

NEW JERSEY BABY-FRIENDLY HOSPITAL INITIATIVE EVALUATION EXECUTIVE SUMMARY

OVERVIEW

New Jersey has the highest rate of obesity among low-income children ages two through five since 2008. Despite New Jersey being the fourth leanest state in the country with regard to adult obesity, the high rates of obesity among these young children present a growing epidemic. It is critical that evidence-based programs be implemented to stop early childhood obesity and halt this progression. Evidence suggests that breastfeeding, particularly exclusive breastfeeding for six months, can prevent obesity in children and even older adults. The longer the duration a child is breastfed, the less likely the child is to be overweight, be diagnosed with chronic diseases, and to experience infections. A growing body of research also finds that policies and practices in maternity care facilities impact breastfeeding. When hospitals implement policies and practices that support breastfeeding, mothers are more likely to breastfeed and to breastfeed for longer than mothers who deliver their babies in other hospitals without these practices. One such series of policies and practices is the World Health Organization and United Nations Children's Fund's 10 Steps to Successful Breastfeeding. Baby-Friendly USA is the US based agency that designates and recognizes hospitals that implement the 10 Steps.

The Ten Steps to Successful Breastfeeding

1. Have a written breastfeeding policy that is routinely communicated to all health staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the health benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within one hour of birth.
5. Show mothers how to breastfeed and how to maintain lactation, even if they are separated from infants.
6. Give newborn infants no food or drink other than breastmilk unless *medically* indicated.
7. Practice "rooming in" – allow mothers and infants to remain together 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no pacifiers or artificial nipples to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

The New Jersey Baby-Friendly Hospital Initiative (NJ BFHI) is an initiative of the New Jersey Department of Health, Office of Nutrition and Fitness and **ShapingNJ**, the statewide public-private partnership for obesity prevention. It is funded by the Centers for Disease Control and Prevention through the Communities Putting Prevention to Work – State and Territorial Initiative. The American Academy of Pediatrics, New Jersey Chapter and the Pediatric Council on Research and Education (PCORE) coordinated and administered the NJ BFHI.

The NJ BFHI aimed to improve New Jersey maternity care practices and policies in support of breastfeeding with the ultimate goal of reducing obesity. More specifically, the project aimed to:

- Increase from zero to at least two the number of hospitals designated as Baby-Friendly
- Master at least two steps from the 10 Steps to Successful Breastfeeding in all grantee hospitals

PROJECT DESCRIPTION

To accomplish the NJ BFHI objectives, several key project activities occurred.

Project kick-off and statewide summit “Bringing Baby-Friendly to New Jersey: A Challenge to Change”

Multi-disciplinary teams, including administrative decision-makers, physicians, nurses, and lactation support professionals, from 46 out of 52 New Jersey hospitals attended the summit.



\$10,000 mini-grant request for applications

All New Jersey maternity care hospitals were eligible to apply for the mini-grant opportunity. Sixteen hospitals submitted completed applications. Ten hospitals were awarded the mini-grants based on the socio-demographic factors in the population they served, differences in health outcomes among their delivery population and hospital readiness to implement the 10 Steps.

Grantee hospital leadership training

The 10 grantee hospitals attended a leadership training session during which they each presented a story board about the status of breastfeeding policies, practices and rates. The hospitals also received training about the 10 Steps, expectations of their participation in the NJ BFHI, and quality improvement methodology to carry out environmental changes required for designation.



Ongoing technical assistance

Each hospital prioritized two steps to implement and master during the project. Hospitals applied a quality improvement method – Plan, Do, Study, Act Cycle – to these steps. PCORE-led monthly technical assistance teleconferences for action period support and guidance, as well as collaborative sharing between hospitals as they implemented these steps and others.

Hospital site visits

Project staff visited all of the hospitals soon after launch and provided education and guidance to the hospital grantees. For hospitals that were close to assessment by Baby-Friendly USA for designation, project staff conducted additional on-site “mock assessments” to prepare the hospitals for their inspections.

Project end summit, “Teaming Up to Shape Our Region: A Pathway to Baby-Friendly”

A multi-state summit concluded formal activities for the NJ BFHI. Representatives from New Jersey, New York, Connecticut, and Pennsylvania attended and shared their ongoing efforts around the 10 Steps. New Jersey grantee hospitals highlighted their project accomplishments and also shared their lessons

learned with hospitals from New Jersey and the region.

