Wastewater Epidemiology COVID-19 Report

Updated: 04-Mar-2024 | **Data Complete Through**: 28-Feb-2024

✉ wastewater@bphc.org

Boston Public
Health Commission

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Additional Information

Level: Very High

Level: High

Level: Moderate

Level: Low

Level: Very Low

Neighborhood Levels and Trends

COVID-19 Wastewater Levels & Trends (28-Feb-2024)

2-Week Trend
↑ Large Increase (0 sites)
↗ Increase (1 sites)
→ Stable (1 sites)
↘ Decrease (3 sites)
↓ Large Decrease (6 sites)

COVID-19 Level (# sites)	5 sites	5 sites	0 sites	1 sites	0 sites
	Very Low	Low	Moderate	High	Very High
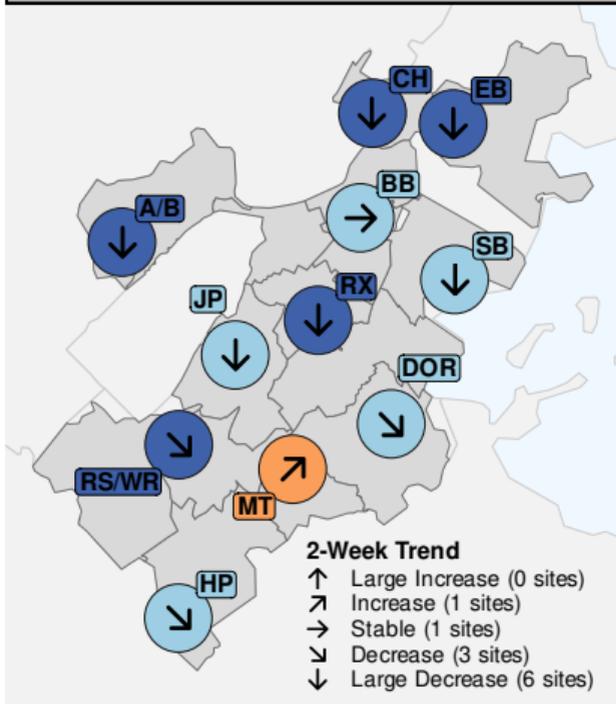
BOSTON CITYWIDE COVID-19 LEVEL & TRENDS

COVID-19 LEVEL	2-WEEK TRENDS
Low	↘
623 copies/mL *samples through 28-Feb-2024*	*Decrease* *-378 copies/mL (-38%)*

NEIGHBORHOOD SITES COVID-19 LEVEL & TRENDS

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

For additional details see:
- Results by Neighborhood
- Detailed Neighborhood Levels and Trends Table
- Trend and Level Category Definitions

Citywide Overview and Trends
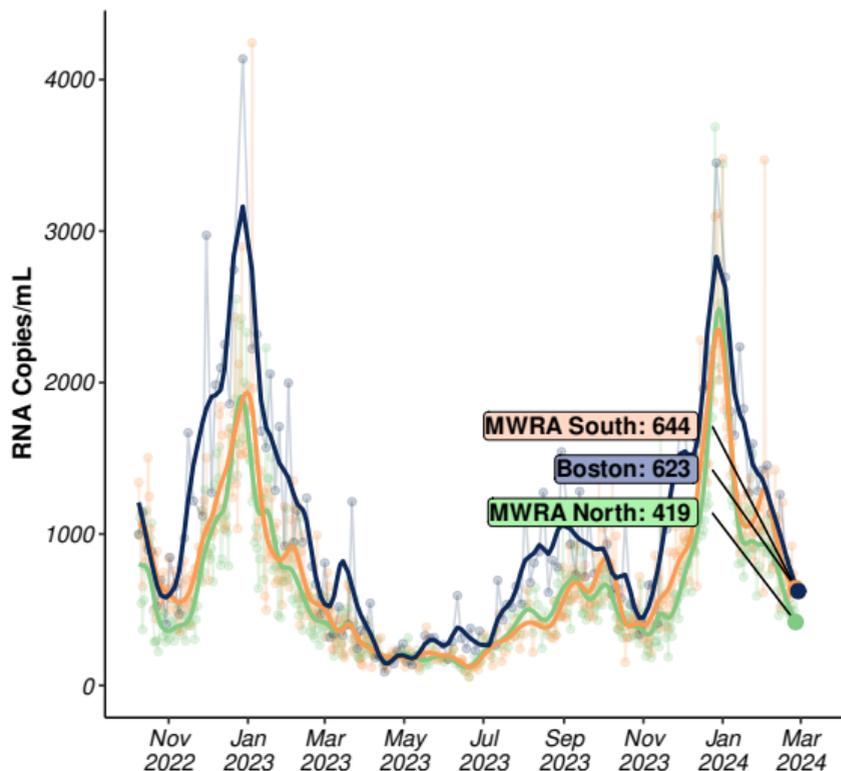
CITYWIDE AVERAGE	RANGE ACROSS 11 NEIGHBORHOOD SITES
623 *RNA copies/mL*	**1-1,293** *RNA copies/mL*

