

# **Maternal and Infant Mortality in Nassau County**

Nassau County Perinatal Services Network  
Perinatal Disparities sub-committee  
**Birth Equity Breakfast**  
Hofstra University  
March 23, 2018

# Serena Williams Says Black Women Are Dying During Childbirth Because 'Doctors Aren't Listening To Us'



Taylor Hill/Getty Images

BRITNI DANIELLE Mar. 06, 2018

Tennis champion Serena Williams became a mother for the first time last September when she gave birth to Alexis Olympia Ohanian Jr. Though she joked that she and baby Olympia are "not spending a day apart until she's

# Too many black women like Erica Garner are dying in America's maternal mortality crisis

Garner may have been the victim of the stress of trauma and poor health care for black women.

By P.R. Lockhart | Jan 10, 2018, 9:30am EST

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# ***Maternal Mortality Rate in U.S. Rises, Defying Global Trend, Study Finds***

By SABRINA TAVERNISE SEPT. 21, 2016



WASHINGTON — One of the biggest worldwide public health triumphs in recent years has been maternal mortality. Global death rates [fell by more than a third](#) from 2000 to 2015. The United States, however, is one of the few countries in the world that have gone against the grain, new data show. Its maternal mortality rate has risen despite improvements in health care and [an overwhelming global trend](#) in the other direction.

The United States has become an outlier among rich nations in maternal deaths, according to [data released Wednesday](#) by the Institute of Health Metrics and Evaluation, a research group funded by the Gates Foundation and based at the University of Washington.

# U.S. ranks 22nd in the world for newborn survival

POSTED 11:30 AM, FEBRUARY 20, 2018, BY YASMIN SARA MERCHANT, UPDATED AT 11:02AM, FEBRUARY 20, 2018



Japan is the best country for newborn survival and Pakistan is the worst while the United States ranks 22nd in the world, according to a [report](#) released Monday from the United Nations Children's Fund (UNICEF).

The report ranks countries based on their 2016 neonatal mortality rate, which measures the number of deaths per 1,000 births. The report found that a baby born in Pakistan is almost 50 times more likely to die in its first month of life than a Japanese baby, according to UNICEF.

