Public Health Ontario | Santé publique Ontario

USER GUIDE

Substance Use and Harms Tool

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Introduction

The Substance Use and Harms Tool integrates a number of different data sources to provide a view of harms related to opioid, stimulant, and benzodiazepine use in the province. This user guide describes the contents of this interactive report, how it is organized, and the functionalities for visualizing the content.

This interactive report includes emergency department (ED) visits due to opioid-related poisonings, hospitalizations due to opioid-related poisonings, deaths due to opioid toxicity, deaths due to stimulant toxicity, and deaths due to benzodiazepine toxicity. Data is presented for the most recent ten years for opioid-related harms, and from 2018 for stimulant and benzodiazepine-related harms.

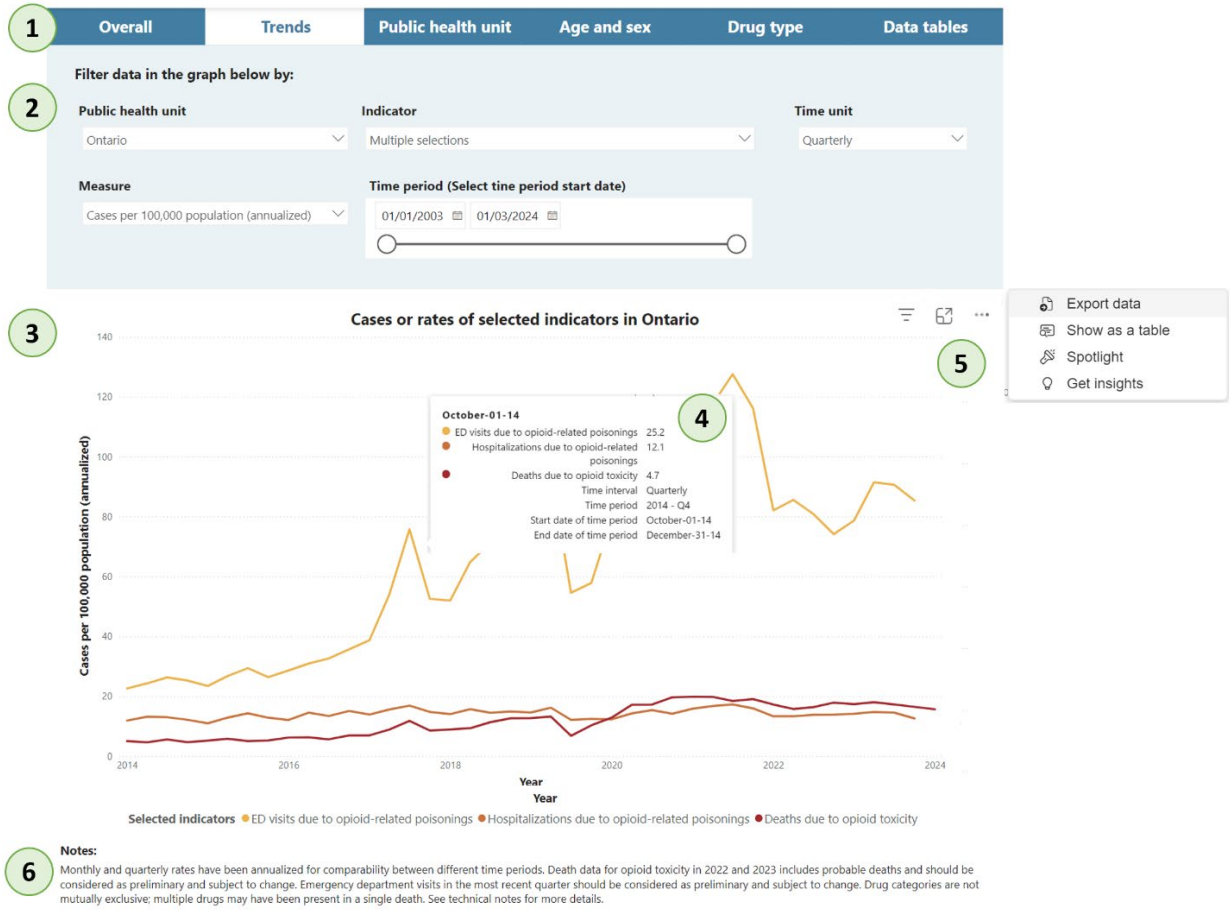
The tool is organized into six tabs which provide different views of the data:

- **Overall tab:** contains both counts and rates of harms over time for a single indicator at a time
- **Trends tab:** users can compare different indicators over time
- **Public health unit tab:** users can compare trends for indicators by public health unit
- **Age and sex tab:** users can compare age group trends or distribution
- **Drug type tab:** users can compare trends by specific drug types within each drug class
- **Data tables tab:** users can customize tables to export data from the tool

Using the Substance Use and Harms Tool

Overview

Generally, the functionality is similar across the different tabs in the tool. The available selection areas of the tool are numbered and summarized below.

