



**Department  
of Health**

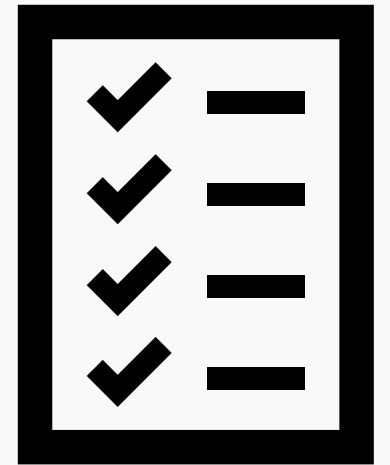
# **New York State Public Health Corps Fellowship Program**

**Visualizing New York State Data: An Overview of the Prevention Agenda and  
Community Health Indicator Reports Dashboards and How to Use Excel to  
Generate Your Own Visualizations**

**FEBRUARY 12<sup>TH</sup>, 2025, EDUCATIONAL SERIES: SPECIALIZED SKILLS**

# AGENDA

- Welcome!
- Session Learning Objectives
- Presentation: *Visualizing New York State Data: An Overview of the Prevention Agenda and Community Health Indicator Reports Dashboards and How to Use Excel to Generate Your Own Visualizations*
- Q&A
- Closing Remarks



# SESSION LEARNING OBJECTIVES

By the end of the session, learners will be able to:

1. Describe how to navigate the Prevention Agenda (PA) and Community Health Indicator Reports (CHIRS) dashboards
2. Examine and interpret data
3. Demonstrate how to extract data from the dashboard
4. Plot visualizations similar to displays on the dashboards using 1) traditional means and 2) pivot tables



# **WELCOME!**

# **NAILA KABIRAJ**



Department  
of Health



**Department  
of Health**

# **VISUALIZING NEW YORK STATE DATA**

AN OVERVIEW OF THE PREVENTION AGENDA AND COMMUNITY HEALTH INDICATOR REPORTS DASHBOARDS AND  
HOW TO USE EXCEL TO GENERATE YOUR OWN VISUALIZATIONS

**NAILA KABIRAJ, MPH**

Feb 12, 2025 | NYLearnsPH

2/12/2025 | 1

# OBJECTIVES

## Dashboard:

- Describe how to navigate the Prevention Agenda (PA) and Community Health Indicator Reports (CHIRS) dashboards
- Examine and interpret data

## Excel:

- Demonstrate how to extract data from the dashboards
- Plot visualizations similar to displays on the dashboards using 1) traditional means and 2) pivot tables

# OVERVIEW OF THE PA AND CHIRS

## Prevention Agenda 2019-2024:

- The State's health improvement plan
- A blueprint for state and local agencies to implement interventions that achieve objectives set in each focus area
- **6** Priority Areas, each with a number of focus areas that each have their own goals, objectives, and interventions

## Community Health Indicator Reports:

- Developed in 2012
- Provides information across **15** health topics for NYS communities to assess performance



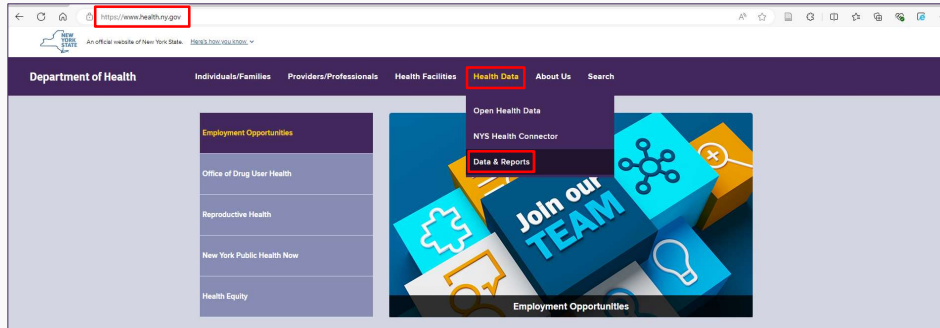
2/12/2025 | 3

Link to learn more about PA 2019-2024:

