

## ***The BABY & ME – Tobacco Free Program™***

### ***An Innovation Station Best Practice***

**Purpose:** This document is intended to support MCH professionals to implement a practice found in Innovation Station. This resource provides the information needed to replicate the practice and is divided into two sections: the first section provides a high-level overview of the practice while the second section describes how to implement the practice. For additional information on any of the content provided below, please reach out to the practice contact located at the bottom of this document.

### **Section I: Practice Overview**

| <b>Location:</b>       | National            | <b>Title V/MCH Block Grant Measures Addressed</b>                                 |
|------------------------|---------------------|---|
| <b>Category:</b>       | Best                | <b>NPM #14.1:</b> Smoking during Pregnancy<br><b>NPM #14.2:</b> Household Smoking |
| <b>Date Submitted:</b> | 10/17, updated 4/20 |   |

#### **Practice Description**

The BABY & ME – Tobacco Free Program (BMTFP) is an evidence-informed health program that helps families quit smoking prenatally, and then incentivizes staying quit after baby is born, so they can live their lives free from the grip of tobacco addiction, which is often a multi-generational issue.

The core components of the BMTFP are based on recommendations from the *Clinical Practice Guidelines, Treating Tobacco Use and Dependency* (HRSA, 2008), tailored to the pregnant population.

#### **Purpose**

Pregnancy represents an opportunity to reevaluate lifestyle behaviors, including smoking, as women often recognize the serious consequences smoking has on the health of their fetus. And yet, tobacco exacts a terrible toll on health far beyond pregnancy, reaching across the entire life course. Research has proven that tobacco use remains the most common cause of pregnancy complications and death among infants. Babies born to women who smoke are more likely to be premature and underweight. They are also more likely to have certain birth defects such as cleft lip or palate. Smoking during pregnancy is also a risk factor for Sudden Unexpected Infant Death (SUID). Put simply, quitting smoking is *the most* important thing a pregnant woman can do for her health and the health of her baby. Infants and children living in tobacco smoke-filled homes are at greater risk for respiratory illness, middle ear infections, and reduced lung growth. Plus, they are much more likely to become tobacco users themselves. Therefore, for optimal

lifelong health, it is critical to ensure that a mother and her family also maintain cessation after delivery.

BMTFP serves pregnant women who currently use tobacco or who quit within three months of becoming pregnant. In most states, a qualifying support partner may also enroll. The participant is encouraged to enroll as early in her pregnancy as possible. There are no age or income requirements.

As of April 2020, the program has served almost 30,000 families since its inception in 2001. After enrolling, each participant receives four, individualized prenatal sessions where tobacco cessation techniques tailored to each person's unique situation are discussed. Participants are biochemically tested at each visit to verify nicotine status and, if nicotine-free, qualify to receive diaper vouchers each month up until their baby's first birthday.

## Practice Foundation

The BABY & ME - Tobacco Free Program utilizes multiple theories and theory-based methods to help pregnant women (and a qualified support partner) quit smoking prenatally and remain abstinent after baby is born. The program is primarily based on the constructs of *The Transtheoretical Model*, which posits that changes in behavior occur as individuals progress through the six stages of change. The program uses this theory, in combination with motivational interviewing, to identify the stage of change a pregnant woman is in and to assess a woman's readiness to quit smoking. Processes of change related to this theory are also utilized to help stimulate and maintain change among women who are ready to quit smoking. Consciousness raising, counterconditioning, and contingency/reinforcement management enhance the motivation to quit.

While research demonstrates most tobacco users want to quit, it is known that pregnant women are more likely to act on that quit attempt because of the concern for the health of their baby. Taking advantage of this additional motivating factor is concurrent with the Life Course Framework.

*Social Support Theory* and *The Social Ecological Model* are underscored throughout this program as a qualifying support partner who resides with the pregnant women is also encouraged to enroll in the program. The relationship that develops with the Facilitator, who is trained in *Motivational Interviewing* techniques, allows a foundation of trust and empathy as the norm in the patient-counselor dynamic. Through these supportive relationships, the pregnant woman can create and/or seek supportive environments to reinforce the positive behavior change.

