



# Boston Wastewater Epidemiology Report

**Updated:** 03-Jan-2025 | **Data Complete Through:** 29-Dec-2024

✉ [wastewater@bphc.org](mailto:wastewater@bphc.org)



Boston Public  
Health Commission

# Report Contents



## COVID-19 Summary

- Neighborhood Levels and Trends
- Citywide Overview and Trends
- BPHC Trend Overview by Neighborhood

## Detailed Results

- Neighborhood Levels and Data Table
- Results by Neighborhood
  - Allston/Brighton
  - Back Bay
  - Charlestown
  - Dorchester
  - East Boston
  - Hyde Park
  - Jamaica Plain
  - Mattapan
  - Roslindale/West Roxbury
  - Roxbury

## Variant Results

- Percent Variant Lineages (Citywide)

## Influenza & RSV

- Influenza Detections in Wastewater
- RSV Detections in Wastewater

# A Note About These Reports

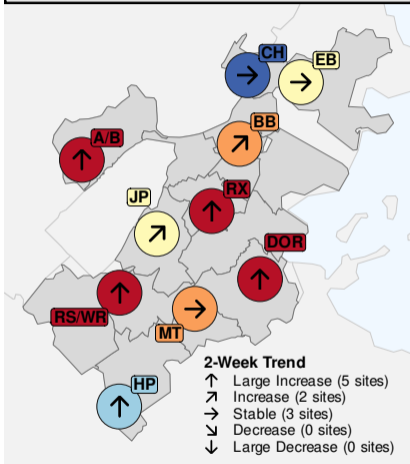


The laboratory that tests Boston's wastewater changed on August 1, 2024. Because of differences in the methods used at the old laboratory and the new one, data may not be comparable before and after the change. The change is marked with a vertical red line on figures in this report. BPHC cautions against drawing conclusions by comparing data to the left and right of this line. BPHC closely monitors the data and the methods used to communicate these results, and presents the best understanding of the data in these reports. A report with more information about the lab change will be made available on the BPHC Wastewater Monitoring web page.

# Neighborhood Levels and Trends



## COVID-19 Wastewater Levels & Trends (29-Dec-2024)



## BOSTON CITYWIDE COVID-19 LEVEL & TRENDS

### COVID-19 LEVEL

**High**

1,365 copies/mL  
samples through 29-Dec-2024

### 2-WEEK TRENDS



Increase  
+443 copies/mL (+48%)

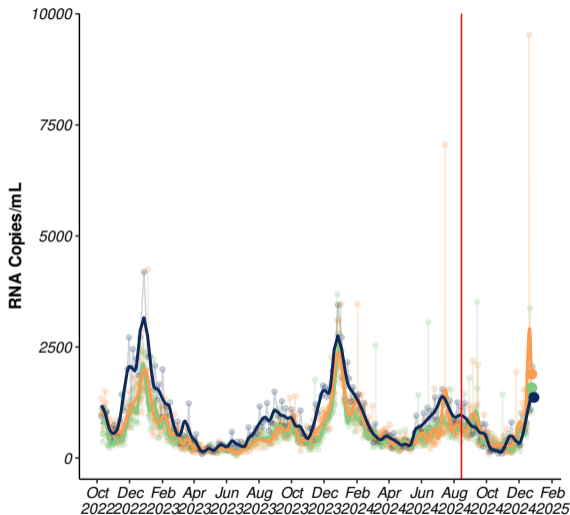
## NEIGHBORHOOD SITES COVID-19 LEVEL & TRENDS

Level	Neighborhood/Site	Trend
Very High	Allston/Brighton (A/B)	↑ Large Increase
	Roslindale/West Roxbury (RS/WR)	↑ Large Increase
	Roxbury (RX)	↑ Large Increase
	Dorchester (DOR)	↑ Large Increase
High	Mattapan (MT)	→ Stable
	Back Bay (BB)	↗ Increase
Moderate	Jamaica Plain (JP)	↗ Increase
	East Boston (EB)	→ Stable
Low	Hyde Park (HP)	↑ Large Increase
Very Low	Charlestown (CH)	→ Stable

