

Wastewater Epidemiology COVID-19 Report

Updated: 15-Jul-2024 | Data Complete Through: 10-Jul-2024



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Level: Very High

Level: High

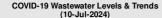
Level: Moderate

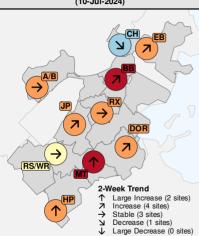
Level: Low

Level: Very Low

Neighborhood Levels and Trends







BOSTON CITYWIDE COVID-19 LEVEL & TRENDS

COVID-19 LEVEL

2-WEEK TRENDS

High

1,383 copies/mL samples through 10-Jul-2024 Increase

+324 copies/mL (+31%)

NEIGHBORHOOD SITES COVID-19 LEVEL & TRENDS

Level	Level Neighborhood/Site		
Very High	Mattapan (MT)	1	Large Increase
very High	Back Bay (BB)	7	Increase
	Allston/Brighton (A/B)	\rightarrow	Stable
	Jamaica Plain (JP)	7	Increase
High	Hyde Park (HP)	$\neg \uparrow$	Large Increase
High	Roxbury (RX)	\rightarrow	Stable
	Dorchester (DOR)	7	Increase
	East Boston (EB)	7	Increase
Moderate	Roslindale/West Roxbury (RS/WR)	\rightarrow	Stable
Low	Charlestown (CH)	Z	Decrease

For additional details see:

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

COVID-19 Ι Δνα (# sites)





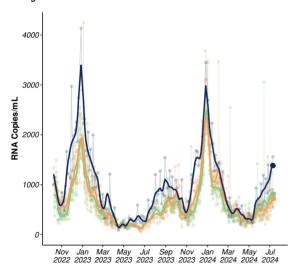






Citywide Overview and Trends





CITYWIDE AVERAGE

1,383
RNA copies/mL

RANGE ACROSS 11
NEIGHBORHOOD SITES

595-1,923
RNA copies/mL

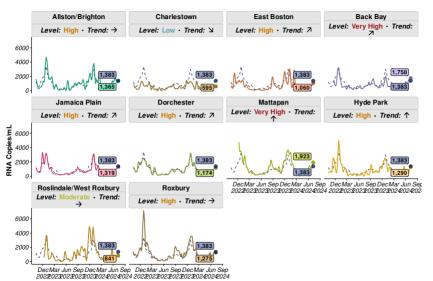
Data through: 10-Jul-2024

2-WEEK TRENDS				
Boston Increasing	+31% over the past 14 days			
MWRA North Stable	+21% over the past 14 days			
MWRA South Stable	+21% over the past 14 days			

 $\textbf{Updated: } 15\text{-Jul-2024} \mid \textbf{Samples through: } 10\text{-Jul-2024 (BPHC); } 11\text{-Jul-2024 (MWRA)} \mid \textbf{MWRA Data: } \\ \underline{\textbf{https://www.mwra.com/biobot/biobotdata.htm}}$

BPHC Trend Overview by Neighborhood





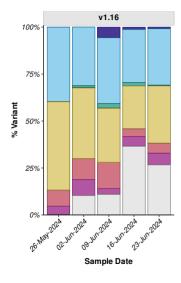
For each neighborhood, colored line and textbox shows the smoothed trend and most recent value in that neighborhood:

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.

To see details and interpretation of these results for an individual neighborhood see Results by Neighborhood.

Citywide Percent Variant Lineages





Variant	%
BA.2.86	0.9%
JN.1	30.1%
JN.1.13	0.4%
JN.1.7	0.0%
KP.2	30.5%
KP.1.1	5.3%
KP.3	6.2%
Other	26.7%

Average variant percentage across all BPHC sites weighted by population size | Table shows variant percentages for samples collected the week of 23-Jun-2024 (most recent available data); Variant results are reported weekly with a 3-week lag due to laboratory processing and analysis.

Sequencing Analysis Protocol Version: v1.16 (13-Jun-2024):

• "Other variants" contains all variants not explicitly quantified.