Theories of learning and self-regulation are also embedded in the program. Once a woman enrolls in the program, she must attend four prenatal counseling sessions where she receives support, smoking cessation education, and carbon monoxide (CO) testing. The use of CO testing as biomarker feedback provides positive reinforcement that motivates women to continue their quit journey. Positive reinforcement and feedback increase women's self-efficacy to quit smoking during pregnancy. The program also offers diaper vouchers to women and their support partners during the postpartum period when CO levels of 6ppm or less are recorded. This contingent reward further acts as positive reinforcement to maintain smoking cessation. By providing counseling support and resources to pregnant women, the goal is that they will quit smoking and maintain smoking cessation throughout the postpartum period and beyond.

An additional theory that comes into play during the program is *Relapse Prevention Theory*. An assumption of this theory is that relapse events are preceded by a high-risk situation, or an event that causes vulnerability, which results in reverting back to the target behavior. For this program, a high-risk situation refers to stress that women might experience during pregnancy, during the transition from pregnancy to motherhood, or during the postpartum period. Whether a high-risk situation results in a lapse depends on the woman’s capacity to enact an effective coping response. Utilizing effective coping strategies increases self-efficacy, which decreases the possibility of relapse. Using this theory, the program allows women to identify high-risk situations and stress in their own lives and to identify and practice alternative coping strategies other than smoking to prevent a relapse from occurring.

## Core Components

The three elements of the program include:

- Face-to-Face Counseling
- Bio-Chemical Testing
- Contingency Management (Incentives)

The primary goal of this prevention program is to reduce infant mortality and morbidity. This is done in two ways:

- Improve birth outcomes by helping women quit smoking prenatally, and;
- Reduce the exposure to second and thirdhand smoke in the home environment by maintaining cessation postnatally.

## Practice Activities

| Core Component                 | Activities   | Operational Details  |
|--------------------------------|--|--|
| <b>Face-to-Face Counseling</b> | <ul style="list-style-type: none"> <li>• Four (4) prenatal sessions</li> <li>• Twelve (12) postnatal sessions</li> </ul> | <ul style="list-style-type: none"> <li>• Assess progress in cessation attempt</li> <li>• Tailor advice to situation</li> <li>• Specific material for each session to share and discuss</li> <li>• Offer additional support resources at each session (Quitline, smokefree.gov, etc.)</li> <li>• Document session details in data portal</li> </ul> |
| <b>Bio-Marker Feedback</b>     | Test participant using carbon monoxide monitor and/or saliva test at each visit  | <ul style="list-style-type: none"> <li>• Parameters for “smoke-free” status vary depending on pregnancy status</li> <li>• Discuss testing results and provide guidance as appropriate</li> <li>• Record testing results in online data portal</li> </ul>   |
| <b>Contingency Management</b>  | Electronic diaper voucher given to participant if tests free of nicotine at the appropriate sessions                     | <ul style="list-style-type: none"> <li>• Celebrate the success!</li> <li>• Explain the redemption process for the vouchers, whether at the store or online</li> <li>• Enter voucher number into online data portal</li> </ul>  |

## Evidence of Effectiveness (e.g. Evaluation Data)

Most states implementing this program have an internal summary evaluation and report at the end of each funding cycle, though the amount of detail varies. Included in this section of the application are summary reports from three states: New York, Colorado, and Tennessee, which were published for public dissemination.

**NEW YORK:** The BABY & ME – Tobacco Free Program underwent a three-year research analysis from 2006 to 2009 by the New York State Department of Health’s Tobacco Control Program. As a pilot program, the independently researched data was reported by Anne M. Gadomski, MD, MPH, Bassett Research Group. Results were published in the Maternal and Child Health Journal, “Effectiveness of a Combined Prenatal and Postpartum Smoking Cessation Program,” January 2011. The published results indicated a 60%+ quit rate of women enrolled in the program at 6-months postpartum.