For additional details see:

- [Results by Neighborhood](#)
- [Detailed Neighborhood Levels and Trends Table](#)
- [Trend and Level Category Definitions](#)

# Citywide Overview and Trends



CITYWIDE  
AVERAGE

**1,365**  
RNA copies/mL

RANGE ACROSS 11  
NEIGHBORHOOD SITES

**245-10,617**  
RNA copies/mL

Data through: 29-Dec-2024

## 2-WEEK TRENDS

*Boston*  
**Increasing**

**+48%**  
over the past 14 days

*MWRA North*  
**Increasing**

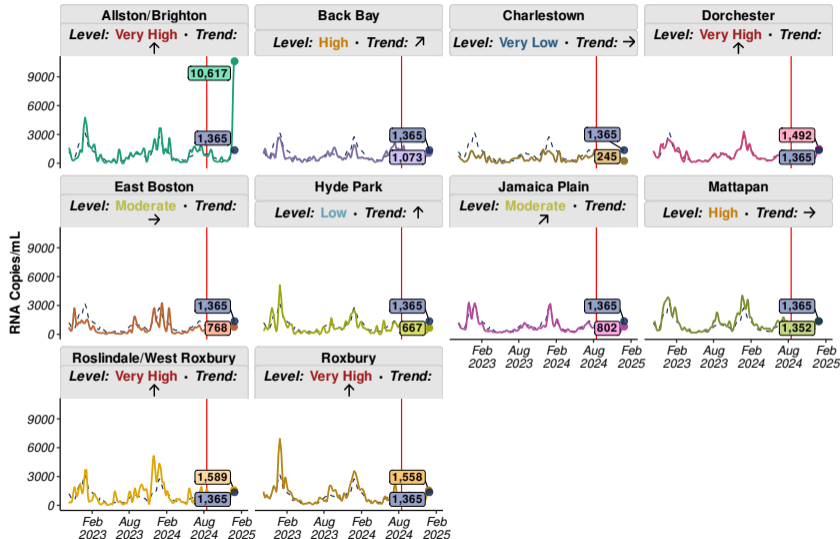
**+178%**  
over the past 14 days

*MWRA South*  
**Increasing**

**+186%**  
over the past 14 days

Updated: 03-Jan-2025 | Samples through: 29-Dec-2024 (BPHC); 25-Dec-2024 (MWRA) | MWRA Data: <https://www.mwra.com/biobot/biobotdata.htm>

# BPHC Trend Overview by Neighborhood



For each neighborhood, colored line and textbox shows the smoothed trend and most recent value in that neighborhood;

The dotted blue line and dark blue text box in each panel shows the trend and most recent value across **all Boston sites** weighted by population.

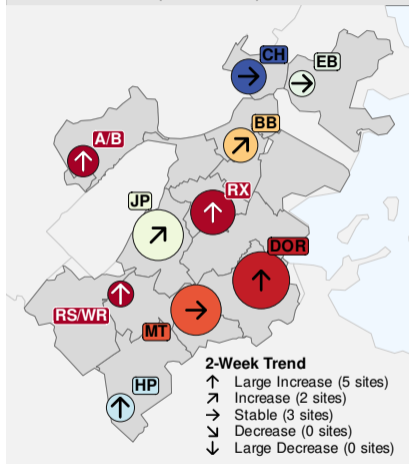
The vertical red line marks the date of August 1, 2024, when the laboratory that tests Boston's wastewater changed.

To see details and interpretation of these results for an individual neighborhood see [Results by Neighborhood](#).

