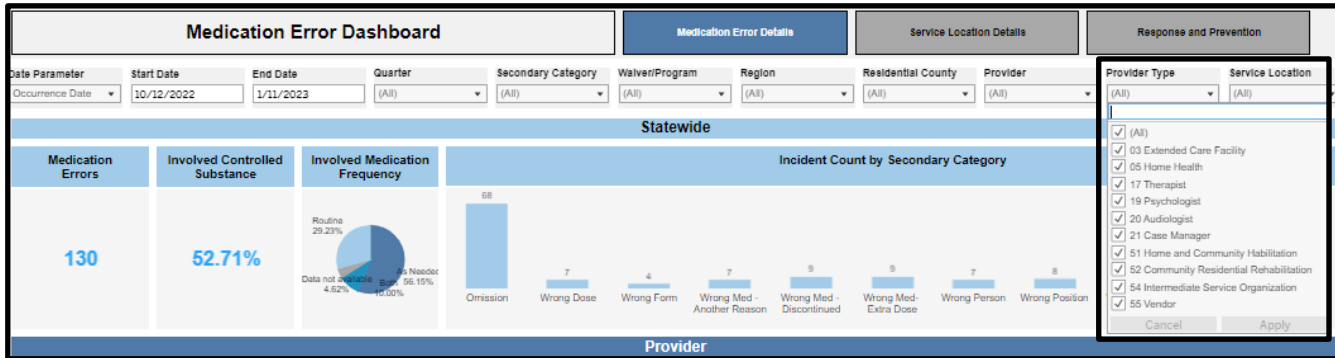
The Medication Error Visual Analytic Dashboard is filtered by calendar year quarter (like the Restraint and Incident Reporting Overview Dashboards), and it has an additional filter for Date Parameter. The Date Parameter allows the user to filter by Discovery Date or Occurrence Date.



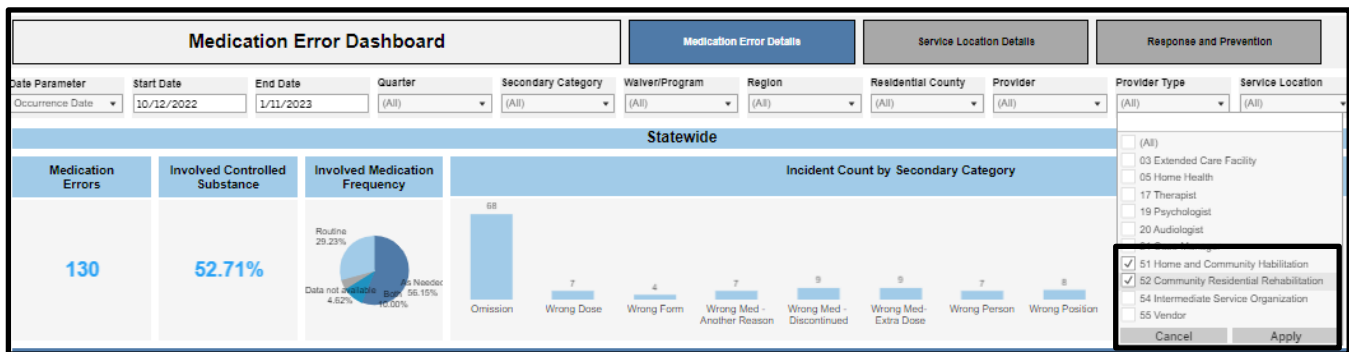
Enterprise Incident Management Medication Error Visual Analytic Dashboard



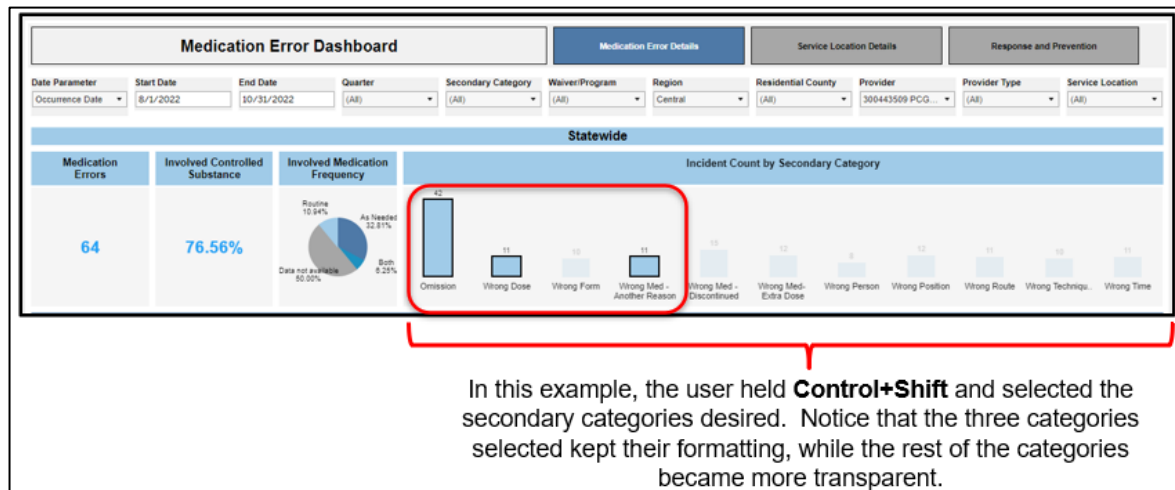
The drop-down values in the filters will differ based on users' scope, provider locations, incident circumstances, etc. The default value for the filters (other than those related to dates) is All. In this example, the logged in user has access to data on the dashboard only for the Provider Types listed in the drop down.



To further filter to view a specific provider type, the user would uncheck "All", click the box for the Provider Type(s) desired and click Apply. The data on the dashboard will update based on the selection(s).



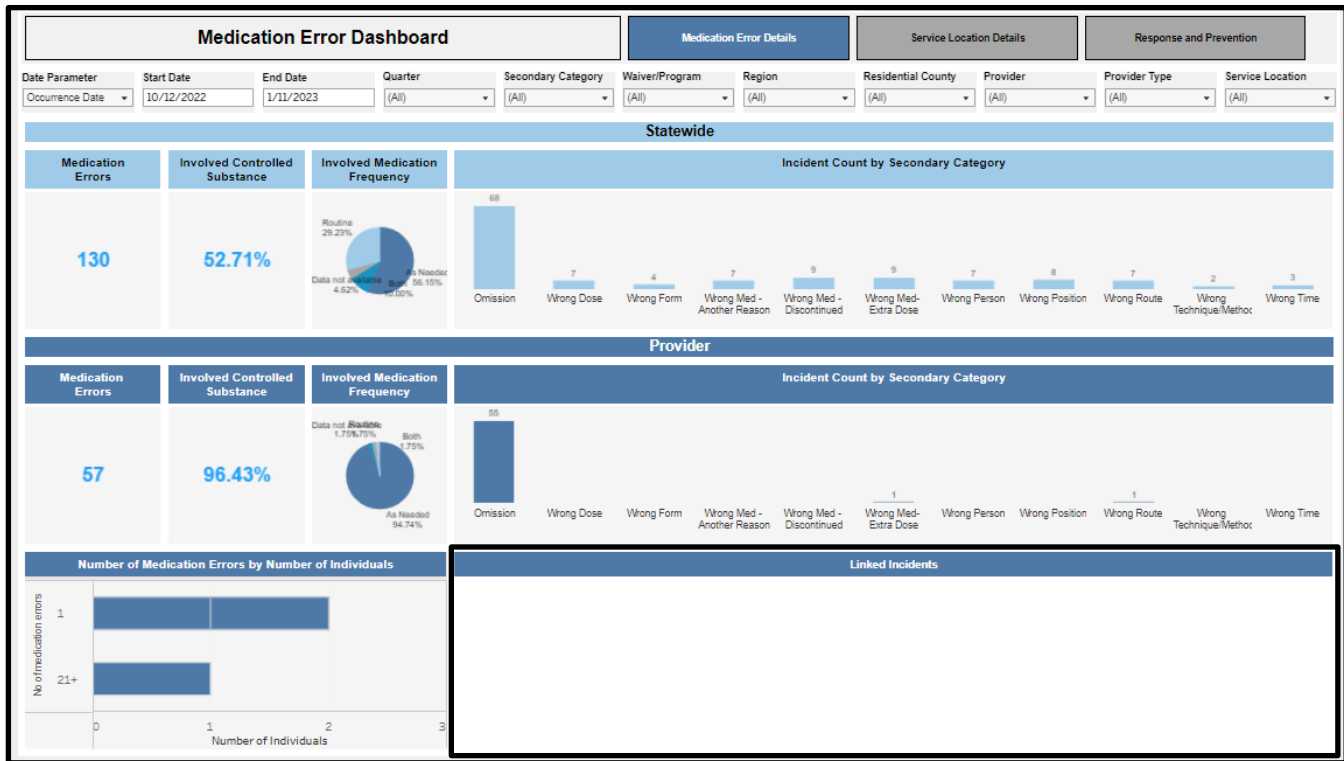
Each view on the dashboard has charts that work with the filters to create visualizations of data. In the charts, users can select single and multiple groupings at one time by clicking, dragging over groupings and/or holding Control+Shift and clicking items.



