

Boston Wastewater Epidemiology Report

Updated: 17-Oct-2024 | **Data Complete Through**: 14-Oct-2024

☑ wastewater@bphc.org



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

Influenza & RSV

Influenza Detections in Wastewater RSV Detections in Wastewater

Additional Information

COVID-19 Wastewater Level and Trend Category Definitions Recommendations and Resources by

Level

Level: Very High

Level: High

Level: Moderate

Level: Low

Level: Very Low

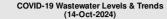
A Note About These Reports

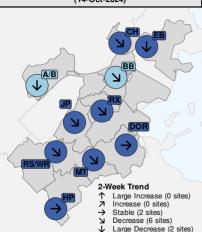


The laboratory that tests Boston's wastewater changed on August 1, 2024. Because of differences in the methods used at the old laboratory and the new one, data may not be comparable before and after the change. The change is marked with a vertical red line line on figures in this report. BPHC cautions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







COVID-19 Level	8 sites	2 sites			
(# sites)	Very Low	Low	Moderate	High	Very High

BOSTON CITYWIDE COVID-19 LEVEL & TRENDS

COVID-19 LEVEL

Very Low

222 copies/mL samples through 14-Oct-2024 2-WEEK TRENDS

Постоясо -306 copies/mL (-58%)

NEIGHBORHOOD SITES COVID-19 LEVEL & TRENDS

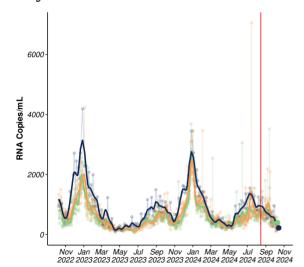
Level	Neighborhood/Site	Trend	
Low	Back Bay (BB)	И	Decrease
	Allston/Brighton (A/B)	$\overline{}$	Large Decrease
	Roslindale/West Roxbury (RS/WR)	7	Decrease
	Jamaica Plain (JP)	7	Decrease
	East Boston (EB)	$\overline{}$	Large Decrease
Very Low	Dorchester (DOR)	\rightarrow	Stable
very Low	Mattapan (MT)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

For additional details see:

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

Citywide Overview and Trends





CITYWIDE AVERAGE

222
RNA copies/mL

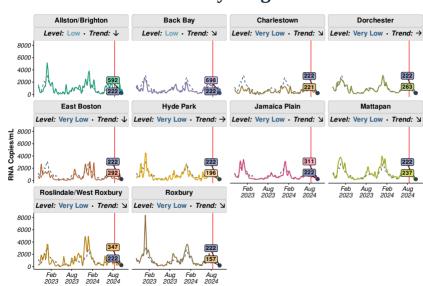
Pata through: 14-Oct-2024

2-WEEK TRENDS			
Boston Decreasing	-58% over the past 14 days		
MWRA North Stable	-2% over the past 14 days		
MWRA South Decreasing	-56% over the past 14 days		

Updated: 17-Oct-2024 | Samples through: 14-Oct-2024 (BPHC); 10-Oct-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:

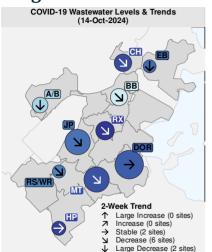
The dotted blue line and dark blue text box in each panel shows the trend and most recent value across all Boston sites weighted by population.

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		2-Week Trends		
NH	Conc. (copies/mL)	Level	Trend	Diff. (copies/mL)	% Change
BOSTON	222	Very Low	Decrease	-306	-58%
BB	698	Low	Decrease	-229	-25%
A/B	592	Low	Large Decrease	-659	-53%
RS/WR	347	Very Low	Decrease	-363	-51%
JP	311	Very Low	Decrease	-413	-57%
EB	292	Very Low	Large Decrease	-608	-68%
DOR	263	Very Low	Stable	-89	-25%
MT	237	Very Low	Decrease	-164	-41%
CH	221	Very Low	Decrease	-263	-54%
HP	196	Very Low	Stable	-46	-19%
RX	157	Very Low	Decrease	-433	-73%

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

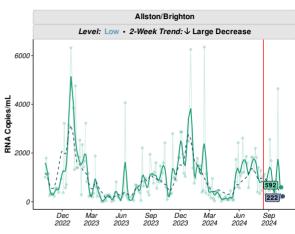


Level: Low

- Average value in A/B over the past week: 592 copies/mL.
- This value is low compared to past values and higher than the citywide average (222 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: <u>-659</u> copies/mL (-53%).