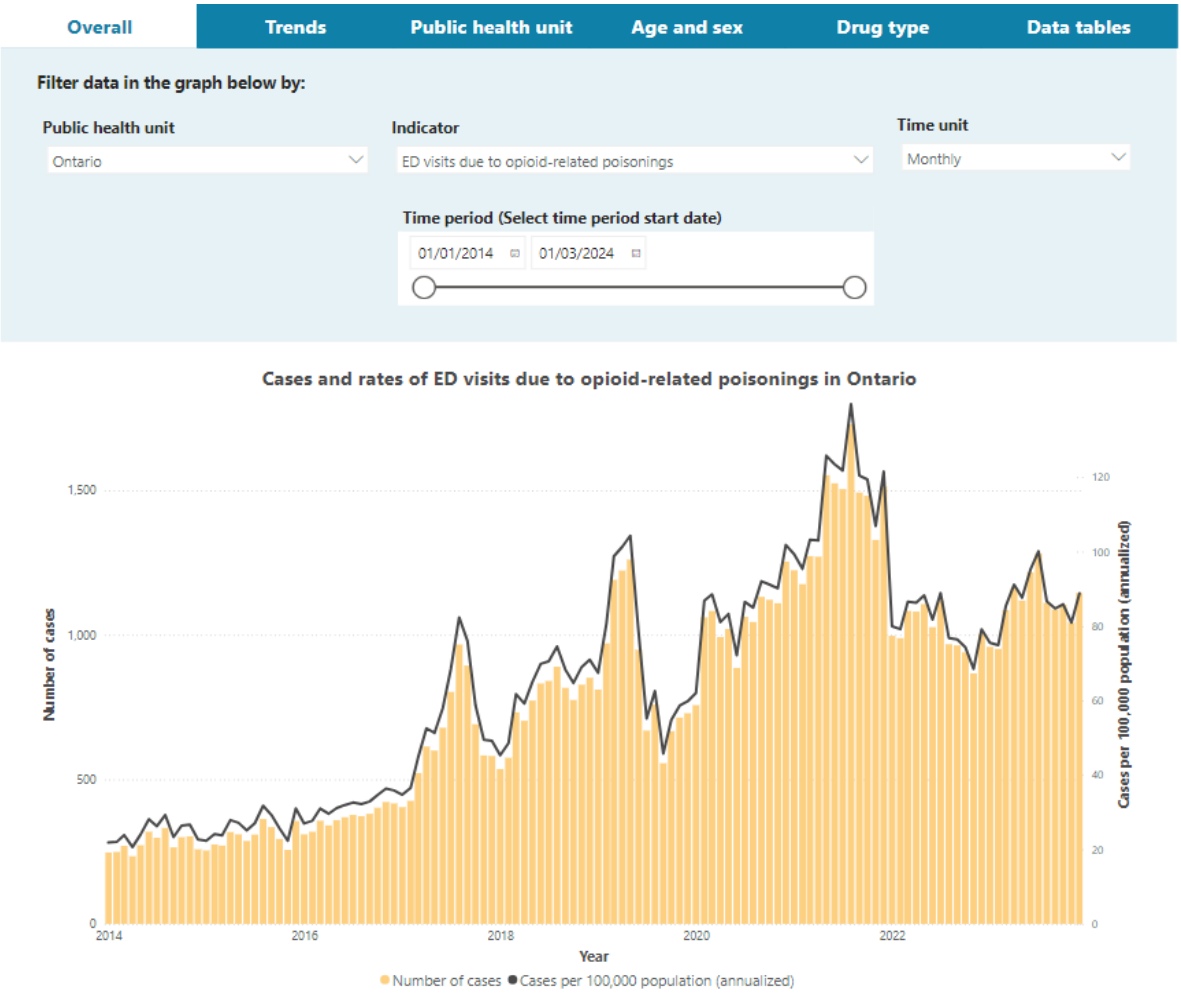


1. **Navigation bar:** This top navigation bar is used to move between the different tabs (Overall, Trends, Public health unit, Age and sex, Drug type, and Data table). The tab being viewed is indicated in white, while the others remain blue.
2. **Filters:** Filters are used to select or remove content included in the graphs, and can be opened by selecting the drop down arrow on the right side. The filter will either allow for a single selection or multi-selection depending on the chosen stratifier. Further details on filters in specific tabs are available later in this guide.
    - The 'Measure' filter appears within the 'Trends', 'Public health unit', 'Age and sex', and 'Drug type' tabs and can be used to change the measure visualized in the graph below
    - The 'Time period' filter is used to adjust the time period used to plot the data on the x-axis of the graph by either selecting a start and end date in the top boxes or by dragging the slider below the date selection. This filter is used in conjunction with the 'Time unit' filter (monthly, quarterly, yearly) to visualize data shown by month, quarter, or year. Users should select the first day of the month, quarter (January, April, July, October), or year that they want to include. The 'Age and sex' and 'Drug type' tabs contain only yearly data so this filter will be replaced by a 'Year' filter in those tabs.

3. **Graph:** Each tab contains a single graph that is adjusted based on user selection in the above filters.
4. **Tooltips:** When hovering over any data point on a graph, a tooltip will appear with related information about that data point.
5. **Download data from the graph:** When hovering over a graph, a context menu (denoted by three dots) will appear at the top right. Once selected, users can choose to export the data in the graph or view the data in the graph as a table. To capture an image of the graph, users can use the Snipping tool built into Microsoft Windows (Windows logo key + Shift + S) or macOS (Command + Shift + 5).
6. **Notes:** Beneath the graph in each tab are brief notes describing important considerations for data interpretation. Further details can be found in the technical notes.