Data through: **28-Feb-2024**

2-WEEK TRENDS	
Boston **Decreasing**	**-38%** over the past 14 days
MWRA North **Decreasing**	**-46%** over the past 14 days
MWRA South **Decreasing**	**-32%** over the past 14 days

BPHC Trend Overview by Neighborhood

Allston/Brighton	Charlestown	East Boston	Back Bay
Level: **Very Low** • *Trend:* ↓	*Level:* **Very Low** • *Trend:* ↓	*Level:* **Very Low** • *Trend:* ↓	*Level:* **Low** • *Trend:* →

623 / 209

623 / 1

623 / 282

623 / 430

South Boston	Jamaica Plain	Dorchester	Mattapan
Level: **Low** • *Trend:* ↓	*Level:* **Low** • *Trend:* ↓	*Level:* **Low** • *Trend:* ↘	*Level:* **High** • *Trend:* ↗

623 / 455

623 / 353

623 / 608

1,293 / 623

Hyde Park	Roslindale/West Roxbury	Roxbury
Level: **Low** • *Trend:* ↘	*Level:* **Very Low** • *Trend:* ↘	*Level:* **Very Low** • *Trend:* ↓

623 / 475

623 / 184

623 / 220

RNA Copies/mL

Dec 2022 Mar 2023 Jun 2023 Sep 2023 Dec 2023 Mar 2024

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
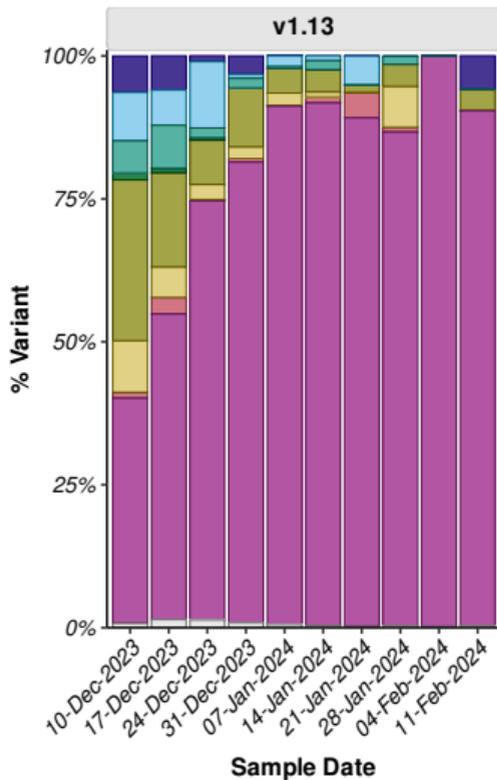
Variant	%
XBB	5.8%
XBB.1.5	0.0%
XBB.1.9	0.0%
FL.1.5.1	0.0%
EG.5	3.8%
HV.1	0.0%
BA.2.86	0.0%
JN.1	90.1%
Other	0.4%

Average variant percentage across all BPHC sites weighted by population size | Table shows variant percentages for samples collected the week of 11-Feb-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: v1.13 (05-Jan-2024):
• XBB includes all XBB sublineages aside from those specifically reported
• "Other variants" contains all variants not explicitly quantified.

Version Changes: Added: • BA.2.86 • JN.1
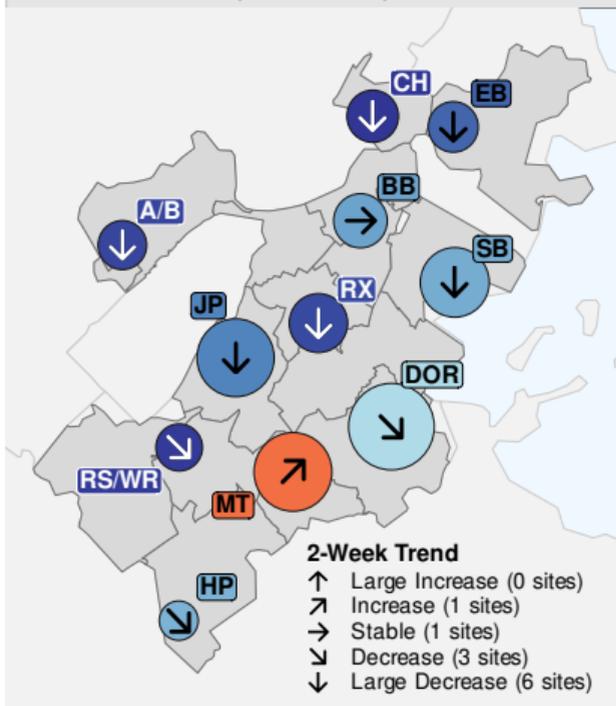• Removed XBB.1.9.1, XBB.1.9.2, XBB.1.16

For Additional Info See:
https://www.biobot.io/covid19-variants-report-notes/

Neighborhood Levels and Data Table

COVID-19 Wastewater Levels & Trends (28-Feb-2024)

2-Week Trend
- ↑ Large Increase (0 sites)
- ↗ Increase (1 sites)
- → Stable (1 sites)
- ↘ Decrease (3 sites)
- ↓ Large Decrease (6 sites)

