

Tracking **Cause of Death Data** in Randolph

**Helping
people live
healthier**

TRENDLINE



Introducing
the

**Randolph
Health
Department**

Gerard Cody

REHS / RS / CPH

Public Health Commissioner

Ann Martin

RN / MSN

Public Health Nurse

Tamara Smith

RN

Nurse Epidemiologist

Welcome to

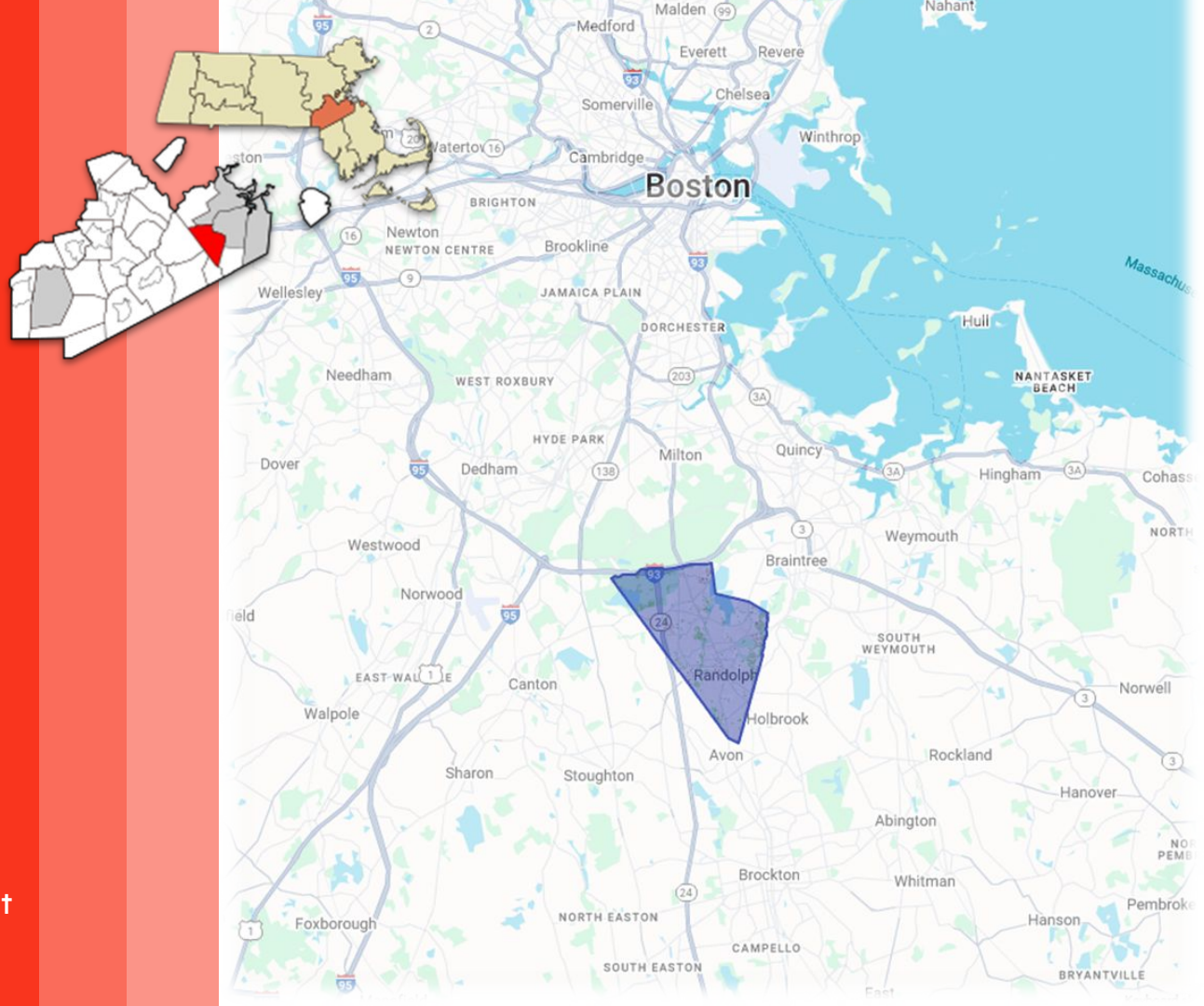
Randolph

South Shore region

- About 14 miles South of Boston
- About 7 miles North of Brockton

Borders with

- Quincy and Milton to the North