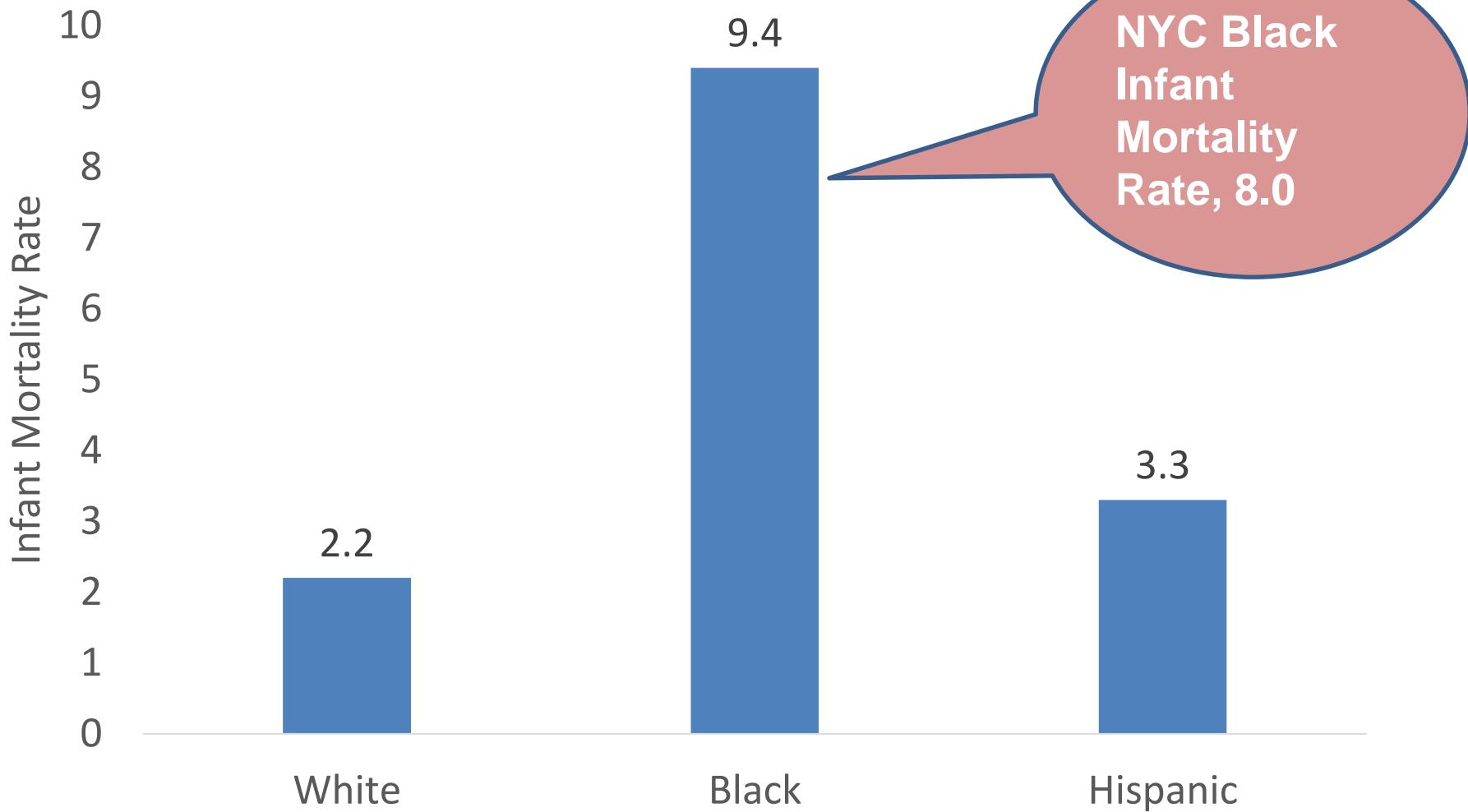
# Health Disparities by Race/Ethnicity

## Nassau County , NY

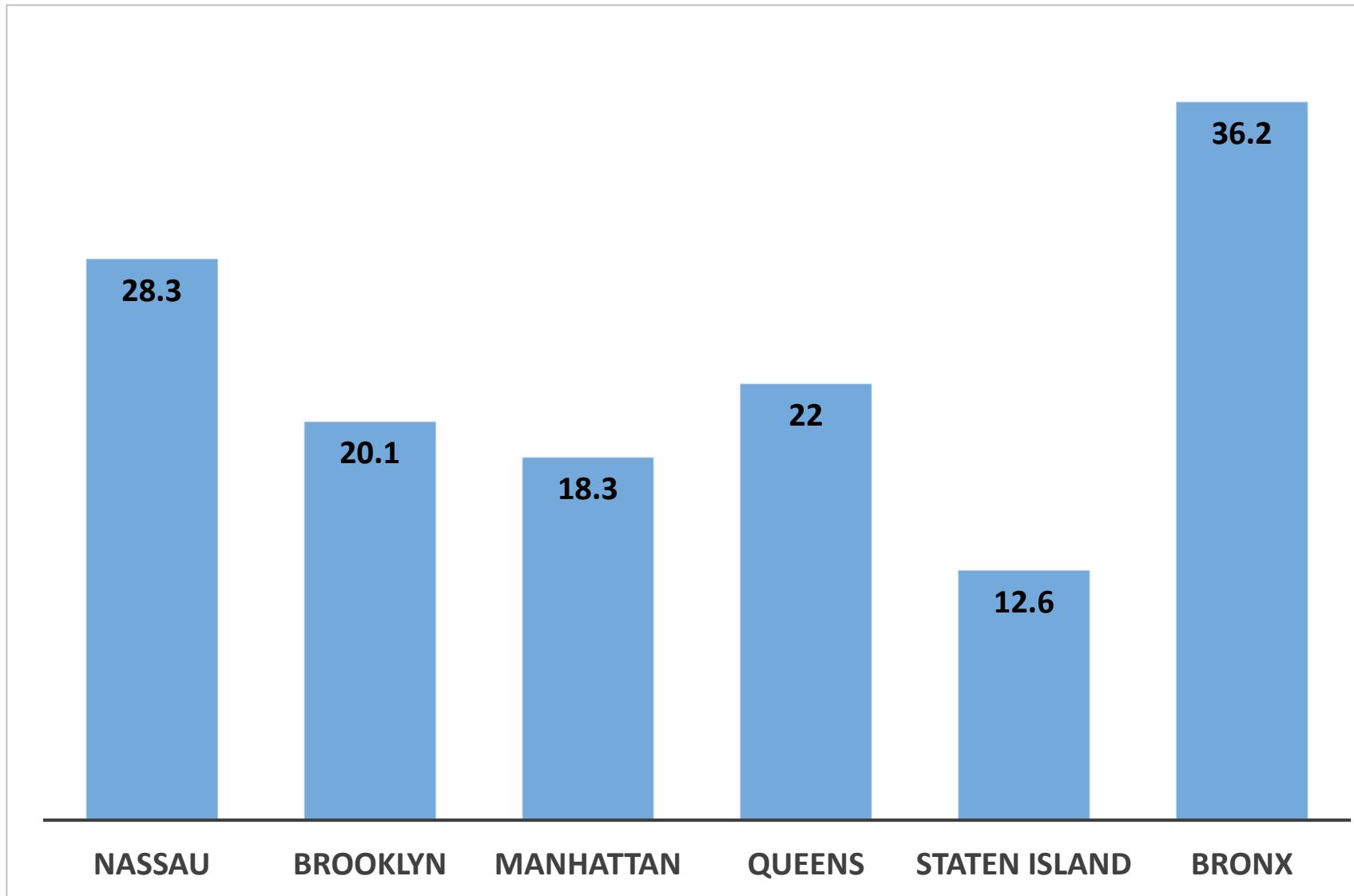
Health Indicator	White	Black	Hispanic
Number of births per year	7,096	1,658	3,611
Percent of births with early prenatal care	91%	74%	76%
Percent of births with adequate prenatal care (Kotelchuck index)	86%	70%	74%
