

# BABY BOX INITIATIVE



## WORCESTER HEALTHY BABY COLLABORATIVE

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“A baby’s health is a city’s wealth.”



- Dr. Leonard Morse

*Former Public Health Commissioner  
of Worcester*

# WORCESTER HEALTHY BABY COLLABORATIVE

The Worcester Healthy Baby Collaborative (WHBC) began as the Worcester Infant Mortality Reduction Task Force over twenty years ago with a focus on reducing infant mortality (IM) in the African immigrant community of Worcester.

The Task Force was eventually renamed the Worcester Healthy Baby Collaborative.

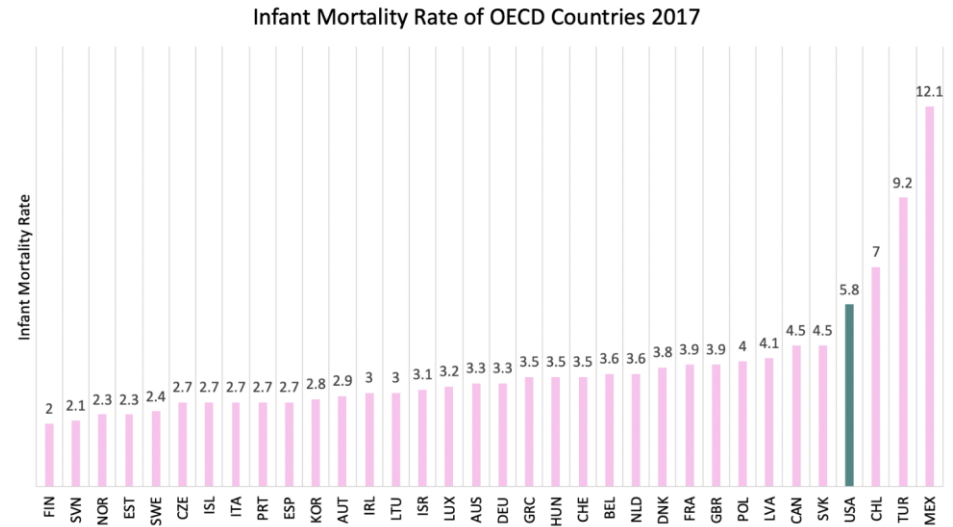
It consists of a number of community partners, local healthcare providers, and volunteers concerned with the city's higher than state average IM rate.



