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RESEARCH ARTICLE

Analyzing Decades of Disparities in Ohio's Maternal and Infant Deaths

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ABSTRACT

Why does Ohio have one of the highest Black infant mortality rates in the United States? To answer this question, this study analyzes the history of infant mortality rates as a measure of living conditions. Vital statistics, census data, historical narratives, published studies, and the ecosocial theory explain how social and structural racism has disadvantaged Ohio's Black population. From the 1900s to the 21st century, causes of deaths have changed and rates have improved; nevertheless, 2 and 3 times more Black mothers and infants have died, and this disparity persists not only in Ohio but in other midwestern states. Racism manifested in stress, restricted home ownership, vulnerable neighborhoods, and poverty cause premature aging or weathering in the African American population. Before Ohio's downturn in prosperity during the Rust Belt era beginning in 1970, Ohio had one of the best infant mortality rates in the nation. By the 21st century, Ohio's governors, legislators, civic leaders, and health care systems vowed to correct the high African American maternal and infant mortality rates, calling it a public health crisis. In 2024, Ohio had a record low infant mortality rate of 6.5/1000 live births, and both Cradle Cincinnati in Hamilton County and CelebrateOne in Franklin County reported their Black infant mortality had reached a historic low.

Keywords: Historical review; Disparities in Ohio from 1900-2025; Maternal and infant mortality

INTRODUCTION

Why do Black families in Ohio suffer maternal and infant deaths 2 and 3 times more often than White families?[1,2] Why does Ohio rank among the worst states for Black infant death rates?[3] Infant death rates, defined as the number of live born infants dying in their first year of life per 1000 live births, have long been known to indicate the quality of living conditions.[4] Poor living conditions for many African Americans reflect current and past structural racism. As explained by Krieger's ecosocial framework, African Americans embody the physiologic marks of racism with their biomarkers of stress reflected in premature death rates for the individual and the African American population as a whole.[5]

Structural racism, defined as the totality of ways in which societies foster racial discrimination through mutually reinforcing systems of housing, education, employment, earnings, benefits, credit, media, health care, and criminal justice, can be measured.[6] At the individual level, African Americans, when compared with White Americans, bare multiple biomarkers of stress, termed an allostatic load, leading to more cardiovascular and metabolic diseases, reflected in higher morbidity and mortality rates.[6] Geronimus in her study of Black teenage mothers in Michigan found Black teens paradoxically had healthier births than older Black mothers. As Black women aged, they developed biomarkers of premature aging or weathering and their likelihood of having a low-birthweight (<2500 grams) or very low-birthweight (<1500 grams) infant increased.[7] If they also lived in economically poor census tracts, their odds of delivering a growth restricted infant increased 3 and 4 times. In the lives of Black women, allostatic stressors occur early and with more severity compared to Black men or White women.[8] Geronimus and others have found weathering especially affected the cardiovascular system as measured by elevated diastolic and systolic blood pressure.[9] Other metabolic indicators of stress include increased insulin resistance, more type 2 and gestational diabetes mellitus, and inflammatory and neuroendocrine markers also known as the "fight or flight" activated hypothalamic-pituitary-adrenal axis hormones. The sum of these biomarkers forms an allostatic load on the human body.[10] For the Black women this sets up a transgenerational cycle where they themselves are more likely to have been born premature or with a low birth weight.[11] At the population level, allostatic loads caused by living conditions result in high Black infant mortality rates.[12]

In the life course model proposed by Lu and Halfon, adding protective factors including good nutrition, emotional support, a stable, safe home, good education, and medical care can reverse these disadvantages faced at birth by Black infants, thus improving their health and the health of the Black population.[13]

This study examines the history of Ohio's Black and White maternal and infant mortality rates beginning with the early recognition of disparities in the 1900s and continuing through the Civil Rights era into the 21st century. It ends as Ohio's governors, civic leaders, and community collaboratives work to correct past injustices, declaring the high rates of Black infant deaths a public health crisis.