The Settings included 22 sites (WIC offices and prenatal clinics) in upstate New York. A quasi-experimental design was used to evaluate this intervention, that included four face-to-face prenatal sessions with a facilitator who did smoking cessation counseling, carbon monoxide testing and random saliva cotinine testing. Three implementation models were studied: multi-tasking counselors at fixed sites (Models 1 and 2) versus itinerant smoking cessation specialists (Model 3). Outcomes included biochemically validated abstinence rates during pregnancy and postpartum. Logistic regression was used to identify predictors of postpartum abstinence and program dropout, Proportional hazards regression was used to compare implementation models. Of the 777 pregnant women who enrolled in the program, 588 were eligible for the postpartum program. The intention to treat pregnancy quit rate was 60%. Postpartum, Model 3 showed consistently better quit outcomes than the other models. Predictors of abstinence at 6 months postpartum are: older (OR = 1.07, 95% C.I. 1.02-1.12), lower baseline carbon monoxide level (OR = 0.69, 95% C.I. 0.49-0.97), Model 3 (OR = 4.60, 95% C.I. 2.80-7.57) and attending more prenatal sessional (OR = 3.52, 95% C.I. 2.19-5.65).

### *Conclusions*

This evaluation of the BABY & ME – Tobacco Free Program is an effective smoking cessation program for pregnant and parenting women. This study has yielded encouraging results and merits further study.

**COLORADO:** Evaluated and authored by Tessa L. Crume, PhD MSPH at the University of Colorado School of Public Health. The BABY & ME – Tobacco Free Program was administered by the Rocky Mountain Health Plans in 44 Colorado counties from January 2008 through April 2013. The program received referrals from providers, clinics, health departments, and women themselves. To enroll, pregnant women had to reside in a participating county and smoke currently or within three months of starting pregnancy.

### Prenatal Program Component

- The BABY & ME – Tobacco Free Program (BMTFP) served 5,807 pregnant women from January 2008 through April 2013.
- Most participants (86.4%) were Medicaid beneficiaries.
- Nearly 80% had completed no more than high school education or a GED.

- The mean maternal age at enrollment was 23.7 years.
- The racial and ethnic distribution of participants served by the BMTFP was like that of the state of Colorado.
- On average, participants had attempted to quit 2 to 3 times before enrolling.
- Three out of four participants were referred to the Colorado QuitLine.
- During pregnancy, participants were smoke-free for a median of 119 days (95% confidence interval, 91 to 172 days).
- Biochemically validated nonsmokers increased from 66.1% at baseline to 94% at final prenatal visit.

#### Postnatal Program Component

- About ¼ (n=1,426) of BMTFP participants completed at least one postnatal visit within a year of the child's birth.
- Among those with at least one postnatal visit, participants completed a median of four monthly visits, and one in seven (14.7%) completed all monthly visits for a year.
- Participants received a total of 8,080 diaper vouchers.
- Nearly all (98.4%) carbon monoxide (CO) test results were consistent with non-smoking.
- During the postnatal period, participants were smoke-free for a mean of 362.16 ± 7.37 days.

Participants reported that effective help in abstaining from smoking included diaper vouchers, and education and support from the BMTFP and the Colorado QuitLine.

#### *Most Helpful Strategies*

After participants received their final diaper voucher, some (n=175) were asked to identify the most helpful strategy for smoking cessation, including medication if relevant. The most frequent response was the diaper voucher incentive, a total of 8,080 vouchers were provided to women completing postnatal visits. Other identified helpful strategies included:

- Accountability pertaining to CO testing;
- Avoidance of others who smoked or drank;
- Activities to distract self from smoking;
- Education from the program and QuitLine;
- Health of self, family and friends;
- Incentives;
- Nicotine replacement therapy;
- Positive reinforcement to self, related to progress of duration quit;
- Pregnancy;
- Social support from family and friends;
- Support from the program and Quitline.

#### *Conclusions*

Colorado BMTFP participants during 2008-13 had high rates of program participation during pregnancy and the first several months after delivery, and those who continued to participate were highly likely to remain abstinent from smoking while in the program. These promising results have potentially significant public health implications, including reduced low birthweight.

