City of Milwaukee 2015-2017
Infant Mortality Rate (IMR): Data Brief

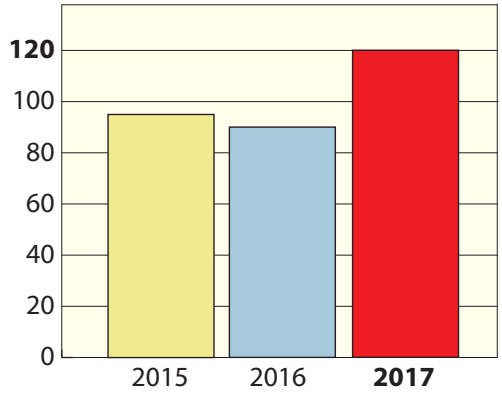
A: Facts

1. Preliminary City of Milwaukee Health Department (MHD) figures indicate that in **2017, 120 infants born in the City of Milwaukee died before their first birthday.** This compares to 90 infant deaths in 2016 and 95 in 2015. The 2017 number of infant deaths is the highest for Milwaukee since 2008, when the city also had 120 infant deaths.

2. In 2017, Milwaukee experienced an increase in the number of live births, when compared to 2016. A total of 9,719 babies were born in Milwaukee in 2017 compared to 9,667 in 2016. Although this increase occurred, the 2017 number is the second lowest on record for the city. In comparison, Milwaukee experienced a high of 14,089 live births in 1970.

3. The Infant Mortality Rate (IMR) is the number of infants (under one years old) who died in a particular year for every 1,000 infants born alive in that same year. Because the number of infant deaths varies in part with the number of births each year, public health experts use "Infant Mortality Rate" to compare the risk of infant death from year to year.

Number of Milwaukee Infants Who Died Before Age 1



4. **Because single-year IMRs can bounce up and down from year to year, public health experts prefer to look at three-year averages in order to discern any improving or worsening trends.** This is similar to the way the U.S. Department of Labor looks at four-week averages for unemployment to determine trends, rather than relying on weekly unemployment figures, which can bounce up and down.

5. The State has not yet verified 2017 data. Our figures remain preliminary and are subject to future revision; it is unlikely that they will change significantly.

6. Preliminary IMR data released last year for 2016 has been verified by the State. This resulted in a slight change in our overall number of infant deaths, from 88 as reported last year to 90. There was also a slight increase in the city's overall IMR for 2014-2016, from 9.0 as reported last year to 9.1. Very small increases also occurred in the non-Hispanic Black (from 13.6 to 13.7) and Hispanic rate (from 4.2 to 4.3)

7. Milwaukee's single-year IMR for 2017 was 12.4, meaning that slightly more than 12 babies died for every 1,000 live births in Milwaukee in 2017. This is the highest single-year IMR since 2006 when the IMR was 12.3.

8. The single-year Milwaukee IMRs by race and ethnicity based on the 2017 preliminary unreconciled are as follows for 2017: 18.1 deaths per 1,000 live births for non-Hispanic Blacks, 3.6 for non-Hispanic Whites, and 8.6 for Hispanics/ Latinx. Rates for non-Hispanic Blacks and Hispanics are higher than their respective 2016 rates of 14.2 and 2.9; while rates for non-Hispanic Whites of 3.6 in 2017 are down compared to 2016 (7.3).

9. Based on MHD's preliminary figures, **the three-year rolling average IMRs for 2015-2017 for Milwaukee are as follows:** (NH = Non-Hispanic)

	Overall	NH Black	NH White	Hispanic/ Latinx
2015-2017	**10.4**	**15.4**	**5.1**	**5.7**
2014-2016	9.1	13.7	5.0	4.3
2013-2015	9.9	14.9	4.6	4.7

10. According to MHD's 2017 FIMR Report, which analyzed the causes of death of 390 infants who died in Milwaukee between 2012 and 2015, about 56 percent of all Milwaukee infant deaths are associated with premature birth, about 16 percent are associated with unsafe sleep, and about 21 percent with mostly non-preventable congenital abnormalities.

