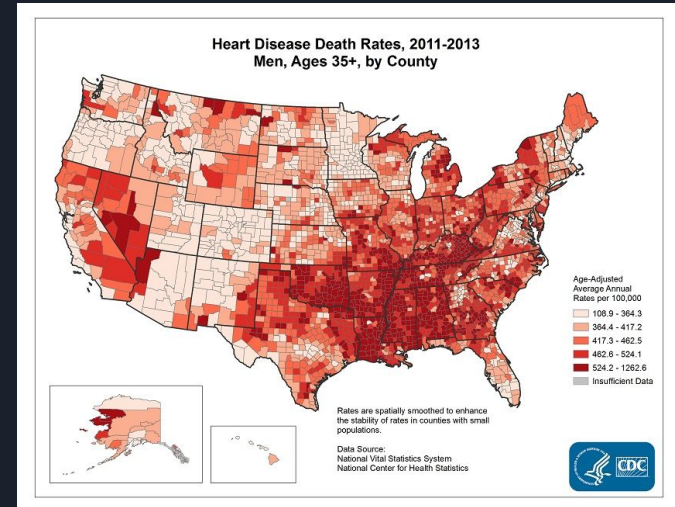
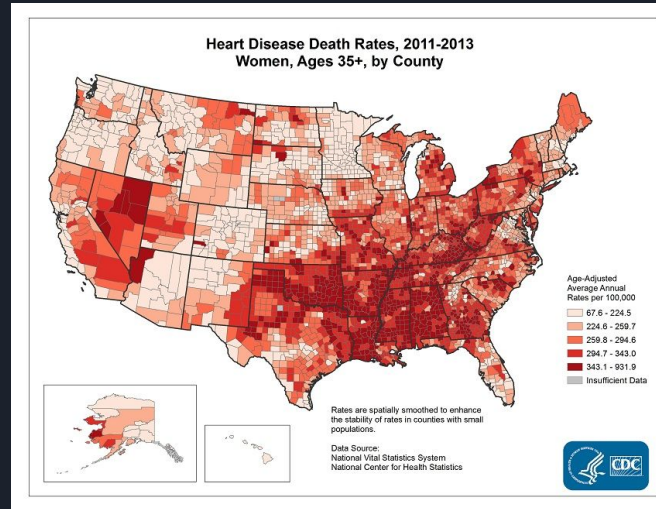


# Cardiac Health Treatment: Analysis of Institutional and Internalized Gender Discrimination

Malithi Desilva

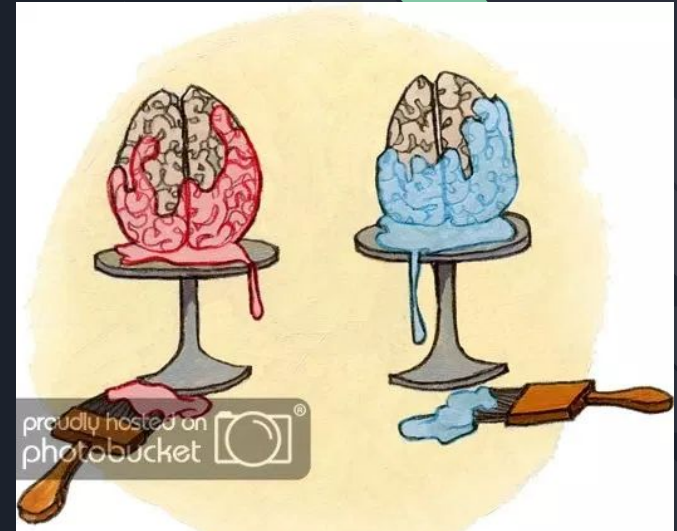
# Introduction

- ❖ Heart diseases rank as the top leading cause of death
- ❖ 735,000 Americans suffer from a heart attack
- ❖ 610,000 people die of heart disease in the US annually
- ❖ 1 in every 4 deaths is caused by heart disease
- ❖ Issue: gendered difference in diagnosis, treatment, and outcome in AMI and CHD



# Project Summary

- ❖ I aim to construct a specified health approach for heart diseases in both men and women
- ❖ To identify systemized gendered biases within hospitals and analyze the impacts this bias has on the treatment of heart diseases among women



# A Gendered Culture

## HEART ATTACK



Discomfort or tingling in arms, back, neck, shoulder or jaw

Sudden dizziness

Heartburn-like feeling

Most common IN MEN...

