California Department of Public Health Perinatal Equity Section Overview

Niambi Lewis, MSW
Chief, Perinatal Equity Section

DRAFT: not for publication or distribution

Objectives

- Review the disparities
- Program Overviews:
  - Black Infant Health Program
  - Perinatal Equity Initiative
- Promising Practices

Health Disparity

"The differences in health status among distinct segments of the population, including differences that occur by gender, age, race or ethnicity, education or income, disability or functional impairment or geographic location, or the combination of any of these factors." [1]

[1] An Update to the *Portrait of Promise*: Demographic Report on Health and Mental Health Equity in California. A report to the Legislature and the People of California by the Office of Health Equity; February 2020.

Infant Mortality: CA and the US

- California's infant mortality rate has consistently been lower than the national rate.
- In California, as in the US overall, racial/ethnic disparities persist, with Black infants dying at twice the rate of infants of other race/ethnicities.
- California's overall infant mortality rate is among the lowest nationally; provisional data for 2022 indicate that California's rate is the 5th lowest nationally.*

*(https://wonder.cdc.gov)

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Infant Mortality (using linked data) California and the US, 2007-2020

Deaths per 1,000 live births

Year	CA	US
2007	5.34	6.75
2008	5.28	6.61
2009	4.96	6.39
2010	4.85	6.14
2011	4.80	6.07
2012	4.60	5.98
2013	4.79	5.96
2014	4.51	5.82
2015	4.46	5.90
2016	4.29	5.87
2017	4.23	5.79
2018	4.30	5.67
2019	4.17	5.58
2020	3.99	5.42

Y-axis: 0.00, 1.00, 2.00, 3.00, 4.00, 5.00, 6.00, 7.00, 8.00

Legend: CA, US

CA Data from the California Birth Cohort File, 2007–2020: Compiled from both birth and death certificates
US Data from National Vital Statistics Reports, vol 69 no 7, vol 70 no 14, and vol 71 no 5. Hyattsville, MD: National Center for Health Statistics
Prepared by the Epidemiology, Surveillance and Federal Reporting Section, Maternal, Child and Adolescent Health Division, Center for Family Health
Note: CA and US data linkage methodologies differ slightly.

Infant Mortality Rate by Race/Ethnicity, 2020

California and the US, Linked Data

	Overall	White	Black	Hispanic
CA	3.99	3.06	9.27	4.00
US	5.42	4.40	10.38	4.69

Deaths per 1,000 Live Births

Sources: CA Data – MCAH Data Dashboards: https://www.cdph.ca.gov/Programs/CFH/DMCAH/surveillance/Pages/Infant-Mortality.aspx
US Data – National Vital Statistics Reports, Vol 72, No 11: https://www.cdc.gov/nchs/data/nvsr/nvsr72/nvsr72-11.pdf
Prepared by the Epidemiology, Surveillance and Federal Reporting Section, Maternal, Child and Adolescent Health Division, Center for Family Health
Note: CA and US data linkage methodologies differ slightly.

Pregnancy-Related Mortality: CA and the US

- California's pregnancy-related mortality ratio has consistently been lower than the national ratio.
- In California, as in the US overall...
  - racial/ethnic disparities persist, with Black pregnant and birthing people dying at 3-4 times the rate of those of other race/ethnicities.
  - Pregnancy-related deaths from COVID have caused the ratio to increase considerably.
- National vital statistics data indicate that California's maternal mortality burden is the lowest in the US.*

*NCHS, National Vital Statistics System: https://www.cdc.gov/nchs/maternal-mortality/mmr-2018-2021-state-data.pdf

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Pregnancy-Related Mortality Ratio California and the US, 2012-2020

Deaths per 100,000 live births

	2012	2013	2014	2015	2016	2017	2018	2019	2020
United States PRMR	15.9	17.3	18.0	17.2	16.9	17.3	17.3	17.6	
California PRMR	9.5	10.7	11.5	13.4	14.1	13.1	16.1	12.8	18.6*
California PRMR, excl. Covid-19 deaths									15.0

Pregnancy-related mortality ratio (PRMR) = Number of pregnancy-related deaths per 100,000 live births, up to one year after the end of pregnancy. Pregnancy-relatedness was determined by expert committee case review process. Data on U.S. PRMR were accessed at Pregnancy Mortality Surveillance System | Maternal and Infant Health | CDC on April 6, 2023).

