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Promoting Baby-Friendly Hospitals in Los Angeles County:

Financial and Technical Assistance Improve Breastfeeding Rates

Introduction

Breastfeeding is widely recognized as a low-cost, low-tech preventive intervention with far-reaching health benefits for both mothers and babies. Increasing breastfeeding rates is therefore a major public health strategy for protecting and improving health and reducing health disparities. Research also indicates that breastfeeding is an effective strategy for preventing obesity[1], one of the most significant current public health challenges in the United States.

Hospitals that provide maternity services play a fundamental role in promoting breastfeeding. Baby-Friendly hospital designation is earned by implementing the *10 Steps to Successful Breastfeeding*[2] which increase mothers' likelihood of exclusively breastfeeding upon hospital discharge.[3] An onsite external review from Baby-Friendly USA[4] ensures that this high standard is met before designation.

Becoming Baby-Friendly "compels facilities to examine, challenge and modify longstanding policies and procedures. It requires training and skill building among all levels of staff. It entails implementing audit processes to assure quality in all aspects of maternity care operations."[5] Such systems change can be a complex process requiring investment of significant resources, thus hospitals may benefit from financial and technical assistance from external agencies.

Since 2010, many hospitals in Los Angeles County have been recipients of Baby-Friendly Hospital grants from First 5 LA (F5LA).[6] F5LA grantees receive funds over three years to spend on employing a Baby-Friendly Coordinator and Data Collector, training staff, and implementing the *10 Steps*. Grantees are assigned a Program Officer who can provide project assistance.[7] To be eligible for funding, hospitals need to have exclusive breastfeeding rates below the County average.

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Twenty eligible hospitals have received awards since program inception: seven in Funding Cycle 1 (2010), eight in Cycle 2 (2011), and five in Cycle 3 (2013).

Independent of the F5LA grants, the Los Angeles County Department of Public Health (DPH) was awarded a Communities Putting Prevention to Work (CPPW) grant from the Centers for Disease Control and Prevention (CDC) in 2010. BreastfeedLA[8] was subcontracted to offer individualized technical expertise to the three LA County public hospitals that offer maternity services and assist them in achieving Baby-Friendly designation. None of the hospitals received F5LA or other external funding. All three hospitals achieved designation by 2012. This successful initiative offered an effective model for how to provide technical assistance to other hospitals pursuing designation.

When DPH was awarded a CDC Community Transformation Grant (CTG) in 2012, BreastfeedLA was again subcontracted to offer technical assistance to additional hospitals on the Baby-Friendly pathway. BreastfeedLA released a call for applications for their BEST (Bringing Education, Systems-change, and Technical assistance to you) project in June 2012 with implementation beginning that Fall. Hospitals with low breastfeeding rates and with a high proportion of Medi-Cal, African American and/or Hispanic births were given priority. Participation in BEST included meetings with hospital administrators, one-on-one coaching, monthly learning collaborative meetings, access to resources, and a full-day onsite mock survey. BEST often served as an intermediary between the hospitals and Baby-Friendly USA, clarifying questions about Baby-Friendly requirements, and creating and sharing resources, while simultaneously equipping hospital staff with change management and conflict resolution skills.