B: Interpretation, and comparison to prior years

11. **Milwaukee's goals are to reduce the 3-year rolling average IMRs to 9.4 for the city overall and to 12.0 for non-Hispanic Blacks by the 2015-2017 time period.** These goals, which were set in the fall of 2011, reflect a 10% decrease in the overall IMR and a 15% decrease in the non-Hispanic Black IMR as compared to their respective 2008-2010 3-year rolling averages.

12. Milwaukee's three-year rolling average ***overall*** IMR of 10.4 for 2015-2017 is a **14.5% increase** when compared to the 2014-2016 rate of 9.1. The 2015-2017 IMR is essentially the same as the city's IMR during the 2008-2010 time period, which was also 10.4. Therefore, when comparing the 2015-2017 IMR to the 2008-2010 baseline rate of 10.4, **Milwaukee's IMR is basically identical to the rate when the goal was set, indicating that we have not met our 2015-2017 goal of reducing the city's IMR by 10%.**

13. Milwaukee's **non-Hispanic White** three-year rolling average IMR of 5.1 for 2015-2017 is **less than a 1% increase** when compared to the 2014-2016 IMR of 5.0. It is tied for the 3rd lowest rate on record for this population.

14. Milwaukee's **Hispanic** three-year rolling average IMR, **increased** from 4.3 during the 2014-2016 time period to 5.7 for 2015-2017. The 2015-2017 IMR is the fifth lowest on record for this population.

15. Milwaukee's **non-Hispanic Black** 3-year rolling average IMR **increased 12%** compared to our previous report. The current IMR is 15.4 for 2015-2017, compared to 13.7 during 2014-2016. When compared to the 2008-2010 baseline rate of 14.5 the non-Hispanic Black IMR has **increased 6%**. As a result, **we have not meet our non-Hispanic Black IMR goal of 12.0 by 2015-2017.**

16. When comparing Milwaukee's non-Hispanic Black IMR to its non-Hispanic White IMR, we see that during the 2015-2017 time period, the Black-White IMR ratio was 3.0. This means that **Black infants in Milwaukee are 3 times more likely to die before their first birthday than White infants in Milwaukee**. This disparity ratio, is higher than the 2014-2016 ratio of 2.7 and remains substantially worse than its historical low of 1.5 (1979-1981 and 1991-1993).

17. Clearly, more needs to be done to address the **primary causes of non-Hispanic Black infant mortality in Milwaukee,** which are **a) premature births** (associated with about **66%** of Black infant deaths) and **b) unsafe sleep** (associated with about **15%** of Black infant deaths). The MHD will continue its aggressive interventions in both of these areas, and will continue to work closely with others, including the Lifecourse Initiative for Healthy Families (LIHF), healthcare systems, social service agencies, policymakers, and many others in an effort to dramatically reduce the number of pre-term births and unsafe-sleep-related deaths among Milwaukee's youngest, smallest, and most vulnerable residents.

Leading Causes of Black Infant Death:

- Premature Birth
- Unsafe Sleep

18. Key underlying social determinants of high infant mortality, preterm birth and unsafe sleep related deaths in the city are included among other things the historical structural and economic inequalities and discrimination that disproportionately impact low income and minority communities in the city. These factors contribute to the limited availability of family supporting employment opportunities, neighborhood deprivation, high crime and incarceration, inadequate housing, etc., all of which increase stress and poor health status and outcomes.

What are the most important things we can do in Milwaukee to improve Birth Outcomes?

There are 3 main areas the City of Milwaukee Health Department believes are essential to address in order to improve Milwaukee's birth outcomes:

1. **improve individual behaviors**, such as smoking and safe sleep
2. **improve access to quality medical care,** especially for women with infections, chronic medical conditions, or prior preterm birth
3. **reduce lifecourse stressors** (which may be the most important drivers of prematurity) across a wide range of areas, from safe neighborhoods and fatherhood involvement to early childhood education and job preparation programs

It's important to keep in mind that ***there is no ONE most important thing.*** Infant Mortality, and healthy birth outcomes generally, have multiple drivers, and addressing any one of them is both necessary and insufficient.