[https://www.health.ny.gov/prevention/prevention\\_agenda/2019-2024/index.htm](https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/index.htm)

# NAVIGATING TO THE DASHBOARDS

1. Go to [health.ny.gov](https://www.health.ny.gov)
2. Click on **Health Data** at the top menu of options
3. Select **Data and Reports** from the dropdown



# NAVIGATING TO THE DASHBOARDS

## 4. Choose a dashboard to view

Department of Health  
Individuals/Families Providers/Professionals Health Facilities Health Data About Us Search

### Data & Reports

View key Department of Health dashboards, access downloadable datasets, and see the [full A-Z list](#) of data pages and reports.

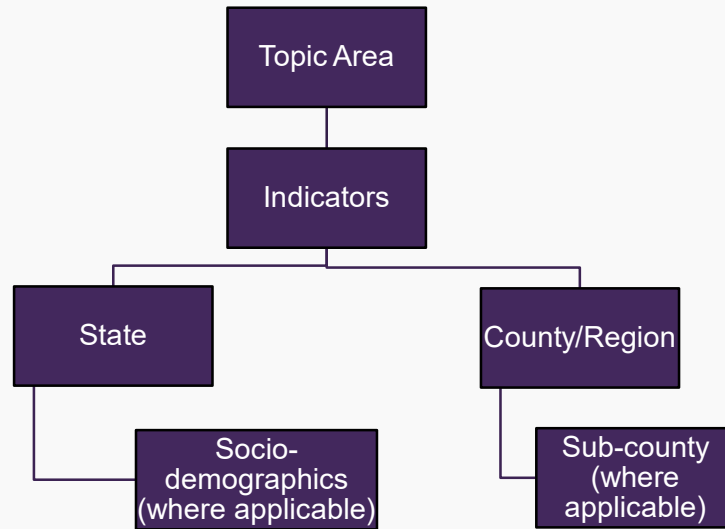
#### Dashboards

Community Health Dashboards

- Prevention Agenda**  
Tracking progress on the implementation of the State Health Improvement Plan's priority areas: Reducing health disparities; Preventing chronic diseases; Promoting a healthy and safe environment; promoting healthy women, infants, and children; Promoting well-being and preventing mental and substance use disorders; and Preventing communicable diseases.
- Community Health Indicator Reports (CHIRS)**  
Tracking the health of New Yorkers across communicable diseases, chronic diseases, and behavioral and health risk factors.
- Leading Causes of Death**  
Top causes of all deaths and premature deaths, and estimated life expectancy in New York.



# DATA ORGANIZATION



- Number of counties in NYS=62
  - Current number of regions on the dashboard (uses DSRIP regions): 11
  - New York State (excluding New York City), often referred to as 'Rest of State' (ROS), is also presented
- Total number of areas we present on the dashboards= 75 (State+counties+regions+ROS), not including sub-county

# PERFORMANCE METRICS FOR EACH INDICATOR




## Indicator Status (if applicable)

Indicates whether the objective has been met or not

Indicator Status <i>i</i>	
Met	
Unmet	






## Indicator Performance

Compares data for the most recent time period for which data are available to data from the previous time period

Indicator Performance <i>i</i>	
Improved	
No Change	
Worsened	
N/A	

## Concern Level

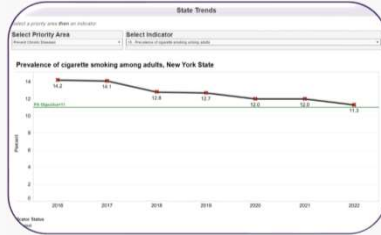
Represents how a county is doing in comparison to other counties in New York State based on a quartile distribution

Concern Level <i>i</i>	
High Concern	
Moderate Concern	
Low Concern	
N/A or Suppressed	
No Distribution	