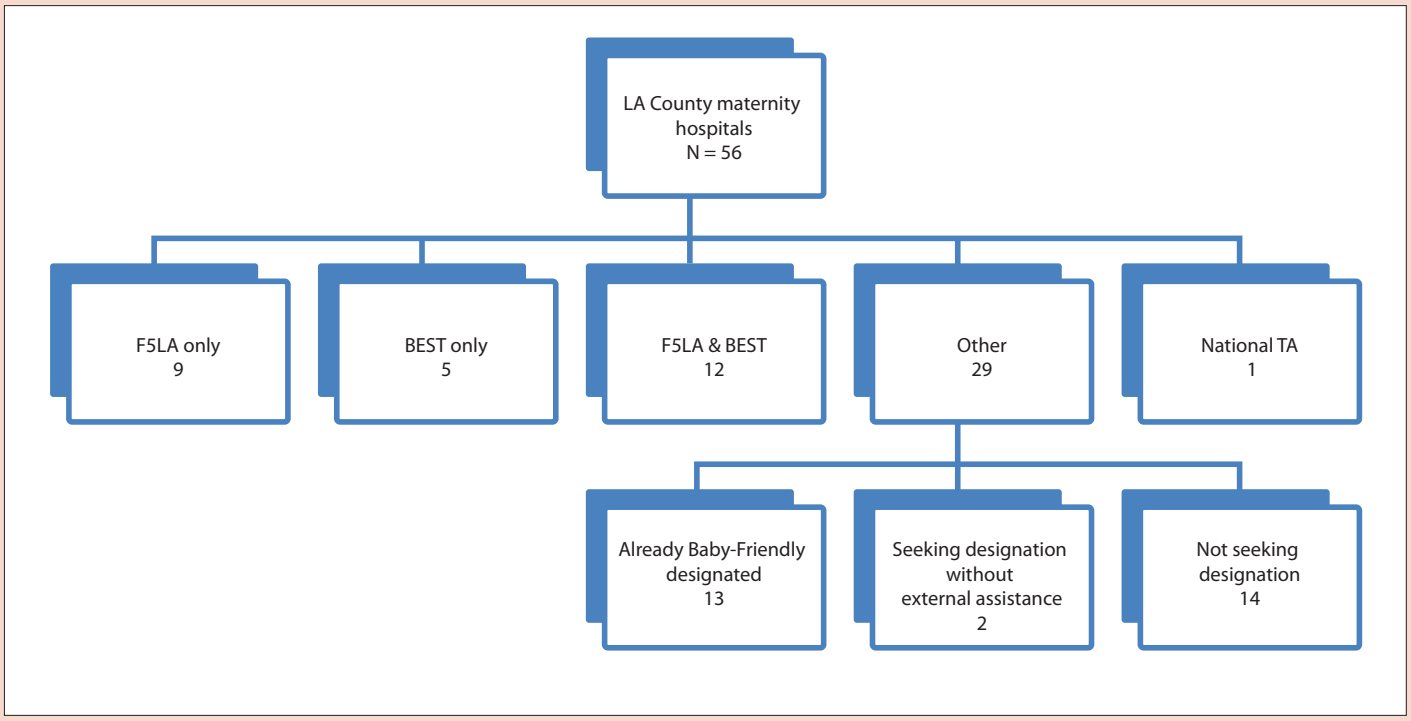
F5LA did not require their grantees to participate in BEST, nor vice versa, though twelve hospitals participated in both projects. The purpose of this current analysis is to evaluate the impact of BEST and F5LA projects on in-hospital exclusive breastfeeding rates.

Methods

To determine the impact of BEST and F5LA projects, we classified all maternity hospitals in LA County into one of five categories based on the type of external assistance they received (*Figure 1*). The categories were:

1. F5LA-funded, not participating in BEST
2. BEST participants, not funded by F5LA
3. F5LA funded and BEST participants
4. National technical assistance (TA) recipient
5. Other

Figure 1: Hospital Categories[9]



The California Department of Public Health (CDPH) uses the Newborn Screening Test Form to collect breastfeeding initiation and exclusivity data for all maternity hospitals in the state and releases a report of this data annually. We used this data to assess change in hospital exclusive breastfeeding rates (EBF) from 2012 to 2013 for each hospital in LA County. We identified absolute percentage change from 2012 to 2013. Using the categories defined above, we then compared each category's change in rates over the two-year study period. The exclusive breastfeeding rates for all categories are weighted averages based on each hospital's annual number of deliveries.

