



Tom Barrett
Mayor

Bevan K. Baker, FACHE
Commissioner of Health

Sandra J. Rotar
Health Operations Administrator

Health Department

www.milwaukee.gov/health

Frank P. Zeidler Municipal Building, 841 North Broadway, 3rd Floor, Milwaukee, WI 53202-3653 phone (414) 286-3521 fax (414) 286-5990

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City of Milwaukee 2016 Infant Mortality Rate (IMR): Data Brief

A: Facts

1. Preliminary City of Milwaukee Health Department (MHD) figures (not yet verified by the State) indicate that **in 2016, 88 infants born of City of Milwaukee residents died before their first birthday.** This compares to 95 infant deaths in 2015 and 84 in 2014. The 2016 number of infant deaths is the second lowest number on record for the city.
2. In 2016, Milwaukee experienced its lowest number of live births on record. Only 9,673 babies were born in Milwaukee in 2016 compared to a previous low of 9,847 in 2015 and a previous high of 14,089 in 1970. Since 1992, Milwaukee's births have averaged about 100 fewer per year.
3. Preliminary IMR data released last year for 2015 has been verified by the State. This resulted in a slight change to our 2013-2015 Hispanic IMR, from 4.8 as reported last year to 4.7.
4. The State has not yet verified 2016 data. Our figures remain preliminary and are subject to future revision, although it is unlikely that they will change significantly.
5. 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. 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.
6. Milwaukee's single-year IMR for 2016 was 9.1, meaning that just over 9 babies died for every 1,000 live births in Milwaukee in 2016. This is lower than the single-year IMR in 2015 (9.6), but remains higher than the single-year IMR in 2014 (8.4).
7. The single-year Milwaukee IMRs by race and ethnicity are as follows for 2016: 14.0 deaths per 1,000 live births for non-Hispanic Blacks, 7.2 for non-Hispanic Whites, and 2.5 for Hispanics. Rates for non-Hispanic Blacks and non-Hispanic Whites are higher than their respective 2015 rates of 13.8 and 4.3; while rates for Hispanics are down compared to 2015 (5.5).
8. **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.
9. Based on MHD's preliminary figures, **the three-year rolling average IMRs for 2014-2016 for Milwaukee are as follows:** (NH = Non-Hispanic)

	<u>Overall</u>	<u>NH Black</u>	<u>NH White</u>	<u>Hispanic</u>
2014-2016	9.0	13.6	5.0	4.2
2013-2015	9.9	14.9	4.6	4.7
2012-2014	9.8	15.3	5.1	4.1

10. We do not yet have an analysis of these deaths by cause-of-death for 2016, but 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 9.0** for 2014-2016 is **down 8.4%** when compared to the 2013-2015 rate of 9.9. The 2014-2016 IMR is the lowest on record for the city. When compared to the 2008-2010 baseline rate of 10.4, Milwaukee's IMR has **decreased 13.4%**, indicating that we have, for now, surpassed our 2015-2017 overall IMR goal of 9.4. *However, because the 2014 single-year IMR was the lowest on record, the 3-year rate for the 2015-2017 period may go back up, perhaps even above the City's 2017 goal.*
13. Milwaukee's three-year rolling average **non-Hispanic White IMR of 5.0** for 2014-2016 reflects a **9.2% increase** when compared to the 2013-2015 IMR of 4.6. Although this increase occurred, the 2014-2016 IMR is tied for being the second lowest on record for this population. The rate was previously 5.0 during the 1999-2001 time period.
14. Milwaukee's 2014-2016 three-year rolling average **Hispanic IMR of 4.2**, represents a **12.2% decline** when compared to the 2013-2015 IMR of 4.7, and is the second lowest IMR on record for this population. The lowest rate was 4.1 during the 2012-2014 time period.
15. Milwaukee's **non-Hispanic Black** 3-year rolling average IMR **decreased roughly 9%** compared to our previous report. The current IMR is 13.6 for 2014-2016, compared to 14.9 in 2013-2015. The 2014-2016 IMR is the lowest on record for this population. However, when compared to the 2008-2010 baseline rate of 14.5, the non-Hispanic Black IMR has decreased **only 6%**. As a result, it does not appear likely that we will meet our non-Hispanic Black IMR goal of 12.0 (a 15% decrease from baseline) by 2015-2017.
16. When comparing Milwaukee's non-Hispanic Black IMR to its non-Hispanic White IMR, we see that during the 2014-2016 time period, the Black-White IMR ratio was 2.7. This means that **Black infants in Milwaukee are approximately 3 times more likely to die before their first birthday than White infants in Milwaukee.** This disparity, while lower than the 2013-2015 IMR ratio of 3.2, 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 African-American infant mortality** in Milwaukee, which are **a) premature births** (associated with about **61%** of Black infant deaths) **and b) unsafe sleep** (associated with about **17%** 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, healthcare systems, social service agencies, policymakers, and many others in an effort to dramatically reduce the number of preterm births and unsafe-sleep-related deaths among Milwaukee's youngest, smallest, and most vulnerable residents.

