COVID-19 and Perinatal Health:
It's Time for a Shared Commitment to Health Justice

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May 27, 2021

Objectives

1. Illustrate the profound and unequal medical and social impact of COVID-19 on different groups of women based on race/ethnicity

2. Provide a framework for systematic response to the adverse impact of the pandemic and of racism generally on perinatal health and examples of how that framework is being operationalized by DPH and partner organizations.

3. Provide evidence that there is a critical need for health care involvement in those efforts and examples of the roles health care providers and organizations can play.

Confirmed COVID-19 Pregnant Cases, Los Angeles County

Total COVID-19 Positive Pregnant Women	n = 8,884
Test Type	**n (%)**
PCR/NAAT	8643 (97)
Antigen	218 (2)
Unknown	23 (<1)
Symptom Status	**n (%)**
Symptomatic	3742 (42)
Asymptomatic	925 (10)
Symptoms Unknown	4217 (47)
Pregnancy Status at COVID-19 Testing	**n (%)**
*1st Trimester	1129 (13)
*2nd Trimester	1855 (21)
*3rd Trimester	1911 (22)
In labor	870 (10)
Pregnancy Status Unknown	3119 (35)
Age Range (Years)	14-52
Ethnicity	%
Hispanic/Latino/Spanish Origin	78
White	10
Black/African American	5
Asian	4
American Indian/Alaskan Native	<1
Native Hawaiian/Other Pacific Islander	<1
Other	1
Unknown	1
COVID-19 Associated Deaths in Pregnant Women	**n = 12**

* Gestation week calculated using onset date and EDD
If asymptomatic, calculated using collection date and EDD

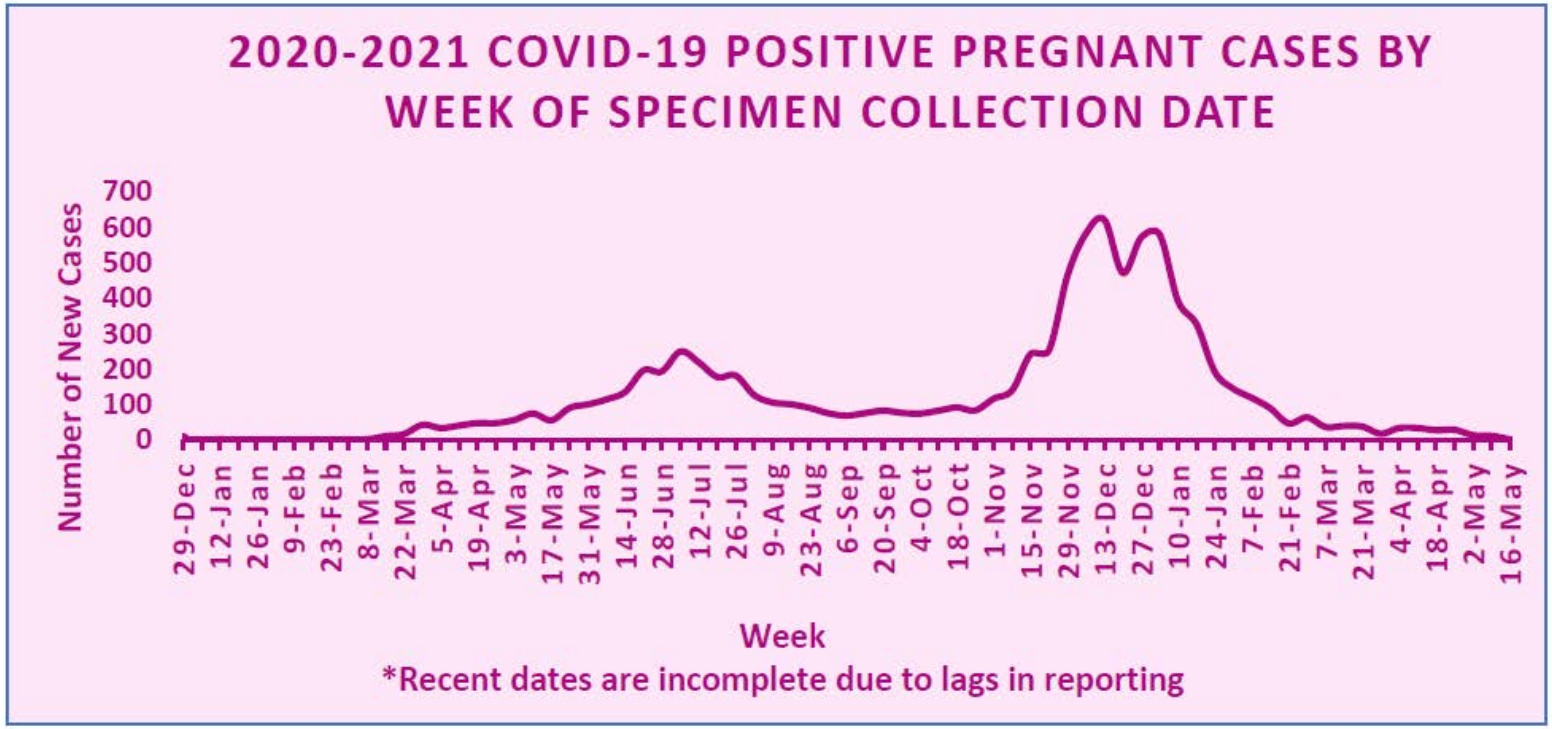
For comparison, there were **102,534** births in Los Angeles County in 2020.

