

### **Boston Wastewater Epidemiology Report**

**Updated**: 22-Jan-2025 | **Data Complete Through**: 15-Jan-2025



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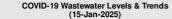
# **A Note About These Reports**

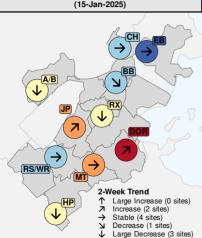


The laboratory that tests Boston's wastewater changed on August 1, 2024. Because of differences in the methods used at the old laboratory and the new one, data may not be comparable before and after the change. The change is marked with a vertical red line line on figures in this report. BPHC cautions 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**







OVID-19 Level	1 sites	3 sites	3 sites	2 sites	1 sit
(# sites)	Very Low	Low	Moderate	High	Very F

#### **BOSTON CITYWIDE COVID-19 LEVEL & TRENDS**

COVID-19 LEVEL 2-WEEK TRENDS

# **Very High**

1,454 copies/mL samples through 15-Jan-2025



+9 copies/mL (+1%)

#### NEIGHBORHOOD SITES COVID-19 LEVEL & TRENDS

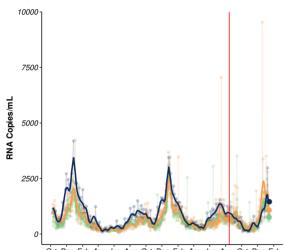
Level	Neighborhood/Site		Trend
Very High	Dorchester (DOR)	7	Increase
High	Mattapan (MT)	$\rightarrow$	Stable
High	Jamaica Plain (JP)	7	Increase
	Allston/Brighton (A/B)	$\overline{}$	Large Decrease
Moderate	Hyde Park (HP)	$\overline{}$	Large Decrease
	Roxbury (RX)	$\neg$	Large Decrease
	Roslindale/West Roxbury (RS/WR)	$\rightarrow$	Stable
Low	Back Bay (BB)	Z	Decrease
	Charlestown (CH)	$\rightarrow$	Stable
Very Low	East Boston (EB)	$\rightarrow$	Stable

#### For additional details see:

- · Results by Neighborhood
- Detailed Neighborhood Levels and Trends Table
- Trend and Level Category Definitions

# **Citywide Overview and Trends**





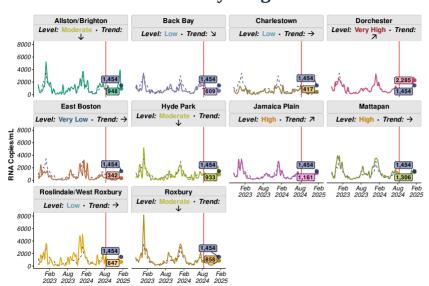
CITYWIDE	RANGE ACROSS 11	
AVERAGE	NEIGHBORHOOD SITES	
710 = 110 10.1		
4 454	040 0 005	
1,454	342-2,285	
RNÁ copies/mL	RNA copies/mL	
Data through: 15-Jan-2025		

2-WEEK TRENDS				
Boston <b>Stable</b>	+1% over the past 14 days			
MWRA North Decreasing	-44% over the past 14 days			
MWRA South Decreasing	-40% over the past 14 days			

 $\textbf{Updated: } 22\text{-Jan-2025} \mid \textbf{Samples through: } 15\text{-Jan-2025} (\text{BPHC}); \\ 14\text{-Jan-2025} (\text{MWRA}) \mid \textbf{MWRA Data: } \\ \underline{\text{https://www.mwra.com/biobot/biobotdata.htm}}$ 

# **BPHC Trend Overview by Neighborhood**





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

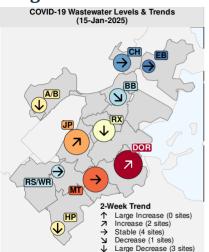
The dotted blue line and dark blue text box in each panel shows the trend and most recent value across all Boston sites weighted by population.