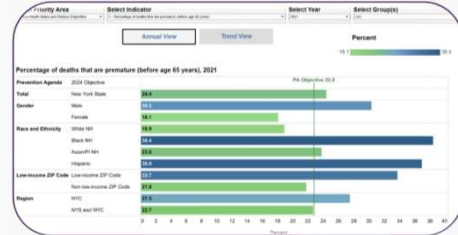
A good read on breaking data into chunks for coloring and mapping:  
<https://blog.datawrapper.de/interpolation-for-color-scales-and-maps/>

# VISUALIZATIONS

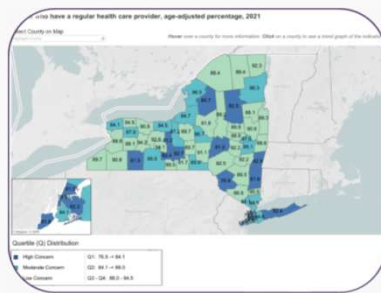
## Trend Graphs



## Bar Charts



## Maps



## Tables

Region	County/Region	Fully immunized children	Children aged 24-35 months	Percent	Bar Chart or Table
Long Island	Nassau	9,000	14,802	91.9	
	Suffolk	9,471	16,884	94.9	
	LICHES ISLAND	18,532	34,819	90.7	
	Suffolk	12,802	18,882	91.7	
New York City	Manhattan	18,880	30,524	94.9	
	Brooklyn	6,550	14,882	94.9	
	Queens	18,102	28,811	93.2	
	Richmond	2,714	4,811	93.2	
Mid-Hudson	NEW YORK CITY	60,506	102,880	93.2	
	Dutchess	1,380	2,720	95.9	
	Orange	2,480	3,200	93.8	
	Putnam	2,100	3,500	91.7	
	Rockland	847	911	93.1	
	Ulster	244	1,021	93.8	
	Westchester	8,470	14,811	93.2	
	Albany	2,114	2,809	71.7	
	Columbia	561	800	71.2	
	Greene	281	417	67.4	
Midtown Valley	Montgomery	1,000	1,000	74.2	
	Saratoga	1,000	1,000	87.7	
	Columbia	1,000	1,000	87.7	
	Columbia	1,000	1,000	87.7	
North Country	Hamilton	1,000	1,000	87.7	
	Warren	1,000	1,000	87.7	
	Montgomery	1,000	1,000	87.7	
	Hamilton	1,000	1,000	87.7	

2/12/2025 | 8

- Trends, bar charts, and tables for state and county/regions
- Maps for counties and sub-county data (where available)

To reference how to navigate the dashboards, check the User Guide:  
[https://apps.health.ny.gov/public/tabvis/PHIG\\_Public/pa/#userguide](https://apps.health.ny.gov/public/tabvis/PHIG_Public/pa/#userguide)

Things to remember when building visualizations:

- Apply accessible formats, e.g., color-blind-friendly palettes
- Maintain consistent formatting
- Avoid clutter where possible
- Label appropriately

Resources:

- On choosing **color-blind-friendly map schemes**:  
<https://colorbrewer2.org/#type=sequential&scheme=BuGn&n=3>
- On seeing **how juxtaposing colors look for different types of color blindness**:

<https://davidmathlogic.com/colorblind/#%23844204-%231E1D1F-%23513177>

# VISUALIZING IN EXCEL

# IMPORT THE DATA YOU NEED

The screenshot displays the 'Prevention Agenda Tracking Dashboard' interface. On the left is a dark sidebar with navigation options: Dashboards, Data Export (highlighted with a red box), Technical Notes, User's Guide, Other Dashboards and Useful Links, and Contact Us. The main content area is titled 'Prevention Agenda 2019-2024 Data Export Links' and contains a list of links: State Most Recent Data, State Trend Data, Demographic Data, County Most Recent Data, County Trend Data, and Sub-County Data. A red box highlights this list. The New York State Department of Health logo is in the bottom left, and the date '2/12/2025 | 10' is in the bottom right.

