PROVIDENT

For more information, contact:

Brandon DL Marshall, PhD
Co-Principal Investigator
Brandon_Marshall@brown.edu

Magdalena Cerdá, DrPh
Co-Principal Investigator
Magdalena.Cerda@nyulangone.org

PROVIDENT is a **Randomized Control Trial**

What is a Randomized Control Trial?

A randomized control trial (RCT) is one of the best ways to study new interventions. This type of study helps researchers and government agencies see whether new interventions are an improvement over existing ones. **What does this mean for the PROVIDENT study?**

Randomized: This means that half of the cities in Rhode Island will be assigned at random (by chance) to receive the PROVIDENT model predictions. We want to see whether the cities receiving the PROVIDENT model predictions will have a lower overdose rate by the end of the study.

Control: The cities in the control group will not receive the predictions but will continue to receive all the available reports, tools, and support that are provided by the Rhode Island Department of Health.

Trial: Having two groups, one which receives the PROVIDENT model predictions and the other which receives the usual tools, will allow us to measure and compare what happens to cities in each group. All cities are eligible to be assigned to either group to ensure that there is a fair comparison between each group.

Cities in Rhode Island will be randomized to receive the PROVIDENT intervention or the resources already dedicated to preventing overdose deaths in the state.

It is important to note that there will be no changes to the overall amount of resources dedicated to preventing overdose deaths in Rhode Island.

This means that in municipalities randomly assigned to the control condition, interventions will continue to be funded and deployed at the city-level. In cities randomized to receive the PROVIDENT model predictions, researchers at Brown University and the Rhode Island Department of Health will work with community stakeholders to make sure that overdose prevention and treatment interventions are implemented in those neighborhoods identified by the model as being at highest risk for future overdose outbreaks.

If the trial is successful, our goal is to reduce overdose rates by 40% in five years.

Our results will improve public health decision-making and inform resource allocation to ensure that evidence-based prevention, treatment, recovery, and overdose rescue services are available in the communities that need them. **If found to be effective, the PROVIDENT model will be disseminated to other states, which could adapt the tool to guide resource allocation and maximize public health impact.**

PROVIDENT

For more information, contact:

Brandon DL Marshall, PhD
Co-Principal Investigator
Brandon_Marshall@brown.edu

Magdalena Cerdá, DrPh
Co-Principal Investigator
Magdalena.Cerda@nyulangone.org

What happens during and after **randomization**?

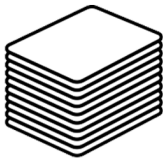
Randomization **assigns groups by chance** to different treatment conditions

Randomization helps to prevent **bias**, or trial results being impacted by human choices or other factors not related to the treatment conditions being tested. In the PROVIDENT trial, we hypothesize that **population size** and **historical rates of drug overdose** are two other factors that could impact our results separately from the treatment conditions being tested.

How are **cities and towns** randomized?

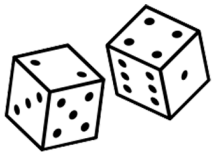
We created groups of municipalities (cities and towns) with similar **numbers of people** and **historical rates of drug overdose** (called "blocks" or strata). Randomization occurs **within strata** to ensure that municipalities with more people and higher historical rates of drug overdose are not assigned to one treatment condition more often than others. The end result will be two groups that have similar numbers of historical overdose rates.

1.



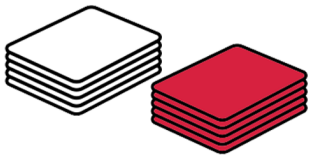
All municipalities are eligible for either the treatment or control arm.

2.



Randomization creates two groups that have similar population sizes and historic rates of overdose.

3.



One group of municipalities is now in the control arm, and the other is in the treatment arm.

For cities and towns randomized to the **control arm**, this means…

You will not receive any PROVIDENT model predictions. Cities and towns in the control arm will continue to receive all the available reports, tools, and support that are provided by the Rhode Island Department of Health.

For cities and towns randomized to the **treatment arm**, this means…

You will receive PROVIDENT model predictions. These will look like detailed maps for each randomized town. The predictions will identify areas where the model predicts that future overdoses may occur. Organizations within these cities can use the predictions to inform how they allocate resources.

Both arms will receive all the current support from RIDOH. However, only the municipalities in the treatment arm will receive the PROVIDENT model predictions.

Support
(both arms)

Reports
(both arms)

Tools
(both arms)

Maps
(both arms)

Model predictions
(treatment arm only)