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 simultaneously 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 simultaneously, for example the Empowering Families of Milwaukee and Nurse Family Partnership intensive home visiting programs. Such programs, and others like them, should be expanded in Milwaukee.

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 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

2. Improve access to quality healthcare

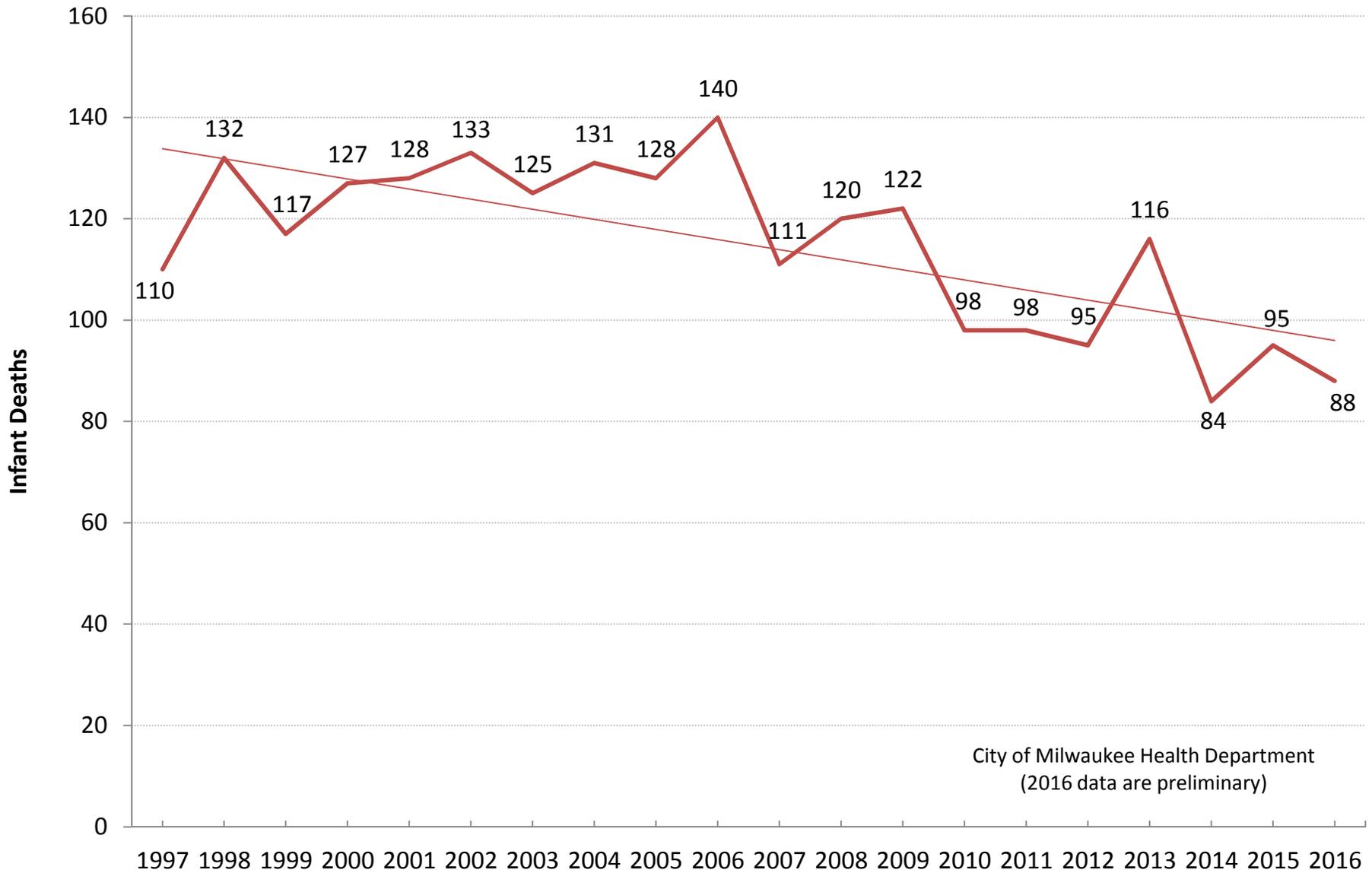
- a. Healthcare providers & healthcare systems must provide accessible prenatal care (e.g., evenings, weekends, and no long delays to first prenatal visit)