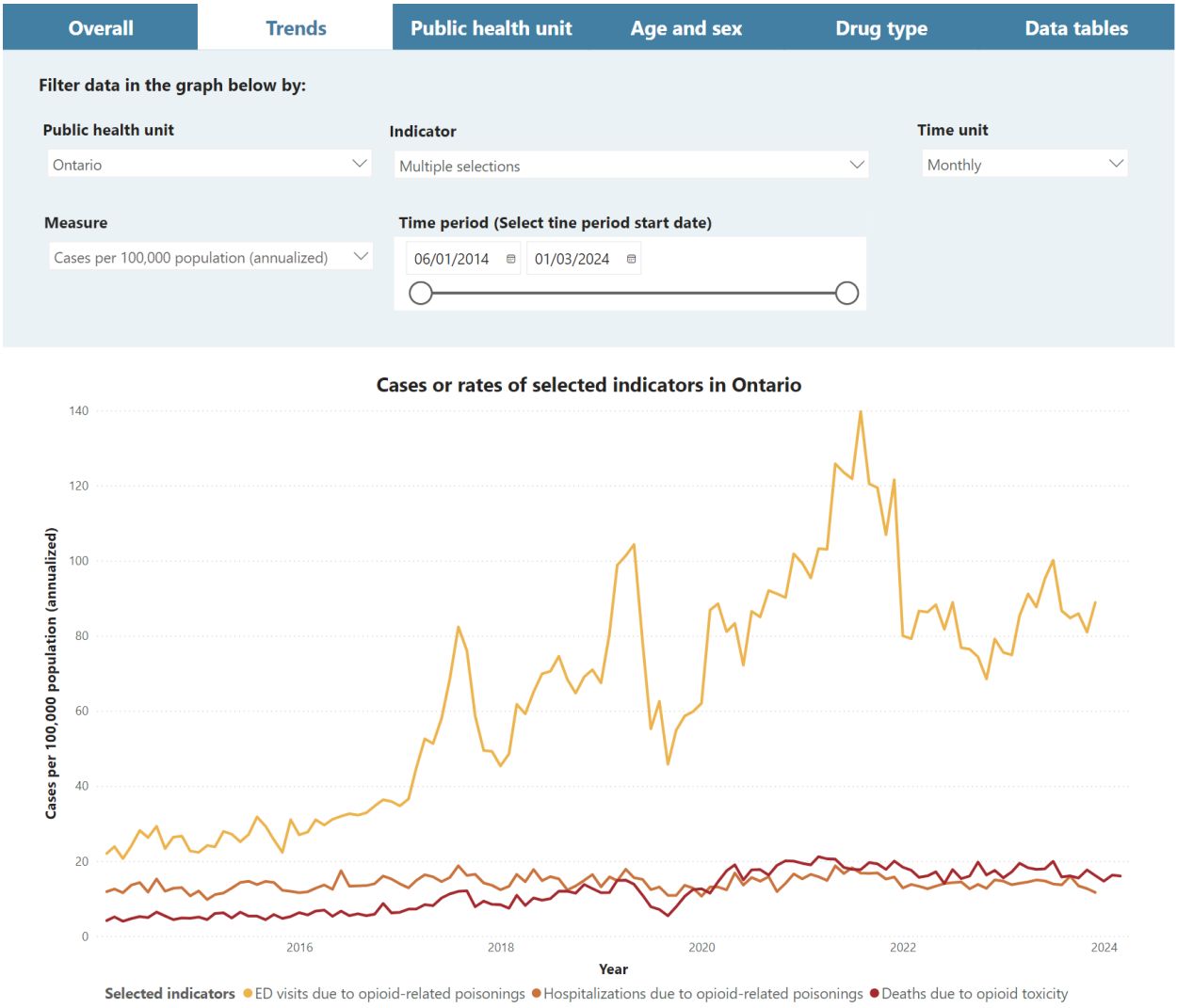
Overall Tab

This tab provides a bar and line graph visualizing both counts and rates of harms over time for a single indicator at a time, with filters to adjust the public health unit (province of Ontario or one of the 34 PHUs in the province), indicator (ED visits due to opioid-related poisonings, hospitalizations due to opioid-related poisonings, deaths due to opioid toxicity, deaths due to opioid toxicity with stimulant involvement, deaths due to opioid toxicity with benzodiazepine involvement, deaths due to stimulant toxicity, deaths due to stimulant toxicity without opioid involvement, deaths due to benzodiazepine toxicity, deaths due to benzodiazepine toxicity without opioid involvement), time unit (monthly, quarterly, yearly), and time period.