For PA and CHIRS, data can be imported through the links in the Data Export panel. Data are also available for download through open data:

<https://data.ny.gov/browse?category=Health&utf8=%E2%9C%93> (search for the Prevention Agenda or CHIRS)

## EXAMPLE: PLOTTING TREND GRAPHS WITH COUNTY TREND DATA

Two ways:

1. Subsetting and plotting for one indicator
2. Using a pivot table

# 1. SUBSETTING AND PLOTTING

## Steps:

- Apply a filter to the headers (which are the columns in the dataset)
- Make selections for an indicator and county/region

County Name	Priority Area Number	Priority Area	Focus Area Number	Focus Area	Indicator Order on County Dashboard	Indicator	Indicator Count/Rate	Average Number of Days
Allegany	0	Improve Health	0	Improve Health	0	Improve Health		
Broomfield	0	Improve Health	0	Improve Health	0	Improve Health		
Cattaraugus	0	Improve Health	0	Improve Health	0	Improve Health		
Chautauque	0	Improve Health	0	Improve Health	0	Improve Health		
Chemung	0	Improve Health	0	Improve Health	0	Improve Health		
Chemung	0	Improve Health	0	Improve Health	0	Improve Health		
Clinton	0	Improve Health	0	Improve Health	0	Improve Health		
Columbia	0	Improve Health	0	Improve Health	0	Improve Health		
Cortland	0	Improve Health	0	Improve Health	0	Improve Health		
Delaware	0	Improve Health	0	Improve Health	0	Improve Health		
Dutchess	0	Improve Health	0	Improve Health	0	Improve Health		
Erie	0	Improve Health	0	Improve Health	0	Improve Health		
Essex	0	Improve Health	0	Improve Health	0	Improve Health		
Franklin	0	Improve Health	0	Improve Health	0	Improve Health		
Fulton	0	Improve Health	0	Improve Health	0	Improve Health		
Genesee	0	Improve Health	0	Improve Health	0	Improve Health		

- Copy the filtered rows and columns and paste onto a new Sheet
- Select a blank cell, go to Insert at the top ribbon, and choose the line graph icon
- Right click the blank display and choose 'Select Data...'

# 1. SUBSETTING AND PLOTTING

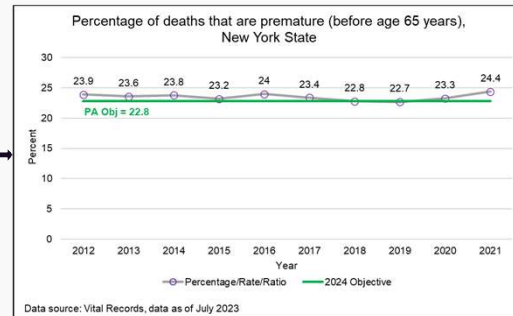
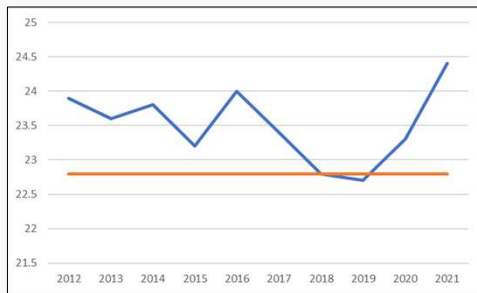
- f. Under Legend Entries (Series): choose the values to populate the y-axis with, in this case the Percentage/Rate/Ratio and 2024 Objective
- g. Under Horizontal (Category) Axis Labels: Choose the data years the values correspond to