Percentage of premature births (<37 weeks)	9.8%	14.4%	12.2%
Percentage of low birthweight births (<2.5 kg)	7.2%	12%	7%
Teen Pregnancies per 1,000 females aged 15-17 years	2	17.6	21.3
Infant Mortality Rate per 1,000 live births	2.2	9.4	3.3

# Infant Mortality Rate

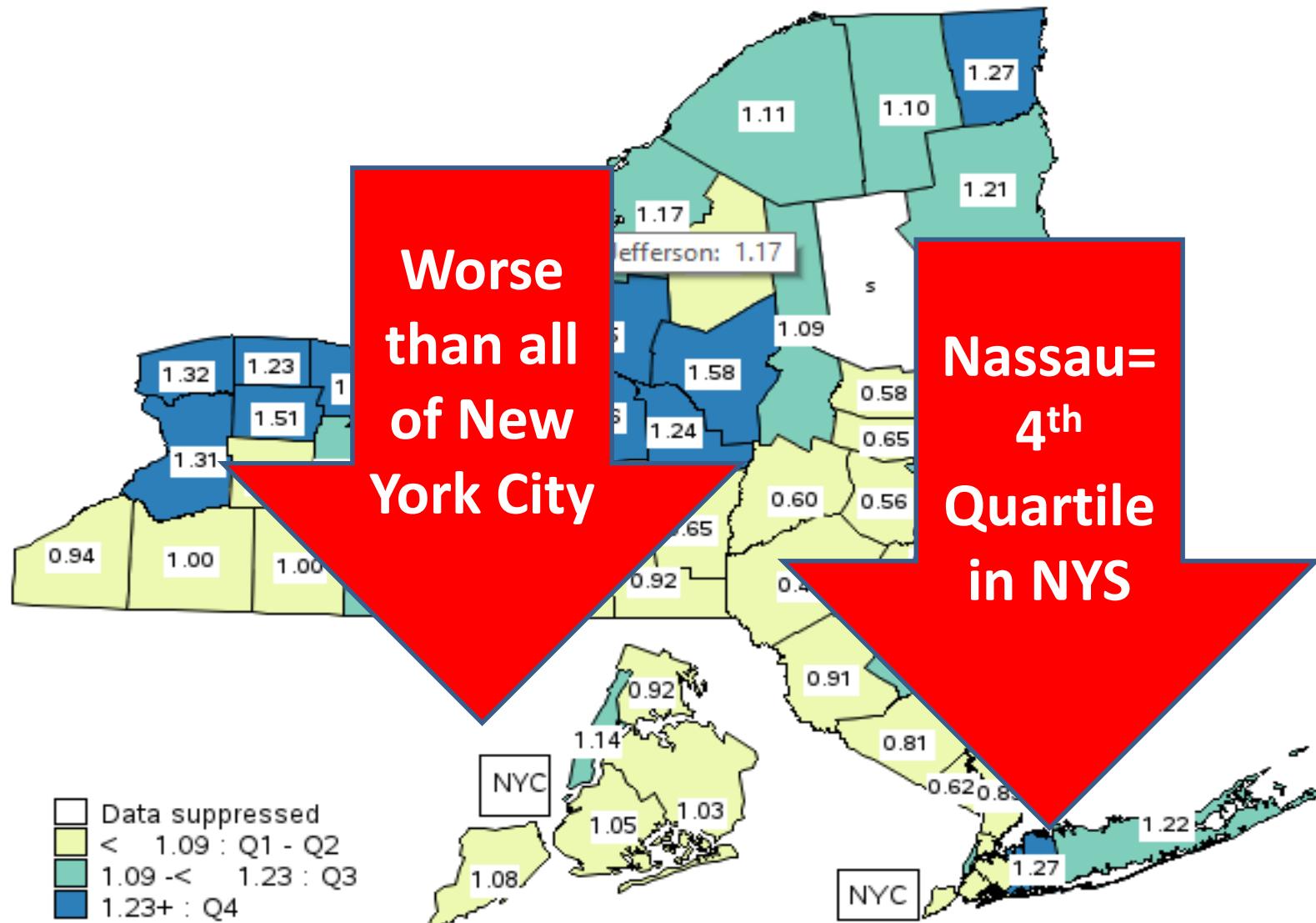
## Nassau County by race/ethnicity, 2012-2014