Enterprise Incident Management Medication Error Visual Analytic Dashboard



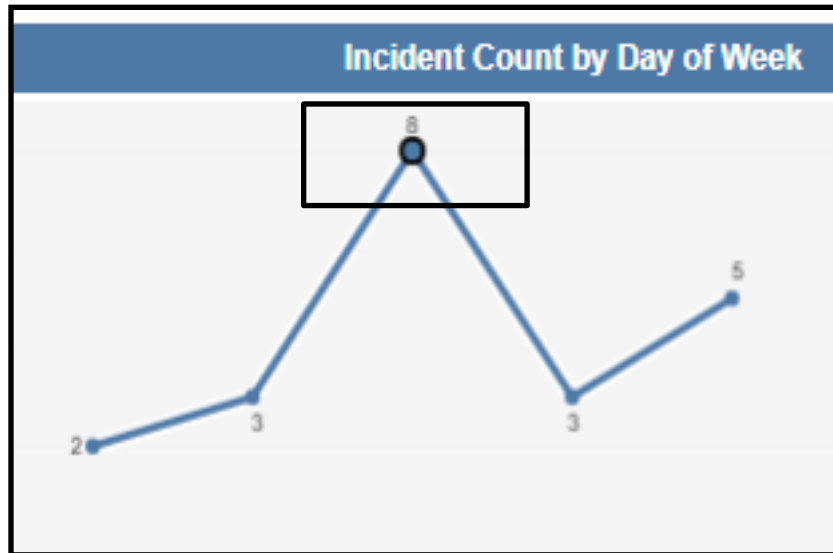
If there is not any data for a particular chart based on available data in EIM or filter combinations, the chart will be blank. In the example below, the user has filtered and used the charts to drill down. The drill down data in this example does not contain any medication errors that have other incidents linked to them.



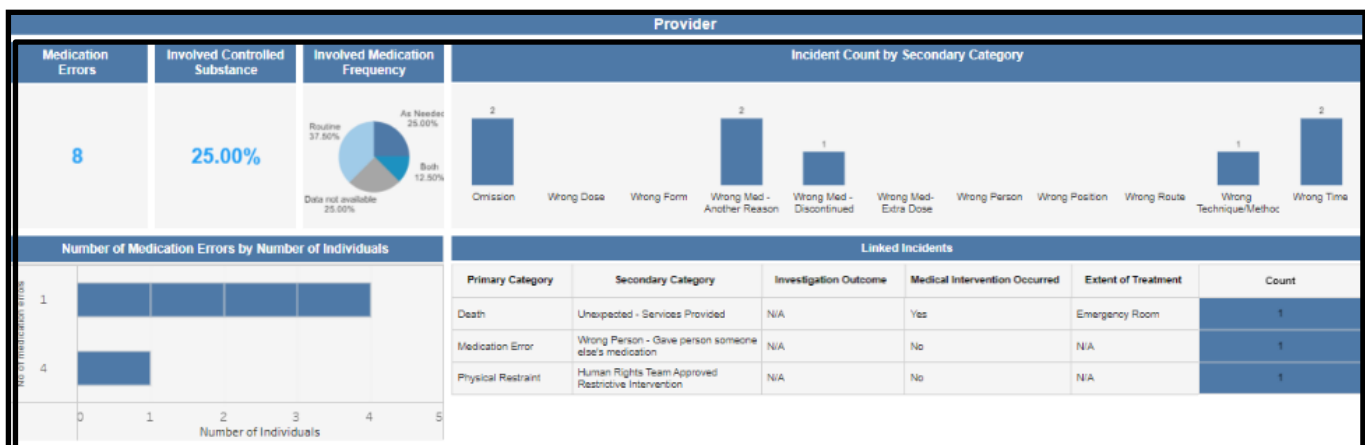
Selecting items in the charts on the dashboard views, will update the data across all dashboard views.

For example, selecting the value of **8** on the Incident Count by Day of Week chart on the Service Location Details view, updates the provider information on all other views of the dashboard.

Service Location Details

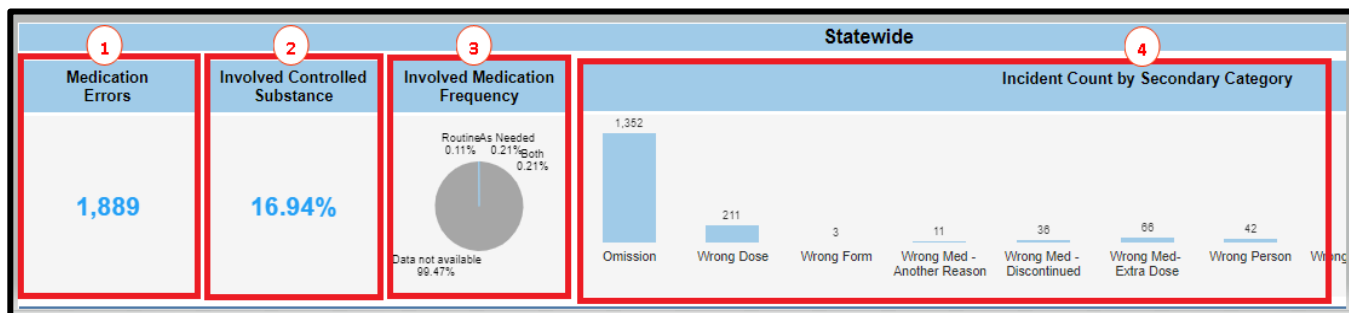


Medication Error Details



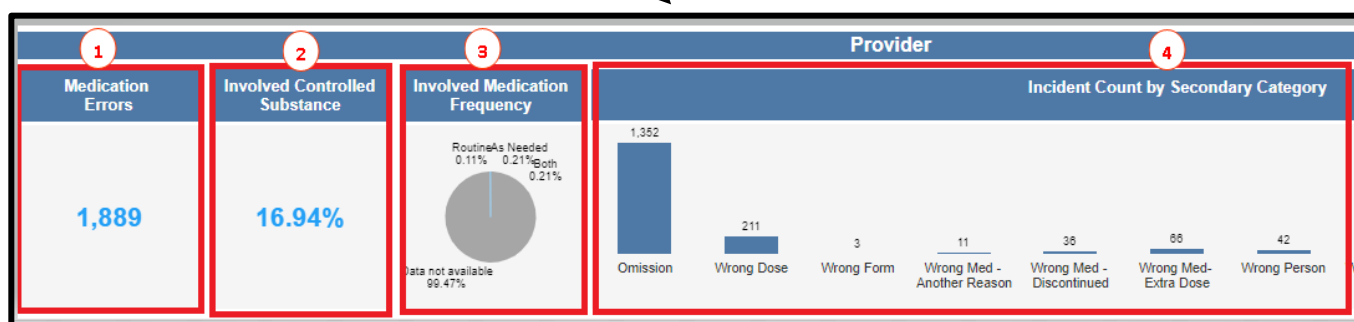
Some of the charts on the dashboard, have a *heatmap* style visualization. The charts below have cells that are filled with color. The darker the color, the greater the value in the cell. This provides a quick, at a glance, visualization of data and areas that may require further analysis.