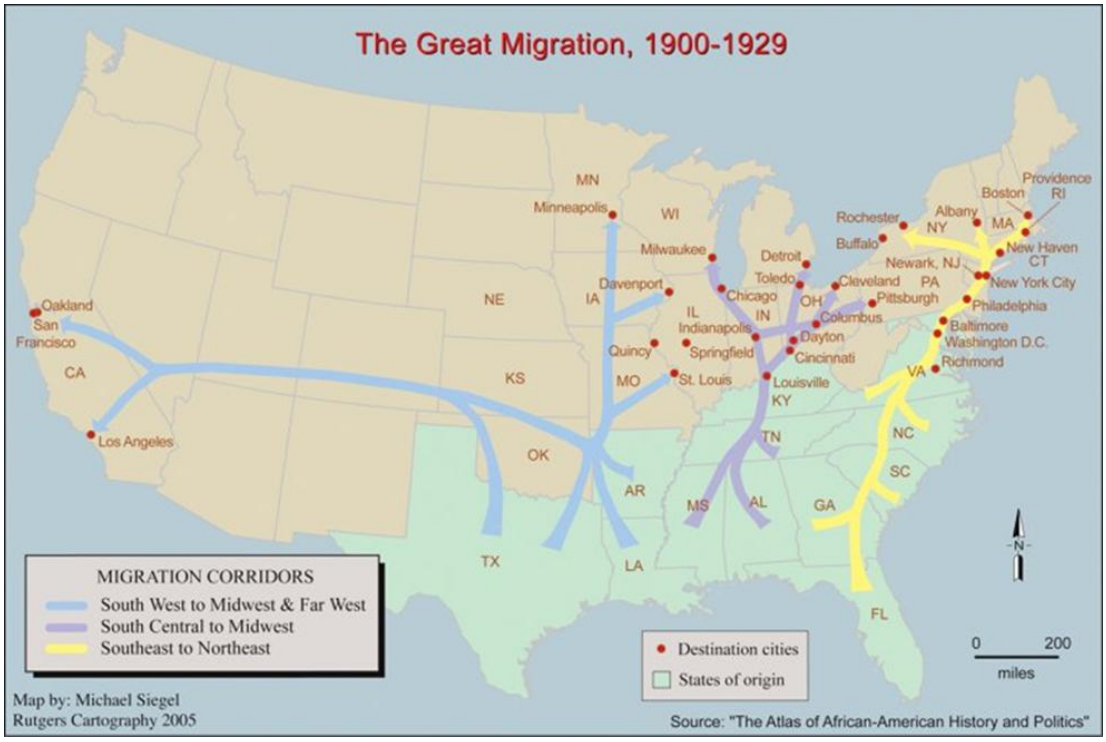
METHODS

The US Census report titled Negro Population 1790-1915 from the Department of Commerce Bureau of the Census provided demographics for Ohio with specific measures of home ownership, urban vs rural living, and death rates in Ohio's cities and counties.[14] From 1930 to 1968 the Columbus Metropolitan Library (CML) provided the Ohio Department of Health (ODH) Vital Statistics Division Annual Reports with White and non-White maternal and infant causes of deaths and death rates. From 1969 to 2025 the Centers for Disease Control and Prevention WONDER queries and reports from the ODH website were used. Race data were reported as Black, White, or Other from 1968-1998. Thereafter more race categories were reported, and White, Black, or African American were used. Numbers and causes of death, infant mortality rates, and maternal mortality rates from the reports were entered by the author on Excel spreadsheets to create the graphs used in this paper. Ohio Civil Rights Commission Reports were accessed online from their website. Rates of rentals and home ownership were reviewed online from the US Census Bureau American Housing Survey. African American narrative history was found through searches at the CML, The Ohio History Journal, Ohio History Central, Bing and Google's Chrome search engines. The author's account of recent developments is informed by direct involvement in public health programs and firsthand observation of community-based efforts to reduce infant mortality over the past 25 years. Copies of original data, documents, and Excel spreadsheets are available from the author and will be archived in the Ohio State University Health Sciences Library's Medical Heritage Center.

Background of Racism in Ohio

After reconstruction failed in the 1880s, African Americans freed from chattel slavery, where for centuries they had been forbidden to learn to read or write, now lived under harsh Jim Crow laws with threats of violence and lynchings (Figure 1). As they fled the South to live in Ohio, at first they were welcomed. This changed in the early 1900s. By then, 111 000 African Americans lived in Ohio. Many were former slaves or children of slaves, largely unskilled and uneducated, mainly residing in Ohio's major cities of Cincinnati, Dayton, Columbus, Cleveland, and Toledo.

Figure 1. Map of The Great Migration, 1900-1929

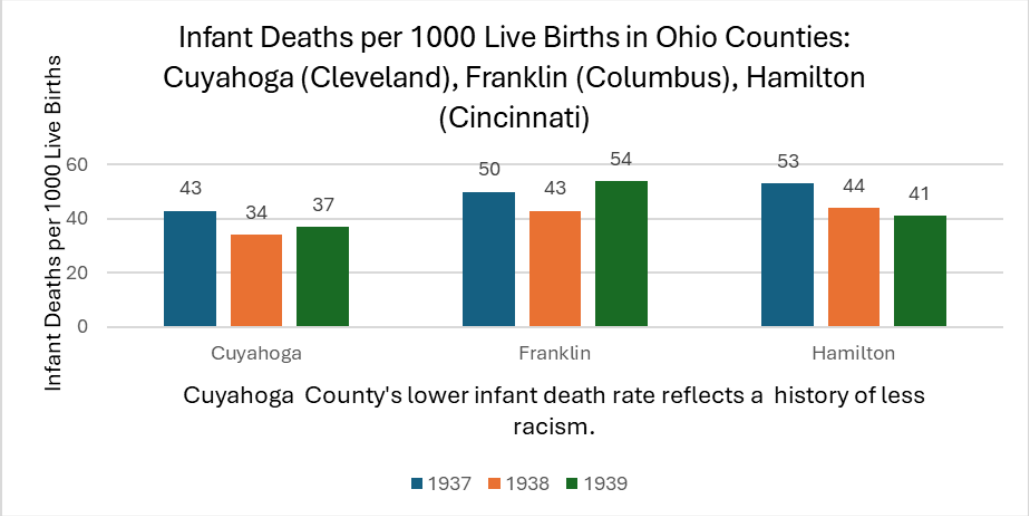


Note: Primarily fleeing restrictive Jim Crow laws in Mississippi, Alabama, Tennessee, and Kentucky, Black families migrated to the 5 Old Northwest Territory states of Ohio, Indiana, Illinois, Michigan, and Wisconsin (The New York Public Library Digital Collection).

For his PhD thesis on racism in Ohio, historian Frank Quillin interviewed Ohioans from all walks of life and found "bitter racism" —except in Cleveland where 8000 Black Americans lived and held good jobs and even supervised White employees.[15] In Cincinnati and Columbus, small towns, and rural areas Quillin found strong anti-Black feelings. Cleveland, with less racism reported, had a Black population death rate of 16.5/1000, lower than the White death rate of 17.6 (from US Vital Statistics). However, as White workers and residents feared their jobs and property values were threatened, Black families were segregated into poorer quality neighborhoods and work with low wages. By 1930, 72 000 Black Americans lived in Cleveland where they faced segregated neighborhoods and low paying jobs. Infant death rates in Cuyahoga County, however, remained lower than in Franklin and Hamilton Counties, reflecting an earlier period with less racism (Figure 2). In this pre-antibiotic period with improved water purity and better living conditions, fewer infants died from diarrhea and dysentery; prematurity, congenital disorders, and infections caused 82% of infant deaths (Figure 3). Black infants died 1.5 times the rate of White infants.

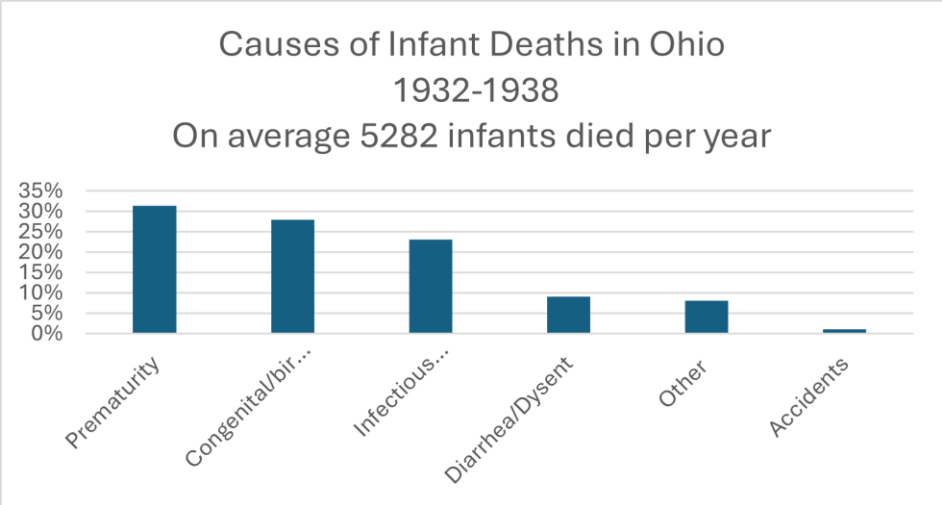
An early 1926 study by the US Children's Bureau clearly showed that infant death rates were directly related to poverty.[16] Infants died at high rates when a father's income was low; as a father's income rose, infant death rates fell. At this time, most African Americans lived in poverty, and only 20% owned their own home.[17,18]

Figure 2. Bar Chart of Infant Deaths Cuyahoga, Franklin, and Hamilton Counties 1937, 1938, and 1939



Note: In Cuyahoga County infant death rates were lower than in Franklin and Hamilton counties. (Calculated by the author from ODH vital statistics for 1939).