**TENNESSEE:** Outcome data collected from the Tennessee Department of Health was published in the Maternal and Child Health Journal, “Effects of Incentive-Based Smoking Cessation Program for Pregnant Women on Birth Outcomes,” in September 2016, and showed an 11% reduction in low birthweights among participants.

- 6,523 women were enrolled between January 2014 through June 2017
- Mean age at time of birth was 24.9 years
- Teen births were 12.3% of total
- 73.5% of participants were unmarried
- 86.5% of participants were non-Hispanic white
- 67.3% of participants had no more than a high school diploma or equivalent
- Annual household income of participants included 56.2% at < \$15k per annum
- 87.0% were Medicaid/TennCare recipients
- 93.4% were enrolled in WIC

#### Program Outcomes

- Reduced number of cigarettes smoked per day included 3.1 cigarettes per day for participants who attended at least 3 prenatal sessions compared to 8.4 cigarettes per day for non-participants
- Reduced rate of low birthweight birth with 4.9% low birthweight for participants who attended at least three prenatal sessions compared to 11.6% for non-participants
- Reduced hospital charges for care of newborns estimated at \$1.9M

Unlike randomized trials which investigate the efficacy of interventions in well-controlled settings, this study evaluated the effectiveness of a statewide, incentive-based smoking cessation program administered in “real world” community settings. The results of the study are generally in agreement with those of the trials, suggesting that it is feasible to translate trial findings on incentive-based cessation interventions into real world settings. Unique features of the study included a low-income study population from a state with a high rate of maternal smoking (14.3%), the use of diaper vouchers and incentives with potentially added health benefits and greater public acceptability, and the finding on improving birth weight that could have important implications.

#### *Conclusions*

This study found, for the first time, that successful participation in the BABY & ME – Tobacco Free Program was associated with significantly decreased odds of having a low birthweight infant.

**See below for data to demonstrate that intervention outcomes were achieved by the program/initiative and not outside factors.**

**NEW YORK:** To evaluate possible differences between mothers participating in the program and those who dropped out, baseline characteristics of the two groups were compared using Pearson’s Chi square test for categorical data and the Mann-Whitney *U* test for continuous non-parametric data. Statistical significance was defined by a two-sided alpha level of .05.

Covariates were tested for univariate association with the outcome of quit status at 6 months postpartum. Interventional factors such as number of sessions attended prenatally (as a proxy for dose of intervention), number of gestational weeks at session 4 (how close was the last prenatal session to delivery) and implementation model (Models 1, 2, or 3) were also tested. Those independent variables with a significant bivariate association were included in a logistic regression model predicting 6 month quit status (CO and saliva cotinine verified). This multivariate model was used to estimate the odds ratio of quitting with adjustment for significant covariates.

Power calculations were based on the following estimates: Based on previously published studies, the quit rate in the comparison group was not expected to exceed 0.30. A quit rate in the intervention group of at least 0.45 would therefore be a clinically relevant improvement. Assuming a two-tailed alpha of .05, the combined sample of 400 intervention and 200 control subjects would provide a power of .96 for detecting this minimally relevant difference. This sample size supports regression models anticipating that the regression models would contain at most six or seven covariates and using the rule of thumb of ten subjects per parameter estimated, or even the more stringent rule of ten endpoints per parameter.

### *Limitations*

This study is subject to the limitations of quasi-experimental design and the possibility of selection bias for both the intervention and the comparison groups. The most significant differences between the drop-out group versus the intervention group are in addiction indicators whereas the comparison group differs from the intervention group by insurance coverage and residence. While adjusting for these differences in analysis, there may be unmeasured differences since the women were not randomized to the study groups. The comparison group though not exposed to the BABY & ME – Tobacco Free Program, received the current standard of care in New York, and cannot be considered a true control group.

Inclusion of the drop-out group informs us of the women who the program did not serve well, i.e., heavier smokers. The addition of smoking cessation pharmacotherapy postpartum could improve the quit rates for this group; more study is needed.

Because most of the participants were low income, white, and had a mean of 12 years of education, the data cannot address differences in outcome by income, ethnicity, or higher education.

