

# 2017 Right Start: Annual Report on Maternal and Child Health

## *Infant death rates decline in Michigan, other trends raise concerns*

### INTRODUCTION

Children who are born healthy and whose mothers receive adequate services are more likely to experience better developmental outcomes in the short- and long-term. This includes both physical and mental healthcare before, during and after pregnancy. When mothers have access to high-quality care and receive information and education about pregnancy and parenting, there is an increased likelihood for healthy births—including fewer babies born too soon or too small and reduced risks of infant mortality.

Unfortunately, some mothers face challenges in receiving the care that they need to ensure healthier outcomes. These include poverty, stress, food insecurity and low levels of education, along with unsafe housing, exposure to violence, environmental toxins and transportation difficulties. Many factors have an impact on the health of a mother and her baby. The data and research also show inequities by race, place and income caused by historical and current institutional and systemic barriers.

The annual *Right Start: Maternal and Child Health* report reviews eight indicators by county and for the

69 largest cities and townships in Michigan. The 2017 report compares 2010 (2008-2010 three-year average) to 2015 (2013-2015 three-year average) and highlights infant mortality trends in the state. While overall improvement has been made to reduce the number of babies who die before their first birthdays, the rates are rising for Hispanics and the gap between White and Black infant deaths continues to exist by a more than 2—1 ratio.

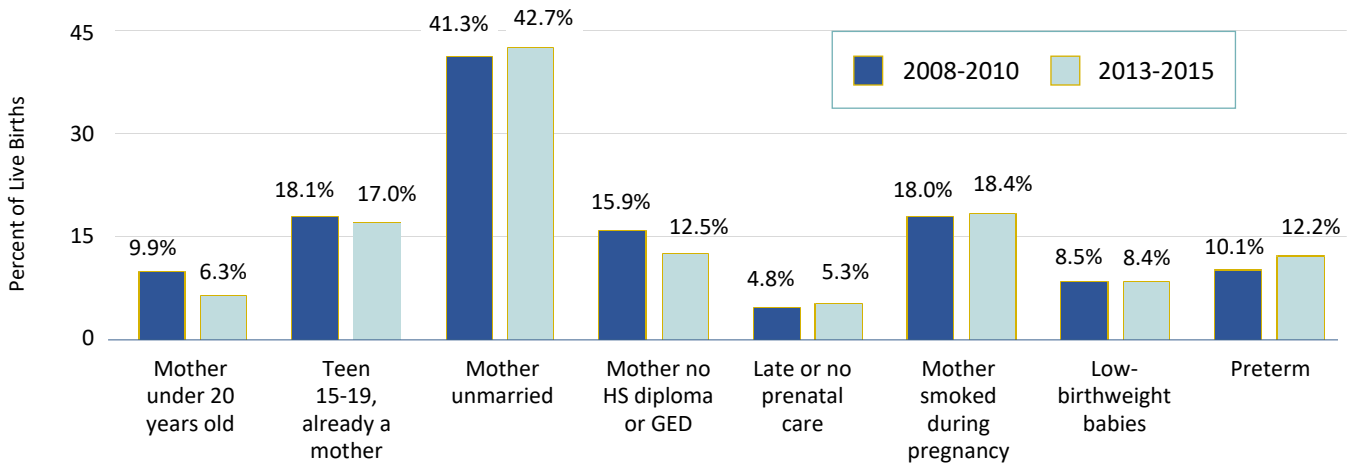


### OVERVIEW: MICHIGAN MATERNAL AND CHILD HEALTH

Generally, Michigan has made some gains in regards to the health of moms and babies. Particularly, the share of births to women under the age of 20 decreased by almost 37% from 2010 to 2015. Although not as

significant of an improvement, the rate of second (or more) births to teens who are already mothers declined by about 6%. With high school completion rates rising across the state and the reduction of teen births, the rate of births to mothers without a high school diploma or GED improved by over 21%. Finally, the rate of babies born too small improved slightly by 1%. Still over 9,500 births were considered low birthweight.