Source: State of California, Department of Public Health, California Vital Data (Cal-ViDa), Birth Query, https://cal-vida.cdph.ca.gov/, Last modified May 10, 2021

11 Latinx maternal deaths + 1 Asian maternal death

(as of 5/18/21)

Pregnant Cases by Week, Los Angeles County



Pregnancy Outcomes, Los Angeles County

Total Completed Pregnancies (including live births and pregnancy losses, regardless of gestational age)	n = 7,971
Total Birth Outcomes	**n = 8,059[1]**
Birth Outcome	**n (%)**
Elective Abortion	7 (<1)
Intrauterine Fetal Death < 20 Weeks[2]	29 (<1)
Intrauterine Fetal Death ≥ 20 Weeks	19 (<1)
Live Birth[3]	7348 (91)
Early Neonatal Death[4]	10 (<1)
Unknown	646 (8)
Neonate COVID-19 Test Results	**n (%)**
Positive[5]	54 (1)
Positive during birth hospitalization	45 (1)
Negative, Not Tested, or Unknown	8,005 (99)

[1] Includes eighty-four sets of twins, two sets of triplets

[2] Includes three fetal deaths secondary to maternal deaths in pregnancy

[3] Neonate that breathes or shows signs of life regardless of length of survival

[4] Death within seven days of birth

[5] Possible transmission can include congenital, intra-partum and post-partum mother-to-child transmission as well as community transmission up to fourteen days after birth

- The 10 early neonatal deaths were preterm (<28 weeks gestation), and none had any evidence of mother-to-child transmission of COVID.
- 9 were to Latinx women; 1 was to an Asian woman.

The global picture also reflects inequality

	Studies	Pandemic		Pre-pandemic		Odds ratio or mean difference*	p value	I^2
		Events	Pregnancies	Events	Pregnancies			
Maternal and perinatal death								
Stillbirth	12	1099	168 295	1325	198 993	1·28 (1·07–1·54)	0·0082	63%
HICs only	8	625	150 404	640	165 118	1·38 (0·94–2·02)	0·099	52%
LMICs only	4	474	17 891	685	33 875	1·29 (1·06–1·58)	0·012	64%
Neonatal death	3	62	13 214	120	22 570	1·01 (0·38–2·67)	0·98	85%
HICs only	1	5	2538	6	1262	0·41 (0·13–1·36)	0·14	NA
LMICs only	2	57	10 676	114	21 308	1·37 (0·42–4·46)	0·59	90%
Maternal death	2	530	1 237 018	698	2 224 859	1·37 (1·22–1·53)	<0·0001	0%
HICs only	0	NA	NA	NA	NA	NA	NA	NA
LMICs only	2	530	1 237 018	698	2 224 859	1·37 (1·22–1·53)	<0·0001	0%

Source: Chmielewska, B. et al. Effects of the COVID-19 pandemic on maternal and perinatal outcomes: a systematic review and meta-analysis. The Lancet. June 2021

Perinatal Effects of COVID-19 Around the World

"Global maternal and fetal outcomes have worsened during the COVID-19 pandemic, with an increase in maternal deaths, stillbirth, ruptured ectopic pregnancies, and maternal depression. Some outcomes show considerable disparity between high-resource and low-resource settings. "

Source: Chmielewska, B. et al. Effects of the COVID-19 pandemic on maternal and perinatal outcomes: a systematic review and meta-analysis. The Lancet. June 2021

But the impact of COVID-19 on women and children is not just medical

- Hardship experienced by pregnant and parenting women in LAC is consistent with the experience of women nationally.
- Whereas 70% of mothers living with their children worked prior to the pandemic, that figure has since fallen to 55%.
- 705,000 US women have left work outside the home during the pandemic and may not go back.
- Black women left work at a rate 7.5% higher in January 2021, compared to the same time in 2020. They are nearly twice as likely to be unemployed as white women.

Source: Census Bureau. *Tracking Job Losses for Mothers of School-Age Children During a Health Crisis.* March 2021.
https://www.census.gov/library/stories/2021/03/moms-work-and-the-pandemic.html

Hardship among Female LA County Residents in the Context of COVID-19

	All Females (n=831)				Non-Hispanic White Females (n=206)				Hispanic Females (n=408)				Non-Hispanic Black Females (n=69)				Non-Hispanic Asian Females (n=104)		
	Percent	LCL	UCL		Percent	LCL	UCL		Percent	LCL	UCL		Percent	LCL	UCL		Percent	LCL	UCL
Rent-burdened	70.5%	64.8	76.1		60.3%	46.8	73.8		73.5%	65.8	81.2		75.6%	60.0	91.2		65.3%	50.1	80.5
Live in overcrowded home	47.5%	42.7	52.2		31.6%	22.4	40.8		56.8%	50.0	63.6		40.9%	25.2	56.5		40.8%	29.3	52.2
How often worried about losing home in the last 12 months:																			
Not at all	62.4%	57.9	66.9		70.2%	61.5	78.9		61.2%	54.7	67.7		52.7%	37.4	68.1		61.8%	50.6	73.1
Needed but delayed or went without the following because cost of care was too high:																			
Prescription medicine	13.1%	9.9	16.3		4.1%	1.8	6.4		16.3%	11.3	21.3	*	19.8%	6.0	33.6		11.1%	5.5	16.7
Follow-up care	7.4%	4.9	9.9	*	3.0%	0.0	6.3		7.2%	3.7	10.7	*	20.1%	6.5	33.6	*	7.4%	2.8	12.1
Currently have debt or unpaid bills due to cost of medical care	11.9%	8.8	14.9	*	8.1%	3.2	13.0		13.5%	8.9	18.2	*	19.6%	7.1	32.1	*	6.9%	1.0	12.7
Any indication of food insecurity	14.7%	11.2	18.1	*	8.3%	2.8	13.7		18.7%	13.4	24.0	*	13.8%	3.0	24.7	*	10.9%	3.0	18.8
Currently unemployed - looking for work	20.2%	16.3	24.1		10.9%	5.2	16.7		25.0%	19.1	31.0	*	17.2%	4.8	29.6		18.6%	9.4	27.9

One University of Southern California study found women with children dramatically more likely to report psychological distress than either men or women without children.

