

# WORCESTER HEALTHY BABY

# COLLABORATIVE



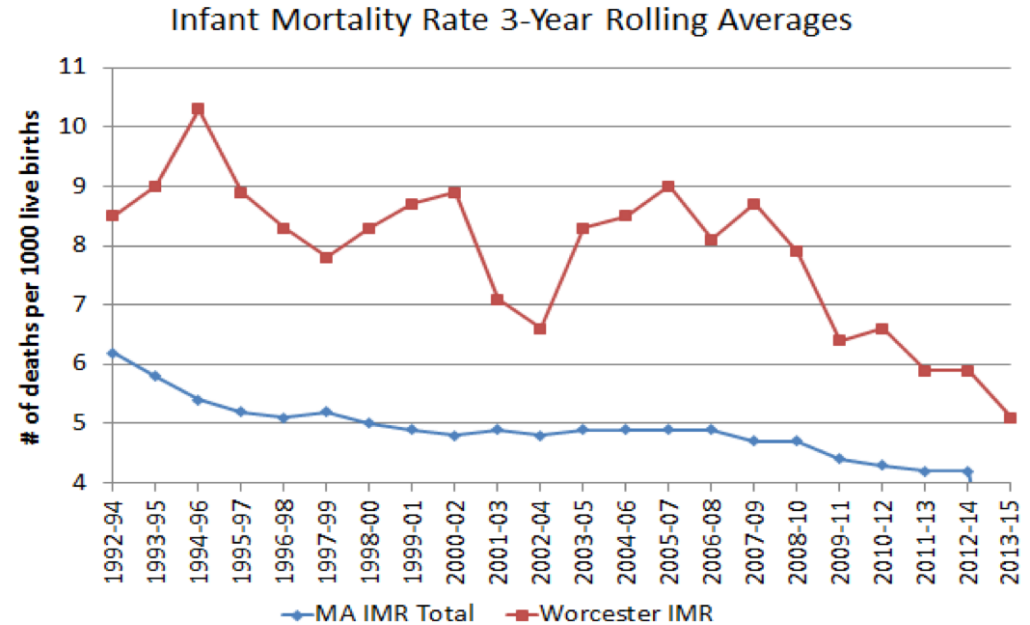
Kelly Cutting, Miriam Okero, Marya Pulaski, Vanessa Villamarin

## Baby Box Initiative

"A BABY'S HEALTH IS A CITY'S WEALTH."  
- DR. LEONARD MORSE

# INFANT MORTALITY IN WORCESTER

Worcester has a higher infant mortality rate than similar cities in Massachusetts.



# WHY AND HOW DID THE WORCESTER HEALTHY BABY COLLABORATIVE GET STARTED?

1998: The Worcester Infant Mortality Reduction Task Force (WIMRTF) was formed as a volunteer coalition of community programs, the public health service, and healthcare providers to address rising infant mortality rates (IMR), particularly in the African immigrant population.

2012: Name changed after feedback from the Ghanaian community.

2016: Attendees of the Community Healthy Baby Forum voted for Baby Boxes as the WHBC project focus.



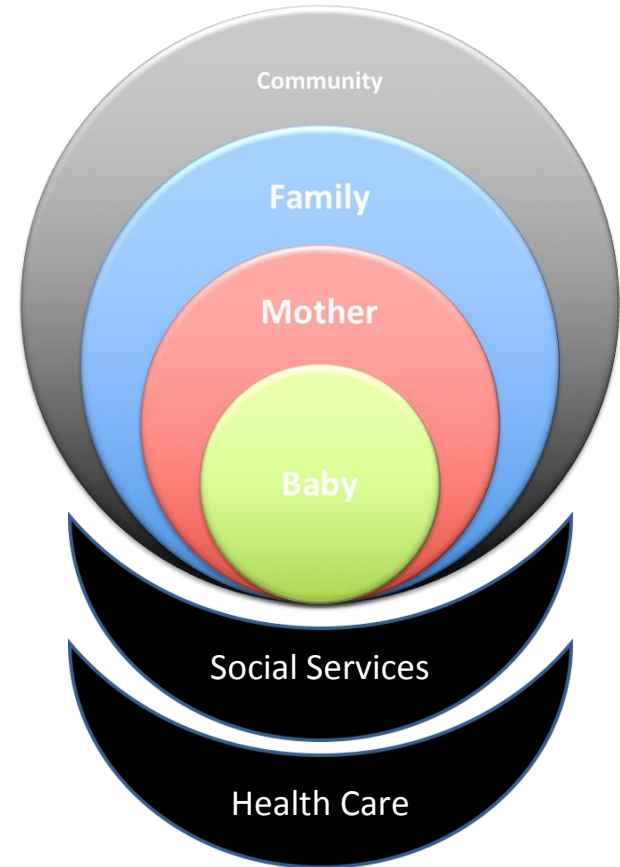
# WHAT IS INFANT MORTALITY?

