

# Infant Mortality Rate: A Study on the Racial Disparity Gap in the State of Michigan

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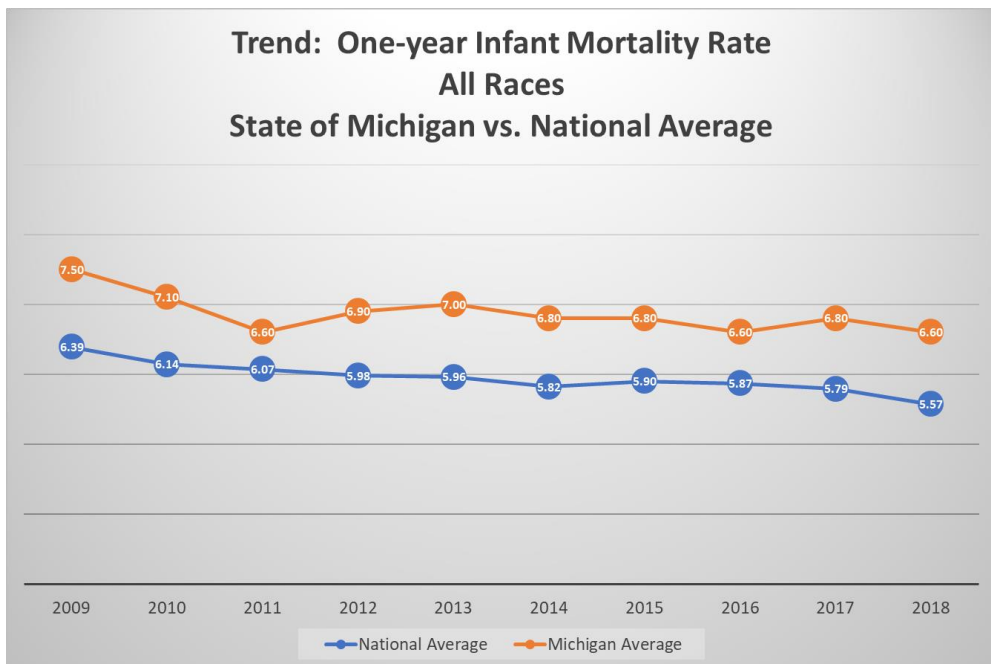
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Future Talent of Michigan



# INTRODUCTION

For the past ten years, and even more, the State of Michigan has struggled to lower its infant mortality rate to be below the national average. According to the Center for Disease Control and Prevention (CDC) data, in 2019, **Michigan recorded the fifteenth highest infant mortality rate in the country (6.33).**<sup>1</sup> The United States, as a whole, has the eleventh highest infant mortality rate out of the forty-four countries participating in the Organisation for Economic Co-operation and Development (OECD), an international coalition of countries creating policies to improve living conditions throughout the world.<sup>2</sup>

EXHIBIT 1.0



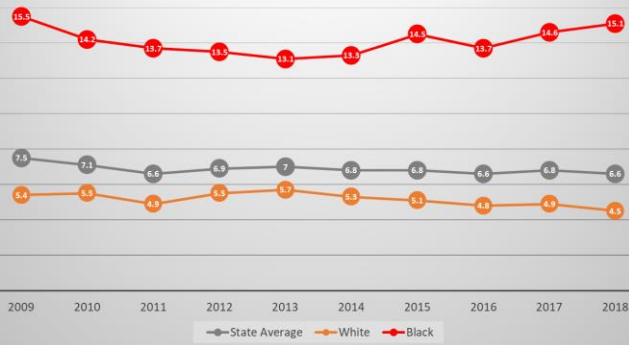
Why is this happening in a country that is considered a world superpower? Why is the State of Michigan not making progress in improving the start of life for future residents? Backed by data, this briefing will very clearly demonstrate the answer. The study will focus on the State of Michigan with added national comparisons that show correlations to a possible broader, nationwide issue. The following data and trends will establish a significant difference between White and Black Infant mortality rates that are creating an alarming racial disparity gap that hinders Michigan's future talent development.

