

Ring the Alarm: Black Maternal Health Crisis Supporting the Need for Investment in Ohio's Youngest Black Children and their Families



Report: July 20, 2023



The first three years of a child’s life are a critical period of brain development and build the foundation for all future learning, social and relationship skills, physical development, and health. BCDI-Ohio’s vision for Black babies (infants and toddlers age 0 to 3) and their families is to provide the strong foundation for every Black child to thrive, through *Healthy Beginnings*, *Supported Families in Safe Communities*, and *Quality Early Learning*.

Ohio’s Black Prenatal to 3 Population

Black infants and toddlers (age 0 to 3) comprise 15.5% of Ohio’s youngest children, totaling nearly 63,000 of the state’s 404,275 babies in 2020.¹

The intersection of race and income in Ohio is prominent and provides important context for understanding and addressing pronounced disparities in each of the three framework areas.

- ***Nearly half of the state’s Black babies (48%) live in families with incomes below the Federal Poverty Level (FPL) -- more than twice the rate of poverty among all babies statewide (21.8%).***
- ***An additional 26% of Black infants and toddler live in families with low income (< 200% of FPL).***
- ***As many as 96% of Ohio’s Black families with babies are at or below 150% of the state median income***, who could benefit from the assistance of family-supportive programs (e.g., expanded Medicaid eligibility, WIC, SNAP, Temporary Assistance for Needy Families (TANF), to ensure their young children not only survive, but thrive.
- ***At the same time, the vast majority (93%) of Black babies in the state have at least one working parent and 48% have mothers in the workforce.*** This is likely to reflect the lack of affordable child care, limited access to publicly funded child care, the need for child care subsidy.

In this report we address the specific needs and priorities of Ohio’s Black infants, toddlers, and families – many of whom live in historically disinvested communities – within the three framework areas that enable young children to reach their full potential.

I. HEALTHY BEGINNINGS

A healthy beginning **starts before birth**. To improve chances for a **strong start** in life, we must ensure that infants, toddlers and families experience healthy births and subsequent optimal health and development.

BCDI Ohio's priorities for Healthy Beginnings include ensuring Black pregnant women early access to culturally responsive prenatal and postpartum health care, addressing the crisis of Black maternal mortality, reducing the disproportionately high incidence of babies born at low birthweight, and ensuring access to infant and early childhood mental health (IECMH) services.

The foundation for Black babies' health and development begins with the health of their expectant parents before, during, and after pregnancy. Yet, due to inequities in access to affordable, responsive, high quality health care, and biases encountered during receipt of care, Black women and birthing people endure the highest rates of negative maternal health and birth outcomes in the state (e.g., maternal mortal, babies born at low birthweight).¹

The crisis in maternal and infant health continues throughout the nation and Ohio, due in large part to disparities in access to health care coverage among Black expectant parents and systemic discrimination experienced in their receipt of care (e.g., medical providers' lack of responsiveness to expressed health concerns of Black patients due to the implicit bias).^{ii iii}

Research further shows that the stark disparities in Black maternal mortality and morbidity (e.g., gestational diabetes, preeclampsia, hemorrhaging), infant mortality, premature births, and low birthweight are experienced by Black women and birthing parents at all income and education levels. The significant role of race in maternal health disparities makes the call for intentional, culturally responsive policy and practice solutions (e.g., Medicaid reimbursement for doula services) even more urgent.

Supporting data -- Black maternal and infant health in Ohio:

- **1 in 11 Black expectant parents (8.6%) received late or no prenatal care;** nearly 1.5 times the state average for all expectant parents (6.0%) and 1.7 times the rate among White expectant parents (5.0%).^{iv}
- The latest publicly available data from the Ohio Department of Health reports **the maternal mortality rate for Black mothers was 29.5 deaths per 100,000 live births in the period from 2008-2016, 2 times the state rate of 14.7; and nearly 3 times the rate among White mothers (11.5).**^v
- More recent data from the Ohio Department of Health reflects a steady decline in Black infant mortality in the past decade, a goal of the State Health Improvement Plan, however disparities persist. **Although the Black infant mortality rate declined to 13.6 deaths per 1,000 live births in 2020, it was approximately 2 times the state rate of 6.7; and nearly 3 times the rate among White infants (5.1).**^{vi}
- The incidence of **Black women giving birth to a baby with low birthweight (13.9%) was 1.3 times higher than the state average of 8.6%; and approximately 2 times the rate among White women (7.2%) in the state.**

¹ Note: Data not available for the rates of late/no prenatal care among American Indian/Alaska Native women in Ohio.

- Research indicates the physiological effects of experiences of racism (e.g., heightened cortisol levels, suppressed immunity) contribute to the increased likelihood that Black women will give birth to babies with low birthweight.^{vii}
- In addition to physical effects, low birthweight can have early and long-term impacts on young children’s cognitive development, behaviors, social-emotional well-being, and school readiness.^{viii,ix}
- **1 in 7 Black babies (14.1%) in Ohio were born preterm (before 37 weeks gestation), exceeding the state average of 1 in 10 babies (10.5%) and 9.6% White babies.**

What are the Black underutilized solutions/strategies for addressing this issue...

