Rhode Island COVID-19 Tiers
Data Brief Summary

Tiers: A Place-Based Approach to Addressing COVID-19 Inequity

After seeing how COVID-19 was impacting some communities more than others and hearing from concerned community leaders, the Rhode Island Department of Health (RIDOH) and its Health Equity Institute (HEI) created a system for prioritizing geographies for intervention (Figure 1).

COVID-19 Tier ZIP Codes

Tier 1 ZIP codes faced the most structural burdens and initial disease. They were prioritized for interventions like pop-up testing, vaccine sites, and in-person case investigations at testing sites.
02860, 02863, 02904, 02905, 02907, 02908, 02909

Tier 2 ZIP codes faced some of the structural burdens of Tier 1 but had less severe COVID-19 outcomes. They were monitored closely to see when and if they needed more intervention.
02861, 02893, 02895, 02906, 02910, 02911, 02914, 02919, 02920

Tier 3 ZIP codes did not meet the criteria for Tier 1 or 2 and received routine services and standard monitoring.
All Other ZIP Codes

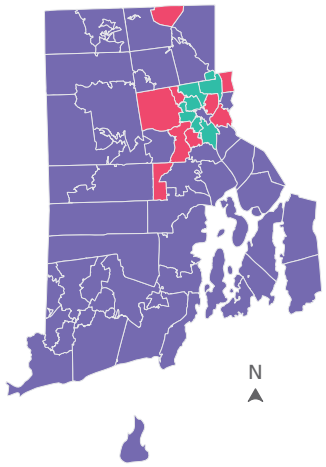

Figure 1: *Map of Tier ZIP codes*

Rhode Islanders facing the greatest structural barriers were more likely to have worse COVID-19 outcomes. **Tier 1 faced the most severe outcomes throughout the pandemic**, while Tier 2 experienced less severe outcomes than Tier 1 but more severe than Tier 3.

COVID-19 Hospitalizations

For every **10 hospitalizations** in Tier 3, there were **29 hospitalizations** in Tier 1.

Tier 3: **10**

Tier 1: **29**

Figure 2: *Age-adjusted hospitalization rate ratios per 100,000 Rhode Island residents, March 1, 2020 – December 31, 2021. Rhode Island COVID-19 Hospitalization Dataset. Data as of April 30, 2024*

COVID-19 Deaths

For every **10 people who died** in Tier 3, **28 died** in Tier 1.

Tier 3: **10**

Tier 1: **28**

Figure 3: *Age-adjusted death rate ratios per 100,000 Rhode Island residents, March 1, 2020 – December 31, 2021. Rhode Island COVID-19 Death Dataset. Data as of April 30, 2024*

COVID-19 Data: A Call to Place-Based Action

The uneven COVID-19 burden between tiers is not a surprise. Where a person lives, works, and plays impacts their health. COVID-19 Tiers data shows how important it is to:

- Use data to prioritize supports for the most impacted communities.
- Embed community organizations and leaders in the work.
- Prioritize the ongoing work to improve the root causes of poor health outcomes.

Data Notes:

[1] Age-adjusted case rates per 100,000 Rhode Island residents, March 1, 2020 – December 31, 2021. Rhode Island COVID-19 Case Data Set. Data as of April 30, 2024.

‡ Age-adjusted hospitalization rates per 100,000 Rhode Island residents, March 1, 2020 – December 31, 2021. Rhode Island COVID-19 Hospitalization Data Set. Data as of April 30, 2024.

What is age adjusting?

Groups of people can vary in age, meaning there can be more older or younger people in one group compared to another. When comparing an outcome, like COVID-19 hospitalizations, which is more common among older people, age adjusting lets you see how different groups would compare if the people in them were all the same age.

How does RIDOH define a COVID-19-associated hospital admission?

A COVID-19-associated hospitalization is defined as any person with COVID-19 admitted to an acute care or psychiatric inpatient facility for at least one night. The hospitalization dataset includes residents admitted to an inpatient facility with a positive COVID-19 test, regardless of when the test was performed. The hospital admissions in the dataset counted an individual more than once if they were re-admitted during a single COVID-19 infection. This data brief includes hospital admissions from March 1, 2020, to December 31, 2021. This brief excludes hospital admissions among known congregate care residents. The ZIP code a person lives in at the time of infection determines their tier. RIDOH uses a person's age at the time of infection.

How does RIDOH define a COVID-19-associated death?

A COVID-19-associated death is reported when:

- An individual's death certificate lists COVID-19 as an underlying or contributing cause of death,
- An individual is hospitalized with COVID-19 as a primary or contributing cause of hospitalization and dies in the hospital, or
- A case investigation determines that COVID-19 was the cause of death or contributed to the death.

Deaths are reported to RIDOH by Vital Records and Rhode Island hospitals. COVID-19 death totals in this brief represent only Rhode Island residents. This data brief shows COVID-19 deaths between March 1, 2020, and December 31, 2021. This brief excludes deaths among known congregate care residents. Deaths used ZCTA at time of infection to determine tier instead of ZIP code. Age at time of death determined age group for age adjustment.

Naming the tiers:

"Tiers 1 and 2" were originally referred to as "High Density Communities". This naming has been retired since it over emphasized only one factor leading to higher COVID-19 impacts in these areas and downplayed the impact of systemic racism contributing to these outcomes.

To read the full brief, please visit health.ri.gov/COVID-19-Tiers

RHODE ISLAND DEPARTMENT OF HEALTH