- Braintree to the East
- Holbrook and Avon to the South
- Canton and Stoughton to the West



Welcome to **Randolph**

Population

• 34,683 (2023)

Demographics

Age 65+, 17% (18% Mass)

Age 18-65, 65% (62% Mass)

Age 18 and under, 18% (19% Mass)

Median age 41 (40 Mass)



Welcome to

Randolph

Population

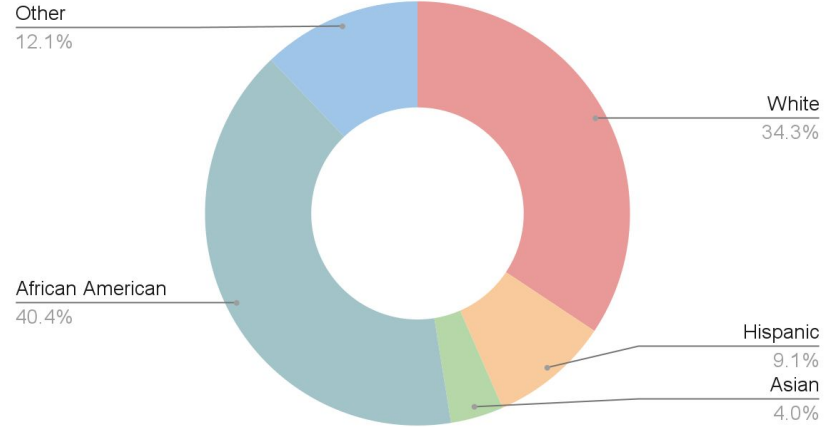
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Demographics

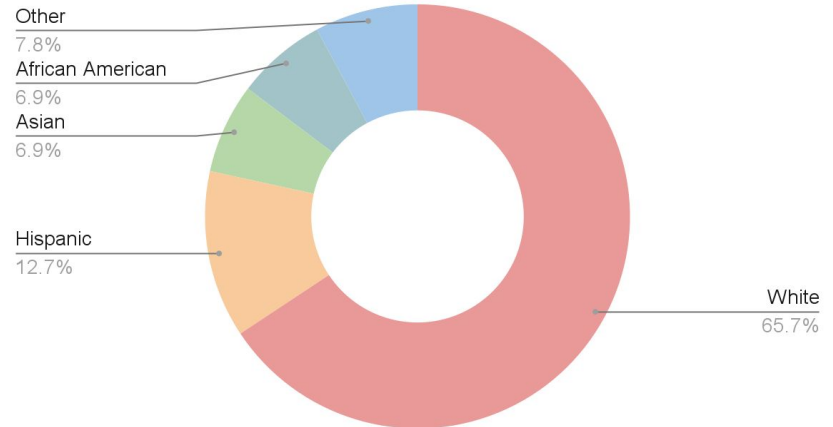
Foreign Born, 32% (Mass 18%)