Some measures of maternal and child health improving, but more babies born too soon, smoking and prenatal care show troubling trends



However, there are areas of concern related to maternal and child health outcomes in Michigan. Over 6,000 births, or 5.3%, were to mothers who either did not receive prenatal care or started care late in their pregnancy. This represents nearly a 10% rate increase from 2010. Also worsening over the trend period was the rate of mothers smoking during pregnancy, which stands at over 18%, or close to 1 in 5 births. Especially concerning is the rising rate of babies born too early. In 2015, there were nearly 14,000 preterm births, a rate increase of almost 20% from 2010.

neighborhood safety, poverty and education.<sup>1</sup> The way that the healthcare system is organized, financed and delivered can also present challenges for people of color, which impacts access to healthcare.<sup>2</sup>

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Often hidden behind aggregate rates are the differences in outcomes for mothers and their children by race and ethnicity. For example, the state trends show that the rate of prenatal smoking is on the rise. However, the rate of smoking during pregnancy for White women stayed the same, but the rate for African-American and Latina women did worsen over the trend period. All three of the state’s largest racial and ethnic groups experienced improvements in the teen birth

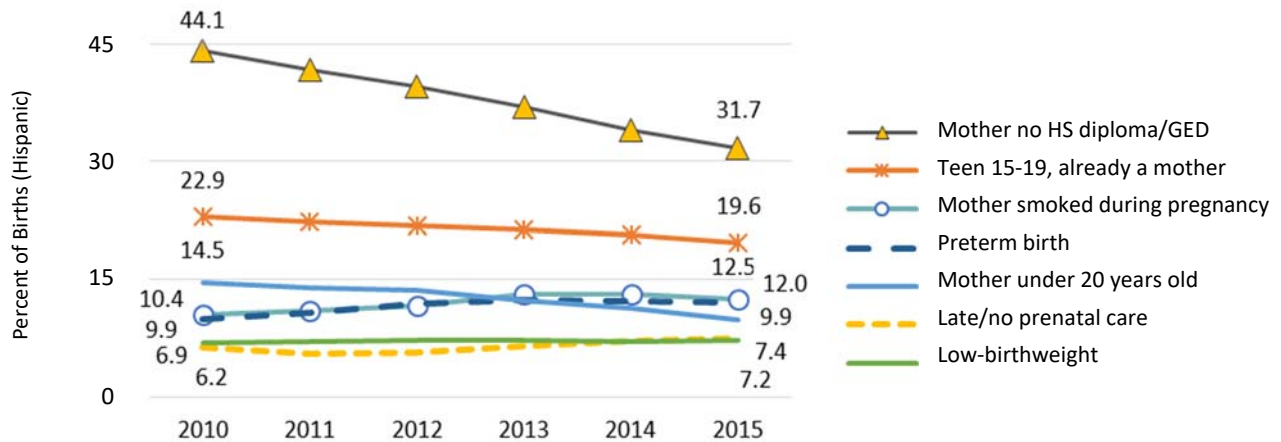
rate and mothers with a high school diploma or GED. Each group had worsening trends in babies born too early.

**MICHIGAN MATERNAL AND CHILD HEALTH BY RACE AND ETHNICITY**

Disparities in maternal and child health by race and ethnicity exist as a result of several factors, including provider bias, language barriers, proximity to care,

Data source for all charts: Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics

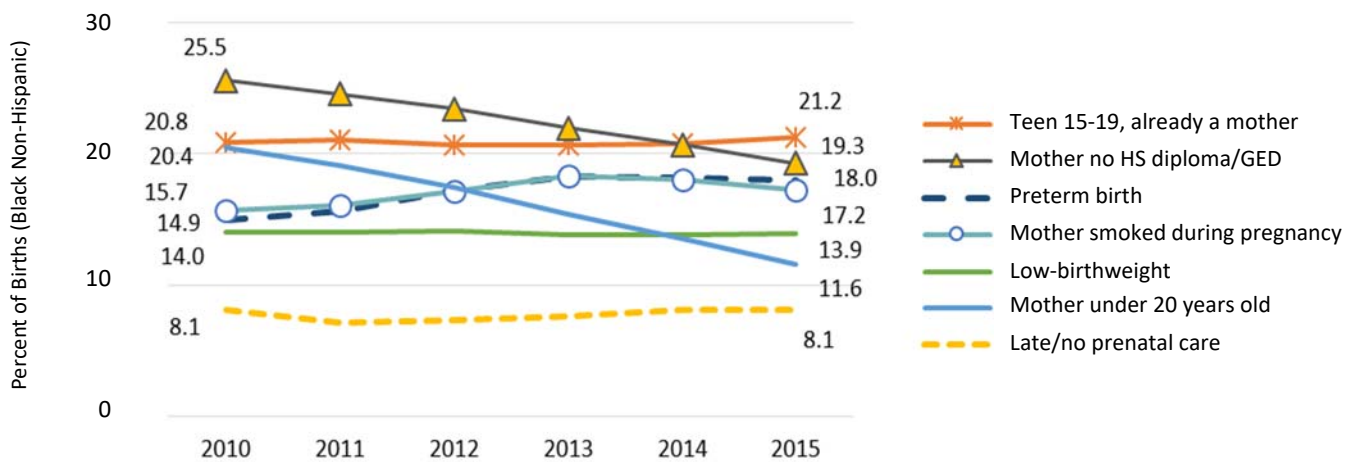
### Latina Mothers: Four of seven key indicators worsen, including prenatal care, preterm births, smoking and low-birthweight babies