Indicator	Event Cou	Average N	Measure	Percentage/Rate/Ratio	Lower Lim	Upper Lim	Data Com	Quartile	2024 Objective	Data Years	Date Sour	
Percentag	35,196	147,390	Percent	23.9					22.8	New York	2012	Vital Reco
Percentag	34,782	147,445	Percent	23.6					22.8	New York	2013	Vital Reco
Percentag	35,449	149,086	Percent	23.8					22.8	New York	2014	Vital Reco
Percentag	35,611	153,623	Percent	23.3					22.8	New York	2015	Vital Reco
Percentag	36,905	153,684	Percent	24					22.8	New York	2016	Vital Reco
Percentag	36,337	155,191	Percent	23.4					22.8	New York	2017	Vital Reco
Percentag	35,765	157,176	Percent	22.8					22.8	New York	2018	Vital Reco
Percentag	35,533	156,405	Percent	22.7					22.8	New York	2019	Vital Reco
Percentag	47,305	203,393	Percent	23.3					22.8	New York	2020	Vital Reco
Percentag	44,185	181,421	Percent	24.4					22.8	New York	2024	Vital Reco



# SUBSETTING AND PLOTTING

h. Use formatting tools to change from simple lines to an appropriately labeled line graph



2/12/2025 | 14

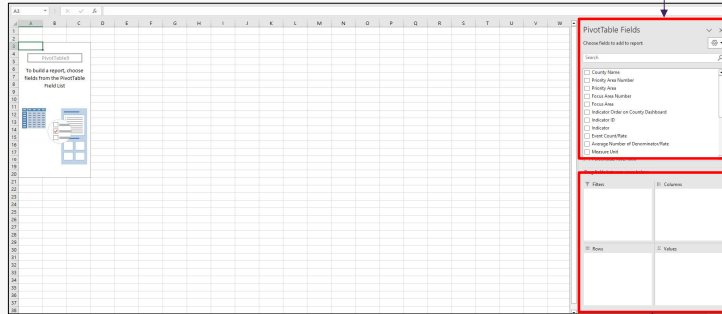
- Add title and axes labels
- Apply appropriate font sizing
- Set the starting point of the y-axis to 0 (often good practice but can vary depending on the need. If smaller changes are important but are becoming invisible because the axis starts at 0, it may be worthwhile to make an exception and start the axis at another value to highlight the change)
- Add data markers
- Add Objective reference line (if applicable)
- Add data labels, at least for the first and last data points if it gets too crowded to include all
- Add the data source and any relevant footnotes

## 2. USING A PIVOT TABLE

### Steps:

- Select data you want to work with
- From the top ribbon, click Insert>Table
- Then Insert>PivotTable. Select the table just generated
- Open the pivot table on a new worksheet

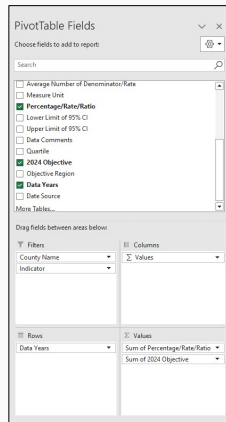
Fields are all the columns in the selected data



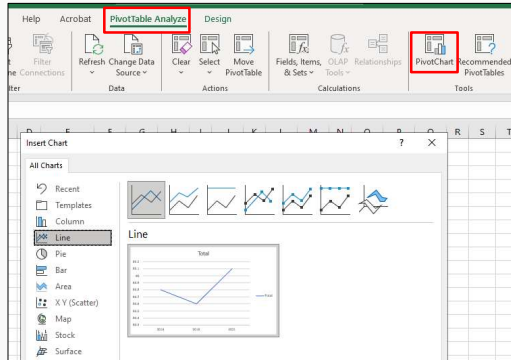
**Filters:** The field(s) by which to subset the data  
**Rows:** The field(s) whose values are needed as rows in the table  
**Columns:** The field(s) whose values are needed as columns in the table  
**Values:** The field(s) upon which a calculation can be applied. If the field is a character, Excel will tend to 'count' the different types of values

## 2. USING A PIVOT TABLE

e. Populate the 4 boxes below with the fields as shown:

