

Birth and Beyond California

Hospital Breastfeeding Quality Improvement and Staff Training Demonstration Project

Location: California

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Category: **Promising Practice**

BACKGROUND

Many medical and professional organizations, including the AAP, ACOG and APHA, have published position papers reporting that optimal infant nutrition is achieved by “Exclusive” breastfeeding for at least the first six months of life. Bartick and Reinhold (2010) published a report in *Pediatrics* stating, if 90% of US families could comply with medical recommendations to breastfeed exclusively for six months, the United States would save \$13 billion per year and prevent in excess of 911 deaths, nearly all of which would be infants. Not breastfeeding increases the risk for acute and chronic disease for mothers and their infants.

Between 1994 and 2007, the “Any” breastfeeding rates have steadily climbed in California from 77% to 87%. The increase indicates that more women are attempting to breastfeed in the hospital; however, the data also indicate that while more mothers are choosing to breastfeed, babies continue to receive supplemental formula feedings while in the hospital. During the same time period, the “Exclusive” breastfeeding rates have remained flat and the gap between “Any” and “Exclusive” breastfeeding rates, which indicates those babies that receive human milk supplemented with formula, has widened. This highlighted the need to improve maternity care practices in the state that support “Exclusive” breastfeeding.

PROGRAM OBJECTIVES

The overarching goal of the Birth and Beyond California (BBC) Project is to improve “Exclusive” breastfeeding initiation by enhancing attachment for all new mothers and their infants, preventing separation of mothers and their infants, encouraging skin-to-skin contact, and honoring a mother’s decision to breastfeed.

Project objectives included:

- Developing an objective process to recruit hospitals
- Enrolling and retaining hospitals in the project

TITLE V/MCH BLOCK GRANT MEASURES ADDRESSED
#4: A) Percent of infants who are ever breastfed and B) Percent of infants breastfed exclusively through 6 months

- Selecting California Model Hospital Breastfeeding Policy Recommendations to address by each hospital
- Developing core curricula for use in the BBC Project

TARGET POPULATION SERVED

The BBC conducted activities with 23 hospitals in three Regional Perinatal Programs of California regions. These regions had the lowest “Exclusive” breastfeeding rates and accounted for approximately half of the 500,000+ California births.

PROGRAM ACTIVITIES

Self-efficacy was the theoretical model for addressing hospital staff’s belief in their own competence to adopt policies and practices that supported exclusive breastfeeding initiation in the hospital. The BBC Project was initially modeled after an earlier successful project, known as Birth and Beyond, which was developed by the Perinatal Services Network (PSN) at Loma Linda University under the leadership of Carol Lopez Melcher and is now called the *SOFT © Hospital* project (see carolmelcher.com). The project was also an adaption of the Miller Children’s Hospital Long Beach’s Gentle Transition Training. The BBC Project was designed to implement quality improvement in maternity care over a four year period and included the following activities:

Project Promotion and Requirements

Decision-Maker Workshop: This 2 hour workshop was developed to promote BBC and gain the confidence and support of hospital administrators as partners in the project. One of the most important benefits was to inform hospital administrators about the barriers to breastfeeding within their institutions and to develop feasible strategies to improve “Exclusive” breastfeeding initiation rates.

Quality Improvement

Develop Effective Hospital Maternity Multi-disciplinary Quality Improvement (QI) Teams: Shortly after initiating the

first cycle, it became evident that in many hospitals, the established interdisciplinary teams who were working on maternity care did not address infant feeding QI activities. By the second cycle, hospitals were required to demonstrate commitment to developing a strong interdisciplinary maternal-infant QI team.

Policy and Procedure Review and Revision: The interdisciplinary team performed hospital breastfeeding policy evaluation, addressed institutional barriers to breastfeeding, and committed to ongoing breastfeeding staff education.

Technical assistance and tools for data collection and analysis: BBC staff attended interdisciplinary team meetings and provided technical assistance at all participating hospitals to assist them in QI development. BBC staff made suggestions and supported efforts to collect and analyze data related to breastfeeding policies and practices.

BBC Regional QI Network

Monthly meetings or teleconferences: BBC Regional QI Network Meetings, either face-to-face or via teleconferences, were designed for managers and leaders from participating hospitals to share ideas and strategies to overcome barriers to “Exclusive” breastfeeding. Network participants included hospital leaders, nurses and lactation educators, collectively providing support to implement breastfeeding QI activities.

Training

Learner Workshop (16 hours): This was only provided after hospitals had a multi-disciplinary QI team established within maternity care. Within each participating BBC hospital, BBC trainers provided a Learner Workshop for an average of 20 staff members. The BBC course is divided into two eight-hour days usually separated by two weeks. The Learner Workshop provided an opportunity for experiential learning by observing and supporting early maternal-infant bonding through skin-to-skin contact.

Train-the-Trainer (8-16 hours): Sustainability was built into BBC. Hospital administrators selected staff from those who attended the BBC Learner Workshop to receive additional training and gain experience in teaching the BBC curricula by attending a Train-the-Trainer Workshop. These Workshops were held region-wide, once each cycle, to develop a training team for each hospital.

