



FIRST 5 SACRAMENTO

# Reduction of African American Child Deaths

FY 2020-2021 Evaluation Report,  
with Three-Year Trends



# Table of Contents

<b>Introduction .....</b>	<b>4</b>
Background & Goals .....	4
First 5 Strategies to Reduce African American Infant and Child Deaths .....	7
<b>Pregnancy Peer Support Program .....</b>	<b>8</b>
Profile of Clients .....	9
Referrals .....	13
Changes in Risk and Protective Factors .....	15
Birth Outcomes .....	17
Factors Associated with Adverse Birth Outcomes .....	19
Level of Program Completion .....	22
Client Success Stories .....	24
Three-Year Trends, FY 2018-19 to FY 2020-21 .....	24
Opportunities for Improvement .....	26
<b>Family Resource Centers .....</b>	<b>27</b>
Home Visiting .....	29
Parenting Education .....	32
Client Success Story .....	34
Two-Year Trends, FY 2019-20 to FY 2020-21 .....	34
Opportunities for Improvement .....	35
<b>Safe Sleep Baby .....</b>	<b>36</b>
Safe Sleep Baby Perinatal Education Campaign .....	37
Safe Sleep Baby Direct Education .....	38
Cribs for Kids (C4K) Program .....	42
Safe Sleep Baby Education Policies and Procedures .....	42
Client Success Stories: Safe Sleep Baby Workshop .....	43
Three-Year Trends, FY 2018-19 to FY 2020-21 .....	44
Opportunities for Improvement .....	45
<b>Public Perinatal Education Campaign .....</b>	<b>46</b>
Social Media Advertisements .....	47
Website Traffic .....	48
Three-Year Trends, FY 2018-19 to FY 2020-21 .....	48
Opportunities for Improvement .....	49

Longitudinal Outcomes of RAACD Participants .....	50
Countywide Trend Data .....	51
Overall Infant Mortality.....	52
Infant Sleep Related Deaths .....	54
Infant Deaths Due to Perinatal Causes .....	55
Preterm Births .....	56
Low Birthweight .....	57
Deaths Due to Child Abuse and Neglect (0-5).....	58
Summary and Conclusions .....	59
Appendix 1 — Factors Associated with Poor Birth Outcomes .....	61
Appendix 2 — Countywide African American Births and Infant Deaths 2012-2019 .....	62
Appendix 3 — Technical Notes Related to County Trend Data .....	63
Baseline Year .....	63
Coding of Race .....	63
Data Sources and Rates .....	63
Appendix 4 — BMU Regression Details .....	64
Appendix 5 — Three-Year BMU Birth Outcomes .....	65
Appendix 6 — References & Endnotes.....	65
Photo Credits.....	65



## Introduction

*The RAACD Strategic Plan outlines strategies to address the top four causes of disproportionate African American child deaths.*

### BACKGROUND & GOALS

In 2011, the Sacramento County Child Death Review Team (CDRT) released a 20-Year Report which revealed that African American children were dying at twice the rate (102 per 100,000) of any other ethnic group.<sup>1</sup> The four main causes of disproportionate child death amongst African American children were:

- Perinatal Conditions
- Infant Sleep-related (ISR)
- Child Abuse and Neglect (CAN)
- Third-party Homicide

In response to the alarming findings from the CDRT report, the Sacramento County Board of Supervisors created the Blue Ribbon Commission on Disproportionate African American Child Deaths to formulate a plan of action. In 2013, the Blue Ribbon Commission released its report with a set of recommendations to reduce African American child deaths by 10% to 20% over the next five years. It addressed four causes of death for which African American children were disproportionately affected.<sup>ii</sup>

The 2013 Blue Ribbon Commission report created target outcomes toward the goal of reducing of child deaths to be achieved by 2020. As seen below, the goals included an overall 10-20% reduction in African American child deaths, and specific reductions for each of the leading causes of death, including infant perinatal conditions, infant sleep-related, child abuse/neglect, and third-party homicides.

### The Blue Ribbon Commission Goals Included:

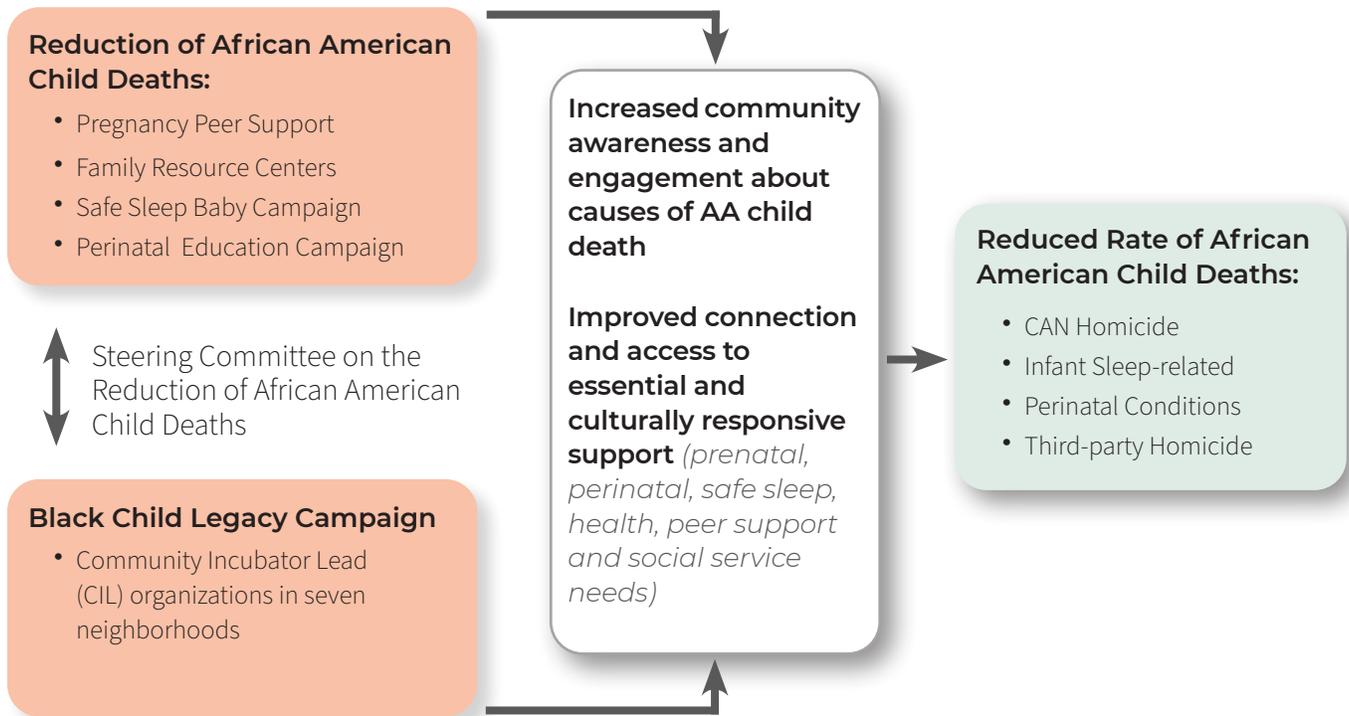
- Reduce the African American child death rate by **10-20%**
- Decrease the African American infant death rate due to infant perinatal conditions by at least **23%**
- Decrease the African American infant death rate due to infant safe sleep issues by at least **33%**
- Decrease the African American child death rate due to abuse and neglect by at least **25%**
- Decrease the African American child death rate due to third-party homicide by at least **48%**

The Blue Ribbon Commission report also called for the establishment of the Steering Committee on Reduction of African American Child Deaths (RAACD). Convened by the Sierra Health Foundation, the RAACD Steering Committee released a Strategic Plan<sup>iii</sup> and Implementation Plan<sup>iv</sup> in 2015. Using a Collective Impact model harnessing the power of multiple county and community stakeholders and sources of funding, the RAACD plans outlined strategies to address the top four causes of disproportionate African American child deaths. Over time, these have coalesced into two interdependent components:

- **The Black Child Legacy Campaign (BCLC):** Led by the Sierra Health Foundation, this strategy involves Community Incubator Lead (CIL) organizations in each of the targeted neighborhoods who lead prevention and intervention efforts to reduce disproportionate African American child deaths.
- **Reduction of African American Child Deaths (RAACD):** Led by First 5 Sacramento, this strategy complements and contributes to BCLC, and includes four programs that focus on preventing deaths due to Perinatal Conditions, Child Abuse and Neglect, and Infant Sleep-Related causes: Pregnancy Peer Support Program, Family Resource Centers, the Infant Safe Sleep Campaign, and a Public Perinatal Education Campaign.

The graphic below presents a strategic framework for how Sacramento County is coordinating efforts to reduce African American child deaths.

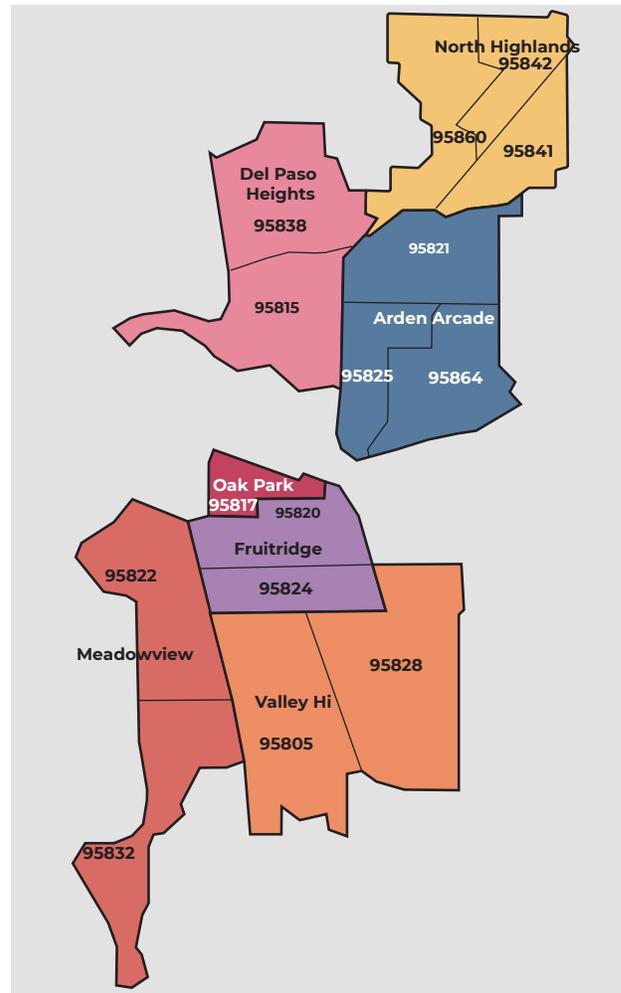
**Figure 1 — Sacramento County’s Strategic Framework to Reduce African American Child Death.**



Note: There are many other programs and projects that are also working to decrease the rate of African American child deaths. The current report focuses on perinatal, infant, and child (0-5) African American death, not deaths of all children 0-17.

To meet the Blue Ribbon Commission goals, efforts have been targeted in the neighborhoods of Sacramento County with the highest rates of child death. Not only do these neighborhoods experience high proportions of child death, almost two-thirds of all African Americans that live in Sacramento County reside in these neighborhoods. These communities include:

- Arden Arcade
- Fruitridge/  
Stockton Boulevard
- Meadowview
- Valley Hi
- North Sacramento/  
Del Paso Heights
- North Highlands
- Oak Park



## FIRST 5 STRATEGIES TO REDUCE AFRICAN AMERICAN INFANT AND CHILD DEATHS

To address the preventable causes of infant death (perinatal and sleep-related) and 0-5 child death (child abuse and neglect) – First 5 Sacramento partnered with various community organizations to launch and implement four programs:

- Pregnancy Peer Support Program
- Family Resource Centers
- Safe Sleep Baby Education Campaign
- Public Perinatal Education Campaign

This report continues the evaluation of First 5 Sacramento's efforts, describing each investment, FY 2020-2021 outcomes, and recommendations about areas to strengthen.



## Pregnancy Peer Support Program

*85 babies were born to mothers in the Pregnancy Peer Support program; 84% were born at a healthy birthweight and 84% were delivered full term. There were **zero** perinatal deaths in this cohort.*

The Pregnancy Peer Support Program was implemented by Her Health First's Black Mothers United (BMU) program. The goal of the program is to provide culturally relevant outreach, education, and individualized support to pregnant African American women in areas of Sacramento that are at high-risk for infant death. The program is open to pregnant women prior to their 32<sup>nd</sup> week of pregnancy, who reside in Sacramento County and self-identify as African American.

The BMU program includes either in-person or virtual weekly check-ins conducted by pregnancy coaches. Coaches are African American women from within the community who are trained to provide education, offer information about medical and social service options, and assist mothers in preparation for the birth of their child. Coaches conduct outreach with partners from community-based organizations and social service agencies to identify and assist the pregnant African American women that are hardest to reach, including those not receiving regular prenatal care and those most at-risk of adverse pregnancy outcomes.

The goal is for pregnancy coaches to connect with clients weekly and meet in person at least every two weeks until delivery and up to four months postpartum. Upon intake, coaches use a health assessment to understand each client’s needs related to pregnancy, psychosocial needs, and postpartum plans, including infant safety. With this information, coaches develop individualized care plans for their clients, including information and referrals related to nutrition, health education services, prenatal care, transportation, and connecting women to various social services. Additionally, coaches provide individual support through regular check-in meetings during pregnancy and postpartum, as well as peer support through monthly group meetings and quarterly baby showers.

## PROFILE OF CLIENTS

From July 1, 2020 to June 30, 2021, the BMU program served 159 pregnant African American women.

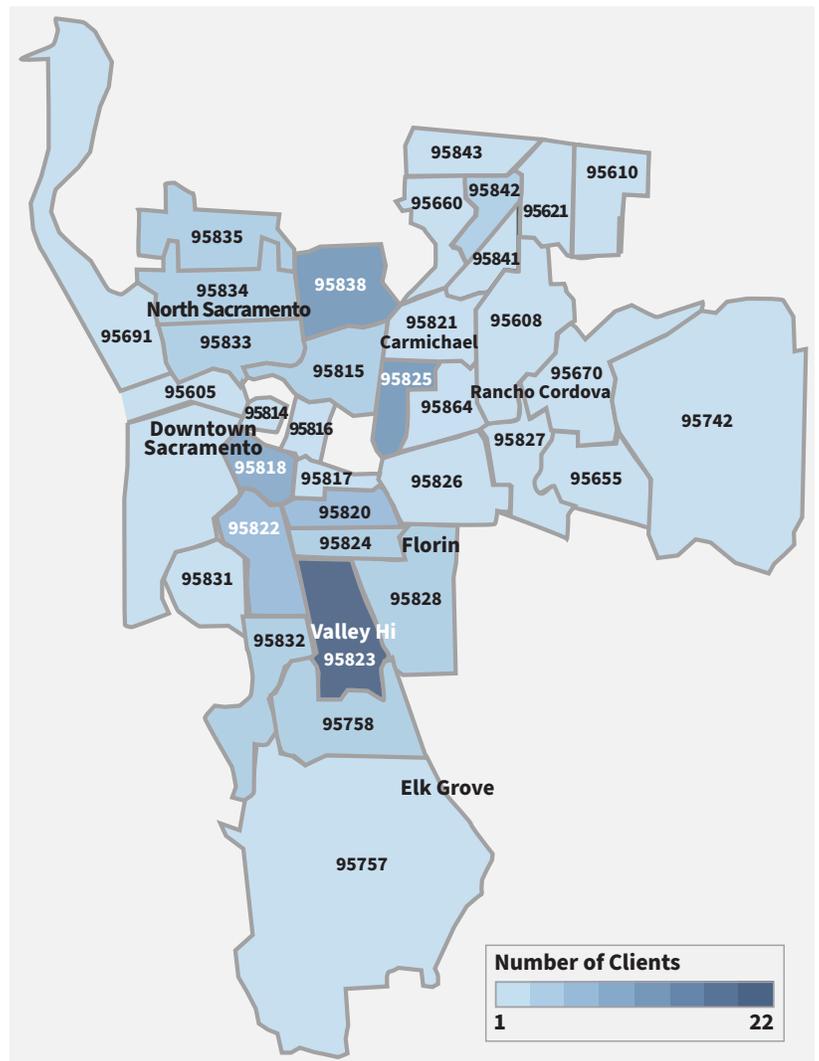
The map represents the number of clients served by zip code. The largest number of clients resided in Valley Hi. Of those with zip code data, almost two-thirds of the clients in FY 2020-21 (64%; 90/141) resided in one of the seven high-risk target neighborhoods of Sacramento County. The proportion of participants in high-risk zip codes was similar to FY 2019-20 (61%), and higher than FY 2018-19 (49%).

*Baby supplies, pregnancy information, and basic needs were the most common pressing needs of BMU clients at intake.*

Upon entry into the BMU program, clients complete a comprehensive health assessment intake with their coach. BMU clients that completed an intake form in FY 2020-21 reported an average of two to three **pressing**

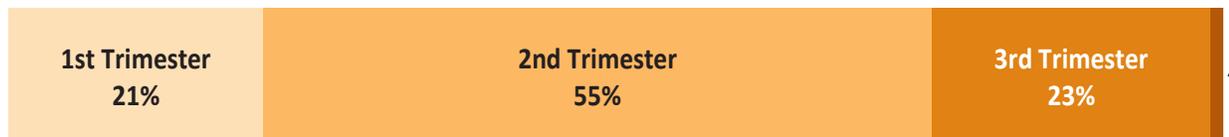
**needs.** Mothers were most commonly in need of baby supplies (70%), pregnancy information and support (50%), and basic needs including housing (26%), food (24%), and transportation (24%). About one in five participants (18%) reported counseling/mental health services as their most pressing need.

Figure 2 — Location of BMU Participants



As seen below, more than half of participants (55%) entered during their second trimester of pregnancy. This proportion is consistent with FY 2019-20 (55%) and FY 2018-19 (51%). Almost one in four (23%) enrolled in their third trimester and about one in five participants (21%) enrolled during their first trimester.<sup>1</sup> **The proportion of participants enrolling earlier in their pregnancy (i.e., the first trimester) has increased** compared to the previous two fiscal years (18% in FY 2018-19 and 15% in FY 2019-20). Clients who enter the program earlier have more time to receive pregnancy education and necessary referrals.<sup>2</sup>

**Figure 3 — Number of Mothers Served, by Trimester of Entry**



Source: Health Assessment Intake. N=159.

\*Trimester at entry was unknown for 1% of mothers served.

In terms of the **socioeconomic** realities<sup>3</sup> of participants, 30% were single and head of household (i.e., not partnered). More than one quarter did not have transportation (27%, 42/158) and/or were unemployed and looking for work (24%, 38/158). Additionally, 16% had not graduated high school (25/158), 15% reported they did not have stable housing (23/158), and 13% were unable to fulfill their food needs (21/158).

A larger proportion of participants experienced transportation and food needs, compared to FY 2019-20 (21% transportation, 6% food needs) and FY 2018-19 (20% transportation, 10% food needs). On the other hand, fewer participants reported unstable housing than in FY 2019-20 (22%) or FY 2018-19 (27%) and fewer had not graduated high school compared to FY 2019-20 (23%) or FY 2018-19 (27%).

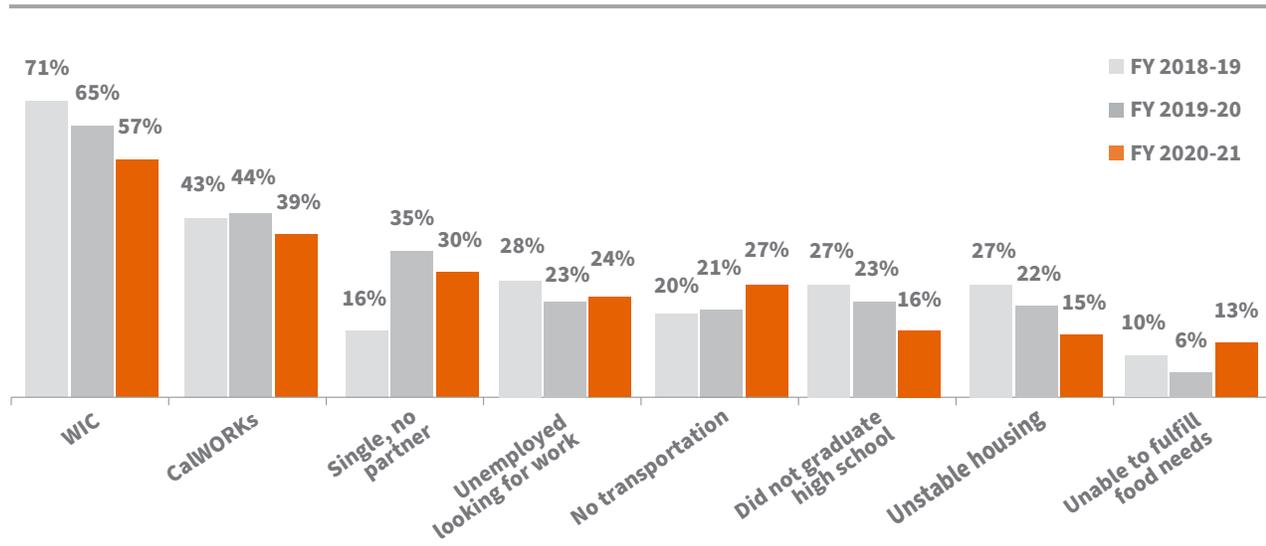
More than half of the participants (57%, 90/158) were enrolled in WIC services for nutritional support and more than one-third (39%, 62/158) were on CalWORKs. Because participants were generally low-income, the utilization of CalWORKs or WIC for additional support is considered a protective factor. CalWORKs utilization decreased compared to FY 2019-20 (44%) and FY 2018-19 (43%). WIC utilization reported at intake also decreased (57%), compared to FY 2019-20 (65%) and FY 2018-19 (71%).

<sup>1</sup> Trimester information was unknown for 1% of mothers participating in the program.

<sup>2</sup> Measuring program entry helps to ensure clients receive access to early prenatal care.

<sup>3</sup> All counts based on an N of 158 as one participant did not complete the Health Assessment Intake Form.