Conc. (copies/mL)
≤175 350 525 700 875 1,050 1,225 1,400 >1,575

| NH | COVID-19 Wastewater Levels | | 2-Week Trends | | |
	Conc. (copies/mL)	Level	Trend	Diff. (copies/mL)	% Change
BOSTON	623	Low	Decrease	-378	-38%
MT	1,293	High	Increase	+355	+38%
DOR	608	Low	Decrease	-182	-23%
HP	475	Low	Decrease	-280	-37%
SB	455	Low	Large Decrease	-559	-55%
BB	430	Low	Stable	-91	-17%
JP	353	Low	Large Decrease	-665	-65%
EB	282	Very Low	Large Decrease	-2,546	-90%
RX	220	Very Low	Large Decrease	-1,056	-83%
A/B	209	Very Low	Large Decrease	-2,436	-92%
RS/WR	184	Very Low	Decrease	-499	-73%
CH	1	Very Low	Large Decrease	-1,483	-100%

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
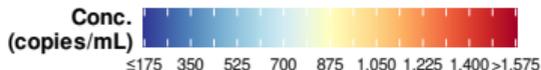
Results by Neighborhood

- 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 Low**

- Average value in **A/B** over the past week: **209** copies/mL.
- This value is **very low** compared to past values and **lower** than the citywide average (**623** copies/mL).

Trend: ↓ **Large Decrease**

- Over the past two weeks, values in **A/B** are **decreasing**.
- Change compared to two weeks ago: **-2,436** copies/mL (**-92%**).

Allston/Brighton
Level: **Very Low** • 2-Week Trend: ↓ **Large Decrease**

623
209
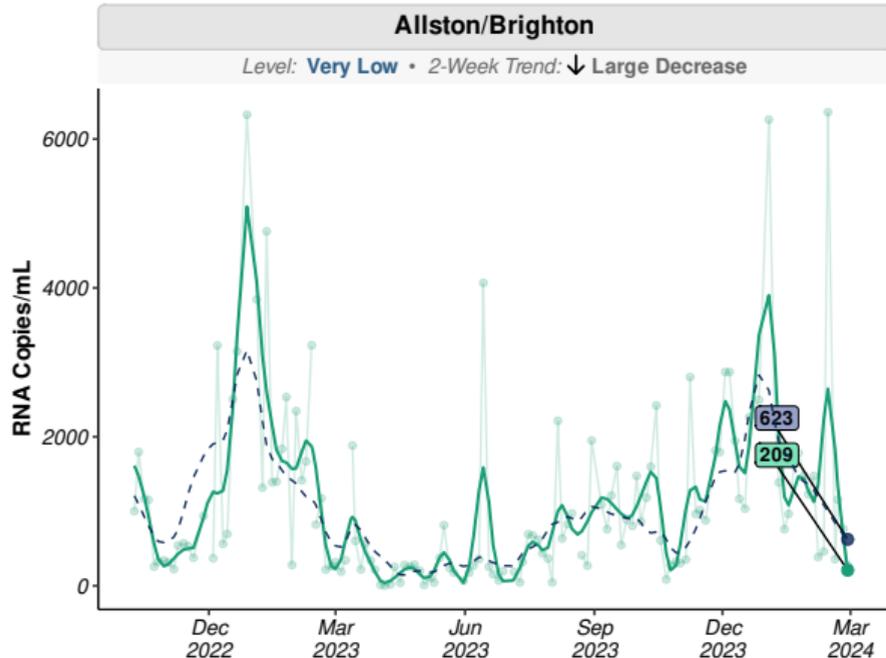
Updated: 04-Mar-2024 | **Samples through:** 28-Feb-2024 (A/B);

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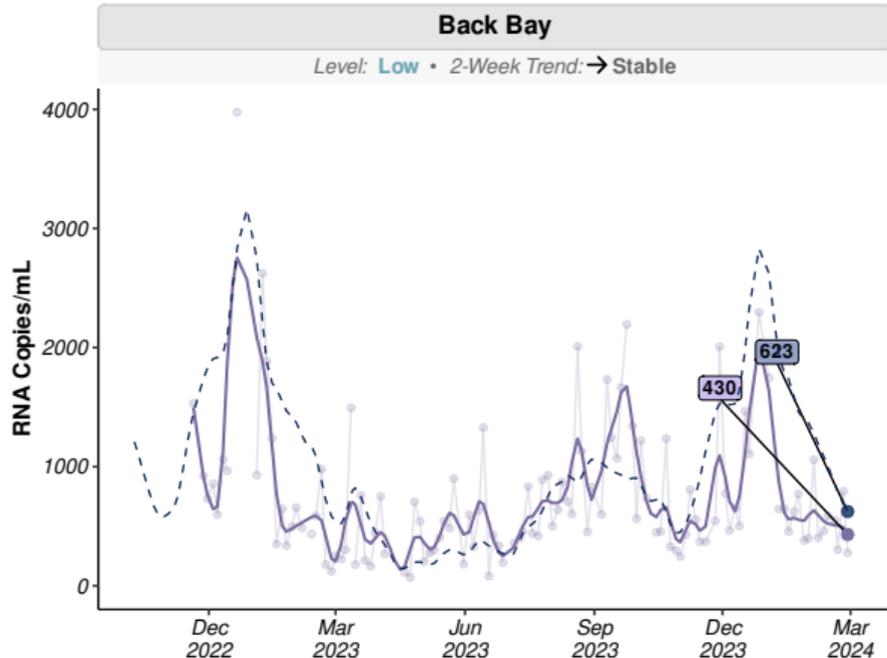
Back Bay

Level: **Low**

- Average value in **BB** over the past week: **430** copies/mL.
- This value is **low** compared to past values and **similar** than the citywide average (**623** copies/mL).