Why did the error occur?		What was the response to the error?		What is being done to prevent future occurrences?	
Did not compare log to label	5	Contacted Agency Nurse	7	HCOU referral	6
Did not get prescription or refill from health care provider	4	Contacted Health Care Professional	6	Evaluate new practice/modified existing practice	4
Did not pick up prescription or refill from pharmacy	4	Contacted 911	4	Evaluate new policy/modified existing policy	2
Another individual obtained unattended medication	3	Assessment at ER	3	Indicator for quality improvement initiative	2
Error in Medication Administration Record (MAR)/Medication Log	1	No action taken at the time of discovery	3	Individual feedback to employee	2
Got wrong prescription from pharmacy	1	Contacted Program Supervisor/Specialist	2	Monitoring medication passes for that staff person	2
Misidentified person	1	Hospitalization	2	Referral to risk management for further evaluation	1
Misread label	1	Assessment at Urgent Care	1	Situation reviewed, no action taken	1
Unknown	1	Blood work/lab work/additional testing of medication levels completed	1	Training/Retraining	1
		Called poison control	1		
		Contacted Poison Control	1		
		Contacted program supervisor	1		
		Other (please specify)	1		



The Statewide and Provider Charts Metric Definitions

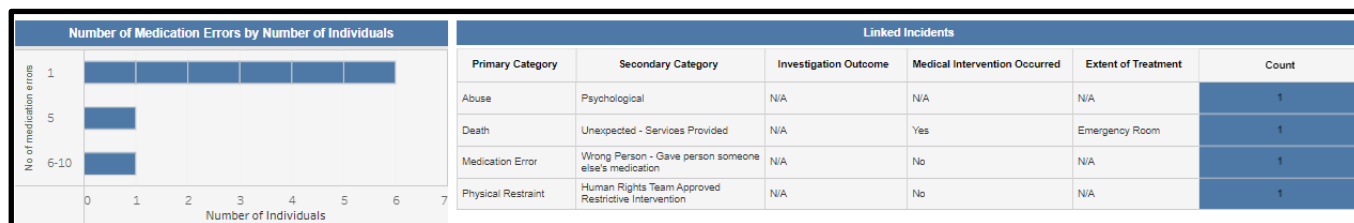
- 1. Medication Errors**-The total number of medication errors.
- 2. Involved Controlled Substance**-Percent of medication errors involving a controlled substance.
- 3. Involved Medication Frequency**-The percentage of medication errors involving routine, PRN, or both medication frequencies.
- 4. Incident Count by Secondary Category**-The number of medication errors broken down by Secondary Category.



Enterprise Incident Management Medication Error Visual Analytic Dashboard



The final two charts on the Medication Error Details view of the dashboard apply to provider data only. The Number of Medication Errors by Number of Individuals and the Linked Incident charts are comprised of data related to the provider(s) selected for review. Users will notice that these charts only update when changes are made to filters etc. that apply at the provider level.



Medication Error Details View-Provider Metrics

Chart Name	Metric Definition
Number of Medication Errors by Number of Individuals	The count of medication errors that involved a specific individual, and groups these counts.
Linked Incidents	Displays information about incidents that are linked to medication error incidents. Linked incident information is taken from the most recently submitted Final Section document.

Please Note:

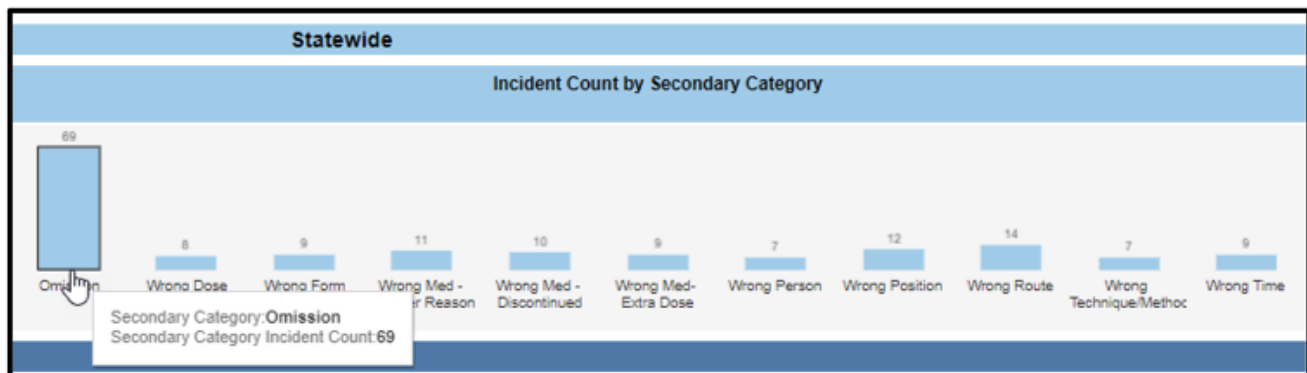
Any incident category can be linked to a medication error and will appear on the Linked Incidents chart on the dashboard. This includes when incidents are linked between different individuals. Data for this chart is based on the most recently submitted final section document (or first section for incident categories that do require a final section document).

Linked Incidents					
Primary Category	Secondary Category	Investigation Outcome	Medical Intervention Occurred	Extent of Treatment	Count
Abuse	Psychological	N/A	N/A	N/A	1
Death	Unexpected - Services Provided	N/A	Yes	Emergency Room	1
Medication Error	Wrong Person - Gave person someone else's medication	N/A	No	N/A	1
Physical Restraint	Human Rights Team Approved Restrictive Intervention	N/A	No	N/A	1

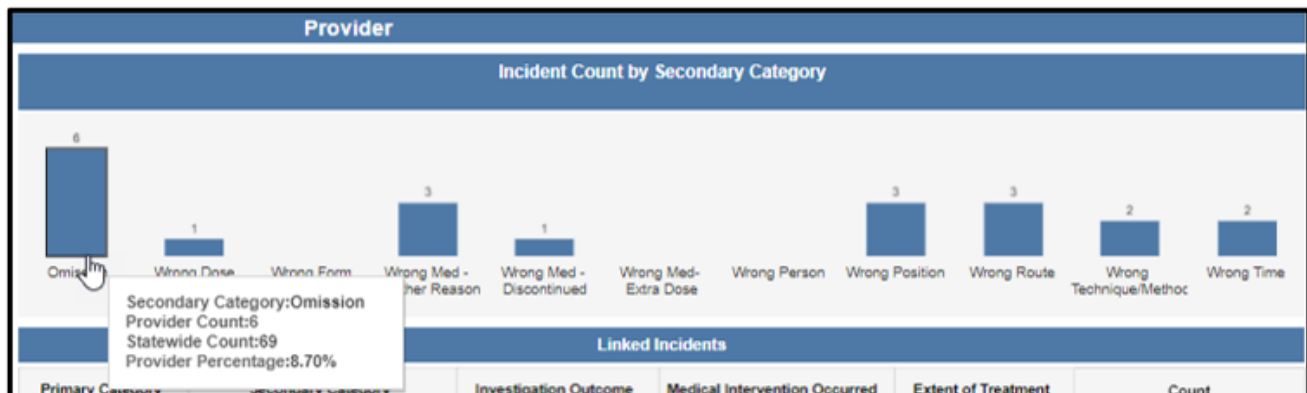
Tooltips

In the Incident Count by Secondary Category (for both Statewide and Provider charts), the user can hover over each secondary category for additional information. This is called a tooltip, which gives the user information about medication errors at a glance. Tool Tips can be found on various data points within the dashboard.