**COLORADO:** Program participation and abstinence were analyzed and reported separately for pre- and postnatal periods, because coded participant identifiers were not linked between the two periods.

Duration of abstinence (time to first failed CO test) was assessed using a Kaplan-Meier (KM) function and defined as time between the earliest test result consistent with not smoking ( $CO \leq 6$  ppm) and (a) the last visit if test results stayed  $\leq 6$  ppm, or (b) the first visit with a test result indicating smoking. Women who dropped out of the study or were lost to follow-up were analyzed under an assumption that they relapsed to smoking after their last (smoke-free) visit (“intent-to-treat” analysis).

## *Limitations*

The current findings are based on available data. Data collection methods were not standardized at the beginning of the program, which resulted on considerable missing data, duplicate identifiers, incomplete data entry and incorrectly entered data. The current analysis may thus overestimate program benefits, especially during the one-year postnatal period, when data were unavailable for nearly half of participants beyond the fourth month. Benefits during the postnatal period may also be overestimated due to selection bias, since women who participated during pregnancy and returned after pregnancy may be more committed to remaining quit.

At the same time, the “intent-to-treat” method in analysis assumed the worst case for anyone who dropped out of the program, i.e., they relapsed to smoking without recovering abstinence for the rest of the program period. The same final status of relapse was assumed for any participants soon as she tested positive for smoking in a visit. These assumptions are appropriately conservative but may underestimate program benefits. No information is available to estimate how much either effect influenced the accuracy of estimated program benefits.

The decoupling of participant data between pre- and postnatal periods prevented estimating mean smoke-free time across the entire duration of the program.

One site’s data were excluded from the current evaluation because the site used a different program protocol. This exclusion may have led to underestimation of the number of vouchers provided by BMTFP.

**TENNESSEE:** Distribution of sociodemographic characteristics, public health and medical service utilization, history of cigarette smoking and other risk factors for adverse birth outcomes, and birth outcomes between BMTFP participants and non-participants. *T* tests and ANOVA were used in the analysis of continuous variables and Chi square tests in the analysis of categorical variables. Logistic regression models were used to calculate odds ratios and 95% confidence intervals of low birthweight and preterm birth associated with the BMTFP participation, and to adjust for potential confounding factors. To further evaluate the effectiveness of program engagement and smoking cessation during pregnancy on birth outcomes, women were divided into non-participants, BMTFP participants with no evidence of quitting smoking, and BMTFP participant with evidence of quitting smoking based on breath CO measurement. The associations of program engagement and smoking cessation during pregnancy with low birthweight and preterm birth, while adjusting for multiple potential confounders. In addition, analyses stratified by prior parity status (nulliparous/parous) to examine potential effect modification. All statistical tests were based on two-sided probability.

## *Limitations*

- Lack of ideal control group;
- Reliance on birth certificate data on birth outcomes and covariates;
- The possibility of misclassification;
- The possibility of residual confounding due to inaccurately measured or unmeasured covariates;
- The comparison group received the standard of care, which may have contributed to some of the observed variations in their smoking patterns.

## Replication

- The BABY & ME –Tobacco Free Program National Office contracts with agencies to provide program services at the community, county or state level. Implementing agencies include departments of public health, community-based health centers, physician offices, and other health and human service agencies. BMTFP continues to expand into new states and communities as the positive outcomes of this program become more widely known.
- Each agency can implement BMTFP in the department or area that best serves their patients/clients. The first step is securing a Memorandum of Understanding (MOU) between the national office and the local site. This MOU outlines adherence parameters to the national program model and underscores expectations that each side brings to the table. Then, a *Facilitator Training* provides agencies and staff with the education and tools necessary to implement and enroll women into the program. After the training, each attendee is certified as a program Facilitator, which allows them to begin to conduct sessions. Facilitators must be recertified every two years.
- The BMTFP national program has created an *Advanced Facilitator Training*. This train-the-trainer model provides instruction, coaching and feedback to prepare certified Facilitators to become certified program trainers, in order to deliver trainings within a state and/or region. This model was made available as part of the program’s sustainability efforts and is conducted in states/regions when applicable.
- The BMTFP national program staff also provides ongoing technical support to assist each participating agency and their Facilitators in implementing the program. In some states a train-the-trainer model is used, where Advanced Facilitators are trained to go out and train others within their state.
- The program also provides a secure, HIPAA-compliant online data collection and reporting tool, required for each participating agency to report monthly participant enrollment information, demographics, birth outcomes, and voucher distribution. Training and technical assistance is also available for this component.
- Once a site begins implementing the program, the national program staff works with each participating agency/county to personalize the program to the needs of their communities, assists in quality assurance, and helps identify continuous quality improvement opportunities.
- As of April 2020, BMTFP has been implemented in almost 400 sites in 21 states across the United States. Scale and sustainability efforts continue to evolve so that more families nationwide can benefit from the program.