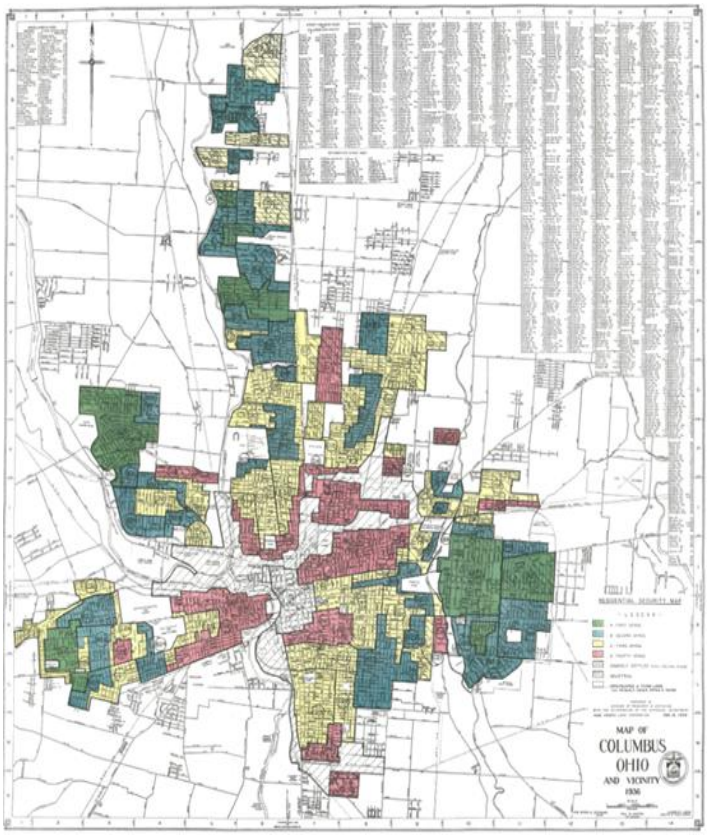
Figure 3. Chart of Major Causes of Infant Death Ohio 1932-1938



Note: Prematurity led the causes of infant deaths, followed by congenital anomalies and birth injuries. With better living conditions, infections decreased to 23% of the deaths. (Data from ODH Vital Statistics, summarized by the author.)

To lift Americans out of the 1929 Great Depression, and to create wealth, Congress formed the Federal Housing Administration (FHA) in 1934 to prevent foreclosures by insuring home mortgage loans issued by local lenders and banks. [19] Government insured home mortgages were preferably granted to White families, passing over Black families. Banks hired assessors familiar with city neighborhoods to grade the risk for loans. Assessors shaded prosperous White neighborhoods green, ideal for guaranteed low-interest loans, with riskier neighborhoods shaded yellow, blue, and red (Figure 4). Red zones warned that Black residents lived there, and lending to the businesses and home buyers in that area would result in loan defaults. Black citizens hoping to borrow federally backed low-interest loans faced high rates of refusals, forcing most to rent instead.[20,21]

Figure 4. Columbus, Ohio, Assessor Shaded Choropleth Map 1936

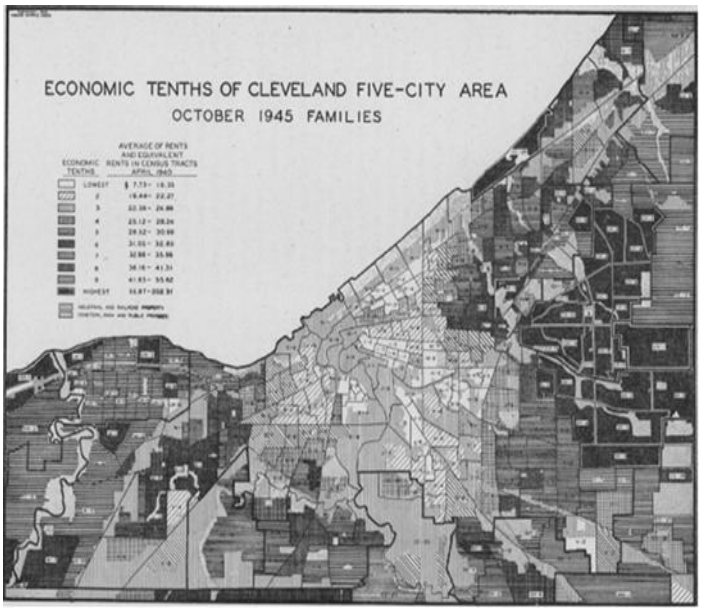


Note: Columbus, Ohio, map prepared in 1936 by appraisers of the Homeowners Loan Association to grade neighborhood risk for guaranteed federal loans. Desirable neighborhoods with minimal risk for lending were in green and blue areas, yellow areas were in decline and red areas were most unfavorable.[22]

In Cleveland, 10 years later, the health commissioner emphasized the impact of living conditions on death rates by mapping the economic levels of census tracts (Figure 5). The poorest tracts had less central heating and refrigeration, fewer telephones and automobiles, and less education. Black families lived in these poor areas and had high infant death rates. In contrast, infants born into families with the highest education levels in the economically best areas had a 5 times greater chance of surviving.[23]

To confirm that more Black mothers and infants faced higher death rates, in 1940, the US Children's Bureau published "The Health Situation of Negro Mothers and Babies in the United States."[24] In this study, Ohio's Black infant mortality rate was ninth worst of the 29 states studied while Ohio's maternal care was reported to be among the best in the nation. Overall, 55% of Black births in the US were attended by "nonmedical persons—generally untrained or poorly trained midwives. Only one-fifth of the Black births occur in hospitals." In contrast, physicians attended 95% of White births and 48% were in hospitals. In Ohio they found 98% of Black maternity care met high-quality standards with physicians and well-trained midwives attending births. Causes of maternal deaths in the US were related to infection (41%), toxemia or preeclampsia (25%), and hemorrhage (23%). Of these deaths, 23% were related to abortions, illegal at the time, and 3% to hemorrhage from ectopic pregnancy.