A ratio: Deaths in infants under 1 year of age / 1000 live births

Neonatal mortality: up to 28 days of life

Post-natal mortality: 28 - 364 days of life

Infant mortality is a measure of the ability of an entire community to benefit its members.

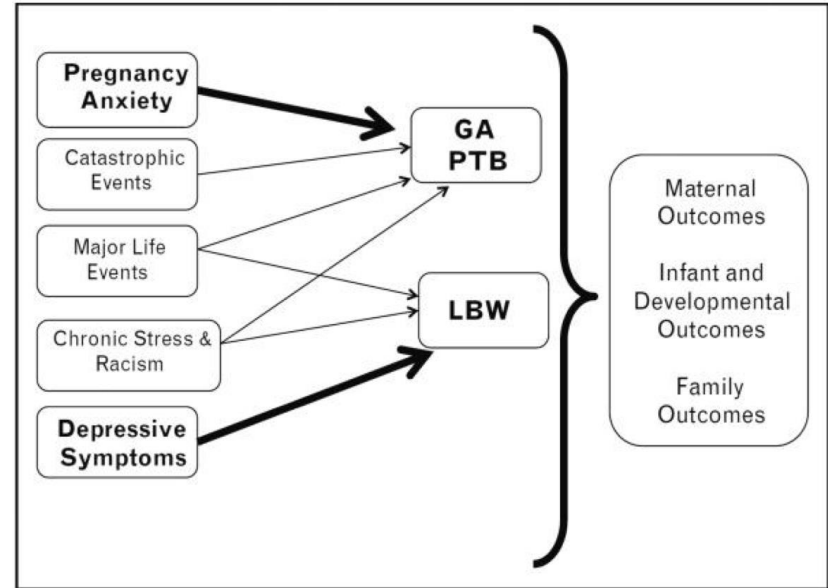


# RISK FACTORS FOR INFANT MORTALITY

Top Risk Factors
Preterm birth and low birth weight (#1)
Birth defects
Sudden infant death syndrome*
Maternal pregnancy complications
Injuries (i.e. suffocation)*

\*Associated with unsafe sleep practices

Source: CDC



Dunkel C and Tanner L; Anxiety, depression and stress in pregnancy: implications for mothers, children, research, and practice, [Curr Opin Psychiatry. 2012 Mar; 25\(2\): 141–148.](#) doi: [10.1097/YCO.0b013e3283503680](https://doi.org/10.1097/YCO.0b013e3283503680)

# RACISM AS A RISK FACTOR FOR INFANT MORTALITY

Chronic psychological stress may raise the risk of preterm delivery by raising levels of placental corticotropin-releasing hormone (CRH).

Women who have been the targets of racism of personal violence may be at particularly high risk of preterm delivery.