Example of Statewide Tooltip

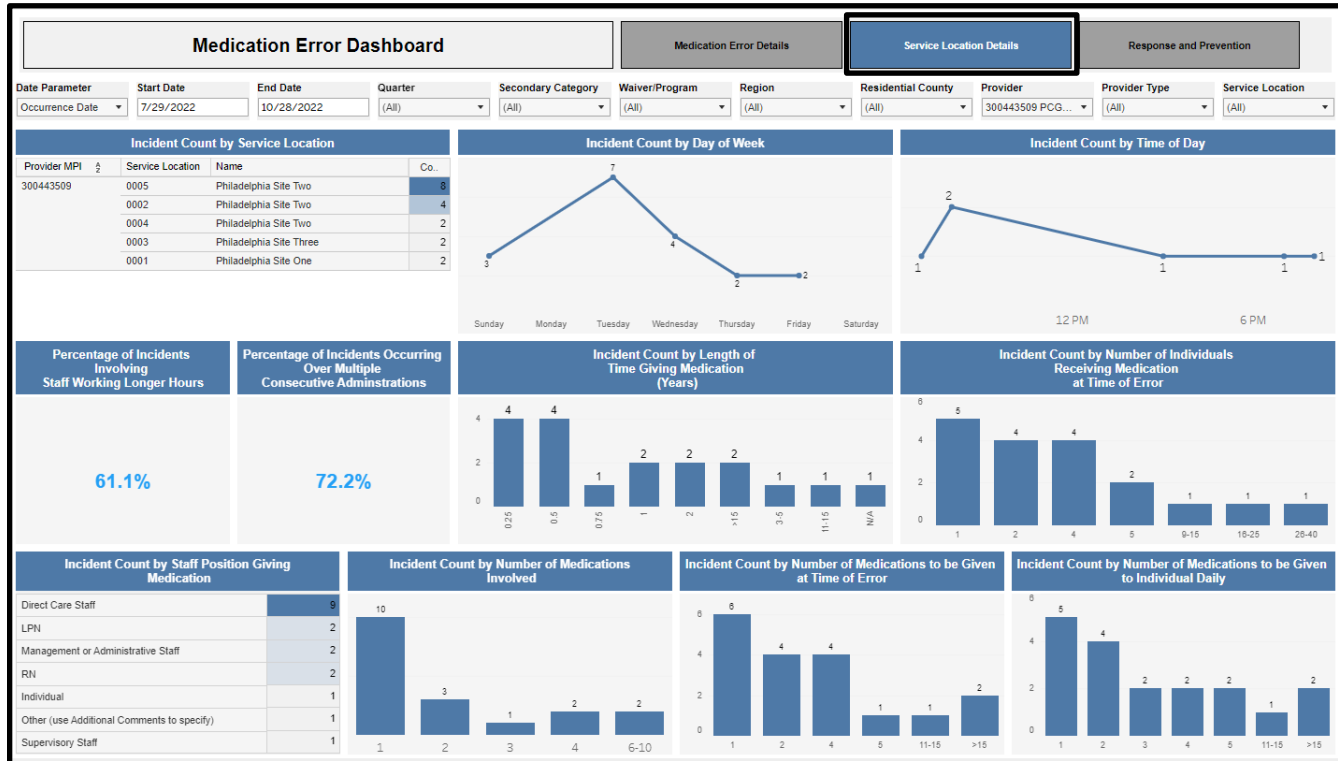


Example of a Provider Tooltip



Service Location Details View

Click on the Service Location Details tab. The Service Location Details view of the dashboard appears.



Service Location Details View-Provider Metrics

Chart Name	Metric Definition
Incident Count by Service Location	Service Locations where medication errors occurred.
Incident Count by Day of Week	Number of medication errors that occurred on a specific day of the week.
Incident Count by Time of Day	Number of medication errors that occurred at a specific time of the day.
Percentage of Incidents Involving Staff Working Longer Hours	Percentage of medication errors that involved staff working longer than their regular work hours at the time of the medication error.
Percentage of Incidents Occurring Over Multiple Consecutive Administrations	Percentage of medication errors that involved medication errors that occurred over multiple consecutive administrations.
Incident Count by Length of Time Giving Medication (Years)	Number of medication errors that have occurred, broken down by the options for the length of time in years that the involved staff has been giving medication.
Incident Count by Number of Individuals Receiving Medication at Time of Error	Number of medication errors that have occurred, broken down by the number of individuals who were receiving medication from the involved staff around the time the medication error occurred.
Incident Count by Staff Position Giving Medication	Count of medication errors by staff position.

Enterprise Incident Management Medication Error Visual Analytic Dashboard

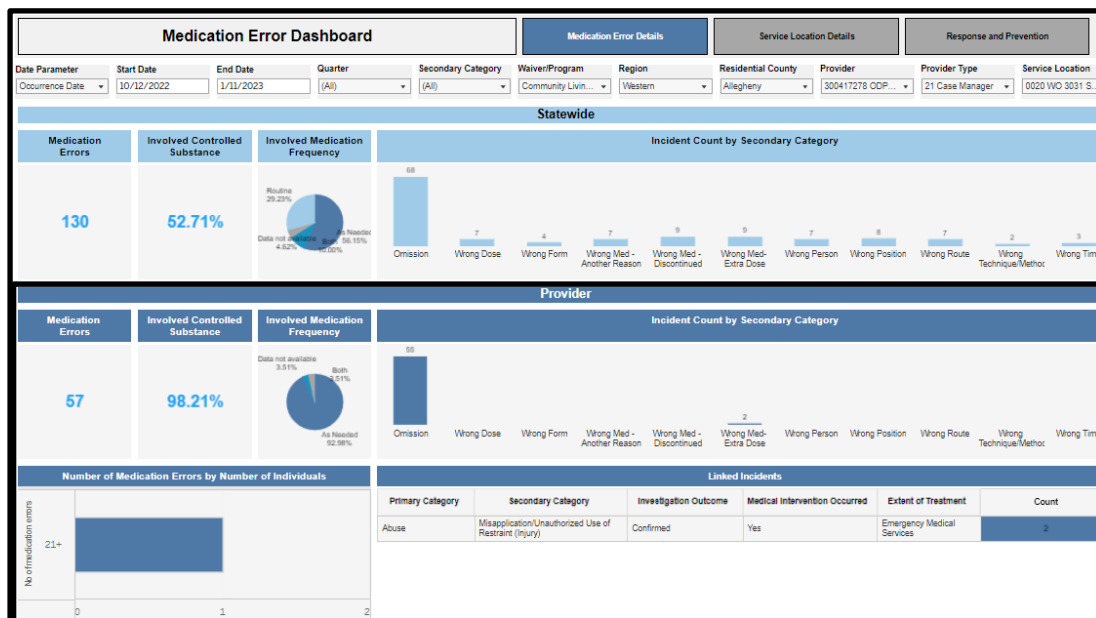


Incident Count by Number of Medications Involved	Number of medications involved in a medication error, aggregated by the number of medication errors with that count of involved medications.
Incident Count by Number of Medications to be Given at Time of Error	Number of medication errors that have occurred, broken down by the number of medications that the involved staff was supposed to give to the individual at the time when a medication error occurred.
Incident Count by Number of Medications to be Given to Individual Daily	Number of medication errors that have occurred, broken down by the number of medications that are supposed to be given to the individual daily.
Incident Count by Number of Individuals Receiving Medication at Time of Error	Number of medication errors that have occurred, broken down by the number of individuals who were receiving medication from the involved staff around the time the medication error occurred.