## Section II: Practice Implementation

### Internal Capacity

**Education / Experience:** A competent staff is vital to the success of the BABY & ME – Tobacco Free Program. A specialized *Facilitator* is trained and certified by the national program office. The *Facilitator* should possess a bachelor’s degree in health, health education, nursing, social work, public health or related field, or be able to document previous experience in either tobacco cessation work and/or work with pregnant women. Additionally, any experience that the

*Facilitator* has in facilitative leadership and Motivational Interviewing is a plus. Training and biennial recertification provides agencies and *Facilitators* with specific information and materials necessary to implement and enroll women in the BABY & ME – Tobacco Free Program.

**Site Needs:** Each agency can implement the BABY & ME – Tobacco Free Program in the department or area that best serves their patients/clients. The first step is securing a Memorandum of Understanding (MOU) or Service Agreement (SA), between the national BABY & ME – Tobacco Free Program office and the local site. This MOU outlines adherence parameters to the national program model and underscores expectations that each entity brings to the table. Then, a *Facilitator* training is scheduled which provides agencies and staff with the education and tools necessary to implement and enroll women into the program. After the training, each attendee is certified as a program *Facilitator*, which allows them to conduct counseling sessions.

The BABY & ME –Tobacco Free Program national program staff conducts the one-day *Facilitator* training and provides ongoing technical support to assist each participating agency and their *Facilitators* in implementing the program. In some states a train-the-trainer model is used, where *Advanced Facilitators* are trained to go out and train others within their state. The program also provides a secure, HIPAA-compliant online data collection and reporting tool, required for each participating agency to report monthly participant enrollment information, demographics, birth outcomes, and voucher distribution.

**Additional Considerations:** Are you the ideal organization to host the program? The BABY & ME – Tobacco Free Program does best in certain settings. If you do not see a good percentage of your community’s prenatal women and their families, then this program may be better suited elsewhere. Usually, agencies where a woman receives her prenatal care have lots of success. Traveling to a separate location solely for this program often means that organizations will struggle with attrition, missed or cancelled appointments, and attaining enrollment goals.

The same is true after baby is born. Are you located in or near a WIC Clinic or other place where postpartum women frequent? If either the prenatal or postpartum phase of the program presents transportation and scheduling challenges for your client, consider partnering with another organization to host the program, or arrange for space sharing. Your clients will thank you!

Is marketing and outreach well thought through and appropriately funded? Does the person who is planning to be the *Facilitator* have time for outreach and marketing? If so, are they the right personality type for this very important role? Allotting time to attend health fairs, visiting local physician clinics, and engaging in other community outreach activities is an essential component of program success. If that isn’t an activity for the *Facilitator* due to time constraints and other position responsibilities, then consider assigning someone else for this role, as it should be an integral component of program implementation.

Is leadership on board? Make certain that you have the full support of your organization before integrating the BABY & ME – Tobacco Free Program into your practice. Time spent away from the office at trainings or doing community outreach is time well spent; but it is also time away from other job responsibilities that others may count on you to complete. You also want to be able to access patient schedules, secure a referral process, and make sure your consultation room and time with patients are valued. Having buy-in from leadership and other members of the team is critical to success.