Figure 5. Economic Tenths Map Cleveland, Ohio, Area October 1945



Note: A concentration of the lowest economic tenths appears in the center of this 1945 map of Cleveland where a large population of Black Americans lived and experienced the highest rates of infant deaths.[23]

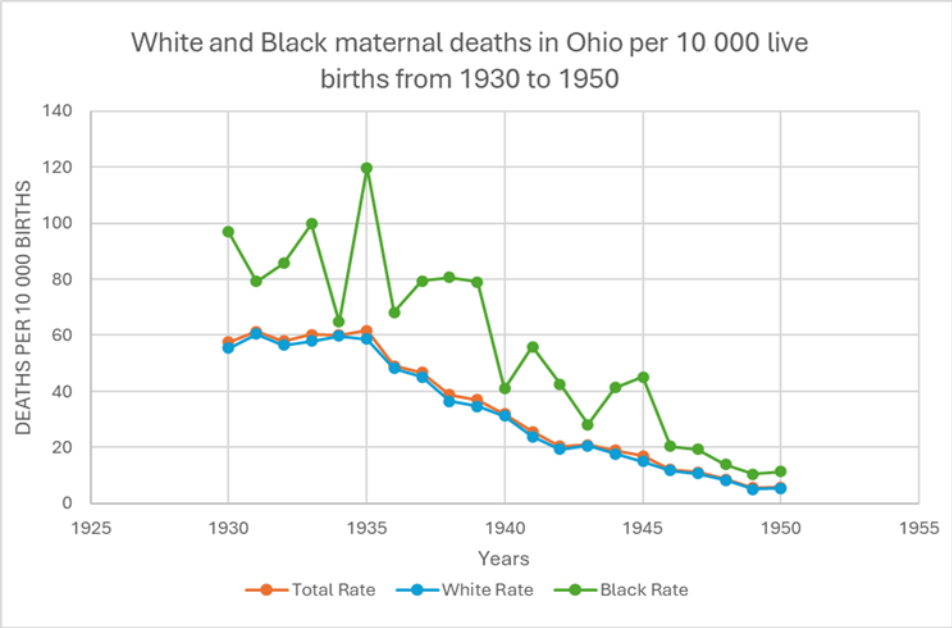
Over the 20 years from 1930 to 1950 (Figure 6), obstetric care improved with antibiotics to treat infections, regular prenatal care to detect severe hypertension and preeclampsia, safe blood transfusions, and control of hemorrhage, resulting in a dramatic decline in both maternal and infant deaths.[25] Nevertheless, when compared to White rates, Black mothers and infants died at twice the rate.

Similar trends occurred across the nation. From 1930 to 1965, while overall death rates declined, disparities in infant mortality not only persisted but increased (Figure 7). In 2016, Black infants died 2.5 times

more often than White infants in the US.[26] Unequal access to advances in medical care combined with poor living conditions account for the widening disparities.[27]

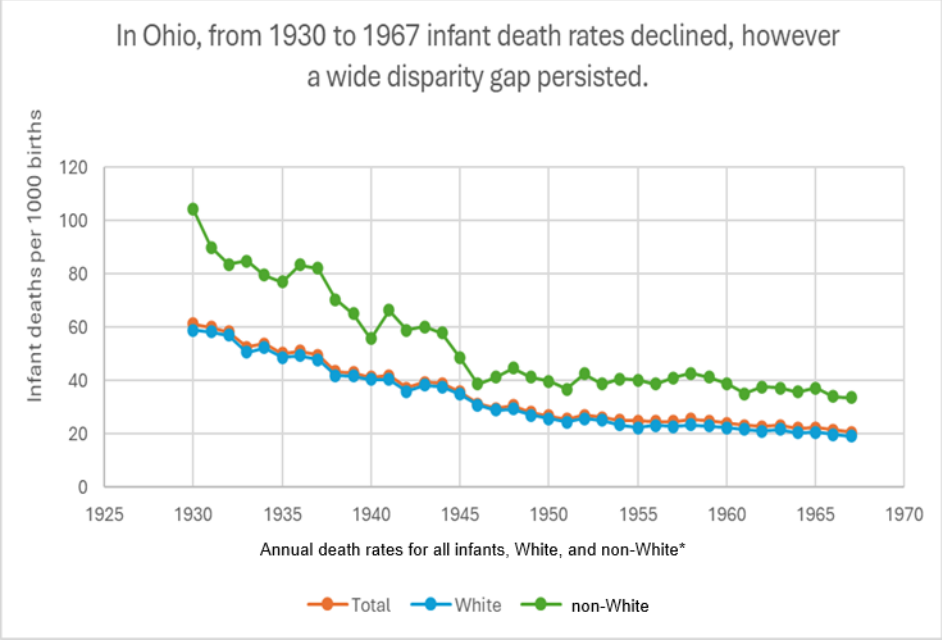
By 1960, over 770 000 Black Americans lived in Ohio where they continued to endure racism,[28] contributing to low paying jobs and poor living conditions.

Figure 6. Line Graph of White and Black Maternal Deaths in Ohio 1930-1950



Note: In Ohio, from 1930 to 1950, maternal death rates declined significantly from 57.6 to 5.9 deaths per 10 000 births. (Data from ODH Vital Statistics.)

Figure 7. Line Graph of Infant Deaths in Ohio 1930-1967



Note: Ohio's infant death rates improved from 1930 to 1967. However, the disparities between White and non-White infants persisted. *Ninety-nine percent of the non-White population was African American. Native Americans and Asians made up less than 1% of the non-White population. (Data from the US Vital Statistics and ODH Vital Statistics.)

Ohio Civil Rights Commission Confronts Racism

In the 1890s Ohio had been on the forefront of civil rights legislation protecting Black citizens from discrimination in public places and education.[29] By the 1920s these protections gave way to overt discrimination coupled with the rise of the Ku Klux Klan (KKK) in Ohio.[30]

After the end of World War II returning Black soldiers and their families continued to face discrimination.[31] Ohio's legislators responded by creating the Civil Rights Commission in 1959, charged at first to end discrimination in employment, thereafter, adding housing, public places, and credit to their charge.[32] In their first act, the Commission surveyed Ohio and found widespread civil rights violations. Examples from their 1960 report included large commercial recreation companies restricting access to Black Americans only on special days or to certain areas or even refusing admission. Hospitals blatantly violated civil rights by setting aside special rooms for Black Americans. "One incident was cited of a mother having a baby in the corridor of a hospital because the rooms designated for Black Americans were occupied while at the same time several other rooms were vacant." Their conclusion: "The wide range of data collected further reveals that there is a grave number of incidents of violations of the Civil Rights Statute." Blatant racism changed after the United States Congress passed the Civil Rights Act of 1965, abolishing Jim Crow laws in the South and overt discrimination in all states.[33] Quasi legal structures, eg, real estate covenants and social structures in the northern states, however, isolated Black citizens into segregated, ghetto-like areas. Even with widespread discrimination, Ohio as a whole thrived with a higher per-capita income[34] and lower infant mortality rates compared to other states (Figure 8).