# Neighborhood Levels and Data Table



COVID-19 Wastewater Levels & Trends  
(29-Dec-2024)



NH	COVID-19 Wastewater Levels		2-Week Trends		
	Conc. (copies/mL)	Level	Trend	Diff. (copies/mL)	% Change
BOSTON	1,365	High	Increase	+443	+48%
A/B	10,617	Very High	Large Increase	+8,681	+448%
RS/WR	1,589	Very High	Large Increase	+527	+50%
RX	1,558	Very High	Large Increase	+856	+122%
DOR	1,492	Very High	Large Increase	+693	+87%
MT	1,352	High	Stable	+7	+1%
BB	1,073	High	Increase	+344	+47%
JP	802	Moderate	Increase	+354	+79%
EB	768	Moderate	Stable	-80	-9%
HP	667	Low	Large Increase	+509	+323%
CH	245	Very Low	Stable	-138	-36%

**Concentration Levels:** Very High: >1,400 copies/mL; High: 1,050-1,400 copies/mL; Moderate: 700-1,050 copies/mL; Low: 350-700 copies/mL; Very Low: ≤350 copies/mL

**2-Week Trend Categories:** Large Increase: >+500 copies/mL; Increase: +150 to +500 copies/mL; Stable: -150 to +150 copies/mL; Decrease: -500 to -150 copies/mL; Large Decrease: ≤-500 copies/mL

# Results by Neighborhood



- Allston-Brighton (A/B)
- Back Bay (BB)
- Charlestown (CH)
- Dorchester (DOR)
- East Boston (EB)
- Hyde Park (HP)
- Jamaica Plain (JP)
- Mattapan (MT)
- Roslindale/West Roxbury (RS/WR)
- Roxbury (RX)
- South Boston (SB)



# Allston/Brighton

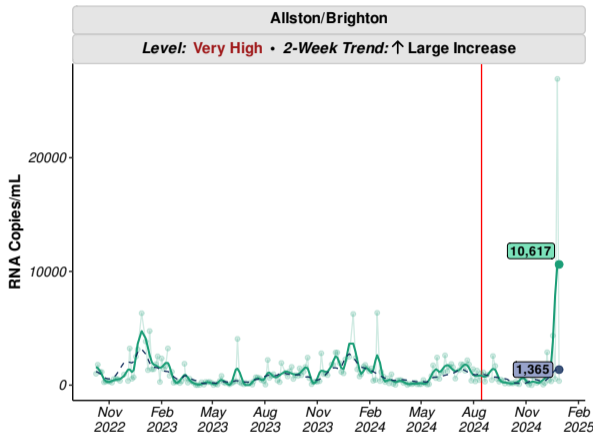


Level: **Very High**

- Average value in **A/B** over the past week: **10,617** copies/mL.
- This value is **very high** compared to past values and **higher** than the citywide average (**1,365** copies/mL).

Trend: **↑ Large Increase**

- Over the past two weeks, values in **A/B** are **increasing**.
- Change compared to two weeks ago: **+8,681** copies/mL (**+448%**).



Updated: 03-Jan-2025 | Samples through: 29-Dec-2024 (A/B);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Back Bay

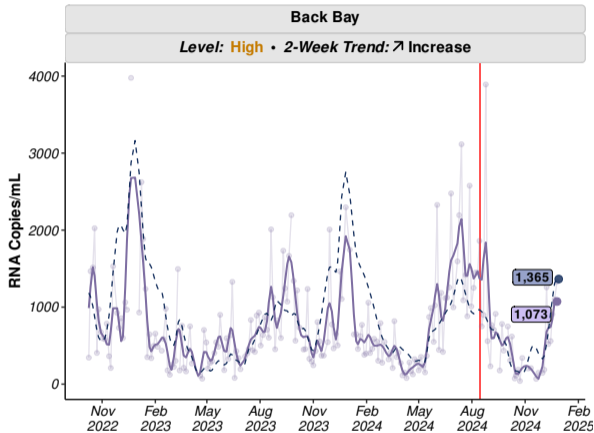


Level: **High**

- Average value in **BB** over the past week: **1,073** copies/mL.
- This value is **high** compared to past values and **similar** than the citywide average (**1,365** copies/mL).

Trend: ↗ **Increase**

- Over the past two weeks, values in **BB** are **increasing**.
- Change compared to two weeks ago: **+344** copies/mL (**+47%**).