Trend: → **Stable**

- Over the past two weeks, values in **BB** are **stable**.
- Change compared to two weeks ago: **-91** copies/mL (**-17%**).

Back Bay

Level: Low • 2-Week Trend: → Stable

Updated: 04-Mar-2024 | **Samples through:** 28-Feb-2024 (BB);

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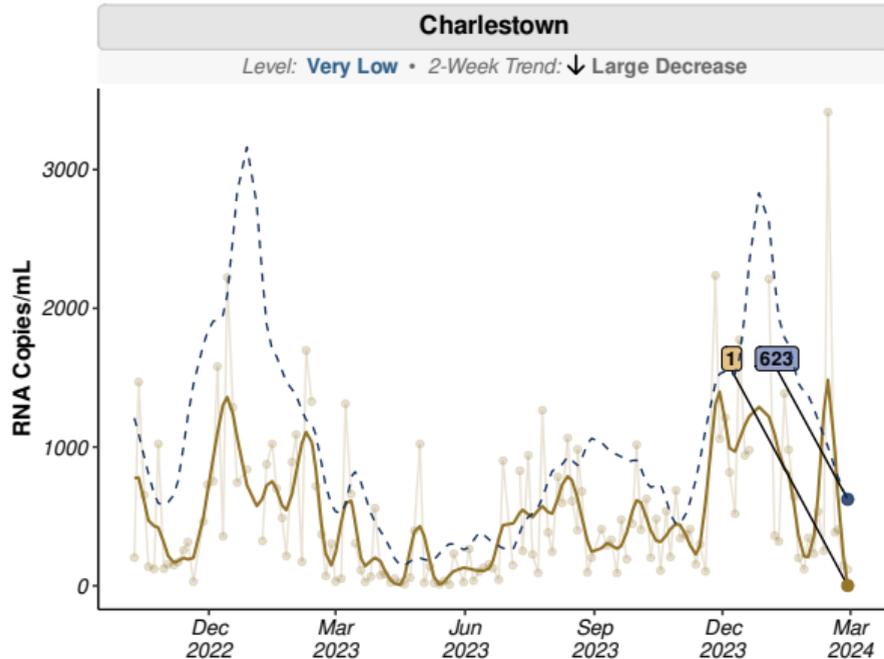
Charlestown

Level: **Very Low**

- Average value in **CH** over the past week: **1** copies/mL.
- This value is **very low** compared to past values and **lower** than the citywide average (**623** copies/mL).

Trend: ↓ **Large Decrease**

- Over the past two weeks, values in **CH** are **decreasing**.
- Change compared to two weeks ago: **-1,483** copies/mL (**-100%**).

Charlestown

Level: **Very Low** • *2-Week Trend:* ↓ Large Decrease

Updated: 04-Mar-2024 | **Samples through:** 28-Feb-2024 (CH);

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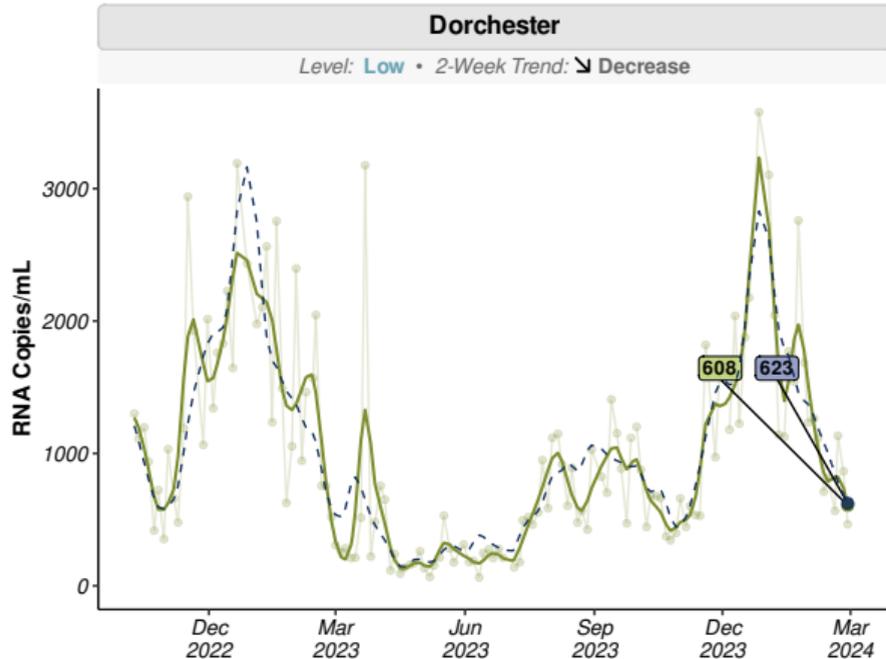
Dorchester

Level: **Low**

- Average value in **DOR** over the past week: **608** copies/mL.
- This value is **low** compared to past values and **similar** than the citywide average (**623** copies/mL).