To drill-down to the data for a specific service location, click on the ID, Name or Count for the location you wish to view. This will update all data across all views of the dashboard.

Incident Count by Service Location			
Provider MPI	ID	Name	Count
300417278	0020	WO 3031 Site	57
	0004	ODP Site 03	1
	0003	ODP Site 51	1
	0002	ODP Site One	1
	0001	ODP Site One	1
300443509	0005	Philadelphia Site Two	7
	0010	Berks Site	4
	0001	Philadelphia Site One	4

For example, once the Service location 0020 (with 57 medication errors) is clicked, the provider data on the Medication Error Details tab updated.



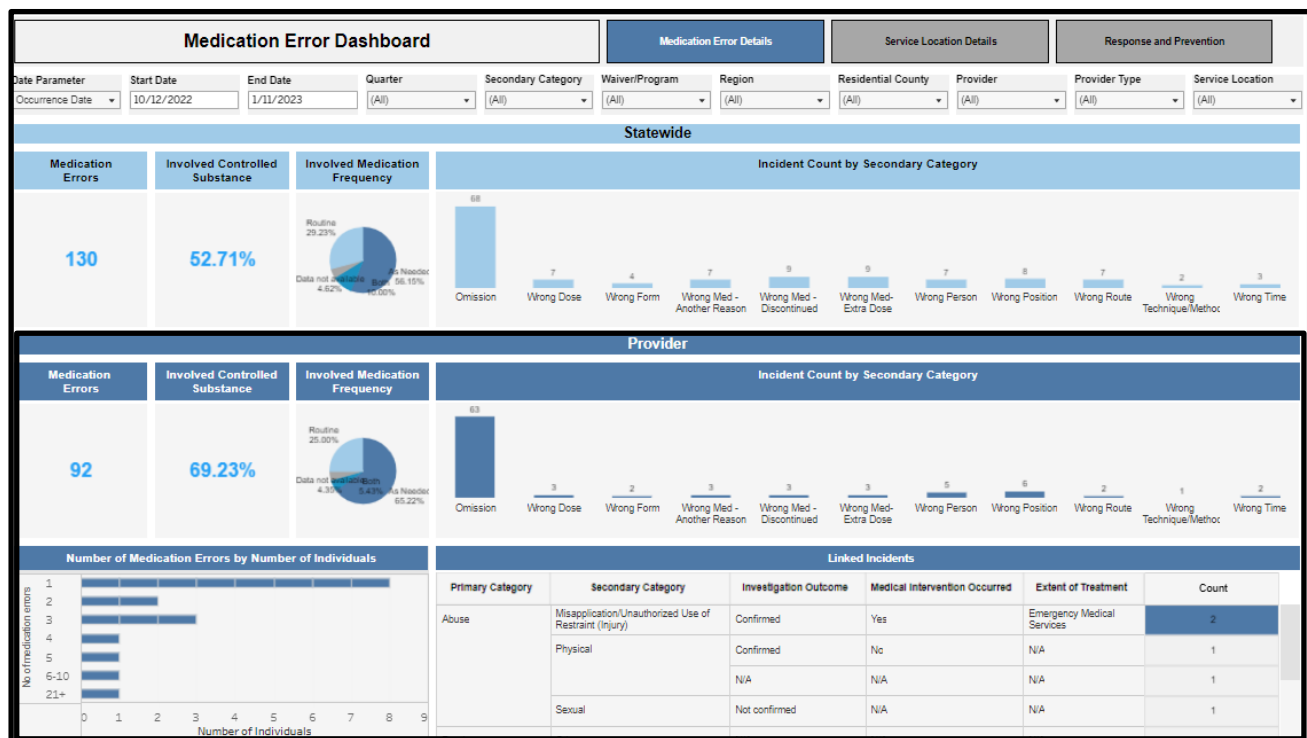
Enterprise Incident Management Medication Error Visual Analytic Dashboard



To drill-down to the data for a specific Staff Position Giving Medication, click on the Staff Position Title or Count you wish to view. This will update all data across all views of the dashboard.

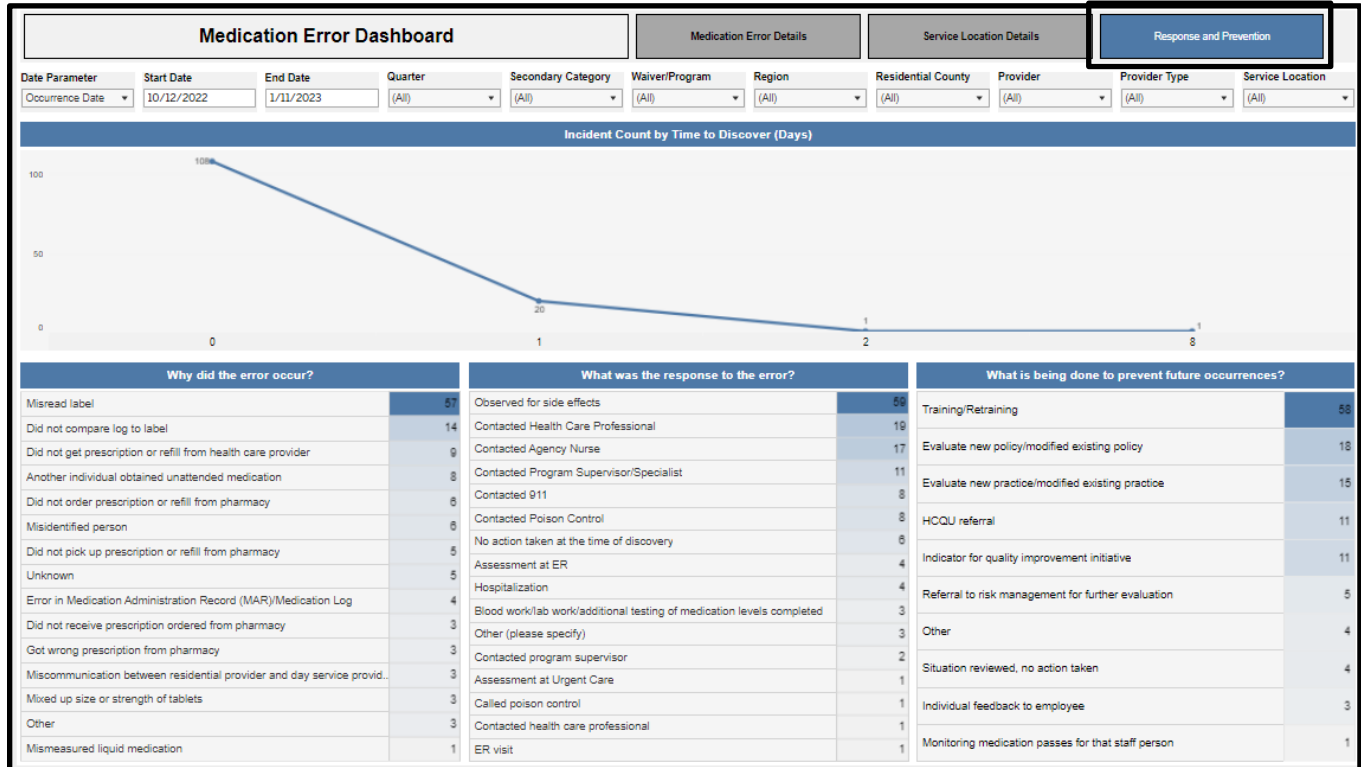
Incident Count by Staff Position Giving Medication	
Direct Care Staff	92
Supervisory Staff	16
Individual	7
Management or Administrative Staff	7
RN	6
Other (use Additional Comments to specify)	2

For example, once the Staff Position Title *Direct Care Staff* (with 92 medication errors) is clicked, the provider data on the Medication Error Details tab updated.