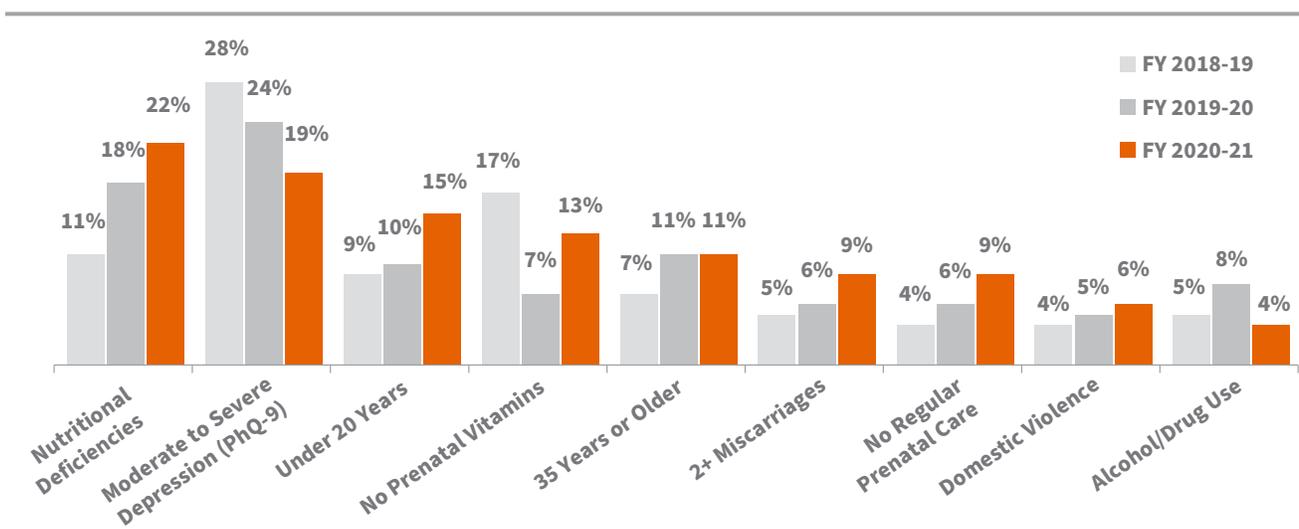
**Figure 4 — Socioeconomic Factors Reported at Intake, Three-Year Trend**



Source: Health Assessment Intake. FY 2018-19 N = 215, FY 2019-20 N = 179, FY 2020-21 N = 158.

In terms of **health** risks, about one in five BMU program participants in FY 2020-21 experienced nutritional deficiencies (22%, 34/158) and moderate to severe levels of depression (19%, 21/108). About 15% of participants were under 20 years of age during their pregnancy, and 15% had another child less than one year old at the time of intake.<sup>4</sup> Additionally, 13% were not taking prenatal vitamins and about one in ten (11%) participants were 35 or older at the time of their pregnancy. Compared to FY 2018-19 and FY 2019-20, fewer participants in this fiscal year had moderate to severe PhQ-9 depression scores, while a larger proportion were under 20 years of age or not taking prenatal vitamins.

**Figure 5 — Top Health Factors Reported at Intake, Three-Year Trend**

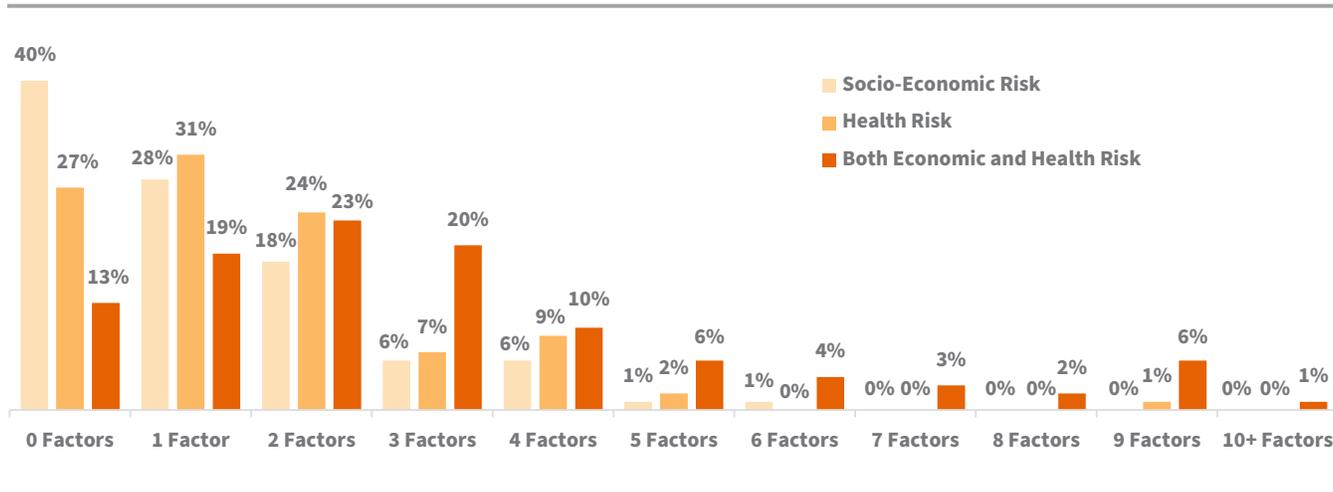


Source: Health Assessment Intake. FY 2018-19 N = 215, FY 2019-20 N = 179, FY 2020-21 N = 158, though response rates may vary for each variable.

<sup>4</sup> Multiple births spaced closely together can increase adverse outcomes for mothers and babies, including low birthweight and premature birth. <https://www.mayoclinic.org/healthy-lifestyle/getting-pregnant/in-depth/family-planning/art-20044072>.

The aggregate number of socio-economic and health risk factors from the figures above were also calculated (see figure below). **Overall, 94% of BMU clients served had at least one health and/or socioeconomic risk factor.** Most participants had at least one health risk (74%) and/or at least one socioeconomic risk (60%). The specific breakdown of risk factors is provided in the figure below.

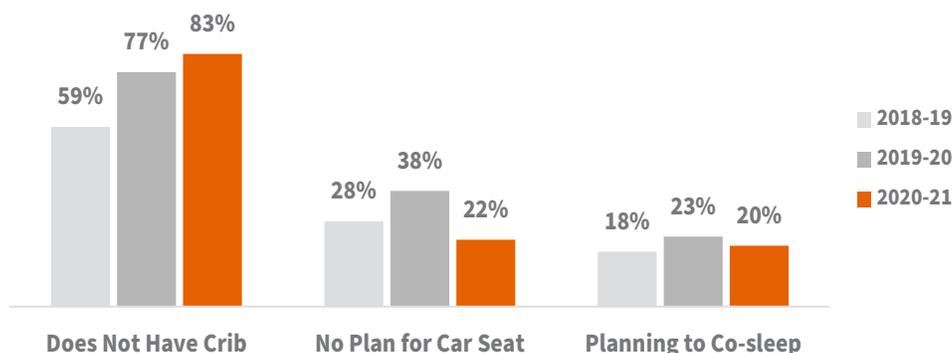
**Figure 6 — Percentage of Clients by Number and Type of Risk Factors, FY 2020-21**



Source: Health Assessment Intake. N = 158.

The health assessment also gauges mothers’ preparedness for caring for the safety of their infants. Coaches provide resources, referrals, and education when needs are identified. As seen below, most (83%, 128/154) of the participants in FY 2020-21 did not have a crib at the time of intake. The proportion of new participants without a crib has increased since FY 2018-19 (59%) and FY 2019-20 (77%). On the other hand, the percentage of participants that did not yet have a plan for a car seat decreased to 22% (34/154) from 38% in FY 2019-20. One in five participants (20%) were planning to co-sleep with their child, including those that reported co-sleeping along with some other sleeping arrangement. The percentage planning to co-sleep decreased slightly since FY 2019-20 (23%), although remains slightly higher than 2018-19 proportions (18%).

**Figure 7 — Infant Safety Risk Factors Reported at Intake**

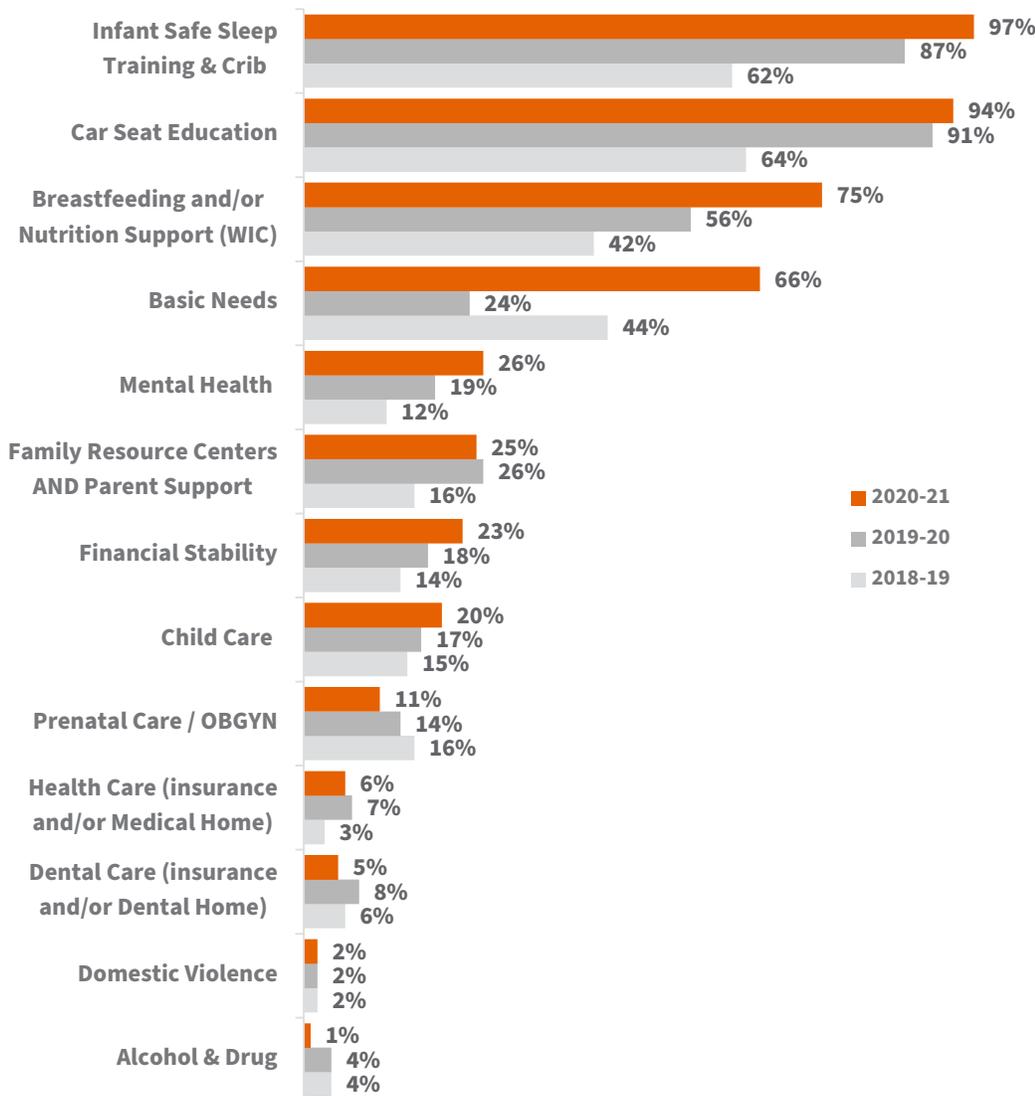


Source: Health Assessment Intake. N = 158, though response rates vary for each variable

## REFERRALS

A key role of BMU’s pregnancy coaches is to assess mothers’ needs and provide referrals throughout their pregnancy as challenges arise. Referrals were given to women in the program based on self-reported needs and the needs observed by their pregnancy coaches. Nearly all participants received a referral for infant safe sleep training and crib (97%, 149/154) and car seat education and safety (94%; 144/145). Proportions of **referrals for these services have continued to increase** since FY 2019-20 (87% and 91%, respectively) and FY 2018-19 (62% and 64%, respectively). Additionally, three-quarters of the participants received one or more referrals for breastfeeding and/or nutritional support (i.e., WIC) at intake.

**Figure 8 — Percent of Clients Receiving Referrals, by Type, Three-Year Trend**



Source: Care Plan and Referral Log. N = 154. Five clients served in FY 2020-2021 were missing intake referral data.

As part of case management, pregnancy coaches help their clients connect to the services they need. When clients report contacting requested services, coaches log the initial referrals as having been followed up. Because follow-up data was not available on every client, the next analysis presents referral information on the 94 clients who had initial referrals and an exit form. For instance, 98% of clients who completed an exit form were referred for infant safe sleep training during their time in the BMU program. Among those referred, 43% said they were able to follow-up on the referral, and 43% of those that followed-up said they received the infant safe sleep training.

The impact of COVID-19 needs to be acknowledged here as well, as many partner services continued to have reduced capacity or limited in-person services throughout FY 2020-21. It is possible that some mothers may have been unable to access services for which they were referred. The role of BMU's pregnancy coaches also continued to shift to adapt to changing needs related to COVID-19. Coaches had to navigate local, state, and national safety requirements while also assisting clients with navigating systems that were constantly changing due to the pandemic and increasing focus on families' access to basic needs among unprecedented circumstances.

**Figure 9 — Type of Referrals Provided and Client Report of Follow-Ups and Service Connections among Exited Program Participants**

Referral Type	Number of Referrals Given	Percentage Receiving Referral	Number of Referrals Followed Up	Percentage of Referrals Followed Up	Number of Services Received	Percentage of Services Received
Car Seat Education	88	94%	32	36%	13	41%
Infant Safe Sleep Training and Crib Provided	92	98%	40	43%	17	43%
Breastfeeding / Nutrition Support (WIC)	58	62%	33	57%	14	42%
Basic Needs	59	63%	32	54%	11	34%
Family Resource Centers/ Parent Support	24	26%	9	38%	3	33%
Mental Health/Counseling	21	22%	6	29%	3	50%
Financial Stability	17	18%	13	76%	5	38%
Prenatal Care/OBGYN	13	14%	6	46%	4	67%
Child Care	18	19%	12	67%	4	33%
Dental Care	5	5%	2	40%	1	50%
Health Care (Insurance or Medical Home)	8	9%	5	63%	2	40%
Alcohol and Drug	1	1%	1	100%	1	100%
Domestic Violence	2	2%	1	50%	0	0%
Previous High-Risk Pregnancy	2	2%	1	50%	1	100%
Sexually Transmitted Infection	0	0%	NA	NA	NA	NA

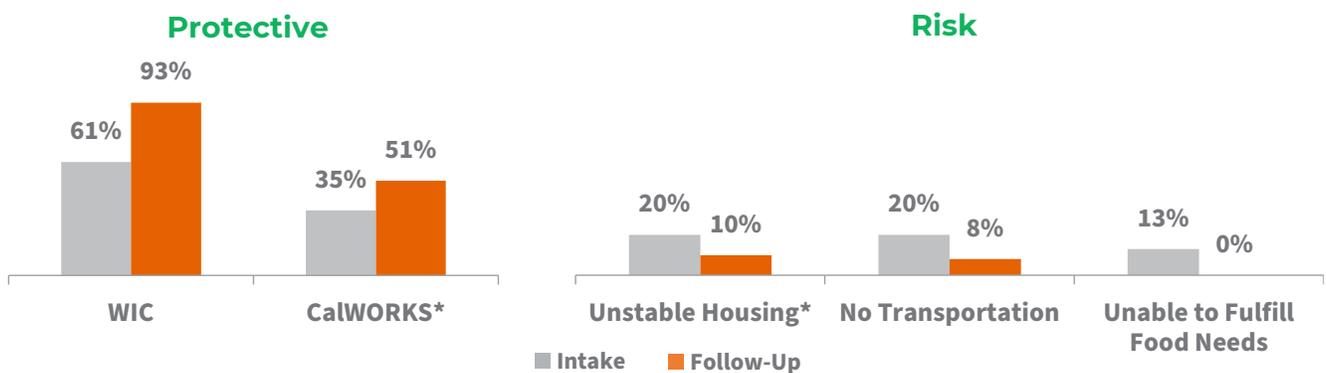
Source: Care Plan and Referral Log, 2020-21. Follow-up status is assessed for clients who have both a referral form and an exit form, therefore these numbers are different than in the figure above. N varies by item.

## CHANGES IN RISK AND PROTECTIVE FACTORS

One of the primary objectives of the Pregnancy Peer Support program is to understand factors that pose a direct risk to the health of the baby as well the health and well-being of mothers. During intake and follow-up health assessments, clients are asked to self-report on a variety of factors related to socioeconomic conditions, psychosocial well-being, maternal health, and infant safety. The following presents results from a matched set of clients (n = 82) who completed both intake and follow-up assessments.

Participants with both an intake and follow-up assessment increased their use of **socioeconomic protective resources**. WIC enrollment increased 32 percentage points (61%, 50/82 at intake; 93%, 76/82 at follow-up). More participants also had CalWORKs financial support between intake (35%, 29/82) and follow-up (51%, 42/82). Participants also decreased (improved upon) all **socioeconomic risk factors** related to resource information provided by the BMU program. Participants experiencing unstable housing decreased by 50% (16/82 at intake and 8/82). Access to transportation substantially improved between intake (20% with transportation needs) and follow-up (8% without transportation). At intake, 13% (10/78) were unable to fulfill food needs. At follow-up, ALL participants that completed both assessments were able to fulfill their food needs. These findings continue to indicate that BMU participants increased connections with essential services that improved their families' stability and basic needs.

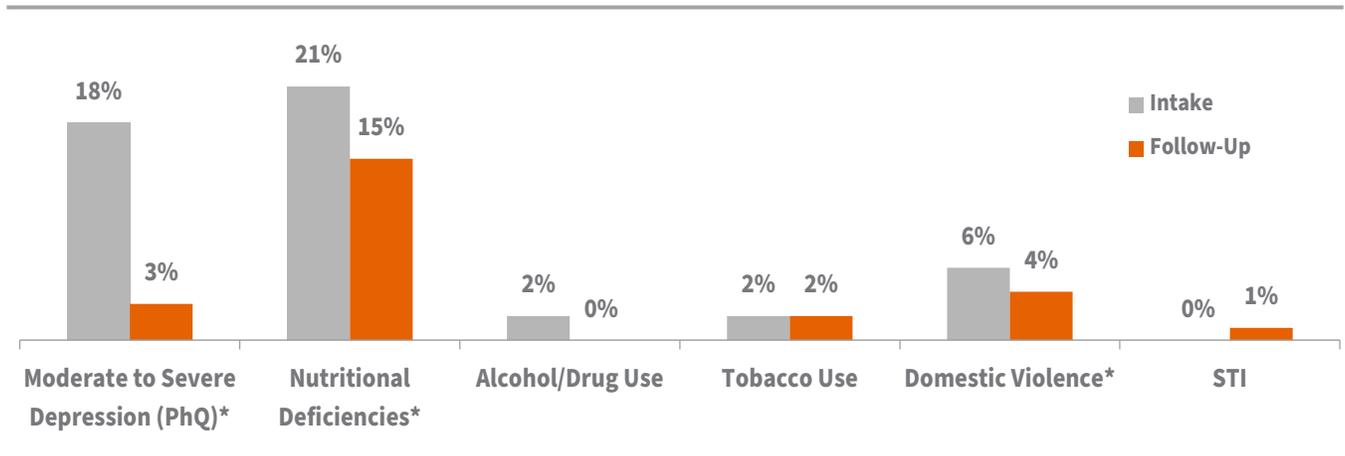
**Figure 10 — Change in Reported Socioeconomic Factors from Intake to Follow-up Assessment**



Source: Health Assessment Intake and Follow-up. Matched sets; N = 82. N's may vary based on item response rate. Column names marked with \* represent a statistically significant change.

As for **health risk factors**, participants with both intake and follow-up assessments were most likely to experience nutritional deficiencies (21%) or moderate to severe depression<sup>5</sup> (18%) at intake. At follow-up, mothers with moderate to severe depression (3%) substantially decreased. Mothers reporting nutritional deficiencies at follow-up (15%) decreased six percentage points after program completion. Reports of domestic violence and alcohol/drug use also decreased.

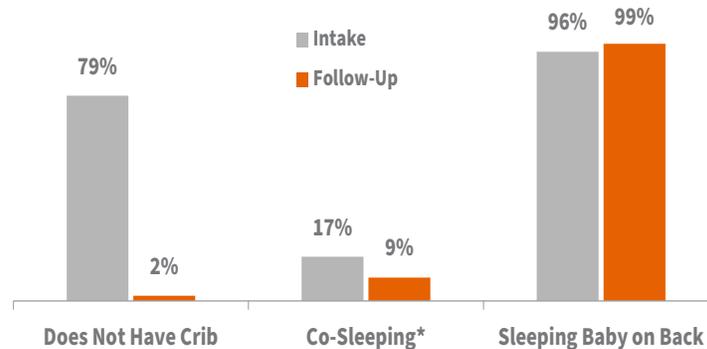
**Figure 11 — Change in Reported Health Factors from Intake to Follow-up Assessment**



Source: Health Assessment Intake and Follow-up. Matched sets; N = 82 for all categories except depression, where N = 64. Column names marked with \* represent a statistically significant change.

After completion of the BMU program, participants also displayed positive changes in **preparedness for infant safety**. At intake, 79% of mothers did not have a crib for their baby, which reduced to only 2% at the time of their follow-up. The proportion of parents planning to co-sleep with their baby (17%) also decreased to 9% upon completion of the program.<sup>6</sup> Nearly all (99%) reported that babies were put to sleep on their backs after program completion, a slight increase from those who intended to sleep babies on their back at intake (96%).

**Figure 12 — Change in Reported Infant Safety Practices from Intake to Follow-up Assessment**



Source: Health Assessment Intake and Follow-up. Matched sets; N = 82. Categories marked with \* represent a statistically significant change.

<sup>5</sup>As defined by the PhQ-9 assessment.

<sup>6</sup>Co-sleeping includes some mothers reporting co-sleeping and some other sleeping arrangement (i.e., crib).

## BIRTH OUTCOMES

Birth outcome information was provided by mothers during their postpartum visit with their Pregnancy Coach. There were a total of 85 infants born,<sup>7</sup> including 83 singletons and one set of twins (2 infants). For the second consecutive year, there were zero infant deaths reported as of the mothers' postpartum follow-ups.

*For the second consecutive year, there were zero fetal or perinatal deaths among infants born during BMU program involvement.*

Of the 85 infants, 83.5% (71/85) were born at a healthy birthweight, 83.5% (71/85) were born full term, and combined, 76% (65/85) had a healthy birth outcome in that they were born at a healthy birthweight and full term. In terms of less favorable outcomes, 16% (14) of the 85 babies were born low birthweight and 15% (13) of infants were born preterm.<sup>8</sup> Eight infants (9%) were born both low birthweight and pre-term. Ten babies stayed in the NICU and one was born with jaundice. The proportion of babies born with unfavorable outcomes remain similar to those in FY 2018-19 and FY 2019-20. See Appendix 1 for a list of factors associated with individuals' adverse birth outcomes.