Vietnamese & Haitian Populations

Randolph



Massachusetts



Welcome to **Randolph**

Median Income

Per Capita

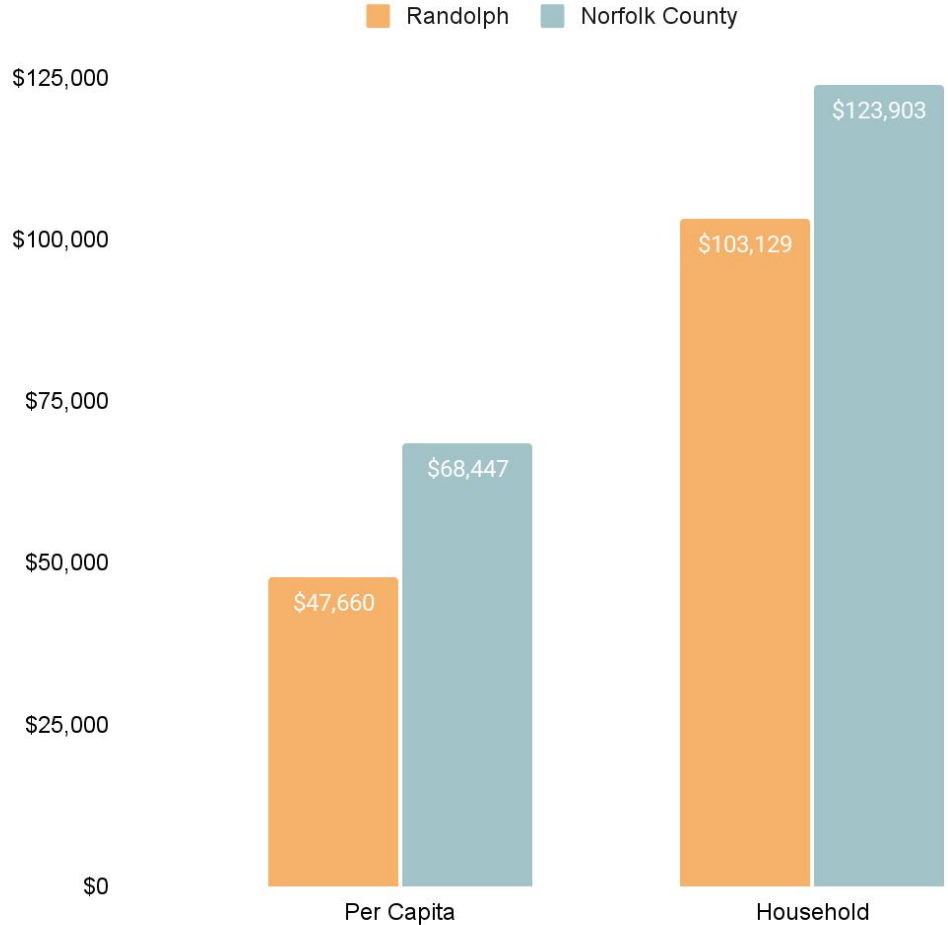
Randolph: \$47,660

Norfolk County: \$68,447

Household

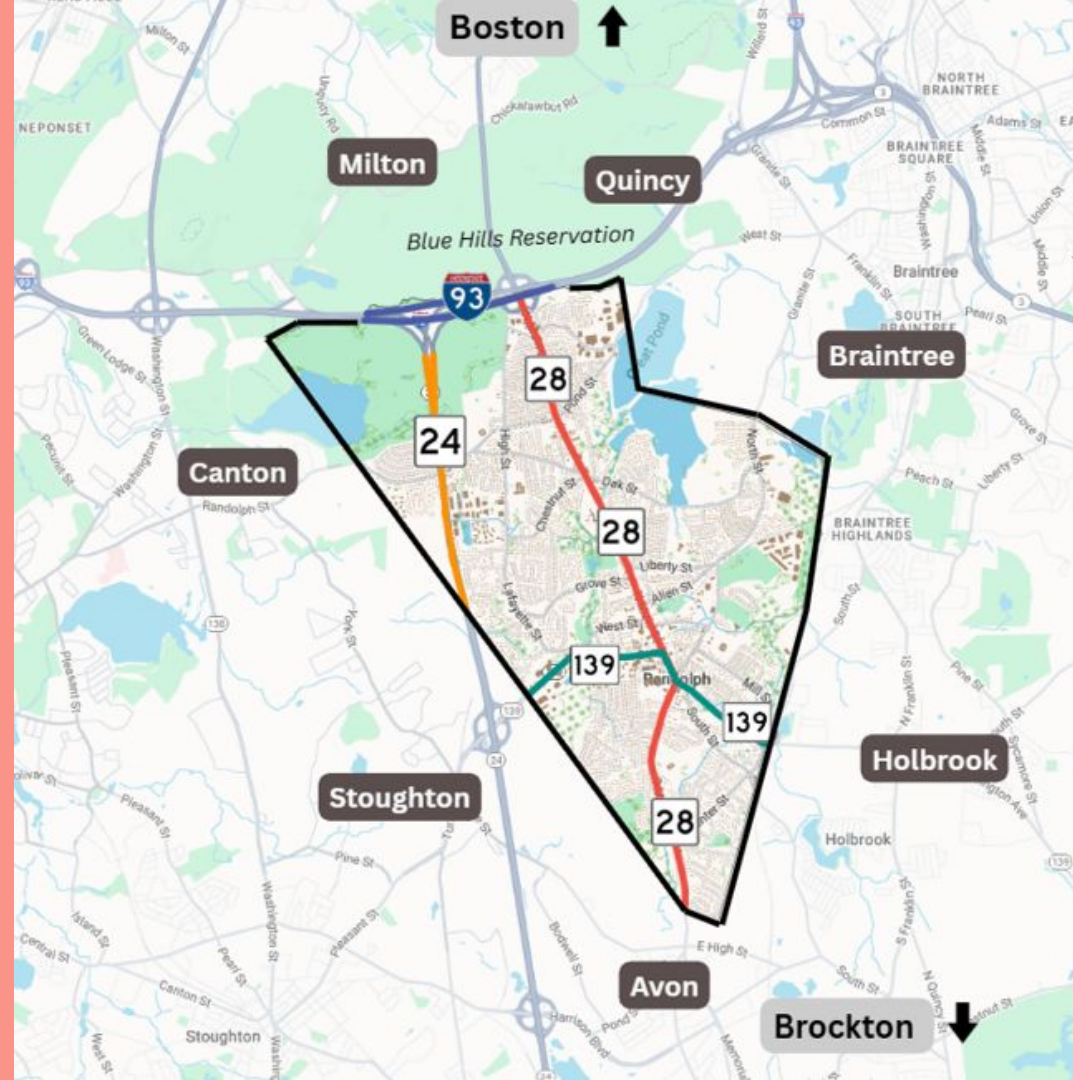
Randolph: \$103,129

Norfolk County: \$123,903



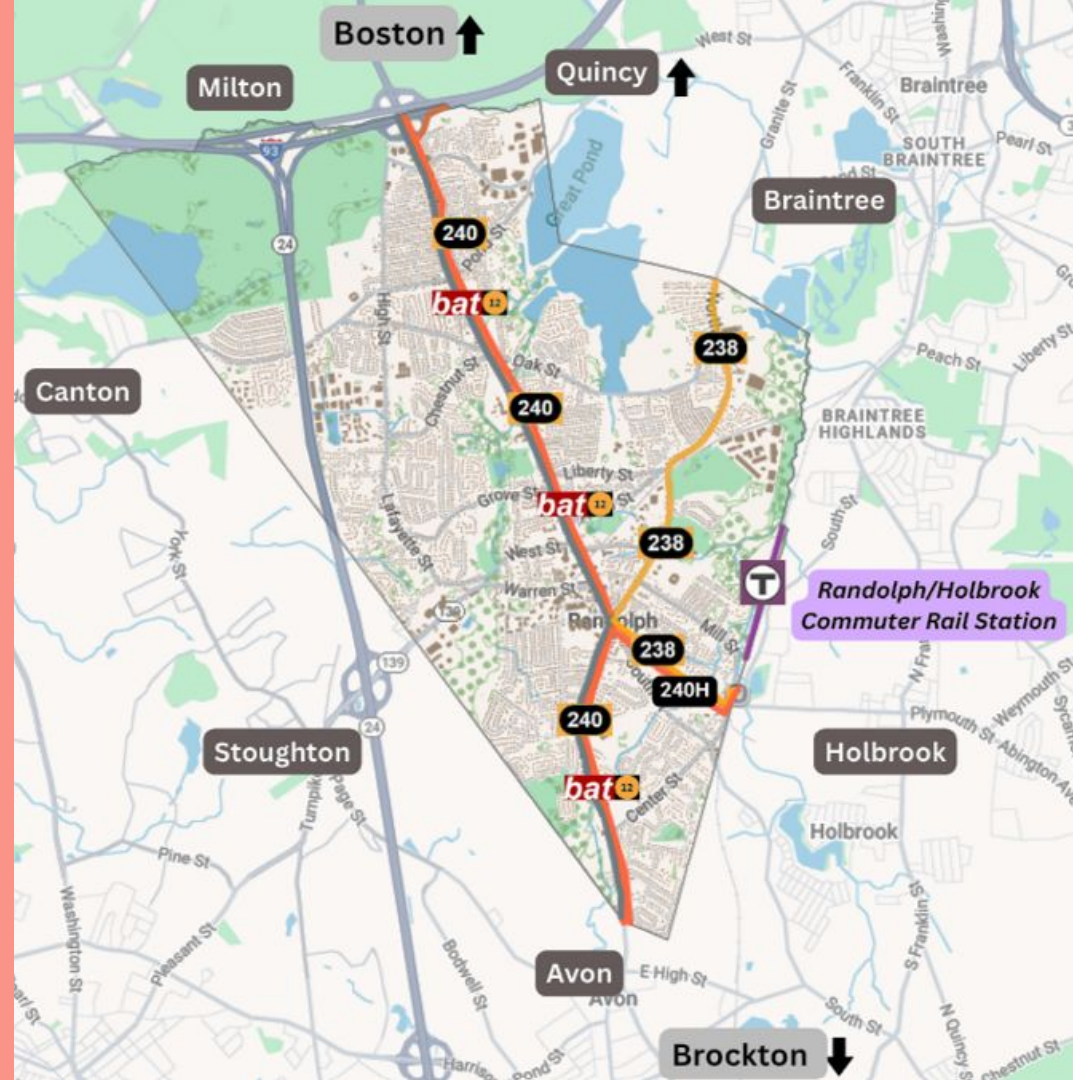
Welcome to **Randolph**

Transportation



Welcome to **Randolph**

Transportation



cancer, accounting for nearly one-quarter, (24%) of all deaths in the town in 2023. Fifty-Five, (55) deaths were caused by heart-related issues, with the average age being 74. Thirty, (30) deaths were caused by Brain Tumor/Stroke, with an average age of 74 as well. Respiratory illness was the cause of Twenty-Six (26) or 8% of deaths in the town. Renal-related deaths were recorded at Twenty-Three, (23) and the average age of death was 80. The purpose of this data review is to inform and protect the public's health, safety and well-being. By reviewing this data, the Public Health Department can determine trends in order to provide effective prevention programs and resources to residents.