Additional symptoms, most common IN WOMEN...

Watch for **THE SIGNS**

Chest pain

Shortness of breath

Nausea or vomiting

Unusual tiredness

Cold sweat

For more information, visit [CardioSmart.org/HeartAttack](https://www.CardioSmart.org/HeartAttack)

- ❖ Sex v. Gender
- ❖ Stigmatized role of women
- ❖ Hierarchical social beliefs

# Cultural Impact on Biology

## ❖ Gendered Treatment Difference:

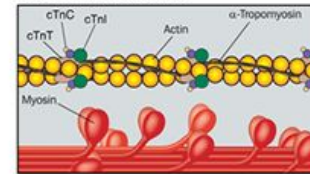
- Aggressiveness of treatment received
- Sex diagnostic and treatment threshold
  - Sex-specific reference ranges
  - Diagnostic timeframe
- Biopower

## ❖ Ideologies influence on biological health issues

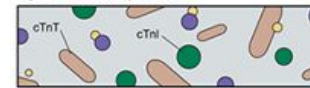
### Cardiac Troponins

#### Structure of cardiac troponins

##### Myofibrillar troponins

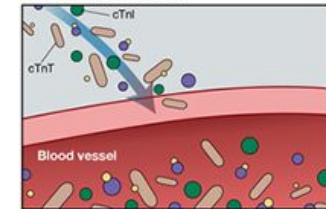


##### Cytosolic troponins



#### Ischemia-induced cardiomyocyte damage

##### Release of cardiac troponins into the bloodstream

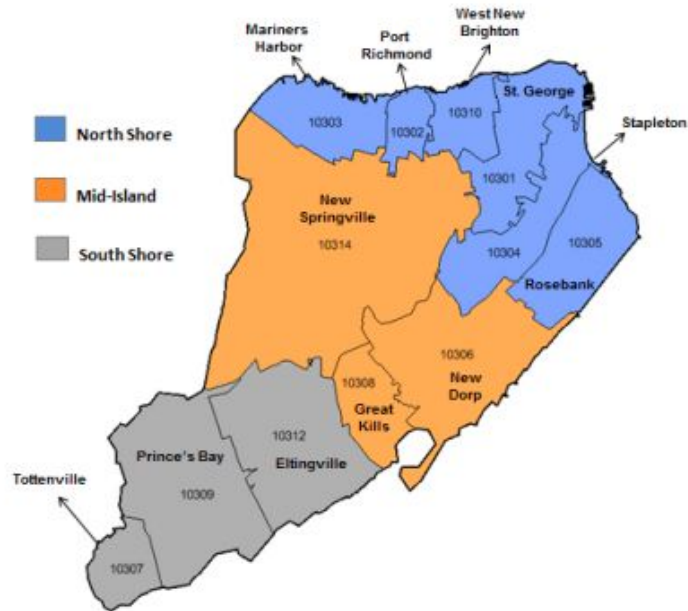


de Lemos JA. JAMA. 2013;309:2262-2269.