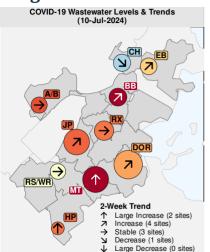
Version Changes: Added: JN.1.7, KP.3 Removed: XBB, EG.5

For Additional Info See:

https://www.biobot.io/covid19-variants-report-notes/

Neighborhood Levels and Data Table





COVID-19 Wastewater Levels		2-Week Trends			
NH	Conc. (copies/mL)	Level	Trend	Diff. (copies/mL)	% Change
BOSTON	1,383	High	Increase	+324	+31%
MT	1,923	Very High	Large Increase	+806	+72%
BB	1,758	Very High	Increase	+187	+12%
A/B	1,365	High	Stable	+38	+3%
JP	1,319	High	Increase	+282	+27%
HP	1,290	High	Large Increase	+775	+150%
RX	1,275	High	Stable	-61	-5%
DOR	1,174	High	Increase	+183	+18%
EB	1,060	High	Increase	+381	+56%
RS/WR	841	Moderate	Stable	+114	+16%
CH	595	Low	Decrease	-201	-25%

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

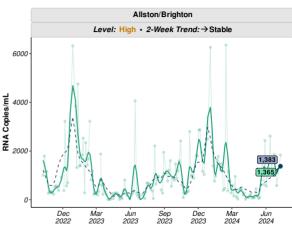


Level: High

- Average value in A/B over the past week: 1,365 copies/mL.
- This value is high compared to past values and similar than the citywide average (1,383 copies/mL).

Trend: \rightarrow Stable

- Over the past two weeks, values in <u>A/B</u> are <u>stable</u>.
- Change compared to two weeks ago: +38 copies/mL (+3%).



Updated: 15-Jul-2024 | Samples through: 10-Jul-2024 (A/B);

Back Bay

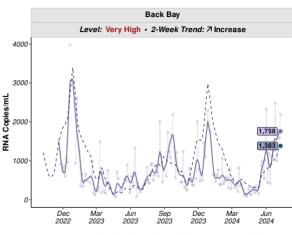


Level: Very High

- Average value in <u>BB</u> over the past week: 1,758 copies/mL.
- This value is very high compared to past values and higher than the citywide average (1,383 copies/mL).

Trend: **↗** Increase

- Over the past two weeks, values in <u>BB</u> are <u>increasing</u>.
- Change compared to two weeks ago: +187 copies/mL (+12%).



Updated: 15-Jul-2024 | Samples through: 10-Jul-2024 (BB);

Charlestown

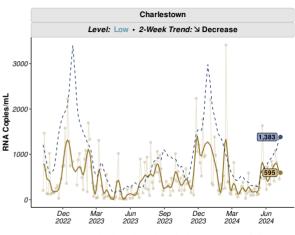


Level: Low

- Average value in <u>CH</u> over the past week: 595 copies/mL.
- This value is <u>low</u> compared to past values and <u>lower</u> than the citywide average (1,383 copies/mL).

Trend: > Decrease

- Over the past two weeks, values in <u>CH</u> are <u>decreasing</u>.
- Change compared to two weeks ago: <u>-201</u> copies/mL (-25%).



Updated: 15-Jul-2024 | Samples through: 10-Jul-2024 (CH);

Dorchester

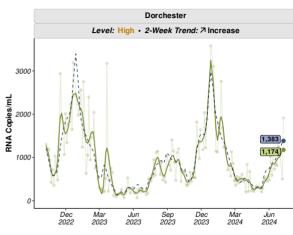


Level: High

- Average value in <u>DOR</u> over the past week: 1,174 copies/mL.
- This value is high compared to past values and similar than the citywide average (1,383 copies/mL).

Trend: **↗** Increase

- Over the past two weeks, values in <u>DOR</u> are <u>increasing</u>.
- Change compared to two weeks ago: +183 copies/mL (+18%).



Updated: 15-Jul-2024 | Samples through: 10-Jul-2024 (DOR);

East Boston

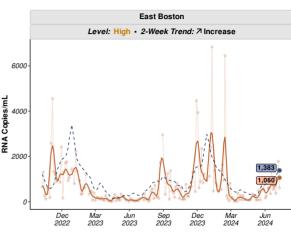


Level: High

- Average value in <u>EB</u> over the past week: 1,060 copies/mL.
- This value is <u>high</u> compared to past values and <u>similar</u> than the citywide average (1,383 copies/mL).

Trend: **↗ Increase**

- Over the past two weeks, values in <u>EB</u> are <u>increasing</u>.
- Change compared to two weeks ago: +381 copies/mL (+56%).



Updated: 15-Jul-2024 | Samples through: 10-Jul-2024 (EB);

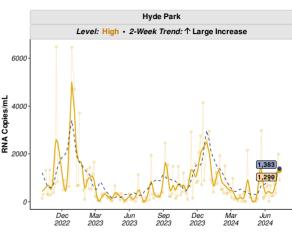
Hyde Park



Level: High

- Average value in <u>HP</u> over the past week: 1,290 copies/mL.
- This value is <u>high</u> compared to past values and <u>similar</u> than the citywide average (1,383 copies/mL).

- Over the past two weeks, values in <u>HP</u> are <u>increasing</u>.
- Change compared to two weeks ago: +775 copies/mL (+150%).