Below, you will find a data table that summarizes all of the Randolph Deaths that were reported to the Clerk and reviewed by the Randolph Public Health Department in 2023.

| Cause of Death | Number of Deaths | Average Age | # of Males | # of Females | Percentage of Total Deaths | Death Description |
|--------------------|------------------|-------------|------------|--------------|----------------------------|--|
| Cancer | 76 | 86 | 52 | 79 | 24% | A death caused by abnormal cell division. |
| Heart Related | 55 | 74 | 33 | 22 | 17% | A death caused by function loss. |
| Brain Tumor/Stroke | 30 | 74 | 14 | 13 | 10% | A death caused by a mass, loss of oxygen to the brain or hemorrhage. |
| Respiratory | 26 | 74 | 14 | 12 | 8% | A death caused by respiratory disease. |
| Renal | 23 | 80 | 10 | 10 | 7% | A death caused by kidney failure. |
| Accidental Trauma | 22 | 53 | 16 | 11 | 7% | A death caused by accidental injury, or trauma. |
| Sepsis/Shock | 18 | 72 | 11 | 7 | 6% | A death caused by organ failure and/or infection. |
| Substance Abuse | 12 | 48 | 8 | 4 | 4% | A death due to abusing alcohol and/or drugs. |
| Dementia | 14 | 83 | 2 | 11 | 4% | A death caused by progressive terminal condition. |
| Diabetes | 11 | 74 | 7 | 4 | 3% | A death due to inadequate production or utilization of insulin. |

Data

Review

The Randolph Public Health Department conducts an annual review of the causes of death and publishes in the annual report.

Purpose

To inform and protect residents' health, safety and well-being from the common causes of death.

Determine trends in order to provide effective prevention programs and resources to residents.

Nice to
Meet
You

TRENDLINE



Kendall

Master of Science in Public Health
Sciences - Biostatistics
UMASS

Data Collection, Analysis, Evaluation



Mike

Master of Business Administration
Bryant University

Reporting, Visual Communication



Identifying the **Problem**

A manual, informal process for collecting annual report data made it difficult to **maintain consistency, identify trends, and take action.**

Randolph



Collecting the Data

Randolph Death Data Tracking Protocol

Submission Link:

To submit a death record, use the following
[Death Record Submission Form](#)

Data Access and Updates:

To view and update data that has already been added, use the following
[Death Data Spreadsheet](#)

Reporting:

To view the data report generated by the data, use the following
[Interactive Report](#)

Guidelines for Use

- **Avoid Duplicates:** Before entering a record, ensure it has not already been added.
- **Updating Records:** If a record is updated, it will be marked as such.

The screenshot shows the 'Randolph Death Record Data' form. At the top left is the Town of Randolph logo, which includes a seal and the text 'Town of RANDOLPH Incorporated 1793'. The title 'Randolph Death Record Data' is prominently displayed. Below the title, there is a user profile section for 'kendall@trendlineanalysis.com' with a 'Switch account' link and a 'Not shared' status. The form contains several input fields: 'Date of Birth' with a date picker (mm/dd/yyyy), 'Date of Death' with a date picker (mm/dd/yyyy), and 'Sex' with radio button options for Male, Female, Unknown, and Other.