Trend: ↘ **Decrease**

- Over the past two weeks, values in **DOR** are **decreasing**.
- Change compared to two weeks ago: **-182** copies/mL (**-23%**).

Dorchester

Level: **Low** • *2-Week Trend:* ↘ *Decrease*

608 623

RNA Copies/mL

3000

2000

1000

0

Dec 2022   Mar 2023   Jun 2023   Sep 2023   Dec 2023   Mar 2024

Updated: 04-Mar-2024 | **Samples through:** 28-Feb-2024 (DOR);

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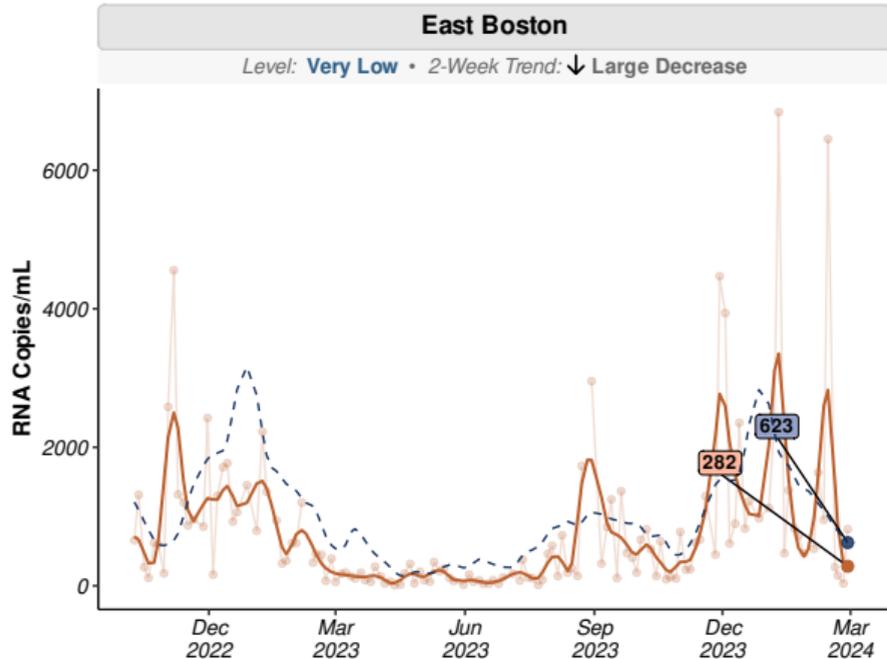
East Boston

Level: **Very Low**

- Average value in **EB** over the past week: **282** copies/mL.
- This value is **very low** compared to past values and **similar** than the citywide average (**623** copies/mL).

Trend: ↓ **Large Decrease**

- Over the past two weeks, values in **EB** are **decreasing**.
- Change compared to two weeks ago: **-2,546** copies/mL (**-90%**).

East Boston

Level: **Very Low** • *2-Week Trend:* ↓ Large Decrease

Updated: 04-Mar-2024 | **Samples through:** 28-Feb-2024 (EB);

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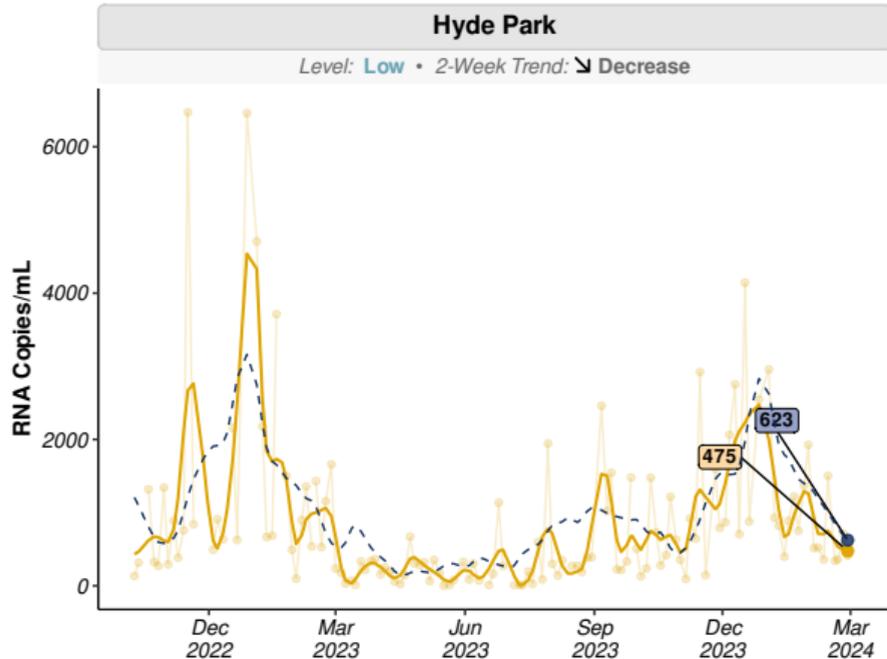
Hyde Park

Level: **Low**

- Average value in **HP** over the past week: **475** copies/mL.
- This value is **low** compared to past values and **similar** than the citywide average (**623** copies/mL).