- b. Healthcare providers & healthcare systems must promote accessible preconception care (including family planning options to increase and promote pregnancy intent)
- c. Healthcare providers must always screen for and treat common infections (STDs, UTIs) and common chronic medical problems (hypertension, diabetes)
- d. Healthcare providers should always screen for smoking 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 and drug use, and provide treatment or referrals when indicated
- f. Healthcare providers must provide special care (e.g., 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

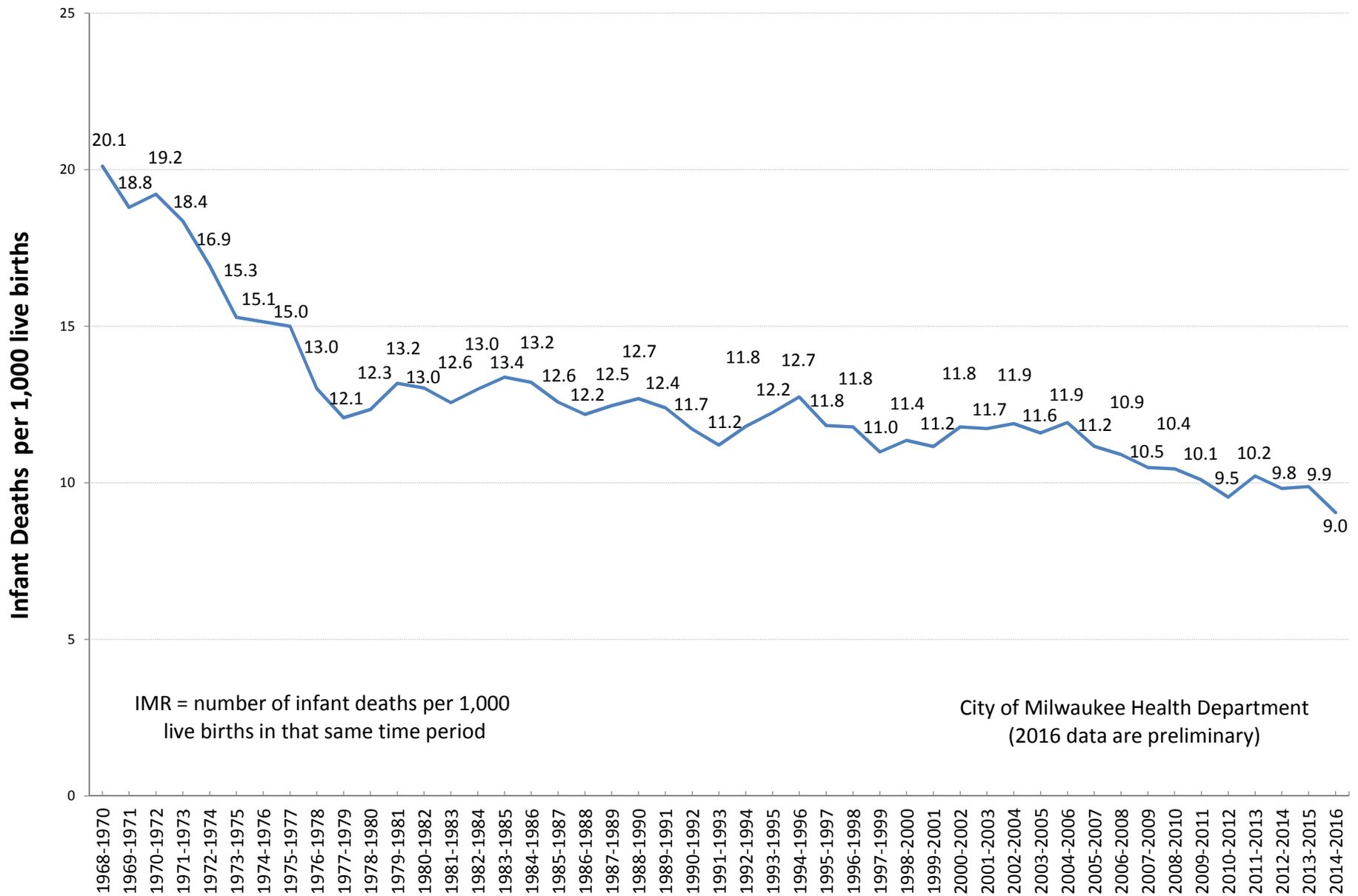
3. Reduce lifecourse stressors (which may be the most important drivers of prematurity and, thus, of infant mortality overall as well as racial disparities in infant mortality)