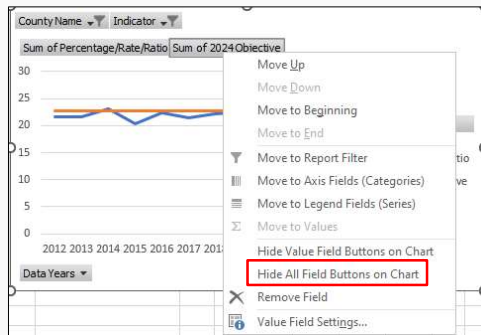


f. Click on PivotTable Analyze>PivotChart and choose a Line graph:

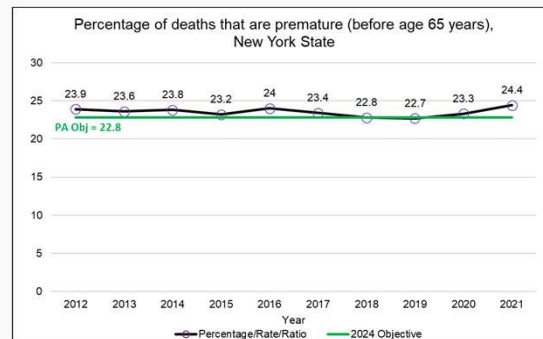


## 2. USING A PIVOT TABLE

g. Right click one of the gray buttons and select "Hide All Field Buttons on Chart":



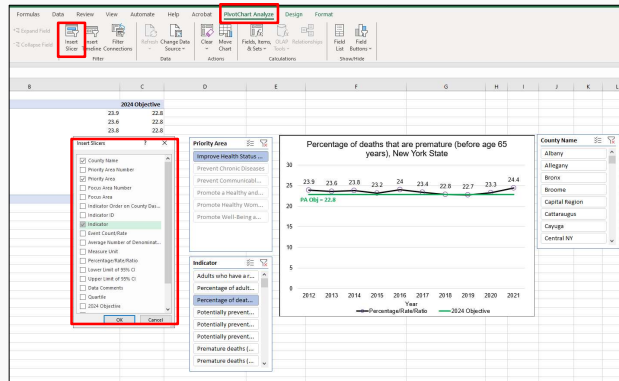
h. Use the same formatting tools as when traditionally plotting a graph to transform to an appropriately labeled line graph:



Note: Will need to rename the values in the legend. But they can't take the same name as an existing column, so will need to rename to something different, or (as I did above) add a space after the names to differentiate from the original

## 2. USING A PIVOT TABLE

- i. Click on the chart and then PivotChart Analyze>Insert Slicer (essentially filters).
- j. Select the fields you want to filter by and click 'OK'
- k. The line graph will now populate based on your selections



# LIST OF RESOURCES

- New York State Department of Health data and reports: <https://www.health.ny.gov/statistics/>
- Health data on Open NY (a data hub): <https://data.ny.gov/browse?category=Health&utf8=%E2%9C%93>
  - Main page: <https://data.ny.gov/>
- About the Prevention Agenda: [https://www.health.ny.gov/prevention/prevention\\_agenda/2019-2024/index.htm](https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/index.htm)
- User's guide on navigating the Prevention Agenda and similar dashboards: [https://apps.health.ny.gov/public/tabvis/PHIG\\_Public/pa/#userguide](https://apps.health.ny.gov/public/tabvis/PHIG_Public/pa/#userguide)
- A good read on breaking data into chunks for coloring and mapping: <https://blog.datawrapper.de/interpolation-for-color-scales-and-maps/>
- On choosing **color-blind-friendly map schemes**: <https://colorbrewer2.org/#type=sequential&scheme=BuGn&n=3>
- On seeing **how colors look for different types of color blindness**: <https://davidmathlogic.com/colorblind/#%23844204-%231E1D1F-%23513177>



Department  
of Health

2/12/2025 | 20

# QUESTIONS?



Department  
of Health

# CLOSING REMARKS



Department  
of Health

# CLOSING REMARKS

## LMS FOR FELLOWS: COMPLETE A QUIZ

NYLearnsPH LMS <https://www.nylearnsph.com>

### Welcome to the LMS!

This guide outlines how to complete a quiz for the Certificate Program.