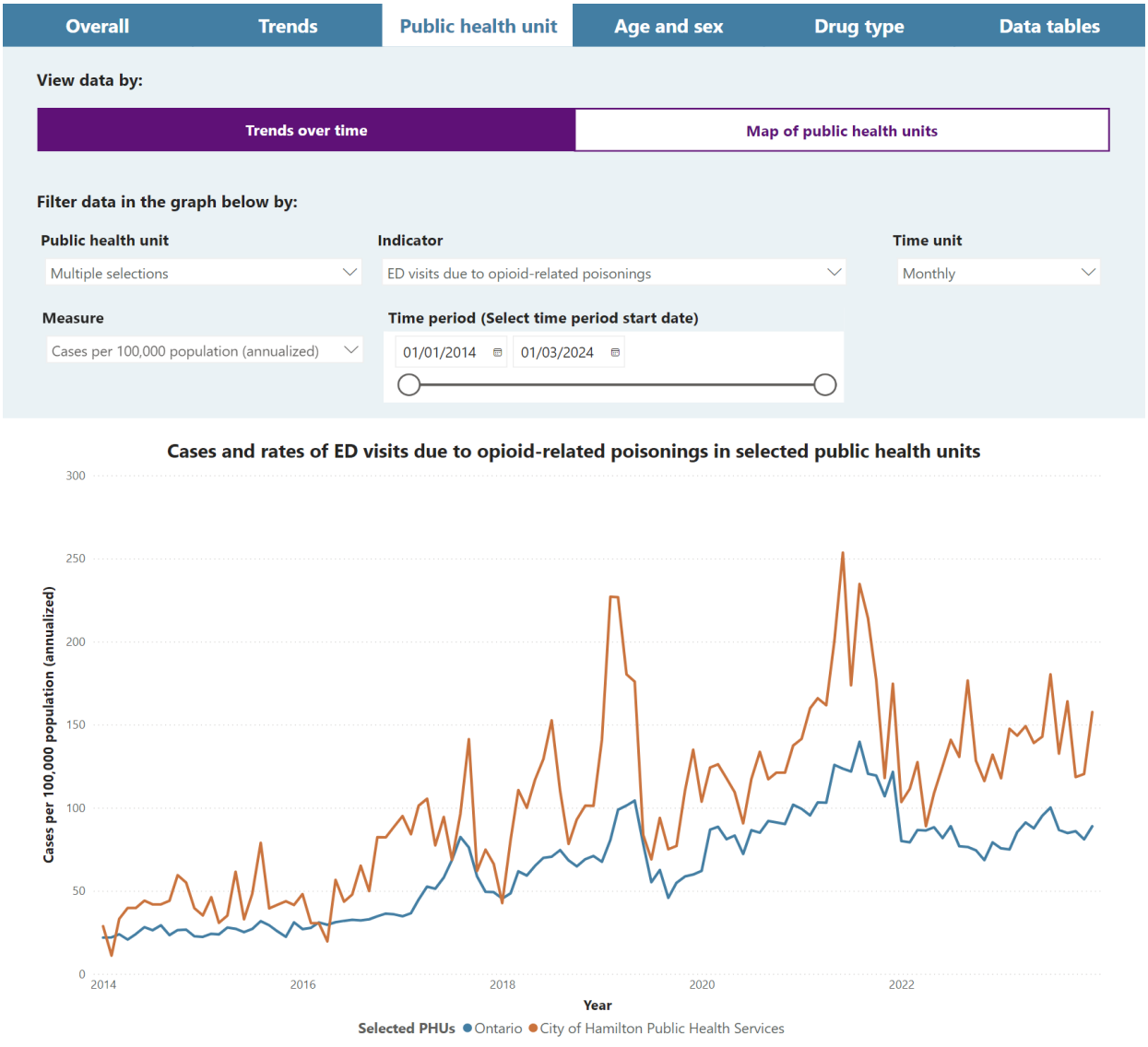
Trends Tab

This tab provides a multi-line graph visualizing either counts or rates of harms over time for multiple indicators at a time, with filters to adjust the public health unit (province of Ontario or one of the 34 PHUs in the province), indicator (ED visits due to opioid-related poisonings, hospitalizations due to opioid-related poisonings, deaths due to opioid toxicity, deaths due to opioid toxicity with stimulant involvement, deaths due to opioid toxicity with benzodiazepine involvement, deaths due to stimulant toxicity, deaths due to stimulant toxicity without opioid involvement, deaths due to benzodiazepine toxicity, deaths due to benzodiazepine toxicity without opioid involvement), time unit (monthly, quarterly, yearly), and time period. Selecting more than one indicator in that filter will add the corresponding information to the graph.