Updated: 03-Jan-2025 | Samples through: 26-Dec-2024 (BB);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Charlestown

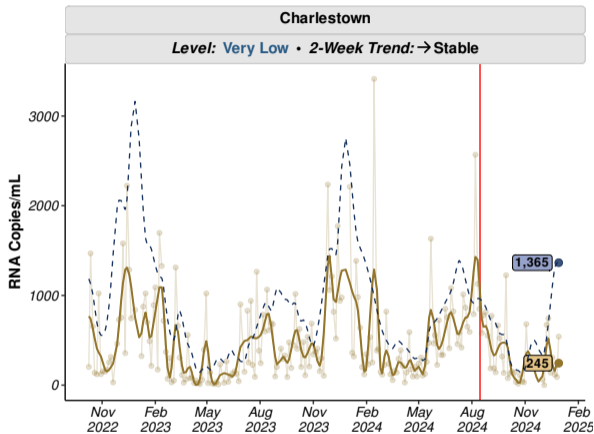


Level: **Very Low**

- Average value in **CH** over the past week: **245** copies/mL.
- This value is **very low** compared to past values and **lower** than the citywide average (**1,365** copies/mL).

Trend: → **Stable**

- Over the past two weeks, values in **CH** are **stable**.
- Change compared to two weeks ago: **-138** copies/mL (**-36%**).



Updated: 03-Jan-2025 | Samples through: 29-Dec-2024 (CH);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Dorchester

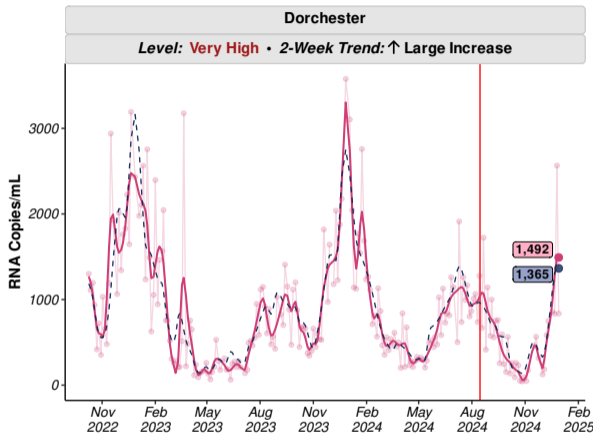


Level: **Very High**

- Average value in **DOR** over the past week: **1,492** copies/mL.
- This value is **very high** compared to past values and **similar** than the citywide average (**1,365** copies/mL).

Trend: **↑ Large Increase**

- Over the past two weeks, values in **DOR** are **increasing**.
- Change compared to two weeks ago: **+693** copies/mL (**+87%**).



Updated: 03-Jan-2025 | Samples through: 29-Dec-2024 (DOR);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# East Boston

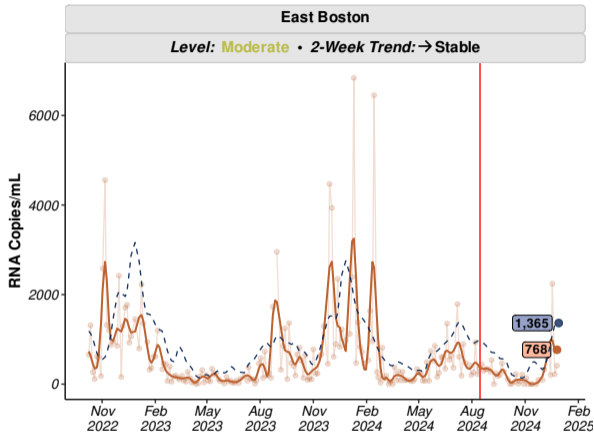


Level: **Moderate**

- Average value in **EB** over the past week: **768** copies/mL.
- This value is **moderate** compared to past values and **lower** than the citywide average (**1,365** copies/mL).

Trend: → **Stable**

- Over the past two weeks, values in **EB** are **stable**.
- Change compared to two weeks ago: **-80** copies/mL (**-9%**).