**Supply Needs: Technology:** Each site will need Internet access to enter data into the online data portal. Google Chrome is an ideal browser choice for use with the online data portal. Other supported browsers include Firefox, Safari, Edge and Internet Explorer version 11. Regardless of what browser you decide to use, be sure that your computer is equipped with the latest version. A fax machine is necessary for referrals, and a copy machine is convenient for duplicating forms that will be given to participants at each session.

**Equipment:** Additional materials needed to conduct the program include the following: carbon monoxide (CO) monitor(s) and accessories, saliva testing kits, diaper vouchers, training manual(s) containing program curriculum, handouts for each prenatal and postpartum session (provided electronically), brochures, and other promotional materials as noted at the *Facilitator* training.

**Physical Space:** While clinical settings might be an ideal location to have close access to prenatal women, you want the area where you will be facilitating the program to be private, comfortable, and nonthreatening. To mirror the conversational style of the sessions, consider using comfortable chairs that are not separated by a desk or computer. You will need a locked cabinet for vouchers; they come active and ready to distribute. The CO monitor and its accessories, as well as the saliva tests don't take a lot of room; but you will need shelf space to store them and keep them handy. Some people prefer to collect data on paper while they are with the patient and then transfer the information into the online data portal at a later time. Others prefer to directly enter the information into the online data portal using their office computer at the time the session is being conducted. Some organizations have a data entry person that takes the information from the hard copy and inputs it into the data portal.

## **Collaboration/Partners**

Which collaborators/partners are/were essential to the implementation or success of The BABY & ME – Tobacco Free Program collaborates with local and state agencies that provide prenatal and/or postpartum services to women. To date, the program has been implemented in twenty-two states across the U.S. We regularly receive calls from other states and / or sites who are interested in implementing the program and we assist in determining that they are at capacity and have the support necessary to begin.

## **Practice Cost**

Program cost is determined by several factors: salary standards, training, data and technical support, outreach materials, biochemical testing equipment, and vouchers. Some states receive reimbursement by billing payors for counseling visits and diaper vouchers. See below for an estimate of costs. The quantity of items needed for implementation are determined prior to the training; quantity may vary depending on the implementation process decided upon by an agency. Please note that the below costs are subject to change.

| Item  | Description  | Quantity | Cost       |
|---|--|----------|------------|
| <b>coVita Carbon Monoxide (CO) Monitor</b>                | CO monitor per agency/site   | 1        | \$558.00   |
| <b>SteriBreath Mouthpieces</b>                            | Box of 250 mouthpieces—changed out after every use   | 1        | \$32.50    |
| <b>D-pieces</b>   | Pack of 12 D-pieces—one-year supply  | 1        | \$94.00    |
| <b>Cleansing &amp; Antimicrobial (alcohol-free) Wipes</b> | Package of 50 wipes  | 1        | \$18.00    |
| <b>20 ppm CO Calibration Kit</b>                          | Includes: Regulator, calibration adaptor, can of CO gas—calibrates CO monitor every 6 months or when prompted by the monitor | 1        | \$195.00   |
| <b>Saliva Tests</b>                                       | Individual device – used for back-up testing, if applicable<br>11.50 per test, minimum 5 per order                           | 5        | \$57.50    |
| <b>One-day Facilitator Training</b>                       | 9am – 4pm, on-site training  |          | \$1,450.00 |
| <b>Two-day Advanced Facilitator Training</b>              | 9am – 4pm, on-site training to certify current Facilitators as Advanced Facilitators   |          | \$4,285.00 |
| <b>BMTFP Facilitator Manual(s)</b>                        | 62.50 per training attendee/Facilitator  | 1        | \$62.50    |
| <b>Administrative/Data Collection Fee</b>                 | 160.00 per month - 480.00 per quarter  | Annual   | \$1,920.00 |
| <b>Voucher(s)</b>   |  |          |            |
| <b>Face value</b>   | 25.00 each   | 1        | \$25.00    |
| <b>Processing Fee</b>                                     | 2.00 per voucher   | 1        | \$4.00     |

|                   |                  |   |        |
|-------------------|------------------|---|--------|
| <b>Print Cost</b> | 1.23 per voucher | 1 | \$1.23 |
|-------------------|------------------|---|--------|