- a. Make it easier for working women to obtain prenatal care for themselves, and 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 a robust transitional jobs program)
- 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 (e.g., Big Brothers Big Sisters, YMCA/YWCA)
- 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 Lifecourse Initiative for Healthy Families

Overall (Total) Number of Infant Deaths per Year in the CITY OF MILWAUKEE



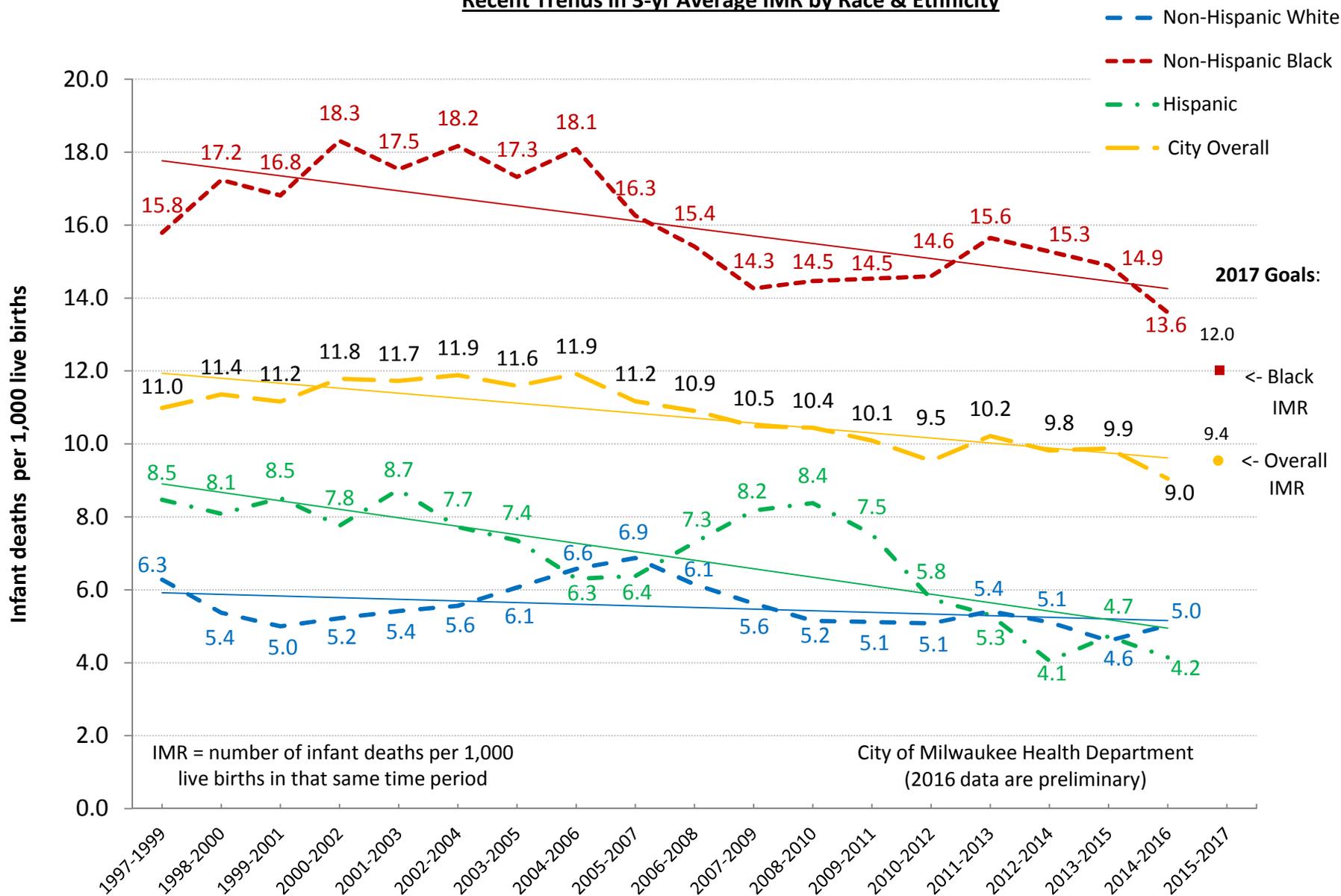
RATE of Infant Deaths - 3 year rolling averages
CITY OF MILWAUKEE INFANT MORTALITY RATE (IMR)
Long-term Trends in Overall IMR Since 1968