# Maternal Mortality Rate 2013-2015 per 100,000, Nassau vs. NYC



# Ratio of Medicaid births to non-Medicaid births for percentage of preterm birth, 2013-2015



# Percentage of Pregnant Women in WIC with Gestational Diabetes

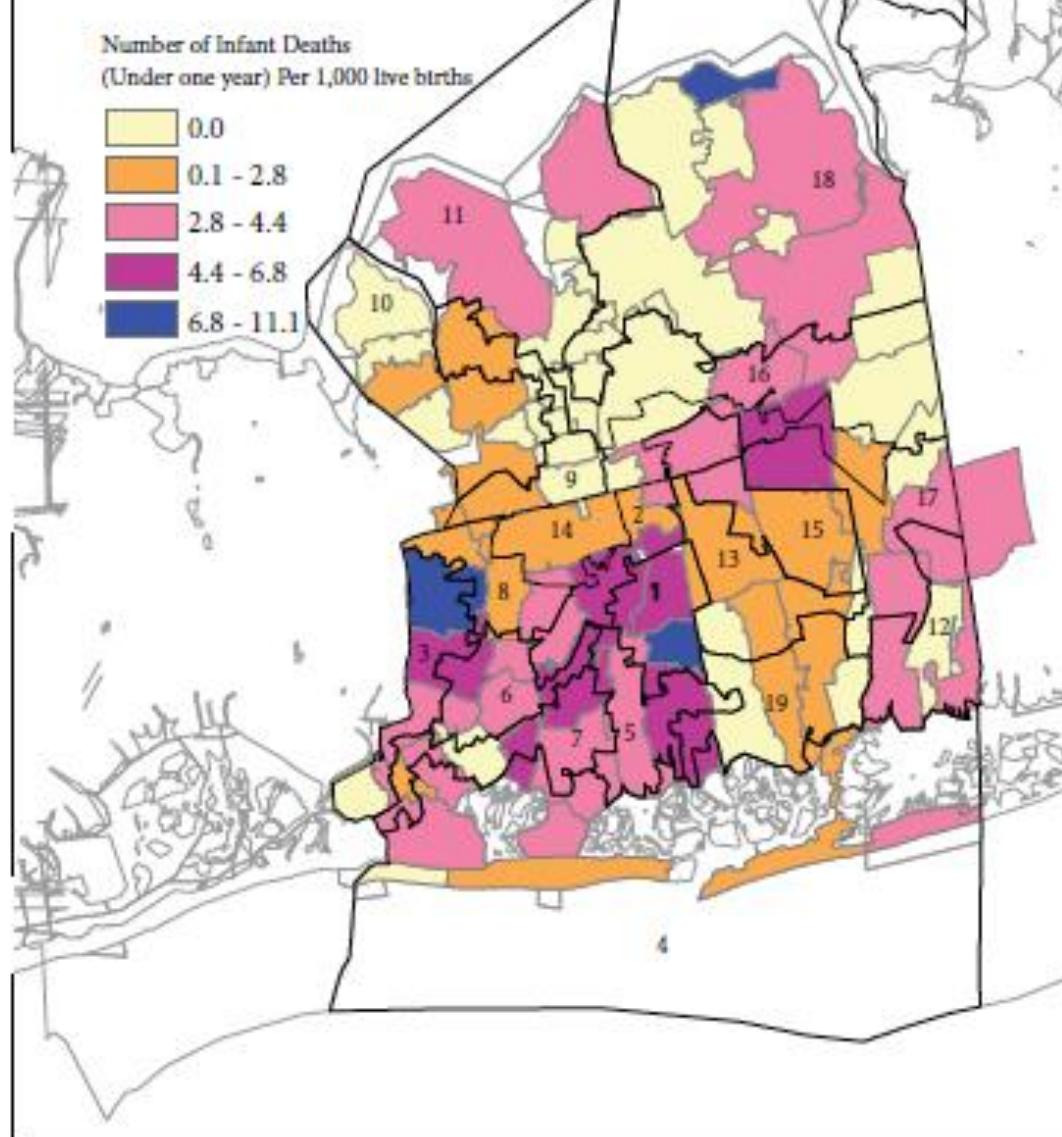


Nassau=4<sup>th</sup> Quartile in  
NYS

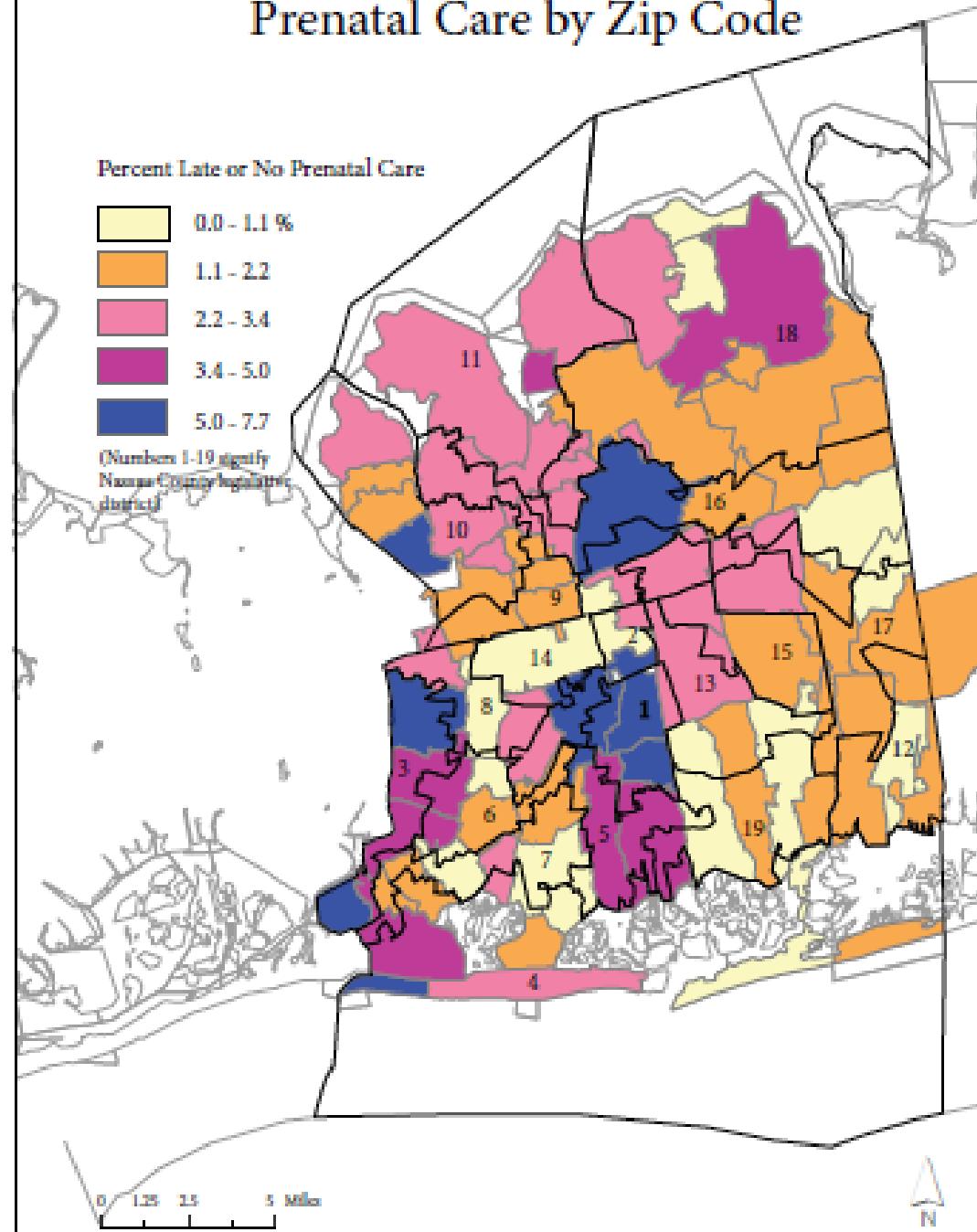
Percentage of WIC births  
Counties Are Shaded Based On Quartile Distribution  
(\* Fewer than 10 events in the numerator, therefore the rate is unstable)