**Worcester Healthy  
Baby Collaborative**

# INFANT MORTALITY

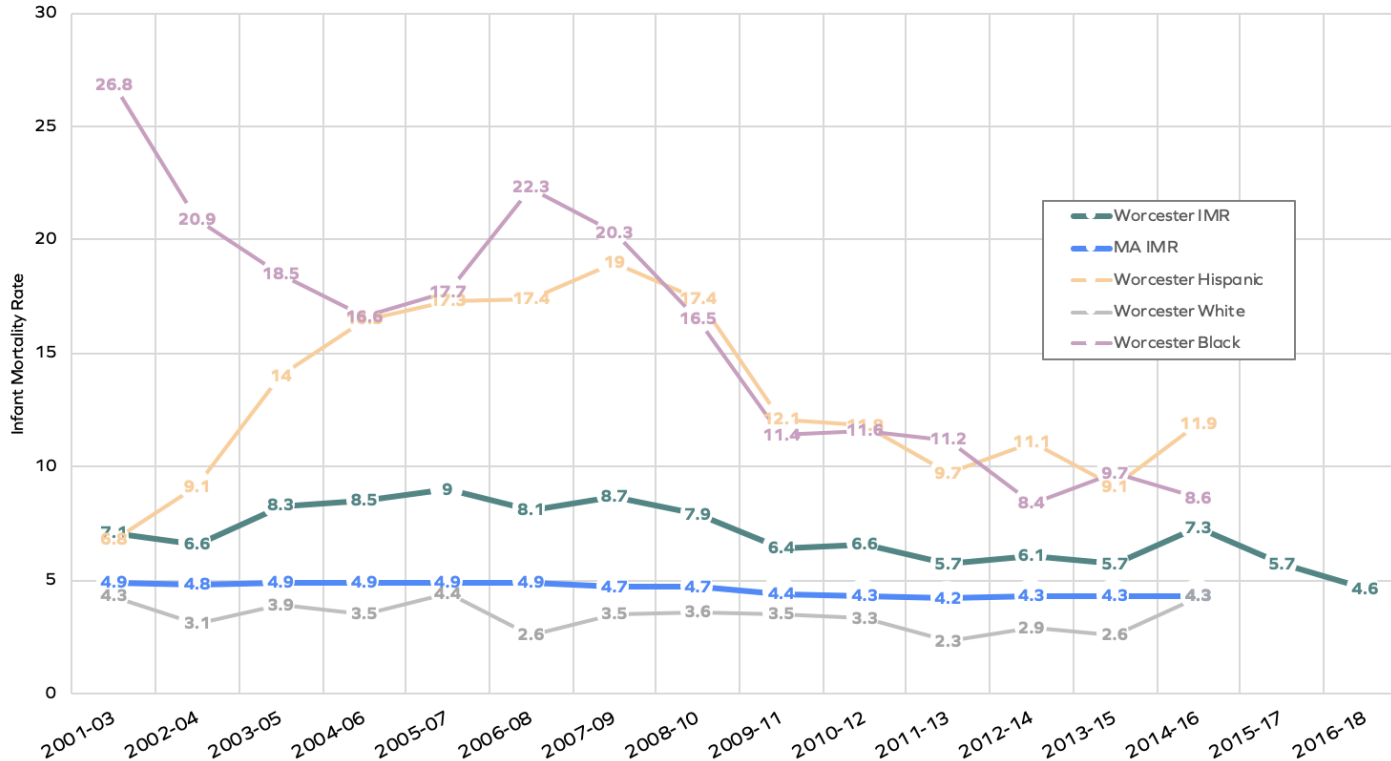
- Infant mortality rate (IMR) is the number of infant deaths per every 1,000 live births.
- The US IMR has decreased from 10.9 in 1983 to 5.8 in 2017.
- Despite this, the US's IMR is fourth-highest among the largest high-income countries (OECD, 2018)
- At 4.6 in 2016-2018, Worcester's IMR is lower than the US IMR.
- However, it is higher than the state IMR of 4.3 (Worcester Division of Public Health and Massachusetts Birth Reports, 2019).



Source: Organization for Economic Cooperation and Development

# INFANT MORTALITY IN WORCESTER

Worcester & Massachusetts IMR: 3-Year Rolling Averages



- There are significant disparities in IMR between races and ethnicities in Worcester
- Additionally, a majority of infant deaths were to mothers born outside of the continental US

Source: Source: Worcester Division of Public Health, Massachusetts Birth Reports

- Birth defects
- Preterm birth and low birth weight
- Maternal pregnancy complications
- Sudden infant death syndrome
- Injuries (e.g., suffocation)

Source: CDC

# CAUSES OF INFANT MORTALITY

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- As noted by the CDC, preterm birth and low birth weight are a cause of infant mortality
- From 2016-2018 in Worcester, 69% of infants who died were Low Birth Weight (<2500 grams)
- In this same period, 60% of infants who died were born premature