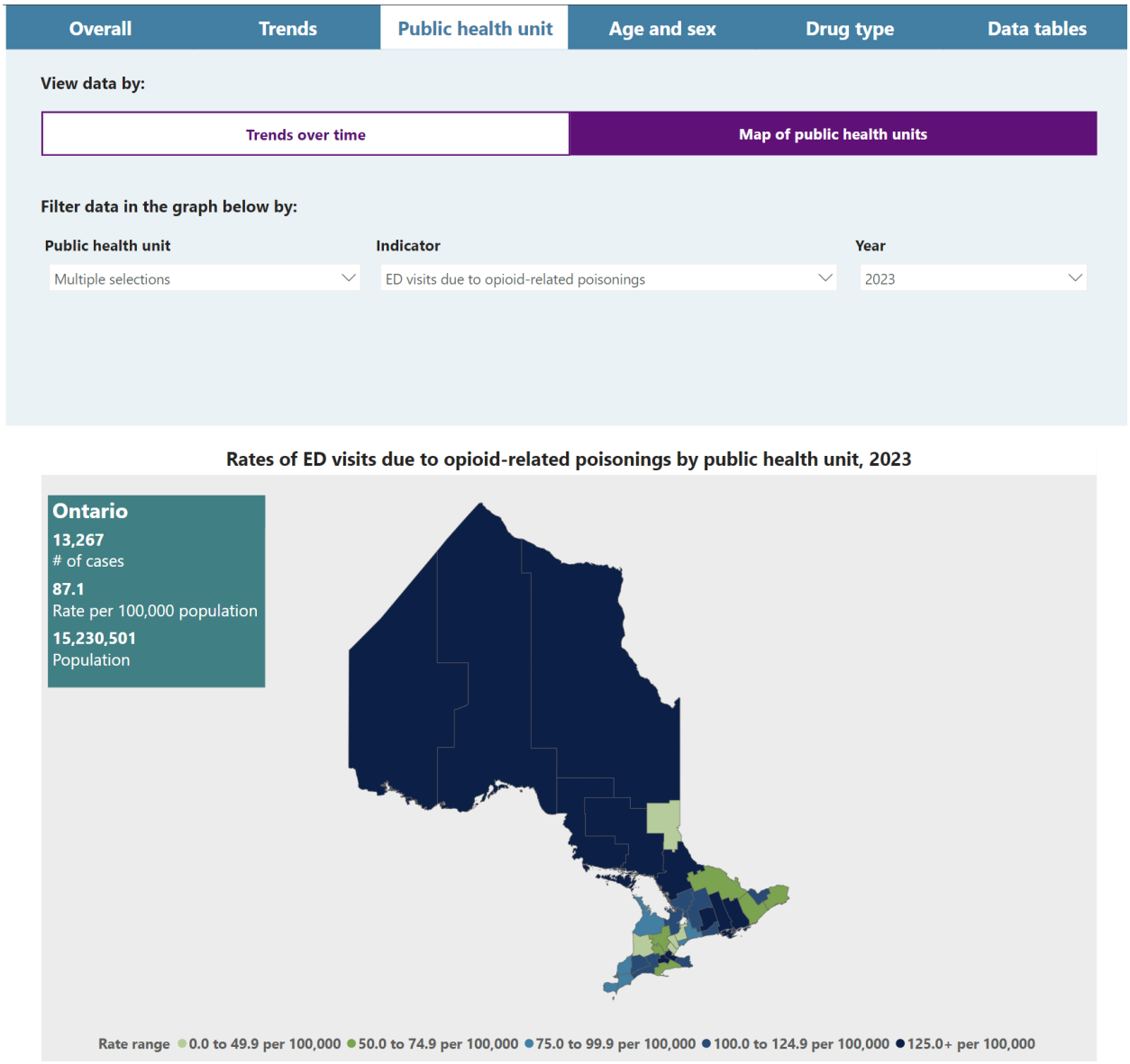


Public Health Unit Tab

This tab provides a multi-line graph visualizing either counts or rates of harms over time for multiple public health units at a time, with filters to adjust the public health unit (province of Ontario or one of the 34 PHUs in the province), indicator (ED visits due to opioid-related poisonings, hospitalizations due to opioid-related poisonings, deaths due to opioid toxicity, deaths due to opioid toxicity with stimulant involvement, deaths due to opioid toxicity with benzodiazepine involvement, deaths due to stimulant toxicity, deaths due to stimulant toxicity without opioid involvement, deaths due to benzodiazepine toxicity, deaths due to benzodiazepine toxicity without opioid involvement), time unit (monthly, quarterly, yearly), and time period. Selecting more than one public health unit in that filter will add the corresponding information to the graph (by default only the provincial line is selected).