The NJ BFHI has two target groups. The short-term target of the project was maternity care hospitals in New Jersey and this project reached 10 of the 52 hospitals (19 percent). The long-term target of NJ BFHI is infants born in maternity hospitals. The NJ BFHI will potentially reach 17,309 births in the 10 hospital grantees each year. This represents approximately 20 percent of births in New Jersey, based on data from 2009.

EVALUATION FOCUS AND METHODS

The NJ BFHI evaluation addresses both processes and outcomes of the NJ BFHI. Five evaluation questions guide this evaluation:

1. What barriers and facilitators did hospitals experience implementing the 10 Steps?
2. To what extent did hospitals master at least two steps?
3. How did the grantee delivery facilities move along the 4-D Pathway toward achieving Baby-Friendly designation?
4. How many hospitals achieved Baby-Friendly status?
5. To what extent, and under what conditions, did breastfeeding rates in grantee hospitals change?

The evaluation follows a collaborative evaluation approach by which the focus, questions, methods, analyses, and interpretations are conducted by a group of stakeholders critical to implementing recommendations from the evaluation.

The NJ BFHI evaluation employs a mixed method, non-experimental design and uses three main data sources.

Technical Assistance Call Notes

Detailed call notes from the monthly technical assistance calls were analyzed to identify similarities about grantee hospitals' barriers and facilitators to implementing the 10 Steps. Information from the call notes was also used to monitor the grantee hospitals' progress through the process to obtain Baby-Friendly designation.

Modified Baby-Friendly Hospital Self-Appraisal Tool

At project beginning and end, grantee hospitals completed a modified Baby-Friendly Hospital Self-Appraisal Tool. The tool breaks down each of the 10 steps into several components and asks hospitals to what extent they mastered each of the components. The number of mastered steps were tallied and compared between project beginning and end.

New Jersey Electronic Birth Certificate

To measure changes in exclusive breastfeeding rates, exclusive breastfeeding rates documented in the New Jersey Electronic Birth Certificate were compared before and at project end. A paired t-test was conducted to determine if the changes were significant.

KEY RESULTS

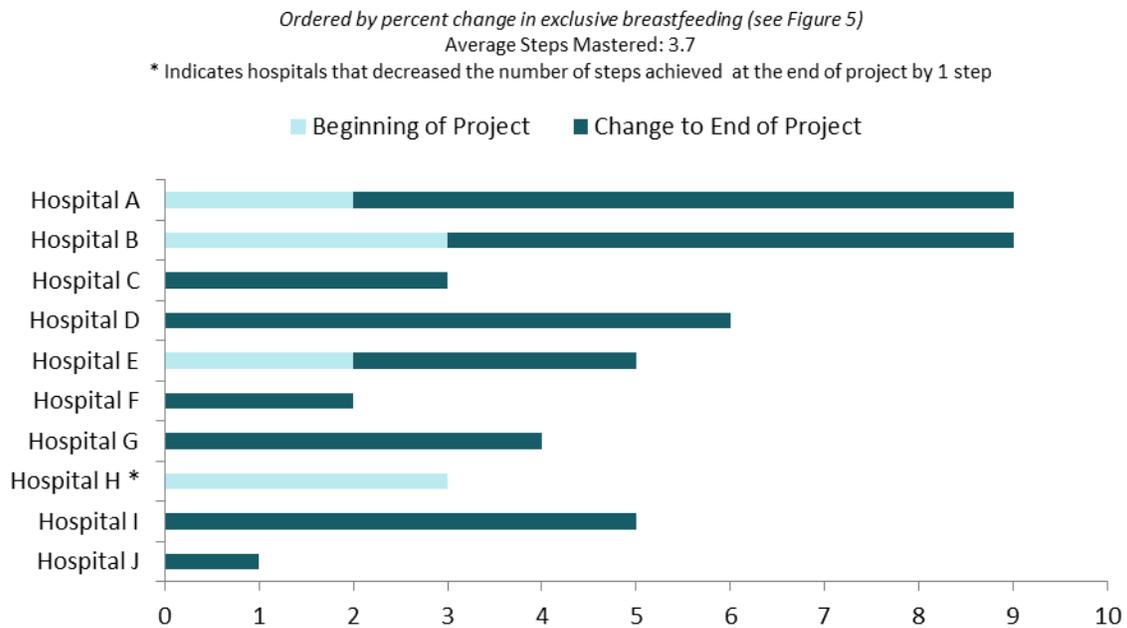
Commonalities in Implementing the 10 Steps