* The CA 2020 PRMR was significantly higher than the PRMRs in 2012 and 2013

Pregnancy-Related Mortality Ratio
Overall, 2019; by Race/Ethnicity, 2017-2019
California and the US

Sources: CA Data – MCAH Data Dashboards: https://www.cdph.ca.gov/Programs/CFH/DMCAH/surveillance/Pages/Pregnancy-Related-Mortality.aspx
US Data – CDC PMSS Data: https://www.cdc.gov/maternal-mortality/php/pregnancy-mortality-surveillance/
Prepared by the Epidemiology, Surveillance and Federal Reporting Section, Maternal, Child and Adolescent Health Division, Center for Family Health
Note: CA and US surveillance methodologies differ slightly.

Disparities

"Race isn't a Risk Factor in Maternal Health. Racism is."

- DR. JOIA CREAR-PERRY

Black Mamas Matter Alliance's April 2018 Black Paper:

"Setting the Standard for Holistic Care of and for Black Women"

http://blackmamasmatter.org/wp-content/uploads/2018/04/BMMA_BlackPaper_April-2018.pdf

Centering Black Mother's Report

How does structural racism impact Black maternal health?

Neighborhood conditions

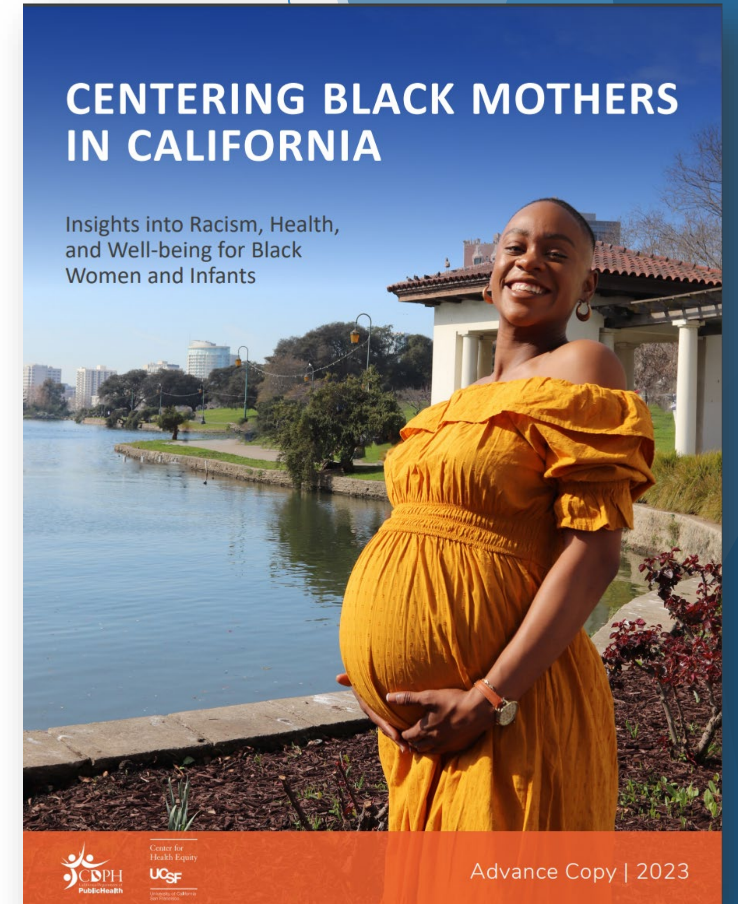
As a result of historical discriminatory policies,[2] many Black Californians live in neighborhoods that are segregated and have high rates of poverty and unhealthy conditions, which can increase the risk of adverse birthing outcomes.

Chronic stress

Structural racism leads to chronic stress,[3] which is linked to hypertension,[4] a risk factor for severe maternal morbidity, pregnancy-related mortality, preterm birth, and preterm birth-associated mortality.

