

Boston Wastewater Epidemiology Report

Updated: 01-Nov-2024 | Data Complete Through: 27-Oct-2024

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Boston Public Health Commission

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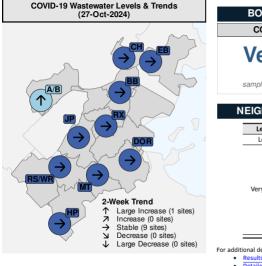
A Note About These Reports



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







NEIGHBORHOOD SITES COVID-19 LEVEL & TRENDS

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

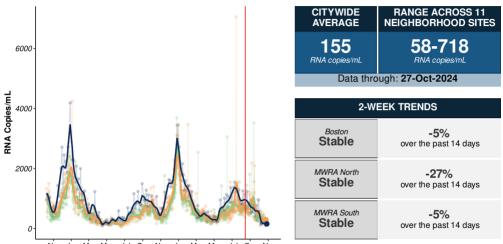
For additional details see:

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



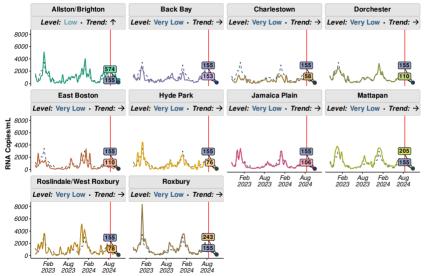
COVID-19

Citywide Overview and Trends



Updated: 01-Nov-2024 | Samples through: 27-Oct-2024 (BPHC); 24-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;

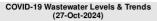
The dotted blue line and dark blue text box in each panel shows the trend and most recent value across **all Boston sites** weighted by population.

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	155	Very Low	Stable	-9	-5%
A/B	574	Low	Large Increase	+542	+1,697%
RX	243	Very Low	Stable	+81	+50%
MT	205	Very Low	Stable	-29	-12%
BB	153	Very Low	Stable	-30	-17%
DOR	110	Very Low	Stable	-91	-45%
EB	110	Very Low	Stable	+109	+10,920%
JP	106	Very Low	Stable	+29	+39%
RS/WR	78	Very Low	Stable	-32	-29%
HP	76	Very Low	Stable	-143	-65%
СН	58	Very Low	Stable	-15	-21%

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

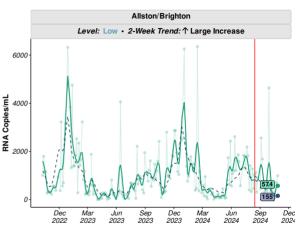


Level: Low

- Average value in **A/B** over the past week: <u>574</u> copies/mL.
- This value is low compared to past values and higher than the citywide average (<u>155</u> copies/mL).

Trend: **↑ Large Increase**

- Over the past two weeks, values in **A/B** are **increasing**.
- Change compared to two weeks ago: <u>+542</u> copies/mL (+1,697%).



Updated: 01-Nov-2024 | Samples through: 27-Oct-2024 (A/B);

Back Bay

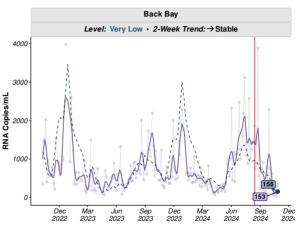


Level: Very Low

- Average value in **BB** over the past week: <u>153</u> copies/mL.
- This value is very low compared to past values and similar than the citywide average (155 copies/mL).

Trend: → <u>Stable</u>

- Over the past two weeks, values in <u>BB</u> are <u>stable</u>.
- Change compared to two weeks ago: <u>-30</u> copies/mL (-17%).



Updated: 01-Nov-2024 | Samples through: 27-Oct-2024 (BB);

Charlestown

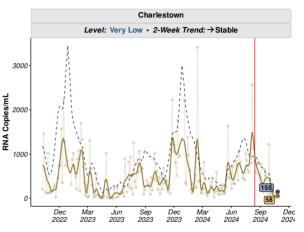


Level: Very Low

- Average value in <u>CH</u> over the past week: <u>58</u> copies/mL.
- This value is very low compared to past values and similar than the citywide average (155 copies/mL).