The project was implemented from 2007-2009. The Maternal, Child and Adolescent Health (MCAH) Program of the Center for Family Health, California Department of Public Health initiated funding and development of the project in 2007 and implementation in the first hospitals began in 2008. The initial development of the project took six months. This was followed by three six-month cycles of implementation, during which improvements were incorporated as lessons were learned and applied. BBC was initially designated to be a four year demonstration project; however, due to state

budget cuts, MCAH was forced to end the project after two years.

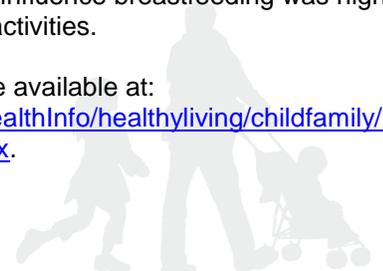
PROGRAM OUTCOMES/EVALUATION DATA

The BBC developed an Evaluation Toolkit, which includes tools to monitor progress toward implementing model hospital breastfeeding policies and practices. The tools assist staff in implementing the Plan, Do, Check and Act (PDCA) quality improvement process. The PDCA Model for the BBC project involve the following: **Plan:** Hospital Self-Appraisal; **Do:** Breastfeeding education & training, regional network meetings; **Check:** 6-month follow-up; and **Act:** Implement changes, tackle barriers and benchmark successes.

Pre-test and post-test surveys were administered for the Decision Maker, Learner Workshop and Train the Trainer workshops to measure increases in knowledge base. For the Learner workshop, A Participant Self-Efficacy Scale was administered to the Learner workshop to measure perceptions of participant ability to successfully implement breastfeeding quality improvement initiatives. The scale assesses staff self-confidence to make improvements to maternity care policies and practices that support breastfeeding before and at least six months after participating in the Learner Workshop. *California’s Model Hospital Breastfeeding Policies Self-Appraisal Questionnaire* was the primary tool used by participating hospitals to track their progress in implementing evidence-based maternity care that supports breastfeeding. The assessments were conducted at three different time periods: baseline, six months and one year.

The project and its evaluation components were still under development at the time funding ceased. Preliminary findings, though limited, were suggestive of increased participant knowledge and feelings of self-efficacy. Overall, the impact of the BBC Project on participants’ ability to improve breastfeeding policies and practices was positive. Twenty-three hospitals participated in the project and 685 hospital staff, including administrators, physicians, nurses, lactation consultants, registered dietitians and other ancillary staff received training from BBC staff. Participants actively engaged in practice changes that would influence breastfeeding practices in the maternity setting. The BBC project assisted participating hospitals to implement California’s Model Hospital Breastfeeding Recommendations. The self-efficacy of participants regarding their ability to make improvements in hospital policies and practices that influence breastfeeding was high after participating in BBC activities.

All evaluation materials are available at:
<http://www.cdph.ca.gov/HealthInfo/healthyliving/childfamily/Pages/Evaluationtoolkit.aspx>.



PROGRAM COST

The program was funded through the Maternal, Child and Adolescent Health Program of the California Department of Public Health. This practice included the original development of tools to enhance the evidence-based and improvements of the materials based on the ongoing evaluation. For this reason, the costs were greater than they would be for those duplicating the project. The cost to develop the program and serve 23 hospitals was \$1 million. This averages out to \$43,478 per hospital spent during the two years of implementation; the first 6 months were for development of the project. This does not include hospitals that have used the program without being part of the formal BBC during program implementation and that have used the BBC materials since the state's funding ceased.

ASSETS & CHALLENGES

Assets

The Center for Family Health of the California Department of Health Services published the *Breastfeeding: Investing in California's Future* report in 2007 that noted large gaps. "Any" and "Exclusive" breastfeeding may result from excessive or routine supplementation practices. The series of University of California, Davis, Human Lactation Center reports further highlighted the gap between in-hospital "Any" and "Exclusive" breastfeeding rates. These reports, which were funded and distributed by the California WIC Association, were highly publicized through major media markets. The attention generated by these publications provided substantial motivation for many hospitals, especially those in the areas targeted by BBC, to seek changes in their breastfeeding policies.

Challenges

As noted above, the project was originally intended to be implemented as a four-year demonstration project but had to end after two years due to state budget cuts. The project did encounter and address several challenges during implementation, which included:

Implementing training with no supplemental funds:

The lack of additional funding to compensate for staff coverage during staff training was a significant challenge. However, some hospitals were able to obtain grant funding and others were able to allocate funding by rescheduling education days normally occurring throughout the year.

Assuring infant safety: Nurses' concerns regarding the infant's temperature stability and the mother's ability to care for her infant immediately postpartum were discussed during the Learner Workshop by providing participants with simulation opportunities and developing plans of care to keep the infants safe.

Implementing skin-to-skin for Cesarean births continues to be a challenge for many hospitals, primarily those that do

not have surgical services within the maternity unit. A number of hospitals addressed this issue as a quality improvement initiative.

