



# The First 1,000 Days<sup>®</sup>

Newsletter

May 2016

The First 1,000 Days Program aims to work across early-life systems to prevent obesity, promote healthy routines and behaviors, and reduce health disparities among vulnerable children and families.

## RWJF Systematic Reviews: Child Obesity Risk Factors and Interventions

Dr. Elsie Taveras was commissioned by the Robert Wood Johnson Foundation to write two systematic reviews on early life obesity prevention: one on early life risk factors for childhood obesity and a second on completed and ongoing early life interventions for obesity prevention. Both manuscripts were electronically published in the *American Journal of Preventive Medicine* in February. The Robert Wood Johnson Foundation also published an Issue Brief in March 2016 based on the two articles.

- 1) *Modifiable Risk Factors in the First 1,000 Days*: 5,952 potential citations were identified, and 282 articles met study inclusion and were reviewed. Inclusion was limited to prospective studies with risk factor exposure in the first 1,000 days, and an overweight or obesity outcome between ages 6 months and 18 years. Key findings include:
  - Higher weight entering pregnancy, prenatal tobacco exposure, excess gestational weight gain are important factors in pregnancy.
  - Rapid weight gain during the first months of life is an important risk factor, and insufficient sleep is an emerging factor in infancy and early childhood.
  - Child care attendance, starting solids <4 months and maternal-infant relationship may also be important.
  - Poverty is a risk factor at any age.
- 2) *Childhood Obesity Interventions in the First 1,000 Days*: 34 articles representing 26 interventions were identified from the original 5,952 citations. For inclusion in the review, the intervention had to be implemented between conception and child age of 24 months, with an overweight or obesity outcome between ages 6 months and 18 years. Key findings include:
  - Most of the research to date focuses on diet and activity counseling for individual children, mothers, and families. Individual interventions have shown limited effectiveness.
  - No interventions targeted women pre-pregnancy, and no intervention targeted parents to avoid introduction of unhealthy foods or drinks.
  - There is a need for systems-level approaches to obesity prevention in early life.

## Save the Dates & Timeline

- January-December 2016: Executive Committee Meetings in Chelsea and Revere
- May 9, 2016, 2-4:30pm: Collective Impact Meeting, Revere HealthCare Center
- June 21, 2016: First 1,000 Days Pregnancy Program Orientation
- July 2016: Program launch begins with pregnant women

## RWJ Systematic Reviews: Findings Summary

Topic	Findings
Modifiable Risk Factors	<p>Risk factors consistently associated with later childhood overweight include:</p> <ul style="list-style-type: none"> <li>• Higher maternal pre-pregnancy BMI</li> <li>• Maternal excess gestational weight gain</li> <li>• Prenatal tobacco exposure</li> <li>• High infant birth weight and high infant weight gain</li> </ul> <p>A smaller number of studies also supported the following risk factors:</p> <ul style="list-style-type: none"> <li>• Gestational diabetes</li> <li>• Child care attendance</li> <li>• Low socioeconomic status (SES)</li> <li>• Curtailed infant sleep</li> <li>• Inappropriate bottle use</li> <li>• Infant antibiotic exposure</li> <li>• Low strength of maternal–infant relationship</li> <li>• Introduction of solid food before age 4 months</li> </ul>
Childhood Obesity Interventions	<ul style="list-style-type: none"> <li>• Current evidence supports the use of a systems-level approach to obesity prevention in pregnancy and early life.</li> <li>• Future interventions should: <ul style="list-style-type: none"> <li>- Be explicitly grounded in a sound theoretical framework</li> <li>- Concurrently address multiple obesity risk factors</li> <li>- Span several levels of influence and a variety of social sectors</li> </ul> </li> </ul>

## Baseline Data for the First 1,000 Days Program

Baseline data on pregnant women and children aged 0-2 years was compiled and presented as a poster at the MassGeneral Hospital *for* Children Research Day on March 29, 2016. The below table shows selected baseline maternal-child demographics by health center.