Updated: 17-Oct-2024 | Samples through: 09-Oct-2024 (A/B);

Back Bay

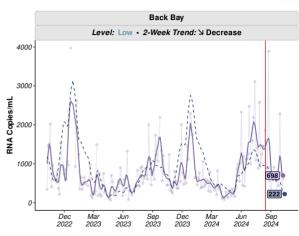


Level: Low

- Average value in <u>BB</u> over the past week: 698 copies/mL.
- This value is <u>low</u> compared to past values and <u>higher</u> than the citywide average (<u>222</u> copies/mL).

Trend: > Decrease

- Over the past two weeks, values in <u>BB</u> are <u>decreasing</u>.
- Change compared to two weeks ago: -229 copies/mL (-25%).



Updated: 17-0ct-2024 | Samples through: 09-0ct-2024 (BB);

Charlestown

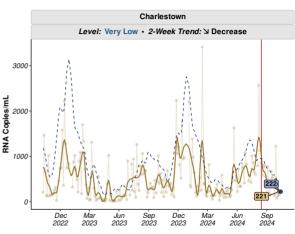


Level: Very Low

- Average value in <u>CH</u> over the past week: 221 copies/mL.
- This value is very low compared to past values and similar than the citywide average (222 copies/mL).

Trend: > Decrease

- Over the past two weeks, values in <u>CH</u> are <u>decreasing</u>.
- Change compared to two weeks ago:
 -263 copies/mL (-54%).



Updated: 17-Oct-2024 | Samples through: 09-Oct-2024 (CH);

Dorchester



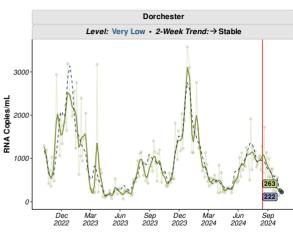
Level: Very Low

- Average value in <u>DOR</u> over the past week: <u>263</u> copies/mL.
- This value is very low compared to past values and similar than the citywide average (222 copies/mL).

Trend: → Stable

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

 89 copies/mL (-25%).



Updated: 17-Oct-2024 | Samples through: 09-Oct-2024 (DOR);

East Boston

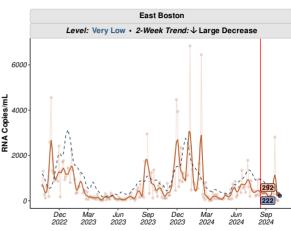


Level: Very Low

- Average value in <u>EB</u> over the past week: 292 copies/mL.
- This value is very low compared to past values and similar than the citywide average (222 copies/mL).

Trend: **↓ Large Decrease**

- Over the past two weeks, values in <u>EB</u> are <u>decreasing</u>.
- Change compared to two weeks ago: <u>-608</u> copies/mL (-68%).



Updated: 17-Oct-2024 | Samples through: 09-Oct-2024 (EB);

Hyde Park



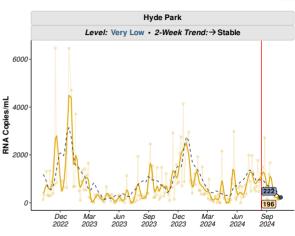
Level: Very Low

- Average value in <u>HP</u> over the past week: 196 copies/mL.
- This value is very low compared to past values and similar than the citywide average (222 copies/mL).

Trend: → Stable

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

 -46 copies/mL (-19%).



Updated: 17-Oct-2024 | Samples through: 09-Oct-2024 (HP);

Jamaica Plain

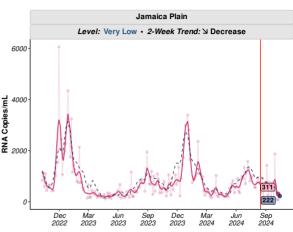


Level: Very Low

- Average value in <u>JP</u> over the past week: 311 copies/mL.
- This value is very low compared to past values and <u>similar</u> than the citywide average (222 copies/mL).