*By focusing on decreasing the Black Infant death rate, the state's infant mortality rate will also decrease, bridging the racial disparity gap and becoming a step closer to health equality.*

# EXAMINATION OF STATE DATA

EXHIBIT 2.0

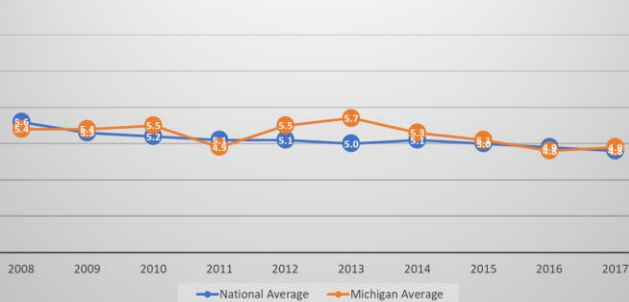
Trend: One-year Infant Mortality Rate by Race  
State of Michigan



*In 2018, in the State of Michigan, the Black Infant mortality rate was 10.6 per one thousand births higher than the White Infant mortality rate.<sup>3</sup>*

EXHIBIT 3.0

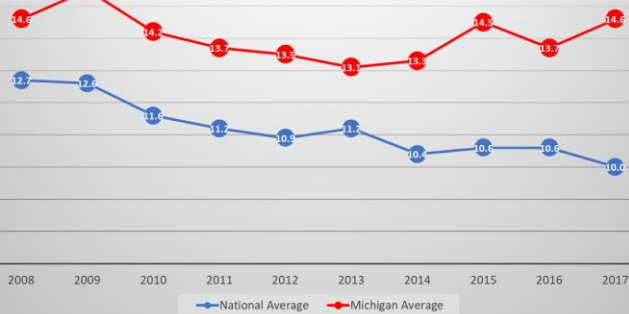
Trend: One-year Infant Mortality Rate  
White Infants  
State of Michigan vs. National Average



The rising of the state's Black Infant mortality rate and the enormous gap between White and Black Infant mortality rates are the key reasons the state's overall rate is not decreasing and/or less than the national average.

EXHIBIT 4.0

Trend: One-year Infant Mortality Rate  
Black Infants  
State of Michigan vs. National Average



For the past ten years, Michigan's White Infant mortality rate has mirrored the national White Infant mortality rate. That is not the case for the state's Black Infant mortality rate. Nationally, the Black Infant mortality rate is showing a decreasing trend. However, in Michigan, the Black Infant mortality rate is trending upward and consistently above the national average. In 2017, Michigan's Black Infant mortality rate was 4.6 per one thousand births higher than the national Black Infant mortality rate.<sup>4</sup>

# GEOGRAPHIC TRENDS

Further evidence supporting the notion that decreasing the Black Infant death rate will also decrease Michigan’s overall infant mortality rate, can be seen when comparing select city’s infant death rates to the city’s percentage of Black Population.

The population of the City of Detroit is comprised of 78 percent African-Americans, 38.5 percent of the state’s Black Population. It also has the highest infant death rate average compared to the other select cities.<sup>5</sup>

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*Of the select cities represented on the table, the cities of Detroit, Saginaw, Flint, Pontiac and Muskegon combined represent 47 percent of Michigan’s Black Population and are the top five ranking select cities with the highest infant death rate averages.<sup>6</sup>*

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This is not just a State of Michigan issue. Nationally, the top ten states with highest percentage of Black Population also have infant mortality rates above the national average. The State of Mississippi has the highest percentage of Black Population (38 percent) and the nation’s highest infant mortality rate (9.07).<sup>7</sup>