Source: Source: Worcester Division of Public Health, Massachusetts Birth Reports

# PRETERM BIRTH & LOW BIRTH WEIGHT

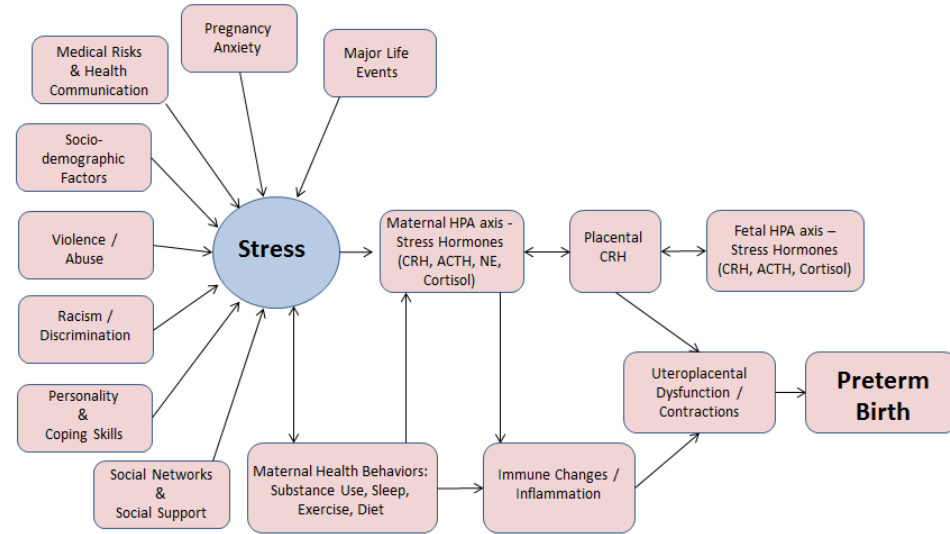
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# EXPOSURE TO RACIAL DISCRIMINATION AS A CAUSE OF PRETERM BIRTH & LOW BIRTH WEIGHT

Growing volume of evidence showing racism and racial discrimination playing a role in incidence of preterm birth and low birth weight.

High stress levels can lead to low birth weights via different cardiovascular and inflammatory pathways.

Stress can cause release of corticotropin-releasing hormone which eventually can lead to preterm delivery.



Mustillo, S., Krieger, N., Gunderson, E. P., Sidney, S., McCreath, H., & Kiefe, C. I. (2004). Self-reported experiences of racial discrimination and Black-White differences in preterm and low-birthweight deliveries: the CARDIA Study. *American journal of public health, 94*(12), 2125–2131. doi:10.2105/ajph.94.12.2125

Collins, J. W., Jr, David, R. J., Handler, A., Wall, S., & Andes, S. (2004). Very low birthweight in African American infants: the role of maternal exposure to interpersonal racial discrimination. *American journal of public health, 94*(12), 2132–2138. doi:10.2105/ajph.94.12.2132

Susan Cha and Saba W. Masho (January 23rd 2013). Preterm Birth and Stressful Life Events, Preterm Birth, Offer Erez, IntechOpen, DOI: 10.5772/54978. Available from: <https://www.intechopen.com/books/preterm-birth/preterm-birth-and-stressful-life-events>



# "SAFE SLEEP" TO REDUCE INFANT MORTALITY

Injuries such as accidental suffocation and strangulation in bed are a significant factor in IM.

Since the initiation of the CDC's Back To Sleep campaign in 1994, the US SUIDS rate has decreased dropped by 73% (CDC, 2019).

The Back To Sleep campaign has evolved to encompass the following guidelines by the CDC: place the baby on her back on a firm sleep surface with a tight-fitting sheet for every sleep, the baby should sleep alone in her own crib without blankets, crib bumpers, pillows, toys or other children, the crib should be located in the same room as the parents, breastfeeding is recommended, and smoking is strongly discouraged (Safe to Sleep, n.d.).



# THE BABY BOX

# THE BABY BOX INITIATIVE

In 2016, the WHBC hosted a community forum to determine where the Collaborative's efforts should be directed to reduce Worcester's IMR.

The Baby Box initiative was the top vote-getter.

The initiative is a way to provide to new mothers educational materials, supplies, and a safe sleep space for the new baby.

The Baby Box is inspired by a 75-year program in Finland where new mothers can receive a box which serves as a safe sleep space for infants in addition to receiving educational materials and supplies.

In 2018, the WHBC received 200 baby boxes from The Baby Box Company—a company who has modeled their program on the Finnish model.