Medical Advances and Widened Disparities

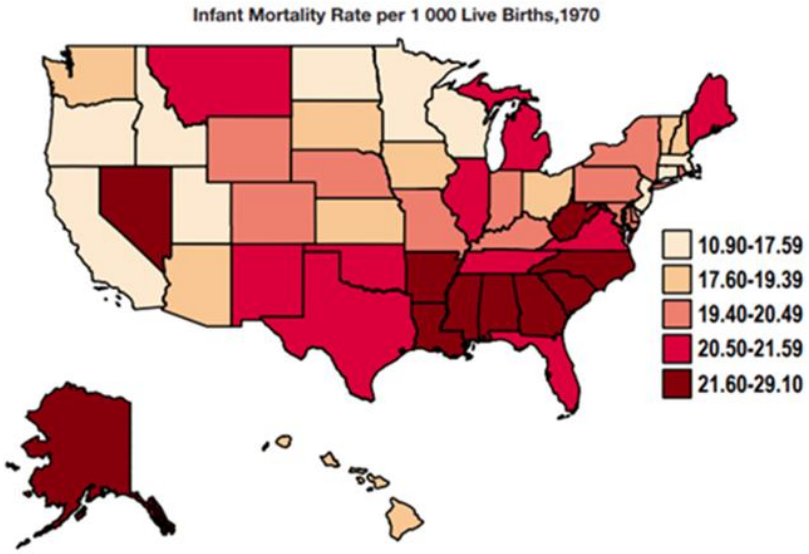
By 1970, antibiotics were saving more infants from pneumonia and influenza. Prematurity, birth defects, SIDS, and RDS seen in premature infants led the causes of infant deaths.[35] By the mid-1980s, once surfactant was widely available in NICU staffed by highly trained neonatologists, RDS rarely caused death.[36] Once discharged from the hospital, SIDS became a leading cause of infant mortality.[35] Disparities, however, widened because twice as many Black infants were born with low birthweight (<2500 grams) and especially very low birth weight (<1500 grams).[37] Very preterm deliveries before 32 weeks' gestation often relate to maternal hypertensive disorders of pregnancy including preeclampsia. These life-threatening cardiovascular disorders affect Black mothers more than White mothers, an embodiment of decades of stressful living conditions.[38] Treatment requires delivery of the infant, often premature.

After the neonatal period ending at 27 days, more Black infants die from sleep related deaths[39] and more from unintentional injuries.[40] These causes relate to poor housing, poor neighborhood living conditions, lack of social support, and poverty.

Poverty Strikes the Rust Belt

By1969, Ohio's poverty rate slipped just below the national average and kept dropping, reaching 10% below the national average by 2019.[34] Manufacturing industries closed in Ohio, Michigan, Indiana, Illinois, and Pennsylvania, ushering in high unemployment in the area termed the Rust Belt.[41] With Black workers the first to be laid off, by 2018 over 28%

Figure 8. Map of United States 1970 Infant Mortality Rates[35]



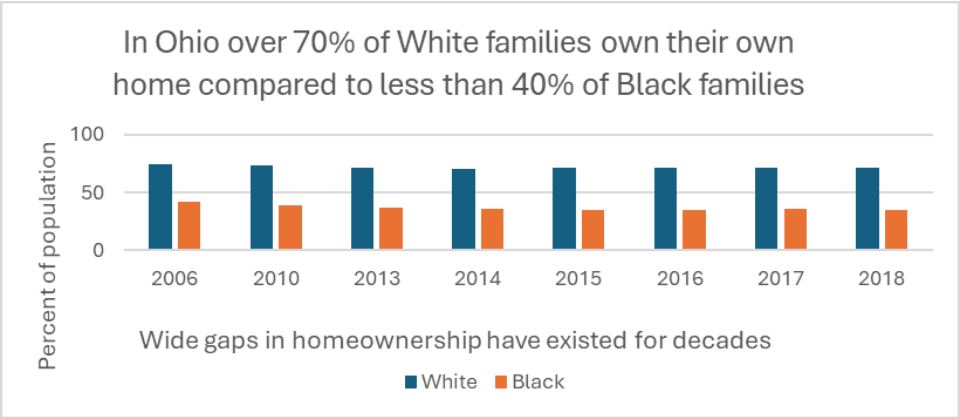
Note: A 1970 map of the US shows wide differences in infant mortality rates between states, with Ohio grouped among the best states.[35]

of Black families lived impoverished in Ohio, almost 3 times the number of White families (10%).[42]

In the wake of poverty, Ohio's Black infant mortality rate rose. Now instead of the best among states, Ohio and other midwestern states (Indiana, Illinois, Michigan, and Wisconsin) had high Black infant mortality rates ranging from 12.10 to 14.8.[35] Ohio's rate of 14.6 was third highest in the nation, significantly greater than the 11.10 national rate.[3] Ohio, Alabama, and Indiana were the only states with infant mortality rates statistically higher than the national rate for the 3 groups measured (Black, White, Hispanic).[43] Poverty as reflected in home ownership reveals stark disparities. The first American Housing Survey, in 1973, found almost 70% of White families owned their own homes compared with 42% of Black families.[44] Black home buyers faced a 38% rejection rate by mortgage companies compared to far fewer, 21%, White applicants rejected.[21] A wide gap still exists (Figure 9). Home ownership relates to wealth, lower rates of poverty, better incomes, healthier pregnancies, and better birth outcomes.[45,46]

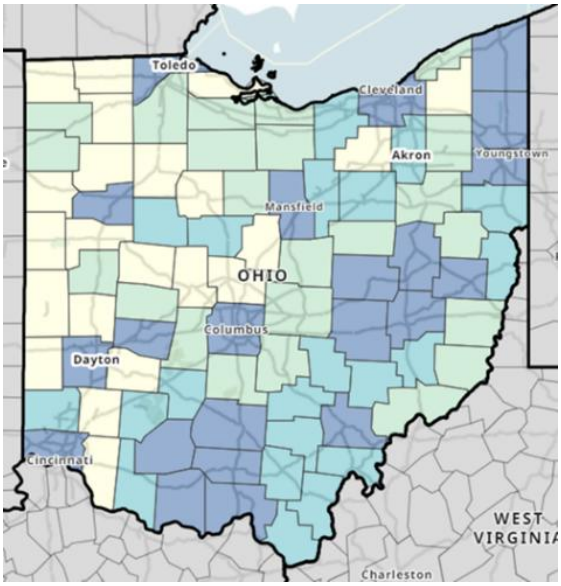
During this time the US Government created an index of living conditions, or social vulnerability index (SVI), for every census tract in the US.[47] The SVI, updated periodically, includes measures of the social determinants of health—socioeconomic status, household characteristics, racial-minority status, housing type, and transportation—an intersection of multiple factors affecting health. Most Black Ohioans live in urban counties with a high SVI (Figure 10). These counties also have the highest rates of infant deaths (Figure 11).