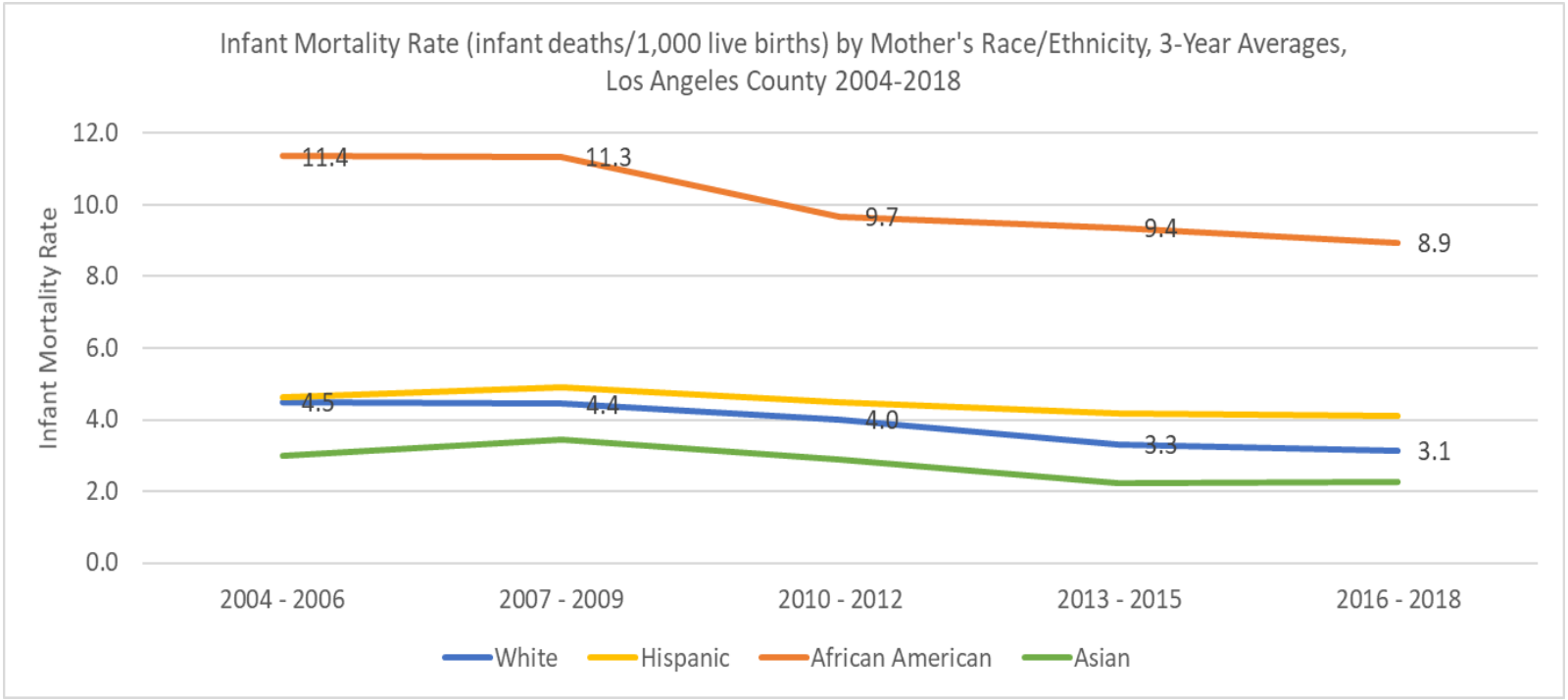
Source: https://news.usc.edu/183396/women-kids-covid-19-pandemic-child-care-workforce-usc-experts/

Across the County, We've Seen…

- Uptick in people seeking mental health services
- Uptick in homelessness, disproportionately affecting communities of color
- Uptick in WIC requests for emergency food

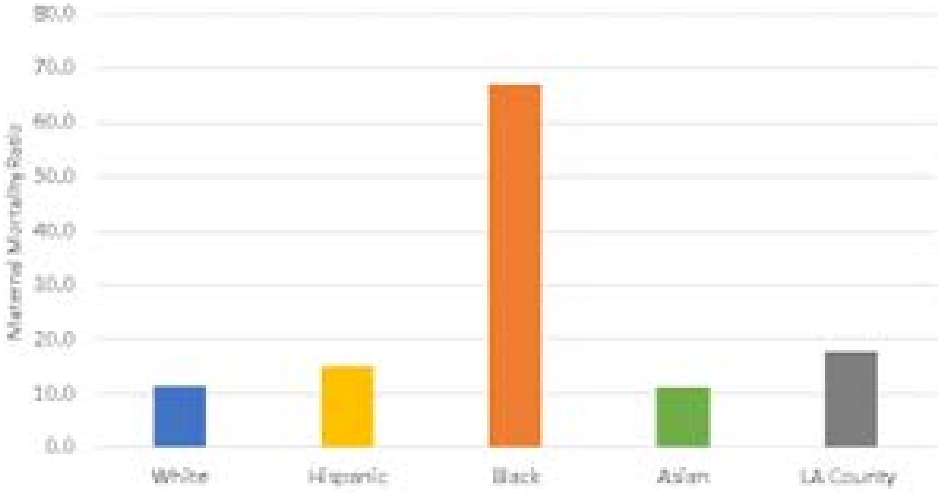
The story of COVID-19 includes a story of medical hardship and socioeconomic loss for women. Especially women of color.
It parallels what we know about birth outcomes.