	MGH Revere*	MGH Chelsea*	DotHouse Health**
<b>Maternal Characteristics</b>			
Number of women receiving prenatal care	324	507	211
Women identifying as Hispanic/Latina	94 (29.1%)	374 (74.1%)	Unavailable
Women entering pregnancy overweight or obese (body mass index [BMI] $\geq 25$ kg/m <sup>2</sup> )	192 (59.6%)	341 (68.2%)	45.2%
Women who gained adequate weight during pregnancy based on IOM guidelines and pre-pregnancy BMI, among term pregnancies	102 (34.9%)	156 (35.3%)	33.3%
<b>Infant Overweight Rates (weight-for-length z-score &gt; 2SDs)***</b>			
6 Month Well-Visit	5 (1.4%)	20 (4.2%)	Unavailable
12 Month Well-Visit	12 (3.7%)	49 (11.2%)	Unavailable
24 Month Well-Visit	28 (9.7%)	63 (15.3%)	14.5%

\*Data for MGH from July 2012-June 2013. \*\*DotHouse Health data is based on 50 chart reviews. Percentages are provided as an estimate. \*\*\*Among infants whose mothers delivered at MGH. Sample size for infants varies by well child visit age.

## Spotlight!

Learn about what else is happening in the area of early life child development and obesity prevention from experts in the field. If you have a “spotlight” to share for a future newsletter, please contact Program Manager, Meghan Perkins, [meperkins@mgh.harvard.edu](mailto:meperkins@mgh.harvard.edu).

### The Boston Basics

Earlier this year, we sent our Health Educators to the Boston Basics Campaign Orientation and Training Session. Launched by the Black Philanthropy Fund in association with the Mayor’s Office of Education and the Achievement Initiative (AGI) at Harvard University, the Boston Basics Campaign “is a framework for *collective* action on effective early childhood education”. Based in research led by Professor Ron Ferguson at AGI, the Boston Basics consists of 5 simple strategies for parents and caregivers, such as “maximize love, minimize stress”, that will better prepare children for kindergarten and future learning. We believe the Boston Basics messaging will serve as a great resource for parents in the First 1,000 Days Program. To learn more about the Boston Basics, including an upcoming orientation session on May 12th and 13th, visit <http://bostonbasics.org/>.



### Ray Levy, PsyD— Next Steps for The Fatherhood Project (TFP)

In an earlier spotlight, we highlighted the successful Father Survey as part of the [Father Engagement Initiative at Massachusetts General Hospital’s Vincent Obstetrics](#). The initiative was launched by Dr. Ray Levy and the research survey was led by Milton Kotelchuck, PhD. The purpose of the survey was to learn about fathers’ thoughts, feelings and needs at the time of the birth of their infants. After gathering data from 401 men who accompanied their partners and wives to prenatal visits, The Fatherhood Project has begun to disseminate results locally and nationally. TFP has begun to build collaborations leading to administering the Survey at the MGH Community Health Centers. For more information, visit: <http://www.thefatherhoodproject.org/>.



### Welcome to our Health Coach/Patient Navigator, Brianna Roche!

We would like to formally introduce and welcome our Health Coach/Patient Navigator, Brianna Roche, to the First 1,000 Days Program! Brianna will be working with the First 1,000 Days families to ensure they are able to utilize the wealth of resources at the MGH Chelsea and Revere Health Centers and in the communities. She joined MGHfC in October of 2015 as a Clinical Research Coordinator for various childhood obesity related studies in the department. Prior to her time at MGHfC, she served as an AmeriCorps member with the Let’s Get Movin’ Program at the East Boston Neighborhood Health Center. There she led numerous community, health education programs for overweight and obese children and their families. Brianna will bring her experience helping families implement healthy lifestyle change to the families in the First 1,000 Days Program at such an important stage in their lives.

### Health Starts at Home Initiative

Like the First 1000 Days Program, The Health Starts at Home Initiative addresses the role social determinants of health play in the health of both children and their families. The 4-year initiative, hosted by The Boston Foundation, will strengthen the partnerships between housing and health care organizations to reduce the health burden of inadequate housing. Congratulations to the MGH Chelsea HealthCare Center, along with its partner organizations, for being awarded a Phase 1 planning grant for their Chelsea Homes for Health program. We look forward to working with the program in the future! For more information visit: <http://www.tbf.org/impact/initiatives/health-starts-at-home>.



## Contact us!

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