Response and Prevention View

Click on the Response and Prevention tab. The Response and Prevention view of the dashboard appears.



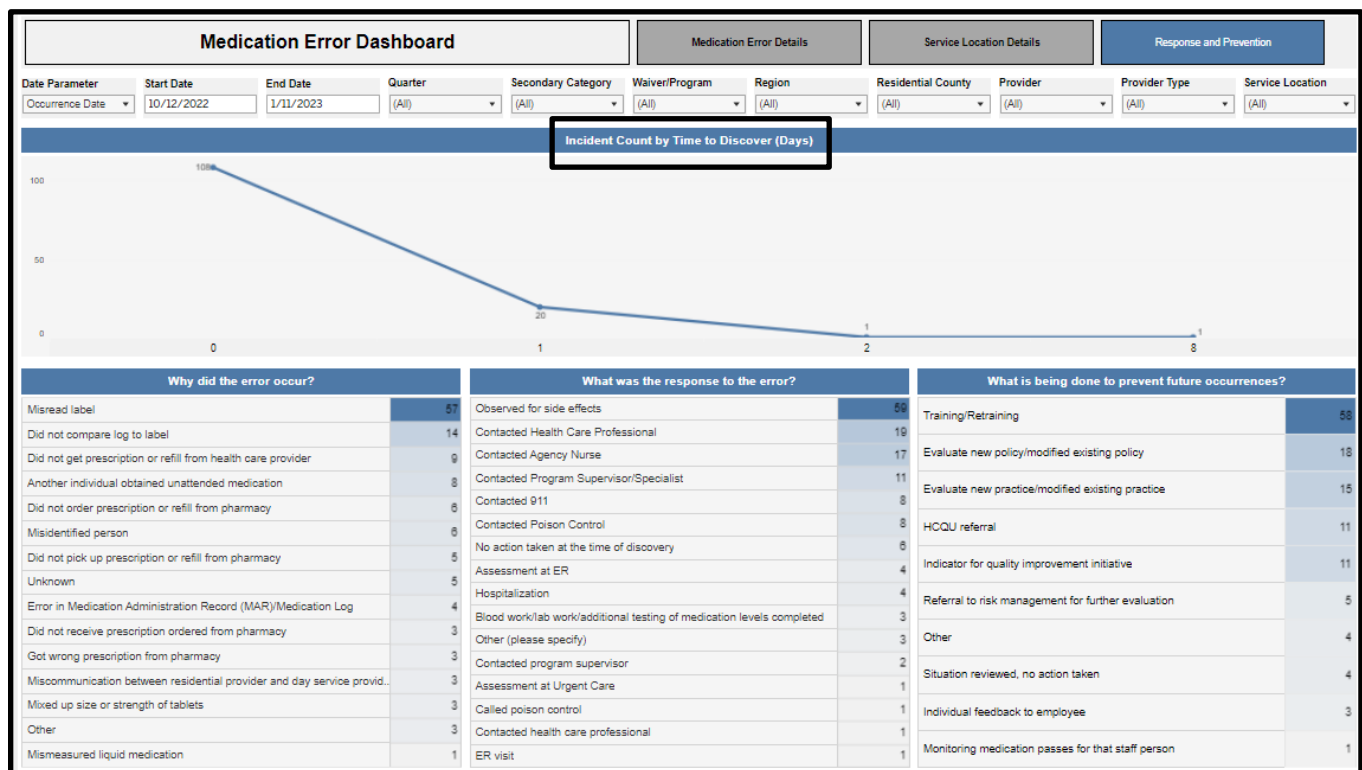
Response and Prevention View-Provider Metric Definitions

Chart Name	Metric Definition
Incident Count by Time to Discover (Days)	This chart represents the number of days that elapsed between the occurrence of a medication error and the discovery of the error.
Why did the error occur?	This chart lists the count of medication errors that occurred categorized by the reason given in the Medication Error Incident Report.
What was the response to the error?	This chart lists the count of medication errors that occurred categorized by the response given in the Medication Error Incident Report.
What is being done to prevent future occurrences?	This chart lists the count of medication errors that occurred categorized by the action that is being taken to prevent future occurrences of a medication error.

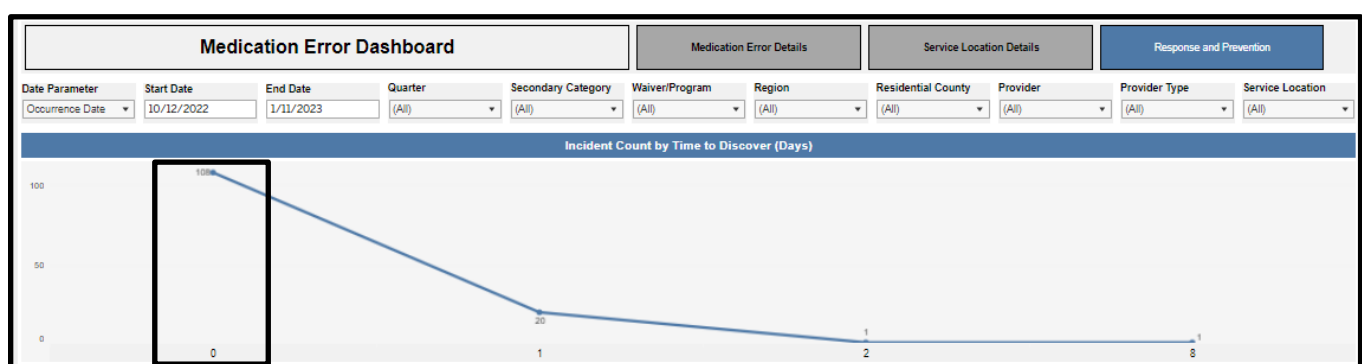
Enterprise Incident Management Medication Error Visual Analytic Dashboard



The dashboard calculates the number of days between when a medication error occurred and when it was discovered. This is a timeliness measure that can be used for compliance monitoring.