EXHIBIT 5.0

Rank	City	Infant Death Rate 2014-2018 Average	Population % Black (City)
1	Detroit	14.3	78.33
2	Saginaw	13.9	43.71
3	Flint	12.6	54.08
4	Pontiac	11.4	50.68
5	Muskegon	11.3	31.98
6	Southfield	9.3	69.43
7	Roseville	9.0	20.14
8	Lansing	8.0	23.28
9	Battle Creek	7.9	17.84
10	Westland	7.7	17.37
11	Kentwood	7.6	21.89
12	Kalamazoo	7.4	22.17
13	Taylor	7.3	19.13
14	Sterling Heights	7.1	5.93
15	Grand Rapids	6.4	18.56
16	Novi	6.1	7.57
17	Warren	6.1	19.34
18	Wyoming	5.7	7.84
19	Dearborn Heights	5.5	7.86
20	Farmington Hills	5.5	19.95
21	Dearborn	5.0	3.09
22	Portage	5.0	5.25
23	St. Clair Shores	5.0	5.24
24	Troy	4.9	3.59
25	Ann Arbor	4.4	6.80
26	Livonia	4.2	4.34
27	Midland	3.9	2.14
28	Rochester Hills	3.2	4.03
29	Royal Oak	2.9	3.72



# SOLUTIONS

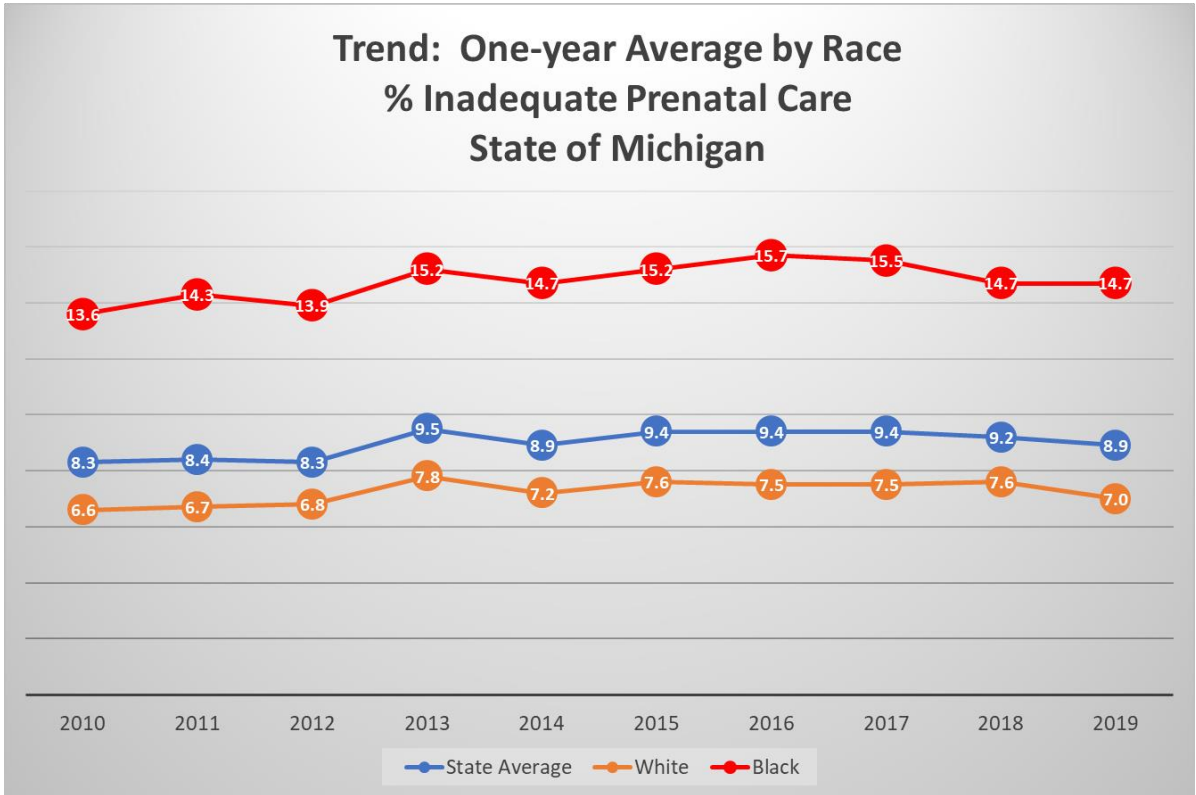


How to bridge the racial disparity gap within Michigan’s infant mortality rate is a multi-faceted problem. Local, county and state agencies and authorities will agree that the overall Black Infant mortality rate is complicated by several factors that include poverty, homelessness, transportation issues, lack of overall support for the mother, and so much more. Organizations throughout the state are tackling as many of these issues as possible, each working independently from one another. Collaboration and concentrating on a focused set of goals may be a key in decreasing the state’s infant mortality rate.