Lack of access to high quality, respectful care

In 2016, more than 1 in 10 Black women reported that they were treated unfairly or disrespectfully because of their race or ethnicity when giving birth.[5]



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Promising Solutions

- Current science supports the idea that social factors play a prominent role in birth outcomes.
- Promising Practices:
  - Reducing stress
  - Increasing social support
  - Building empowerment
  - Improving health, environmental and social conditions in which people live, work, pray, and play, across the life course

Braveman, P., Egerter, S., Barclay C. Issue Brief 3: Stress and Health, Princeton, NJ: Robert Wood Johnson Foundation 2011

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Black Infant Health Program

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About BIH

Our Goals:

- To improve health among African-American mothers and babies.
- To improve Black: white disparities in maternal and infant health.
- To empower women to make healthy choices for themselves and their families.

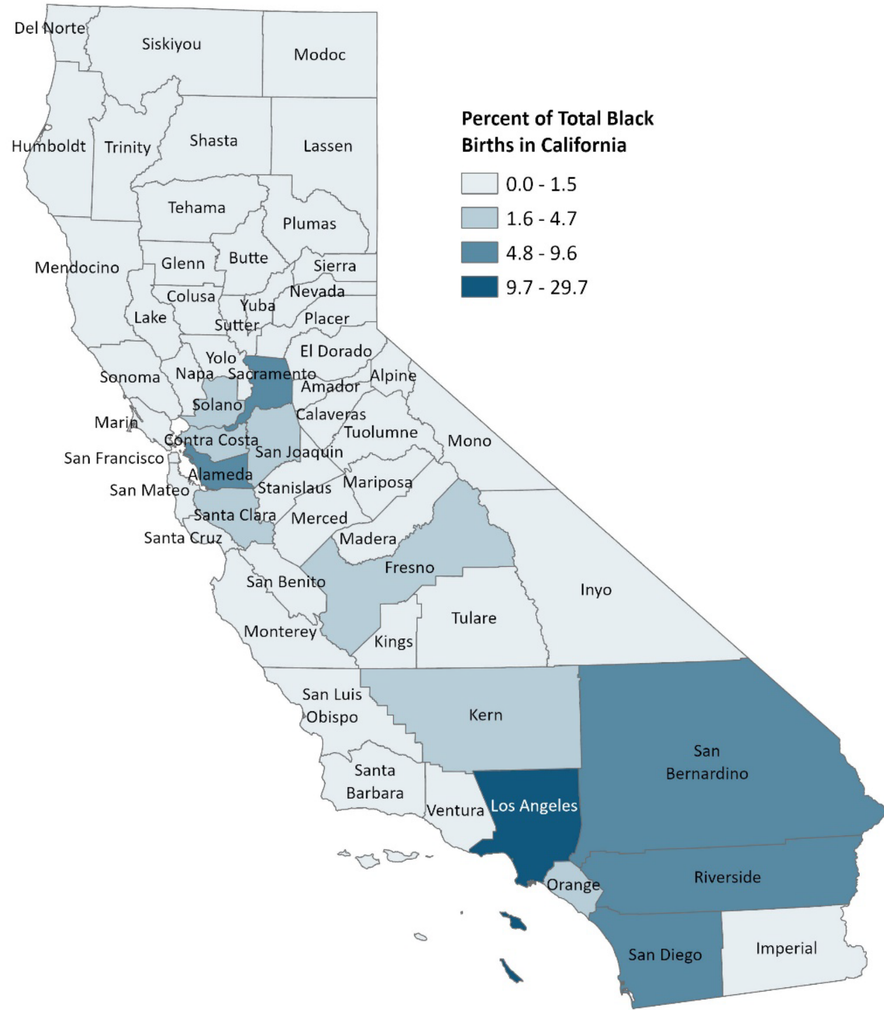
Target Population:

- African-American women, 16 years or older at the time of enrollment.
- Women who are pregnant, or up to 6 months postpartum at the time of enrollment.

Funding:

- BIH is funded by Federal Title V MCH Block Grant Funds, Federal Title XIX Funds and State General Funds

Resident Black Births by County, 2020-2022



County*	Number of Black Births	Percent of Total Black Births in California
Santa Clara	1,520	1.8
Orange	1,999	2.4
Solano	2,256	2.7
Kern	2,460	3.0
Fresno	2,516	3.0
San Joaquin	2,565	3.1
Contra Costa	3,858	4.7
Alameda	5,169	6.2
Riverside	6,083	7.3
San Diego	6,636	8.0
Sacramento	7,450	9.0
San Bernadino	7,953	9.6
Los Angeles	24,645	29.7
California	82,851	100.0

*Counties with less than 1.6% of total black births in California are not shown.