Hispanic mothers and their children are experiencing worsening trends in several key measures of health. While there are fewer births to women under 20 and repeat teen births and improved levels of education among Latina mothers, four other areas were substantially worse in 2015 than in 2010. Similar rate increases occurred in late

Over the trend period, significant gains for African-Americans were made in both teen births (43% rate decrease) and births to mothers without a high school diploma or GED (24.3% rate decrease). However, three indicators either stayed the same or changed only slightly: repeat teen births (1.9% rate increase); late or no prenatal

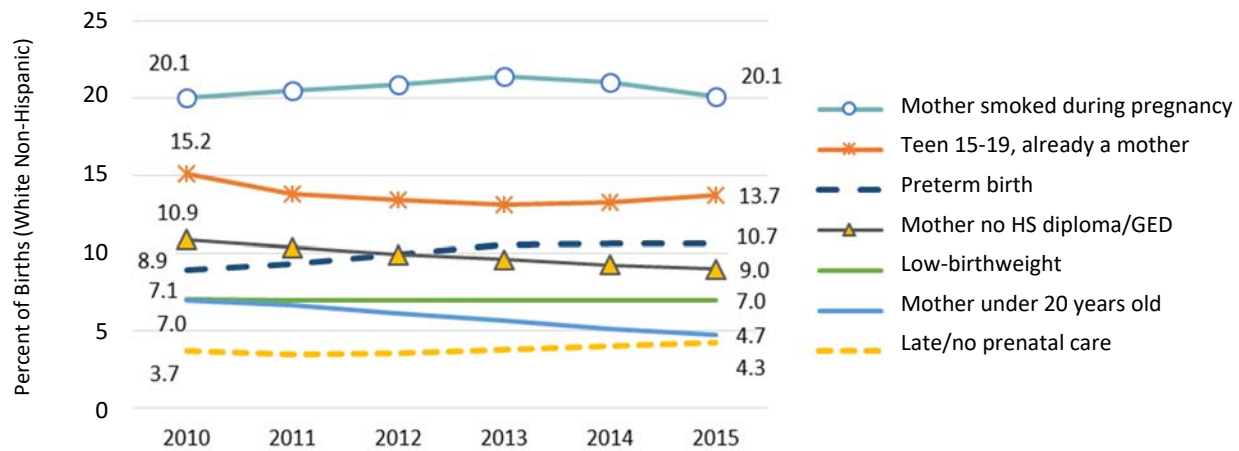
### African-American Mothers: Several key indicators stagnate, smoking and preterm births rising while teen births and education improves



or no prenatal care (19.4% rate increase), prenatal smoking (20.2% rate increase), preterm births (21.2% rate increase) and babies with low birthweights (4.3% rate increase). Compared to both Whites and African-Americans, Hispanic babies were more likely to be born to a mother without a high school diploma or GED.

care (no change); and babies born with low birthweights (0.7% rate decrease). Compared to Whites and Hispanics, African-American babies are more likely to be born too early and too small.