Trend: > Decrease

- Over the past two weeks, values in <u>JP</u> are <u>decreasing</u>.
- Change compared to two weeks ago: <u>-413</u> copies/mL (-57%).



Updated: 17-Oct-2024 | Samples through: 09-Oct-2024 (JP);

Mattapan

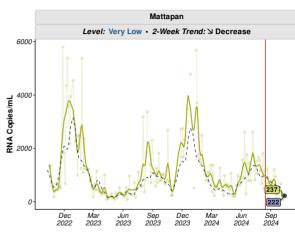


Level: Very Low

- Average value in <u>MT</u> over the past week: 237 copies/mL.
- This value is very low compared to past values and <u>similar</u> than the citywide average (222 copies/mL).

Trend: > Decrease

- Over the past two weeks, values in <u>MT</u> are <u>decreasing</u>.
- Change compared to two weeks ago:
 -164 copies/mL (-41%).



Updated: 17-Oct-2024 | Samples through: 09-Oct-2024 (MT);

Roslindale/West Roxbury



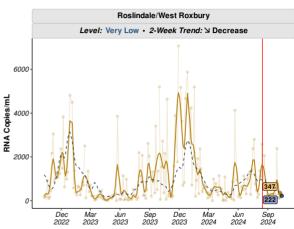
Level: Very Low

- Average value in RS/WR over the past week: 347 copies/mL.
- This value is very low compared to past values and similar than the citywide average (222 copies/mL).

Trend: > Decrease

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

 363 copies/mL (-51%).



Updated: 17-Oct-2024 | Samples through: 09-Oct-2024 (RS/WR);

Roxbury



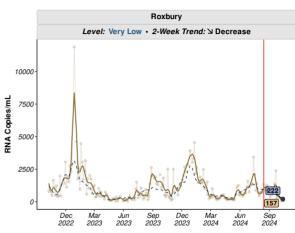
Level: Very Low

- Average value in <u>RX</u> over the past week: 157 copies/mL.
- This value is very low compared to past values and similar than the citywide average (222 copies/mL).

Trend: > Decrease

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

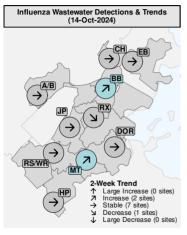
 -433 copies/mL (-73%).



Updated: 17-0ct-2024 | Samples through: 14-0ct-2024 (RX);

Influenza Detections in Wastewater





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.

Positive for Flu (Past 3 Samples)



1 positive





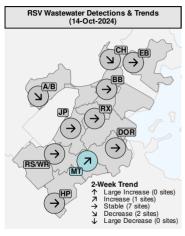




2 positive 3 positive No Samples Collected

RSV Detections in Wastewater





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.

Positive for RSV (Past 3 Samples)



1 positive









2 positive 3 positive No Samples Collected

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)
\uparrow	Large Increase	>+500
7	Increase	+150 to +500
\rightarrow	Stable	-150 to +150
7	Decrease	-500 to -150
<u> </u>	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.
- · 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>isolation</u> if you have COVID-19 and for <u>what to do if you are exposed</u> to someone with COVID-19

- · Find a vaccination clinic in your neighborhood
- Find a testing site or pickup 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: Know the Facts Find the Truth

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.
- · 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>isolation</u> if you have COVID-19 and for <u>what to do if you are exposed</u> to someone with COVID-19

- · Find a vaccination clinic in your neighborhood
- Find a testing site or pickup 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: Know the Facts Find the Truth

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.
- · 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>isolation</u> if you have COVID-19 and for <u>what to do if you are exposed</u> to someone with COVID-19

- Find a vaccination clinic in your neighborhood
- Find a testing site or pickup 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: Know the Facts Find the Truth

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.
- 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>isolation</u> if you have COVID-19 and for <u>what to do if you are exposed</u> to someone with COVID-19

- Find a <u>vaccination clinic</u> in your neighborhood
- Find a testing site or pickup 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: Know the Facts Find the Truth

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.
- · 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>isolation</u> if you have COVID-19 and for <u>what to do if you are exposed</u> to someone with COVID-19

- · Find a vaccination clinic in your neighborhood
- Find a testing site or pickup 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: Know the Facts Find the Truth