- Consistent and accurate documentation is critical to the process of implementing the 10 Steps.
- As maternity care practices make changes in policies and procedures, staff must also make changes their routine practices.
- Strong steering committees help hospitals implement changes in practices and policies to support breastfeeding.
- Engaging hospital leadership in the process facilitates cultural change around breastfeeding.
- Celebrating accomplishments and brining publicity around the process helps to reenergize employees.
- NJ BFHI formed a collaborative of hospitals that provided peer learning, mentoring, guidance and on-site support to maternity care facilities implementing the 10 Steps.

Mastering the Ten Steps

- Eight out of 10 hospitals mastered at least two steps and on average, grantee hospitals mastered nearly four steps.

Number of Steps Mastered in NJ BFHI



Baby-Friendly Designation

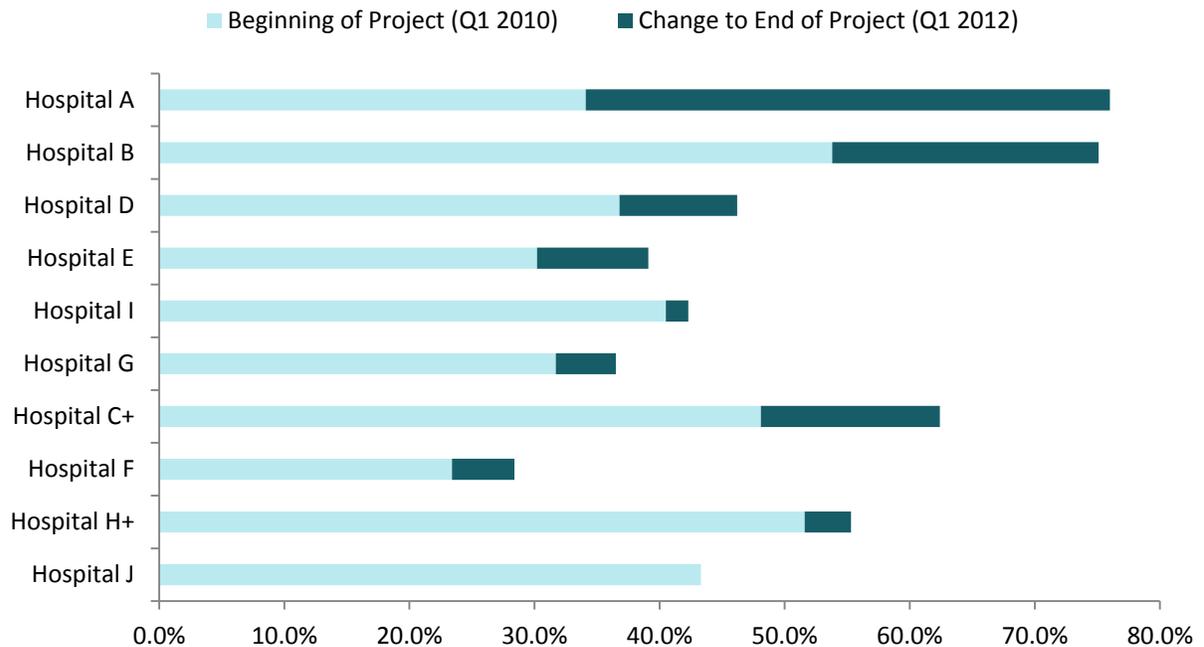
- Three grantees received Baby-Friendly Designation.
- One hospital was designated in March 2012 and two received designation in October 2012.

Changes in Breastfeeding Rates

- Overall, exclusive breastfeeding rates increased over 11 percent during the project in the grantee hospitals.
- Rates increased significantly in eight of the 10 hospitals.
- Exclusive breastfeeding rates in the NICU also increased in some hospitals.
- A correlation existed between the number of steps hospitals mastered and the rate of exclusive breastfeeding at the end of the project.

NJ BFHI Exclusive Breastfeeding Rates, Non-NICU Discharge

Ordered by total steps mastered (See Figure 3)
 Total Exclusive BF Rate Q1 2010: 38.6%
 Total Exclusive BF Rate Q1 2012: 49.8%
 + Indicates Level 2 NICU nursery



LESSONS LEARNED AND RECOMMENDATIONS

Policy and environmental changes in maternity care practices take time to implement.