To choose which factors to concentrate on, there must data available. Local, regional and even state data is sparse for every contributing factor within the Black Infant mortality rate. Two areas that have solid data sets and demonstrate great potential to bridge the disparity gap are prenatal care and infant safe sleep.

# PRENATAL CARE

EXHIBIT 6.0



Improving access to high quality prenatal care for Black Mothers is one way to bridge the gap.

*14.7 percent of Black Mothers in Michigan receive inadequate prenatal care, compared to 7.0 percent of White Mothers.<sup>8</sup>*

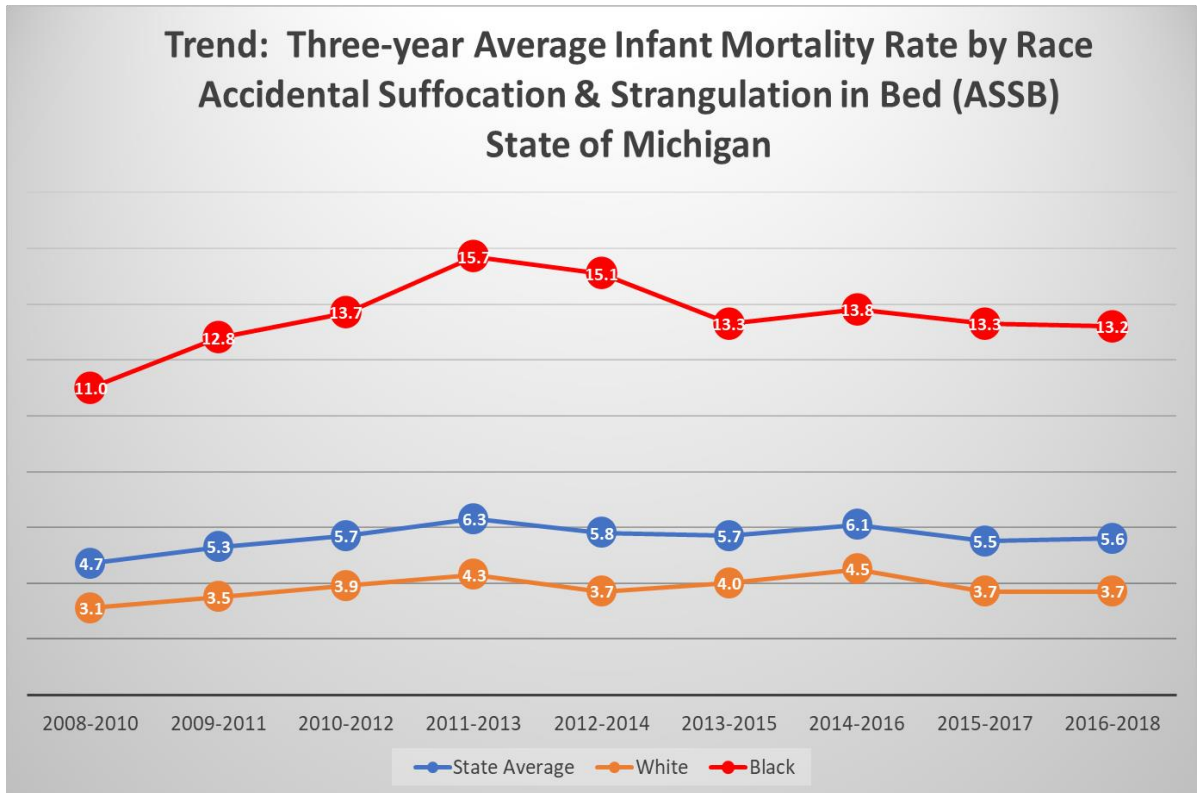
A ten-year trend shows no improvement for Black Mothers receiving adequate prenatal care and are consistently at a disadvantage when compared to White Mothers. See Exhibit 6.0.



“Newborns whose mothers had no prenatal care are almost five times more likely to die than babies born to mothers who had early prenatal care.”<sup>9</sup>

# INFANT SAFE SLEEP

EXHIBIT 7.0



Another way to bridge the gap is focusing on infant safe sleep education, starting with mothers and extending to caregivers and individuals who are part of the mother's support system in raising the infant.