Results

The percentage of mothers in Los Angeles County who exclusively breastfed increased from 49.3% in 2012 to 53.3% in 2013, an absolute increase of 4.0% (*Table 1*). The increase was higher among mothers who gave birth at hospitals that received support through both F5LA and BEST (9.8%) than at hospitals that received only F5LA support (2.5%) or only BEST support (0.3%). The National TA category includes one hospital that participated in the National Institute for Children's Health Quality (NICHQ) Best Fed Beginnings[10] technical assistance project and saw the most significant increase in EBF (13.7%).

Table 1: Exclusive Breastfeeding, all hospital categories

Category	2012 EBF* (%)	2013 EBF (%)	2012-13 change (%)
Los Angeles County n=56[11]	49.3	53.3	4.0
F5LA only n=9	36.4	38.9	2.5
BEST only n=5	58.3	58.6	0.3
F5LA and BEST n=12	38.0	47.8	9.8
National TA n=1	50.0	63.7	13.7
Other n=29	60.6	61.6	1.0

* Exclusive Breastfeeding

The Other category includes hospitals seeking Baby-Friendly designation without external assistance, those not working toward Baby-Friendly designation, and those designated Baby-Friendly prior to 2012. When the thirteen hospitals designated Baby-Friendly prior to 2012 were extracted from the Other category, their rates showed an average increase of 1.5 percentage points (from 67.4% in 2012 to 68.9% in 2013). The sixteen remaining hospitals in the Other category showed an increase of 0.6%, from 55.9% to 56.5%.

Four of the five hospitals in the BEST-only category showed increases in breastfeeding rates, with one outlier (E) that brought the average down significantly (*Table 2*). The outlying hospital struggled to maintain support from its administration to keep Baby-Friendly a priority and was thus unable to participate fully in BEST. Excluding the outlier, the average increase of the four remaining BEST hospitals is 5.5%.

Table 2: BEST-only Hospitals

BEST Hospital	2012 EBF (%)	2013 EBF (%)	2012-13 change (%)
A	7.1	11.5	4.3
B	61.2	67.8	6.6
C	59.3	64.4	5.1
D	81.9	84.5	2.6
E	45.7	34.5	-11.2

One F5LA-only hospital (N) recorded its data inaccurately in 2012 and correctly in 2013, making its significant rate decrease artificial (*Table 3*). When we exclude this outlier hospital from the F5LA category, the average increase in exclusive breastfeeding rises from 2.5% to 4.6%.

Table 3: F5LA-only Hospitals

F5LA Hospital	2012 EBF (%)	2013 EBF (%)	2012-13 change (%)
F	41.1	36.5	-4.6
G	43.9	50.7	6.8
H	38.0	46.5	8.5
I	31.7	33.2	1.5
J	7.6	11.4	3.8
K	35.9	49.5	13.6
L	38.5	42.4	3.9
M	27.9	30.8	2.9
N	83.6	58.0	-25.6

Discussion

Both financial assistance and technical assistance increase exclusive breastfeeding rates. Five of the hospitals in the F5LA & BEST category received Baby-Friendly designation in 2014, while none of the F5LA-only or BEST-only hospitals have done so. This suggests that the combination of financial and technical assistance is considerably more effective in achieving the Baby-Friendly designation than either intervention alone. When significant outlier hospitals were excluded from the analysis (one hospital from the F5LA category and one from the BEST category), the average EBF rate change rose from 2.5% to 4.6% in the F5LA category and from 0.3% to 5.5% for BEST. These results, alongside the F5LA and BEST category rate change of 9.8%, suggest that when funding support and technical assistance are combined, they produce an additive benefit.

The successful designation of the three County public hospitals during CPPW without any additional funding for the hospitals, and the impressive increase in EBF in the one hospital that participated in the NICHQ technical assistance initiative, demonstrate that technical assistance alone also can provide significant value.