Figure 9. Bar Chart of White and Black Home Ownership in Ohio 2006-2018



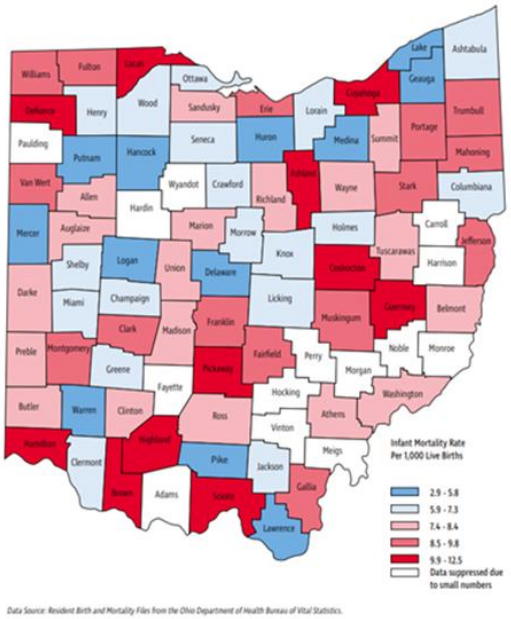
Note: Black home ownership has remained low for decades.[21]

Figure 10. Social Vulnerability Index Map of Ohio 2022[48]



Note: A social vulnerability index (SVI) map of Ohio counties in 2022 identifies urban and Appalachia counties shaded in dark for high social vulnerability.[48]

Figure 11. Ohio County Map 2016-2020 Average Infant Mortality Rate[1]



Infant death rates in the urban counties of Cuyahoga (Cleveland), Lucas (Toledo), Franklin (Columbus), Hamilton (Cincinnati), and Montgomery (Dayton) range from high rates of 9.9 to extremely high rates of 12.5/1000 live births (Figure 11). Black infant births and deaths are concentrated in these vulnerable urban counties with socioeconomic burdens and higher racial and ethnic minority status. In 2021, compared to other states, Ohio's Black rate of 13.6 was second highest in the nation (Arkansas was first).[3] Ohio's prematurity rates (11%) have also been higher than the national average for decades, especially in urban areas. Like Massachusetts, the state with the lowest overall, White (2.6) and Black (6.4) infant mortality rates, Ohio has expanded Medicaid and provided postpartum Medicaid coverage. Massachusetts, however, has lower rates of poverty and fewer Black women report they are in fair or poor health, 17% in Massachusetts vs 33% in Ohio.[49]

Compared to rural areas, Black infants born in Ohio cities have a higher risk of prematurity and death in their first year of life. When a Black mother lives in an urban area with high violent crime rates, her risk of having a preterm birth increases by 7% and by 14% for an infant death.[50] When investigators from Ohio's Infant Mortality Research Partnership adjusted for socioeconomic factors, Black infants had almost the same prematurity and infant death rates as the benchmark White population.

Maternal Health

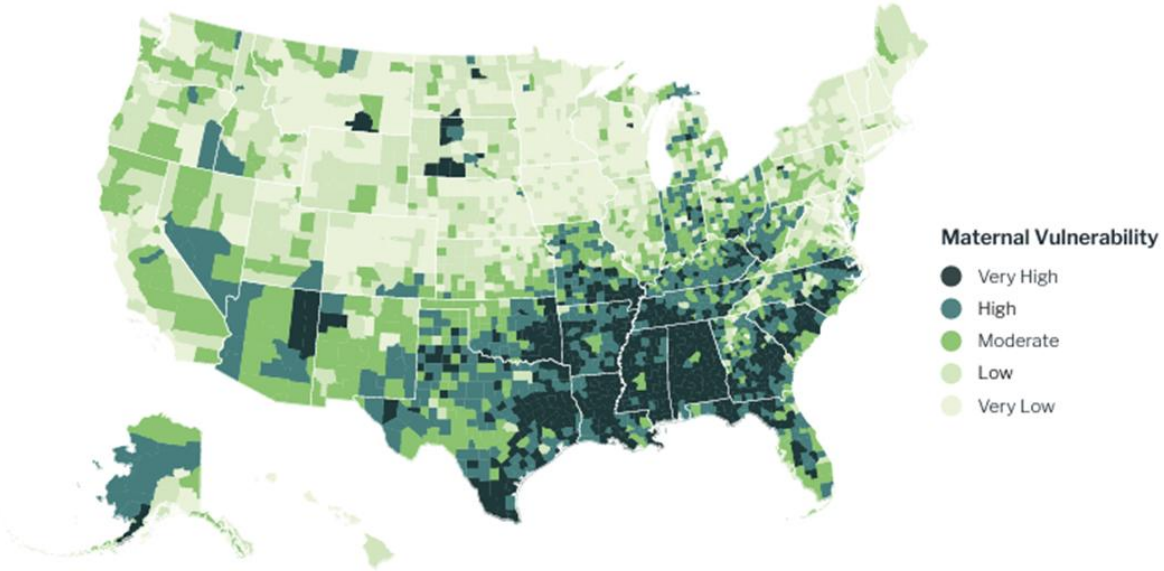
Because infant health ties closely to maternal health, finding ways to improve maternal health and prevent maternal deaths becomes imperative. Six measures for maternal health added to the SVI created a maternal vulnerability index (MVI).[51] The MVI includes reproductive health care, physical health, mental health and substance abuse care, general health care, socioeconomic conditions, and the physical environment.[52] The Southern states with a concentration of Black Americans, have high maternal vulnerability factors, reflected in higher maternal and infant death rates (Figure 12). The midwestern states of Indiana, Michigan, and Ohio have counties with high maternal vulnerability factors that appear to follow the path of Black American's Great Migration north (Figure 1) after emancipation over 160 years ago.[53]

Ohio's overall maternal mortality rate has been similar to the US average. Tragically, when reviewed by experts, over half of pregnancy-related deaths are considered preventable. Causes have changed over time from deaths primarily related to infections and hemorrhage to cardiovascular and mental health conditions, including substance abuse.[54]

A detailed review of all 72 pregnancy related deaths from 2017 to 2018 in Ohio found 11 Black mothers and 52 White mothers had died, the majority were preventable. Black mothers died from infections, preeclampsia and eclampsia, and 1 (9%) from a drug overdose. In White families, 30 (53%) of the 52 pregnancy related deaths occurred from drug overdoses.[55]