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		2-Week Trends		
NH	Conc. (copies/mL)	Level	Trend	Diff. (copies/mL)	% Change
BOSTON	1,454	Very High	Stable	+9	+1%
DOR	2,285	Very High	Increase	+398	+21%
MT	1,306	High	Stable	-31	-2%
JP	1,161	High	Increase	+161	+16%
A/B	948	Moderate	Large Decrease	-2,918	-75%
HP	933	Moderate	Large Decrease	-789	-46%
RX	858	Moderate	Large Decrease	-509	-37%
RS/WR	647	Low	Stable	-39	-6%
BB	609	Low	Decrease	-429	-41%
CH	417	Low	Stable	-29	-7%
EB	342	Very Low	Stable	-49	-13%

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

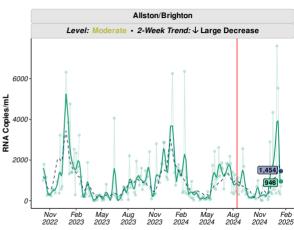


#### Level: Moderate

- Average value in <u>A/B</u> over the past week: <u>948</u> copies/mL.
- This value is moderate compared to past values and lower than the citywide average (1,454 copies/mL).

### Trend: ↓ Large Decrease

- Over the past two weeks, values in <u>A/B</u> are <u>decreasing</u>.
- Change compared to two weeks ago:
   -2,918 copies/mL (-75%).



Updated: 22-Jan-2025 | Samples through: 15-Jan-2025 (A/B);

### **Back Bay**

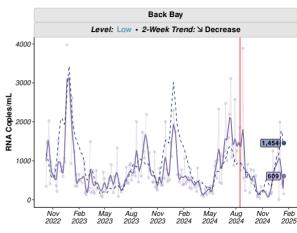


### Level: Low

- Average value in <u>BB</u> over the past week: 609 copies/mL.
- This value is <u>low</u> compared to past values and <u>lower</u> than the citywide average (1,454 copies/mL).

#### Trend: > Decrease

- Over the past two weeks, values in <u>BB</u> are <u>decreasing</u>.
- Change compared to two weeks ago: <u>-429</u> copies/mL (-41%).



Updated: 22-Jan-2025 | Samples through: 15-Jan-2025 (BB);

### Charlestown

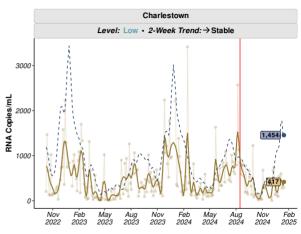


### Level: Low

- Average value in <u>CH</u> over the past week: 417 copies/mL.
- This value is <u>low</u> compared to past values and <u>lower</u> than the citywide average (1,454 copies/mL).

#### Trend: → Stable

- Over the past two weeks, values in <u>CH</u> are <u>stable</u>.
- Change compared to two weeks ago: -29 copies/mL (-7%).



Updated: 22-Jan-2025 | Samples through: 15-Jan-2025 (CH);

### **Dorchester**

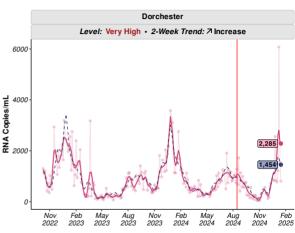


### Level: Very High

- Average value in <u>DOR</u> over the past week: 2,285 copies/mL.
- This value is very high compared to past values and higher than the citywide average (1,454 copies/mL).

#### Trend: **↗** Increase

- Over the past two weeks, values in <u>DOR</u> are <u>increasing</u>.
- Change compared to two weeks ago: +398 copies/mL (+21%).



Updated: 22-Jan-2025 | Samples through: 15-Jan-2025 (DOR);

### **East Boston**



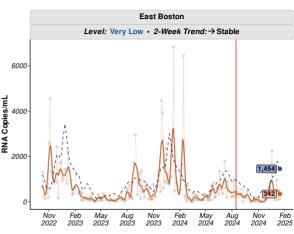
### Level: Very Low

- Average value in <u>EB</u> over the past week: 342 copies/mL.
- This value is very low compared to past values and <u>lower</u> than the citywide average (1,454 copies/mL).

#### Trend: → Stable

- Over the past two weeks, values in <u>EB</u> are <u>stable</u>.
- Change compared to two weeks ago:

   <u>-49</u> copies/mL (-13%).