# BABY BOX RECIPIENTS



101 Boxes given out  
as of 11/2/2019



## Race/Ethnicity



Hispanic	44 (44%)
Black	23 (23%)
White	18 (18%)
Other	19 (19%)

## Age



Teens	7 (7%)
Age 35 or Older	16 (16%)
Median age:	28

## Pregnancies



First pregnancy	37 (38%)
2+ pregnancies	61 (62%)

## Language



English-speaking	46 (58%)
Spanish-speaking	21 (27%)
Other	17 (22%)

## Education



<= High School	60 (60%)
At least some college	41 (40%)

## Smoking



Never	81 (80%)
Former	14 (14%)
Current	5 (6%)

# THE BABY BOX PROCESS

Prior to receiving a Baby Box, the recipient completes a brief survey to report likelihood of engaging in healthy behaviors (speaking to healthcare provider [HCP] about WIC, breastfeeding, room sharing, etc.)

Then, the recipient watches a 20-30 minute video discussing safe sleep, breastfeeding, contraception, postpartum depression, and early literacy.

After watching the video, the recipient then completes a survey asking about likelihood of engaging in aforementioned behaviors

Finally, six weeks after the baby is born, the recipient is contacted to ask about frequency of breastfeeding, bed sharing, room sharing, and Baby Box use

Increase in reported likelihood of speaking to HCP about:

- WIC: +18%
- Substance use: +12%
- Postpartum Depression: +23%
- Birth Control: +11%

Increase in reported likelihood of:

- Breastfeeding: +4%
- Room sharing: +5%
- NOT bed sharing: +10%
- Using the Baby Box: +13%

PRELIMINARY DATA

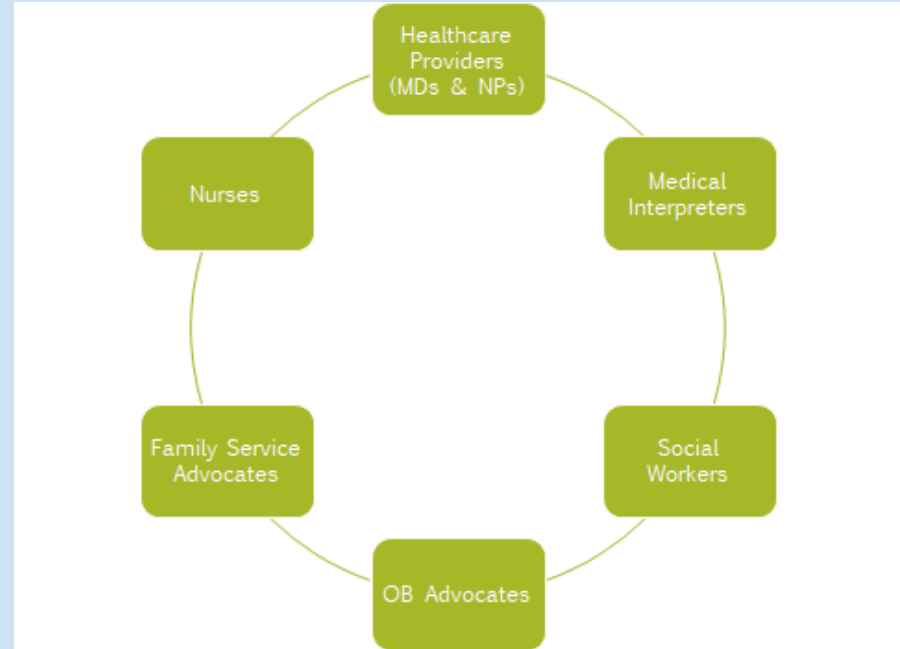
# INTERPROFESSIONAL TEAMS

## Strengths of Interprofessional Teams

- Shared goal
- Knowledgeable professionals collaborating together
- Patient-centered care

## Current Limitations

- Patients lost to follow-up
- Shortage of interpreters in population served
- Limited communication between the healthcare team and community workers



As future healthcare providers, we need to be aware of community resources that are available to the population that we serve, and work in an interprofessional team to provide patient-centered care.