Source: Rich-Edwards J; Maternal experiences of racism and violence as predictors of preterm birth: rationale and study design, Paediatric and Perinatal Epi. 2001 Dec: 15(s2). <https://doi.org/10.1046/j.1365-3016.2001.00013.x>

## Worcester Focus Group Findings:

- 2003: Ghanaian women (J Rich-Edwards)
  - Fear of and dissatisfaction with the health care system in Worcester
  - A widespread perception of racism within the health care community in the city
- 2003-4: African American women
  - Similar themes; less of a local community
- 2005: Recently immigrated African women
  - Rosemary Theroux (Umass GSN)
  - Work, diet, traditional practices; churches
- Today: understanding implicit bias, unconscious bias, impact of long-standing racism across generations

Source: Worcester Healthy Baby Collaborative

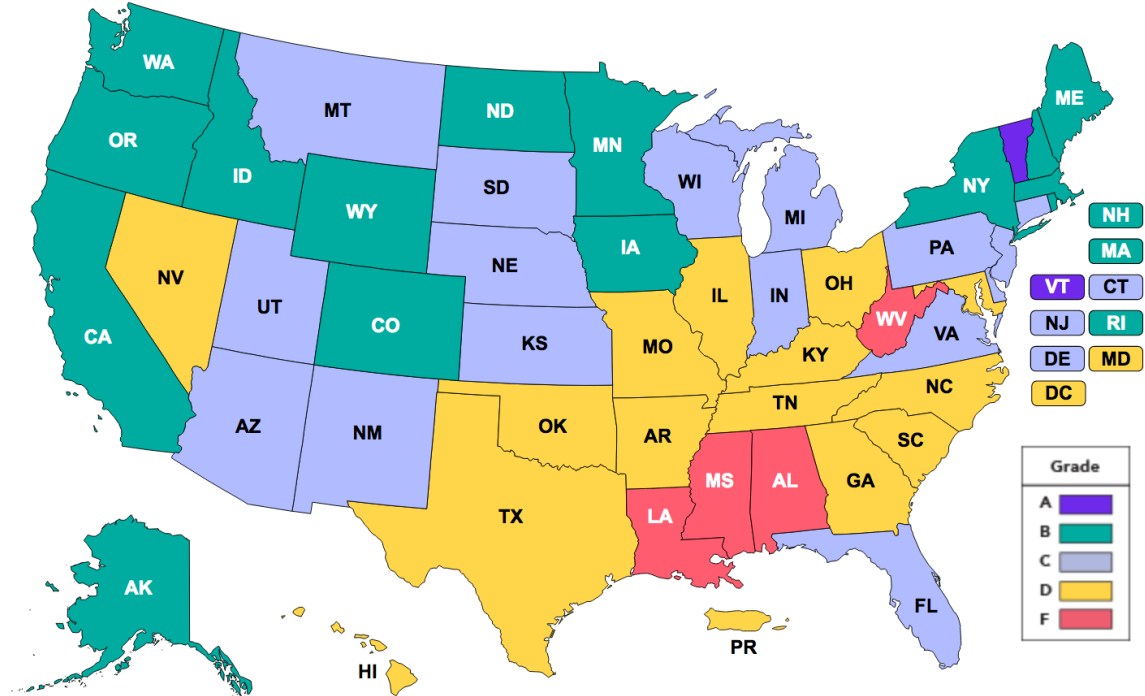
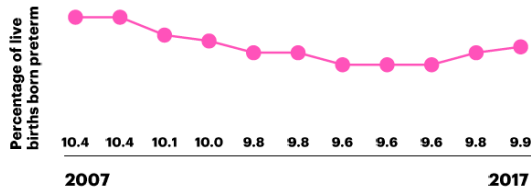
# PREMATURITY: DEFINITION AND NATIONAL AND STATE NUMBERS

Preterm birth = a live birth before 37 weeks gestation.

In 2016, 1 in 10 babies (9.8% of live births) was born preterm in the United States.

In 2016, 1 in 12 babies was born preterm in Massachusetts (8.7% of live births).

