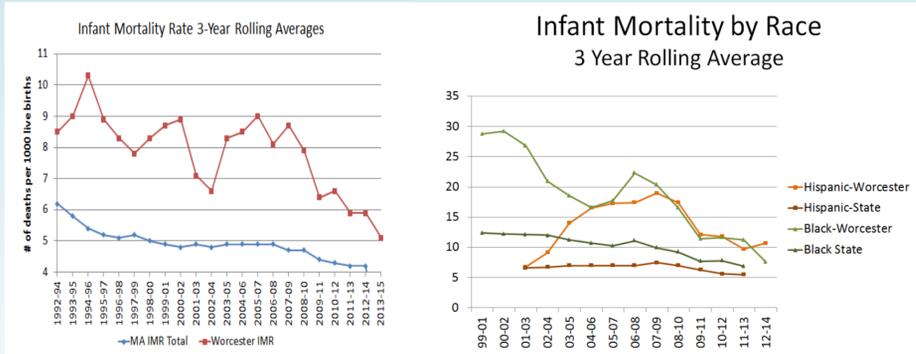


## About Worcester Healthy Baby Collaborative

- **Volunteer group** of community and healthcare organizations working to reduce disparities in Worcester's infant mortality rate
- Prioritize not only medical but also social determinants of health
- Involved with **>30 agencies** including Worcester Department of Public Health, Massachusetts Department of Public Health and March of Dimes
- Voted in the Community Healthy Baby Forum in September 2016 to have the WHBC pursue a Baby Box program
- Partnered with the Baby Box Co., which has committed to supply **free Baby Boxes for every baby born in Worcester**

## Infant Mortality Rate: Statistics in Worcester



- **Disparities:**
- Worcester's unofficial IMR was **5.2 per 1,000 in 2013-5** compared to **Massachusetts' 2013 rate of 4.15 per 1,000**
- The Black IMR is **4-5 times higher** than the white IMR
- Worcester's **Hispanic IMR has been twice the state Hispanic IMR** since 2010 and recently surpassed Worcester's black IMR

## What Causes Worcester's High IMR?

- **Infant Mortality Rate (IMR):** the number of deaths in the first year of life per 1,000 live births in a given year
- Infant death in Worcester is linked to:
  - 1) **Preterm birth:** at highest risk in the first month of life
  - 2) **Unsafe sleep in older infants:** can cause sudden unexpected infant death (SUID)
- ~75% of Worcester's infant deaths over the last decade are neonatal deaths related to extreme prematurity (22-24 weeks gestation)
- Infant prematurity **usually reflects an underlying maternal health issue** often related to the **social determinants of health**
- Social determinants of health are defined as **environmental conditions** in which people are "born, live, learn, work, play, worship, and age that affect a wide range of health and quality-of-life outcomes and risks"
- **IMR reflects not only a medical problem, but a city's overall health**

## What is a Baby Box?

**"It's not just a box, it's a movement"**

-Baby Box Co.

- The Baby Box concept is based off of a 75-year tradition in Finland which has an **exceptionally low IMR: ≈2.5 deaths/1000 live births**
- **Benefits of the Box:**
  - Acts as a bassinette, functioning as a safe sleep space for the newborn
  - Filled with clothing, supplies and educational materials
  - Symbolizes the value that a community places on ensuring a child's health

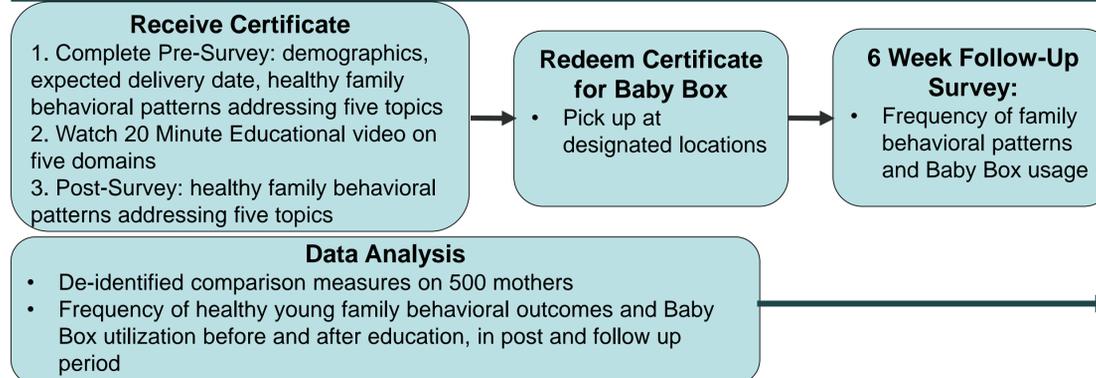


## The Baby Box Initiative

- The WHBC is working with the Baby Box Co. to lay the groundwork necessary for **Worcester to become the next universal Baby Box distribution community**
- **2017-2018 Goals:**
- **Scale up the Baby Box program to reach 500 Worcester families** by fall 2018 with a free Baby Box tailored to best meet Worcester's local needs
- **Educate** parents on **five major topics** surrounding infant health:
  - Safe Sleep
  - Breastfeeding
  - Contraception
  - Postpartum Depression
  - Early literacy
- **Compare** frequency of healthy young family behaviors in five topics before and after video education
- **2017 Summer Work:**
  - Proposed a plan for Remillard Grant funding disbursement in September
  - Filmed medical experts discussing above topics in English, Spanish, and Twi
  - Collected local resources catered to the greater Worcester community
  - Continued to develop the program initiated by last year's medical student interns