Infant Mortality Rate by Mothers' Race/Ethnicity, 3-Year Averages, Los Angeles County 2004-2018



Notes: Infant mortality rate is defined as the number of deaths to infants within the first year of life per 1,000 live births. Data not shown for Native Americans, Pacific Islander, Other, and Unknown races. Three-year averages used to account for random and annual rate fluctuations.
Source: 2003-2017 California Department of Public Health, Birth and Death Statistical Master Files. 2018 birth and death records downloaded from the Vital Record Business Intelligence System (VRBIS) on 02/04/20.

Maternal Mortality Ratio by Mothers' Race/Ethnicity 5-Year Average, Los Angeles County 2013-2017



	LA County	White	Hispanic	African American	Asian
Maternal Mortality Ratio (deaths/100,000 births) (95% CI)	17.5 (13.9 – 20.4)	11.4 (5.2 – 7.5)	15.0 (11.0 – 19.1)	67.0 (42.6 – 91.3)	11.1 (4.5 – 17.7)

Notes: Maternal mortality ratio is defined as the number of maternal deaths due to pregnancy, childbirth and the puerperium as identified by ICD-10 codes A34, O00-O99 per 100,000 live births. Data not shown for Native Americans, Pacific Islander, Other, and Unknown races. Five-year average used to account for random and annual rate fluctuations and rarity of the outcome.

Data Source: 2013-2017 California Department of Public Health Birth and Death Statistical Master Files

Puerperium refers to the six-week period after delivery

What explains the pattern?

The usual suspects

- Genetics
- Personal behavior
- Education (maternal education in the case of infant death)
- Health care access and utilization
- Poverty and its consequences
  - Housing, food, transportation, environmental exposures

Genetics?

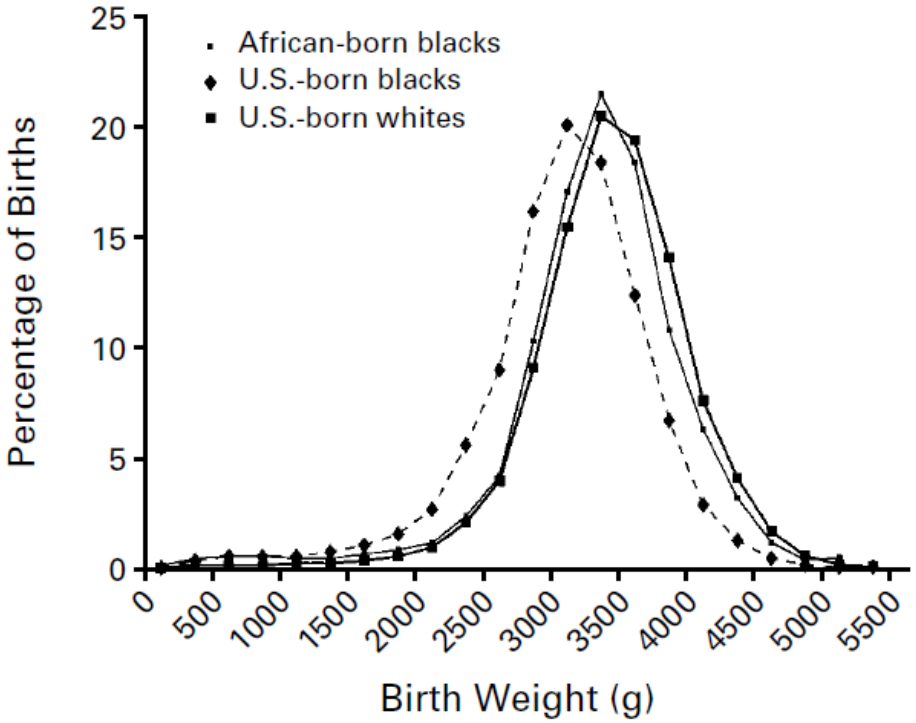
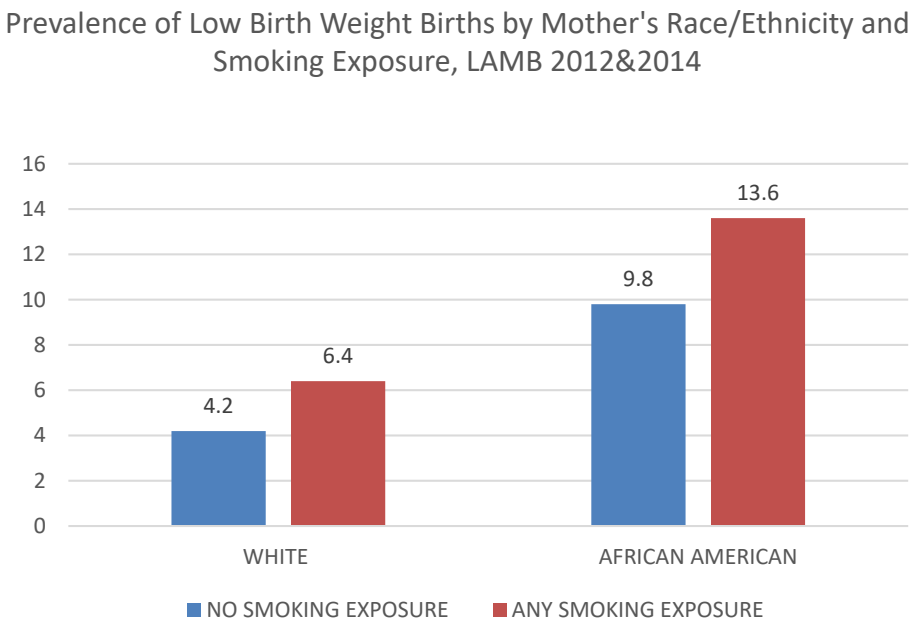
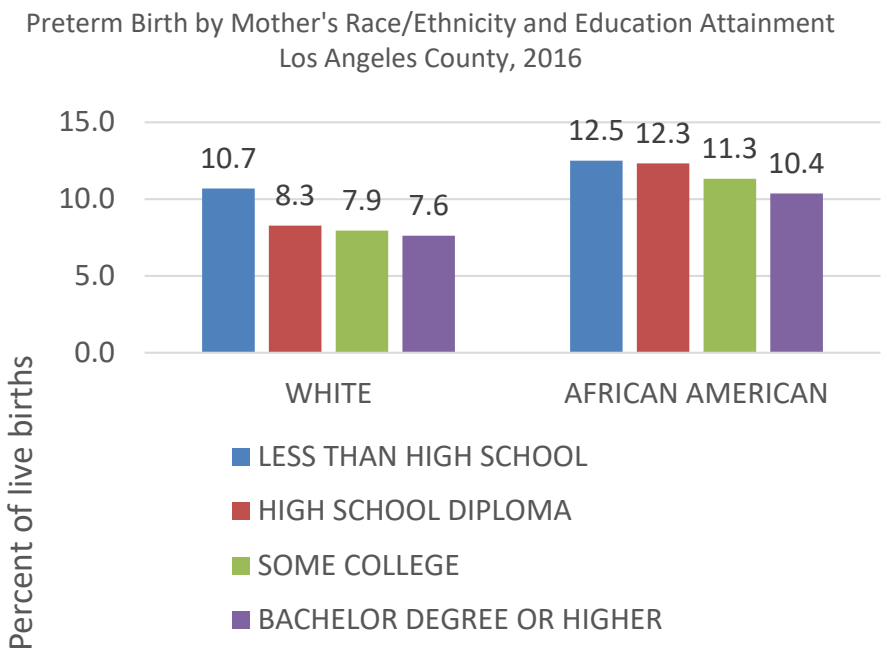