Based on expanded definition of Black: Black reported in any of the three maternal race fields (includes Hispanic and multi-race).
Data Source: California Comprehensive Master Birth Files, 2020-2022. Map classifications are based on natural breaks in the data.
Prepared by the Epidemiology, Surveillance and Federal Reporting Section, Maternal, Child and Adolescent Health Division, Center for Family Health

BIH Governing Concepts

1. **Culturally-relevant**: Providing culturally relevant information that is important to African-American women and honors the unique history and traditions of people of African descent.
2. **Participant-centered:** Placing the participants own needs, values, priorities and goals at the core of every interaction and activity, recognizing that people have an inherent tendency to strive toward growth.
3. **Strength-based**: Building on each participant's strengths to enrich them, their family and their community, by empowering them to make healthy decisions.
4. **Cognitive skill-building:** Encouraging the participants to think differently about their behaviors and to act on what they have learned, recognizing that problem-solving is a goal-oriented process.

Why a Group Intervention

- Research suggests that group-based interventions could be a more effective strategy for improving birth outcomes
  - Issues addressed are common to all participants
  - Decreased isolation/increased social support → improved health-seeking behaviors, more effective social skills, reducing harmful effects of stress
- Participating in groups can help women:
  - Make different choices about their health
  - Increase their sense of control, which can improve health and wellness
  - Improve their coping skills
  - Help others with their knowledge and information

BIH Program Pillars

	Social Support	Stress Reduction	Empowerment
Program Pillars			

Short Term Outcomes

- Promote social support
- Develop effective stress reduction strategies
- Empower Black birthing people and build resiliency
- Promote health knowledge and healthy behaviors
- Connect with supportive services
- Community engagement

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Staffing Requirements

- BIH Coordinator
- Child Watch Personnel
- Community Outreach Liaison
- Data Entry Personnel
- Family Health Advocate
- Group Facilitator
- Mental Health Professional
- Public Health Nurse

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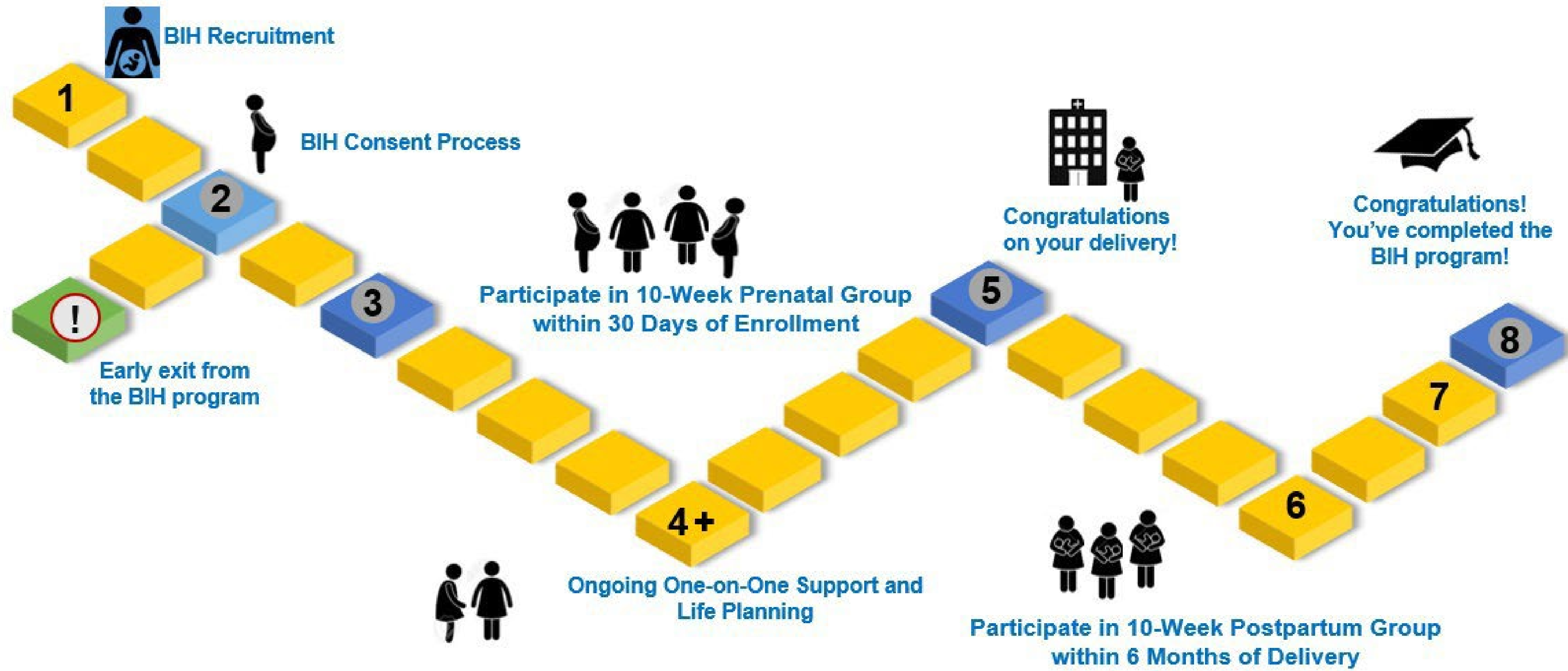
Participant Journey