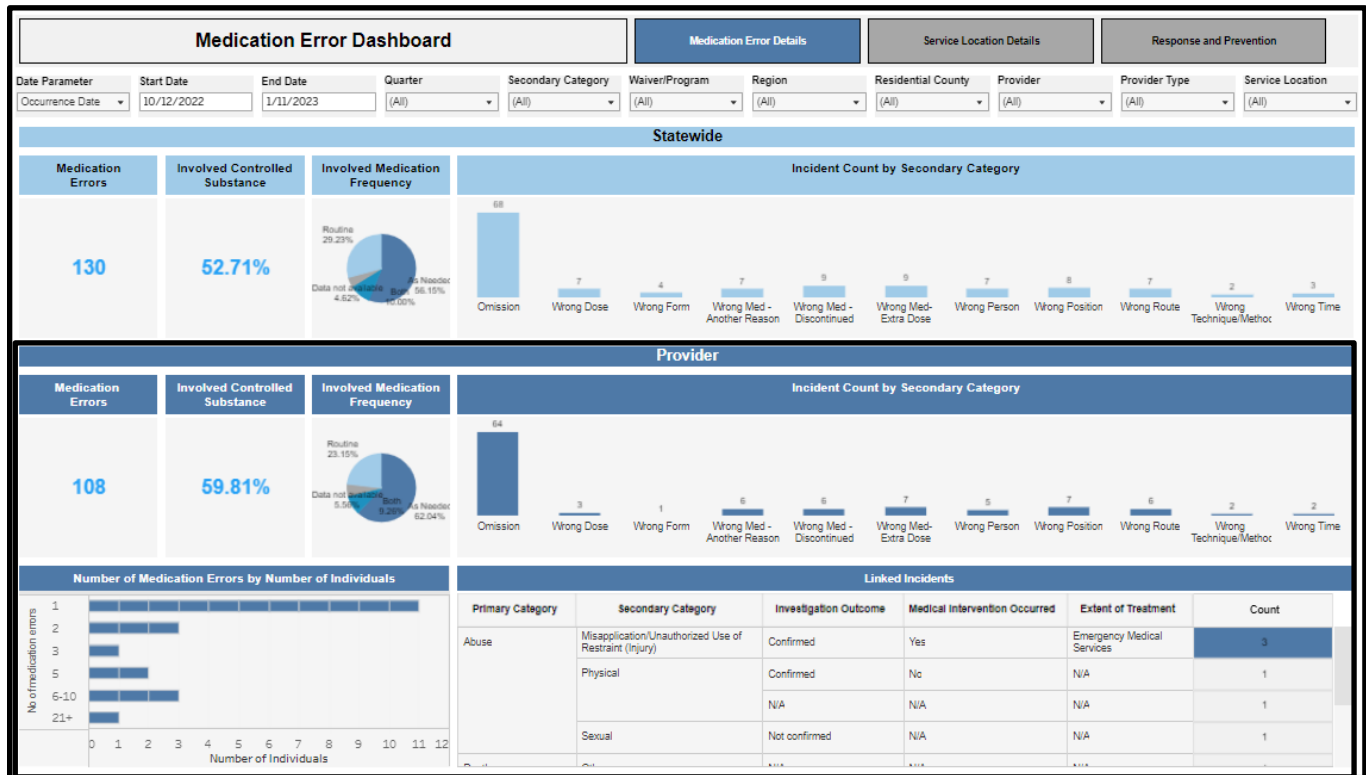
To drill-down to the data for a specific Time to Discover (Days) you wish to view, click on the number of days or the number of incident reports. This will update all data across all views of the dashboard.



Enterprise Incident Management Medication Error Visual Analytic Dashboard



For example, once the Number of Days 0 (with 108 medication errors) is clicked, the provider data on the Medication Error Details tab updated.



Medication Error Dashboard

Medication Error Details Service Location Details Response and Prevention

Date Parameter: Occurrence Date: 9/14/2022 End Date: 12/13/2022 Quarter: (All) Secondary Category: (All) Waiver Program: (All) Region: (All) Residential County: (All) Provider: 300443508 PCG... Provider Type: (All) Service Location: (All)

Incident Count by Time to Discover (Days)

Why did the error occur?	Count	What was the response to the error?	Count	What is being done to prevent future occurrences?	Count
Did not compare log to label	5	Contacted Agency Nurse	5	HQOU referral	5
Did not get prescription or refill from health care provider	4	Contacted Health Care Professional	6	Evaluate new practice/modified existing practice	4
Did not pick up prescription or refill from pharmacy	4	Contacted 911	4	Evaluate new policy/modified existing policy	2
Another individual obtained unattended medication	3	Assessment at ER	3	Indicator for quality improvement initiative	2
Error in Medication Administration Record (MAR)/Medication Log	1	No action taken at the time of discovery	2	Individual feedback to employee	2
Got wrong prescription from pharmacy	1	Contacted Program Supervisor/Specialist	1	Monitoring medication passes for that staff person	2
Misidentified person	1	Hospitalization	2	Referral to risk management for further evaluation	1
Misread label	1	Assessment at Urgent Care	1	Situation reviewed, no action taken	1
Unknown	1	Blood work/lab work/additional testing of medication levels completed	1	Training/Retraining	1

Medication Errors

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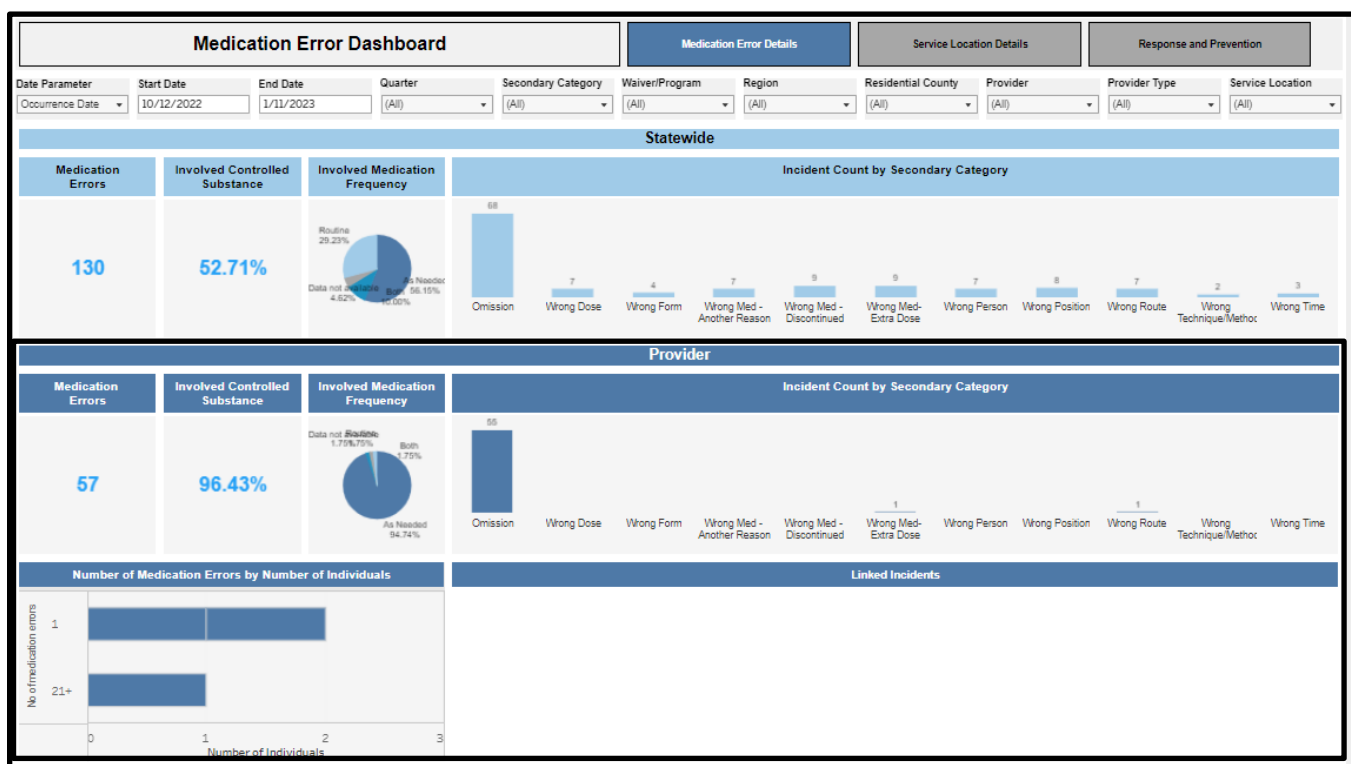
Enterprise Incident Management Medication Error Visual Analytic Dashboard



To drill-down to the data for specific information about the medication error or response you wish to view, click on the name or number of incidents. This will update all data across all views of the dashboard.