## White Mothers: Smoking and low-birthweight babies stall, prenatal care and preterm birth rates worsen



With the exception of prenatal smoking rates, maternal and child health outcomes for Whites were better than those of African-Americans and Latinos. Over the trend period, there was improvement in teen births (32.9% rate decrease); repeat teen births (9.9% rate decrease); and mothers without a high school diploma or GED (17.4% rate decrease). There was a slight reduction in the rate of babies born too small (1.4% rate decreased), but the high rate of prenatal smoking remained at 20.1% in 2010 and 2015. Similar to Latinas, White women experienced a worsening trend in the rate of births to mothers who received either late or no prenatal care.

### DECLINES IN INFANT DEATHS, SOME CONCERNING TRENDS

While most babies in Michigan do well, all babies should be given the opportunity to thrive well beyond their first birthdays. The rate of infant deaths is a good measure of how well a state or community is doing to ensure the health and well-being of all of its people. Many factors can contribute to adverse health outcomes that may increase the risk of infant mortality, including a mother's preconception health, access to prenatal care, living in poverty, environmental hazards, unsafe housing and more. These social determinants of health can shape the choices that are available to people to improve their

health and must be addressed to help reduce health inequities.<sup>3</sup>

Since 2010, Michigan's infant mortality rate has declined 6.7%. There were 864 babies who died before their first birthday in 2010, which is a rate of 7.3 per 1,000 births, compared to 779 infant deaths in 2015, or 6.8 per 1,000. High population centers tended to have higher infant mortality rates (8.4 per 1,000) compared to midsize communities (7.1 per 1,000) and the rest of the state (5.7 per 1,000).

Prematurity and low birthweight and related conditions account for more infant deaths than any other single cause (about 1 in 3).<sup>4</sup> The leading cause of death for infants over the 2013-2015 three-year average time period in Michigan was "certain conditions originating in the perinatal period," which includes factors before birth through the first 28 days that may be related to complications during pregnancy, labor or birth, the length of gestation and fetal growth, or other disorders or infections in this time period.<sup>5</sup> The next leading cause is related to birth defects, which may be related to genetics, but can also occur due to environmental risks, such as poverty, lack of access to healthcare or food insecurity. Higher rates of poverty in a community are also associated with more infant deaths.<sup>6</sup>

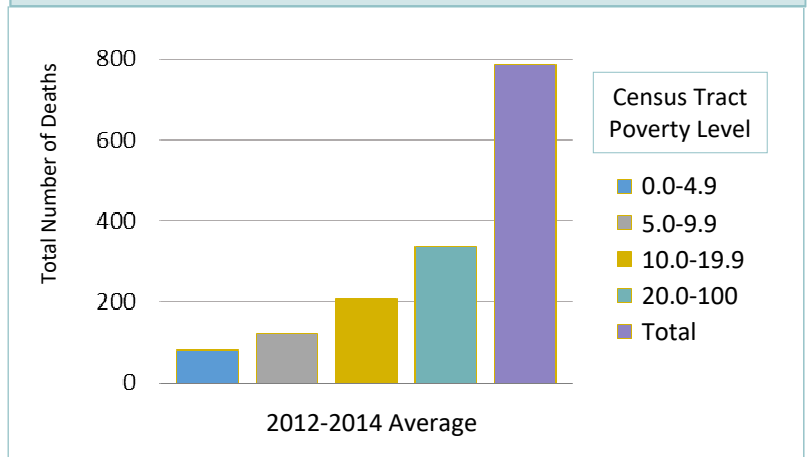
## RACE, PLACE AND INCOME MATTER

Infants most at risk for premature death are disproportionately those born too early with low birthweights, born to mothers on Medicaid, infants of color and babies that are the result of an unintended pregnancy.<sup>7</sup> Like many other health outcomes, disparities exist based on race and ethnicity, where someone lives and their level of income.

While the state's infant mortality rate has declined from 2010, there remains a significant amount of work to close the racial and ethnic gap. Most groups experienced a decline from 2010 to 2015, however, others had increases.