Updated: 03-Jan-2025 | Samples through: 26-Dec-2024 (EB);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Hyde Park

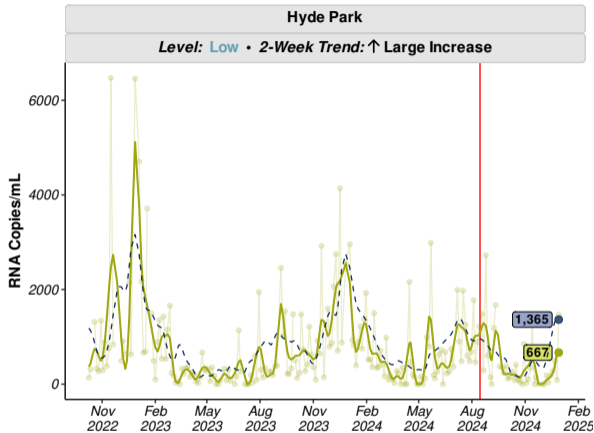


Level: **Low**

- Average value in **HP** over the past week: **667** copies/mL.
- This value is **low** compared to past values and **lower** than the citywide average (**1,365** copies/mL).

Trend: **↑ Large Increase**

- Over the past two weeks, values in **HP** are **increasing**.
- Change compared to two weeks ago: **+509** copies/mL (**+323%**).



Updated: 03-Jan-2025 | Samples through: 29-Dec-2024 (HP);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Jamaica Plain

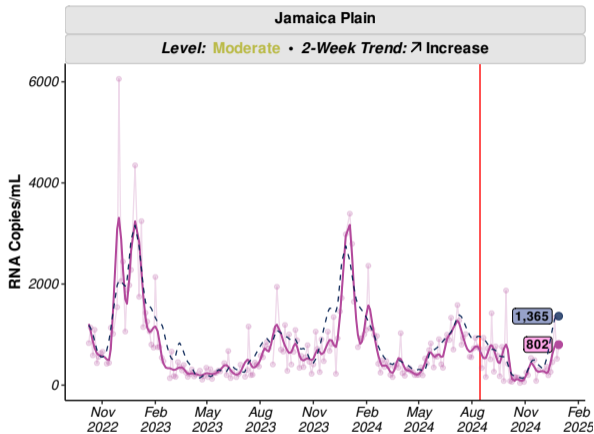


Level: **Moderate**

- Average value in **JP** over the past week: **802** copies/mL.
- This value is **moderate** compared to past values and **lower** than the citywide average (**1,365** copies/mL).

Trend: **↗ Increase**

- Over the past two weeks, values in **JP** are **increasing**.
- Change compared to two weeks ago: **+354** copies/mL (**+79%**).



Updated: 03-Jan-2025 | Samples through: 29-Dec-2024 (JP);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Mattapan

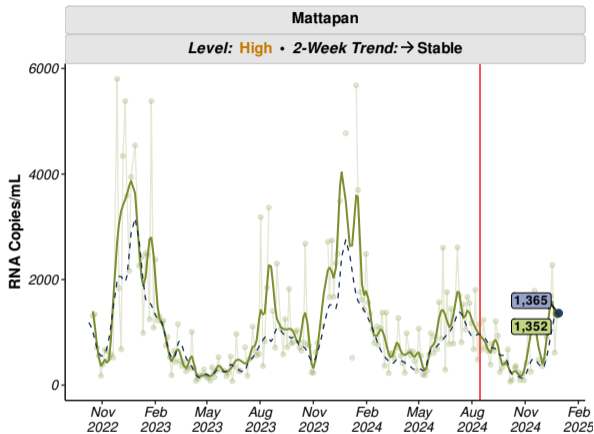


Level: **High**

- Average value in **MT** over the past week: **1,352** copies/mL.
- This value is **high** compared to past values and **similar** than the citywide average (**1,365** copies/mL).

Trend: → **Stable**

- Over the past two weeks, values in **MT** are **stable**.
- Change compared to two weeks ago: **+7** copies/mL (**+1%**).



Updated: 03-Jan-2025 | Samples through: 26-Dec-2024 (MT);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.



