



The First 1,000 Days[®]

Program

Background

Childhood obesity rates are at historically high levels. Obesity in children is associated with many chronic diseases, health and societal costs, and adverse quality of life, both in childhood and later in life. Disparities in childhood obesity and obesity risk factors are stark, with Black, Hispanic, and economically deprived families in Massachusetts experiencing the greatest burden.

Recent research suggests cross-sector, systems-level, community-based interventions that begin early in life may be most effective at combating obesity and addressing disparities. With the support of The Boston Foundation, MassGeneral Hospital for Children (MGH/C) and The Kraft Center for Community Health Leadership are embarking on an innovative five-year study called “The First 1,000 Days” to do just that.



Objective

To work across early-life systems to prevent obesity, promote healthy routines and behaviors, and reduce health disparities among vulnerable children and families.

The First 1,000 Days Program

The First 1,000 Days (conception to age 2) is a critical, but often overlooked, period of life for both maternal and child obesity prevention. Building on previous work, the research team will use a Collective Impact approach to develop, implement, and evaluate a systems-level intervention that leverages the early-life systems of:

- 1) Primary care (Obstetrics, Pediatrics, Adult Medicine)
- 2) Women, Infants and Children Program (WIC)
- 3) Maternal-Child Home Visiting Programs
- 4) Community Health Improvement



Preliminary Work

The team developed the First 1,000 Days program based on earlier findings and other studies that have shown that:

- Overweight/obesity disproportionately affects Black and Hispanic children and women of childbearing age. (1)
- Disparities in obesity prevalence are present already by 2 years of age, with Hispanic children ages 2-5 years having 5 times the risk of obesity, and Black children 3 times the risk, compared to whites. (1)
- Risk factors for obesity can be traced to early-life—pregnancy, infancy, and early childhood. (2)
- Obstetrics, Pediatrics, WIC and home visiting are important settings and programs for obesity prevention. (3,4)



1. Ogden CL et al. JAMA; 2014. 2. Taveras EM et al. Pediatrics; 2010. 3. Woo Baidal JA et al. Journal of Obesity; 2014, in press. 4. Criss S et al. Maternal Child Health; 2014, under review.

First 1,000 Days Program Components

Systems-Level		Individual	Socio-Environmental
Obstetrics, Pediatrics, & Adult Medicine— Practice change initiative to improve obesity prevention, screening, assessment and management.	<ul style="list-style-type: none"> • Training on obesity prevention • Coordination of messaging across early-life systems • Coordination of patient care for high-risk women • Health information technology tools to create a maternal-child population health registry 	<ul style="list-style-type: none"> • Coordination of care across early-life systems • Health coaching on behavior change (phone, email, text messages) • Educational materials 	<ul style="list-style-type: none"> • Linkage of families to community resources • Increases in social support for behavior change • Engagement of fathers and family members
WIC—Support nutritionists in obesity prevention			
Maternal-Child Home Visiting Program—Include obesity prevention curriculum in prenatal and postpartum visits.			
Community Health Improvement— Support greater linkages between clinical and community resources to prevent disparities.			