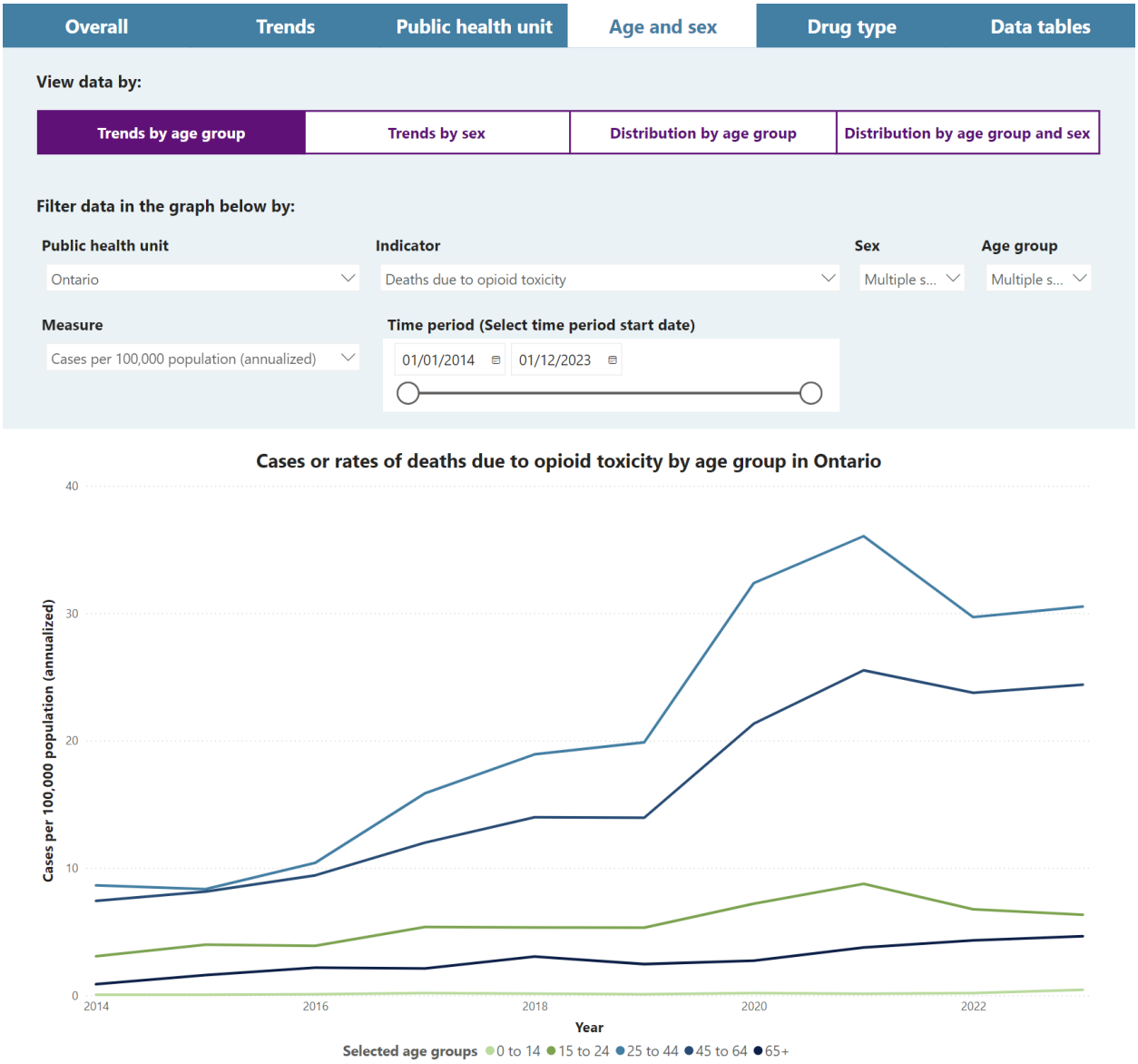


This tab also provides a shaded map view of the province where rates of harms are visualized by public health unit. Only yearly results for the past five years are included in this view.