Updated: 22-Jan-2025 | Samples through: 15-Jan-2025 (EB);

### **Hyde Park**

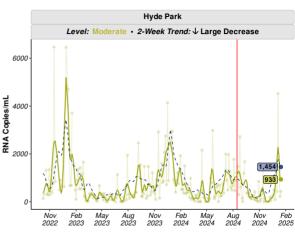


#### Level: **Moderate**

- Average value in <u>HP</u> over the past week: 933 copies/mL.
- This value is moderate compared to past values and lower than the citywide average (1,454 copies/mL).

### Trend: **↓ Large Decrease**

- Over the past two weeks, values in <u>HP</u> are <u>decreasing</u>.
- Change compared to two weeks ago:
   -789 copies/mL (-46%).



Updated: 22-Jan-2025 | Samples through: 15-Jan-2025 (HP);

### Jamaica Plain

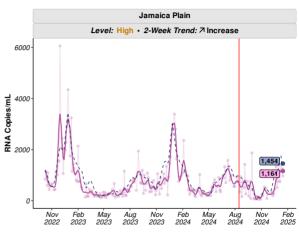


### Level: High

- Average value in <u>JP</u> over the past week: 1,161 copies/mL.
- This value is <u>high</u> compared to past values and <u>similar</u> than the citywide average (1,454 copies/mL).

#### Trend: **↗ Increase**

- Over the past two weeks, values in <u>JP</u> are <u>increasing</u>.
- Change compared to two weeks ago: +161 copies/mL (+16%).



Updated: 22-Jan-2025 | Samples through: 15-Jan-2025 (JP);

## Mattapan



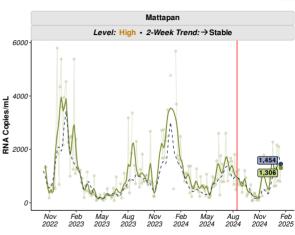
### Level: High

- Average value in <u>MT</u> over the past week: 1,306 copies/mL.
- This value is <u>high</u> compared to past values and <u>similar</u> than the citywide average (1,454 copies/mL).

### Trend: → Stable

- Over the past two weeks, values in <u>MT</u> are <u>stable</u>.
- Change compared to two weeks ago:

   -31 copies/mL (-2%).



Updated: 22-Jan-2025 | Samples through: 15-Jan-2025 (MT);

# **Roslindale/West Roxbury**

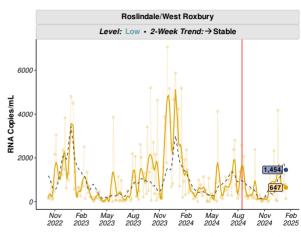


### Level: Low

- Average value in RS/WR over the past week: 647 copies/mL.
- This value is <u>low</u> compared to past values and <u>lower</u> than the citywide average (1,454 copies/mL).

#### Trend: $\rightarrow$ Stable

- Over the past two weeks, values in <u>RS/WR</u> are <u>stable</u>.
- Change compared to two weeks ago: -39 copies/mL (-6%).



Updated: 22-Jan-2025 | Samples through: 15-Jan-2025 (RS/WR);

### **Roxbury**

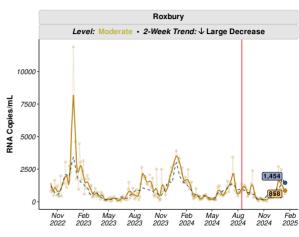


#### Level: **Moderate**

- Average value in <u>RX</u> over the past week: 858 copies/mL.
- This value is moderate compared to past values and lower than the citywide average (1,454 copies/mL).

### Trend: **↓ Large Decrease**

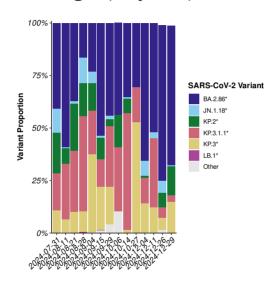
- Over the past two weeks, values in <u>RX</u> are <u>decreasing</u>.
- Change compared to two weeks ago: <u>-509</u> copies/mL (-37%).