## Methods and Outcome Measures



## Previous Studies

- Baby boxes are now being distributed in **at least 20 U.S. states**
- Last year, WHBC conducted a pilot study with summer medical interns in their Population Health Clerkship for Baby Box distribution in Worcester, distributing 10 free Boxes to Worcester families
- In the pilot survey, mothers gave suggestions for Box content and ideal locations to receive a Box
- Preliminary data in 2016 from Temple University's hospital's universal distribution program showed a **25% reduction in bed-sharing** in the first week of life among families receiving Baby Boxes at hospital discharge

## Community Impact and Future Goals

- Promote **parental education** to expectant families in the hope of **reducing the high IMR in Worcester**
- Move the Baby Box program towards the ultimate goal of **universal distribution** in Worcester by 2019
  - Create longitudinal house **Legacy Project** through Blackstone and Burncoat Houses that encourages interprofessional collaboration
  - Foster student and faculty connection with grass-roots organization **servicing at-risk maternal and infant population**
  - Teach medical and nursing students about community led practices to address significant **public health issues**



## Acknowledgments

Thanks to Dr. Heather-Lyn Haley, Dr. Sara Shields, Dr. Tasmina Hyder, Cathy Violette, Trevor Gagnet, Paul Rizzo, Elizabeth Meyer, Joanna Glanz, and all of the incredible specialists for contributing their time to filming our videos. Thanks to the Baby Box Co. for generously donating their boxes to help Worcester's families and to the Remillard Family Foundation for helping fund Baby Box supplies.

## References

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3. WHBC data (available on request; data since 2012 unofficial)
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**SENATE . . . . . No. 2239**

**The Commonwealth of Massachusetts**

PRESENTED BY:

***Patrick M. O'Connor***

*To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:*

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act establishing a newborn health and safe sleep pilot program.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	
<i>Patrick M. O'Connor</i>	<i>Plymouth and Norfolk</i>	
<i>Smitty Pignatelli</i>	<i>4th Berkshire</i>	
<i>Diana DiZoglio</i>	<i>14th Essex</i>	
<i>Adam G. Hinds</i>	<i>Berkshire, Hampshire, Franklin and Hampden</i>	<i>12/19/2017</i>
<i>Dean A. Tran</i>	<i>Worcester and Middlesex</i>	<i>2/2/2018</i>
<i>Ryan C. Fattman</i>	<i>Worcester and Norfolk</i>	<i>2/5/2018</i>
<i>Viriato M. deMacedo</i>	<i>Plymouth and Barnstable</i>	<i>2/5/2018</i>

**SENATE . . . . . No. 2239**

By Mr. O'Connor, a petition (accompanied by bill) (subject to Joint Rule 12) of Patrick M. O'Connor, Smitty Pignatelli and Diana DiZoglio for legislation to establish a newborn health and safe sleep pilot program. Public Health.

**The Commonwealth of Massachusetts**

In the One Hundred and Ninetieth General Court  
(2017-2018)

An Act establishing a newborn health and safe sleep pilot program.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

SECTION 1. Section 1 of Chapter 111 as so appearing in the 2016 Official Edition of the General Laws is hereby amended by adding the following definition:-

“Baby box, boxes lined with a firm mattress and a fitted sheet such that it can serve as a safe sleep place for a newborn, and shall contain newborn infant care essentials aimed at promoting safe sleeping practices, as well as items to encourage safe and healthy habits for families transitioning to parenting.”

SECTION 2. Said Chapter 111 is further amended by adding the following new section:-

“Section 110D. Newborn Health and Safe Sleep Pilot Program.

(a) There shall be established in the department, by the commissioner, a newborn health and safe sleep pilot program designed to reduce infant mortality rates in the Commonwealth. The commissioner shall provide baby boxes or other products aimed at encouraging safe sleep practices in accordance with subsection (b) of this Section. The distribution of baby boxes or other products may vary by region, at the discretion of the commissioner, to meet the needs of the relevant community.

(b) The department shall require that any parent or guardian who wishes to obtain a baby box or other products aimed at encouraging safe sleep practices must first complete an online parent education syllabus to ensure proper use of the baby box as well as to educate on the accepted rules of safe sleep for infants. The department shall create an online portal on the department’s website containing a parent education syllabus. For the purposes of this section, a parent education syllabus shall be developed by the department and shall include, but not be limited to, risks associated with certain sleep conditions and safe sleep practices designed to reduce infant mortality rates. The department shall design and implement a sufficient certification process to ensure that a parent or guardian has completed the parent education syllabus prior to receiving a baby box.

(c) The department shall be responsible for monitoring the quality, appropriateness and effectiveness of the program and shall issue a report with their findings and recommendations to the Chairmen of the Joint Committee on Public Health and the Joint Committee on Children, Families and Persons with Disabilities within one year of the effective date of this section.”

SECTION 3. This act shall take effect upon its passage.