Trend: → <u>Stable</u>

- Over the past two weeks, values in <u>CH</u> are <u>stable</u>.
- Change compared to two weeks ago: <u>-15</u> copies/mL (-21%).



Updated: 01-Nov-2024 | Samples through: 27-Oct-2024 (CH);

Dorchester

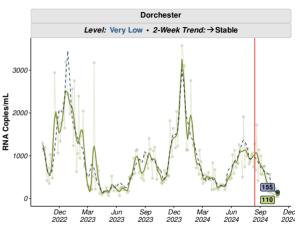


Level: Very Low

- Average value in <u>DOR</u> over the past week: <u>110</u> copies/mL.
- This value is very low compared to past values and similar than the citywide average (<u>155</u> copies/mL).

Trend: → <u>Stable</u>

- Over the past two weeks, values in <u>DOR</u> are <u>stable</u>.
- Change compared to two weeks ago: <u>-91</u> copies/mL (-45%).



Updated: 01-Nov-2024 | Samples through: 27-Oct-2024 (DOR);

East Boston

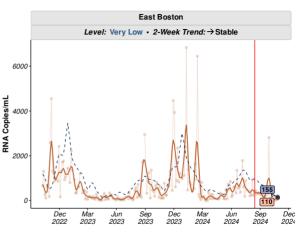


Level: Very Low

- Average value in **EB** over the past week: <u>110</u> copies/mL.
- This value is very low compared to past values and similar than the citywide average (<u>155</u> copies/mL).

Trend: → <u>Stable</u>

- Over the past two weeks, values in <u>EB</u> are <u>stable</u>.
- Change compared to two weeks ago: <u>+109</u> copies/mL (+10,920%).



Updated: 01-Nov-2024 | Samples through: 27-Oct-2024 (EB);

Hyde Park

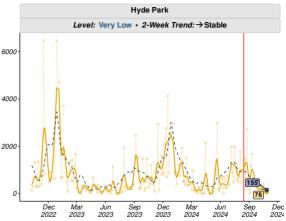


Level: Very Low

- Average value in <u>HP</u> over the past week: <u>76</u> copies/mL.
- This value is very low compared to past values and similar than the citywide average (<u>155</u> copies/mL).

Trend: → <u>Stable</u>

- Over the past two weeks, values in <u>HP</u> are <u>stable</u>.
- Change compared to two weeks ago: <u>-143</u> copies/mL (-65%).



Updated: 01-Nov-2024 | Samples through: 27-Oct-2024 (HP);

See recommended actions and resources based on levels and trends in this neighborhood.

RNA Copies/mL

Jamaica Plain

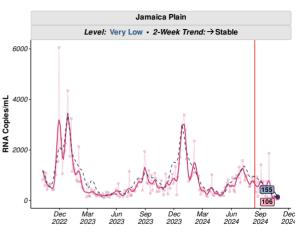


Level: Very Low

- Average value in <u>JP</u> over the past week: <u>106</u> copies/mL.
- This value is very low compared to past values and similar than the citywide average (155 copies/mL).

Trend: → <u>Stable</u>

- Over the past two weeks, values in <u>JP</u> are <u>stable</u>.
- Change compared to two weeks ago: <u>+29</u> copies/mL (+39%).



Updated: 01-Nov-2024 | Samples through: 27-Oct-2024 (JP);

Mattapan

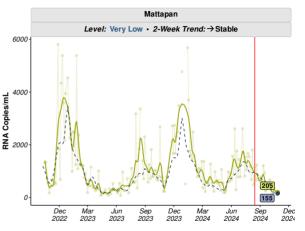


Level: Very Low

- Average value in <u>MT</u> over the past week: <u>205</u> copies/mL.
- This value is very low compared to past values and similar than the citywide average (155 copies/mL).