# Roslindale/West Roxbury

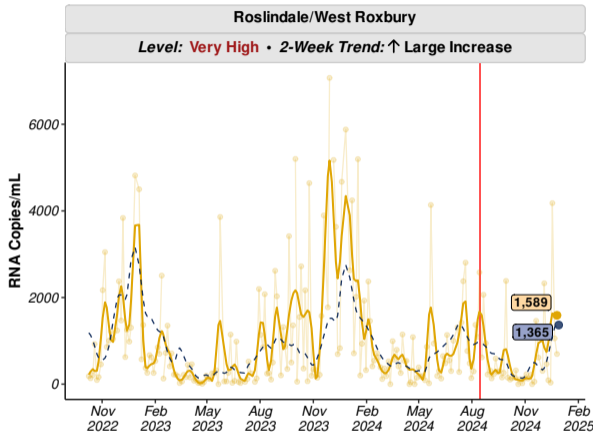


Level: **Very High**

- Average value in **RS/WR** over the past week: **1,589** copies/mL.
- This value is **very high** compared to past values and **similar** than the citywide average (**1,365** copies/mL).

Trend: **↑ Large Increase**

- Over the past two weeks, values in **RS/WR** are **increasing**.
- Change compared to two weeks ago: **+527** copies/mL (**+50%**).



Updated: 03-Jan-2025 | Samples through: 26-Dec-2024 (RS/WR);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

# Roxbury

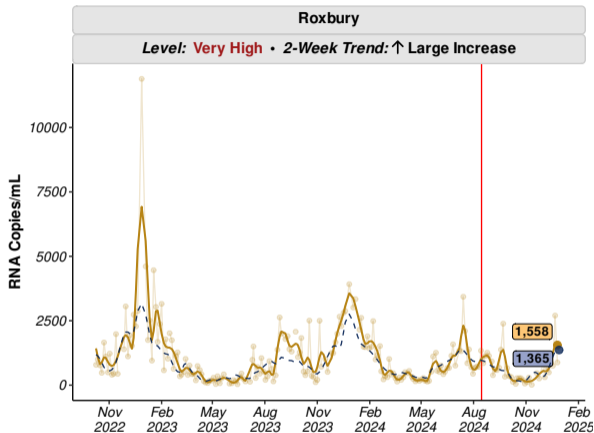


Level: **Very High**

- Average value in **RX** over the past week: **1,558** copies/mL.
- This value is **very high** compared to past values and **similar** than the citywide average (**1,365** copies/mL).

Trend: **↑ Large Increase**

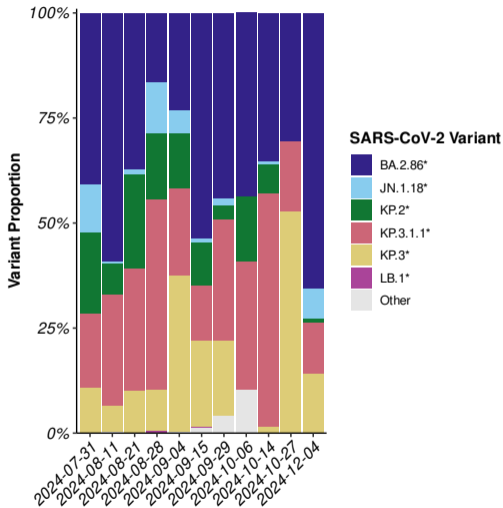
- Over the past two weeks, values in **RX** are **increasing**.
- Change compared to two weeks ago: **+856** copies/mL (**+122%**).



Updated: 03-Jan-2025 | Samples through: 26-Dec-2024 (RX);

See [recommended actions and resources](#) based on levels and trends in this neighborhood.