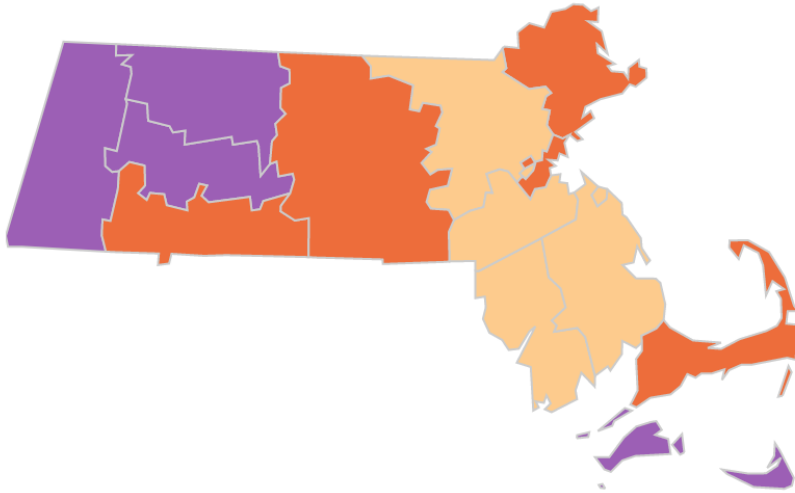
The rate of preterm birth in the United States is highest for black infants (13.3%), followed by American Indian/Alaska Natives (10.5%), Hispanics (9.1%), whites (8.9%) and Asian/Pacific Islanders (8.5%).



Source: Preterm birth rates are from the National Center for Health Statistics, 2017 final natality data. Grades assigned by March of Dimes Perinatal Data Center.



## Preterm: Worcester, 2012-2015 Average



### Percent of live births

- Higher than MA Rate of 8.6 (5)
- Between MOD 2020 goal of 8.1 and MA Rate (4)
- Met or lower than MOD 2020 goal of 8.1 (5)

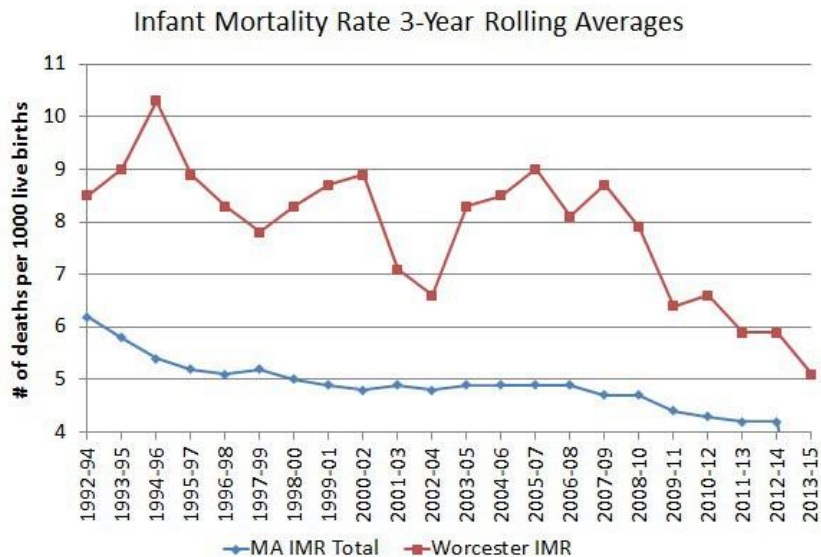
## Preterm: Massachusetts, 2012-2015 Average

Percent of live births

Region	Percent
Barnstable	9.0
Berkshire	7.8
Bristol	8.5
Dukes	5.5
Essex	8.8
Franklin	6.3
Hampden	9.1
Hampshire	6.9
Massachusetts	8.6
Middlesex	8.4
Nantucket	5.1
Norfolk	8.5
Plymouth	8.5
Suffolk	9.3
Worcester	8.8