Trend: → <u>Stable</u>

- Over the past two weeks, values in <u>MT</u> are <u>stable</u>.
- Change compared to two weeks ago: <u>-29</u> copies/mL (-12%).



Updated: 01-Nov-2024 | Samples through: 27-Oct-2024 (MT);

Roslindale/West Roxbury

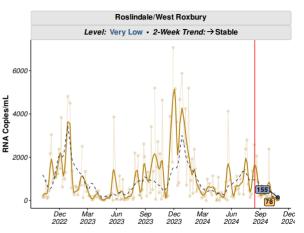


Level: Very Low

- Average value in <u>RS/WR</u> over the past week: <u>78</u> copies/mL.
- This value is very low compared to past values and similar than the citywide average (<u>155</u> copies/mL).

Trend: → <u>Stable</u>

- Over the past two weeks, values in RS/WR are <u>stable</u>.
- Change compared to two weeks ago: <u>-32</u> copies/mL (-29%).



Updated: 01-Nov-2024 | Samples through: 27-Oct-2024 (RS/WR);

Roxbury

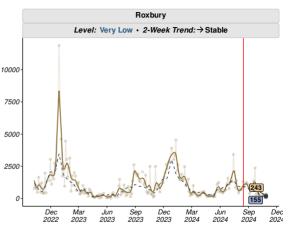


Level: Very Low

- Average value in **RX** over the past week: <u>243</u> copies/mL.
- This value is very low compared to past values and similar than the citywide average (155 copies/mL).

Trend: → <u>Stable</u>

- Over the past two weeks, values in **RX** are **<u>stable</u>**.
- Change compared to two weeks ago: <u>+81</u> copies/mL (+50%).

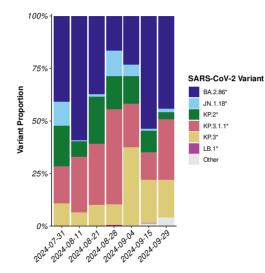


Updated: 01-Nov-2024 | Samples through: 27-Oct-2024 (RX);

See recommended actions and resources based on levels and trends in this neighborhood.

RNA Copies/mL

Percent Variant Lineages (Citywide)



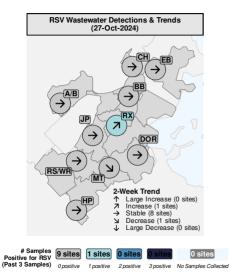
Influenza Detections in Wastewater



Influenza Wastewater Detections & Trends (27-Oct-2024) BB A/B \rightarrow RX JP \rightarrow \rightarrow DOR \rightarrow \rightarrow \rightarrow RS/WR **√MT** 2-Week Trend Large Increase (0 sites) \mathbf{T} **HP** Ż Increase (0 sites) Stable (10 sites) \rightarrow Decrease (0 sites) N Large Decrease (0 sites) # Samples 2 sites 0 sites 0 sites Positive for Flu (Past 3 Samples) 0 positive 1 positive 2 positive 3 positive No Samples Collected

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 = 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)
\uparrow	Large Increase	>+500
7	Increase	+150 to +500
\rightarrow	Stable	-150 to +150
Ы	Decrease	-500 to -150
\downarrow	Large Decrease	≤-500





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 <u>high risk of getting very sick</u>, 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 isolation if you have COVID-19 and for what to do if you are exposed to someone with COVID-19

- Find a <u>vaccination clinic</u> 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





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 isolation if you have COVID-19 and for what to do if you are exposed to someone with COVID-19

- Find a <u>vaccination clinic</u> 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 <u>high risk of getting very sick</u>, consider self-testing to <u>detect infection before contact</u>, 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 isolation if you have COVID-19 and for what to do if you are exposed 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 <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: 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 isolation if you have COVID-19 and for what to do if you are exposed 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: 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 <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 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