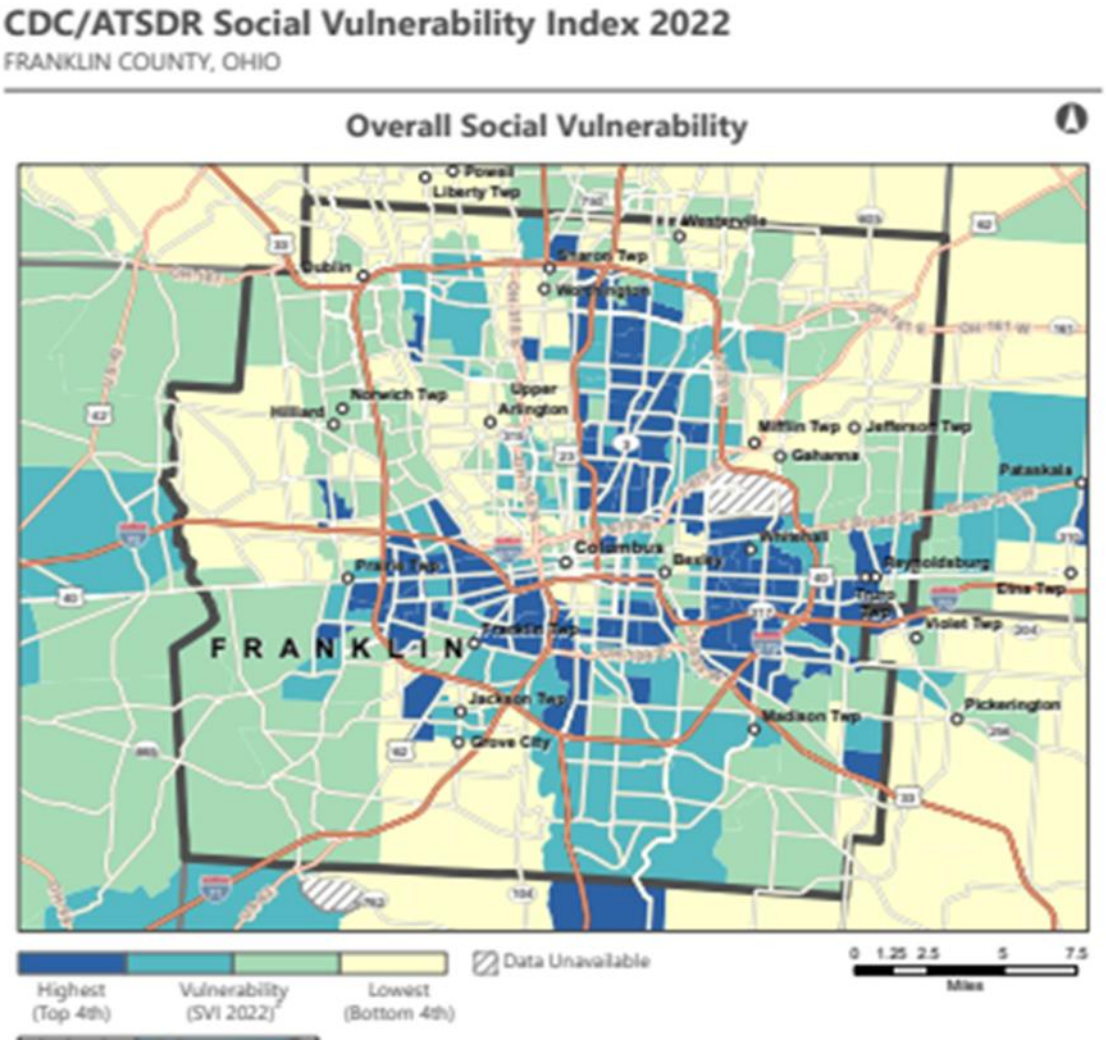
These findings add to other studies confirming neighborhood conditions can affect pregnancy in both positive and negative ways. Creating healthier neighborhoods with more jobs, less crime, more protective factors of healthier food and social support takes generations of investment. Current areas of concentrated poverty in Columbus (Figure 13) illustrate the long-term consequences of racism. These same areas trace back to 1936 red-lined Columbus neighborhoods (Figure 4) with a concentration of impoverished Black families and high rates of preterm births and infant deaths.

Figure 12. United States Map of Maternal Vulnerability Index Measured Across US Counties[51]



Note: From the Surgo Maternal Vulnerability Index measured across the US counties.[51]

Figure 13. Social Vulnerability Map 2022 Columbus, Ohio, Franklin County[56]



Note: Dark areas mark higher rates of poverty, poorer housing, concentrated minorities, and poor transportation.[56]

A recent study found pregnant women, 70% were Black, from the vulnerable Columbus neighborhoods (Figure 13) had a past history of more preterm births (11% vs 8%), diabetes (1.6% vs 0.9%), and hypertension (4.3% vs 2.4%) when compared to women living outside the high-risk areas.[57] These local findings in Columbus have also been confirmed in Chicago neighborhoods. Poverty rates of 12% or more were associated with more low birth weight infants and preterm births.[45]

Ohio Tackles Disparities and Infant Mortality

Aware of these longstanding Black-White disparities in births and pregnancies, Ohio's governors, mayors, and civic leaders mobilized to study and design strategies for community collaboratives to end disparities. In Columbus, in 2010, The Ohio State University (OSU) funded a grant for the Moms2B program to improve pregnancy outcomes in the crime-ridden Weinland Park neighborhood near the OSU campus. [58] This place-based program in a predominantly Black neighborhood found the stress caused by crimes, poverty, poor social support, and preexisting medical conditions could be ameliorated by building protective factors including social support, connection to medical care, education, material goods, and nutritious meals.

Four years later, in 2013, a watershed year for maternal and infant health in Ohio, State Senators Shannon Jones and Charleta Tavares toured Ohio to learn from existing programs. They found public health home visiting programs were the primary intervention and were underutilized. During their fact-finding, they publicized the high rates of Black infant deaths and called it unjust and immoral.[59] This led to the creation of the Ohio Infant Mortality Commission and later passage of (Jones-Tavares) SB 332 to address some of the inequities including better support for housing, transportation and education.[60]

In Cincinnati, physicians caring for the high numbers of premature births in their NICUs met with civic leaders to form Cradle Cincinnati.[61] They focused resources on specific neighborhoods near the University of

Cincinnati Hospital where Black infants were often born premature and died.

Governor John Kasich in 2014 expanded Medicaid under the Affordable Care Act to give women living at or below 138% of the federal poverty level insurance to allow for treatment of medical conditions before, during, and after pregnancy.[62] When Kasich signed SB 332, he coupled it with $26 million to fund community collaboratives, including Cradle Cincinnati, CelebrateOne in Columbus, and First Year Cleveland.

In the same year, Mayor Andrew Ginther led a Greater Columbus task force to examine and correct the city's high rates of infant mortality and disparities. This resulted in the formation of CelebrateOne [63] with ambitious goals supported and funded by the 4 Central Ohio hospital systems, the state Medicaid program, local philanthropy, and Franklin County.