In terms of perinatal outcomes, at the time the Pregnancy Outcome Form was completed approximately one month postpartum, 87% (74/85) of babies had been taken for well-baby checks with a pediatrician. Infants receiving well-baby visits increased from 79% in FY 2019-20. Similar to last fiscal year, 65% (55/85) of babies exclusively breastfed in the hospital, and 19% (16/85) breastfed in combination with formula in the hospital, meaning that **84% of infants received some, or only, breastmilk in the hospital**. Hospital breastfeeding rates increased from 78% in FY 2019-20. At follow-up, 40% (34/85) of babies were exclusively breastfed and 28% (24/85) were receiving a combination of breastmilk and formula. In total about **two-thirds (68%) were receiving some, or only, breastmilk as of their first postpartum home visit**.

**Figure 13 — Birth and Perinatal Outcomes of Pregnancy Peer Support Clients**

	All Infants (N = 85)		Twins (N=2)		Singletons (N=83)	
Live births	85	100%	2	100%	83	100%
<b>Favorable Outcome</b>						
Healthy birthweight	71	84%	1	50%	70	84%
Full term birth	71	84%	0	0%	71	86%
Healthy birthweight and full term birth	65	76%	0	0%	65	78%
<b>Unfavorable Outcome</b>						
Preterm birth <sup>†</sup>	13	15%	2	100%	11	13%
Low birthweight	14	16%	1	50%	13	16%
Newborn death	0	0%	0	0%	0	0%

Source: Pregnancy Outcomes Form. † Note, gestational weeks at birth was unknown for one infant.

<sup>7</sup> Number of infants born from mothers who joined BMU in either FY 2019-20 or FY 2020-21 and received service(s) in FY 2020-21.

<sup>8</sup> Gestational weeks at birth was unknown for one infant.

The figure below represents the prevalence of key risk and protective factors across different profiles of birth outcomes to discern the association between maternal factors and birth outcomes: healthy births (not low birthweight, not preterm), one poor birth outcome (either low birthweight or preterm), and both poor birth outcomes (low birthweight and preterm). The proportion of mothers' WIC enrollment was higher for those with healthy births (62% enrolled) compared to those with one poor outcome (55% enrolled) and two poor outcomes (38%). Single, unpartnered mothers also comprised a larger portion of those with one (45%) or two (50%) poor birth outcomes, compared to those with healthy births (28%).

**Figure 14 — Birth Outcomes based upon Risk and Protective Factors Identified at Intake**

Pregnancy Risk and Protective Factors from Intake	Healthy Births (N = 65)		Either LBW or Preterm (N = 11)		Both LBW and Preterm (N = 8)	
	n	%	n	%	n	%
<b>Health Factors</b>						
No Regular Prenatal Care	5	8%	2	17%	2	22%
2+ Miscarriages	4	6%	0	0%	2	25%
35 years or older	7	11%	0	0%	2	22%
Under 20 years old	6	9%	2	17%	2	22%
No Prenatal Vitamins	2	3%	1	9%	2	25%
STI	0	0%	0	0%	0	0%
Alcohol or Drug Use	5	8%	0	0%	0	0%
Tobacco Use	2	3%	0	0%	0	0%
Anxiety/Depression	21	32%	4	36%	1	13%
Nutritional Deficiencies	14	22%	1	9%	3	38%
Obesity	5	8%	0	0%	0	0%
<b>Socioeconomic Factors</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
WIC	40	62%	6	55%	3	38%
CalWORKs	23	35%	5	45%	3	38%
Did Not Graduate High School	8	12%	1	9%	1	13%
Unstable Housing	9	14%	0	0%	1	13%
No Transportation	13	20%	2	18%	1	13%
Unable to Fulfill Food Needs	7	11%	3	27%	2	25%
Unemployed, Looking for Work	8	12%	2	18%	1	13%
Single, Unpartnered	18	28%	5	45%	4	50%

Pregnancy Risk and Protective Factors from Intake	Healthy Births (N = 65)		Either LBW or Preterm (N = 11)		Both LBW and Preterm (N = 8)	
	M	SD	M	SD	M	SD
<b>Program Factors</b>						
<b>Gestational Weeks at BMU Intake</b>	21.29	7.10	19.50	8.15	22.57	9.16
<b>Gestational Weeks at First Prenatal Visit<sup>9</sup></b>	8.53	4.63	8.50	3.87	6.50	3.54
<b>Number of BMU Weekly Check-Ins<sup>10</sup></b>	11.85	7.98	13.55	8.29	4.83	4.62

Source: Health Assessment Form, Pregnancy Outcomes Form, and Exit Form. Note: Gestational weeks at birth was unknown for one infant, thus outcomes are not reported here (n=84).

## FACTORS ASSOCIATED WITH ADVERSE BIRTH OUTCOMES

In order to understand the factors that are associated with adverse birth outcomes, a series of analyses were conducted. It is important to note that none of the following analyses imply causation. It is likely that other factors played into the relationship between the studied variables. In addition to a dichotomous adverse birth outcome variable (either yes, there was an unhealthy birth outcome, or no, it was a healthy birth), two other outcome variables (birthweight and gestational age) were analyzed as separate dependent variables, as it is likely that there are different predictors for each.

- The first outcome variable examined whether there was a healthy or unhealthy birth, as a dichotomous variable.
- The second outcome variable examined birthweight as a continuous variable.
- The third outcome variable examined gestational age as a continuous variable.

First, in order to identify factors that had a significant relationship to the outcomes studied, correlations were conducted on all variables identified in the figure above. Correlations imply a relationship between two variables; significant correlations mean variables are related to one another in some way (though correlations do not mean that a variable caused an outcome). Across the outcomes analyzed, significantly correlated variables are shown in the figure below (variables that were not correlated with any birth outcome are not displayed). All correlations were in the expected directions (i.e., someone who was unable to fulfill food needs was more likely to have an adverse birth outcome). Three cohorts of BMU clients (FY 2018-19 through FY 2020-21) were included to increase statistical power. This increased the sample size to 288.

<sup>9</sup> There were large amounts of missing data in this category, results should be interpreted cautiously. Out of 87 participants reporting having had a first prenatal visit, 26 (30%) did not report the number of gestational weeks.

<sup>10</sup> Numbers reported here are comprised of the 61 women who delivered and exited the program, as valid check-in counts are only available after exit.

**Figure 15 — Factors that Correlate with Birth Outcomes**

Risk Factors at Intake	Analysis 1	Analysis 2	Analysis 3
	Adverse Birth Outcome	Birthweight	Gestational Age
	(Dichotomous; Y/N)	(Continuous)	(Continuous)
Unable to fulfill food needs	●	●	●
Unemployed, looking for work		●	
Anxiety or depression	●	◆	
Obesity	●	●	
Tobacco use	◆	●	
Alcohol/drug use		◆	
Number of check-ins with BMU pregnancy coach	●	●	●
Weeks at BMU Intake		◆	

Source: Health Assessment Form, Pregnancy Outcomes Form, and Exit Form. Spearman’s rho correlation coefficient used for Analysis 1 due to dichotomous categorical outcome variable. A green dot represents statistical significance of at least  $p < .05$ . The gray diamond represents marginal statistical significance at  $p < .10$ . Sample sizes for each correlation vary due to missing data.

Next, ASR conducted regressions to determine how each of the correlated variables identified (above) independently predicted birth outcomes. Regressions are more sophisticated than correlations and can discern if an independent variable is able to statistically predict an outcome variable, over and above the influence of any other covariates. *Variables that were not significantly correlated with birth outcomes were not included in regression models since they did not have a statistical relationship or impact on one another.* It is important to note that although regressions provide more sophisticated analyses than correlations, they do not imply causal relationships. As with the correlational analysis, clients from FY 2018-19, FY 2019-20, and FY 2020-21 cohorts were included for analysis to increase power of results (N = 288).

First, a logistic regression was conducted on the dichotomous measure of adverse birth outcomes (yes/no). Inability to fulfill **food needs** and **fewer check-ins with a BMU pregnancy coach** both independently predicted having an adverse birth. The odds of an unhealthy birth outcome (low birthweight and/or preterm) were 2.7 times greater for clients who were unable to fulfill food needs at intake, and each additional check-in significantly decreased the odds of an adverse birth outcome.

*Tobacco use, inability to fulfill food needs, obesity, and fewer check-ins with a BMU pregnancy coach each predicted having an infant with one or more adverse birth outcomes.*

Secondly, results of a linear regression on the continuous birthweight variable highlighted that obesity, tobacco use, and number of weekly BMU check-ins each independently correlated with infant birthweight. **Tobacco use** and **fewer check-ins with the BMU pregnancy coach** each independently predicted having an infant with a lower birthweight.

Maternal **obesity** was predictive of a child having a higher birthweight, which may have its own health impacts on the mother and infant, including a greater likelihood of a cesarean delivery<sup>v</sup> or pre-term birth.<sup>vi</sup>

Lastly, a linear regression was conducted on the continuous outcome of gestational age. Clients **unable to fulfill food needs** at intake were significantly more likely to deliver at an earlier gestational age. On the other hand, **more check-ins with a BMU pregnancy coach** independently predicted delivering an infant at a higher gestational age. This demonstrates the program’s impact on birth outcomes and may provide evidence that increasing check-ins positively impact the mother and child. Continued support of BMU check-ins and a deeper understanding of barriers some mothers may face to attend regular check-ins may provide further opportunities for growth and impact.

The table below displays the factors that were found to independently predict birth outcomes.

**Figure 16 — Factors that Independently Predict Birth Outcomes**

Risk Factors at Intake	Analysis 1	Analysis 2	Analysis 3
	Adverse Birth Outcome (Dichotomous; Y/N)	Birthweight (Continuous)	Gestational Age (Continuous)
	N = 237	N = 222	N = 235
Unable to fulfill food needs	●		●
Tobacco use	◆	●	
Obesity		●	
Number of Check-ins with BMU Pregnancy Coach	●	●	●

Source: Health Assessment Form, Pregnancy Outcomes Form, and Exit Form. A green dot represents statistical significance of at least  $p < .05$ . A gray diamond represents marginal significance at  $p < .10$ . Sample sizes vary due to missing data.

Overall, there were multiple risk factors correlated with having an adverse birth outcome. When further explored to best understand the relationships between variables and outcomes, food needs, obesity, tobacco use, and fewer check-ins with a BMU pregnancy coach emerged as significant independent predictors of one or more adverse birth outcomes. It is important to note that regression model outcomes may still be impacted by relatively rare exposure to risk factor (e.g., 4% of participants reported tobacco use). Analyses also exclude the unmeasurable structural level characteristics that may impact birth outcomes (e.g., adverse childhood experiences, and the long-term toll of racism and/or socioeconomic conditions on the mother’s health). Regardless, these results may provide guidance for program focus and improvements (i.e., exploring new ways to encourage and support tobacco cessation or reminding clients of the many benefits of frequent and consistent check-ins with their pregnancy coach).

## LEVEL OF PROGRAM COMPLETION

The BMU program strives to reach pregnant women wherever they are in their pregnancy, and sometimes this is not until later in gestation. Different dosage thresholds were set based upon mothers' trimester of entry to evaluate the extent to which participants completed the program. Women who entered the program during their first trimester have the opportunity to complete at least 21 prenatal visits with their Pregnancy Coach; therefore, the minimum threshold of completion for women in the First Trimester Cohort is 21 prenatal visits. Ideally, women who entered the program in their second trimester would have ten or more prenatal visits, and women who entered in their third trimester would have six or more prenatal visits.

*"Days I wanted to give up, it wasn't an option ... they wouldn't let you give up. They have your back 100 percent and support you through the whole way."*

– **BMU Client**

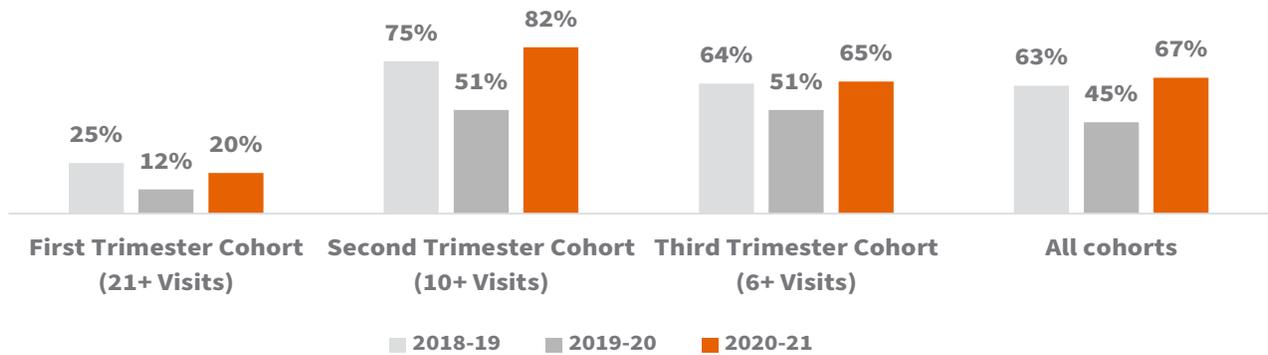
The BMU program reaches a high-need population, and retention of this population has historically been a challenge, particularly amidst a global pandemic. Program completion is defined as completing a) the minimum prenatal service requirements based on the trimester of entry and b) a postpartum visit with the BMU pregnancy coach. Partial completion is defined as completing one but not both requirements. Participants who exited without completing either requirement are categorized as not completing the program. Amongst participants who completed the program, the figure below illustrates the level of prenatal visit completion per cohort, as well as an average across all cohorts. Out of the 61 women who delivered and exited the program in FY 20-21,<sup>11</sup> **two-thirds (67%, 41/61) had completed the minimum number of prenatal visits based on their timing of program entry**. Twenty percent (2/10) of mothers entering the program in their first trimester, 82% (28/34) of those entering in the second trimester, and 65% (11/17) entering in the third trimester completed the minimum number of prenatal visits.

Despite the continued impact of the COVID-19 pandemic and fewer women delivering and exiting the program, the proportion completing the minimum number of prenatal visits was higher than in FY 2019-20 (44%) or FY 2018-19 (63%). FY 2019-20 rates may reflect the initial impact of COVID-19 when shelter-in-place orders and high levels of uncertainty limited the ways women could achieve weekly visits with coaches (e.g., transportation services suspended for three months). As communities got more accustomed to virtual visits, program completion rates may have increased back to pre-pandemic proportions. However, since the number of participants remained lower than the previous two fiscal years, barriers (e.g., stressors for basic needs, access to reliable Internet source for virtual sessions) exacerbated or caused by the pandemic may still be impacting program involvement and completion.

---

<sup>11</sup> Some mothers remain in the program for up to six months postpartum and therefore, some of these mothers joined the BMU program in FY 19-20.

**Figure 17 — Completion of Prenatal Service Requirements, by Trimester Cohort of Entry, Three-Year Trend**

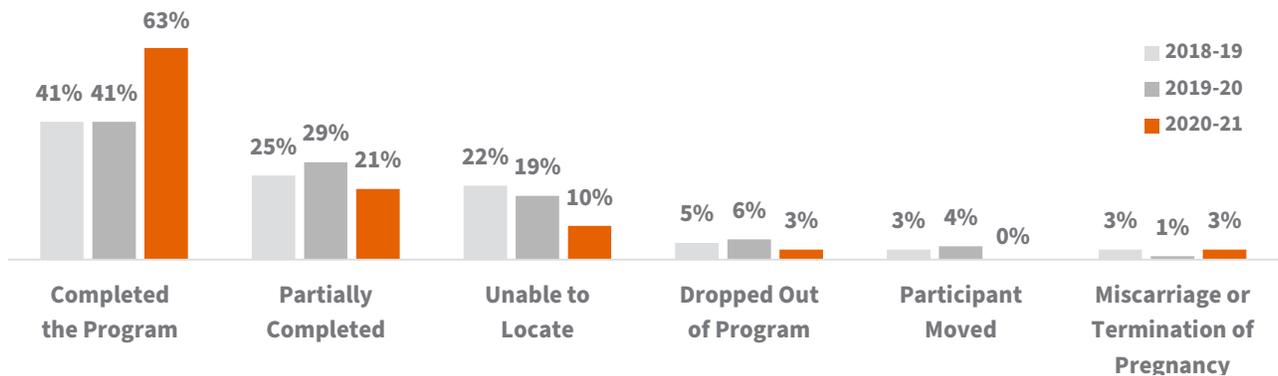


Source: Exit Form. Data are not presented for clients who do not have an exit form, as the dosage status is unknown. FY 2018-19 N = 62, FY 2019-20 N = 123, FY 2020-21 N = 61.

Another essential component of the Pregnancy Peer Support model is the **postpartum support provided by coaches**. These visits typically occurred around 30-days after delivery and provided an opportunity for coaches to learn about the delivery outcome, check in on mom and baby’s well-being, complete the postpartum paperwork, and provide referrals to any necessary resources. In FY 2020-21, all participants (100%, 61/61) that delivered and completed an exit form met with their pregnancy coach for at least one postpartum visit. In comparison, 68% of the FY 2019-20 participants and 97% of FY 2018-19 participants met with their pregnancy coach for at least one postpartum visit.

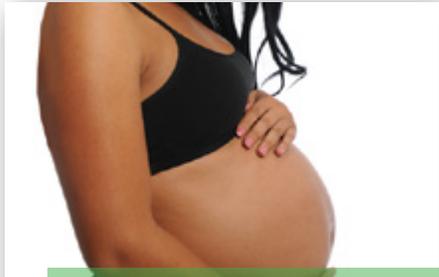
Among all participants exiting the BMU program in FY 2020-21, 63% completed both the minimum number of prenatal visits and a postnatal visit with their coach, while 21% completed one of the two requirements. Participants completing both components was higher than the previous two fiscal years (41%), and the proportion of those that BMU was unable to locate (10%) or those that dropped out of the program (3%) decreased compared to previous fiscal years.

**Figure 18 — Status at Program Exit, Three-Year Trend**



Source: Exit Form. FY 2018-19 N = 149, FY 2019-20 N = 123, FY 2020-21 N = 96.

## CLIENT SUCCESS STORIES



**Vivian**<sup>12</sup> is a second-time mom who initially connected with BMU in 2019 while pregnant with her first daughter. During that pregnancy, Vivian’s coach assisted her with “a lot of help and supplies,” attended doctor’s appointments, and assisted her when she did not have transportation, “even in the rain, even though she had her own children.” Vivian also felt that the Mommy Mingle groups helped remind her she was not alone, even when she felt like it. She also learned how to use a car seat as a first-time mom, and had a space to talk about depression, mental health, and experiences with doctors not meeting their needs.

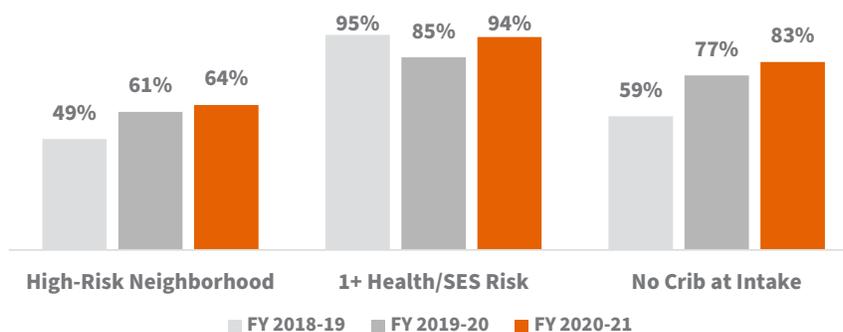
Vivian became pregnant with her second child in 2021. Around that time, she also became homeless along with her two-year-old, and “was doing really bad.” She reconnected with BMU and her pregnancy coach assisted her with several weeks of hotel vouchers, helped her find listings for jobs that were hiring, assisted her with groceries, and made sure she and her family were safe. As Vivian described, “[my pregnancy coach] made sure my mental health wasn’t failing due to my situation. She never made me feel alone even at my worst part of life... I was so grateful I cried.” For Vivian, the BMU program was an essential source of support and family, particularly among her most difficult times. As she explained, even on the days she wanted to give up, the BMU program would not let her. “They have your back 100 percent and support you through the whole way... They have helped my family and I in so many ways; I can’t thank them enough.”

## THREE-YEAR TRENDS, FY 2018-19 TO FY 2020-21

Between FY 2018-19 and FY 2020-21, BMU served a **highly vulnerable population**.

- A large portion of BMU clients lived in one of the seven designated high-risk neighborhoods.
- Nearly all participants had at least one health and/or socioeconomic risk factor at intake.
- BMU increasingly received clients that did not yet have a crib for their baby at the time of intake.
- Needs may have been exacerbated by the global COVID-19 pandemic, beginning in March 2020.

**Figure 19 — Three-Year Risk Factors (2018-19 to 2020-21)**



Source: Health Assessment Intake. Ns vary for each variable and year.

<sup>12</sup> Fictitious names used for clients throughout success stories. Client images are stock photos that are posed by models.

Each year, about half of all mothers served entered during their **second trimester**. COVID likely impacted program participation (16% decrease between FY 18-19 and FY 19-20 and a further 12% decrease between FY 19-20 and FY 20-21), although BMU staff adapted their programming to safely serve clients in virtual settings including group and individual workshops.