RATE of Infant Deaths - 3 year rolling averages

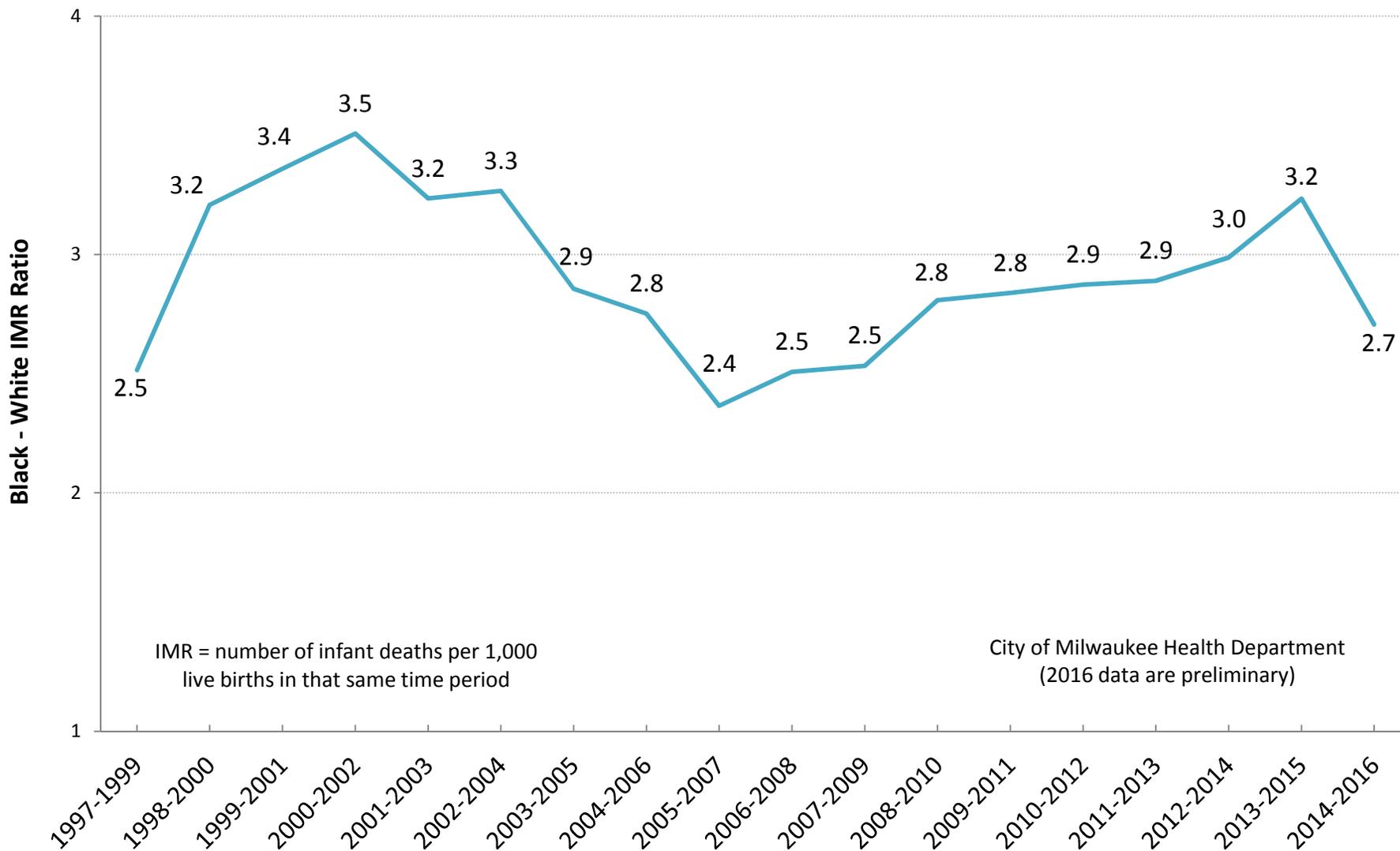
CITY OF MILWAUKEE INFANT MORTALITY RATE (IMR)

Recent Trends in 3-yr Average IMR by Race & Ethnicity



Black-White IMR Ratio

**CITY OF MILWAUKEE INFANT MORTALITY RATE (IMR) RATIOS
RECENT TRENDS IN RATIO OF 3-YEAR ROLLING AVERAGE IMRs
NON-HISPANIC BLACK IMR compared to NON-HISPANIC WHITE IMR**



IMR = number of infant deaths per 1,000 live births in that same time period

City of Milwaukee Health Department
(2016 data are preliminary)