Cause of Death

- Accident/Trauma/Violence
- Acidosis
- Alzheimers

Brain/Tumor/Stroke

Cancer

Cardiovascular

Covid-19

Dementia

Diabetes

Malnutrition

Septicemia

Suicide

Unknown cause of birth



Analyzing the **Data**

| # | Age | Sex | Tr Race | Tr Ethnicity | Marital Status | Diagnosis Category |
|----|--------|---------------------------|--------------|---------------|------------------------|--------------------|
| 71 | Female | Black or African American | Haitian | Never Married | Cancer | |
| 85 | Female | Black or African American | Haitian | Married | Alzheimers | |
| 69 | Male | Black or African American | Haitian | Divorced | Cancer | |
| 73 | Female | Black or African American | Haitian | Married | Cancer | |
| 60 | Male | Black or African American | American | Never Married | Brain/Tumor/Stroke | |
| 71 | Female | White | American | Married | Cancer | |
| 99 | Female | Black or African American | Barbados | Widowed | Dementia | |
| 97 | Female | White | American | Widowed | Respiratory | |
| 88 | Female | White | Canadian | Widowed | Cancer | |
| 71 | Male | White | American | Never Married | Respiratory | |
| 76 | Male | White | American | Widowed | Sepsis/Shock/Bacter... | |
| 74 | Female | White | American | Widowed | Alzheimers | |
| 66 | Male | White | Polish | Never Married | Alzheimers | |
| 75 | Male | Black or African American | Haitian | Married | Brain/Tumor/Stroke | |
| 76 | Female | Black or African American | American | Married | Cancer | |
| 72 | Male | Some Other Race | Cape Verdean | Married | Respiratory | |
| 80 | Female | Black or African American | Haitian | Divorced | Brain/Tumor/Stroke | |
| 97 | Male | White | American | Widowed | Cardiovascular | |
| 51 | Male | White | American | Never Married | Cardiovascular | |
| 88 | Male | White | American | Married | Cardiovascular | |
| 82 | Male | White | Italian | Never Married | Cardiovascular | |
| 95 | Female | Asian | Chinese | Widowed | Cardiovascular | |
| 93 | Female | White | American | Widowed | Renal | |
| 83 | Female | White | American | Divorced | Cardiovascular | |



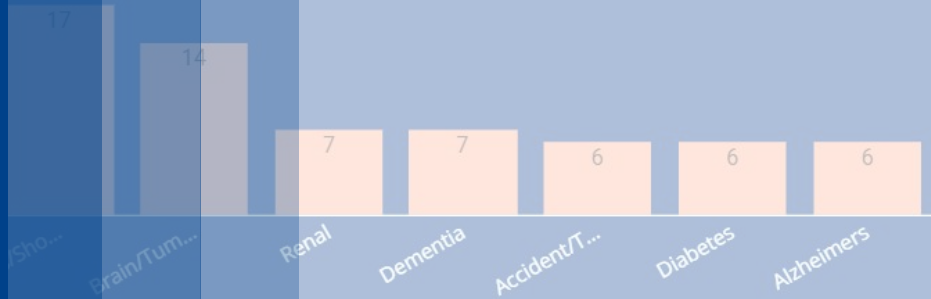
Securing the **Data**

Secured within the town's Google Suite, the data submission form is open for use - but once submitted, the collected **data itself is locked for editing.**

The system is eligible for two-factor authentication.



Visualizing the Data

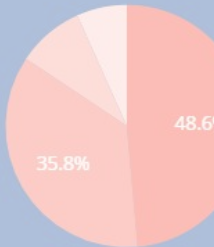
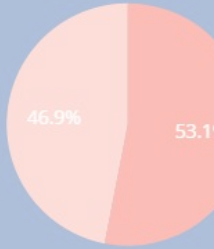