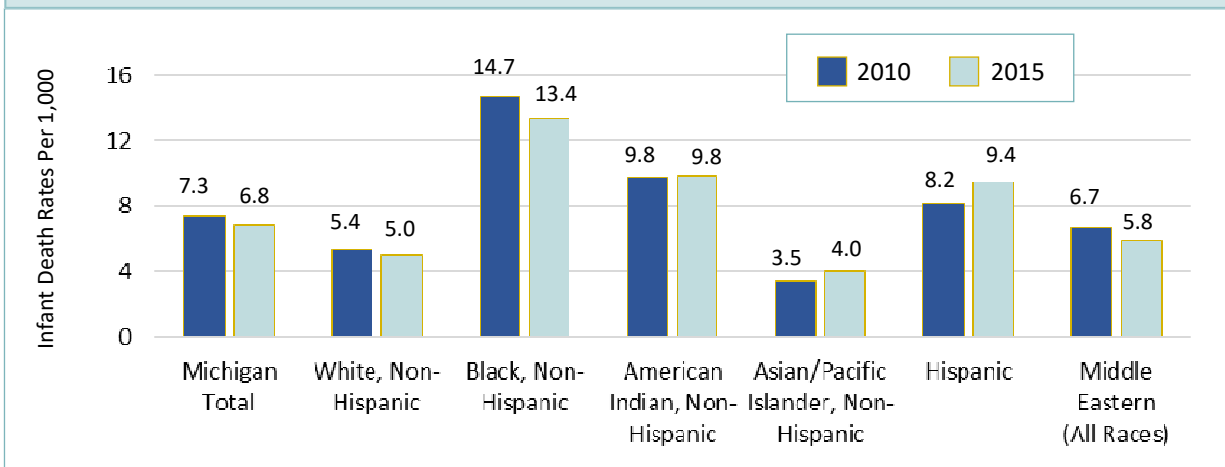
Middle Easterners had the largest decrease in the rate of infant deaths (12.5%) followed by African-Americans (8.8%) and Whites (6.1%). Both groups still had infant death rates higher than Whites. Plus, African-American babies are more than twice as likely to die before their first birthdays than White babies. After several years of decline beginning in 2008, Hispanics and Asian-Pacific Islanders began to experience increases in infant death rates starting in 2012 and 2013, respectively. With a 15% rate increase from 2010 to 2015, Hispanics are now approaching nearly double the infant death rate of Whites.

### Number of infant deaths rises as poverty increases

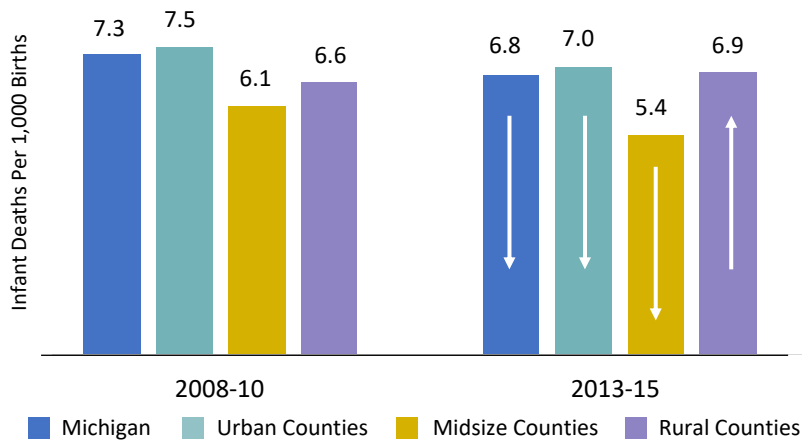


Infant death rates also vary by county type and region. In urban counties, the infant mortality rate declined by 6.5% yet the rate remained higher than the state average. Midsize counties experienced the largest rate decrease (11.5%) and continued to fall below the state rate. Unlike the state overall and urban and midsize counties, rural counties had an increase in the infant death rate from 2010 to 2015. The nearly 4% rate increase in these counties brings the overall rate to just below that of urban counties (6.9 per 1,000 compared to 7.0 per 1,000). In Southeastern Michigan, there was a total of 359 infant