Trend: ↘ **Decrease**

- Over the past two weeks, values in **HP** are **decreasing**.
- Change compared to two weeks ago: **-280** copies/mL (**-37%**).

Hyde Park

Level: **Low** • *2-Week Trend:* ↘ **Decrease**

Updated: 04-Mar-2024 | **Samples through:** 28-Feb-2024 (HP);

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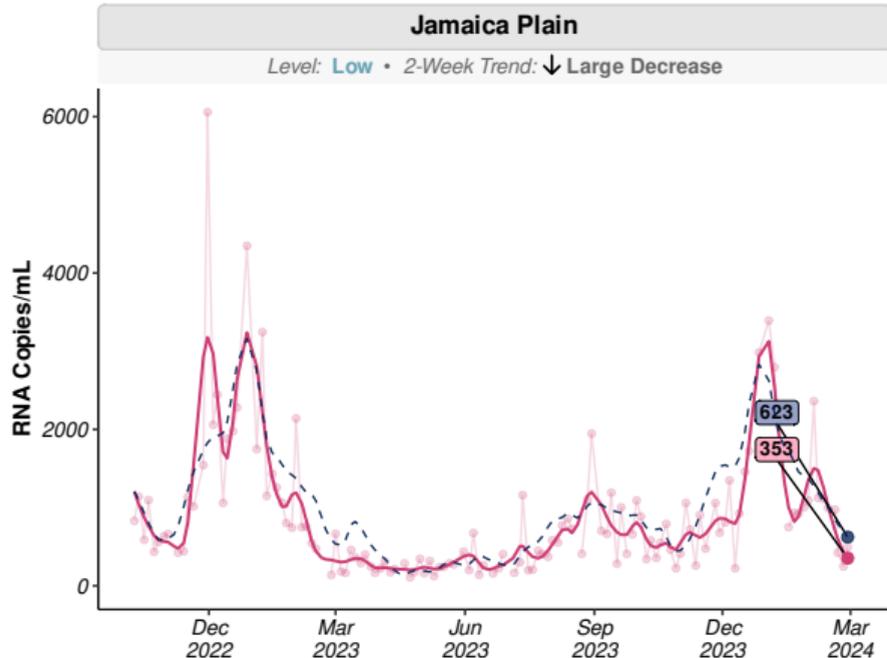
Jamaica Plain

Level: **Low**

- Average value in **JP** over the past week: **353** copies/mL.
- This value is **low** compared to past values and **similar** than the citywide average (**623** copies/mL).

Trend: ↓ **Large Decrease**

- Over the past two weeks, values in **JP** are **decreasing**.
- Change compared to two weeks ago: **-665** copies/mL (**-65%**).

Jamaica Plain

Level: **Low** • *2-Week Trend:* ↓ **Large Decrease**

Updated: 04-Mar-2024 | **Samples through:** 28-Feb-2024 (JP);

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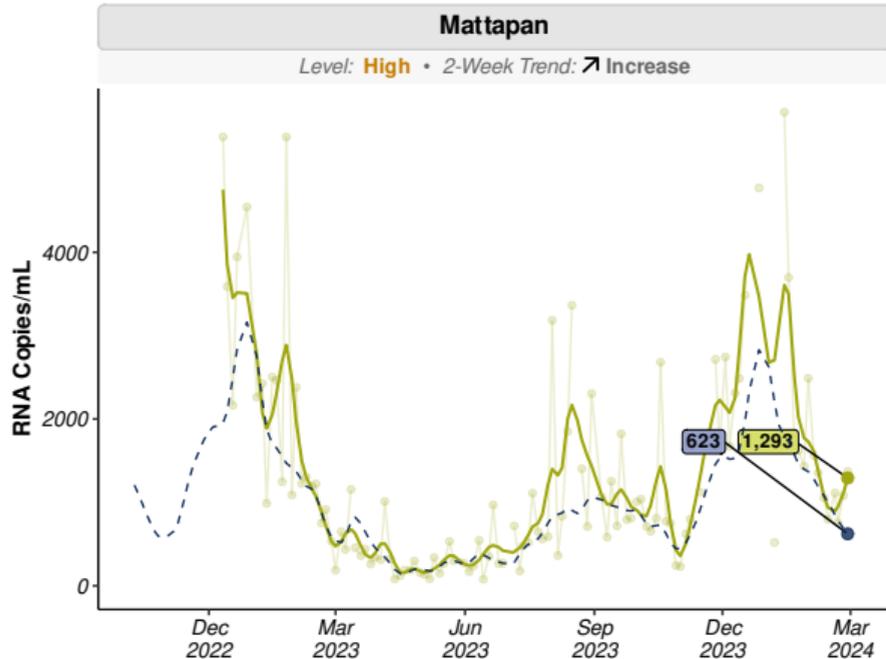
Mattapan

Level: **High**

- Average value in **MT** over the past week: **1,293** copies/mL.
- This value is **high** compared to past values and **higher** than the citywide average (**623** copies/mL).