- Data not available
- 0 - < 5.8 : Q1 & Q2
- 5.8 - < 6.9 : Q3
- 6.9 + : Q4

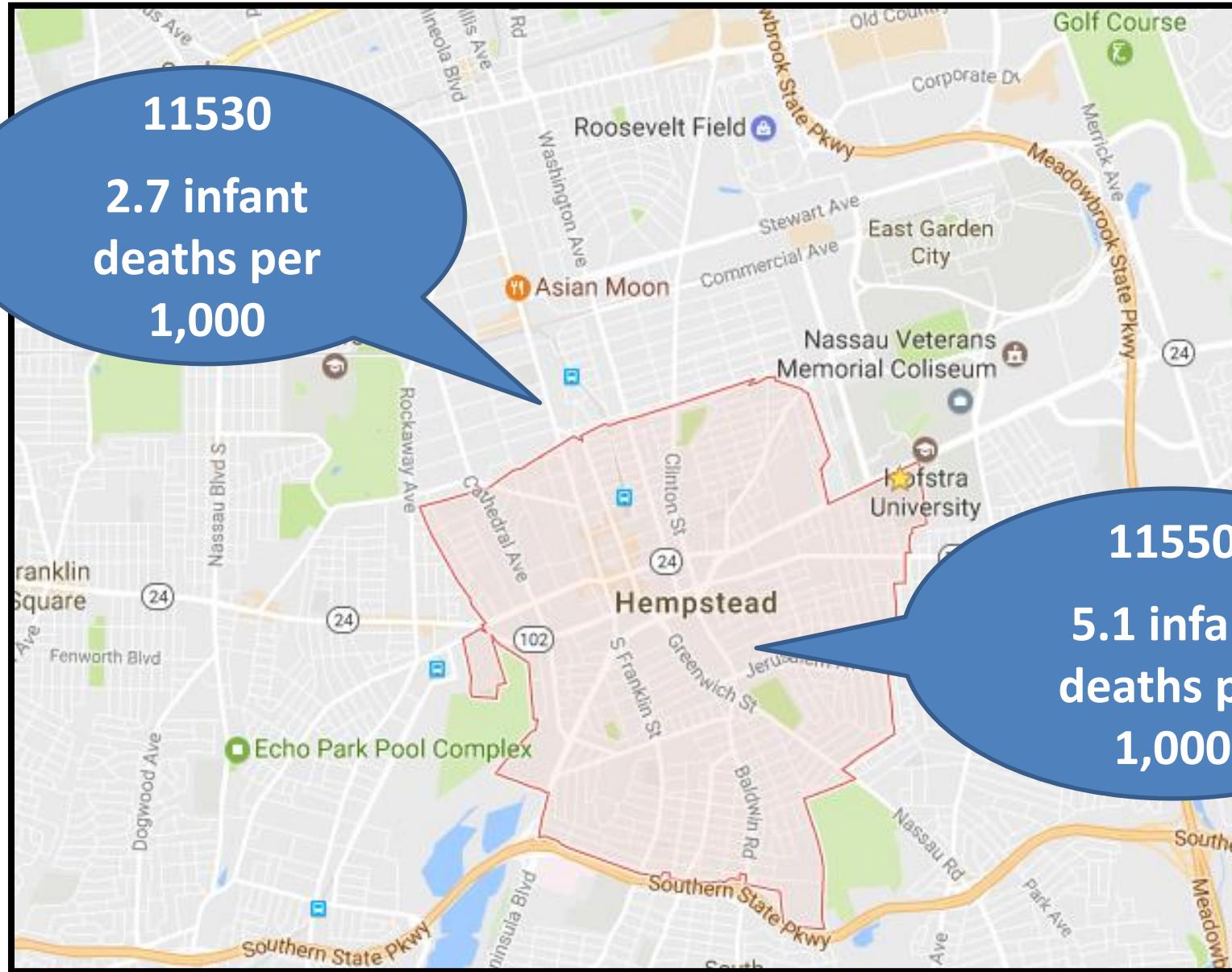
## Rate of Infant Deaths by Zip Code



## Prenatal Care by Zip Code

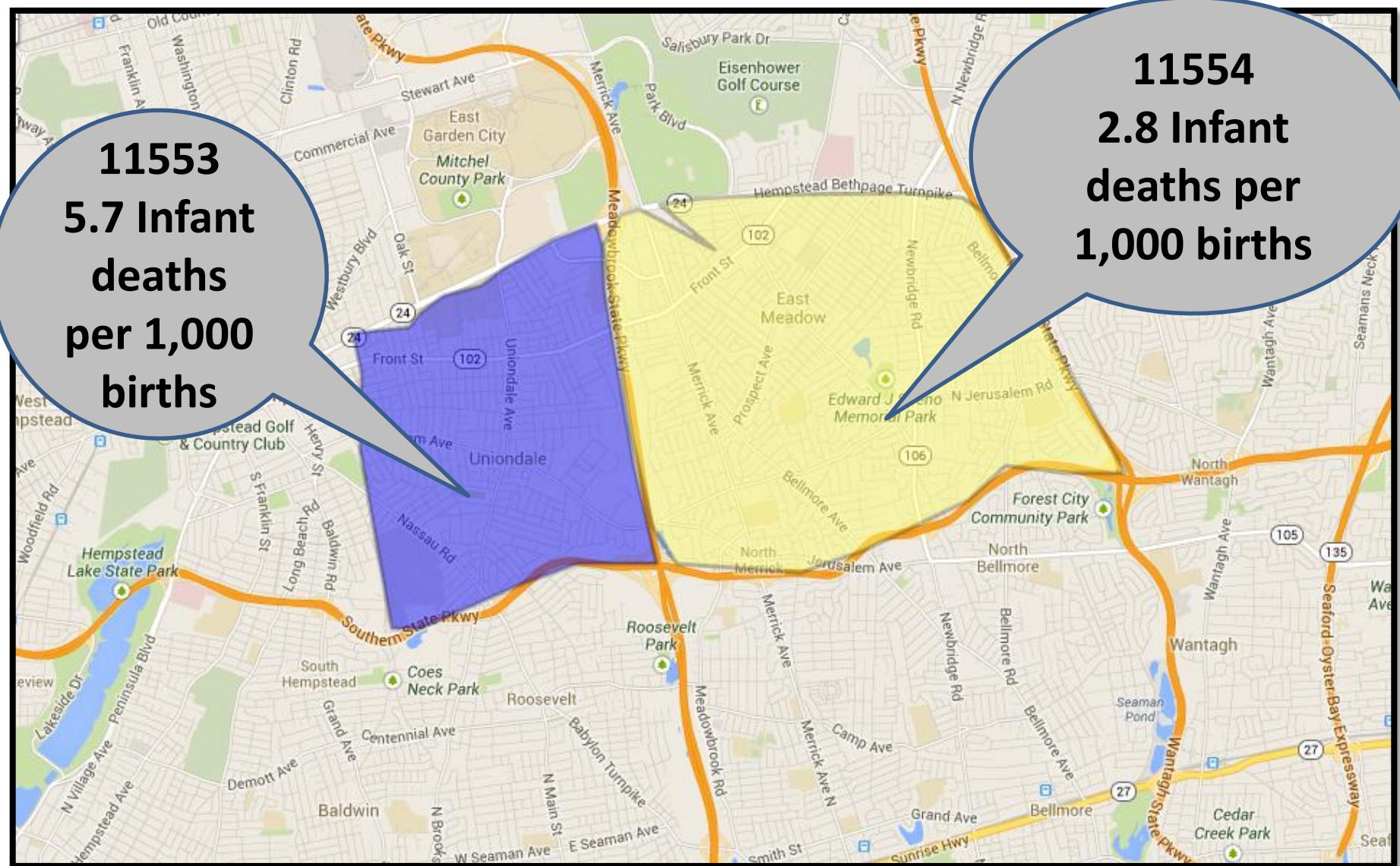


# Garden City vs. Hempstead



Source: NYS DOH, Nassau County Perinatal Outcomes by Zip Code 2012-2014

# East Meadow vs. Uniondale

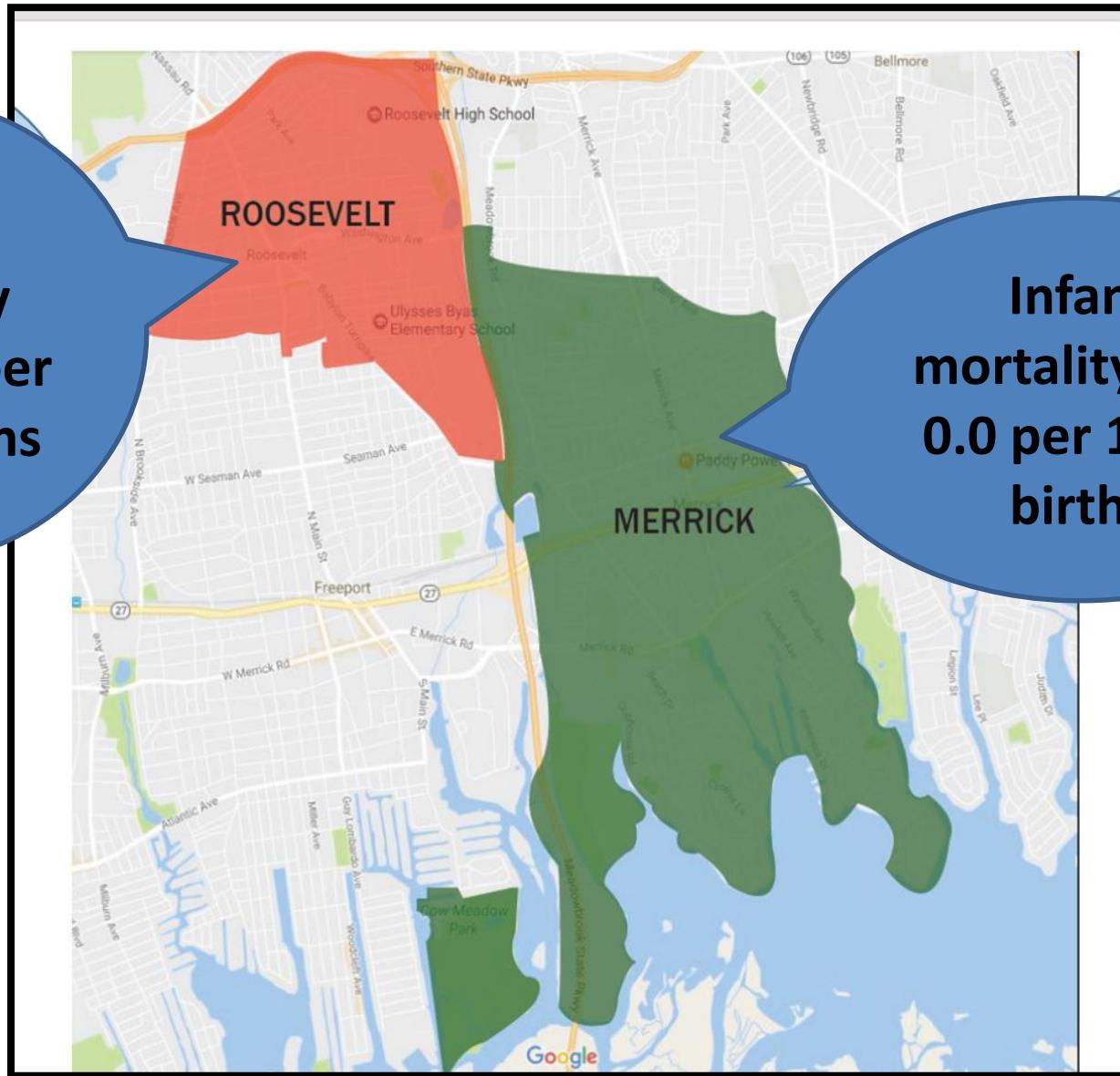


Source: NYS DOH, Nassau County Perinatal Outcomes by Zip Code 2012-2014

# Merrick vs. Roosevelt

Infant mortality rate 11.1 per 1,000 births

Infant mortality rate 0.0 per 1,000 births



Source: NYS DOH, Nassau County Perinatal Outcomes by Zip Code 2012-2014

# Contributions to Population Health

**Health Behaviors**

**30%**

**Clinical Care**

**20%**

**Social & Economic**

**40%**

**Physical Environment**

**10%**

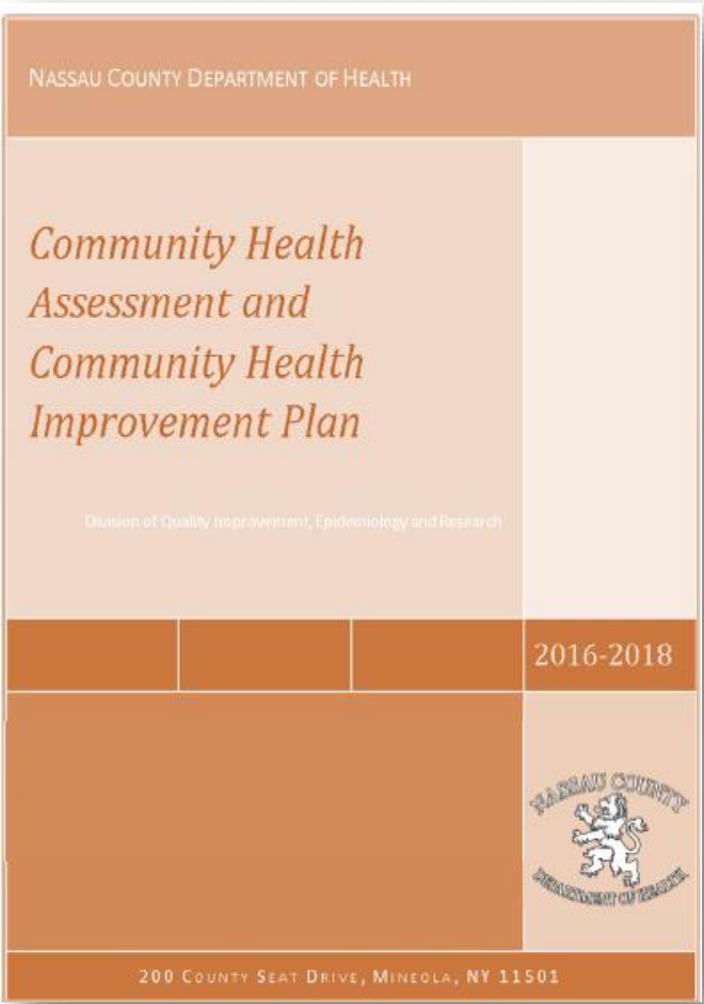
- Diet & Exercise
- Tobacco Use

- Access to Care
- Quality of Care

- Education
- Employment
- Community Safety

- Air & Water Quality
- Housing

# How is infant and maternal mortality needs to be addressed in Nassau County: Data and Health Promotion

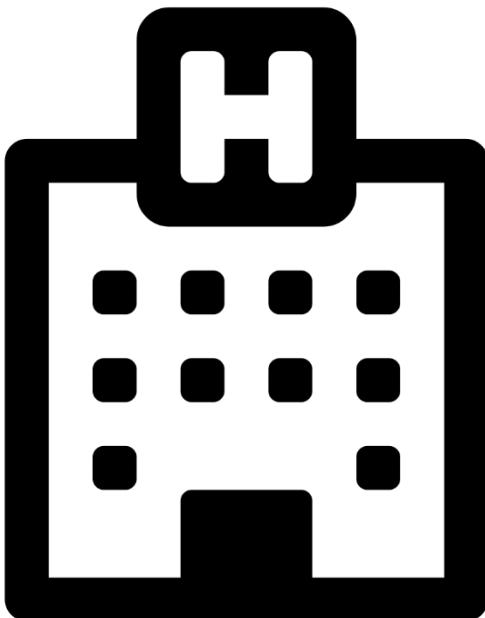


- No mention of maternal mortality
- Infant mortality only by 'select communities', not race
- No programs that address maternal and infant mortality disparities
- Need to produce data sets that include information on social and environmental risk factors for women and infants of color

# Best Practices: Public Health Programs

- Years of data that show that successful public health interventions such as **Nurse Family Partnership** and **Centering Pregnancy** improve birth outcomes
- Programs are built on several principles, including culturally relevant care, peer-to-peer learning, and establishing cohorts among the women
- The emotional support and resilience skills developed when mothers learn from other mothers is one of the most valued parts of these programs

# How is infant and maternal mortality needs to be addressed in Nassau County: Health Systems



- Inform women after childbirth of warning signs for hemorrhage, embolism, infection; especially with pre-existing conditions
- Enhance service integration for women and infants
- Treat women of color with dignity, respect, and culturally relevant care