Acquiring physician support and buy-in

Obtaining physician support was a major hurdle for many hospitals. Physician members of the network offered many suggestions, such as: provide the Pediatric and Obstetric committees and department chairs with breastfeeding updates; include physician representation in the multi-disciplinary quality improvement team; and develop individual hospital breastfeeding physician champions by providing physician-focused breastfeeding continuing medical education opportunities.

Reducing formula supplementation: Hospitals identified a number of methods to reduce formula supplementation, including: perform chart review and collect data focused on formula supplementation; require careful documentation of the medical indication for supplementation; and decrease accessibility of infant formula by storing infant formula with medications.

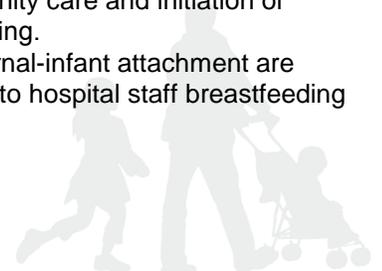
Eliminating free formula bags: Several hospitals identified the elimination of free gift bags that included free formula and coupons for its purchase to new mothers as a major challenge. Strategies included engaging hospital auxiliary and/or hospital marketing executives to provide alternate gifts for new mothers such as a hospital-specific bag containing infant shirts decorated with the hospital logo.

Additionally, there were anticipated challenges that never occurred. Examples of these include: Physicians were not opposed to mothers and babies having time for skin-to-skin interactions immediately after birth; Mothers, family and staff did not object to skin-to-skin time before bathing the baby; Visitors did not object when asked to leave for skin-to-skin and bonding time; and mothers did not object to not receiving a free formula gift pack at hospital discharge.

LESSONS LEARNED

Several lessons were learned throughout and as a result of this project:

- Hospital administration must form a multi-disciplinary QI team charged with implementing evidence-based policies and practices that support breastfeeding within the maternity care setting prior to initiating staff training.
- Hospital networks provide critical opportunities to share strategies and methods to overcome barriers to evidence-based maternity care and initiation of "Exclusive" breastfeeding.
- Skin-to-skin and maternal-infant attachment are essential components to hospital staff breastfeeding training.



- Hospitals need to develop internal trainers to sustain staff competency and provide ongoing breastfeeding education to new and current staff.

FUTURE STEPS

Although not part of the BBC Project, members of the San Joaquin Breastfeeding Consortium participated in Los Angeles RPPCs BBC Learner and Train-the-Trainer Workshops. In collaboration with MCAH, the San Joaquin Breastfeeding Consortium offered these trainings to the staff from all six hospitals in San Joaquin County. The Consortium's goal is to improve county-wide breastfeeding rates, and some hospitals are now pursuing Baby-Friendly designation.

While the BBC Project as a whole did not receive funding beyond two years, PAC/LAC received limited funds to provide ongoing BBC technical assistance through June 2011. As a result, more hospitals were trained, including: Ventura County Medical Center in Santa Paula and Ronald Reagan UCLA and Valley Presbyterian Hospitals.

In addition to the original 23 hospitals that participated in the BBC Project, 13 more hospitals have successfully completed this project without the support of MCAH BBC funding. New hospital breastfeeding quality projects in California will continue to use the lessons learned from this project.

COLLABORATIONS

MCAH collaborated with local Regional Perinatal Programs of California (RPPC) coordinators to manage the program through contractual agreements. RPPC Coordinators identified experienced and knowledgeable staff in each hospital to provide the direct services, including development of multidisciplinary teams, coordinating Network meetings of representatives from each hospital, and developing and improving trainings. The BBC Project was also built on existing collaborative relationships with Carol Melcher and Miller Children's Hospital Long Beach.

Sub contractual collaboration occurred with Internationally Board Certified Lactation Consultants (IBCLCs) to develop and implement training. BBC's work with the hospitals was a collaboration, and as participation was voluntary no funds were provided directly to the hospital.

PEER REVIEW & REPLICATION

The results and outcome of the Birth and Beyond California Project has been widely presented, including at the Weight of the Nation, the Academy of Breastfeeding Medicine Conference, the Centers for Disease Control and the Prevention Obesity Contractors Meeting, the National Conference of State/Territorial/Tribal Breastfeeding Coalitions, the California Childhood Obesity Conference, the Association of Maternal & Child Health Programs, and the California Hospital Breastfeeding Summit.

While the project has not been replicated outside of California, 13 other hospitals successfully implemented the BBC project after funding was cut. The BBC Team has developed recommendations to implement this project based on the experiences gained and lessons learned throughout the BBC Project. Resources include an implementation guide that birthing facilities can use to tailor the components to fit the needs of their maternity service.

The BBC Project curriculum has been modified by two different Southern California organizations to include new Baby Friendly requirements. We recommend that BBC be replicated yet tailored to the needs of the hospitals and their communities. Materials are available at <http://cdph.ca.gov/BBCProject>.

RESOURCES PROVIDED

Curricula, trainer notes, evaluation tools, and other supportive materials for implementing this project are posted at <http://cdph.ca.gov/BBCProject>.

Key words: Breastfeeding, Quality Assurance, Workforce & Leadership Development, Birth Outcomes, Nutrition & Physical Activity, Health Promotion, Primary/Preventive Health

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