Methodology

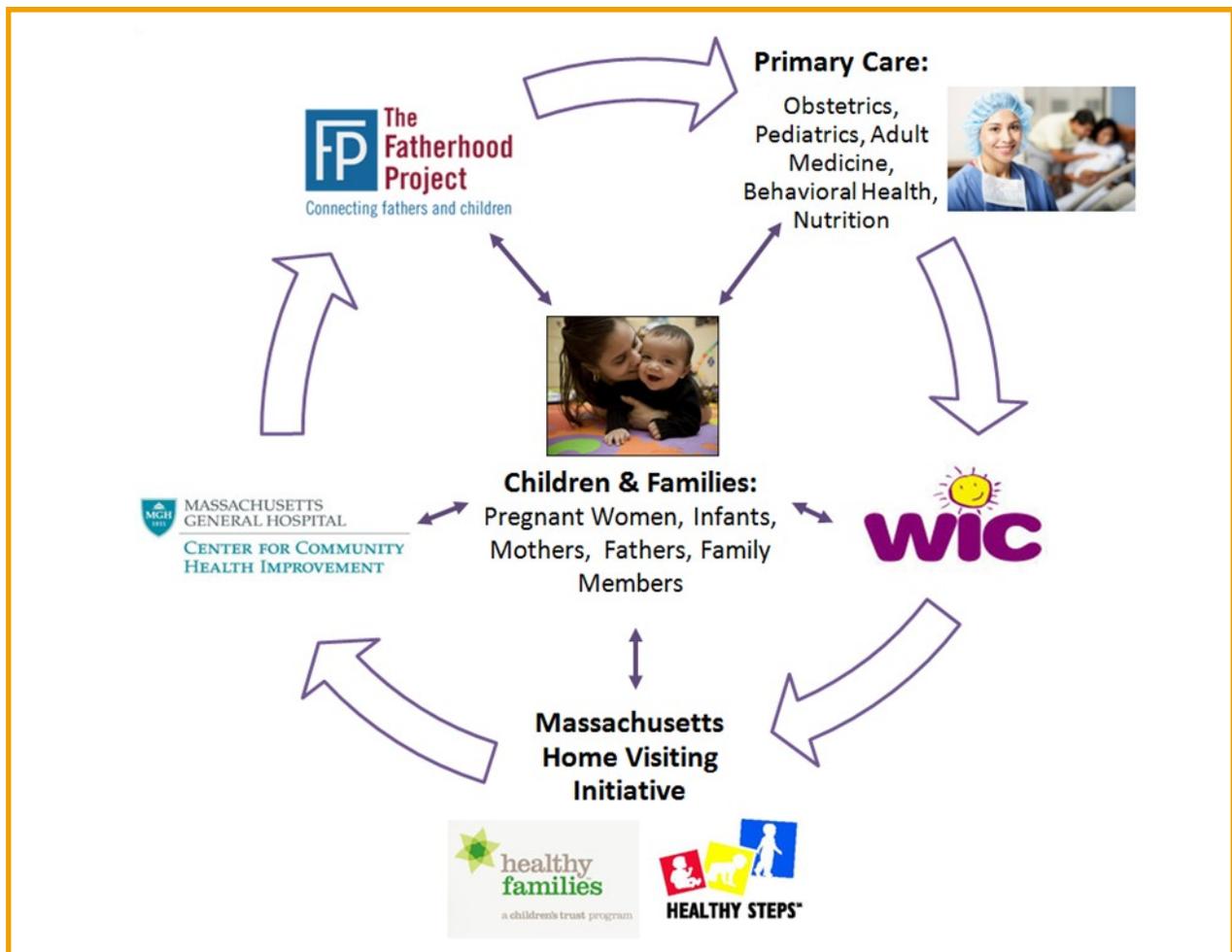
Collective Impact Initiative*: The first phase of the project will engage a diverse group of stakeholders from early-life systems to participate in a Collective Impact initiative. The stakeholders will inform and prioritize the program's components, and create system-wide changes to support obesity prevention efforts in several Boston-area community health centers.

First 1,000 Days Program: Following the Collective Impact initiative, the research team will create and implement a systems-level intervention to reduce obesity risk and related disparities among vulnerable families. Women will be enrolled in the first trimester of pregnancy and followed through the child's second birthday. We will evaluate the program's effectiveness using a quasi-experimental design.



*Kania J, Kramer, M. Collective impact. *Stanford Social Innovation Review*. 2011.

First 1,000 Days Program Partners



The First 1,000 Days Program Goals

1. Improve infant weight and growth trajectory
2. Decrease maternal postpartum weight retention
3. Improve weight status and behavior change within family units
4. Create sustainable systems-level changes
5. Reduce maternal-child obesity disparities



Future Directions

This study could provide the foundation for a widely disseminated model of obesity prevention for our state's and nation's most vulnerable families. The program is positioned to create sustainable systems-level changes to manage obesity and disparities in low-resource settings.

Leadership Team

The leadership team consists of partners at the MassGeneral Hospital *for* Children and affiliates, and The Kraft Center for Community Health Leadership. For more information contact Program Manager Meghan Perkins: meperkins@mgh.harvard.edu.



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