# SAVE YOUR LIFE:

## Get Care for These POST-BIRTH Warning Signs

Most women who give birth recover without problems. But any woman can have complications after the birth of a baby. Learning to recognize these POST-BIRTH warning signs and knowing what to do can save your life.



**Call 911**  
if you have:

- Pain in chest**
- Obstructed breathing or shortness of breath**
- Seizures**
- Thoughts of hurting yourself or your baby**

**Call your  
healthcare  
provider**  
if you have:

(If you can't reach your  
healthcare provider,  
call 911 or go to an  
emergency room)

- Bleeding, soaking through one pad/hour, or blood clots,  
the size of an egg or bigger**
- Incision that is not healing**
- Red or swollen leg, that is painful or warm to touch**
- Temperature of 100.4°F or higher**
- Headache that does not get better, even after taking  
medicine, or bad headache with vision changes**

Trust:  
your instincts.  
Always get medical  
care if you are not  
feeling well or  
have questions or  
concerns.

**Tell 911  
or your  
healthcare  
provider:**

"I had a baby on \_\_\_\_\_ and  
I am having \_\_\_\_\_."  
(specific warning sign)

These post-birth warning signs can become life-threatening if you don't receive medical care right away because:

- Pain in chest, obstructed breathing or shortness of breath (trouble catching your breath) may mean you have a blood clot in your lung or a heart problem
- Seizures may mean you have a condition called eclampsia
- Thoughts or feelings of wanting to hurt yourself or your baby may mean you have postpartum depression
- Bleeding (heavy), soaking more than one pad in an hour or passing an egg-sized clot or bigger may mean you have an obstetric hemorrhage
- Incision that is not healing, increased redness or any pus from episiotomy or C-section site may mean you have an infection
- Redness, swelling, warmth, or pain in the calf area of your leg may mean you have a blood clot
- Temperature of 100.4°F or higher, bad smelling vaginal blood or discharge may mean you have an infection
- Headache (very painful), vision changes, or pain in the upper right area of your belly may mean you have high blood pressure or post birth preeclampsia

### GET HELP

My Healthcare Provider/Clinic: \_\_\_\_\_ Phone Number: \_\_\_\_\_  
Hospital Closest To Me: \_\_\_\_\_