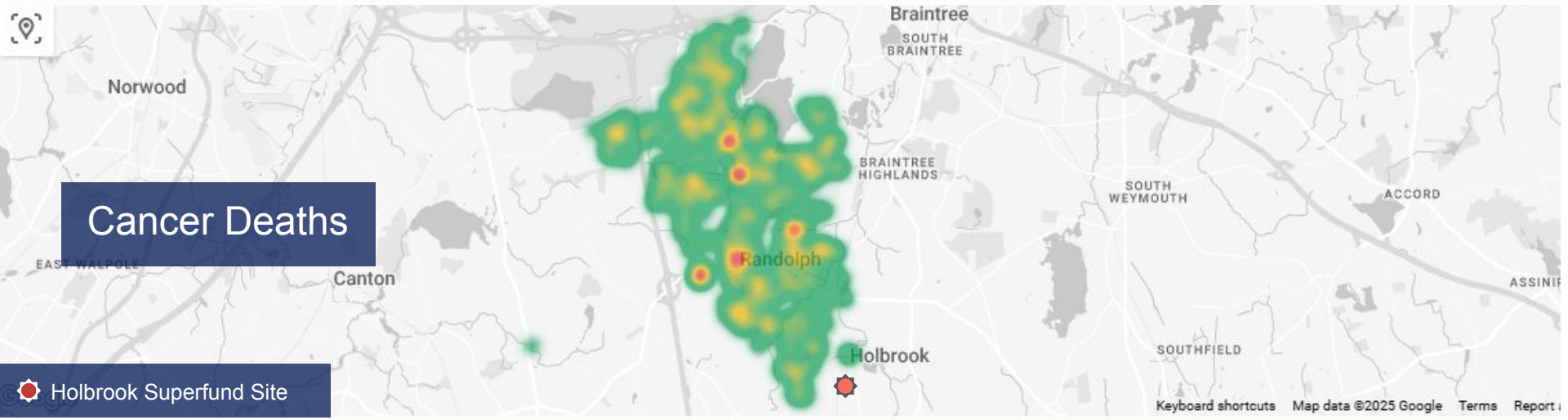
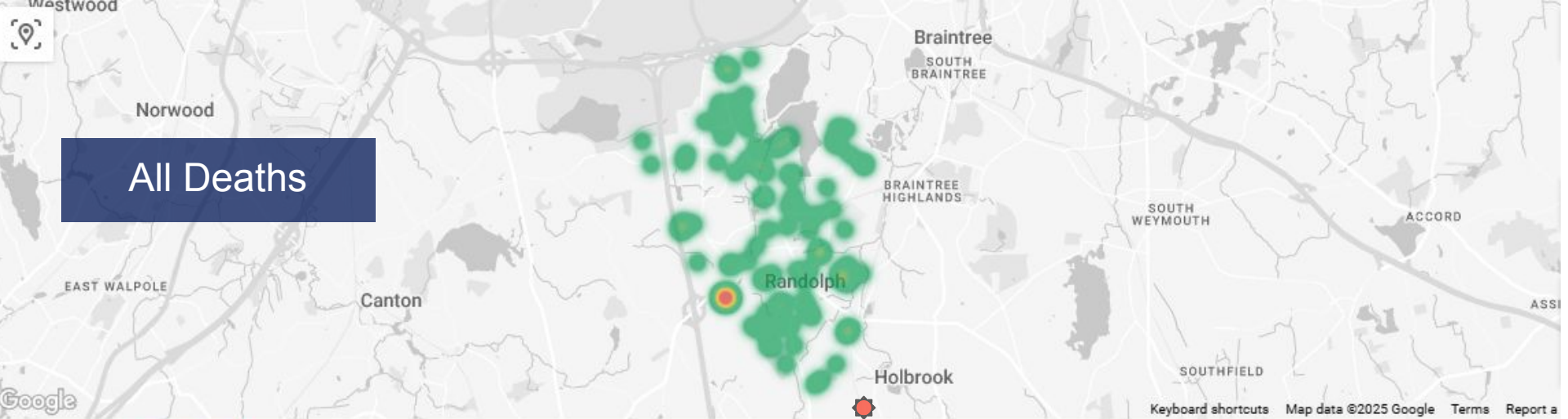
| | Female | Average Age |
|--|--------|-------------|
| | 8 | 71 |
| | 6 | 74 |
| | 5 | 86 |
| | 5 | 81 |
| | 3 | 77 |
| | 3 | 80 |
| | 0 | 76 |

Diagnosis Category

Type of Cancer

Subtype of Cancer







What Did We **Learn?**

- 75% of Dementia/ Alzheimer's deaths are women (58% nationally)
- Most Randolph residents that die from tobacco use are white
- Randolph residents are more likely to die from cancer than heart disease
- Haitian residents are more likely to die from brain-related issues such as stroke



How To Get **Started**

- Take an inventory of your data.
- How do you currently track it? What's most relevant?
- Clean existing data
- Make data collection consistent and reliable



Should
You Be

Tracking?

- Meets requirements of local boards of health
- Informs Annual Report content
- Develops potential for future grant projects
- Interactive reports make it easier to learn about your community
- Leads to better health outcomes for your community

Thank
You