<b>Publication</b>	<b>Female (n)</b>	<b>Female-specific 99<sup>th</sup> percentile (ng/L)</b>	<b>Male (n)</b>	<b>Male-specific 99<sup>th</sup> percentile (ng/L)</b>	<b>Reference cohort (n)</b>	<b>Overall 99<sup>th</sup> percentile (ng/L)</b>
<b>hs-cTnI</b>						
Apple <i>et al.</i> 2012 (1)	252	<b>15</b>	273	36	525	<b>23</b> [16-63]
Hickman <i>et al.</i> 2017 (2)	226	13	222	27	484	14
Kimenai <i>et al.</i> 2016 (3)	806	<b>11</b> (8-13)	729	20 (14-22)	1535	<b>13</b> (11-18)
Ko <i>et al.</i> 2017 (4)	338	23 [17-29]	303	46 [26-60]	641	32 [28-56]
Mueller <i>et al.</i> 2016 (5)	143	<b>24</b>	259	39	402	<b>29</b> (15-101)
Ungerer <i>et al.</i> 2016 (6)	705	20 [10-52]	1299	31 [25-58]	2004	29 [ 23-41]
<b>hs-cTnT</b>						
Apple <i>et al.</i> 2012 (1)	252	<b>13</b>	273	20	525	<b>15</b> [13-28]
Hickman <i>et al.</i> 2017 (4)	262	21	228	19	490	20
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Ko <i>et al.</i> 2017 (3)	338	10 [ 9-15]	303	16 [13-23]	641	14 [13-20]
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Ungerer <i>et al.</i> 2016 (6)	705	10 [9-11]	1299	18 [16-20]	2004	16 [15-18]

# Research Sites

MAP OF THE 12 STATEN ISLAND COMMUNITIES AND 3 STATEN ISLAND REGIONS



Sites:

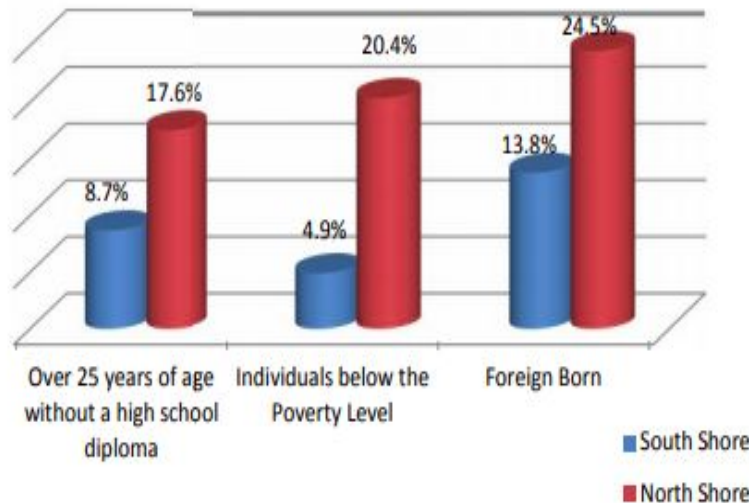
- Staten Island University Hospital (SIUH) : South
- Richmond University Medical Center (RUMC) : North

# Socio-economics

❖ RUMC  
➤ 473 bed acute care

❖ SIUH  
➤ 206 bed acute care

### Socio-economic Disparities



### Median Household Income

Staten Island - \$72,752

**NORTH SHORE**

**\$56,614**

*North Shore: Zip Codes 10301, 10302, 10303, 10304, 10310*

**SOUTH SHORE**

**\$86,196**

*South Shore: Zip Codes 10306, 10307, 10308, 10309, 10312*

Source: US Census



# Hypotheses

1. If there is a social dismissal of women within healthcare then I would expect to observe behaviors indicative of social dismissal that would result in the underdiagnosis of women
2. If preconceived gender stereotypes influence the diagnosis, treatment, and outcomes then I would expect to see actions, both subtle and blatant, that are biased in favor of men.
3. If biological sex differences such as reproductive status, are incorporated into healthcare treatment for women, I would expect to see a higher diagnosis than currently of cardiac diseases for women.



# Research Methods



## Participant Observation

- Cardiac Study
- Medical School sit-in
- Research Journal
- Shadowing Cardiologists

## Guided interviews

- Open ended questions for qualitative responses

## Targeted Surveys

- Specific to each group with concentration on predetermined concern
- Gather statistical knowledge

## Data Collection

- Symptoms
- Treatments
- Diagnosis
- Mortality rates

# Significance

- ❖ Understanding the influence of biology and culture would reveal the holes in our healthcare treatments
- ❖ Promote research of cardiac issues specific to women, uncover areas of focus, and develop our understanding and means to address the gendered difference in treatment
- ❖ Construct specific medical approaches to heart diseases tailored to males and females