This program is supported by funding from Merck, through Merck for Mothers, the company's 10-year, \$500 million initiative to help create a world where no woman dies giving life. Merck for Mothers is known as MSH in Mother countries outside the United States and Canada.

86003  
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[merckformothers.com](http://merckformothers.com).

# How is infant and maternal mortality addressed in Nassau County: Policy



- Support working mothers and families
- Directly address social determinants of health including housing, transportation, built environment
- Recognition and investment in preconception health, with a special focus on preconception mental health screening and treatment

# Brooklyn Neighborhood Health Action Centers

## Calendar of Events | Winter 2018

All events are held at the Brownsville Neighborhood Health Action Center unless otherwise indicated.



### FITNESS

#### Meditation

Mondays beginning Jan. 8 | noon to 1 p.m.

#### Prenatal Yoga

Mondays beginning Jan. 8 | 1 to 2 p.m.

#### Yoga

Mondays beginning Jan. 8 | 3 to 4 p.m.

#### Zumba

Mondays | 4:30 to 5:30 p.m.

#### Dancing through Pregnancy

Wednesdays | 3 to 4 p.m.

### FAMILY WELLNESS

#### Prenatal Massage

Every other Monday starting Jan. 8 | 1 to 5 p.m.

By appointment only. Call 718-495-8210 or 718-495-8211.

#### Childbirth Education

Learn the signs and stages of labor, breathing and relaxing techniques, and how your partner can support you in childbirth.

Tuesdays | noon to 2 p.m.

#### In the Circle Fatherhood Program

Gain parenting skills at this class designed for fathers.

Saturdays | 1:30 to 3:30 p.m.

#### Crib Distribution

Pack 'n Play cribs are provided to families that do not have a safe sleep surface for their babies (newborn to 6 months). An appointment is required to receive your Pack 'n Play. Call 718-495-8210 or 718-495-8211.

Mondays | 9 a.m. to noon

#### Open House: Centering Pregnancy

Jan. 16 | 5 to 7 p.m.

### AND MORE!

#### HomeBase Homelessness Prevention Program

Services to help individuals and families locate existing community-based resources such as job training, child care and anti-eviction legal services. First and third Tuesdays | 10 a.m. to 1 p.m.

#### Asthma Education Workshop

Learn about asthma and how you can manage it.

Every other Thursday| Jan. 18 to March 29 | 11 a.m. to 1 p.m.