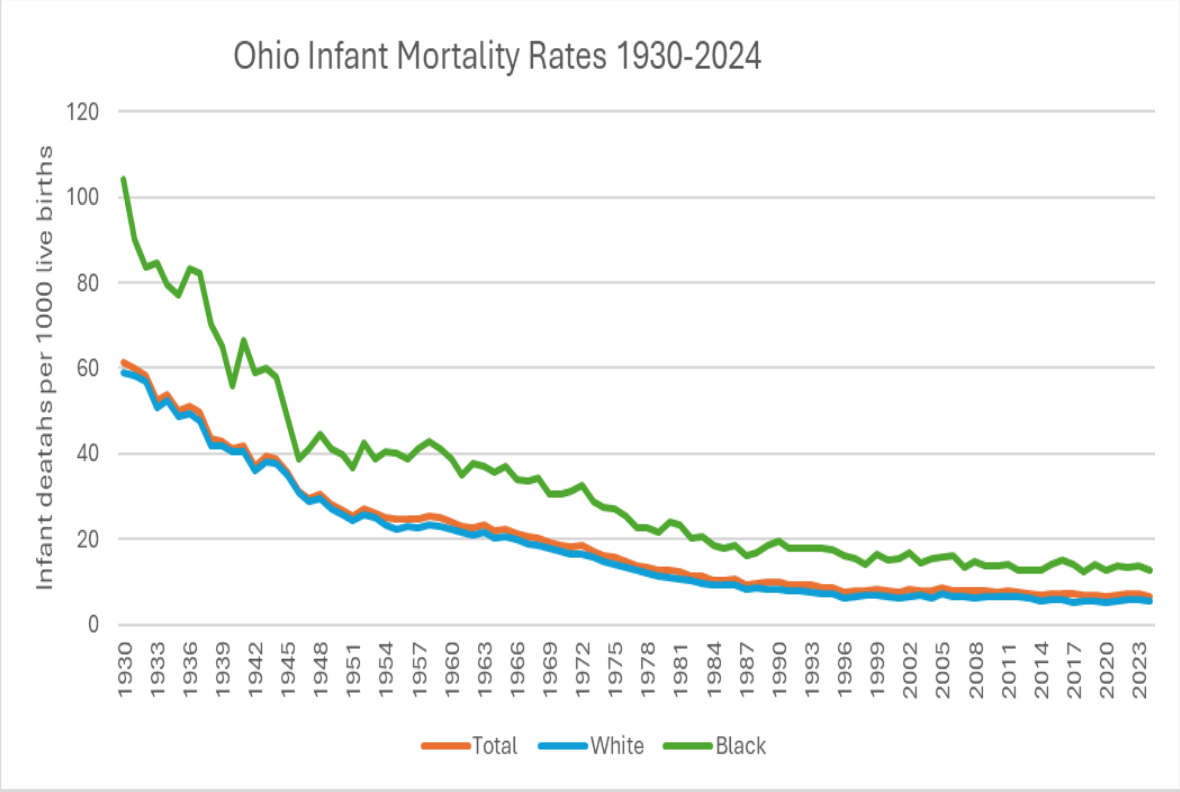
Over the past 10 years CelebrateOne has followed the ecosocial approach as advocated by Krieger and others focusing on the Columbus neighborhoods with the highest rates of Black infant deaths. Four of these neighborhoods have been transformed by investments from Nationwide Children's Hospital and the Ohio State University Wexner Medical Center.[64] Together with community advisory councils they have rehabilitated houses, supported home ownership, improved transportation, collaborated with CelebrateOne in collecting data, supported community health workers, doulas, and local baby showers, promoted the critical roles of fathers with a Dads2B program, and opened a Healthy Community Center.

Governor Mike DeWine has been a strong advocate for all of the efforts to improve maternal and infant health. In 2022 his Department of Health issued the latest task force report: Eliminating Disparities in Infant Mortality with a detailed action plan. First and foremost, it called for investment in community-based solutions.[65] With a statewide focus on achieving equity, Ohio's maternal and infant health has improved, and Black-White disparities have narrowed (Figure 14).

Adding direct cash payments to families with children and paid maternity leave would help to close the disparities gap. Ohio shared good news in its latest data from 2024. The infant mortality rate declined to 6.5 for the state, and both Cradle Cincinnati in Hamilton County and CelebrateOne in Franklin County reported a record low Black infant mortality rate.[66]

In summary, a list of significant events in Ohio's history and their impact on maternal and infant health is shown in Table 1.

Figure 14. Line Graph Ohio Infant Mortality Rates 1930-2024



Note: Ohio's annual infant mortality rates declined from 1930 to 2024.

Table 1. Events in Ohio's History and Impact on Maternal and Infant Health

Time period	Event	Impact on Maternal and Infant Health
1890s-early 1900s	The Great Migration from harsh conditions in the South brings freed slaves and children born to slaves to Ohio. Over 100 000 African Americans now live in Ohio. Infant mortality rates (IMR) were known to reflect living conditions.	Black families welcomed at first into Ohio; then segregated into poor urban living conditions, face structural racism. Both mothers and infants died at high rates. Infants died from dysentery, diarrhea, other infectious diseases. Mothers died from puerperal infections, hemorrhage and severe hypertension.
1910-1930s Great Depression began in 1929.	Water purification, public health measures, education, reduce IMR in pre-antibiotic era. Racial hostility rises in Ohio.	Vital statistics show Black population death rates1.5 times higher than White rates. Prematurity, congenital disorders, and infections cause infant deaths. US Children's Bureau ties IMR to poverty.
1936-1950s WWII ended in 1945.	Penicillin discovered in the mid-1940s becomes lifesaving. Government backed loans lifted families out of depression. White families gained homes and wealth; most Black families rented.	Maternal health in Ohio ranked among the best. Death rates from infection fell. Better prenatal care to improve maternal health; treatment for hypertension, blood transfusions for hemorrhage. Living conditions improve, physicians better trained. Disparity ratio worsens.
1950-1970s Ohio Civil Rights Commission (CRC) formed in 1959.	More antibiotics are available, Ohio has high quality medical care, better living conditions, and prosperity. CRC finds overt widespread discrimination.	Maternal and infant death rates decline rapidly, and Ohio ranks among the best states. Prematurity, disorders, respiratory distress syndrome, SIDS lead causes of deaths. Black-White disparity ratio climbs to over 2.5.
1970-2000 The Rust Belt Era began and continues.	Factories close, Ohio economy hit hard; per-capita income sinks to below the national average; 28% of Black and 10% of White families live in poverty. In the ecosocial model, racism causes stress, increased allostatic load, hypertension, premature aging, and death.	Maternal and infant mortality rates decrease slowly for all Ohioans, but disparities persist. Black mothers age prematurely, with more hypertension, metabolic diseases. More Black infants are born prematurely and at low birth weights. Midwestern states all have high Black IMR.
2000-2025	Ohio's governors, legislators, physicians and civic leaders vow to correct unjust disparities. City collaboratives improve medical care and neighborhood living conditions for Black families.	Infant and maternal mortality rates improve, but disparities persist. In 2024, Hamilton County and Franklin County, after decades of community investments, reach historically low Black infant mortality rate.

CONCLUSION

All Black Americans, including those living in Ohio, have endured centuries of structural racism manifested in poor living conditions, poverty, and persistent disparities in Black-White maternal and infant death rates. Medical advances and better living conditions have led to marked overall improvement in maternal and infant health and a sharp decline in death rates. However, generations of stressful conditions, especially poverty, have caused Black women to age prematurely, affecting their health and their pregnancies. Adverse living conditions have existed for generations in Ohio's major cities. Neighborhoods red-lined in 1936 still have high social vulnerability in 2022. To correct these longstanding inequities, community collaboratives have formed in Ohio's urban counties to address racism in vulnerable neighborhoods by improving housing, living conditions, social support, and connection to medical care. Ohio ended 2024 with a record low infant mortality rate of 6.5/1000 live births, and both Hamilton County and Franklin County reported their Black infant mortality rate had reached a historic low.

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