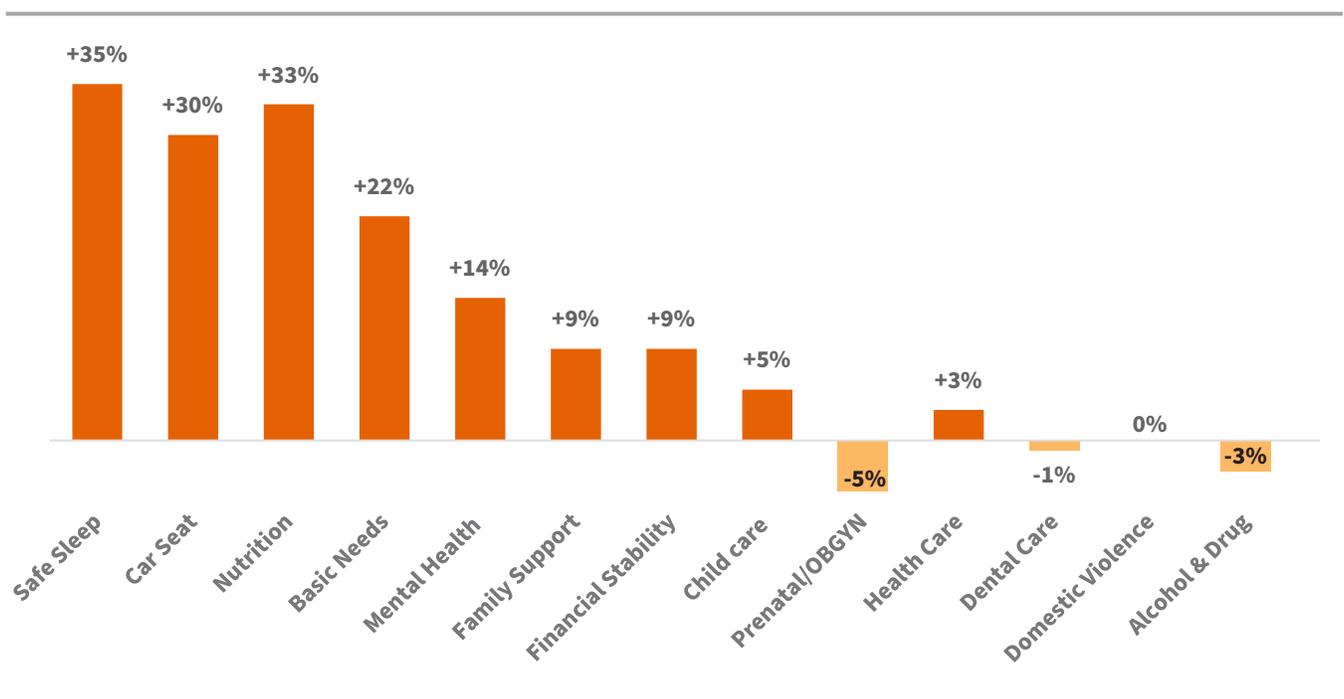
Despite fewer mothers served, BMU clients have consistently shown improvements in protective factors, safe sleep practices, access to resources, and decreased health risks and psycho-social barriers. Among participants with intake and follow-up health assessments, BMU clients typically:

- Increased their use of protective factors (WIC and CalWORKs)
- Increased access to stable housing, transportation, and were able to fulfill food needs
- Decreased reports of moderate to severe depression (PhQ-9) and nutritional deficiencies.

Additionally, 94% to 98% of clients had **access to a crib** by the time they completed their BMU program. Reported rates of co-sleeping decreased for the first time in FY 20-21 (17% at intake, 9% at follow-up). Nearly all participants reported sleeping their baby on their back at follow-up.

Between FY 2018-19 and FY 2020-21, BMU largely **increased outgoing referrals**. Infant safe sleep, car seat education, and breastfeeding/nutrition referrals increased more than 30%. Nearly all participants received a referral to infant safe sleep training (97%) and car seat education (94%) in FY 2020-21. Referrals to prenatal/OBGYN care and alcohol and drug treatment decreased slightly, overall. The number of referrals for sexually transmitted infections, dental care, and domestic violence largely stayed the same across the three years (not pictured below).

**Figure 20 —Three-Year Increased Outgoing Referrals (2018-19 to 2020-21)**



Source: Care Plan and Referral Log FY 2018-19, FY 2019-20, and FY 2020-21.

Between FY 2018-19 and FY 2020-21, BMU client **birth and perinatal outcomes** were favorable, overall:

- Most babies were born at a healthy birthweight and full term (70% FY 18-19, 84% FY 19-20, 77% FY 20-21).
- The proportion of clients reporting a well-baby check up with a pediatrician increased from 56% in FY 18-19 to 87% in FY 20-21.
- Almost two-thirds of mothers reported exclusively breastfeeding in the hospital in FY 19-20 (63%) and FY 20-21 (65%).

Despite overall favorable outcomes, the proportion of clients with low birthweight (21% FY 18-19, 14% FY 19-20, 16% FY 20-21) or pre-term births (15% FY 18-19, 8% FY 19-20, 15% FY 20-21) typically remained higher than Sacramento African Americans (12% LBW, 13% pre-term) or the total countywide population (7% LBW, 9% pre-term).<sup>13</sup> Between FY 2018-19 and FY 2020-21, the **factors predicting adverse birth outcomes** (low birthweight and/or pre-term birth) commonly included fewer check-ins with BMU pregnancy coaches, anxiety or depression, tobacco use, and a lack of basic needs (i.e., inability to fulfill food needs, unstable housing.) These patterns may highlight the added vulnerabilities of mothers served by BMU and the importance of these services in Sacramento County.

## OPPORTUNITIES FOR IMPROVEMENT

As coaches, staff, and community members continued to adapt to the unprecedented circumstances of FY 2020-21, BMU continued to make significant impacts on families in Sacramento County. In addition to these successes, the analyses discussed above highlight opportunities to improve the program further, such as:

- In partnership with First 5 and external evaluator, Applied Survey Research, expand efforts to measure and promote an understanding of structural racism as the root cause of adverse racial disparities impacting African American mothers and babies.
- Identify opportunities to leverage funding and stability to build more program capacity, thus serving more mothers in Sacramento County.
- Explore opportunities to expand support for tobacco use, obesity, and other health risk factors which correlated with adverse birth outcomes.
- Continue efforts to reach mothers as early in their pregnancy as possible and keep them engaged through the duration of their pregnancy. Work to remind families of the benefits of regular and consistent check-ins with the pregnancy coach and innovate ways to keep mothers engaged.
- Explore referral partnerships to enroll more mothers and enroll them earlier in their pregnancies. In FY 2020-21, the most common referral sources were word of mouth from friends or family (40%), BMU outreach (22%), Community Incubator Leads (9%), and social media (7%). Strengthening partnerships with OBGYN clinics and other service providers may support opportunities for growth.
- Continue efforts centering BMU in trauma-informed practice, including efforts that build on wellness and mindfulness. With this model, pregnancy coaches will learn basic mindfulness practices as a method of supporting themselves as “caregivers” and clients in the program will be encouraged to develop practices to support stress relief and general wellness during the postpartum period and beyond.

---

<sup>13</sup> Countywide rates include 2017-2019 rolling averages.



*Birth & Beyond supports a strengths-based approach, with a goal of decreasing child abuse and neglect through prevention and early intervention.*

## Family Resource Centers

The Birth & Beyond Family Resource Center (FRC) program is implemented by seven community-based organizations that aim to prepare staff with the skills and competencies to serve families through home visiting, parenting education workshops, crisis intervention, and social-emotional learning and supports (enhanced core) in nine Sacramento County neighborhoods.

First 5 Sacramento provides funding for FRCs with the goal of decreasing child abuse and neglect through prevention and early intervention. Birth & Beyond services intend to improve the lives of children and their families, especially those from particularly at-risk backgrounds. Birth & Beyond supports a strengths-based approach to case management to maximize the current skills of staff and each participant and to educate and increase skills in areas of need.

Birth & Beyond understands and values the cultural diversity in the population that it serves, and therefore takes great care in developing staffing that mirrors their clients in terms of demographic characteristics, language, and experience living or working within the service area. Throughout their tenure at Birth & Beyond, staff receive training, direct supervision, and experience to enhance their personal and professional development. In 2018-19, all FRCs underwent training with consultant Adele James and each FRC developed a plan to increase outreach and cultural responsiveness.

In addition to deliberate staffing, Birth & Beyond also strategically locates FRCs in neighborhoods characterized by high birth rates, low income, and above average referrals (and substantiated referrals) to the child welfare system for child abuse and neglect. FRCs are located in nine neighborhoods:

- Arden Arcade
- Del Paso Heights
- Meadowview
- North Highlands
- North Sacramento
- Oak Park
- Rancho Cordova
- South Sacramento
- Valley Hi

The locations of the FRCs coincide with neighborhoods identified by the Blue Ribbon Commission as the focal areas for the RAACD initiative. Although the focus is reducing child death across all of Sacramento County, one FRC was expanded (Valley Hi) and one FRC was re-established (Arden Arcade) with First 5 funding specifically serving African Americans and reducing the African American child death rate.

Located throughout Sacramento County in areas of high need, all FRCs provide standard services complemented by unique activities and special events that reflect the characteristics of its specific neighborhood. All Birth & Beyond activities, classes, community events, family activities, and direct services are operated out of the FRC neighborhood hubs. As discussed in previous sections, First 5 funded partners faced difficulties throughout FY 2020-21 due to the devastating impact of the COVID-19 pandemic on families and communities. With frequently changing safety regulations and risk at the local, state, and national level, parents faced elevated stress due to job loss, reduced access to childcare and resources/basic necessities, and shifts to virtual settings for things like schooling and work. These added hardships impacted Birth & Beyond’s programming, as they shifted to more crisis intervention. Additionally, some parents needed to prioritize their family’s essential needs and COVID-related anxieties over home visitation and workshop participation, leading to decreased attendance. This section should be read with these considerations in mind.

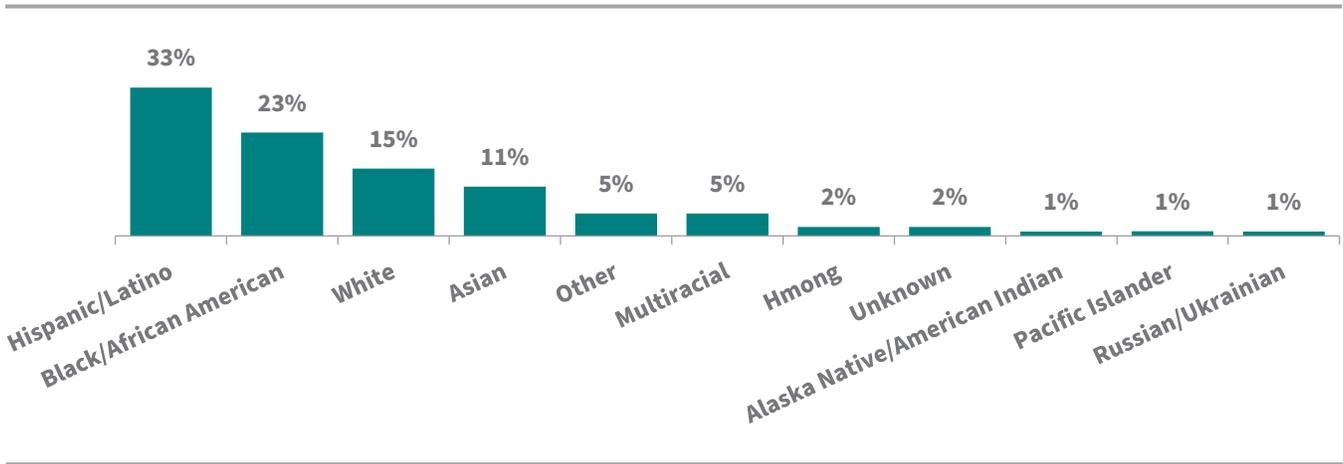
The core services provided by the FRCs during FY 2020-21 included home visiting, parenting education, crisis intervention services, and enhanced core services. Home visiting clients receive direct case management and parenting education through the *Nurturing Parenting Program* model. Due to COVID, services were provided using virtual platforms during FY 2020-21, compared to pre-COVID meetings in the family’s home. Parent education clients attend FRC-based workshops based upon either *Making Parenting a Pleasure* or *Nurturing Parenting Program* models. Crisis intervention clients receive intense, short-term case-management services for emergent situations, such as homelessness, food instability, domestic violence, substance abuse, or COVID-related emergency supplies. Enhanced core clients receive “light touch” services, such as FRC-based classes, events, or activities that are intended to augment other services the client is receiving, or to promote social and community engagement and therefore reduce isolation. All services that FRCs provide contribute to decreasing child abuse and neglect, however **the current report focuses on home visiting and parenting education outcomes.**

**Figure 21 — Birth & Beyond Services**



With funding from First 5 Sacramento, FRCs served an estimated 3,898 adults and 1,152 children in FY 2020-21. About 23% of clients served at FRCs identified as Black/African American. The figure below describes the ethnicity break-down for all participants. Birth & Beyond serves a more diverse population compared to Sacramento County’s overall population, which is about 44% White, 24% Hispanic/Latino, 17% Asian, 11% African American, and 5% some other race/ethnicity.<sup>14</sup>

**Figure 22 — Ethnicities Served at Family Resource Centers in Sacramento County**



Source: Birth & Beyond Demographics Report on Persimmony, FY 20-21.

## HOME VISITING

The Home Visiting program through Birth & Beyond for FY 2020-21 used the *Nurturing Parenting Program* (NPP), an evidence-based home visiting curriculum provided at least weekly, with a minimum of two months of visiting services. In FY 2020-21, 978 parents received at least one home visiting service funded by First 5 Sacramento, of which 223 (23%) identified as Black/African American. Three of the nine FRCs accounted for 51% (113/223) of all Birth & Beyond African American parents served through First 5 funded home visitation, including Valley Hi (40 parents), Firehouse (40 parents), and North Sacramento (33 parents).

Among the parents receiving First 5 funded home visiting, **296 received eight or more hours of home visiting**.<sup>15</sup> Of those with eight or more hours, 13% (37/291) identified as Black/African American. More than half (54%) of the Birth & Beyond African American parents receiving eight or more hours of First 5 funded home visitation were served by Valley Hi (seven parents), Firehouse (seven parents), and North Sacramento (six parents).

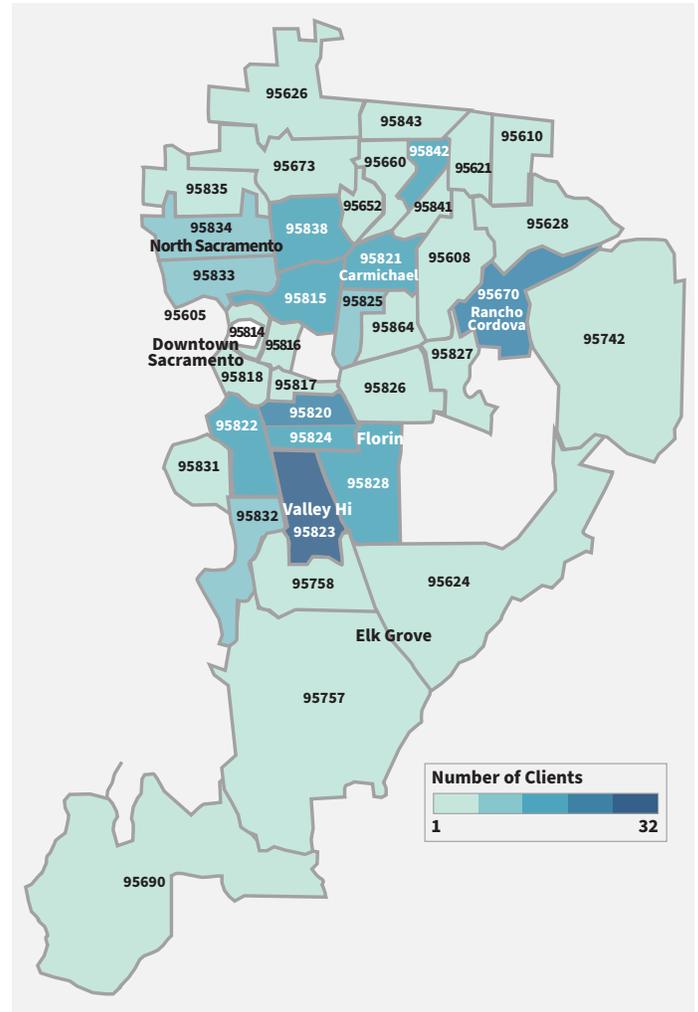
<sup>14</sup> Source: U.S. Census Bureau, 2020

<sup>15</sup> Birth & Beyond considers eight hours of home visiting to be the minimum needed for program impact. The prolonged impact of the COVID-19 pandemic likely contributed to reduced numbers of participants completing at least eight hours (e.g., “Zoom fatigue,” access to technology for virtual visits, preferences for in-person visits, prioritizing more pressing crises (such as employment, health, navigating virtual schooling, and reduced access to childcare).

The map displays the geographic location where home visiting participants resided. The largest number of home visiting participants completing eight or more hours were located in the Valley Hi neighborhood (zip code 95823, 11%). The areas with the fewest number of home visiting participants were primarily in areas surrounding the perimeter of Sacramento County. Among these home visiting participants, **about two-thirds (68%, 202/295) resided in one of RAACD’s seven targeted primary service areas.**

Home visiting participants were screened using the Adult Adolescent Parenting Inventory (AAPI),<sup>16</sup> a tool that measures risk for child maltreatment. It includes five domains: *Expectations of Children*, *Parental Empathy Towards Children’s Needs*, *Use of Corporal Punishment*, *Parent-Child Family Roles*, and *Children’s Power*. The AAPI inventory is designed to assess attitudes of parent and pre-parent populations, based on existing knowledge of the parenting and childrearing behaviors of abusive parents.<sup>17</sup> For instance, *expectations of children* identifies inappropriate expectations (e.g., tends to be demanding and controlling) and appropriate expectations (e.g., tends to be supportive of children). *Parental empathy* includes assessments of low levels of empathy (e.g., children must act right and be good) compared to high levels of empathy (e.g., children are allowed to display normal developmental behaviors.)

**Figure 23 — Location of Home Visiting Participants Receiving Eight or more Hours of Home Visiting**



Source: B&B First 5 Funded Home Visiting participants receiving eight+ hours home visiting. N=296.

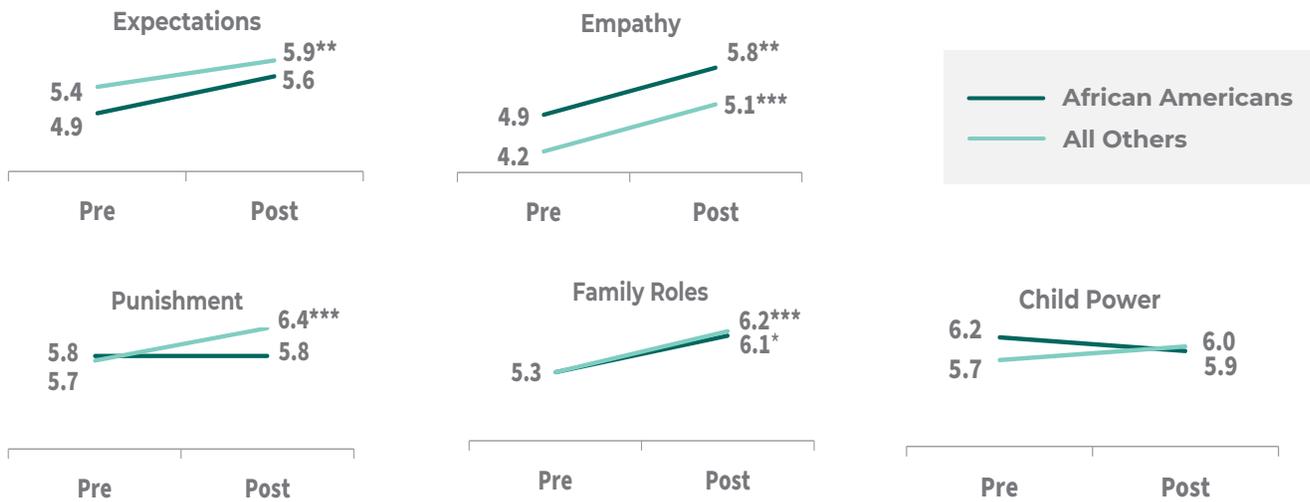
<sup>16</sup> FY 2020-21 was the last year that B&B used both the NPP and AAPI tools.

<sup>17</sup> Family Development Resources, Inc. Assessing Parenting (<https://assessingparenting.com/assessment/aapi>).

*Use of corporal punishment* compares concepts related to hitting, spanking, and authoritarian parenting to those that value alternatives to corporal punishment and democratic rule making. Measures of *parent-child family roles* include consideration of family-role reversals (e.g., treating children as confidants and peers) versus appropriate family roles (e.g., finding comfort and support from peers). Lastly, the *children's power* domain identifies behaviors that restrict power and independence in children (e.g., expecting strict obedience and devaluing compromise) and behaviors that value power and independence (e.g., encouraging children to express views while expecting cooperation.) Each item is scored on a scale of 1 (high risk) to 10 (low risk). In this assessment, increased scores indicate improvements in parenting and childrearing behaviors.<sup>18</sup>

In total, 203 parents had both a pre- and post-AAPI assessment after completing the NPP home visiting program. Of these, 32 (16%) were African American. The figure below displays mean scores on each AAPI domain, separated by African American and All Other Races. Overall, African Americans performed similarly to those of other racial backgrounds, and in general, scores on the AAPI tended to increase from pre- to post-assessment. However, for African Americans, their AAPI score on Children's Power decreased from pre- to post-test (although this change was not statistically significant).

**Figure 24 — Change in Mean Scores on AAPI in Pre- and Post-Test for Home Visiting Clients**



Source: : AAPI pre- and post-assessment scores, Birth & Beyond 2020-21. Note: African American N = 32. All Other Races N = 171. Statistical significance reported at post-test value as \* p < .05, \*\* p < .01, and \*\*\* p < .001.