Figure 1. Distribution of Birth Weights among Infants of U.S.-Born White and Black Women and African-Born Black Women in Illinois, 1980–1995.

Behavior?


Prevalence of Low Birth Weight Births by Mother's Race/Ethnicity and Smoking Exposure, LAMB 2012&2014
16
14
12
10
8
6
4
2
0
4.2
6.4
9.8
13.6
WHITE
AFRICAN AMERICAN
NO SMOKING EXPOSURE
ANY SMOKING EXPOSURE

Education?


Preterm Birth by Mother's Race/Ethnicity and Education Attainment
Los Angeles County, 2016
15.0
10.0
5.0
0.0
10.7
8.3
7.9
7.6
12.5
12.3
11.3
10.4
WHITE
AFRICAN AMERICAN
Percent of live births
LESS THAN HIGH SCHOOL
HIGH SCHOOL DIPLOMA
SOME COLLEGE
BACHELOR DEGREE OR HIGHER

Poverty? Health care access?

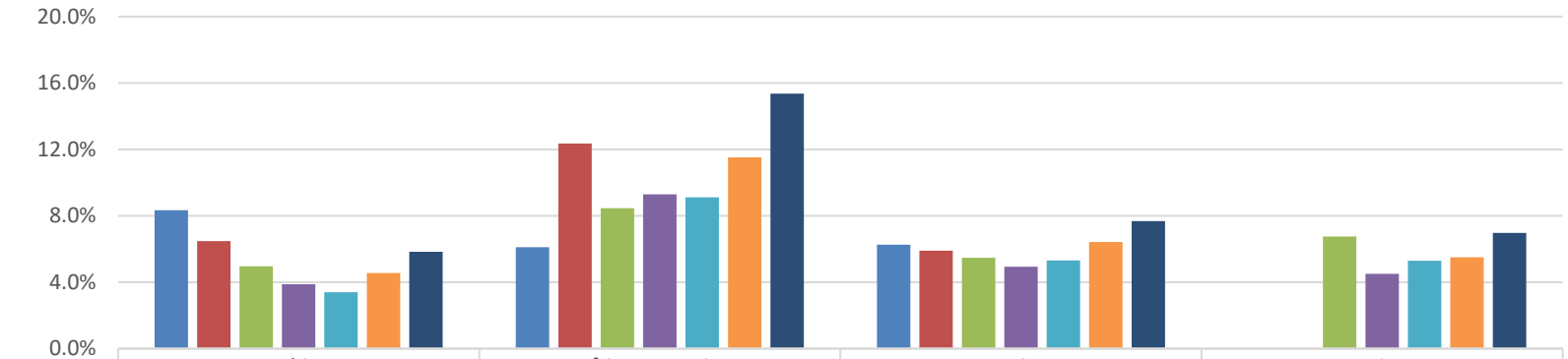
- Uninsured white women have better outcomes than insured Black women
- White women with inadequate prenatal care have better outcomes than Black women with adequate prenatal care

If the usual suspects don't work as explanations, what does?