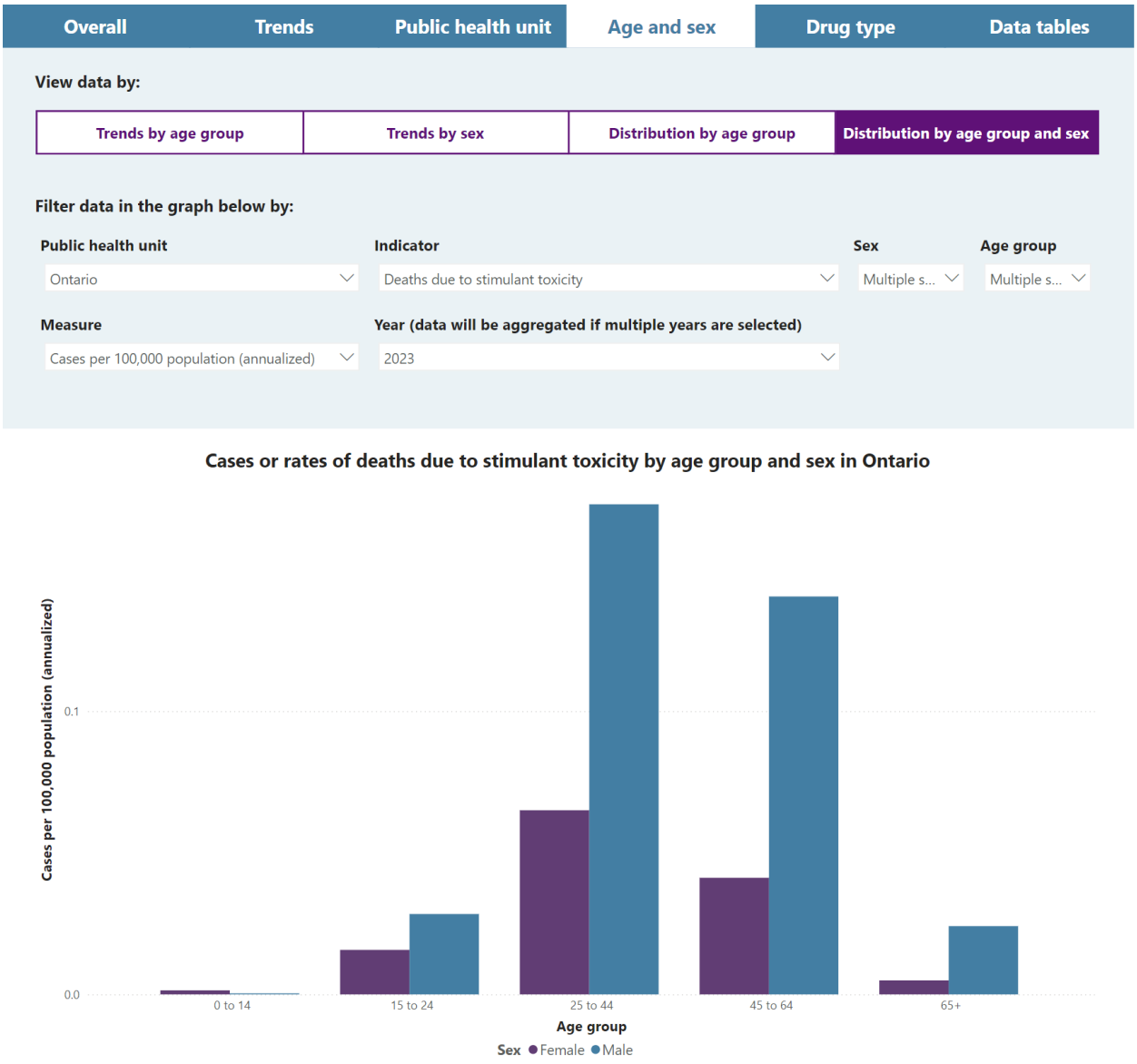


Age and Sex Tab

This tab provides a multi-line graph visualizing either counts or rates of harms over time by age group ('Trends by age group') or sex ('Trends by sex') with filters to adjust the public health unit (province of Ontario or one of the 34 PHUs in the province), indicator (ED visits due to opioid-related poisonings, hospitalizations due to opioid-related poisonings, deaths due to opioid toxicity, deaths due to opioid toxicity with stimulant involvement, deaths due to opioid toxicity with benzodiazepine involvement, deaths due to stimulant toxicity, deaths due to stimulant toxicity without opioid involvement, deaths due to benzodiazepine toxicity, deaths due to benzodiazepine toxicity without opioid involvement), time unit (monthly, quarterly, yearly), sex, age group, and time period. The purple buttons below the top navigation bar can be used to move between the different views.

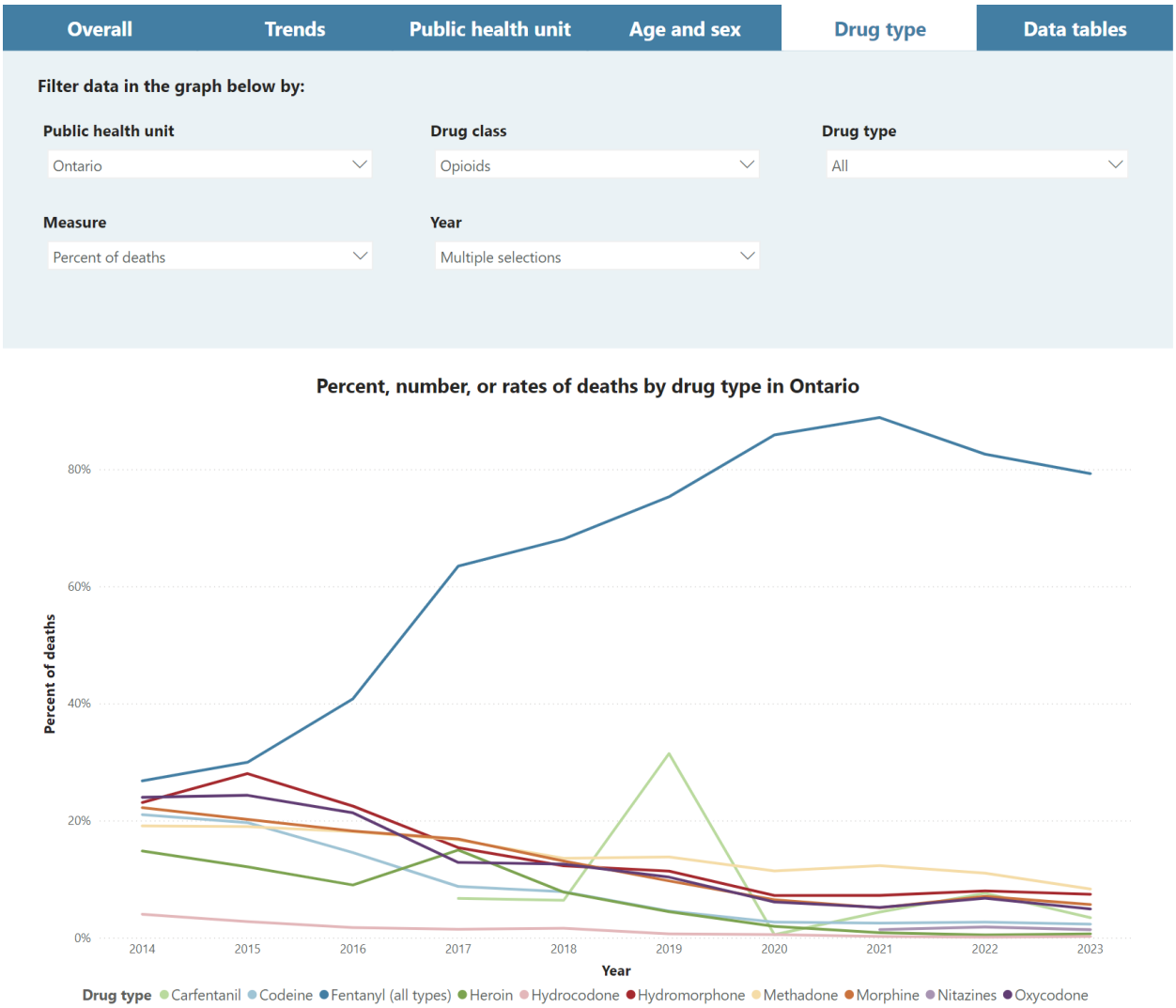


This tab also provides a distribution view of the data by age group ('Distribution by age group') or by age group and sex ('Distribution by age group and sex').