Updated: 22-Jan-2025 | Samples through: 15-Jan-2025 (RX);

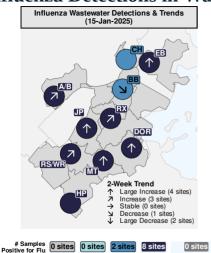
## **Percent Variant Lineages (Citywide)**

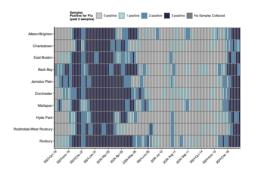




### Influenza Detections in Wastewater







1 positive 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

2 positive 3 positive No Samples Collected

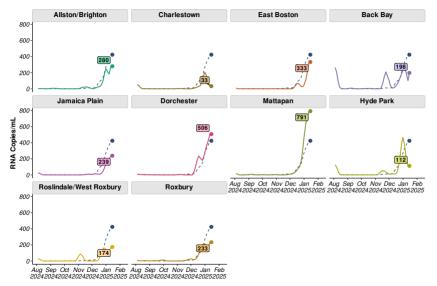
O positive

neighborhood sampling locations.

(Past 3 Samples)

## Influenza Trends in Wastewater by Neighborhood



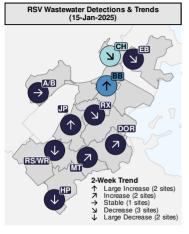


For each neighborhood, colored line and textbox shows the smoothed trend and most recent value in that neighborhood:

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

### **RSV** Detections in Wastewater





# Samples Positive for RSV (Past 3 Samples)

0 nositive

1 positive

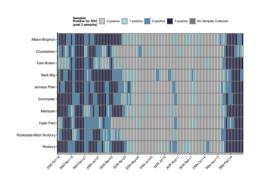
2 positive

0 sites

3 positive No Samples Collected

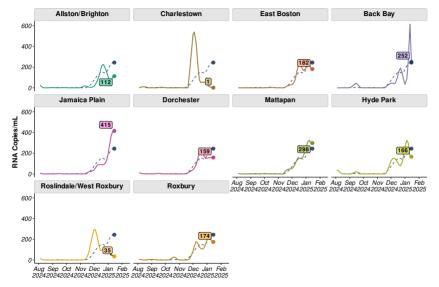
RSV = Respiratory Syncytial Virus

This man 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.



## **RSV Trends in Wastewater by Neighborhood**





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

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

# **COVID-19 Wastewater Level and Trend Category Definitions**



#### **Concentration Levels**

Concentration	Concentration Value	
Level	(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)
$\land$	Large Increase	>+500
7	Increase	+150 to +500
$\rightarrow$	Stable	-150 to +150
7	Decrease	-500 to -150
$\overline{}$	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 <u>symptoms</u> 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 <u>preventing spread</u> if you have COVID-19

- · Find a vaccination clinic in your neighborhood
- Pick up a <u>free at-home test kit</u> in your neighborhood
- Find <u>treatment</u> for COVID-19 including <u>free telehealth</u> and <u>in home treatment</u>
- 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 <u>symptoms</u> 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 <u>preventing spread</u> if you have COVID-19

- Find a <u>vaccination clinic</u> in your neighborhood
- Pick up a <u>free at-home test kit</u> in your neighborhood
- Find <u>treatment</u> for COVID-19 including <u>free telehealth</u> and <u>in home treatment</u>
- 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 <u>symptoms</u> 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 <u>preventing spread</u> if you have COVID-19

- Find a <u>vaccination clinic</u> in your neighborhood
- Pick up a <u>free at-home test kit</u> in your neighborhood
- Find <u>treatment</u> for COVID-19 including <u>free telehealth</u> and <u>in home treatment</u>
- · 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 <u>vaccinations</u>.
- 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

- Find a vaccination clinic in your neighborhood
- · Pick up a free at-home test kit in your neighborhood
- Find <u>treatment</u> for COVID-19 including <u>free telehealth</u> and <u>in home treatment</u>
- 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

- 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