- Some clues
  - Geronimus study demonstrating weathering
  - Collins and David finding concerning third generation outcomes for white, US-born Black and, nonUS-born Black women
- Suggesting
  - There is something about being Black in America that transcends smoking, education, income as a predictor of health

Why do we see these patterns?

A clue: low birthweight by maternal age and race/ethnicity



	White	African American	Latino	Asian
<18	8.3%	6.1%	6.3%	
18 to 19	6.5%	12.4%	5.9%	
20 to 24	5.0%	8.5%	5.5%	6.7%
25 to 29	3.9%	9.3%	4.9%	4.5%
30 to 34	3.4%	9.1%	5.3%	5.3%
35 to 39	4.6%	11.5%	6.4%	5.5%
40+	5.8%	15.4%	7.7%	7.0%

Emerging science suggests a pathway

Adverse social events

0

Psychological stress

(Physical Stress) Fight or flight

Cumula[illegible]e stress

Adverse health outcomes (inclu[illegible]g adverse pregnancy outcomes)

https://tmhome.com/benefits/pregnancy-stress-meditation-infographic/

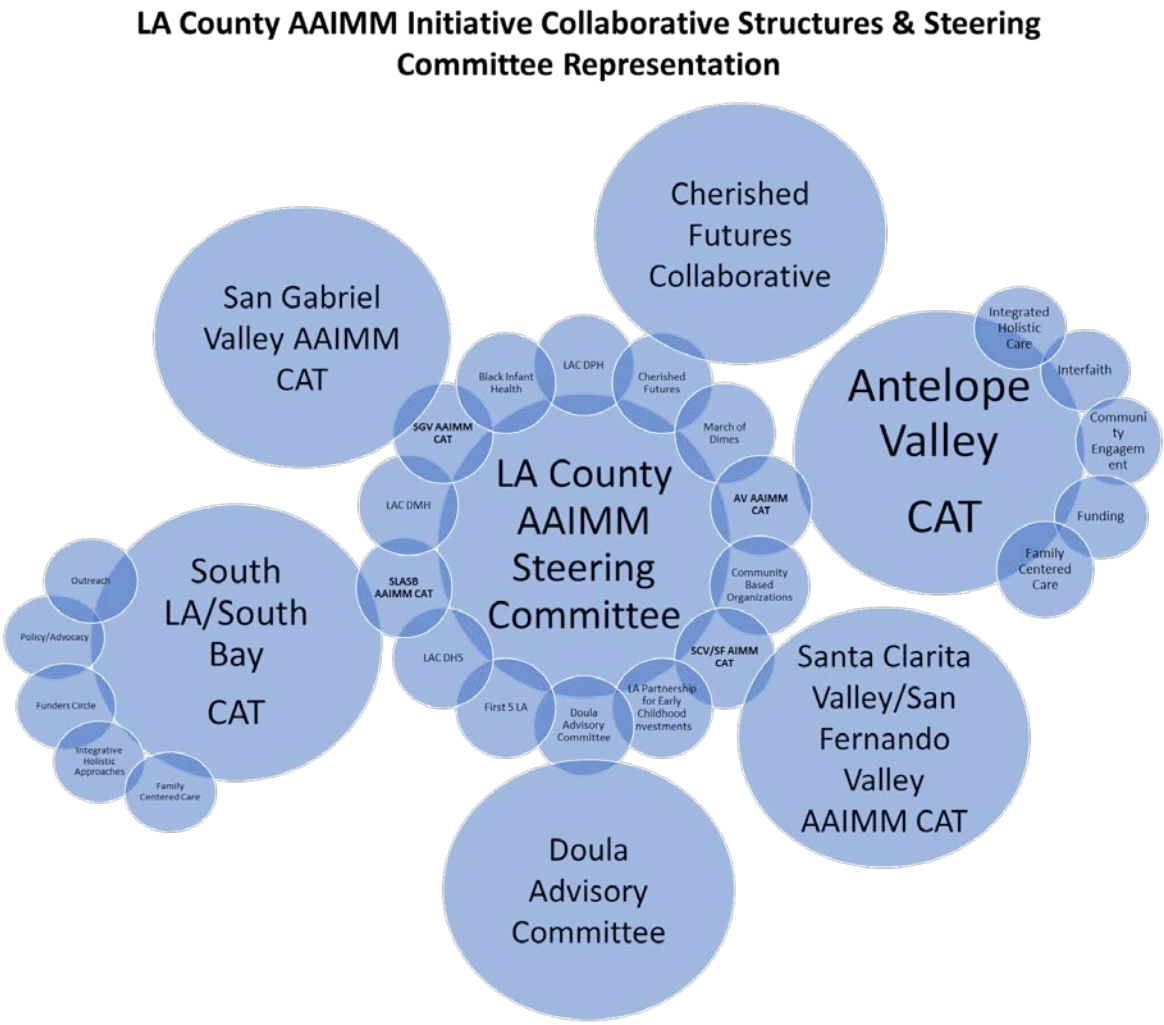
Strategy #1: Mobilize a movement

The rationale:
If racism is the root cause, this is not a "project" for one agency. We must embark on this as part of a movement.

The action steps:

- AAIMM Steering Committee
- 4 Community Action Teams
- Multiple contracted programs
- Doula Advisory Committee
- Grant-supported Village Fund

What We Created Together: Solidarity



The Village Fund

The Village Fund is a public private partnership, administered by the LA Partnership for Early Childhood Investment, to support community-led efforts that reinforce the broad goals of the AAIMM Initiative.

In the spirit of "it takes a village to raise a child," the Fund will partner with organizations, service providers and networks that provide valuable support and services to Black birthing people and their families but are likely ineligible to receive or administer county contracts directly.