# FAMILY HEALTH CENTER OF WORCESTER

- Baby Café
- Centering Pregnancy
- OB Advocates
- Mindfulness-Based Childbirth and Parenting

**Family Health Center**  
of Worcester



Join us!

**babycafé**

at Family Health Center of Worcester

Free Drop-In  
Breastfeeding Support  
Open to All Breastfeeding  
Moms and Pregnant Women



Wednesdays 10:00 am - 11:30 am  
Fridays 11:00 am - 12:30 pm

26 Queen Street  
Fuller Room, First Floor  
Worcester, MA 01610

Baby Café at Family Health Center offers:

- Free access to a lactation consultant in the community
- Interpreter services
- Free parking
- Transportation assistance

Questions?  
Call  
(508) 410-1282

Greater Worcester Community Foundation

[www.BabyCafeUSA.org](http://www.BabyCafeUSA.org) | [www.FHCW.org](http://www.FHCW.org)





# WORCESTER FAMILY PARTNERSHIP

Worcester Family  
Partnership Playgroup



- Playgroups
- Cooking Matters
- Parenting Workshops
- Raising a Reader
- ASQ (Ages and Stages Questionnaire)
- Parent Child Home Program

# PERNET FAMILY HEALTH SERVICE

- Early Intervention
- Maternal and Child Nursing
- Food Pantry
- Fathers and Family Program
- Parenting Classes



*Pernet*  
Family Health Service

# HEALTH ADVOCACY

*“What does it mean to be an advocate? In its broadest sense, advocacy means “any public action to support and recommend a cause, policy or practice.” That covers a lot of public actions, from displaying a bumper sticker to sounding off with a bullhorn. But whether the action is slapping something on the back of a car or speaking in front of millions, every act of advocacy involves making some kind of public statement, one that says, “I support this.” Advocacy is a communicative act. Advocacy is also a persuasive act. “I support this” is usually followed by another statement (sometimes only implied): “...and you should, too.” Advocacy not only means endorsing a cause or idea, but recommending, promoting, defending, or arguing for it.”*

*John Capecchi and Timothy Cage<sup>1</sup>*



# LOCALLY

- Worcester infant mortality reduction Task force
- **Worcester Healthy Baby Collaborative**
- Worcester Family Partnership
- OB advocates at Family Health Center in Worcester
- WIC program community coordinators
- Pernet
- Edward M. Kennedy Center OB Clinic

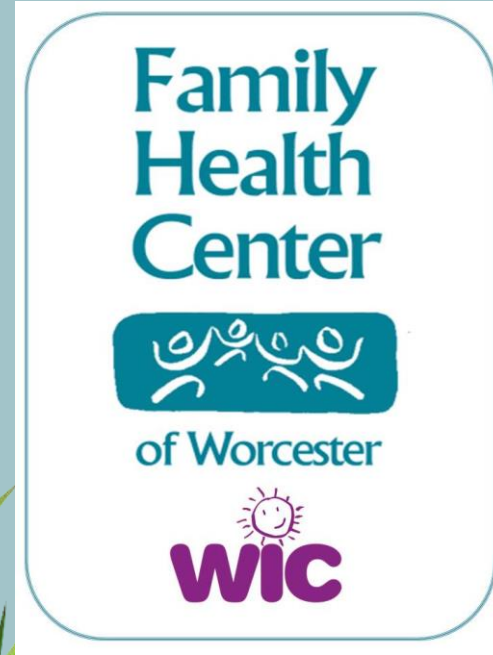


# STATE & NATIONAL LEVEL

- March of Dimes
- Women Infants Children (WIC)
- Department of Public health - CHIP & REACH Grants
- First Candle
- Association of Women's Health Obstetric and Neonatal Nurses
- Researchers & Practitioners