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Health Outcomes Among BIH Prenatal Group Model Participants, 2015-2018

Table 1. Participant intermediate outcomes before and after BIH prenatal participation.

Intermediate outcomes	Indicators	Measure among Participants Before Group Prenatal Services	Measure among Participants After Group Prenatal Services	Percent Change
Empower Black birthing people and build resiliency	Empowerment Score (mean) (score range 4-27, higher is better)	19.9	20.6	4% ▲
Promote social support and healthy relationships	Social Support Score (mean) (score range 10-40, higher is better)	32.2	33.2	3% ▲
	Lack of practical and emotional support	5.0%	2.0%	60% ▼
Develop effective stress reduction strategies	Use of stress management techniques such as yoga, deep breathing, and meditation	50.6%	69.7%	38% ▲
Promote health knowledge and healthy behaviors	Smoking in the last month	9.2%	4.5%	51% ▼
	Exercising more than 3 days in the last week	51.0%	55.7%	9% ▲
	Knowledge of appropriate timing of delivery at 39-40 weeks	68.5%	86.1%	26% ▲
	Intention to breastfeed their babies	91.0%	94.0%	3% ▲
	Intention to exclusively breastfeed their babies	61.2%	67.8%	11% ▲
	Planning to put their baby to sleep on their back	68.0%	90.5%	33% ▲
	Planning to use any method of birth control to prevent pregnancy after delivery	82.8%	87.9%	6% ▲
Other	Food insecurity	14.3%	7.8%	45% ▼
	Depressive symptoms	22.8%	14.8%	35% ▼

Data Source: Data includes participants that were recruited and enrolled over 3 state fiscal years (July 1, 2015 – June 30, 2018) and completed a baseline and follow-up survey (n=1571). Extracted from BIH State data system on 12/31/18. Results presented are adjusted for participant age and education at baseline; number of weeks between enrollment and first prenatal group session; number of prenatal group sessions attended; average group size; total minutes of life planning received; number of unique facilitators encountered; percent of sessions offering child watch, food, and transportation. Participants missing information about age (n=7) or education (n=21) are excluded from the multivariate models.

Largest Improvements:

- Practical and Emotional Support
- Smoking
- Food insecurity
- Stress management techniques
- Depressive symptoms
- Baby sleeping on back

Key Takeaways for BIH Outcomes:

- The BIH prenatal group model is achieving its intended outcomes.
- The results showed significant positive change in 13 of the 18 health and health-related outcomes examined.
- Overall, results support BIH as a promising strategy to improve the health of Black birthing people and their families.