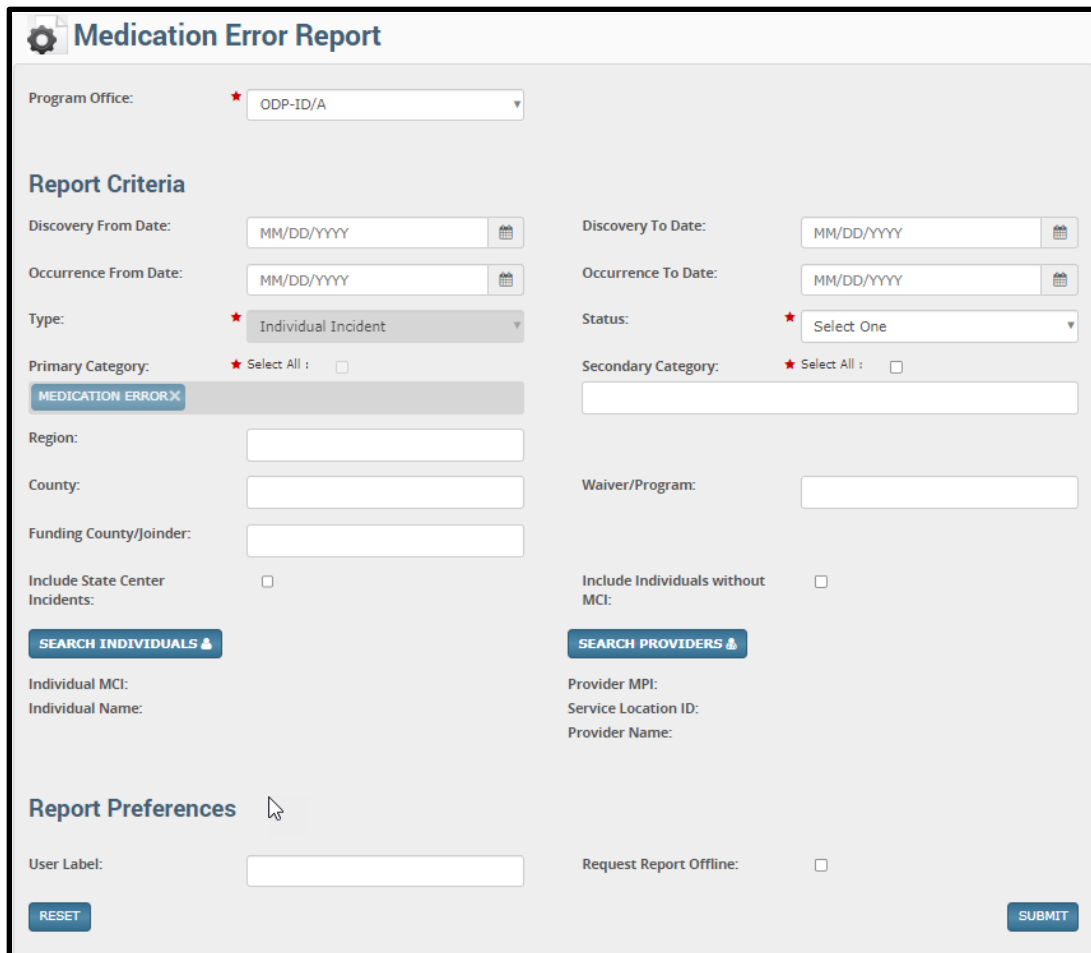
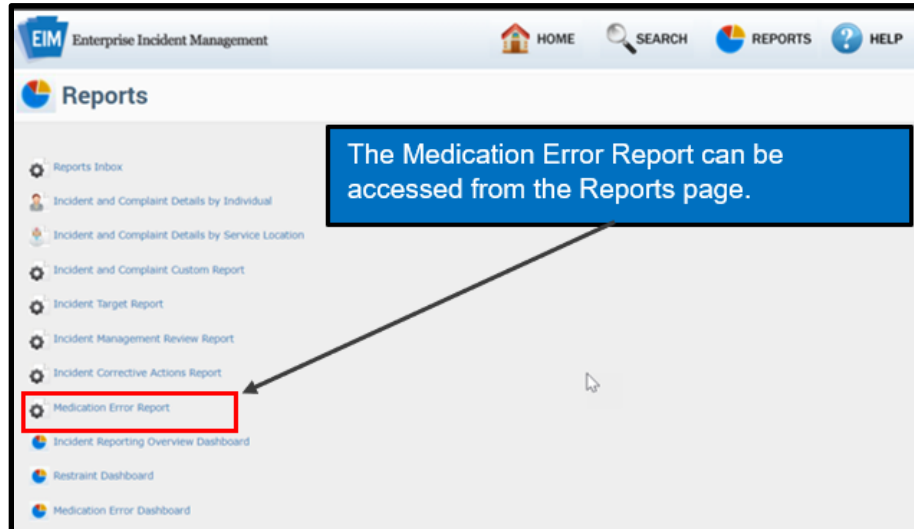
Why did the error occur?	What was the response to the error?	What is being done to prevent future occurrences?
Misread label 57	Observed for side effects 55	Training/Retraining 57
Did not get prescription or refill from health care provider 9	Contacted Agency Nurse 13	Evaluate new practice/modified existing practice 12
Another individual obtained unattended medication 8	Contacted Health Care Professional 11	HCQU referral 11
Did not compare log to label 7	Contacted 911 8	Indicator for quality improvement initiative 11
Did not order prescription or refill from pharmacy 4	Contacted Program Supervisor/Specialist 7	Evaluate new policy/modified existing policy 9
Misidentified person 4	No action taken at the time of discovery 6	Individual feedback to employee 2
Did not pick up prescription or refill from pharmacy 3	Contacted Poison Control 4	Other 2
Did not receive prescription ordered from pharmacy 3	Hospitalization 4	Situation reviewed, no action taken 2
Got wrong prescription from pharmacy 3	Assessment at ER 3	Monitoring medication passes for that staff person 1
Mixed up size or strength of tablets 3	Blood work/lab work/additional testing of medication levels completed 3	Referral to risk management for further evaluation 1
Unknown 3	Other (please specify) 3	
Other 2	Contacted program supervisor 2	
Error in Medication Administration Record (MAR)/Medication Log 1	Called poison control 1	
Miscommunication between residential provider and day service provider 1	Contacted health care professional 1	
	ER visit 1	

For example, once the name Misread Label (with 57 medication errors) is clicked, the provider data on the Medication Error Details tab updated.



Additional Data Drill Down

Users can further drill-down into the data used to populate the dashboard by pulling the Medication Error Report available in EIM. This report will give users access to specific details of each medication error used to create the visualizations on the dashboard.



The screenshot shows the "Medication Error Report" form. It includes the following sections and fields:

- Program Office:** A dropdown menu with "ODP-ID/A" selected.
- Report Criteria:**
 - Discovery From Date:** A date input field with a calendar icon.
 - Discovery To Date:** A date input field with a calendar icon.
 - Occurrence From Date:** A date input field with a calendar icon.
 - Occurrence To Date:** A date input field with a calendar icon.
 - Type:** A dropdown menu with "Individual Incident" selected.
 - Status:** A dropdown menu with "Select One" selected.
 - Primary Category:** A dropdown menu with "MEDICATION ERROR" selected.
 - Secondary Category:** A dropdown menu with "Select All" selected.
 - Region:** A text input field.
 - County:** A text input field.
 - Funding County/Joinder:** A text input field.
 - Include State Center Incidents:** A checkbox.
 - Include Individuals without MCI:** A checkbox.
 - SEARCH INDIVIDUALS** button.
 - SEARCH PROVIDERS** button.
 - Individual MCI:** A text input field.
 - Individual Name:** A text input field.
 - Provider MPI:** A text input field.
 - Service Location ID:** A text input field.
 - Provider Name:** A text input field.
- Report Preferences:**
 - User Label:** A text input field.
 - Request Report Offline:** A checkbox.
 - RESET** button.
 - SUBMIT** button.