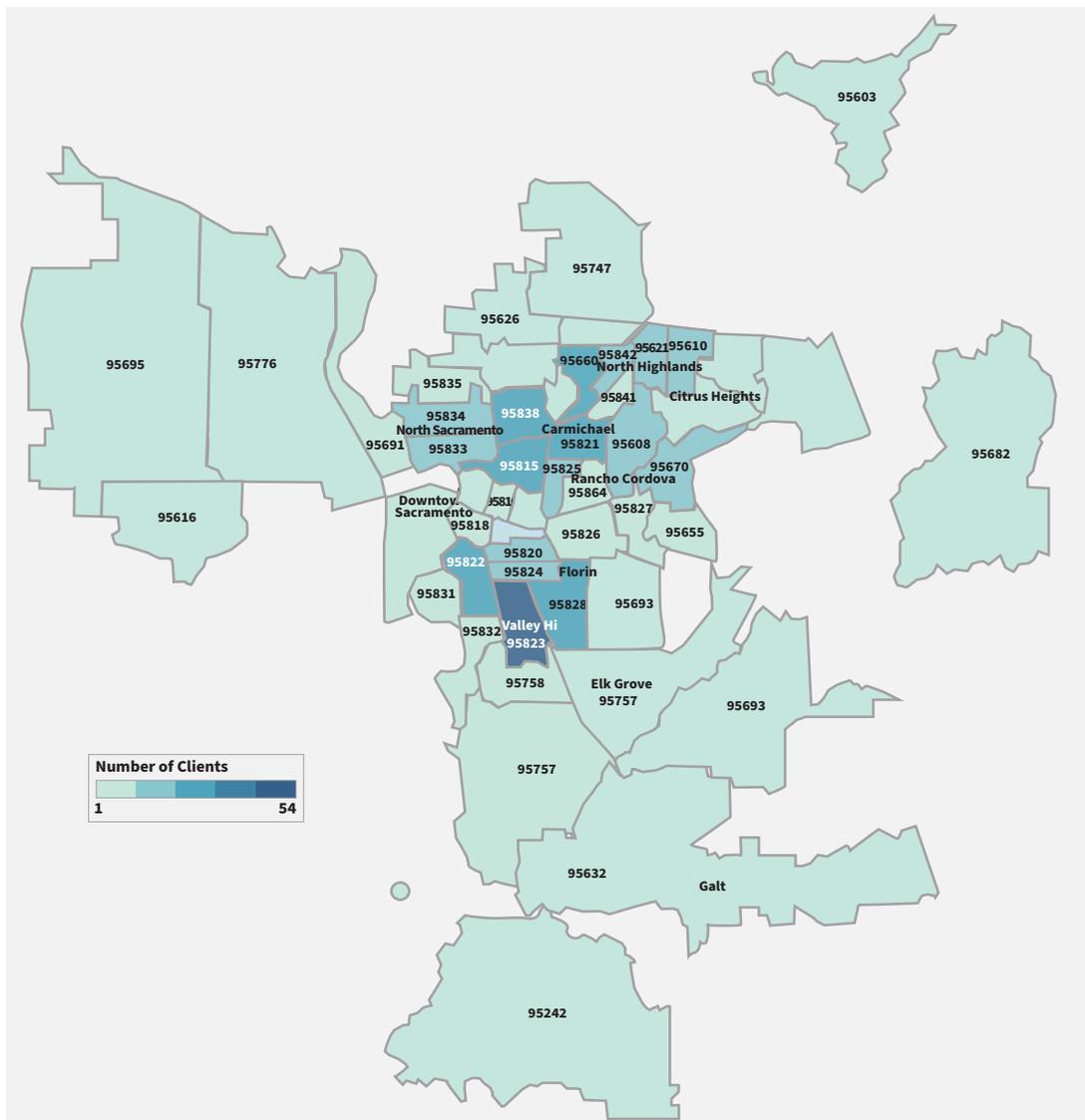
<sup>18</sup> It is important to note that FY 2020-21 is the last fiscal year where Birth & Beyond utilized the AAPI assessment as this tool may have limited cultural/ethnic inclusiveness.

## PARENTING EDUCATION

Parenting education workshops are group-based classes conducted virtually through Family Resource Centers (FRCs). In FY 2020-21, there were a total of 531 parents who attended parenting workshops funded by First 5 Sacramento. Of these, 146 (27%) identified as African American. Of the FRCs, the Arden Arcade location served the highest proportion of African American parents (42%; 19/45), followed by Firehouse FRC (39%; 26/66), and Valley Hi (29%; 21/73).

The map displays the geographic location where parenting education participants resided. The area with the highest numbers of participants was the Valley Hi neighborhood (zip code 95823). The areas with the fewest parenting education participants were primarily in areas surrounding the perimeter of Sacramento County. Of those with zip code data, 50% (258/518) of parenting education participants resided in one of RAACD's seven targeted primary service areas.

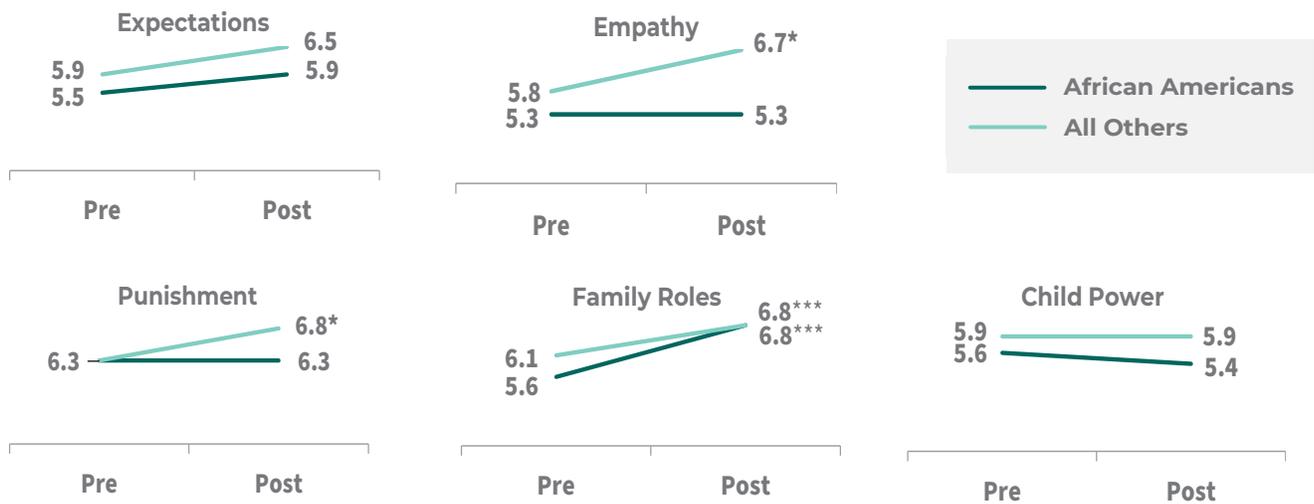
**Figure 25 — Location of Parenting Education Participants**



The Adult-Adolescent Parenting Inventory (AAPI) was also used to assess parenting education workshop participants' beliefs about child-rearing. Parents completed the tool before beginning the parenting education program and again after completion.

Two hundred fourteen parenting education workshop participants had both a pre- and post-test, including nine participants who took the parenting education course twice and had two sets of pre- and post-tests. Of the total, 28% (60) were African American. When compared to all other races, African Americans were less likely to show statistically significant increases on the domains of the AAPI (this group only displayed statistically significant increases on the Family Roles domain, while all other races displayed statistically significant increases on all domains except child power).<sup>19</sup>

**Figure 26 — Change in Mean Scores on AAPI in Pre- and Post-Test for Parenting Education Clients**



Source: AAPI pre- and post-assessment scores, Birth & Beyond FY 2020-21. Note: African American N = 60. All Other Races N = 154. Statistical significance reported at post-test value as \* p < .05, \*\* p < .01, and \*\*\* p < .001.

<sup>19</sup> AAPI assessments may not be culturally/ethnically inclusive. As a result, FY 2020-21 is the last fiscal year where B&B used this tool.



## CLIENT SUCCESS STORY

**Patrice**<sup>20</sup> was referred to Valley Hi FRC as a result of experiencing domestic violence. When connecting with The Village program (which focuses on African American families), Patrice stated that “having CPS show up at my house was a wake-up call. I had to make changes.” Through this willingness and openness, Patrice’s home visitor was able to build a professional, productive, positive relationship with her and noticed a positive impact

*“Having CPS show up at my house was a wake-up call. I had to make changes.”*

*– FRC Home Visiting Client*

on Patrice, her household, and her relationship with her child. Patrice was an active participant in home visiting and stated that she learned a lot from the Nurturing Parenting Program on how to take care of herself and how to help her son grow up to be healthy and strong. She also mentioned that the support and resources her home visitor provided reduced her stress and gave her hope for rebuilding. Patrice stayed true to her desire to make changes, and after about six months the family graduated from the home visiting program. She is stable in her healing and intentional in her engagement with her son, teaching him and being empathetic toward herself and her child. She is employed, in a safe household, and looking forward to a new chapter in her life.

## TWO-YEAR TRENDS, FY 2019-20 TO FY 2020-21

As the work of the Family Resource Centers has only been presented in the RAACD report for FY 2019-20 and FY 2020-21, two-year trends are reported here.

The Birth & Beyond home visiting program provided eight or more hours of home visiting services to about 48% fewer parents in FY 2020-21, compared to FY 2019-20 (296 and 557, respectively). The prolonged impact of the COVID-19 pandemic throughout the 2020-21 fiscal year likely played a large role in this decrease as families and staff navigated new and unexpected challenges. For instance, parents navigated limited access to the appropriate technology for virtual home visiting, shifting priorities to essential needs and emergency response, increased use of virtual spaces and time spent schooling or working at home, and safety concerns about social distancing. Not only did COVID impact home visiting services overall, but this very likely played a role in families’ ability to commit to eight or more hours of home visiting services.

COVID also likely impacted service delivery specific to African American parents and families. The proportion of African Americans receiving eight or more hours of home visiting decreased from 21% in FY 2019-20 to 13% in FY 2020-21. The Birth & Beyond parenting education program also served 12% fewer parents in FY 2020-21, compared to FY 2019-20 (532 and 603, respectively). However, a larger proportion of those served were African American in FY 2020-21, compared to FY 2019-20 (27% and 25%, respectively).

<sup>20</sup> Fictitious names used for clients throughout success stories. Client images are stock photos that are posed by models.

Regarding AAPI scores, African Americans completing the pre- and post-assessments following home visiting or parenting education workshops performed similarly to those of other races, except in the case of the “children’s power” domain. Among home visiting participants, African American scores in “children’s power” decreased from pre- to post-assessments in FY 2019-20 and FY 2020-21. Among parenting education workshop participants, African American scores decreased in FY 2020-21 only. Because of this trend, the home visiting curricula should be examined to ascertain why African Americans' scores may be decreasing after program participation. Additionally, the AAPI assessment may be limited in cultural/ethnic inclusiveness. FY 2020-21 was the last year that Birth & Beyond used the AAPI assessments, so it may be possible that future tools may shed light on these differences.

### OPPORTUNITIES FOR IMPROVEMENT

Birth & Beyond’s efforts in prioritizing the Birth & Beyond Cultural Responsiveness Initiative should be recognized. They should continue these efforts to improve engagement of African American parents in service intake and service completion and work to rebuild relationships with families for recurring home visiting services as it becomes safe to do so. Birth & Beyond may also consider frequently monitoring potential differences between and within groups using the new curriculum and assessment tools to identify potential patterns and make adjustments early in its implementation.

Birth & Beyond should also continue exploring the cultural inclusiveness of assessment tools and curriculum. For instance, with the transition to the Parents as Teachers (PAT) model, it is important to explore whether this model included a representative proportion of African American communities in establishing its evidence-based curriculum. Assessment tools should also account for cultural and ethnic diversity and evaluated for inclusiveness.





## Safe Sleep Baby

*The Child Abuse Prevention Council Safe Sleep Baby campaign has consistently shown that the majority of parents trained on safe sleep practices go on to follow those practices with their infants.*

Safe Sleep Baby (SSB) is an education campaign managed by the Child Abuse Prevention Council (CAPC) to increase knowledge and change behaviors about infant safe sleeping practices. The overarching goal is to decrease infant sleep-related deaths in Sacramento County, especially among African American infants. Specific strategies include:

- Perinatal education campaign to share SSB messages
- Direct education for parents, hospital staff, health professionals, and social service professionals
- Cribs4Kids program to provide education and cribs to pregnant or new mothers who do not have a safe place to sleep their baby
- Quarterly SSB Collaborative meetings
- Systems change efforts related to safe sleep education policies and procedures

It is important to review the following results with the knowledge that the COVID-19 pandemic continued to impact SSB opportunities and outreach for the entirety of FY 2020-21. Since March 2020, SSB successfully transitioned to nearly all virtual workshops and no-contact crib drop-offs, innovated new methods for outreach and engagement, and continued to foster relationships with organizations in virtual settings. However, families' limited internet/telephone services and fewer opportunities to directly engage with partner providers should be considered when interpreting trend data.

## SAFE SLEEP BABY PERINATAL EDUCATION CAMPAIGN

Since the beginning of the Campaign, CAPC has sought to ensure that education and messages regarding safe sleep are created and delivered in a culturally relevant and sensitive manner. All SSB materials were created with extensive input from African American community members and distributed within the neighborhoods with the highest rates of African American infant sleep-related death in Sacramento County.

Additionally, AmeriCorps Member Parent Health Educators continued utilizing SSB Social Media Campaign pages to further communicate safe sleep education and the risk factors that result in infant sleep-related deaths. These strategies were particularly important in consideration of the COVID-19 pandemic impacting outreach in physical spaces and fewer opportunities for families to see flyers, posters, and informational resources in physical, public spaces.

- FY 2020-21, the SafeSleepBabySacramento Facebook page had 2,186 followers. The Facebook page had 15 posts during the 2020-21 fiscal year. The number of Facebook page followers has increased exponentially since FY 2018-19 (57 followers) and FY 2019-20 (85 followers).
- SSB also has an active Instagram account (@safesleepbabysacramento) which had 160 followers and 15 posts during FY 2020-21.
- For additional reach, SSB partnered with Black Infant Health (BIH) and cross-posted information on the SSB message and free workshops on the BIH MeetUp, Facebook, and Instagram pages.

## SAFE SLEEP BABY DIRECT EDUCATION

### ***SSB Education for Community Service and Health Providers***

SSB conducted “train-the-trainer” workshops for professionals who work with pregnant or new mothers to increase providers’ knowledge about infant safe sleep practices and promote referrals to SSB parent workshops for infant safe sleep education and cribs. Trained community professionals included Cribs for Kids (C4K) partner representatives, community-based service providers who work with pregnant or new mothers, and medical provider organizations who work with pregnant or new mothers.

From July 2020 to June 2021, 280 community-based service providers (down from 334 in FY 19-20) and three medical provider offices received this training (a slight decrease from the five in FY 19-20), including:

- Child Protective Services (CPS)
- UC Davis Hospital
- Black Infant Health
- Safe Kid Mercy Medical
- Her Health First
- Sacramento County CPS Social Workers
- Sacramento County Nurse Family Partnership

While the number of community-based providers decreased since FY 2019-20, the 280 providers trained exceeds the SSB annual goal of 250 by 12%. Decreases in the number of medical providers reached reflect the impact of COVID-19 on scheduling SSB education sessions.

### ***SSB Education for Parents***

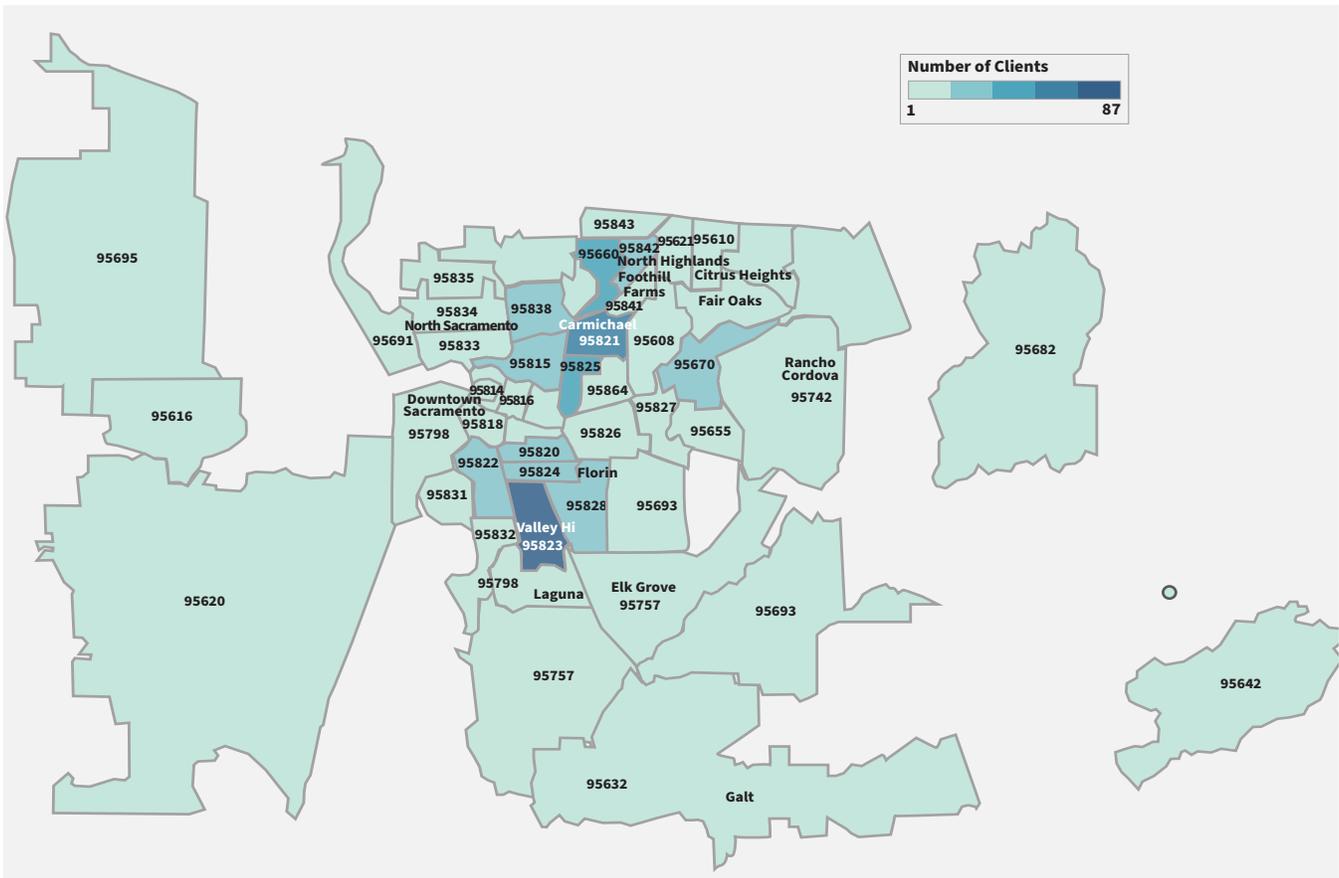
SSB provides education to families through home visits and hour-long workshops (each held virtually due to the pandemic). All families (of any ethnicity) are welcome in the program, but there is a special emphasis on reaching African American families. These visits and workshops are valuable tools to increasing knowledge about safe sleep practices as parents receive information from a trusted source in a private and welcoming setting. Each session offers several key pieces of knowledge, including statistics about infant death due to sleep-related causes, the Six Steps to Safe Sleep Your Baby, and an educational video. After successfully completing the training, parents receive a free Pack-N-Play crib if they do not have a safe place to sleep their infant. During the 2020-21 fiscal year, 691 unduplicated parents received SSB education (about 30% less than the 984 who received the education in FY 2019-20 and 22% less than the 883 from FY 2018-19). Among them, 213 (31%) were African American, compared to a target reach of 26%. Additionally, 18 parents took the SSB course more than once,<sup>21</sup> for a total of 709 SSB workshops provided. Parents were trained by the following Cribs for Kids partners:

- CAPC
- Folsom Cordova Community Partnership FRC
- Her Health First
- La Familia Counseling Center
- Mutual Assistance Network Arcade FRC
- Mutual Assistance Network Del Paso FRC
- Meadowview FRC
- North Sacramento FRC
- River Oak FRC
- Valley Hi FRC
- WellSpace Health FRC

---

<sup>21</sup> This could include parents taking the course for a subsequent baby or to repeat the education. SSB’s priority is for parents to understand and follow the education in their behavior of safely sleeping their baby no matter how many times they need to receive the information.

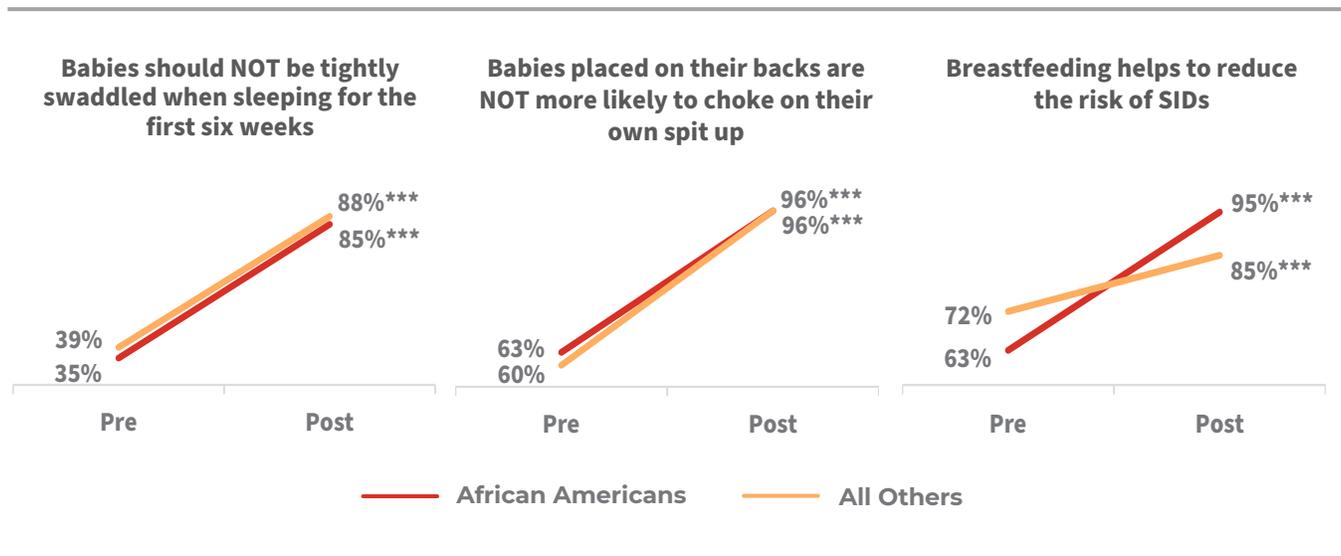
Figure 27 — Location of Safe Sleep Baby Training Participants



The map above displays the geographic location where SSB parent participants resided. The area with the highest numbers of participants was the Valley Hi neighborhood (zip code 95823). The areas with the fewest SSB participants were primarily in areas surrounding the perimeter of Sacramento County. Of those with zip code data, 56% (359/637) of SSB parent participants resided in one of RAACD’s seven targeted primary service areas. This represents a positive increase in SSB’s reach as 54% of participants resided in one of the seven targeted neighborhoods in FY 2019-20 and only 44% in FY 2018-19.

Of the 691 individuals who received the SSB training, 88% (605/691) of participants completed both a pre- and post-test to measure changes in knowledge before and after the training. Among them, almost one-third (31%; 190/605) of training participants identified as African American. The questions in the figure below show the highest increases in knowledge (all statistically significant changes) for all respondents. Because of SSB’s focus on African American infant sleep safety, African American participants’ responses are displayed separately from all other races.