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Perinatal Equity Initiative

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Budget Act of 2018

- CDPH shall establish the California Perinatal Equity Initiative to expand the scope of interventions provided under the BIH program
- The Department shall develop a process to allocate funds to work collaboratively with state and local BIH programs, for the purpose of improving black infant birth outcomes and reducing infant mortality
- Recipients of local grants must implement strategies:
  - Evidence-based, evidence-informed or reflect promising practices based on local needs and resources

About PEI

- **Our Goal:** To improve birth outcomes and reduce Black maternal and infant mortality through interventions implemented at the county level that are evidence-based, evidence-informed or reflect promising practices.
- **Target Population:** Pregnant and parenting Black women and their partners, through the first year of their child's life. PEI currently funds 11 LHJs across California.
- **Funding:** $8 Million in State General Funds per state fiscal year to complement and support existing Black Infant Health program services.

Where We Are

Intervention	PEI Local Health Jurisdictions	
Community-Based Doulas/Midwifery (Innovative Strategy)	Alameda Contra Costa Fresno	Riverside Sacramento San Bernardino
Group Prenatal Care	Alameda Los Angeles	
Fatherhood/Partner	Contra Costa Fresno Los Angeles Riverside	Sacramento San Bernardino San Diego San Joaquin
Personal Support (Innovative Strategy)	San Joaquin Santa Clara	
Home Visiting	San Francisco	
Preconception/ Interconception Care	Los Angeles Santa Clara	
Implicit Bias (Innovative Strategy)	Alameda San Bernardino San Francisco	San Diego

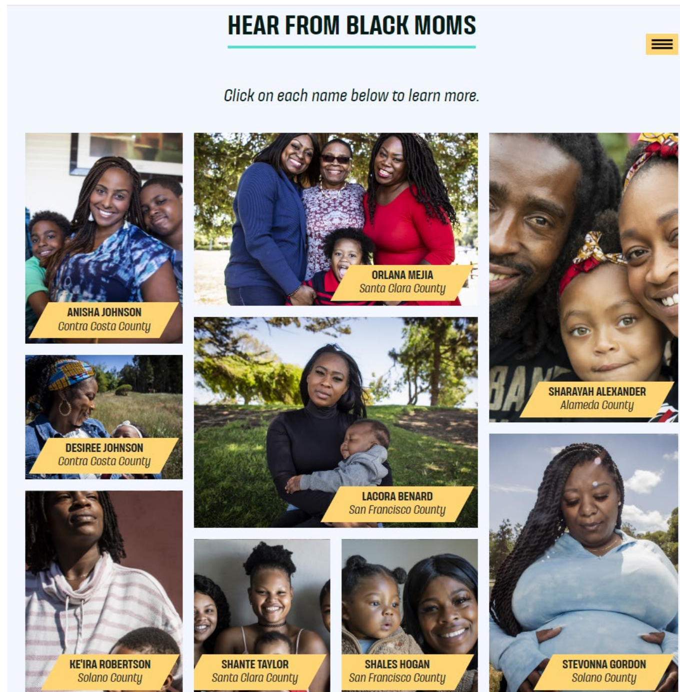
Program Structure

Each funded LHJ is required to:

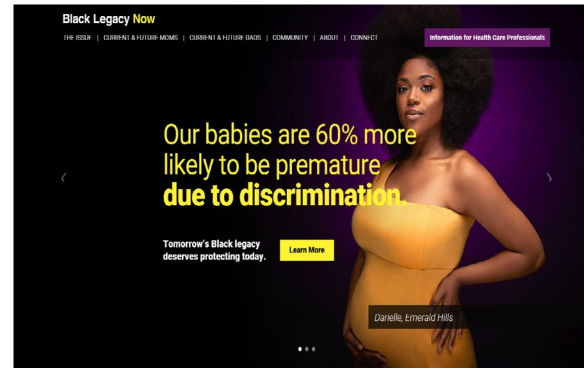
- Implement at least two of the five legislated interventions
- Develop a Public Awareness Campaign
- Maintain a Community Advisory Board
- Utilize Results Based Accountability framework and data-system to monitor progress
- Attend bi-monthly learning collaborative calls