# INFANT MORTALITY: WORCESTER



## Infant Mortality by Race 3 Year Rolling Average

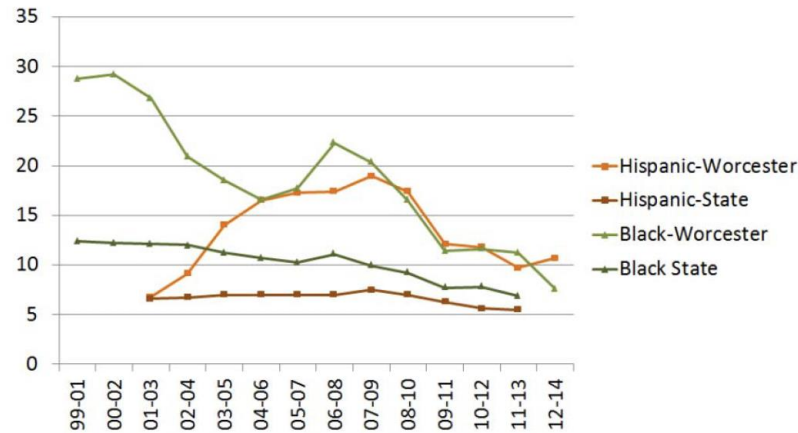
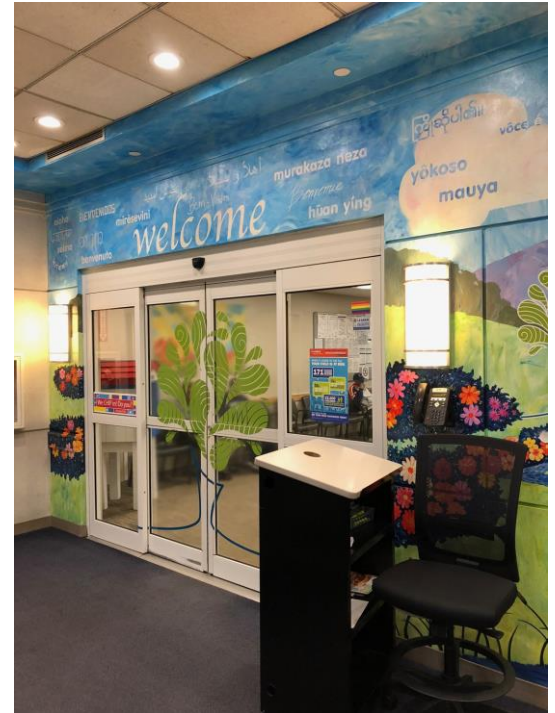


Figure 2: IMR by Race (source: MA DPH, WHBC)

# STRATEGIES TO REDUCE PRETERM BIRTH AND COMPLICATIONS

1. **Improve access to preconception care services including screening, health promotion, and interventions that enable women to achieve high levels of wellness, minimize risks, and enter pregnancy in optimal health.**
2. **Identify women at risk for preterm delivery and offer access to effective treatments to prevent preterm birth.**
3. Discourage nonmedically indicated deliveries before 39 weeks.
4. **Prevent unintended pregnancies and achieve optimal birth spacing.**
5. Discourage multiple gestations when using reproductive technology.



# WHY BABY BOXES?

Modeled after program in Finland:

- Finland has one of the lowest IMRs internationally
- Every new baby gets box for safe sleep practices
- Box also includes baby supplies and educational materials



The WHBC Worcester Baby Box project includes a pre-survey, 20 minute educational video, and post-survey. Topics included in the surveys and video include:

- Safe sleep practices
- Breastfeeding practices
- Post-delivery safe sex and pregnancy potential
- Birth control options
- Postpartum depression
- Worcester resources

# NOVEMBER 3, 2018 DISTRIBUTION DAY

We distributed 7 boxes this Saturday at a local church.

The women identified as Black (3), Hispanic/Latinx (2), African (1), and Inuit (1).

Their mean age was 26.5.



# THE FUTURE OF BABY BOXES IN WORCESTER

We met with several organizations over the past two weeks and employees are excited about offering baby boxes to their clients.

Focus groups with the local Hispanic/Latinx community to better understand why infant mortality rates have recently risen in those groups.

Some challenges:

- Language accessibility: right now videos are only available in English and Spanish. We transcribed the English video so that it'll be easier for translators when working with a client.
- Central organization

# INTERPROFESSIONAL TEAMS OF CARE ARE CRUCIAL FOR THE HEALTH OF MOM AND BABY

Every single site we visited utilized interprofessional teams to provide their clients high quality care.