Grantees are selected by Community volunteers from areas most impacted by birth disparities.

The first cohort of AAIMM Village Fund Grantees

Lydia O. Boyd, IBCLC
Men Taking Over Reforming Society
Mighty Little Giants
Parenting for Liberation
Project Joy
TaVia Iles
Youth With A Purpose

Strategy 2: Reduce the sources of stress in women's lives

The rationale

Upstream is always the place to start. It is the most humane and the most cost-effective

The action steps

- Address material hardship associated with the history of racism
  - Current programs: Earned Income Tax Credit, Paid Family Leave
  - On the horizon: housing initiative, job creation project
- Address racism as an ideology
  - Public awareness campaign
  - Training on implicit bias, trauma, racism as part of US history

Strategy 3: Help women reduce the impact of stress

The Rationale:

Make the mind-body connection work for, rather than against, Black women. Support can help women forestall the damaging physiological impact of excess stress.

The Action Steps:

- Doula care
- Father/partner engagement
- Group support - Black Infant Health, midwife-run Center of Excellence
- Home visiting

AAIMM Doula Program

The AAIMM Doula program features 10 African American/Black doulas are trained professionals who provide physical, emotional and informational support to a laboring person and/or family before, continuously during, and after childbirth to help them achieve the healthiest, most satisfying experience possible. An AAIMM doula's support is unconditional, and non-judgmental.

Doula care has been shown to reduce preterm birth, reduce cesarean sections, increase breastfeeding, maternal satisfaction, and family/community bonding. AAIMM doulas are trained in support for all pregnancy outcomes, trauma-informed care, and lactation.

Strategy 4: Intervene as early and effectively as possible when stress has taken a toll on health.

The Rationale:

Optimal medical care can reduce adverse birth outcomes among women who face health impacts of life course stress.

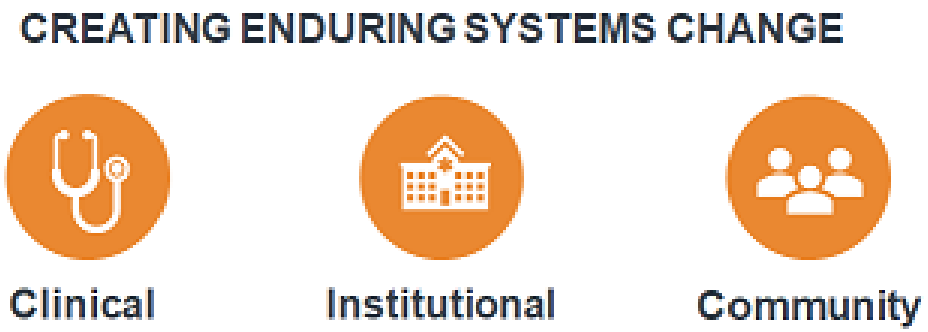
The Action Steps:

- Cherished Futures hospital quality improvement project
- March of Dimes Low Dose Aspirin Toolkit
- Breastfeed LA hospital and home-based breastfeeding promotion and support
- Implicit bias training for hospital staff

Cherished Futures For Black Moms And Babies

Cherished Futures is a multi-sector, collaborative effort, aligned with the comprehensive AAIMM initiative, to reduce infant mortality and improve maternal patient experiences and safety for Black moms and babies in South Los Angeles and the Antelope Valley.
Cherished Futures aims to support the legacy of local communities working to advance birth equity.

Uniting Key Leaders to Advance Birth Equity
With support from DPH and Health Net, and in partnership with the Public Health Alliance of Southern California, Cherished Futures unites key decision-makers from local birthing hospitals, public health, health plans, community-based organizations, and advocates to implement systems-change interventions at three levels:



Cherished Futures Menu of Interventions

CLINICAL

Clinical Interventions to Prevent Preterm Birth

- Train staff on optimal birth spacing and screening/referrals for pregnancy intentionality
- Refer patients to a culturally-sensitive smoking cessation program
- Eliminate non-medically indicated early elective deliveries (inductions and Cesarean birth)
- Standardize use of low-dose aspirin to prevent preeclampsia for women at risk
- Standardize use of vaginal progesterone and cerclage for women with a previous preterm birth or short cervix
- Implement a "no-phone triage" protocol for emergency departments, and other departments caring for perinatal patients

Social Support Within Perinatal Care

- Implement group prenatal care or offer other culturally-based support groups (e.g. sister circles)
- Utilize a culturally appropriate intake assessment on external psycho-social needs or barriers
- Adopt a Maternity Medical Home Model
- Strategically increase opportunities for father/ partner involvement (i.e. later appointment times, weekends, resources for fathers/partners)

INSTITUTIONAL

Enduring Transformational Shifts for Health Equity

- Reflect a commitment to health equity in the organization's mission, strategic planning documents, and communications/marketing materials
- Develop structure and processes to support equity across the organization, including a governance body such as a Health Equity Advisory Committee, and dedicated staff, such as an Office of Healthcare Equity and/or Equity Officer
- Assess workforce diversity to ensure staff adequately reflect patient population served
- Implement policies and practices to strengthen the pipeline of racially/ ethnically diverse talent in clinical and leadership roles
- Include health equity as a strategic priority and investment focus in Community Health Needs Assessments and Community Health Improvement Plans

Data Collection and Review

- Collect and analyze disaggregated race/ethnicity data on perinatal indicators such as preterm birth, cesareans, pre-eclampsia and other maternal morbidities
- Develop an equity dashboard that monitors process and outcome metrics stratified by race and ethnicity, and routinely communicate gaps in outcomes to department/unit leadership and staff, hospital executive teams, and the board

COMMUNITY

Community-Level Data Informed Decision Making

- Map and assess community conditions where patients experiencing the greatest birth inequities reside
- Collaborate with community partners to further refine community condition mapping assessments in neighborhoods with birth inequities

Community Partnerships

- Identify policy opportunities, based on assessments, that improve community conditions where patients experiencing the greatest birth inequities reside
- Advocate for public policies, in partnership with highly impacted patients/residents, that aim to improve community conditions in the service areas experiencing the greatest birth inequities
- Develop a sustainable community board that reflects the population most impacted by birth inequities; implement a standardized process to ensure community board feedback is incorporated into reports to hospital executive leadership and the board
- Update legislative agenda/policy platform to incorporate patient and community partner input on policies most impacting birth inequities

What is the take home message?