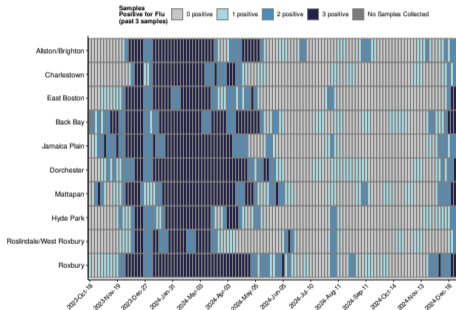
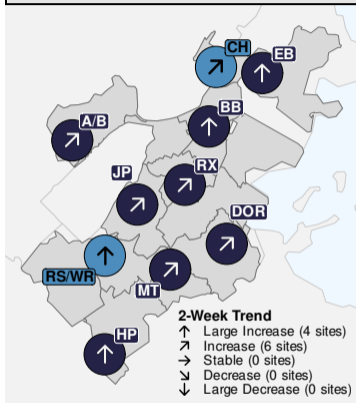
# Percent Variant Lineages (Citywide)



# Influenza Detections in Wastewater



**Influenza Wastewater Detections & Trends**  
(29-Dec-2024)

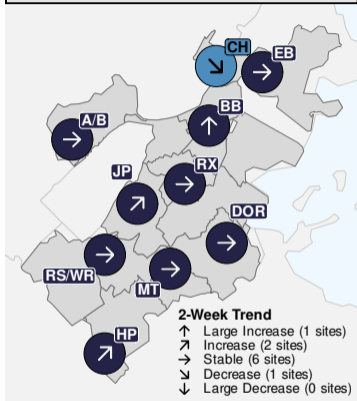


This map depicts the number of times influenza virus was detected in wastewater at the 3 most-recent samples (approximately the past week) at each of the neighborhood sampling locations.

# RSV Detections in Wastewater

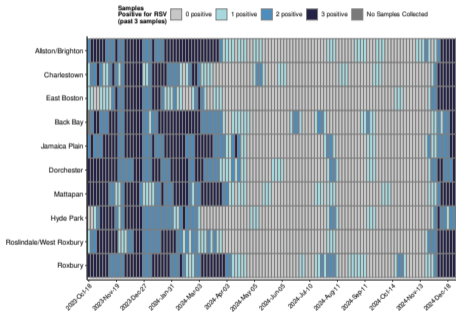


**RSV Wastewater Detections & Trends**  
(29-Dec-2024)



RSV = Respiratory Syncytial Virus

This map depicts the number of times RSV was detected in wastewater at the 3 most-recent samples (approximately the past week) at each of the neighborhood sampling locations.



# COVID-19 Wastewater Level and Trend Category Definitions



## Concentration Levels

Concentration Level	Concentration Value (Copies/mL)
Very High	>1,400
High	1,050-1,400
Moderate	700-1,050
Low	350-700
Very Low	≤350

## 2-Week Trend Categories

	Trend Category	Trend Value (Copies/mL)
↑	Large Increase	>+500
↗	Increase	+150 to +500
→	Stable	-150 to +150
↘	Decrease	-500 to -150
↓	Large Decrease	≤-500



## Level: **Very High**

Wastewater viral levels in your neighborhood indicate **very high risk** of COVID-19 infection.

Based on this level, BPHC urgently recommends the following practices to prevent COVID-19 in your community:

- Wear a [high-quality mask or respirator](#)
- If you are at [high risk of getting very sick](#), consider limiting non-essential indoor activities in public where you could be exposed.
- If you have close contact with someone at [high risk of getting very sick](#), consider self-testing to detect infection before contact, and consider wearing a high-quality mask when indoors with them
- Stay up-to-date on [vaccinations](#).
- Recognize the [symptoms](#) of COVID-19 and seek testing and possible treatment if you get sick
- Stay home when sick and avoid contact with others who are sick
- Improve [indoor airflow and ventilation](#)
- Wash your hands often and cover coughs and sneezes
- Follow CDC recommendations for [preventing spread](#) if you have COVID-19

## RESOURCES

- Find a [vaccination clinic](#) in your neighborhood
- Pick up a [free at-home test kit](#) in your neighborhood
- Find [treatment](#) for COVID-19 including [free telehealth](#) and [in home treatment](#)
- Call or visit the [Mayor's Health Line](#)
- Learn more about COVID-19 and find additional resources: [COVID-19 in Boston](#)

# Level: High



Wastewater viral levels in your neighborhood indicate **high risk** of COVID-19 infection.