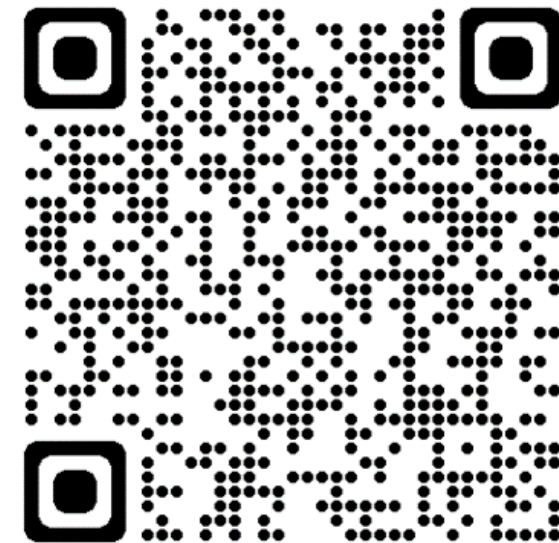
#### Here's how to get started:

- Please see the [Certificate Program Enrollment Quick Reference Guide](#) for steps to enroll in the NYSPHC Certificate Program.

**Step 1: Log In** - Start by navigating to the [NYLearnsPH Log in Page](#) (shown below) and log in using your username and password.