### Rising infant death rate for Hispanics, more than double rates for African-Americans compared to Whites



## Infant death rates higher in urban and rural counties, increase in rural communities



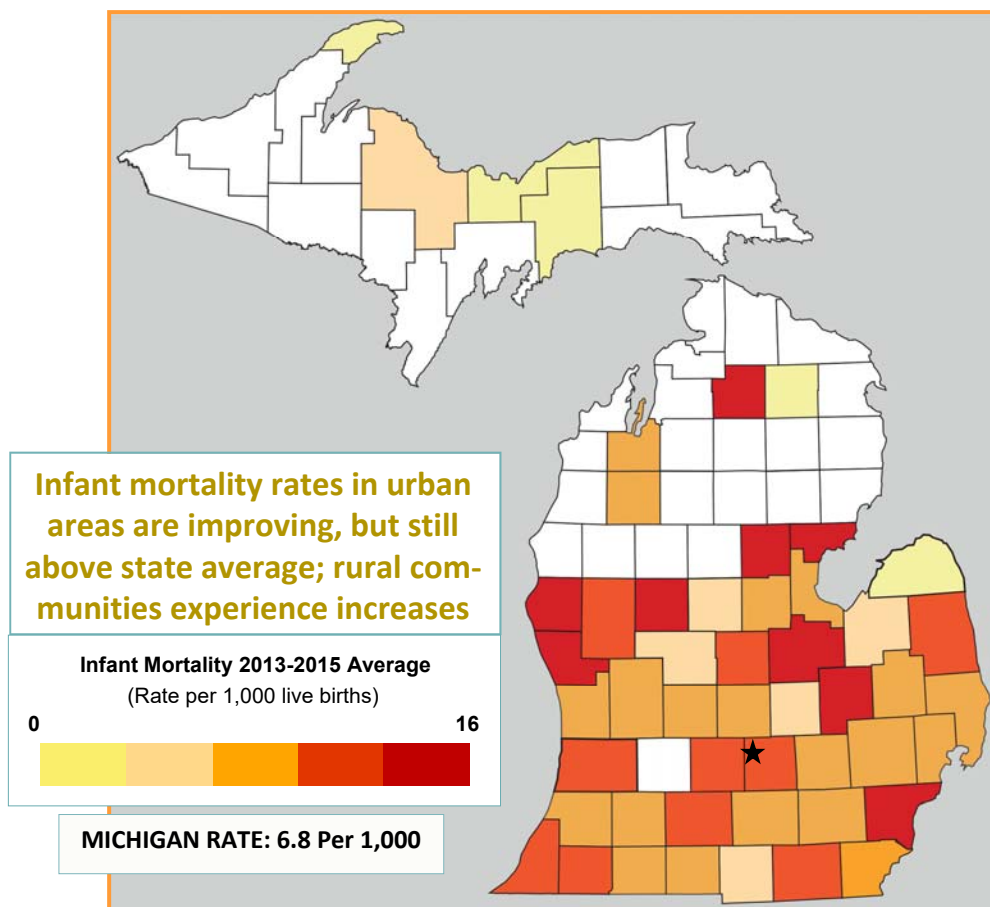
deaths in 2015, or about 7.7 per 1,000 births, which is 7.2% lower than in 2010. Counties in the Upper Peninsula had a rate decrease of about 10% bringing the overall rate in the region to a low of 4.8 infant deaths per 1,000 births.

Communities with higher populations tended to have higher rates of infant deaths, but rates improved by 11.6% compared to midsize cities and townships, which had an increase over the trend period of 10.3%. The rate improved for other communities not included in these two groups (7.3%). Approximately 59% of the state's infant deaths occurred in the