Based on this level, BPHC strongly recommends the following practices to prevent COVID-19 in your community:

- Wear a [high-quality mask or respirator](#)
- If you have close contact with someone at [high risk of getting very sick](#), consider self-testing to detect infection before contact, and consider wearing a high-quality mask when indoors with them
- Stay up-to-date on [vaccinations](#).
- Recognize the [symptoms](#) of COVID-19 and seek testing and possible treatment if you get sick
- Stay home when sick and avoid contact with others who are sick
- Improve [indoor airflow and ventilation](#)
- Wash your hands often and cover coughs and sneezes
- Follow CDC recommendations for [preventing spread](#) if you have COVID-19

## RESOURCES

- Find a [vaccination clinic](#) in your neighborhood
- Pick up a [free at-home test kit](#) in your neighborhood
- Find [treatment](#) for COVID-19 including [free telehealth](#) and [in home treatment](#)
- Call or visit the [Mayor's Health Line](#)
- Learn more about COVID-19 and find additional resources: [COVID-19 in Boston](#)



## Level: Moderate



Wastewater viral levels in your neighborhood indicate **moderate risk** of COVID-19 infection.

Based on this level, BPHC recommends the following practices to prevent COVID-19 in your community:

- If you are at [high risk of getting very sick](#), wear a [high-quality mask or respirator](#) in public indoor spaces
- If you have close contact with someone at [high risk of getting very sick](#), consider self-testing to [detect infection before contact](#), and consider wearing a high-quality mask when indoors with them
- Stay up-to-date on [vaccinations](#).
- Recognize the [symptoms](#) of COVID-19 and seek testing and possible treatment if you get sick
- Stay home when sick and avoid contact with others who are sick
- Improve [indoor airflow and ventilation](#)
- Wash your hands often and cover coughs and sneezes
- Follow CDC recommendations for [preventing spread](#) if you have COVID-19

## RESOURCES

- Find a [vaccination clinic](#) in your neighborhood
- Pick up a [free at-home test kit](#) in your neighborhood
- Find [treatment](#) for COVID-19 including [free telehealth](#) and [in home treatment](#)
- Call or visit the [Mayor's Health Line](#)
- Learn more about COVID-19 and find additional resources: [COVID-19 in Boston](#)

## Level: **Low**



Wastewater viral levels in your neighborhood indicate **low risk** of COVID-19 infection.

Based on this level, BPHC recommends the following practices to prevent COVID-19 in your community:

- **Continue to monitor wastewater levels and trends**
- Stay up-to-date on [vaccinations](#).
- Recognize the [symptoms](#) of COVID-19 and seek testing and possible treatment if you get sick
- Stay home when sick and avoid contact with others who are sick
- Improve [indoor airflow and ventilation](#)
- Wash your hands often and cover coughs and sneezes
- Follow CDC recommendations for [preventing spread](#) if you have COVID-19

## RESOURCES

- Find a [vaccination clinic](#) in your neighborhood
- Pick up a [free at-home test kit](#) in your neighborhood
- Find [treatment](#) for COVID-19 including [free telehealth](#) and [in home treatment](#)
- Call or visit the [Mayor's Health Line](#)
- Learn more about COVID-19 and find additional resources: [COVID-19 in Boston](#)



## Level: **Very Low**

Wastewater viral levels in your neighborhood indicate **very low risk** of COVID-19 infection.

Based on this level, BPHC recommends the following practices to prevent COVID-19 in your community:

- **Continue to monitor wastewater levels and trends**
- Stay up-to-date on [vaccinations](#).
- Recognize the [symptoms](#) of COVID-19 and seek testing and possible treatment if you get sick
- Stay home when sick and avoid contact with others who are sick
- Improve [indoor airflow and ventilation](#)
- Wash your hands often and cover coughs and sneezes
- Follow CDC recommendations for [preventing spread](#) if you have COVID-19

### RESOURCES

- Find a [vaccination clinic](#) in your neighborhood
- Pick up a [free at-home test kit](#) in your neighborhood
- Find [treatment](#) for COVID-19 including [free telehealth](#) and [in home treatment](#)
- Call or visit the [Mayor's Health Line](#)
- Learn more about COVID-19 and find additional resources: [COVID-19 in Boston](#)