## NYSPHC Training and Resources Website



# SHOUT OUT

## NYSPHC Training and Resources Website

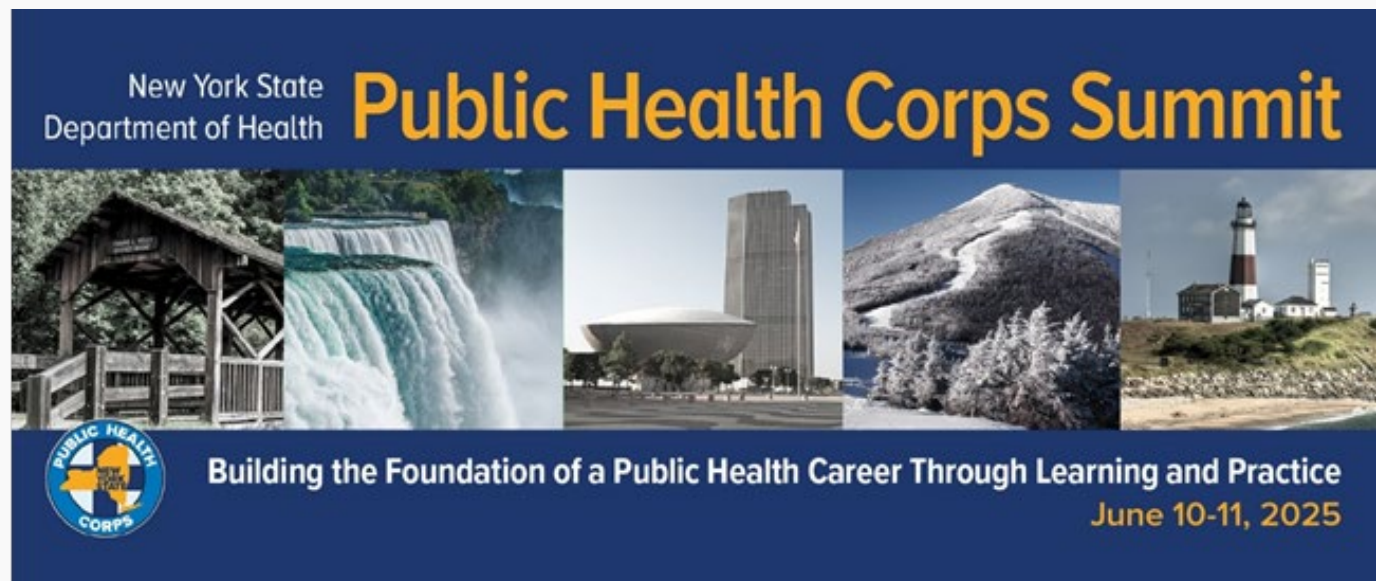


Department of Health



# NYSPHC SUMMIT 2025 UPDATES

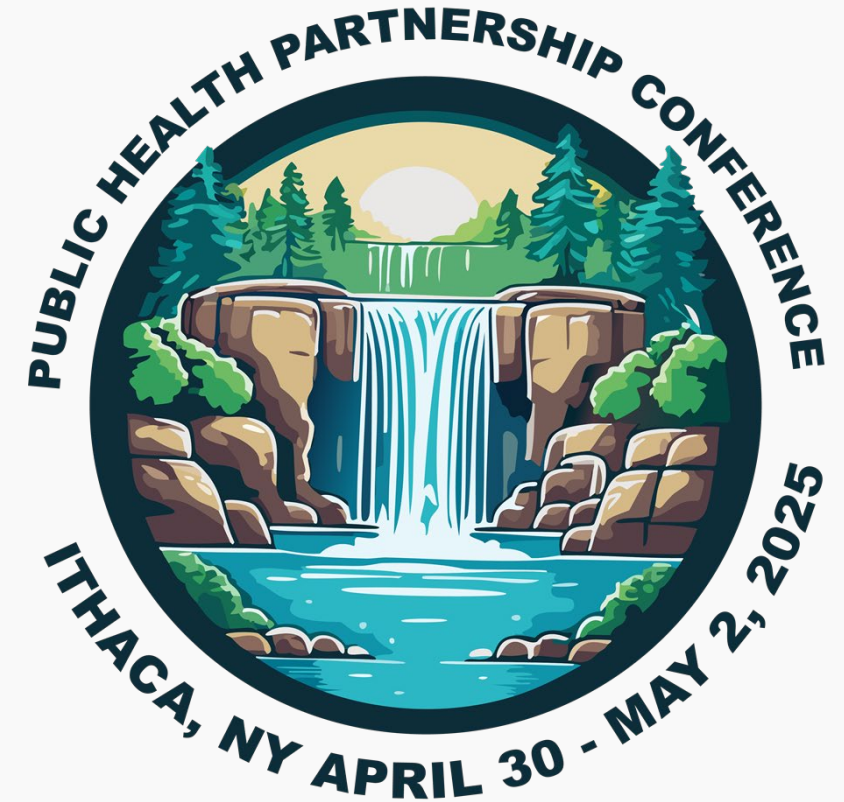
- Applicants will be notified if their abstract submission has been accepted by February 28<sup>th</sup>, 2025.
- Registration is now open!



# NYSPHA PUBLIC HEALTH PARTNERSHIP CONFERENCE

## Reminder:

- Registration for the New York State Public Health Association 2025 Public Health Partnership Conference is now open
- The conference will be held April 30 – May 2 in Ithaca, NY
- If you are interested in attending, please discuss with your supervisor
- For those who are interested and have supervisor approval to attend, please submit your travel request paperwork to your Regional FPC by **February 14, 2025**.



Department  
of Health



# NYSPHC UPCOMING EVENTS

NYSPHC Poster  
Development Training

- March 7, 2025
- 10am-11am

NYSPHC Consortium

- March 12, 2025
- 12:30pm-2:30pm

NYSPHC Oral  
Presentation Training

- March 14, 2025
- 1:30pm-2:30pm

NYSPHC Educational  
Series

- April 9<sup>th</sup>, 2025
- 12:00pm-1:00pm



NEW  
YORK  
STATE

Department  
of Health



**THANK YOU!**



Department  
of Health



**Department  
of Health**