## Infant Mortality Rates Per 1,000 Births

City/Township	2010 vs 2015	Infant Mortality Rates 2015 (3-Year Average)				City/Township	2010 vs 2015	Infant Mortality Rates 2015 (3-Year Average)			
	Rate Change	Total	White	Black	Hispanic		Rate Change	Total	White	Black	Hispanic
MICHIGAN	-6.7	6.8	5.0	13.4	9.4	Midland	96.8	8.3	7.1	*	*
Ann Arbor	26.8	4.6	4.2	*	*	Muskegon	131.2	13.9	*	25.2	*
Battle Creek	4.1	9.0	5.1	17.7	*	Novi	-20.9	5.0	*	*	*
Bay City	-42.7	7.1	*	*	*	Pontiac	-0.5	13.7	*	17.9	11.1
Canton Twp.	-48.9	2.3	*	*	*	Port Huron	24.6	6.6	5.3	*	*
Clinton Twp.	-6.9	6.3	5.5	8.8	*	Portage	-40.0	5.8	4.9	*	*
Dearborn	-9.5	6.2	7.2	*	*	Redford Twp.	-12.1	7.4	*	10.1	*
Dearborn Heights	65.0	6.4	7.7	*	*	Rochester Hills	-20.0	4.0	3.6	*	*
Detroit	-9.3	13.1	7.4	14.3	8.2	Roseville	40.5	7.7	4.8	*	*
Eastpointe	39.8	14.2	11.3	15.9	*	Royal Oak	-22.0	4.0	3.0	*	*
Farmington Hills	10.0	6.5	5.8	17.6	*	Saginaw	11.4	16.2	13.0	16.9	21.3
Flint	1.4	10.5	5.7	14.1	*	St. Clair Shores	39.0	5.6	5.0	*	*
Grand Rapids	-26.2	6.4	4.8	11.8	5.6	Southfield	-19.7	9.0	*	12.4	*
Highland Park	27.4	17.0	*	17.5	*	Sterling Heights	-12.3	6.2	4.6	20.5	*
Holland	35.4	5.8	6.6	*	*	Taylor	2.6	7.0	6.5	10.2	*
Holland Twp.	-19.4	8.1	10.1	*	*	Troy	-33.1	4.1	4.1	*	*
Inkster	-39.6	7.5	*	*	*	Warren	-25.0	5.6	5.8	5.7	*
Jackson	40.0	9.4	7.3	13.2	*	Waterford Twp.	-2.1	4.2	3.2	*	*
Kalamazoo	0.8	7.5	*	16.0	*	W. Bloomfield Twp.	36.1	5.1	*	*	*
Kentwood	84.4	6.0	6.2	*	*	Westland	-7.3	7.4	8.4	6.6	*
Lansing	7.3	8.8	6.9	13.3	9.4	Wyandotte	-21.2	7.4	*	*	*
Livonia	0.8	4.8	4.4	*	*	Wyoming	-26.9	6.0	6.1	*	*
Macomb Twp.	9.3	6.0	5.6	*	*	Ypsilanti Twp.	-22.2	7.3	7.8	9.3	*
Madison Heights	18.6	9.1	7.1	*	*						

\* Data not available



Note: Incidences too low to calculate a rate in counties with no color.

improvements in its rate among the cities and townships reviewed. With the more than 26% rate improvement, the city placed in the top half of the 56 cities with rates in 2015.

Out of the state's 83 counties, only five counties had no infant deaths in 2015 (three-year average), while, on average, 32 counties total had one or fewer infant deaths. The counties with no infant mortalities were: Alger, Huron, Keweenaw, Montmorency and Schoolcraft. One-third of counties (15 out of 45) with calculated rates for 2015 had higher infant mortality rates than the state average. County infant death rates ranged from the best (lowest) rate in Marquette County of 4.3 per 1,000

largest 69 cities and townships in Michigan. A review of the largest cities and townships shows that of the 56 with measurable rates in 2015, there were 29 communities with higher infant mortality rates than the state average. These rates range from the top-ranked Canton with 2.3 per 1,000 compared to last-ranked Highland Park with 17 infant deaths per 1,000 births. About two-thirds (46) of the largest cities and townships experienced a rate change with 23 of these communities seeing an improvement in their rates from 2010 to 2015.

The city of Detroit's infant mortality rate improved by over 9% while the rest of Wayne County improved by less than 1%. However, the city's high rate of 13.1 infant deaths per 1,000 births gives it one of the highest rates of the 69 largest cities and townships. In Flint, the rate also remained one of the highest of the 69 cities and townships at 10.5 per 1,000 and improved by 1.4% in 2015 from 2010. Grand Rapids experienced one of the larger

compared to the worst (highest) rate in Arenac County of 16 infant deaths per 1,000 births. Just over half of the 40 counties with rate changes from 2010 to 2015 experienced an improvement with 19 counties worsening. St. Joseph County had the highest rate improvement (49.7% rate decrease) followed by Lapeer County (41.5% rate decrease) and Calhoun County (33.1% rate decrease). On the other hand, Ionia County had the largest rate increase from 2010 of 67%. Other counties worsening over the trend period included: Allegan County (66.5% rate increase) and Midland County (58.7% rate increase).