Although these recommendations are numbered for ease of reference, the numbering is not meant to indicate priority. In fact, significant reductions in infant mortality in Milwaukee will require most, if not all, of these areas to be addressed simultaneously. Further, some of these recommendations are dependent upon others; for example, the recommendation that women start prenatal care as soon as possible depends upon the availability and accessibility of prenatal care for all pregnant women.

There are some programmatic approaches that address many of these objectives concurrently, for example the Empowering Families of Milwaukee and Direct Assistance for Dads intensive home visiting programs. Such programs, and others like them, should be expanded in Milwaukee to increase reach.

At a much higher level of detail, specific objectives in each of these areas include the following examples:

1. **Improve Individual Behaviors**

    a. Women should start prenatal care as soon as they know they're pregnant

    b. Pregnant women – and every person in a household with an infant or pregnant woman – should stop smoking, and should ask their doctor for help with this

    c. Babies should be put to sleep in their own crib, following MHD's and the American Academy of Pediatrics' safe sleep guidelines; cribs should be available to every Milwaukeean, and no adult should fall asleep with a baby

    d. Babies should never be in a car without an appropriate car-seat, and car-seats should be available to every Milwaukeean

    e. Stress women's overall health, before, between, and beyond pregnancy. "One Key Question" and Lifecourse/ Well-Woman are examples of approaches to reproductive health care.

2. **Improve access to quality healthcare**

    a. Healthcare providers & healthcare systems must provide accessible prenatal care (e.g., evenings, weekends, group prenatal care, and no long delays to first prenatal visit)

    b. Healthcare providers & healthcare systems must promote accessible preconception care (including family planning options to increase and promote pregnancy intent and spacing)

    c. Healthcare providers must always screen pregnant women for and treat common infections (urinary tract infections, and sexually transmitted infections such as chlamydia, gonorrhea, and syphilis) and common chronic medical problems (hypertension, diabetes).

    d. Healthcare providers should always screen for smoking (including marijuana use), in both pregnant women and their household members, and provide support for smoking cessation for all household members

    e. Healthcare providers should always screen pregnant women for alcohol, drug use and other mental health issues, and provide treatment or referrals when indicated

    f. Healthcare providers must provide special care (*e.g.,* 17P progesterone supplementation) for women who have had a prior preterm birth, or refer them to someone who can

    g. Financial and marketing support for smoking cessation programs such as First Breath and Quit Line must be increased

    h. Promote healing, behavioral health, and trauma reduction

    i. Support broad access to primary care and prenatal care, including through access to doulas and nurse-midwives.

3. **Reduce lifecourse stressors (which may be the most important drivers of prematurity and, thus, of infant mortality overall as well as racial disparities in infant mortality)**

    a. Make it easier for working women to obtain prenatal care, as well as medical care for their infants and children throughout their childhood years *(e.g.,* expand Medicaid, require all employers to offer paid family and medical leave to their employees)

    b. Reduce poverty *(e.g.*, expand low income housing opportunities and/or tax credits, expand the Earned Income Tax Credit (EITC), increase minimum wage, support robust transitional jobs programs)

    c. Support fatherhood involvement (*e.g.,* expand healthcare access to all fathers, repeal Wisconsin's "Birth Cost Recovery" program, assist men with education, employment, and legal issues as needed)

    d. Improve educational attainment, starting with early childhood education (*e.g.,* Expand Head Start programming)

    e. Expand access to affordable, quality child care

    f. Expand program that provide social support to individuals, families, and neighborhoods

    g. Support neighborhood revitalization (*e.g.,* increased green-space, expanded public transportation, safer walkable neighborhoods, housing rehabilitation loan and grant programs, lead hazard reduction)

h. Expand accessibility of affordable healthy foods (*e.g.,* incentives for corner stores, zoning restrictions for high-caloric-density restaurant outlets)

i. Follow up on and support additional recommendations by the Milwaukee LIHF

j. Promote healthy families and quality early learning to foster healthy child development

k. Strengthen economic supports for women and families (*e.g.,* family supporting jobs where people live, housing stability and transportation)

l. Screen for socioeconomic needs and lifecourse stressors during medical and other appointments, and refer to services as needed.

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