Trend: ↗ **Increase**

- Over the past two weeks, values in **MT** are **increasing**.
- Change compared to two weeks ago: **+355** copies/mL (**+38%**).

Mattapan

Level: **High** • *2-Week Trend:* ↗ **Increase**

Updated: 04-Mar-2024 | **Samples through:** 28-Feb-2024 (MT);

See recommended actions and resources based on levels and trends in this neighborhood.
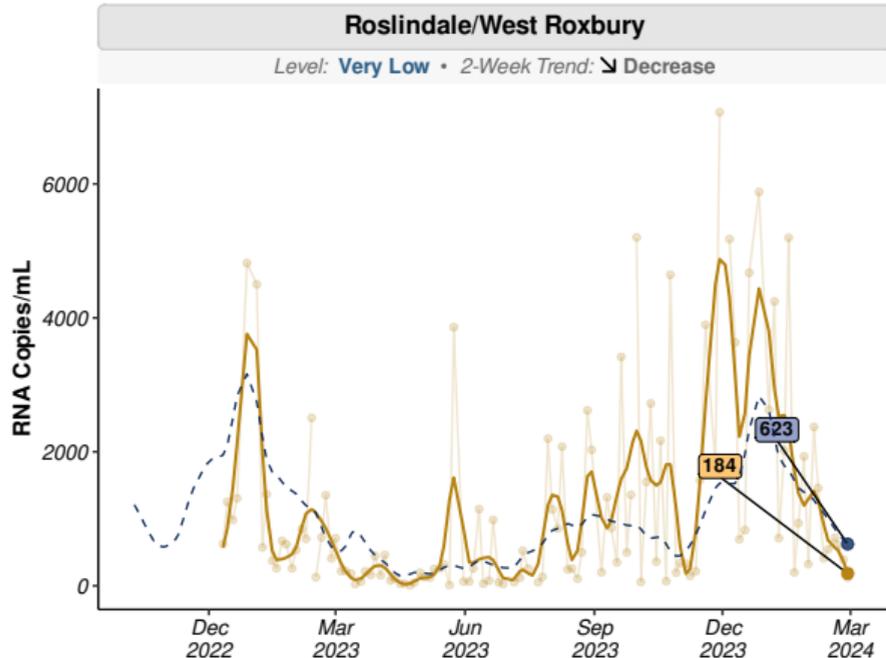
Roslindale/West Roxbury

Level: **Very Low**

- Average value in **RS/WR** over the past week: **184** copies/mL.
- This value is **very low** compared to past values and **lower** than the citywide average (**623** copies/mL).

Trend: ↘ **Decrease**

- Over the past two weeks, values in **RS/WR** are **decreasing**.
- Change compared to two weeks ago: **-499** copies/mL (**-73%**).

Roslindale/West Roxbury
Level: Very Low • 2-Week Trend: ↘ Decrease

Updated: 04-Mar-2024 | **Samples through:** 28-Feb-2024 (RS/WR);

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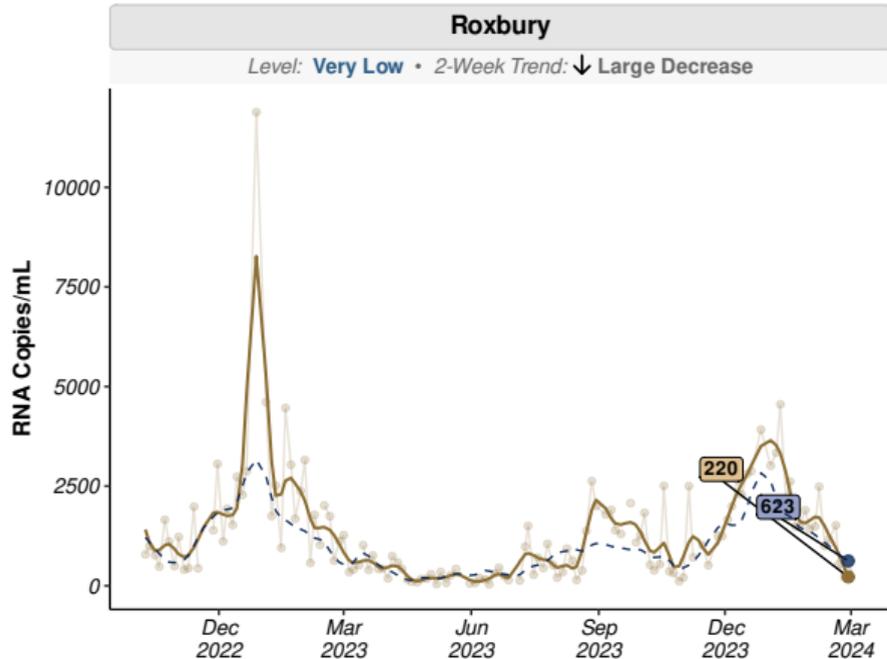
Roxbury

Level: **Very Low**

- Average value in **RX** over the past week: **220** copies/mL.
- This value is **very low** compared to past values and **lower** than the citywide average (**623** copies/mL).