# COLLABORATION

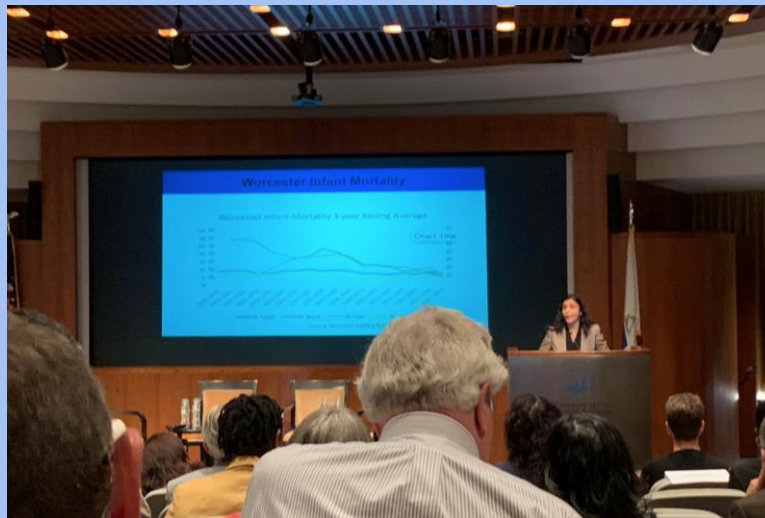


# MASSACHUSETTS MEDICAL SOCIETY



## TAKEAWAYS

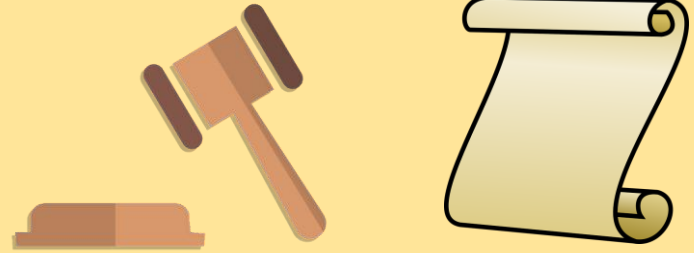
1. "Just need one story."
2. "Just show up."
3. "You do the medicine.  
We do the legislation."
1. "No regrets."



Monica Bharel presenting data from Healthy Baby Collaborative at the Public Health Leadership Forum, "Maximizing the Political Determinants of Health" at the Massachusetts Medical Society.



# ACTS

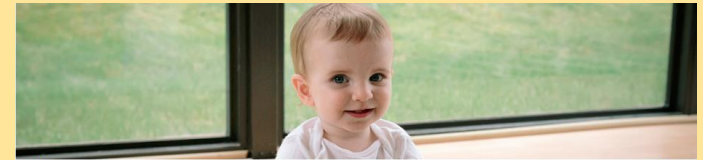


Laws addressing SIDS can vary significantly in scope by state

**Scarlett's Sunshine Act** (H.R. 6931/S3521) is currently under review by US congress.

**Massachusetts** [Mass. Gen. Laws Ann. ch. 38, § 2A](#) establishes state and local Child Fatality Review Teams and provisions for these teams. The law requires the director of the Massachusetts Center for Sudden Infant Death Syndrome or his designee to be a member of the state team and each local team.

[Mass. Acts, Chap. 336](#) (House Bill 1678 of 2008) requires the state child fatality review team to conduct a study of training and protocols related to the sudden, unexplained deaths of children under three years of age and to examine the feasibility of adopting statewide training protocols for specified first responders and investigators. A report and recommendations by the team were due to the secretary of public safety, the secretary of health and human services and the legislature by July 1, 2009.