You have a critical role to play!

In regard to COVID-19

We need you to provide care, but also to communicate key messages to women who are scared, confused, unaware.

While most women who contract COVID-19 while pregnant go on to have healthy pregnancies and healthy babies:

- Pregnant women who contract COVID-19 are at higher risk of becoming severely ill than are infected women who are not pregnant, and
- Pregnant women who contract COVID-19 are at higher risk of adverse pregnancy outcomes than are pregnant women who are not infected.[1]
- Women who have COVID-19 can breastfeed safely.
- Women who are pregnant, have just given birth and/or are breastfeeding can be vaccinated safely.

A critical role for our health care partners: challenge the myths

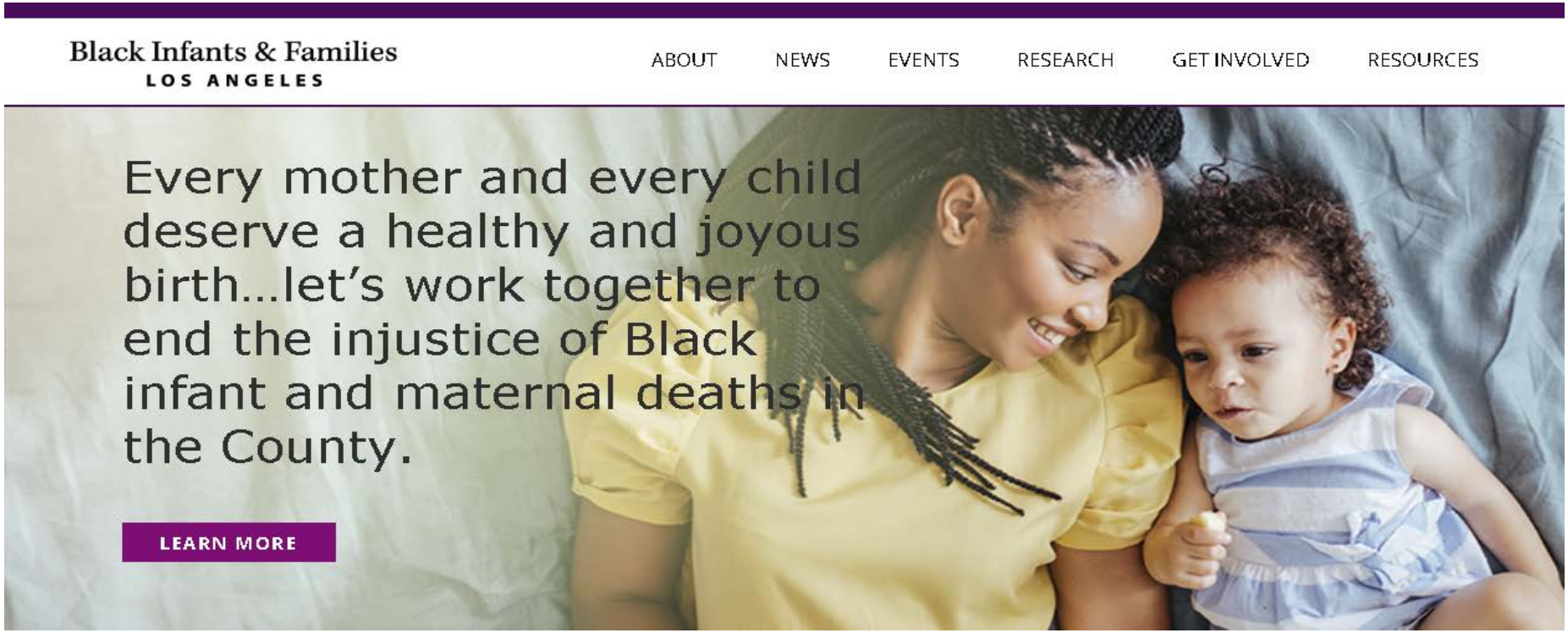
- COVID-19 vaccines cause infertility in women
- People who are vaccinated against COVID-19 can shed the virus, infecting people around them
- A microchip is being implanted in the arms of people who receive COVID-19 vaccines

GO TO THE DPH COVID-19 WEBSITE TO GET THE FACTS

In regard to perinatal equity

We need you to provide care, but also to communicate key messages to women.

- That inequality in birth outcomes is due to inequality in society, and not to the failings or weakness of Black women.
- That there are resources out there to help women address both the upstream hardship built into racism.
- That asking for support is not a sign of weakness, whether that is the help of a partner of the expertise of a mental health clinician.
- That every woman has a right to a joyous, healthy birth.



African American Infant and Maternal Mortality Prevention Initiative

Be Part of this Movement!

Mothers need you but WE need you too, to provide the guidance and support women need both for positive birth outcomes and to minimize the harm of the pandemic.

THANK YOU