## Practice Timeline

Below is a snapshot of the order of events for implementation. Timeline will vary depending on site and situation. The national program office is happy to offer more tailored guidance to specific situations.

| Phase                              | Description of Activity  |
|------------------------------------|--------------------------|
| <b>Planning/Pre-implementation</b> | Site selection           |
|                                    | MOU with national office |
|                                    | Contract with funders    |
|                                    | S.M.A.R.T goals          |
| <b>Implementation</b>              | Facilitator Training     |
|                                    | Supplies Delivered       |
|                                    | Marketing and Outreach   |
| <b>Sustainability</b>              | Grant funding cycles     |
|                                    | Insurance Reimbursement  |

## Resources Provided

The program’s design has proven effective in decreasing the number of women who smoke during and after pregnancy, improving birth outcomes among babies born to women enrolled in the program, and also reducing hospital costs for the care of newborns. Three quasi-experimental design studies have been conducted in New York, Colorado, and Tennessee; two of which are published in the *Maternal and Child Health Journal*.

Gadomski, A., Adams, L., Tallman, N., Krupa, N., Jenkins, P. (2011). Effectiveness of a combined prenatal and postpartum smoking cessation program, *Maternal and Child Health Journal*, 15: 188-197. DOI 10.1007/s10995-010-0568-9.

Polinski, K.J., Wolfe, R., Peterson, A., et al. (2019). Impact of an incentive-based prenatal smoking cessation program for low-income women in Colorado. *Public Health Nursing Journal*, 00:1-11.

Zhang, X., Devasia, R., Czarnecki, G., Frechette, J., Russell, S., & Behringer, B. (2017). Effects of incentive-based smoking cessation program for pregnant women on birth outcomes, *Maternal and Child Health Journal*, 21(4), 745-7. DOI 10.1007/s10995-016-2166-y.

Online resources also include:

- Website: <http://www.babyandmetobaccofree.org/>
- Facebook, Twitter, Instagram, and LinkedIn social media sites

Resources available for sites upon certification include:

- BABY & ME-Tobacco Free Program Facilitator Manual
- BABY & ME – Tobacco Free Advanced Facilitator Manual
- BABY & ME – Tobacco Free Program Online Data Portal (produced by Salesforce)
- BABY & ME-Tobacco Poster and Brochures

## Lessons Learned

### Assets

- Increased focus on evidence-based programs among policy makers
- Leadership at the local and state levels and the support of tobacco cessation advocates
- Diaper Voucher program and tracking mechanism in place with Walmart Stores and other vendors, as needed

### Challenges

- Funding: consistently finding a way to sustain an evidence-based program over a period of years with leadership changes and funding stream instability and variation
- Inability to document long-term outcomes locally in a short period of time can create challenges for buy-in and sustainability

### Lessons Learned

- Broad-based community support and ongoing outreach efforts are necessary and translate into better outcomes
- Broad-based community education, knowledge, and implementation of the Clinical Practice Guidelines is needed; this is especially true for physicians and the utilization of the 5A's
- Providing adequate support to Facilitators serving the target population is essential to success
- Placement of program in agencies that serve women prenatally as well as in the postpartum period is optimal for participant retention

## Next Steps

Growth and expansion continue as the merits of this program continue to be known. Many states are actively exploring efforts to sustain this program through insurance reimbursement (as is the case with Tennessee). Several other states have also worked to coordinate more streamlined referral programs with managed care organizations in an effort to increase outreach, engagement, and retention. It should be noted that most states still fund this program with grant funding from a variety of sources, including but not limited to: Title V and Master Tobacco Settlement funds, as well as a variety of community, state, and national grant sources. Because of the capacity-building efforts and word-of-mouth dissemination in local areas, most areas find that working in grant cycles of two years or greater makes the most sense.

It remains our hope that the BABY & Me – Tobacco Free program will become the standard of care for all pregnant women and their families as each of us continue to work tirelessly to reduce the burden of tobacco on society.

### Practice Contact Information

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