Updated: 15-Jul-2024 | Samples through: 10-Jul-2024 (HP);

Jamaica Plain

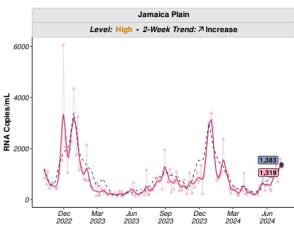


Level: High

- Average value in <u>JP</u> over the past week: 1,319 copies/mL.
- This value is <u>high</u> compared to past values and <u>similar</u> than the citywide average (1,383 copies/mL).

Trend: **↗ Increase**

- Over the past two weeks, values in <u>JP</u> are <u>increasing</u>.
- Change compared to two weeks ago: +282 copies/mL (+27%).



Updated: 15-Jul-2024 | Samples through: 10-Jul-2024 (JP);

Mattapan

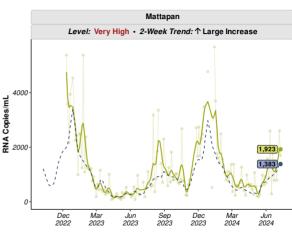


Level: Very High

- Average value in <u>MT</u> over the past week: 1,923 copies/mL.
- This value is very high compared to past values and higher than the citywide average (1,383 copies/mL).

Trend: 1 Large Increase

- Over the past two weeks, values in <u>MT</u> are <u>increasing</u>.
- Change compared to two weeks ago: +806 copies/mL (+72%).



Updated: 15-Jul-2024 | Samples through: 10-Jul-2024 (MT);

Roslindale/West Roxbury

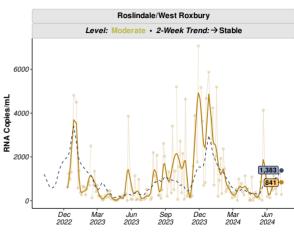


Level: **Moderate**

- Average value in RS/WR over the past week: 841 copies/mL.
- This value is moderate compared to past values and lower than the citywide average (1,383 copies/mL).

Trend: → Stable

- Over the past two weeks, values in <u>RS/WR</u> are <u>stable</u>.
- Change compared to two weeks ago: +114 copies/mL (+16%).



Updated: 15-Jul-2024 | Samples through: 10-Jul-2024 (RS/WR);

Roxbury



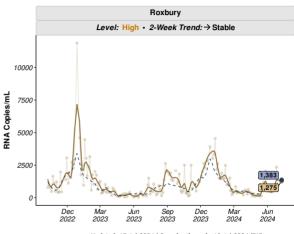
Level: High

- Average value in <u>RX</u> over the past week: 1,275 copies/mL.
- This value is <u>high</u> compared to past values and <u>similar</u> than the citywide average (1,383 copies/mL).

Trend: → Stable

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

 61 copies/mL (-5%).

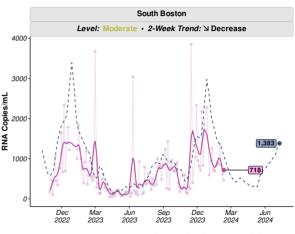


Updated: 15-Jul-2024 | Samples through: 10-Jul-2024 (RX);

South Boston



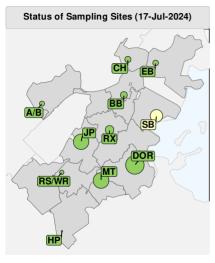
- As of 11-Feb-2024, sampling at the South Boston site has been paused indefinitely due to sewer construction
- Data for South Boston are shown through 11-Feb-2024



Updated: 15-Jul-2024 | Samples through: 11-Feb-2024 (SB);

Site Status and Details





#	Neighborhood	Date Site Confirmed	Site Status	Pop. Covered	% Neighborhood Covered
01	A/B	02-Oct-2022	Active	2,684	4.0%
02	CH	02-Oct-2022	Active	3,736	18.3%
03	EB	02-Oct-2022	Active	3,178	6.3%
04	BB	20-Nov-2022	Active	4,551	8.1%
05	SB	30-Oct-2022	Paused*	14,962	35.8%
07	JP	02-Oct-2022	Active	23,573	56.9%
08	DOR	02-Oct-2022	Active	34,562	23.8%
09	MT	11-Dec-2022	Active	24,441	80.5%
10	HP	02-Oct-2022	Active	1,262	3.5%
11	RS/WR	11-Dec-2022	Active	2,165	3.5%
12	RX	02-Oct-2022	Active	7,036	16.5%

Site Status (N=11)



Paused (n=1)

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)
$\overline{}$	Large Increase	>+500
7	Increase	+150 to +500
\rightarrow	Stable	-150 to +150
7	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.
- · 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: 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 <u>vaccination clinic</u> 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





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 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: 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