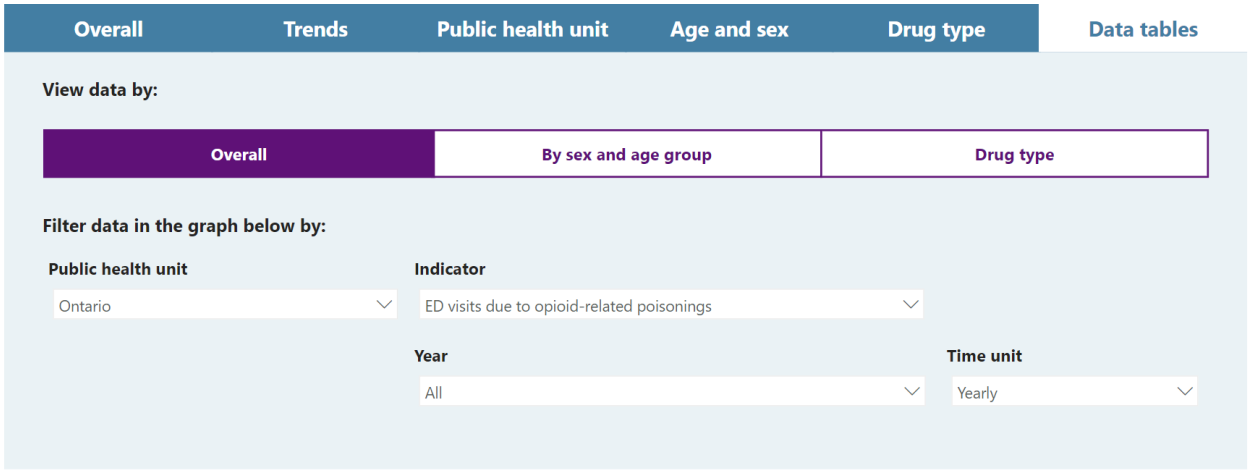
Drug Type Tab

This tab provides a multi-line graph visualizing either counts, percent, or rates of deaths over time, by drug type with filters to adjust the public health unit (province of Ontario or one of the 34 PHUs in the province), drug class (opioids, stimulants, benzodiazepines), drug type (opioids: codeine, fentanyl (all types), carfentanil, heroin, hydrocodone, hydromorphone, methadone, morphine, nitazines, oxycodone; stimulants: cocaine, methamphetamines, other stimulants; benzodiazepines: approved benzodiazepines, unapproved benzodiazepines) and year. If there were less than five total drug-related deaths in the year for a public health unit the results will be suppressed and will show as blank in the graph.



Data Tables Tab

This tab provides a table view where users can download data from the other tabs for multiple public health units and indicators at a single time. There are three different table views: overall (without age and sex), by age and sex, and by drug type. As noted in the tool overview section, users should interact with the context menu (three dots) at the top right of the table to export data.



Public health unit	Indicator	Time interval	Time period	Start date of time period	End date of time period	Number of cases	Population	Cases per 100,000 population (annualized)
Ontario	ED visits due to opioid-related poisonings	Yearly	2003	January-01-03	December-31-03	1,858	12,168,529	15.3
Ontario	ED visits due to opioid-related poisonings	Yearly	2004	January-01-04	December-31-04	2,043	12,316,914	16.6
Ontario	ED visits due to opioid-related poisonings	Yearly	2005	January-01-05	December-31-05	2,086	12,459,029	16.7
Ontario	ED visits due to opioid-related poisonings	Yearly	2006	January-01-06	December-31-06	2,150	12,594,935	17.1
Ontario	ED visits due to opioid-related poisonings	Yearly	2007	January-01-07	December-31-07	2,231	12,713,344	17.5
Ontario	ED visits due to opioid-related poisonings	Yearly	2008	January-01-08	December-31-08	2,411	12,824,194	18.8
Ontario	ED visits due to opioid-related poisonings	Yearly	2009	January-01-09	December-31-09	2,886	12,940,965	22.3
Ontario	ED visits due to opioid-related poisonings	Yearly	2010	January-01-10	December-31-10	2,841	13,067,062	21.7
Ontario	ED visits due to opioid-related poisonings	Yearly	2011	January-01-11	December-31-11	2,934	13,198,580	22.2
Ontario	ED visits due to opioid-related poisonings	Yearly	2012	January-01-12	December-31-12	3,154	13,326,006	23.7
Ontario	ED visits due to opioid-related poisonings	Yearly	2013	January-01-13	December-31-13	3,051	13,450,706	22.7
Ontario	ED visits due to opioid-related poisonings	Yearly	2014	January-01-14	December-31-14	3,347	13,564,168	24.7
Ontario	ED visits due to opioid-related poisonings	Yearly	2015	January-01-15	December-31-15	3,628	13,662,336	26.6
Ontario	ED visits due to opioid-related poisonings	Yearly	2016	January-01-16	December-31-16	4,427	13,791,257	32.1
Ontario	ED visits due to opioid-related poisonings	Yearly	2017	January-01-17	December-31-17	7,764	13,972,767	55.6

Citation

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