Often, there is a delay between the implementation of these changes and measurable changes in behaviors and health outcomes. Changes must be institutionalized and maintained.

Recommendation

- Grantee hospitals should continue to monitor their exclusive breastfeeding rates as well as those of their peers to better understand the long-term impact of this project. Exclusive breastfeeding rates may also be monitored using the NJ DOH's annual report, Breastfeeding and Maternity Hospitals: A Comparative Report.

Implementing staff and patient education at the beginning of the process facilitated the implementation of other steps.

Education is the foundation because it provides knowledge and resources for staff and patients about the need for and importance of breastfeeding. Gaining the support and buy-in of physicians is particularly important to implementing the 10 steps. Those hospitals that were able to overcome the challenge of engaging physicians in education made additional strides in other steps.

Recommendation

- Hospitals and breastfeeding support teams should initially work to engage and obtain the buy-in of physicians. Some hospitals found success including physicians on steering teams, offering continuing education credits or relying on a physician champion to model and promote breastfeeding-related practices.
- Hospitals implementing the 10 Steps to Successful Breastfeeding should first provide staff and patient education around breastfeeding (Steps 2 and 3). More complex changes that depend on staff coordination (such as those required for Step 4: Skin to Skin and Step 6: Supplementation) should be addressed after education and training, once the foundation for breastfeeding support is laid and the cultural shift begins among staff.

Implementing the 10 Steps is amenable to a quality improvement model.

Both the 10 Steps and quality improvement models require taking multiple small steps to implement each larger step. Hospitals are familiar with the quality improvement model as it is used in a variety of other medical areas.

Recommendation

- Hospitals should consider applying a quality improvement model such as the Plan Do Study Act (PDSA) cycle to implement the 10 Steps. These models may be particularly useful when implementing steps that are especially challenging for hospitals and require multiple small changes to occur for the overall step to be achieved. In addition, quality improvement methodology works best for steps that require changes in the way patients are cared for, such as Steps 3-10.

The NJ BFHI collaborative was an effective and helpful structure for the grantee hospitals.

The NJ BFHI collaborative provided hospitals the opportunity to share creative, innovative and successful methods and solutions for overcoming barriers and implementing the steps with other hospitals. The collaborative was also successful in shifting the cultural norms of leadership within hospitals to change practices, such as implementing the International Code of Marketing of Breastmilk Substitutes (distributing industry marketing materials and paying for formula). Overall, this collaborative process allows for peer learning and support to hospitals while respecting their distinctiveness.

Recommendation

- The NJ BFHI Collaborative should be maintained and expanded to continue to support hospital grantees towards Baby-Friendly designation. The collaborative should also be opened to other maternity hospitals in the state that are implementing the 10 Steps to Successful Breastfeeding to encourage additional peer learning and facilitate their work to support breastfeeding through maternity care policies and practices.
- A BFHI Expert Network should be established and partnered with the NJ BFHI Collaborative. The network should include individuals who are particularly knowledgeable about implementing the individual steps.
- The BFHI Expert Network would provide mentoring and guidance to maternity hospitals who are changing their maternity care policies and practices to better support breastfeeding. These activities would include trouble-shooting with hospitals, making hospital site visits and conducting mock site inspections to hospitals prior to their Baby-Friendly inspections.

Seeking and obtaining Baby-Friendly designation has associated costs, however this initial investment has the opportunity to increase market share and recapture revenue.

Costs begin at \$9,000 register for the four phases of the Baby-Friendly USA 4-D Pathway and include additional costs incurred implementing the 10 Steps, such as procurement of formula and supplies at fair market value. A recently published cost-benefit analysis of the BFHI has demonstrated that these costs are minimal in the overall budget of a hospital and may be offset by improvements in care, reduced morbidity, and increased patient satisfaction.

Recommendation

- Future efforts should consider conducting further cost-benefit analysis of the Baby-Friendly hospital process to determine the impact of Baby-Friendly designation on a hospital's financial bottom line. Further, it may be helpful for hospital administrators to see how the investment relates to increases in breastfeeding rates and ultimately improved health outcomes for their hospital catchment population.
- Statewide agencies should consider providing hospitals with incentives, programs or other initiatives to make implementing the 10 Steps equally possible for all hospitals throughout the state. These programs may provide additional resources to help support hospitals through this process or they may provide benefits for those hospitals that achieve designation.