**Figure 28 — Increases in Correct Answers about Infant Safe Sleep Knowledge in Pre- and Post-Test**



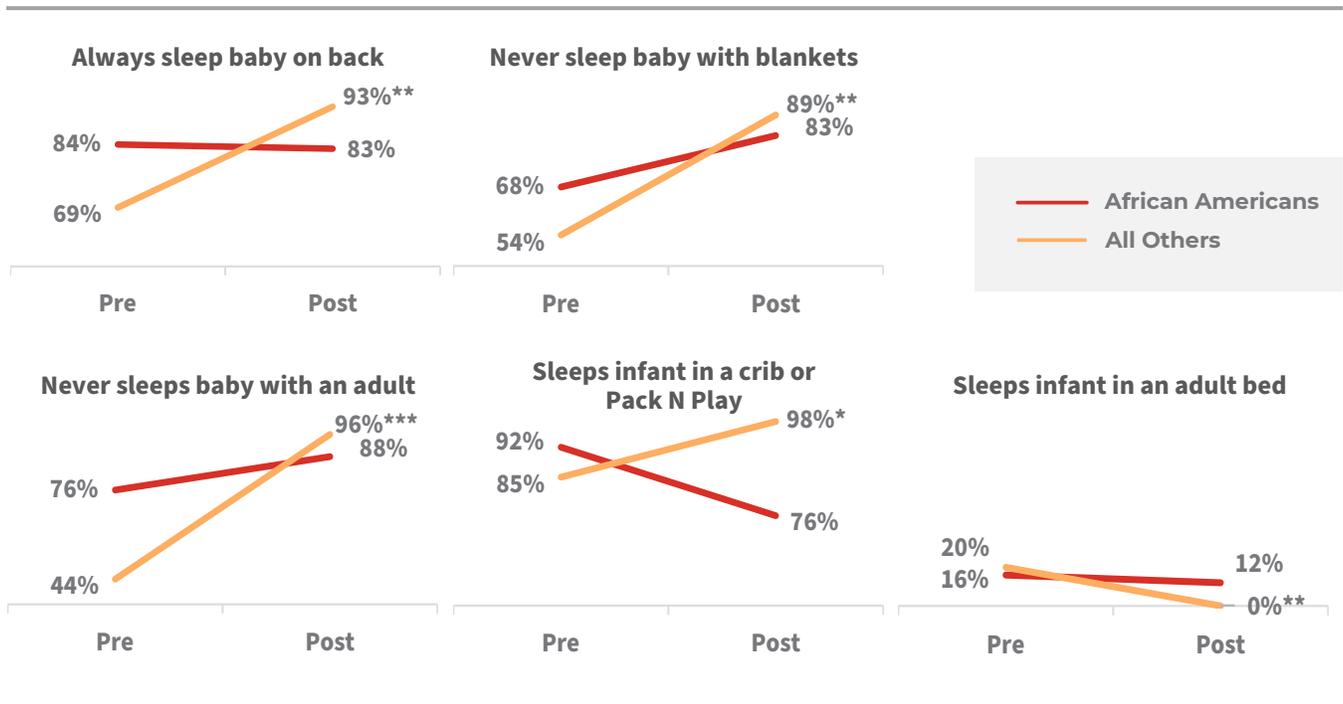
Source: SSB Pre- and Post-Surveys. African American N = 190, All Others = 415. Both groups had statistically significant differences between pre- and post-tests for all three measures at  $p < .001$ .

Additionally, participants completed an intake survey, where they described their intentions for infant safe sleep practices. Within three to four weeks of the SSB one-hour training, 102 parents were reached with a follow-up call to understand the extent to which they were using infant safe sleep practices. After matching parents reached with those who had data from their intake interview, the sample size was 71.

Participants’ intentions for infant safety practices (Intake Survey) were compared with their actual safety practices following the birth of their child (Exit Interview) to further measure the impact of the SSB program. Among all participants, parents increased their intention to always sleep their baby on their back (74% Intake; 90% Follow-Up), to never sleep their baby with blankets (59% Intake; 87% Follow-Up), and to sleep their baby without an adult in the bed (55% Intake; 93% Follow-Up). The number of participants reporting their baby sleeps in an adult or family bed also decreased (18% Intake, 4% Follow-Up). All of these changes were statistically significant.

Overall, most safe sleep practices improved for African American participants. For instance, the number of African American participants sleeping their baby without blankets at follow-up (83%) increased compared to those intending to follow this safe sleep practice at intake (68%). Unfortunately, the proportion of African American participants exclusively sleeping their baby in a crib or Pack-N-Play at follow-up (76%) was lower than those intending to utilize this safe sleep practice at intake (92%). The figure below demonstrates the differences in intention and follow-up between African Americans and all other races.

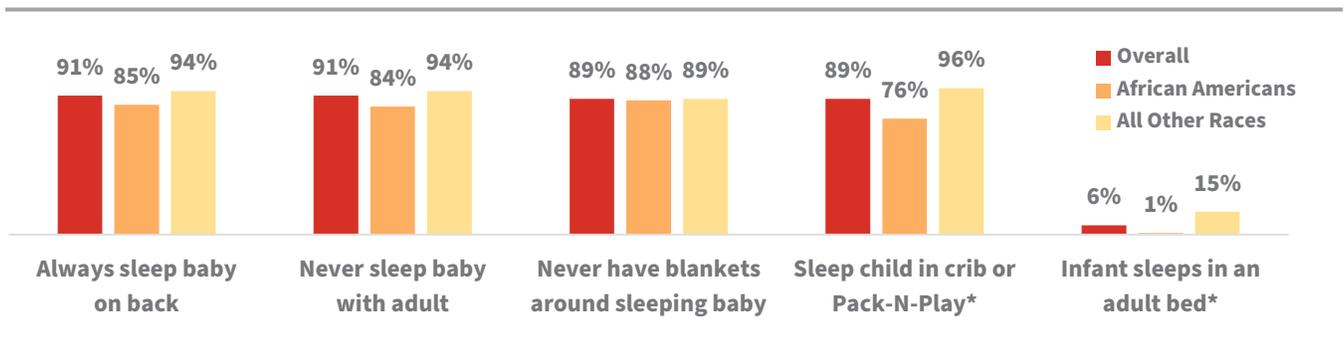
Figure 29 — Differences Between Intentions at Intake and Behaviors at Follow-Up in Infant Safe Sleep Practices (Matched Pairs)



Source: CAPC, SSB Intake and Exit Surveys. Note: \* indicates statistically significant difference at  $p < .05$ , \*\* indicates a statistically significant difference at  $p < .01$ , \*\*\* indicates a statistically significant difference at  $p < .001$ . African American N = 25; All Other Races N = 46.

Parents/caregivers that received a crib following their SSB training were also contacted within three to four weeks to provide follow-up information about their decisions to safely sleep their infants. A total of 101 participants completed the follow-up assessment, including 34 African Americans (34%). At follow-up, parents most commonly reported the safe sleep behaviors of always sleeping their baby on their back (91%; 90/99) and never sleep baby with an adult (91%; 88/97). These were closely followed by sleeping child in crib or Pack-N-Play (89%; 90/101) and never having blankets around their sleeping baby (89%; 88/99). The proportion of parents engaging in safe sleep behaviors at follow-up increased for each category compared to FY 2019-20. Never having blankets around their sleeping baby had the most substantial increase at follow-up from FY 2018-19 (66%), FY 2019-20 (71%), and FY 2020-21 (89%). Six participants reported their infant slept in an adult bed.

Figure 30 — Percent of SSB Participants Practicing Infant Safe Sleep Behaviors at Follow-Up, by Race



Source: CAPC, SSB Follow-up Survey. Overall N = 101, not limited to matched sample highlighted above; African American N = 34; All Other Races N = 67. \* indicates that African American percentages statistically significantly differ from all other races at  $p < .05$ .

## CRIBS FOR KIDS (C4K) PROGRAM

CAPC also manages the Cribs for Kids (C4K) Program, which partners with community hospitals and local organizations to provide pregnant or new parents with infant safe sleep information and Pack-N-Play cribs, funded by First 5 Sacramento and Sacramento County Department of Child Family and Adult Services (DCFAS). Pregnant or new mothers who reportedly did not have a safe location to sleep their infant were able to receive a free crib after completing a one-hour SSB workshop with CAPC or other C4K partners. Outside of C4K trained community partners, new mothers could also view an SSB informational video during their hospital stay and videos were also broadcast in pediatric and OBGYN waiting rooms. Nurses provide a unique opportunity to engage parents in an infant safe sleep conversation, by specifically asking expectant or new mothers the SSB question: “Where will you sleep your baby when you return home?” This wording offers the chance to begin a non-judgmental conversation about infant safe sleep practices and the risk of infant sleep-related death. In hospital settings, parents would receive information and a referral to CAPC for follow-up. From July 1, 2020 to June 30, 2021, crib distribution partners included:

- Nine Birth and Beyond Family Resource Centers
- CAPC
- Her Health First, Black Mothers United
- Liberty Towers Impact Center for Independent Living
- Rose Family Creative Empowerment Center for Independent Living
- Sacramento Food Bank
- SCOE Help Me Grow
- Sutter Health Teen Programs
- WellSpace Health Cultural Broker Program (CBP)

From July 2020 to June 2021, **C4K partners provided a total of 331 cribs to parents and caregivers** in need. Hospitals also provided another 22 cribs to families in need.

Of the 331 cribs distributed by C4K partners, 116 cribs were provided to African American parents and caregivers, representing 35% of the total. The proportion of cribs distributed to African American parents and caregivers remained relatively consistent with FY 2019-20 (36% of partners’ total) and FY 2018-19 (36% of partners’ total).

## SAFE SLEEP BABY EDUCATION POLICIES AND PROCEDURES

Another goal of SSB is to increase sustainability of the program by partnering with hospitals and medical providers to encourage the adoption of SSB policies and education. SSB education is being implemented in **all** four main hospital systems of Sacramento:

- Dignity Health
- UC Davis
- Kaiser
- Sutter

In FY 2020-21, **all** eight birthing hospitals in Sacramento continued to successfully implement SSB education policies. Prior to the implementation of the SSB campaign in 2015, hospitals did not uniformly provide infant safe sleep education.

## CLIENT SUCCESS STORIES: SAFE SLEEP BABY WORKSHOP

**Jada**<sup>22</sup> was a first-time mom referred to Safe Sleep Baby (SSB) through the Black Infant Health (BIH) program. As a former foster youth who was estranged from her mother and grandmother since childhood, Jada was interested in SSB because she had no “motherhood role models.” Jada completed her SSB training via Zoom and remained very engaged by asking a lot of follow-up questions. She was shocked to learn about the risks associated with co-sleeping since she had initially planned to use a co-sleeper bassinet prior to taking the workshop. Jada was also shocked and saddened to learn how often an infant sleep-related death occurs in Sacramento County and vowed she would only use the portable cribette provided by the CAPC through the SSB program. As a result of this workshop, Jada reported feeling well-prepared for the birth of her son.



**Toni**,<sup>23</sup> a fourth time mom with three children under ten-years-old, recently delivered a baby girl, Rose, born several months premature, weighing less than two pounds. Rose stayed in the NICU for about three months until she was able to come home. In the meantime, Toni still needed everything since she had expected about three more months of preparation.

Toni was a single mother and was feeling overwhelmed and unsupported. She was unemployed, living in mutual housing, and without reliable access to a car, making her ability to purchase baby necessities and visit her daughter in the hospital even more difficult. She also had experience with postpartum depression and CPS involvement. Despite these barriers, Toni was determined to be a successful mother to her children. She was referred to the Safe Sleep Baby workshop by her Home Visitor at the Sacramento Children’s Home. Upon engagement with CAPC’s SSB Black Infant Health (BIH) Health Advocate/Educator, Toni participated in a virtual workshop and CAPC SSB staff delivered a crib to her home within a couple hours. The CAPC’s Health Advocate/Educator also provided her with additional information about the BIH Program which made Toni very happy. She stated, “That would be wonderful! I just want to make sure that my Advocate will be you, right? I feel comfortable with you and you have made this process feel very nurturing and supportive to me”. Within eight weeks, Toni’s CAPC Health Advocate/Educator noticed tremendous personal growth and Toni has become one of the program’s most active clients. She continuously meets short-term goals and reaches out when she is feeling overwhelmed.

*“You have helped me so much in this process. I initially was so overwhelmed by the cost of a crib, but you made this workshop very easy to understand and were patient with me when I had questions. ... Without you and both programs I would have been lost, and that is the truth.”*

– Toni to her SSB/BIH Advocate

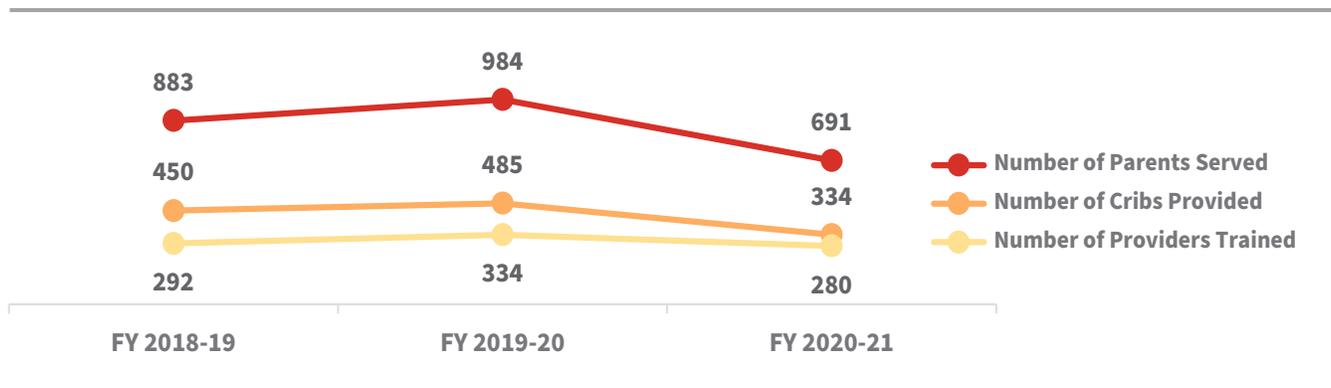
<sup>22</sup> Fictitious names used for clients throughout success stories. Client images are stock photos that are posed by models.

<sup>23</sup> Fictitious names used for clients throughout success stories. Client images are stock photos that are posed by models.

## THREE-YEAR TRENDS, FY 2018-19 TO FY 2020-21

Between FY 2018-19 and FY 2020-21, the Safe Sleep Baby program educated a total of 2,558 parents and provided 1,266 cribs to those who needed a safe place to sleep their baby.

**Figure 31 — Three-Year Trends for the Safe Sleep Baby Program for Numbers Served and Cribs Provided**

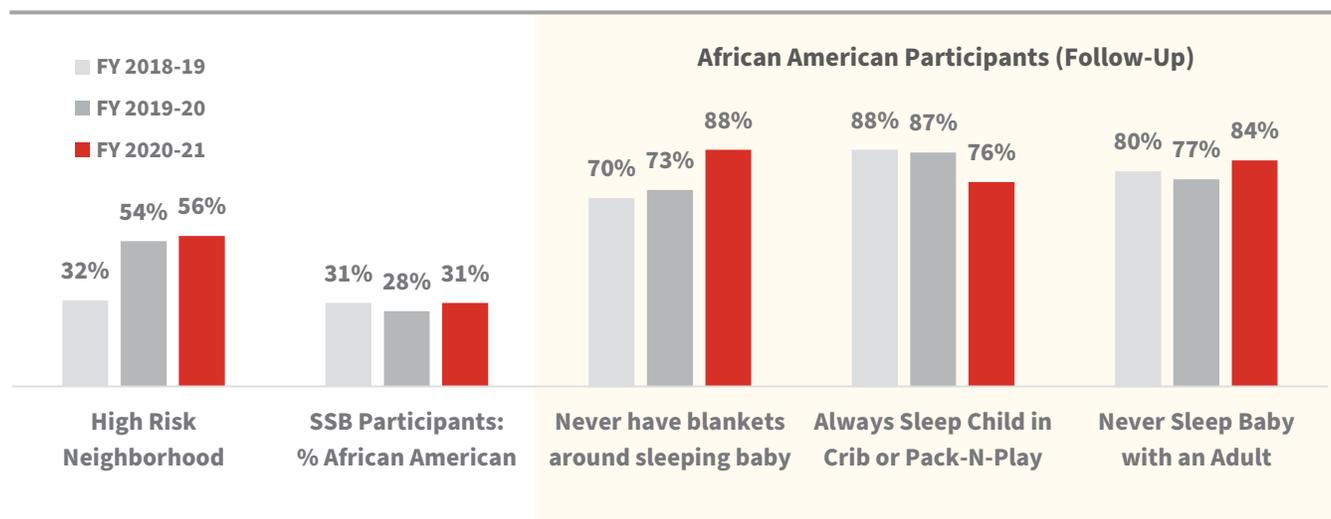


Source: SSB Performance Measures and Persimmony Service Data (FY 2018-19 to FY 2020-21).

Overall, the numbers that SSB have served, and their outcomes, have been favorable throughout the three-year period:

- A large portion of SSB clients lived in one of the seven RAACD high risk neighborhoods.
- About one-third of SSB participants have been African American.
- A majority of African American participants reported safe sleep behaviors at follow-up.

**Figure 32 — Three-Year Trend Data for the Safe Sleep Baby Program Regarding Participant Demographics and Outcomes**



Source: Persimmony Service Data and CAPC SSB Follow-Up Survey (FY 2018-19 to FY 2020-21).

## OPPORTUNITIES FOR IMPROVEMENT

The Safe Sleep Baby Campaign had great success in FY 2020-21, including its quick programmatic shift in response to COVID-19, however there are always opportunities for further growth of the program. These include:

- Engage African American expectant and new parents in conversation to determine barriers to not sleeping their infant in a crib or Pack-N-Play after program participation. The SSB campaign should then adjust its message according to parent input.
- Analyze the five-years of CDRT data that overlaps with SSB campaign implementation to identify infant sleep-related deaths and Sacramento County neighborhoods where infants are most at-risk of a sleep-related death. The SSB program should then prioritize these areas for education.





15,000  
UnequalBirth.com Visitors

1.6 million  
Social Media Impressions

47,000  
Infant Mortality  
Video users

Black moms  
are 4x more  
likely to die  
during  
pregnancy.

unequalbirth.com



deserves to  
be at home.



## Public Perinatal Education Campaign

*Paid social media advertisements ran across Facebook and Instagram from January 11 – June 19, 2021. Across the two platforms, there were 1.6 million impressions and 24,068 clicks to the link provided.*

The fourth strategy funded by First 5 was a public education campaign on perinatal causes of death. In a groundbreaking partnership with Sacramento County Public Health Department, the purpose of the campaign was to raise public awareness about the fact that institutionalized racism is the root cause of the racial disparities in safe births for both infant and mother. Runyon Saltzman, Inc. (RSE) managed this comprehensive media campaign, titled the Unequal Birth Campaign. Unequal Birth initially launched in February 2020 and included radio advertisements, social media advertisements, LED billboards around the county, and the creation of a new website (UnequalBirth.com).

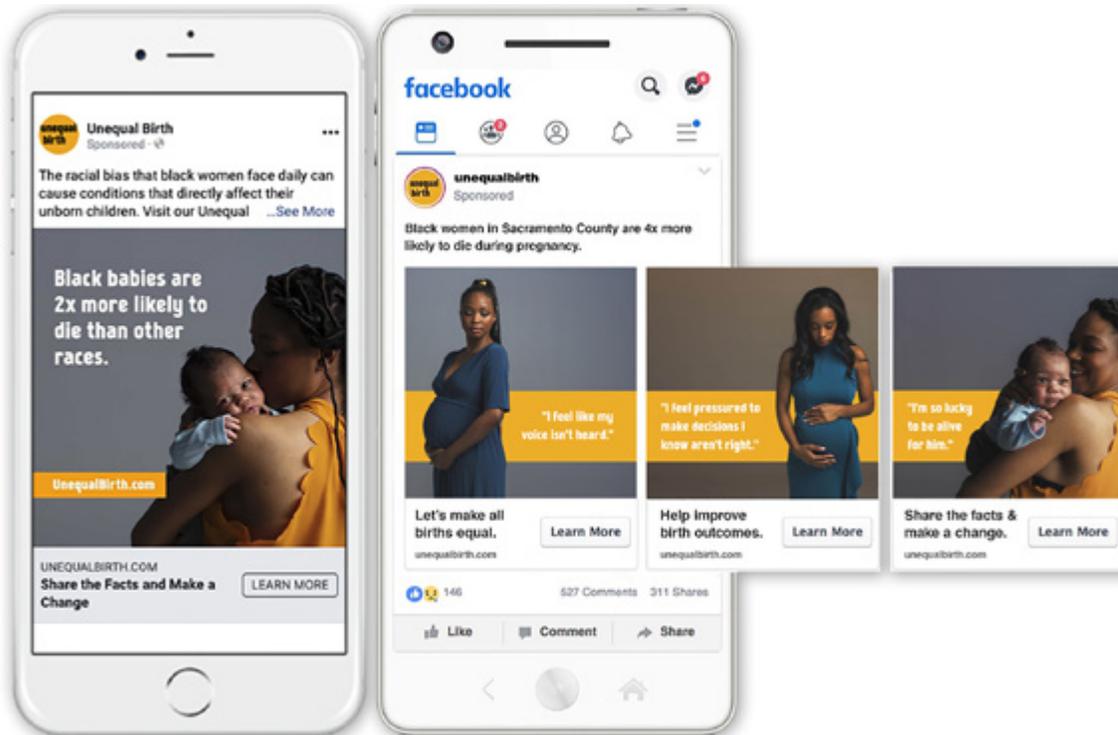
In 2019-20, RSE established the Unequal Birth Campaign in partnership with GroupWorks, Earth Mama Healing, and community members, including focus groups and photo shoots with real Sacramento families. RSE implemented the campaign through digital advertising (e.g., radio and streaming platforms), social media, and billboards.

In FY 2020-21, RSE expanded the campaign through the development of new storyboards, scripts, and content for organic and paid social media reach, including **two new videos**. The team ran the new social media campaign between January and June 2021. RSE also developed and launched a new page on the Unequal Birth Campaign website to encourage sharing of the campaign, and revised website content to be effective and engaging, based on website analytics. RSE also developed a mini social toolkit for partners to encourage discussions around birth inequities in the community.

This fiscal year, RSE also collaborated with Her Health First to develop, finalize, and test new campaign concepts for a **Sac Healthy Baby** campaign refresh. RSE developed three new concepts and logos, implemented stakeholder and community testing of concepts, and developed new website content. More information on the Sac Healthy Baby campaign is anticipated in upcoming fiscal years.