Strengths of Interprofessional Models of Care:

- Various specialties
- Working collectively towards the same goal
- Allows for holistic approach to patient care

Room for Growth:

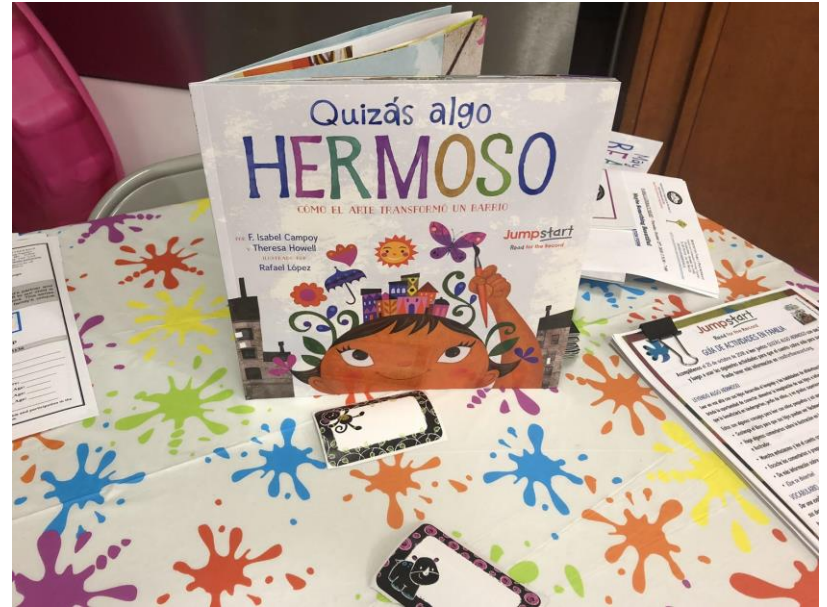
- Limited time
- Coordination





# WORCESTER FAMILY PARTNERSHIP

- Families and Communities growing together
- Playgroups
- Literacy Night
- Parent Workshops
- Parent Resource Room
- Parent-Child Home Program
- Ages & Stages Screening





# PERNET

- Parent Aide
- Early Intervention Program
- Maternal and Child Nursing Program
- Fathers and Family
- Youth Program
- Homemaker Program
- Emergency Assistance/Food & Infant Supplies
- Young Parent Support Group
- Nutrition Classes
- Green Island Gardens/Summer Youth jobs



parent  
aide

# FAMILY HEALTH CENTER OF WORCESTER

- OB Advocates
- Mindfulness-Based Childbirth and Parenting
- Centering Pregnancy
- Baby Cafe
- Well Mom Well Baby Group
- OB Audit
- Strong Mom
- CHOICE Program



# INSIGHTS FOR OUR WORK AS FUTURE PROVIDERS

Clinicians as advocates:

- We hope to be advocates for our future patients by participating in local coalitions, identifying risk factors, recognizing disparities, and understanding the resources available to our patients.
- Major disparities exist when it comes to prematurity, infant mortality, and maternal mortality rates in the country.
- Social determinants of health strongly affect perinatal outcomes.

Organizations that engage in advocacy on behalf of Worcester city parents and their newborns, with specific outreach to immigrant and underserved communities:

- Local: Worcester Family Partnership, Pernet, Edward M. Kennedy Center OB Clinic, Family Health Center of Worcester OB Practice
- State & National: March of Dimes



# THANK YOU!



Dr. Heather-Lyn Haley, Dr. Sara Shields, Cathy  
Violette, and Dr. Tasmina Hyderi

Baby Box Co.



Remillard Family Foundation

Joanna Glanz, Ellie Meyer, Paul Rizzo, Emily Nuss,  
Eden Hen, and other previous PHC and Summer  
Assistantship students



UMass Memorial NICU Family Resource Center and  
Fetal Speciality Clinic



Maintenance and Security Staff at Family Health  
Center of Worcester

Community partners and resources



Tufts Health Plan and Friendly House



## babycafé



Pernet Family Health Service, Inc.



If you do not believe in  
*Miracles*  
perhaps you have forgotten you are one



**Mi**  
MARCH OF DIMES

**HEALTHY MOMS.  
STRONG BABIES.**