## ORGANIZATIONS ENDORSING SCARLETT'S SUNSHINE ACT





# IT TAKES A VILLAGE



Frida Kahlo, Moses, 1945



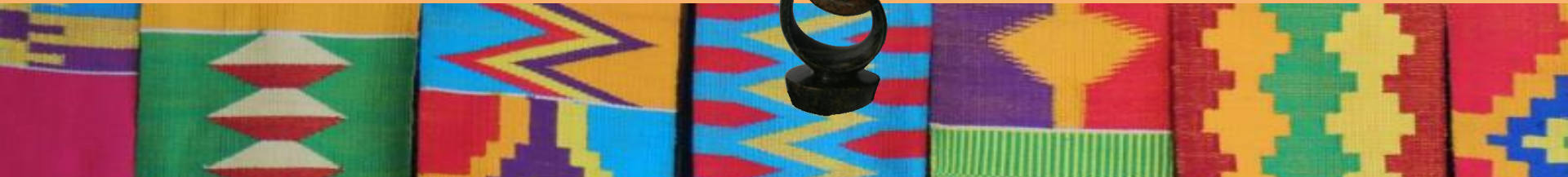
Otto Dix, The Pregnant Woman,  
1931



Otto Dix, Pregnant Woman,  
1966



Holzchnitt, print of birth 1919



# EXPERIENTIAL LEARNING

Updated the Baby Box inventory in Burncoat LC

Re-ordered pamphlets, flyers in necessary languages

Site visits with community partners

Connected potential collaborators with WHBC

Organized donations & supplies for the Baby Boxes

# INVENTORY + PREP



# Distribution Day!

Saturday, Nov 11th

@ Ministerios La Trinidad

local church serving the Latinx community

## Outcome:

Total of **10 boxes** distributed

### Languages:

English, Spanish, Arabic, Vietnamese

## The Worcester BABY BOX INITIATIVE



**Distribution Day is here!**

Baby boxes are a **safe sleep space** for your baby. With the box, you will also receive a mattress pad, sleep sack, books for your baby, other supplies, and educational materials.

Before receiving your Baby Box, you will watch a series of videos and complete two short surveys.

**The whole process will take 1 hour**

**Videos and materials available in English and Spanish**

**DATE:** Saturday, November 2nd, 2019  
**TIME:** 10:00am-1:00pm  
**PLACE:** Ministerios La Trinidad  
731 Main St., Worcester, MA 01610  
(Entrance on Hermon Street)

Contact: [worcesterbabybox@gmail.com](mailto:worcesterbabybox@gmail.com)



Worcester Healthy  
Baby Collaborative

[www.worcesterhealthybaby.org](http://www.worcesterhealthybaby.org)

100TH BOX  
DISTRIBUTED!



# NEXT STEPS...

**Translating pre/post surveys into multiple languages**

- **Twii, Arabic, Vietnamese**

**Record educational videos in multiple languages or transcribe subtitles**

**Provide educational prenatal materials for OB/Family Medicine clinics with 10 key items to remember**



# 10 Key Items for Prenatal Education

1. Babies should always **sleep flat** and **on their back**
2. Babies should sleep in the **same room as caregivers**
3. Babies should **sleep separately** in a **crib**, bassinet, or play yard on **firm mattress**
4. Sleeping with their baby in a bed or chair increase the risk of sudden unexpected infant death
5. It is best for babies to sleep in sleep sacks. If swaddle, allow arms to be free once your baby can roll over.
6. Sleep area should be **free of unsafe items** (loose blankets, pillows, stuffed animals, bumper pads, or clothing)
7. Smoking or smoke around baby has increased risk of sudden unexpected infant death
8. **Breastfeeding decreases** risk of sudden unexpected infant death
9. It is safer for babies who spit up to sleep on their back
10. **Avoid overheating** – can increase risk of sudden unexpected infant death

# MUCHAS GRACIAS!

Dr. Sarah Shields, Cathy Violette, MSN, WHNP-BC, Dr. Sanjay Aurora, Dr. Sherman Chu, Christina Gebel Jessie Colbert, Kwame Apphia, Esmeralda Pena and many more

Baby Box Co.

UMASS Medical NICU, Fetal Specialty Clinic, and Pediatric Unit

OB Advocates at Worcester Family Health Center

Community Resources and Orgs.

Past and future PHC students!



Ministerios La Trinidad



Family Health Center





*WITH CHILD* : OTTO DIX / CARMEN WINANT

EXHIBIT AT WORCESTER ART MUSEUM

SEPTEMBER 21 – DECEMBER 15, 2019