Baby-Friendly technical assistance needs are only expected to increase in coming years. In 2013, California adopted legislation requiring all general acute care hospitals and special hospitals that have a perinatal unit to adopt the *10 Steps to Successful Breastfeeding* per Baby-Friendly USA's Baby-Friendly Hospital Initiative, or an alternate process that includes evidence-based policies and practices and targeted outcomes, by 2025.[12] As of this publication, in Los Angeles County, 20 hospitals have achieved

the Baby-Friendly designation, 22 are actively working toward it and 14 are not. Those 36 hospitals that have not achieved the designation would benefit from ongoing assistance to achieve increases in exclusive breastfeeding. The impact of future interventions could be optimized, and negative outliers avoided, by adopting more rigorous recruitment and inclusion criteria to ensure hospital readiness and on-going commitment to Baby-Friendly designation.

The already Baby-Friendly designated hospitals saw little increase in their rates. This is partially due to the fact that their numbers are already high, but with dozens of hospitals in the state with exclusive breastfeeding rates above 90%, LA County hospitals need not be plateauing in the 60-80% range. An assessment to identify the particular needs of designated hospitals and development of strategies to help them maintain continuous quality improvement around breastfeeding is indicated.

An important limitation of our study is that we compared only 2012 and 2013 breastfeeding rates, which is not the optimal timeframe to assess the impacts of these assistance cycles. It will be important to review the 2014 CDPH data to measure the ongoing impact of F5LA and BEST in their second concurrent full year. Additionally, CDPH recommends that hospitals perform the Newborn Screening Test sometime between twelve hours post-delivery and time of discharge. Because of the long range during which the data can be collected, there is a possibility of inconsistencies both across hospitals and between years in any one hospital, as was the case for the F5LA outlier. The strength of the Newborn Screening Test, however, is that it is universal surveillance. This is not a survey sample, but a look at all live births in all birthing hospitals.[13]

Finally, the hospitals participating in BEST and F5LA did so voluntarily and there was no random assignment to intervention and nonintervention. We recognize that this study does not control for potential confounders, such as racial/ethnic patient demographics, Medi-Cal rates, or hospital profit/non-profit status and religious and academic affiliations.

Conclusion

Analysis of in-hospital exclusive breastfeeding rates revealed that hospitals receiving financial and technical assistance to pursue Baby-Friendly designation increased their breastfeeding rates significantly over one year. While either funding or technical assistance alone improved hospitals' rates, the combination of both showed the greatest improvement, suggesting that future interventions with hospitals should include both technical assistance and funding. Impact can be maximized by applying interventions selectively through screening processes that ensure hospital readiness to pursue Baby-Friendly designation.

A secondary finding of this analysis is that hospitals already designated Baby-Friendly may also require assistance. Baby-Friendly is a continuous quality improvement project and requires sustainability efforts to maintain designation.

ADDITIONAL RESOURCES

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[2] Available at: http://www.babyfriendlyusa.org/about-us/baby-friendly-hospital-initiative/the-ten-steps.

[3] Los Angeles County Department of Public Health, Office of Health Assessment and Epidemiology, Hospital Practices: Can They Impact Breastfeeding?, August 2013.

[4] The accrediting body for the Baby-Friendly Hospital Initiative in the United States.

[5] See: https://www.babyfriendlyusa.org/about-us/baby-friendly-hospital-initiative.

[6] First 5 LA funds health, safety and early education programs for children prenatal to age 5 using tobacco tax revenues.

[7] For additional information, see: http://www.first5la.org/index.php?r=site/article&id=3059.

[8] BreastfeedLA is a Los Angeles-based non-profit organization dedicated to improving the health and wellbeing of infants and families through education, outreach, and advocacy to promote and support breastfeeding.

[9] Hospital categories as of December 2013.

[10] http://breastfeeding.nichq.org/solutions/best-fed-beginnings.

[11] One hospital, with fewer than 100 births in 2013, was removed because the state did not report any exclusive breastfeeding.

[12] California Health and Safety Code section 123367.

[13] Excludes data for infants in a Neonatal Intensive Care Unit (NICU) nursery at the time of specimen collection.

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