*Based on a three-year average from 2016-2018, 13.2 percent of the state's Black Infant mortality rate was due to Accidental Suffocation and Strangulation in Bed (ASSB).<sup>10</sup>*

The decade long trend demonstrates that Black Infants continually are more likely to die from ASSB, with the highest point being 15.7 percent. The highest average that White Infants experienced during the same time period was 4.3 percent. See Exhibit 7.0.





# CONCLUSIONS

In Michigan, White Infants have an advantage over Black Infants from the moment they are conceived. Black Mothers are more likely to experience inadequate prenatal care, leading to unhealthier newborns, and Black Newborns are more likely to die during their sleep due to accidents. Why should government agencies and employers advocate for bridging the disparity gap between the White and Black Infant mortality rates?

Bridging the gap will decrease the state's overall infant mortality rate, which is continually higher than the national average. Increasing access to quality prenatal care produces healthier outcomes and decreases the chances of preterm birth and NICU stays. "The cost for in-hospital per term infant averaged \$2,500–2,900 with mean duration of stay being 2.2 days compared to \$800 for an uncomplicated newborn."<sup>11</sup> This will result in cost-savings for employers who provide healthcare benefits, as well as savings for their employees. The government agencies will also see cost-savings since 41.5 percent of babies born in Michigan are paid through Medicaid.<sup>12</sup>

Lastly, focusing on decreasing the Black Infant mortality rate will increase the number of newborns having the best possible start to life. This can lead to higher high school and college graduation rates, increasing the state's future talent pool and attracting more employers to establish business in Michigan.

Bridging the racial disparity gap within the state's infant mortality rate will lead to a prosperous future for Michigan's economy.



**MICHIGAN'S FUTURE**

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**Exhibits 1.0, 2.0, 3.0 and 4.0:** 1970 - 2018 Michigan Resident Birth and Death Files, Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services. Infant deaths by race of infant; live births used in calculating infant death rates are by race of mother. Rates are per 1,000 live births. Adding and subtracting the number shown after the  $\pm$  symbol from the rate creates a confidence interval indicating that the true rate lies between the lower and upper bounds of this interval with 95 % statistical confidence.

**Exhibit 5.0:** Infant Death Rate Source: 2014-2018 Geocoded Michigan Death Certificate Registries Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services. Note: Cities selected based on actually having data provided from the above Infant Death Rate source. Population Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-year Estimates.

**Exhibit 6.0:** 2010-2019 Geocoded Michigan Birth Certificate Registry. Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services. The Kessner Index is a classification of prenatal care based on the month of pregnancy in which prenatal care began, the number of prenatal visits and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care.) Inadequate: When no care was received or if care began during the third trimester. It is also inadequate if care began during the first or second trimester, but less than five visits occurred, when the length of gestation was 34 weeks or more. When the length of gestation was less than 34 weeks, care is defined as inadequate when care began during the first or second trimester but a number of visits less than four occurred, that number depending on the actual weeks of gestation.

**Exhibit 7.0:** 1989 - 2018 Michigan Resident Death Files and Michigan Resident Birth Files, Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services. Rates are per 10,000 live births. Causes of death are coded using the 9th and 10th revisions to the International Classification of Diseases.



A unique entity, the Economic Alliance for Michigan (EAM) is comprised of businesses and labor organizations working together and serving as a trusted source for employers and health benefit professionals, seeking to use the collective voice of Michigan's purchasers to serve as catalysts for change to ensure appropriate access to patient centric, high value healthcare.

EAM started the Maternity Care Project in 2018, providing a resource for new and expecting parents in Michigan to educate themselves on the choices they have during pregnancy. The goal of the project is to be a think-tank for ways to reduce the state's infant mortality and unnecessary caesarean birth rates.

Discover more at [www.maternitycareproject.com](http://www.maternitycareproject.com).

For information about EAM and the Maternity Care Project, contact Stacy Leick, Director of Communications and Health Programs at [stacyleick@eamonline.org](mailto:stacyleick@eamonline.org).



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