## POLICY RECOMMENDATIONS: WORK STILL NEEDED

The state's three-year "2016-2019 Infant Mortality Reduction Plan" was produced with broad stakeholder engagement and input, including from the Michigan League for Public Policy. The plan is based on a life course

model approach to address birth and other health outcomes, including the social determinants of health and inequities.<sup>8</sup> The plan is centered on nine comprehensive goals, including:

1. Achieve health equity and eliminate racial and ethnic disparities by addressing social determinants of health in all infant mortality goals and strategies.
2. Implement a perinatal care system.
3. Reduce premature births and low birthweight.
4. Support increasing the number of infants who are born healthy and continue to thrive.
5. Reduce sleep-related infant deaths and disparities.
6. Expand home visiting and other support programs to promote healthy women and children.
7. Support better health status of women and girls.
8. Reduce unintended pregnancies.
9. Promote behavioral health services and other programs to support vulnerable women and infants.

The Infant Mortality Advisory Council was created to implement the goals of the Infant Mortality Reduction Plan and support the actions necessary for statewide involvement. The council meets quarterly and has ongoing collaborative learning opportunities to increase information sharing and learning.

To help support state and local efforts like these to reduce infant mortalities and inequities, the League urges policymakers to:

- ◆ **Focus on reducing disparities by race and ethnicity.** With significant racial and ethnic health inequities, it is critical to target resources and efforts where the highest need exists. By addressing inequities the health of the broader population will be improved. While infant mortalities are declining and the gap between African-American infant deaths and those of Whites is closing, African-American babies are still more than twice as likely to die before their first birthday. Additionally, the rising rates of Hispanic infant deaths should be cause for alarm. A child's health is inextricably connected to the health of his/her mother and a review of maternal health outcomes in this report points to a number of areas of focus needed for women of color, such as

adequate prenatal care to improve birth outcomes, like preterm and low-birthweight babies.

- ◆ **Address the social determinants of health.** A person's health is related to his/her living conditions and personal experiences. A comprehensive approach must be taken to address social, environmental, economic, education and healthcare access—all of which impact outcomes. Investment in communities to ensure affordable nutritious foods, safe housing, clean water and low crime rates is necessary to improve everyday living conditions that in turn will support better maternal and child health. Increasing economic opportunities where people live through policies like the Earned Income Tax Credit and strengthened safety net and child care programs to reduce stress and other adverse effects. Education has a critical role in a person's healthcare access and outcomes. Removing barriers that prevent or reduce a person's ability to access healthcare is also crucial to improving preconception health, adequate prenatal care and overall preventive care.
- ◆ **Protect the Affordable Care Act.** The federal Affordable Care Act (ACA) expanded healthcare insurance to hundreds of thousands of people in Michigan who would not otherwise have been able to access coverage. It guaranteed maternity health coverage, expanded Medicaid to those who need it and helped to provide essential healthcare services for women. Preconception health status is a contributing factor to both pregnancy and birth outcomes. Ensuring access to a doctor and preventive care improves the preconception health of women. Additionally, research shows that when parents have access to healthcare insurance, their children are more likely to be insured, which increases the chances of improved child health.<sup>10</sup>
- ◆ **Expand home visiting programs to support vulnerable women and infants.** Home visitations programs in Michigan provide voluntary, prevention-focused family support services with pregnant women and families with young children.<sup>11</sup> As a part of the state's early childhood system, home visiting programs provide families at risk with support, education and encouragement to help their children thrive. Home visitor staff are also able to focus on the



mother's and baby's health, such as prenatal care and birth outcomes. There are currently six different evidenced-based models and one promising practice model with various funding streams, such as state general funds and School Aid funds, along with federal funding from Medicaid, the Child Abuse Prevention and Treatment Act, and the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program.<sup>12</sup> In 2016, nearly 35,000 families participated in state-funded programs.<sup>13</sup> In budget year 2015, the MIECHV program funded about 20 local implementing agencies, reaching over 1,600 families.<sup>14</sup> Home visiting programs have been rigorously evaluated and the

investments have shown results, with participating families experiencing improved access to prenatal care, fewer preterm births, increased well-child visits and more.<sup>15</sup> More families could benefit from participating in home visitation programs. State policymakers should not only continue funding current programs, but consider expanding funding to better meet the needs of Michigan families. Additionally, the MIECHV program is set to expire at the end of September 2017 and must be reauthorized by Congress. To meet the needs of families and address health inequities, funding should be expanded in reauthorization.

## ENDNOTES

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