Public Awareness Campaigns

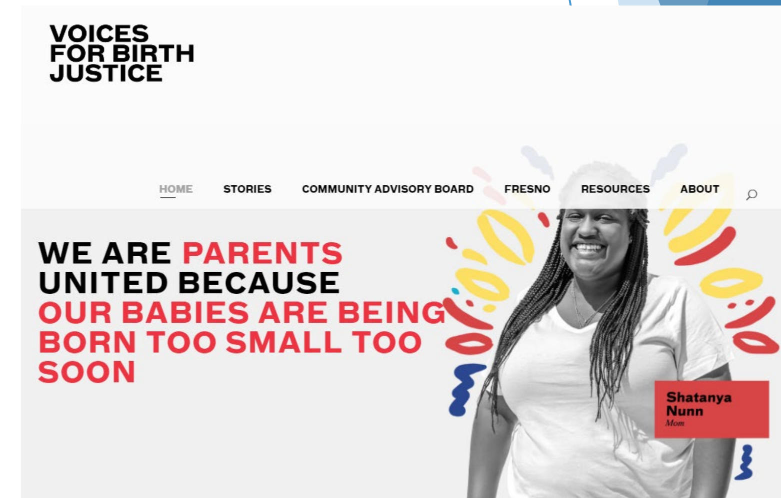
- Each LHJ is required to create a local public awareness campaign to increase community awareness of Black maternal and infant health disparities



Alameda, Contra Costa, Santa Clara & San Francisco Counties
https://deliverbirthjustice.org/



San Diego
BlackLegacyNowSD.com



Fresno
https://voicesforbirthjustice.org/

Results-Based Accountability (RBA)

RBA Performance Measures:

How much did we do?

How well did we do it?

Is anyone better off?

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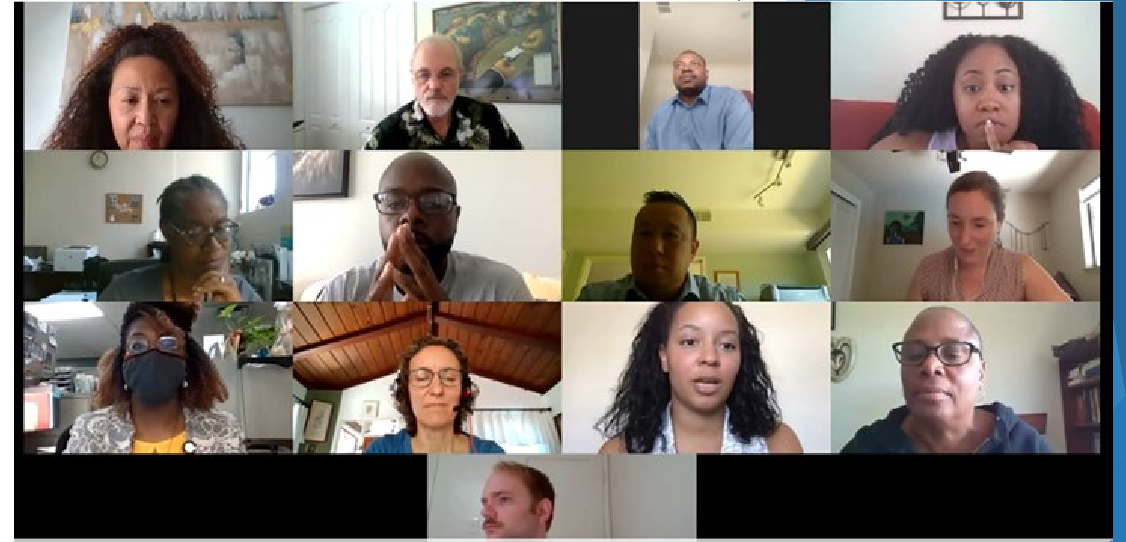
Learning Collaboratives

- Monthly meetings to provide an opportunity for collaboration with other LHJs implementing the same interventions
- Shared learning and commitment
- Finalize state-wide performance measures



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PROMISING PRACTICES

Promising Practices

- Language for programs written into state legislation
- Encouraging racial concordance in staffing
- Requiring Community Advisory Boards for community buy-in and support
- Maintaining standards for evaluation, but allowing flexibility where possible
- Encouraging (requiring for PEI) county agencies to partner with community-based organizations
- Providing funding that allows for the inclusion of resources that eliminate barriers to services