## SOCIAL MEDIA ADVERTISEMENTS

Paid social media advertisements ran across Facebook and Instagram from January 11 – June 19, 2021. Ads received more than 1.6 million impressions.<sup>24</sup> There were 24,068 clicks on the links/posts provided across the two platforms. Ads included videos, still photos, and pictures in carousel form, meaning that there were multiple pictures that users could scroll through (see picture below). User engagement with posts included a total of 489 post reactions, 97 post comments, 108 shares, and 22 saves. Compared to FY 2019-20, user engagement decreased, including a 21% decrease in the number of clicks to links provided. However, the click-through rate<sup>25</sup> for the 2021 campaign was 1.46% which was well above the 0.60% industry benchmark.



<sup>24</sup> 1,651,609 Impressions, or the total number of times users saw the advertisement.

<sup>25</sup> Number of clicks divided by the number of times the ad is shown.



The infant mortality static image had the highest engagement (82 reactions, 23 comments) followed by the video ad highlighting Black babies as two times more likely to die than any other race (76 reactions, 12 comments). More than 47,000 users engaged with the infant mortality video ad and more than half of the viewers watched at least 50% of the video ad.

## WEBSITE TRAFFIC

Through the UnequalBirth.com website, target audiences can learn more about disparities in African American birth and maternal outcomes, highlighting racial bias and discrimination as the cause. UnequalBirth.com describes the problem of racial disparities in perinatal health outcomes, provides links to supporting research, offers ideas of how to make a change, and encourages support for local organizations working to address these issues.

In FY 2020-21, almost 15,000 users visited the Unequal Birth website for a total of 19,411 sessions. Users averaged 1.14 pages viewed during a session. The Unequal Birth Campaign’s main landing page had more than four times as many page views as other pages on the site, suggesting that more dominant, eye-catching calls to action may be needed to encourage more website engagement.

About 200 users clicked the “Take Action” button after visiting the landing page, followed by 128 visits to the “Research” page.

## THREE-YEAR TRENDS, FY 2018-19 TO FY 2020-21

RAACD public perinatal education efforts have shown tremendous growth in the past three fiscal years. Perinatal education campaigns were led by Runyon Saltzman, Inc. (RSE) and included the Sac Healthy Baby (FY 2018-19) and Unequal Birth Campaigns (FY 2019-20 and FY 2020-21). These efforts used websites, social media, and community events (pre-COVID) to raise awareness about racial disparities in maternal and infant death rates. The Sac Healthy Baby campaign aimed to connect African American mothers to services to support them through their pregnancies and for the well-being of their babies. The Unequal Birth Campaign directly addressed institutional racism as the root cause of racial disparities in safe births for infants and mothers.

- **Community Event:** In FY 2018-19, the Sac Healthy Baby Collaborative convened the fourth annual Pride & Joy Baby Shower, attended by 113 participants including 104 pregnant or new mothers. Partners shared program information and referrals. Television and print news outlets also covered the event.
- **Website Reach:** In FY 2018-19, there were 2,170 visits to the SacHealthyBaby website. There were 33,010 visits to the UnequalBirth website in FY 2019-20 and 19,411 visits to UnequalBirth.com in FY 2020-21.
  - Website reach was particularly high in FY 2019-20 due to additional advertisements including **LED Billboards** in high-traffic freeway areas and **radio** advertisements.
- **Social media:** Web and social media content for the Unequal Birth Campaign directly included real Sacramento families through concept focus groups and photo shoots for advertisements. Social media for the Unequal Birth campaign received more than three million impressions in FY 2019-20 and over 1.6 million impressions in FY 2020-21.

Aside from the SacHealthyBaby website and community event, FY 2018-19 was largely a planning period to reprioritize campaign funds and the launch of a new program. The success of the Unequal Birth Campaign's reach through social media, website, billboards, and radio advertisements in FY 2019-20 and FY 2020-21 highlights the great potential for campaigns of a similar nature in the future.

## OPPORTUNITIES FOR IMPROVEMENT

Social media and web content are increasingly utilized for information and the development of social bonds and identity. During FY 2019-20 and FY 2020-21, the COVID-19 pandemic also increased our reliance on virtual “public” spaces. While the UnequalBirth campaign continued to have an impactful reach throughout Sacramento County in FY 20-21, opportunities for future growth may include:

- Explore efforts to include text or phone call campaigns to Sacramento County families. While communities increasingly relied on virtual spaces and internet resources as a result of COVID-19's physical distancing protocols, the pandemic also highlighted disparities in reliable internet access. Phone and text options may offer additional opportunities for public education efforts despite continued reduced capacity in public spaces.
- Identify opportunities to partner with other community programs and influencers. For instance, “page takeovers” are an example of “cross-pollination,” a way to reach new audiences through temporary posting privileges on other programs’ social media platforms. These strategies can expand the reach of messages and offer the potential to increase followers.
- Incorporate additional social media post strategies to target an intergenerational audience. This may include participating in media trends (e.g., using audio with a viral reach on Instagram reels), or considering the spectrum of options from 15-second “stories” to long-form “Live” videos.
- Expand “Call to Action” opportunities to encourage link clicks and create meaningful ways that community members can get involved with the causes associated with the Unequal Birth Campaign.



# Longitudinal Outcomes of RAACD Participants

In support of RAACD’s goal to reduce African American infant and child deaths, an assessment is conducted every three years to determine survival of participants one year after birth. Specifically, this analysis involves a “look-up” of death records to determine if any children served by the initiative died in their first year of life.

ASR provided a list of mothers served by Her Health First’s Black Mothers United (BMU) or WellSpace Health’s Cultural Brokers Program<sup>26</sup> between January 1, 2016 and December 31, 2018.<sup>27</sup> Sacramento County Department of Public Health then looked at the 12-month outcomes of each infant born to these mothers to determine if any deaths occurred, and if so, for what reason.

**Figure 33 — Births by Mothers Receiving RAACD Services Between January 1, 2016 and December 31, 2018**

	Black Mothers United	WellSpace CBP	Total
<b># Births by Mothers Served</b>			
<b>2016</b>	53 <sup>†</sup>	154	<b>208</b>
<b>2017</b>	61	144	<b>205</b>
<b>2018</b>	83	75	<b>158</b>
<b>Total</b>	<b>197</b>	<b>373</b>	<b>570</b>

<sup>†</sup> Includes two births in 2015 by mothers served during 2016 calendar year; Source: Persimmony Service Data 2016 to 2018.

Among the 570 births identified, there were unfortunately **two infant deaths** among mothers served by Her Health First. Sadly, one newborn was delivered at 32-weeks and then died shortly afterward, which is classified as a perinatal cause of death.<sup>28</sup> The second infant’s cause of death was undetermined at about five months of age. However, the overall three-year infant mortality rate for program participants was 3.5 per 1,000, much lower than African American infants countywide (8.8 per 1,000) during this period.

Both children were born during the 2018 calendar year, representing 2.4% of all infants born in the program during 2018, 1% of all BMU births during the 2016-2018 period, and 0.3% of births under the First 5 funded RAACD initiative as a whole.

The one child that died due to perinatal causes represents a three-year average perinatal death rate of 1.75 per 1,000 births, compared to 3.8 per 1,000 among African Americans countywide and similar to the total Sacramento County child death rate due to perinatal causes (1.6 per 1,000 births.)

## Key Takeaway:

While there were unfortunately two child deaths from families served by the RAACD initiative between 2016-2018 (0.3% of RAACD supported births) these programs are having a positive impact on families served. The overall three-year infant mortality rate was 3.5 per 1,000, much lower than African American infants countywide (8.8 per 1,000) during this period. The three-year average perinatal child death rate (1.7 per 1,000) also remains lower than African Americans countywide (3.8), and comparable with countywide rates (1.6).

<sup>26</sup> WellSpace Health CBP was also funded by First 5 to provide pregnancy support services during the timeframe of interest in this look-up. As a result, while this program is not included in other sections of this RAACD report, their outcomes are included here.

<sup>27</sup> Inclusion criteria limited to pregnant mothers or parents with a children under the age of one at the time of service in 2016, 2017, or 2018 calendar years. Parents that were only provided resources were excluded. At the time of writing, Public Health child death data were only available through 2019. This date range was selected to ensure the availability of 12-month outcomes.

<sup>28</sup> As noted in the FY 2018-19 RAACD report prepared by Applied Survey Research.



## Countywide Trend Data

*Since 2012-2014, Sacramento County has seen a 17% decrease in the rate of infant death amongst African Americans, and a 32% decrease in disparity between the rates of African Americans and other ethnic groups.*

The overall goal of the four programs funded by First 5 Sacramento (Pregnancy Peer Support Program, Safe Sleep Baby Initiative, Family Resource Centers, and Public Perinatal Education Campaign) is to help reduce the rate of African American perinatal, child abuse and neglect, and infant sleep-related deaths in Sacramento County.

This section presents population-level data about infant deaths and their causes, with 2012 as the baseline year, as the RAACD efforts by First 5 and other partners began after the publication of the Blue Ribbon Commission Report in 2013.

Starting with the baseline year of 2012 and target date of 2020, the Blue Ribbon Commission Goals related to this initiative include:

### The Blue Ribbon Commission Goals Included:

- Reduce the African American child death rate by **10-20%**
- Decrease the African American infant death rate due to infant perinatal conditions by at least **23%**
- Decrease the African American infant death rate due to infant safe sleep issues by at least **33%**
- Decrease the African American child death rate due to abuse and neglect by at least **25%**
- Decrease the African American child death rate due to third-party homicide by at least **48%**

To measure progress toward these goals, population data has been gathered from the Public Health Department regarding:

- All infant deaths (with race categories defined)
- Preterm births
- Low birthweight infants

Additionally, the Child Death Review Team (CDRT) provided data regarding:

- Infant deaths due to perinatal conditions
- Infant deaths due to sleep-related conditions (ISR)
- Child abuse and neglect homicides

It is important to note that available countywide data lag behind data from First 5 funded initiatives reported earlier. Countywide data is current as of 2019, while data from First 5 funded initiatives represent FY 2020-21. Technical details related to these data can be found in Appendix 3. To account for the effect of small population size, death rate data represent three-year rolling (overlapping) averages (number of infant deaths for each target year divided by the number of infant births in those years).

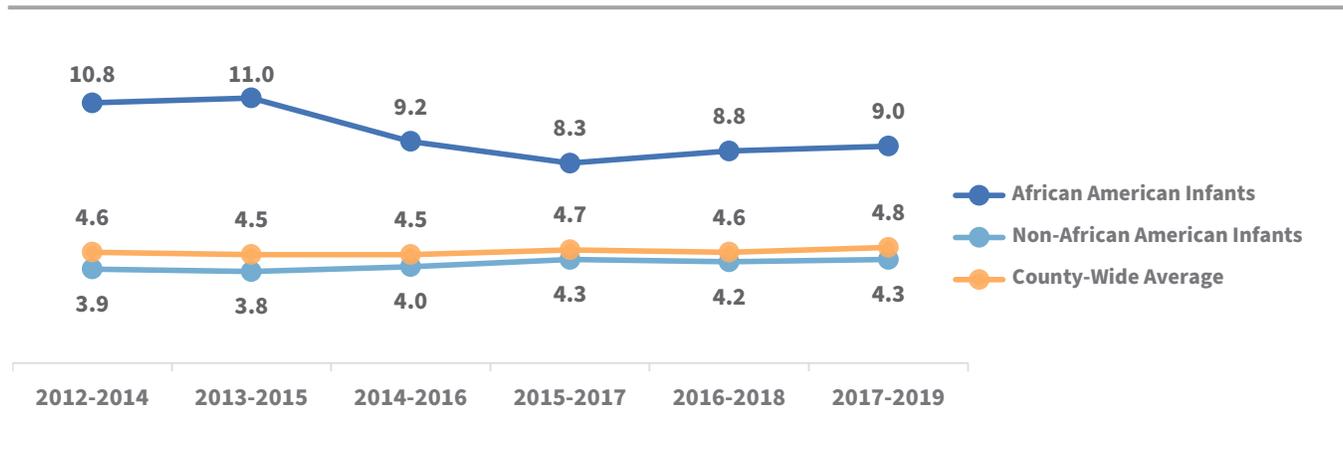
Please also note that it is standard for child death rates to be reported out of 100,000 and infant death rates to be reported out of 1,000. Rates are noted in the source located below each figure.

## OVERALL INFANT MORTALITY

During the three-year baseline period (2012-2014), African American infants died at a rate of 10.8 per 1,000 births. During 2017-2019, African American infants died at a rate of 9.0 per 1,000 births, a 17% reduction from the baseline. The rate of African American infant death in Sacramento County in 2018 was markedly higher than other years (14 in 2017 (7.2 per 1,000), 23 in 2018 (12.7 per 1,000), and 13 in 2019 (7.2 per 1,000)). Because of the spike in 2018, the rolling averages for 2016-18 and 2017-19 are impacted. The 2018 rate was likely an anomaly and further supports the use of three-year rolling averages in data presentation.

Secondly, these data show a 32% reduction in the disparity between African American infant death and all other races. In years 2012-2014, the gap in disparity between rolling average rates was 6.9 and in 2017-2019, the gap was 4.7.

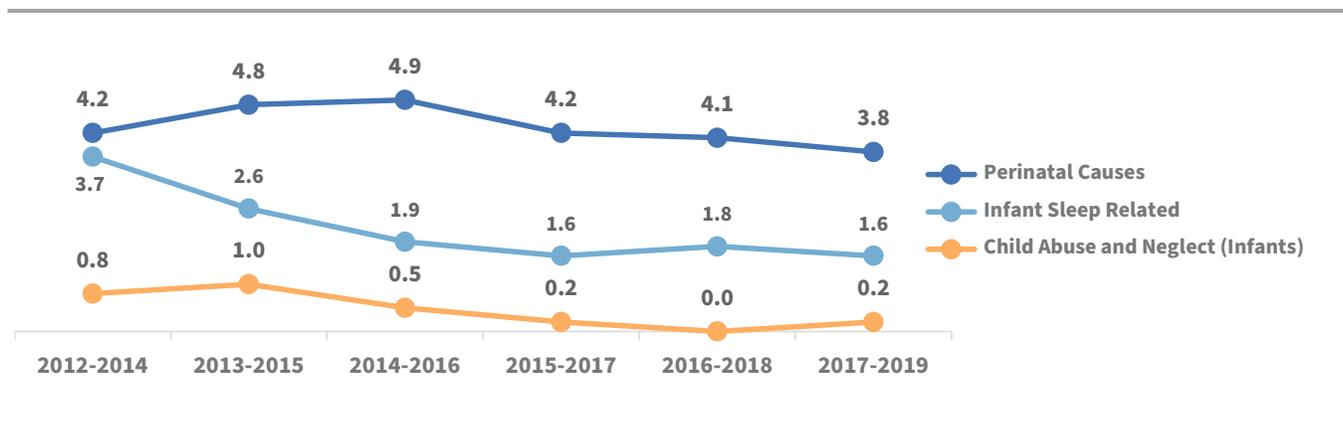
**Figure 34 — Three-Year Rolling Average Rate of Infant Death in Sacramento County**



Source: Sacramento County, Department of Health Services, Public Health Division, Epidemiology Program, Birth Statistical Master Files. Rate is per 1,000 infants.

The figure below displays changes in rates for the three causes of focus for the First 5 Sacramento RAACD initiative’s goal of reducing African American infant death. Impressively, rolling averages for African American infant deaths declined for perinatal causes and infant sleep related deaths. The 2017-2019 rolling average for child abuse and neglect deaths increased from 0.0 per 1,000 infants born to 0.2 per 1,000 infants, reflecting one individual child abuse/neglect infant death in 2019. Overall, infant death rates have shown a steady decline from the 2012-2014 baseline, continuing to demonstrate the success of the initiative to reduce African American child deaths in Sacramento County.

**Figure 35 — Three-Year Rolling Average Rates of African American Infant Death: Sleep Related, Perinatal Causes, and Child Abuse and Neglect**



Source: Sacramento County Child Death Review Team Report 2012, 2013, 2014, 2015, 2016, 2017, 2018, and 2019. Rate is per 1,000 infants. Historical rates for Infant Child Abuse and Neglect updated to reflect accurate calculations.

In the sections below, each cause (perinatal, infant sleep-related, child abuse and neglect) is discussed separately, including comparisons to countywide estimates.

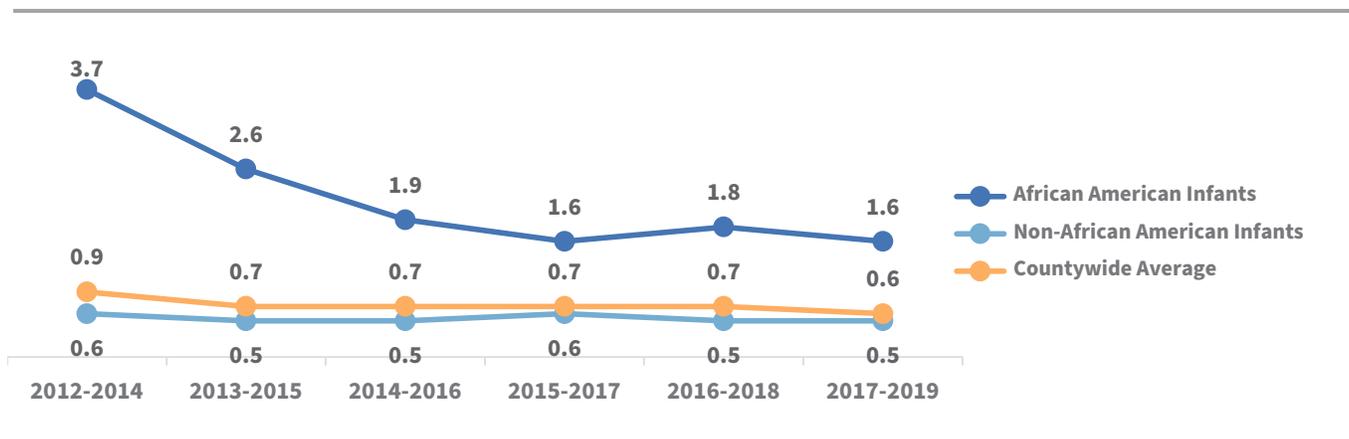
## INFANT SLEEP-RELATED DEATHS

The term “Infant Sleep-Related Deaths” (ISR) refers to any infant death that occurs in the sleep environment, including Sudden Infant Death Syndrome, Sudden Unexpected Infant Death Syndrome, and Undetermined Manner/Undetermined Natural Death. Rolling rates demonstrate a significant long-term decrease in African American ISR deaths (-56%) between 2012-2014 (3.7 per 1,000) and 2017-2019 (1.6 per 1,000). The disparity gap between African American ISR deaths and all other ethnic groups has also decreased 65% since the 2012-2014 rolling average. The Safe Sleep Baby campaign is very likely one contributor to these large decreases.

Since 2012-2014, Sacramento County has had a 56% decrease in the rate of infant sleep-related death amongst African Americans, and a 65% decrease in the disparity gap between African Americans and other ethnic groups.

While the single additional African American ISR death in 2018 (four, as compared to three in 2015, 2016, and 2017) continues to impact rolling averages, it is important to note that the number of African American ISR deaths in 2019 (two) was lower than any previous year measured here.

**Figure 36 — Three-Year Rolling Average Rates of Infant Sleep Related Deaths in Sacramento County**



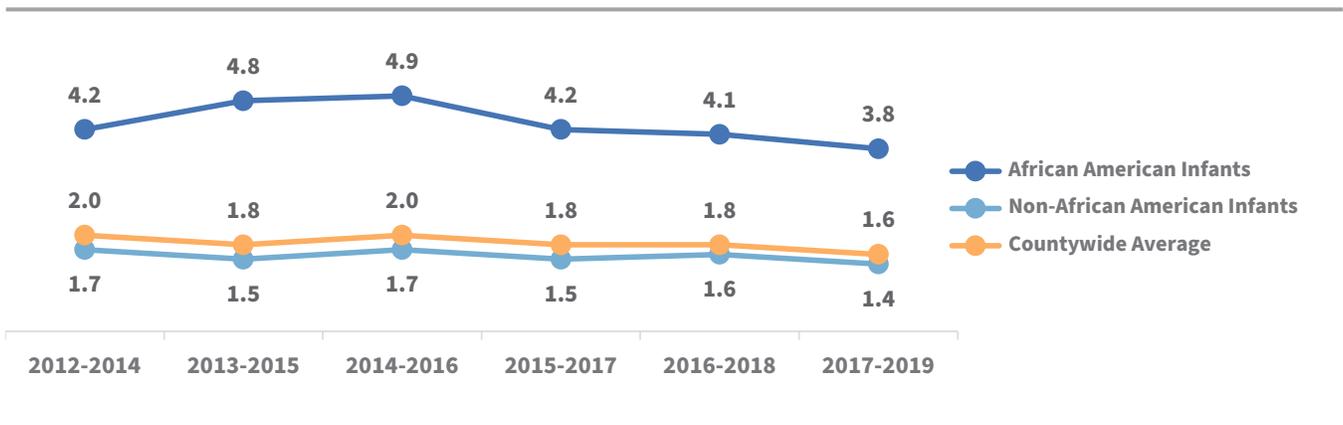
Source: Sacramento County Child Death Review Team Report 2012, 2013, 2014, 2015, 2016, 2017, 2018, and 2019. Rate is per 1,000 infants.

## INFANT DEATHS DUE TO PERINATAL CAUSES

Perinatal causes include deaths due to prematurity, low birthweight, placental abruption, and congenital infections and include deaths through one-month post-birth. During the 2012-2014 baseline period, African American infants died from perinatal causes at a rate of 4.2 per 1,000 births. Unfortunately, there were slight increases in perinatal deaths during the 2013-2015 and 2014-2016 periods. However, rates have been decreasing since 2015-2017 for all groups, including African Americans. The 2017-2019 rolling average for African American infants (3.8 per 1,000) is 10% lower than the 2012-2014 baseline.

Additionally, while African American infants remain more than twice as likely to die from perinatal causes compared to all other race/ethnicities, the disparity gap has decreased about 5% since the 2012-2014 baseline and is slightly lower than the 2016-2018 rolling average.