Trend: ↓ **Large Decrease**

- Over the past two weeks, values in **RX** are **decreasing**.
- Change compared to two weeks ago: **-1,056** copies/mL (**-83%**).

Roxbury

Level: **Very Low** • *2-Week Trend:* ↓ **Large Decrease**

Updated: 04-Mar-2024 | **Samples through:** 28-Feb-2024 (RX);

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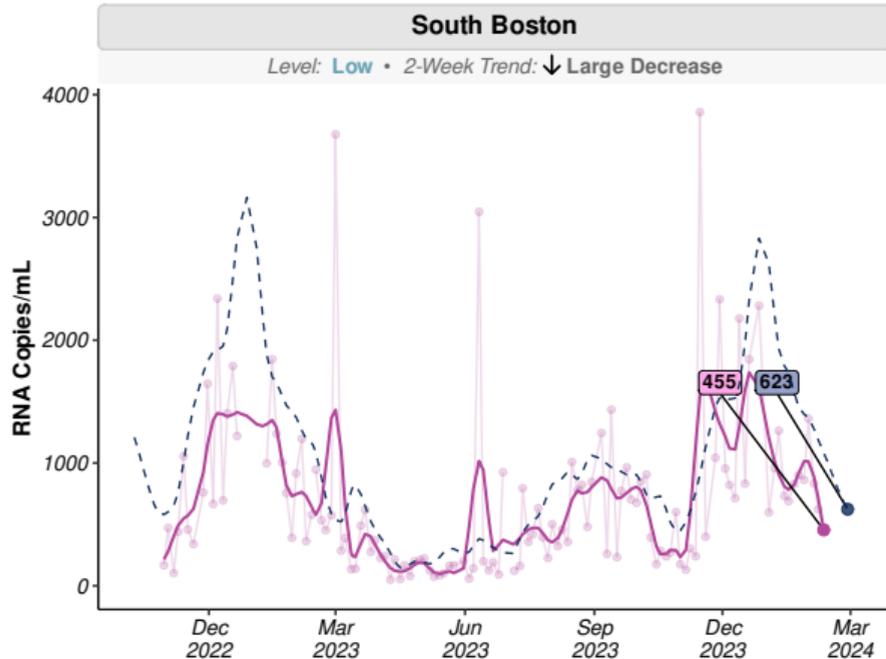
South Boston

Level: **Low**

- Average value in **SB** over the past week: **455** copies/mL.
- This value is **low** compared to past values and **similar** than the citywide average (**623** copies/mL).

Trend: ↓ **Large Decrease**

- Over the past two weeks, values in **SB** are **decreasing**.
- Change compared to two weeks ago: **-559** copies/mL (**-55%**).

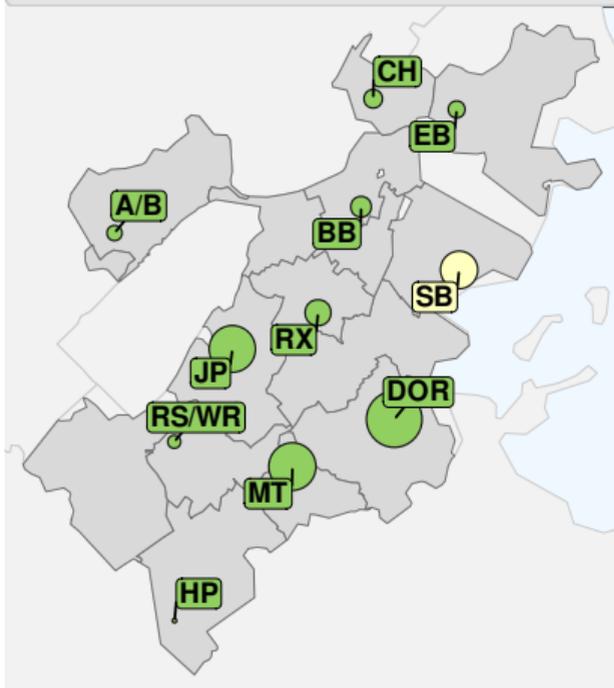

South Boston

Level: Low • 2-Week Trend: ↓ **Large Decrease**

RNA Copies/mL

Updated: 04-Mar-2024 | **Samples through:** 11-Feb-2024 (SB);

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

Site Status and Details

Status of Sampling Sites (04-Mar-2024)

#	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)   a Active (n=10)   a Paused (n=1)

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.
- 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

RESOURCES

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

RESOURCES

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

RESOURCES

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

RESOURCES

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

RESOURCES

- 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