#### National Diabetes Prevention Program

Learn about risk factors for developing diabetes and how to make healthy changes in your life to prevent diabetes.

Tuesdays beginning Jan. 9 | 10:30 to 11:30 a.m.

### NUTRITION

#### Brooklyn Daddy Iron Chef

Enjoy a free gourmet meal while you learn how to care for your new baby, manage stress, prevent injuries, improve your finances, learn from other parents, use free community resources for parents, encourage breastfeeding and practice good nutrition.

Thursdays | 5:30 to 7:30 p.m.

# Martine Hackett

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Assistant Professor  
Master of Public Health  
program



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[@publichealthy](https://twitter.com/publichealthy)

# Best Practices: Health Delivery System

- When researchers have analyzed maternal deaths and near-deaths to understand what went wrong, one element they have noted time and again is what some experts have dubbed “**delay and denial**” — the failure of doctors and nurses to recognize a woman’s distress signals and other worrisome symptoms, both during childbirth and the often risky period that follows

Maternal Health Team in the U.S. Centers for Disease Control and Prevention (CDC)  
Division of Reproductive Health, in [Report from Nine Maternal Mortality Review Committees](#).

- **Over 60% of pregnancy-related deaths in the U.S. were preventable.**
- **Both direct and underlying causes led to maternal death—and varied by race**
  - The three leading medical causes of preventable maternal mortality in the United States are blood clots in the lung, hypertension (high blood pressure), and blood loss
  - Underlying causes such as preeclampsia and eclampsia and embolism were identified as leading causes of death among non-Hispanic black women
  - Mental health conditions comprised an important cause of maternal deaths, especially among white women

## **Patient/family and provider factors are considered largest contributors to maternal death**

- Women's lack of knowledge on warning signs and the need to seek care
- Provider and hospital systems of care factors, including misdiagnosis/ineffective treatment and poorly-coordinated care
- ensure consistent care in hospitals, clinics, and among private providers for conditions such as preeclampsia and obstetric hemorrhage, and to prevent unnecessary Cesarean sections
- For every maternal death, there are 75 to 100 more women who suffer a life-threatening complication during pregnancy or childbirth
- **Over 60% of pregnancy-related deaths in the U.S. were preventable.**

# U.S. states with more support for midwives have better birth outcomes

Lisa Rapaport

5 MIN READ



(Reuters Health) - States with laws that make it easier for midwives to care for pregnant women and deliver babies may have better birth outcomes than states where it's harder for midwives to provide care, a recent study suggests.

Researchers ranked each state based on how easy it was for midwives to practice and collaborate with obstetricians and other providers. Scores ranged from a low of 17 in North Carolina to a high of 61 in Washington, out of 100 points.

Higher scores were associated with significantly higher proportion of babies delivered by midwives, more spontaneous vaginal deliveries and higher rates of breastfeeding, the study found. Higher scores were also linked to fewer preterm births, underweight newborns and surgical cesarean section deliveries.

"Midwives have expertise and skills in facilitating the physiology of pregnancy, labor, birth, and newborn transition, and obstetricians and maternal fetal specialists have expertise and skills in addressing uncommon health concerns that may arise," said lead study author Saraswathi Vedam of the University of British Columbia in Canada.

"The question is not whether it is better to have a midwife or a doctor, but the degree to which midwives and doctors are able to work together to provide the best care utilizing all of their expertise and abilities," Vedam said by email.

# Best Practices: Health Delivery System

- Introduce and standardize protocols in health facilities, “patient safety bundles” – consistent guidelines, protocols, and best practices that can be replicated in many different settings
- The goal is to ensure consistent care in hospitals, clinics, and among private providers for conditions such as preeclampsia and obstetric hemorrhage, and to prevent unnecessary Cesarean sections.

# Best Practices: Health Delivery System

- Several studies have shown that black and brown pregnant women experience high levels of stress, disrespect, and racism during pregnancy, and these in turn are associated with poor outcomes such as premature birth, maternal morbidity and mortality, and increased risk of death for infants in the first 1,000 days of life

According to David Goodman, PhD, team lead, Maternal Health Team in the U.S. Centers for Disease Control and Prevention (CDC) Division of Reproductive Health, in [\*Report from Nine Maternal Mortality Review Committees\*](#).

- The following were the most common themes emerging from Nine Committees' recommendations:
- Improve training
- Enforce policies and procedures
- Adopt levels of maternal care/ensure appropriate level of care determination\*
- Improve access to care
- Improve patient/provider communication
- Improve patient management for mental health conditions
- Improve procedures related to communication and coordination between providers
- Improve standards regarding assessment, diagnosis and treatment decisions
- Improve policies related to patient management, communication and coordination between providers, and language translation
- Improve policies regarding prevention initiatives, including screening procedures and substance use prevention or treatment programs



# How Many American Women Die From Causes Related to Pregnancy or Childbirth? No One Knows.

Data collection on maternal deaths is so flawed and under-funded that the federal government no longer even publishes an official death rate.



by **Robin Fields** and **Joe Sexton**, Oct. 23, 2017, 8 a.m. EDT



## LOST MOTHERS

Maternal Care and Preventable Deaths

The questions are straightforward, with public health implications that would seem impossible to shrug off.

How many American women die each year from causes related to pregnancy or childbirth? How many of these deaths are preventable? How does the nation's current rate of maternal mortality compare to the rate 10 or 20 or 30 years ago?

The answers are central to any true picture of U.S. maternal health, and an essential tool in limiting such tragedies going forward. Much as an accurate census is vital to a functioning democracy, so reliable information on what goes right or wrong in pregnancy and childbirth is key to

# Data Collection Issues-Maternal Mortality

- Yet because of flaws in the way the U.S. identifies and investigates maternal deaths—a process perennially short on funding and scientific attention—what data exists on this particular set of vital statistics is incomplete and untrustworthy. Indeed, for the last decade, the U.S. hasn't had an official annual count of pregnancy-related fatalities, or an official maternal mortality rate
- Callaghan rated the difficulty of measuring maternal deaths at about a three on a scale of one to 10, so he views the longstanding lack of reliable data as a reflection of the scant importance American society places on expectant and new mothers and the urgency of acting to save them.
- There's an "implicit value decision when we don't do everything we can," he said. "What we choose to measure is a statement of what we value in health."