**Figure 37 — Three-Year Rolling Average Rates of Infant Death Due to Perinatal Causes in Sacramento County**



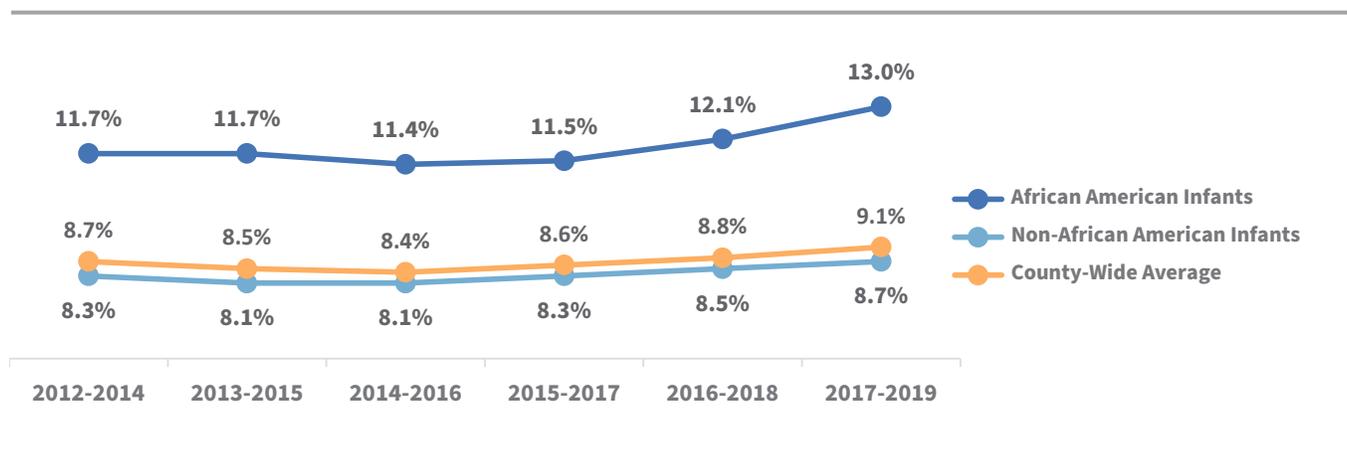
Source: Sacramento County Child Death Review Team Report 2012, 2013, 2014, 2015, 2016, 2017, 2018, and 2019. Rate is per 1,000 infants.

## PRETERM BIRTHS

Infants born before 37-weeks of gestation are considered preterm. In Sacramento County, 13% of African American babies were born preterm during the years 2017-2019. Unfortunately, this indicates an 11% increase in the number of African American preterm births compared to 2012-2014 (11.7%). It is important to note that preterm births among infants of all other races also displayed an increase from 2014-2016 to 2017-2019, so there may be a trend developing for all races. Rates of preterm births have also increased within Sacramento County, the State of California, and nationally. Healthy People 2030 reports describe the national status of preterm births as “getting worse.”<sup>29</sup> In 2018, the national rate was 10.0% of live births and 2019 estimates increased to 10.2%.

More focused work needs to be targeted in this area to decrease the number of preterm births in the African American community, as well as Sacramento County as a whole. The Healthy People goal is to reach 9.4% by 2030. Current estimates suggest that Sacramento County (9.1%) is currently below the threshold. Within Sacramento County, African Americans continue to disproportionately experience preterm births. This substantial gap reflects national Black-white discrepancies and may be linked to structural barriers as well as racism-related stress,<sup>30</sup> highlighting the need for more structural and systems approaches to address the root causes of racial disparities in preterm births and the associated long-term conditions.

**Figure 38 — Three-Year Rolling Average Percentage of Preterm Infants Born in Sacramento County**



Source: Sacramento County, Department of Health Services, Public Health Division, Epidemiology Program, Birth Statistical Master Files.

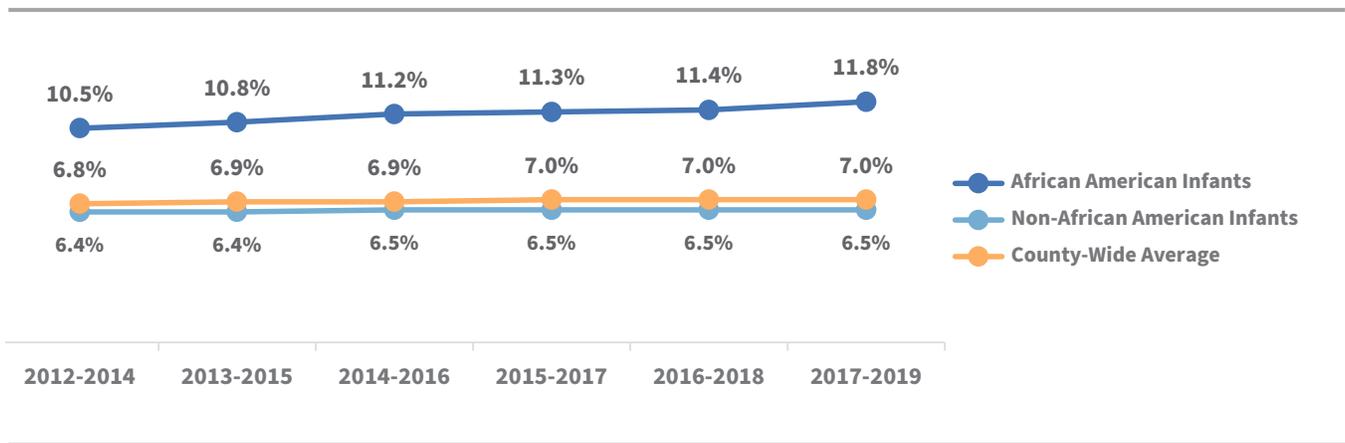
<sup>29</sup> US Department of Health and Human Services. Healthy People 2030. Reduce preterm births – MICH-07. <https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth/reduce-preterm-births-mich-07/data>

<sup>30</sup> Scommegna, Paola (2021, January 21). “High Premature Birth Rates Among U.S. Black Women May Reflect the Stress of Racism and Health and Economic Factors.” <https://www.prb.org/resources/high-premature-birth-rates-among-u-s-black-women-may-reflect-the-stress-of-racism-and-health-and-economic-factors/>

## LOW BIRTHWEIGHT

Low birthweight newborns are those weighing less than 2,500 grams. The figure below displays the percentage of African American infants born low birthweight (LBW) from baseline (2012-2014) through most current available data (2017-2019) compared to infants of all other races. The percentage of African American babies born with LBW during 2017-2019 increased by 12% compared to baseline (10.5% in 2012-2014, 11.8% in 2016-2018). More effort needs to be focused in this area for a continued decrease in infants born with LBW in the African American community and Sacramento County, overall.

**Figure 39 — Three-Year Rolling Average Percentage of Low Birthweight Babies Born in Sacramento County**



Source: Sacramento County, Department of Health Services, Public Health Division, Epidemiology Program, Birth Statistical Master Files.

While increasing trends are concerning, nationwide estimates also show larger proportions of newborns born at a low birthweight. National Vital Statistics (2021) estimates indicate 8.31% of infants were born at a low birthweight in 2019. This proportion is higher than the most recent national peak value (8.26%) in 2006.<sup>31</sup> Persisting racial disparities may also be attributed to the effects of poverty or racial discrimination even extending back to the mother’s childhood,<sup>32</sup> thus countywide efforts may take some time to see substantial impact.

<sup>31</sup> Martin, J. A. et. al., 2021. Births: Final Data for 2019. National Vital Statistics Report, Volume 70, Number 2. <https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-02-508.pdf>

<sup>32</sup> David, R.J. and J.W. Collins Jr., 1997. Differing Birth Weight among Infants of U.S.-Born Blacks, African-Born Blacks, and U.S.-Born Whites. The New England Journal of Medicine, 337:1209-1214. <https://www.nejm.org/doi/full/10.1056/NEJM199710233371706>.

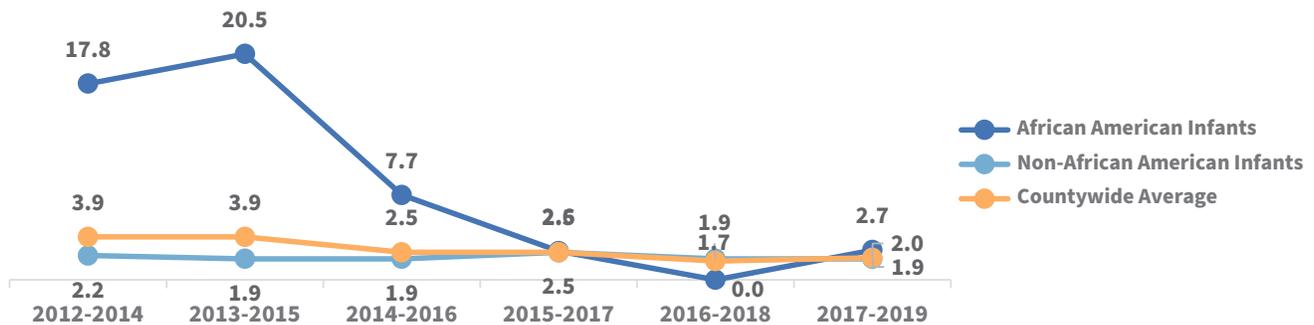
## DEATHS DUE TO CHILD ABUSE AND NEGLECT (0-5)

Sacramento Child Death Review Team reviews all child deaths in Sacramento County and give a determination as to cause of death. During the three-year baseline period (2012-2014), African American **infants** aged 0-1 died from Child Abuse and Neglect (CAN) at a rate of 0.8 per 1,000 infants.<sup>33</sup> Due in part to the efforts of the Family Resource Centers, this number has steadily declined to a rate of zero per 1,000 infants. However, the 2017-2019 rolling average rate of 0.2 per 1,000 infants reflects one individual child abuse/neglect infant death during this period.

Since 2012-2014, Sacramento County has seen a substantial decrease in 0-5-year-old child deaths due to CAN homicide amongst African Americans, and a 95% decrease in the disparity gap between African Americans and all other ethnic groups.

Among all **children ages 0-5**, African American children died from child abuse and neglect at a rate of 17.8 per 100,000 children during the 2012-2014 baseline period. Due in part to the efforts of the Family Resource Centers, this rate has since drastically declined. Unfortunately, between the 2016-2018 and 2017-2019 rolling averages, there has been a slight uptick in CAN deaths among 0-5-year-old children. The previous rolling average reflected 0 CAN deaths among African Americans in 2016-2018, while the 2017-2019 rate is 2.7. However, this reflects only one individual death during this three-year period, which remains 85% lower than the 2012-2014 baseline period. This slight increase should be monitored.

**Figure 40 — Three-Year Rolling Average Rates of Child (0-5) Death due to Child Abuse and Neglect in Sacramento County**



Source: Sacramento County Child Death Review Team Report 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019. Rate is per 100,000 children.

<sup>33</sup> Five infant deaths between 2012, 2013, and 2014, divided by a sum total of 5,998 African American infant births, multiplied by 1,000 to calculate rate.



## Summary and Conclusions

*Although infant deaths due to perinatal causes decreased, preterm and low birthweight births are increasing across Sacramento County, and as a larger national trend.*

Despite the continued and prolonged impact of the COVID-19 pandemic, the Reduction of African American Child Deaths initiative had a meaningful impact on Sacramento families. First 5 funded four programs that each focused on a different cause of death and employed different modalities to promote change in the health and well-being of Sacramento African Americans. The Pregnancy Peer Support Program paired pregnant African American mothers from high-risk areas with pregnancy coaches to receive one-on-one education, resources, and support. Family Resource Centers, located in high-risk areas of Sacramento County, employed multiple strategies with the goal of reducing child abuse and improving parent and child outcomes. The Safe Sleep Baby project provided one-hour education workshops and cribs to new parents and providers. The Perinatal Education Campaign utilized online communications, including social media advertisements and a comprehensive website, to educate the general population of Sacramento County about the fact that racism is the root cause of racial disparities in birth outcomes and offered ways to take action.

It is important to note that in addition to direct service, parenting education, and perinatal education campaigns for the public, policy/systems change are also needed to effect real and lasting change. It is prudent for First 5 Sacramento to continue to advocate for policy and systems change across Sacramento County and the state of California as a whole.

Overall, countywide rates continue to show reductions in African American child deaths, likely, in part, due to the RAACD initiative. Although infant deaths due to perinatal causes decreased, preterm and low birthweight births are increasing across Sacramento County, and as a larger national trend. The RAACD programs are appropriately positioned to explore the larger patterns in these trends and “scale up” efforts to address them at a county level and reach even more Sacramento families.



# Appendix 1 — Factors Associated with Poor Birth Outcomes

Case	# of weeks at program entry	Twin	Birthweight (lb.)	Low Birthweight	Gestational Age	Preterm	# weeks prenatal care began	Lack of or late to prenatal care	# of weekly check-ins	Socioeconomic barriers	Psycho-social factors during pregnancy	Mother's health conditions
1	12	N	5.14	Y	34	Y	1st Trimester	N	--			Prior gestational Diabetes; Nutritional deficiencies; 2+ miscarriages; Diabetes
2	24	N	3.40	Y	32	Y	9	N	--	Single, no partner		Teen
3	19	N	5.13	Y	36	Y	4	N	2			Has child < 1 year;
4	32	N	4.14	Y	36	Y	3rd Trimester	N	2			Nutritional deficiencies; 35+ years of age
5	10	N	3.14	Y	33	Y	1st Trimester	N	14	Single, no partner; Pressing food needs		35+ years of age
6	32	N	5.13	Y	32	Y	3rd Trimester	Y	5	Single, no partner; No high school diploma;		Teen
7	29	N	3.12	Y	28	Y	1st Trimester	N	3	Unemployed, looking for work; No stable housing (Pressing Need); No transportation	Anxiety/Depression	Nutritional deficiencies; 2+ miscarriages;
8	29	N	4.14	Y	39	N	4	N	--	Single, no partner; No high school diploma; No transportation; Pressing food needs	Anxiety/Depression	Prior Low Birthweight; Prior pre-term delivery
9	11	N	5.12	Y	39	N	1st Trimester	N	9			
10	24	N	7.40	N	34	Y	2nd Trimester	Y	4	Pressing food and housing needs		
11	12	N	6.00	N	36	Y	1st Trimester	N	16	Single, no partner; Unemployed, looking for work; Pressing food needs		
12	12	N	6.11	N	36	Y	7	N	14	Pressing food needs		
13	26	N	5.15	Y	39	N	--	N	18	Single, no partner	Anxiety/Depression	Nutritional deficiencies;
14	32	N	5.30	Y	40	N	3rd Trimester	Y	2	Pressing food needs		Teen
15	11	N	6.00	N	32	Y	1st Trimester	N	15	Pressing food needs	Anxiety/Depression	Prior gestational Diabetes; Preeclampsia; Prior pre-term delivery;
16	23	N	4.40	Y	40	N	13	Y	24	No transportation, Pressing housing need	Anxiety/Depression	Has child < 1 year;
17	15	N	5.15	Y	41	N	10	N	27	Single, no partner; Unemployed, looking for work		
18		Y	4.30 5.60	Y N	32	Y Y	--	--	3	Single, no partner; Unable to fulfill food needs		

## Appendix 2 — Countywide African American Births and Infant Deaths 2012-2019

	2012	2013	2014	2015	2016	2017	2018	2019
<b># AA Births</b>	2,078	1,979	1,941	1,901	1,826	1,947	1,817	1,796
<b># AA Infant Deaths</b>	22	24	19	21	12	14	23	13
<b>AA Infant Mortality Rate (per 1,000 births)</b>	10.6	12.1	9.8	11.0	6.6	7.2	12.7	7.2
<b>Three-Year Rolling Average (Period end year)</b>	-	-	10.8	11.0	9.2	8.3	8.8	9.0

## Appendix 3 — Technical Notes Related to County Trend Data

In Spring 2019, representatives from First 5 Sacramento, Sierra Health Foundation, and the Public Health Department met to discuss and agree upon core parameters for gathering and sharing RAACD data. Another meeting was held in Fall 2021 to reconvene and clarify any additional elements. The following presents the highlights of these discussions.

### BASELINE YEAR

The Blue Ribbon Commission report cited data from 2007-2011, and set goals based on the change desired after that period. 2012 is being used as the starting period for RAACD partners, although implementation began to get underway in 2014 and 2015. Because of the instability of one-year estimates, this report uses the three-year period of 2012-2014 as the baseline period, and tracks change in subsequent three periods relative to that baseline period.

### CODING OF RACE

Birth data is based on birth certificate information and includes individuals who identify as African American only. Mixed race individuals are not included in the PHD's category of African American.

Death data is gathered by the PHD from the coroner's office and is based on the race of the deceased on the death certificate. The race listed on the birth certificate and death certificate may not always match.

### DATA SOURCES AND RATES

Partners agreed to use data from the Sacramento County Public Health Department as the source of overall infant death rates, low birthweight, and preterm births and to use CDRT data to track infant deaths by cause. It was also agreed to show trends per 1,000 population, and not 100,000 population, with the exception of 0-5 child abuse and neglect deaths, which remain per 100,000 population.

Data	Numerator Data Source	Denominator Data Source	Measured as:
Low-birthweight infants	PH	PH births	Rate per 1,000 births
Preterm infants	PH	PH births	Rate per 1,000 births
All Infant Deaths (<1 year)	PH	PH births	Rate per 1,000 births
Infant Sleep-related Deaths (<1 year)	CDRT	PH births	Rate per 1,000 births
Infant Perinatal Condition Deaths (<1 year)	CDRT	PH births	Rate per 1,000 births
Infant Child Abuse and Neglect Deaths (<1 year)	CDRT	PH births	Rate per 1,000 births
0-5 Child Abuse and Neglect Deaths (< 6 years)	CDRT	Countywide 0-5 Population	Rate per 100,000

## Appendix 4 — BMU Regression Details

Logistic Regression Predicting Dichotomous Unhealthy Birth Outcome (yes/no).

	<i>B</i>	<i>S.E.</i>	<i>df</i>	<i>p</i>	<i>OR</i>
<b>Unable to fulfill food needs</b>	<b>1.135</b>	<b>.435</b>	<b>1</b>	<b>.009</b>	<b>3.112</b>
<b>BMU Service Count</b>	<b>-.066</b>	<b>.027</b>	<b>1</b>	<b>.016</b>	<b>.936</b>
Tobacco use	1.380	.738	1	.061	3.974
Anxiety/Depression	.568	.349	1	.104	1.766
Obesity	-20.131	11041.335	1	.999	.000
Constant	-.921	.304	1	.002	.398

Note: bolded variables are statistically significant at  $p < .05$ .

### Linear Regression Predicting Continuous Birthweight

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
<b>Obesity</b>	<b>.980</b>	<b>.411</b>	<b>2.383</b>	<b>.018</b>
<b>BMU Service Count</b>	<b>.031</b>	<b>.015</b>	<b>2.074</b>	<b>.039</b>
<b>Tobacco use</b>	<b>-.948</b>	<b>.473</b>	<b>-2.003</b>	<b>.046</b>
Unable to fulfill food needs	-.382	.273	-1.397	.164
Unemployed/Looking for work	.322	.212	1.523	.129
Anxiety or Depression	-.195	.202	-.965	.336
Alcohol/drug use	-.410	.418	-.983	.327
BMU Weeks at Intake	-.008	.013	-.652	.515
Constant	6.682	.388	17.239	.000

Note: bolded variables are statistically significant at  $p < .05$ .

### Linear Regression Predicting Continuous Gestational Age

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
<b>BMU Service Count</b>	<b>.078</b>	<b>.023</b>	<b>3.395</b>	<b>.001</b>
<b>Unable to fulfill food needs</b>	<b>-1.318</b>	<b>.453</b>	<b>-2.911</b>	<b>.004</b>
Constant	37.946	.277	136.876	.000

Note: bolded variables are statistically significant at  $p < .05$ .

## Appendix 5 — Three-Year BMU Birth Outcomes

	FY 2018-19		FY 2019-20		FY 2020-21	
<b>Live births</b>	102	98%	101	100%	<b>85</b>	<b>100%</b>
<b>Favorable Outcome</b>						
<b>Healthy birthweight</b>	79	77%	86	85%	<b>70</b>	<b>82%</b>
<b>Full term birth</b>	85	83%	91	90%	<b>71</b>	<b>84%</b>
<b>Healthy birthweight <i>and</i> full term birth</b>	70	69%	84	83%	<b>65</b>	<b>76%</b>
<b>Unfavorable Outcome</b>						
<b>Low birthweight</b>	21	21%	14	14%	<b>14</b>	<b>16%</b>
<b>Preterm birth</b>	15	12%	9	9%	<b>13</b>	<b>15%</b>
<b>Newborn death</b>	1	1%	0	0%	<b>0</b>	<b>0%</b>

Note: Birthweight and gestational weeks not available for all infants born.

## Appendix 6 — References & Endnotes

<sup>i</sup> Sacramento County Child Death Review Team: A Twenty Year Analysis of Child Death Data 1990 – 2009. [http://www.thecapcenter.org/admin/upload/final%2020%20year%20cdrt%20report%202012\\_1%2026%2012.pdf](http://www.thecapcenter.org/admin/upload/final%2020%20year%20cdrt%20report%202012_1%2026%2012.pdf).

<sup>ii</sup> Blue Ribbon Commission Report on African-American Child Deaths, 2013. <http://www.philsena.net/wp-content/uploads/2013/05/Blue-Ribbon-Commission-Report-2013.pdf>.

<sup>iii</sup> RAACD Strategic Plan, March 2015. [https://www.shfcenter.org/assets/RAACD/RAACD\\_Strategic\\_Plan\\_Report\\_March\\_2015.pdf](https://www.shfcenter.org/assets/RAACD/RAACD_Strategic_Plan_Report_March_2015.pdf)

<sup>iv</sup> RAACD Implementation Plan, September 2015. [https://www.shfcenter.org/assets/RAACD/RAACD\\_Implementation\\_Plan\\_2015.pdf](https://www.shfcenter.org/assets/RAACD/RAACD_Implementation_Plan_2015.pdf).

<sup>v</sup> Alfadhli, E. M. 2021. “Maternal obesity influences birthweight more than gestational diabetes.” BMC Pregnancy and Childbirth, 21, 111. <https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-021-03571-5#:~:text=Maternal%20obesity%20may%20be%20associated,and%20admission%20to%20the%20NICU>.

<sup>vi</sup> McDonald, S. D., Z. Han, S. Mulla, & J. Beyene. 2010. “Overweight and obesity in mothers and risk of preterm birth and low birthweight infants: systematic review and meta-analysis.” BMJ, 2010, 341:c3428. <https://www.bmj.com/content/341/bmj.c3428>.

## Photo Credits

All photographs in this report are stock photos that are posed by models.

# RAACD Resources

If you would like to learn more about the Reduction of African American Child Deaths initiative, please contact one of the following partners:

First 5 Sacramento  
(916) 876-5865

Black Mothers United  
Her Health First  
(916) 558-4812

Safe Sleep Baby and Birth & Beyond  
Child Abuse and Prevention Council  
(916) 244-1900

Public Education Campaign  
Runyon Saltzman, Inc.  
(916) 446-9900

Black Child Legacy Campaign  
(916) 993-7701