- Strategies to eliminate persistent maternal health and birth outcome disparities must be rooted in understanding, respecting, and addressing the unique barriers Black families encounter that contribute to these persistent health disparities. Because the inequities are deeply rooted in race and culture, solutions must be informed by the impacted community members (i.e., their needs, fears, and preferences for positive pregnancy and birth experiences).
- Research demonstrates that maternal health and birth outcomes are significantly improved for Black women and birthing parents who have the trusted support, guidance, and advocacy for their care of doulas from within their community.
 - National data finds that ***doula-assisted mothers were 4 times less likely to have a low birthweight baby, and 2 times less likely to experience a birth complication involving themselves or their baby.***^x
 - A growing number of Black expectant parents are choosing the culturally responsive care of doulas who support them in their pregnancies and birthing experience. Doula care offers pregnant women and birthing parents someone with whom they can identify culturally and who understands the challenges Black women face in having their voices respected in traditional obstetrical care and delivery settings.
 - Supporting parents in advocating for themselves by providing resources, such as *Protecting Your Birth: A Guide for Black Mothers*^{xi} are an additional avenue for improving their delivery experience.
- Expanded, innovative channels for outreach to expectant parents in underserved communities (e.g., through schools, churches, grocers, beauticians) to educate and connect them with local health providers.
- Community-based research to more fully determine expectant parents’ challenges and needs related to access to health care (Medicaid, insurance), providers (particularly Black and culturally aligned health care providers and doulas), and early and consistent care throughout their pregnancy.

Development of children’s mental health begins in the sensitive prenatal period and the formative first three years of rapid brain development; and is fostered through safe, stable relationships and environments. Protecting the mental health of Black infants and toddler occurs through nurturing, affirming relationships with their parents and caregivers. For some young Black children, the additional support of parent-child therapies can help set babies on course for positive mental health development.

- Increased access to early and continuous quality health care is essential, beginning no later than the first trimester of pregnancy, helps set the foundation for positive mental health.^{xii}
- National Survey of Children’s Health (NSCH) 2016-2019 data corroborate that mental health is an issue of serious concern for parents of young children in Ohio. ***As many as 1 in 3 (31.7%) infants and toddlers in the state have mothers who report less than optimal mental health*** – the second highest percentage in the nation. Although the data are not available to reliably report for Black mothers, findings by income show that ***46.7% of Ohio’s babies in families with low income or in poverty have mothers who feel their mental health is less than optimal; and Black infants are disproportionately more likely to live in families with lower incomes.***

Importantly, the state Medicaid plan recommends maternal depression screen during babies’ well-child visits and covers social-emotional screening of infants and toddlers. IECMH services are covered by Medicaid in multiple settings (i.e., within the homes, pediatric/family medicine practices, and in ECE settings).^{xiii}

NUTRITION

Black babies whose parents and caregivers receive nutrition education and introduce them to fruits and vegetables at an early age. Exposure to nutritious food as infants and toddlers makes it more likely that they will include fruits and vegetables in their food preferences when they reach their preschool years^{xiv} and sets the stage for a quality diet later in life.

Due to economic disparities, Ohio’s Black babies are more likely to live in urban or rural food deserts without grocery stores in their neighborhoods that offer a variety of nutritious foods, including healthy whole-grain foods, dairy products, fresh fruits and vegetables.^{xv,xvi} The high cost of fresh, quality foods makes it difficult for many of the state’s Black households with young children to be food secure and have the peace of mind that they can consistently feed all members of their families.^{xvii}

Supporting data -- Food security among Ohio’s Black families with babies:

- Black households with young children in the United States experience food insecurity at rates higher than most other households.^{xviii} In 2021, ***as many as 1 in 7 babies***

(14.1%) in Ohio live in families with food insecurity. Although, the data cannot be reliably reported for Black families with young children in the state, the rate is reportable and significantly lower than the state average among White babies (6.0%).

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- Children facing food insecurity are sick more often, and more likely to be hospitalized. They can suffer growth impairment that precludes them from reaching their full physical potential. They can incur developmental impairments that limit their physical, intellectual and emotional development.

What are the Black underutilized solutions/strategies for addressing this issue?...

- Promising strategies to help reduce food insecurity include strengthening Black families' connections to existing federal food and nutrition programs and training health care providers to screen for food insecurity and refer families to the appropriate resources.^{xx}
- Deploying NBCDI-approved nutrition and wellness programs, such as *Good for Me!*, to families in historically disinvested neighborhoods.
- As seen during the COVID pandemic, expanding opportunities for families with young children to receive direct food assistance through child care programs, public schools, and community-based programs can ensure nutritious meals are available to Black families with young children. This is particularly important during periods when families are likely to experience the most food insecurity (e.g., after-school, on weekends, and during summer vacation).

II. SUPPORTED FAMILIES IN SAFE COMMUNITIES

Supported families in safe communities can flourish in nurturing, responsive relationships that fundamentally shape how a child's brain develops. Building a strong infrastructure of coordinated supports can help meet the range of needs that families may have.

ENVIRONMENT

The E. Palestine train derailment and industrial accidents in Ohio in the past year alone make clear the dangers of exposures to air, water and soil toxins, particularly for families living in proximity to major industrial plants, freight lines, and highways. As a result of historic redlining and housing discrimination, Black families with young children are more likely to live in urban communities where the air contains toxic particles or pollutants and water contains contaminants. These exposures place Black expectant parents and babies, particularly those in disinvested communities with older or dilapidated infrastructure, at risk for negative health impacts and developmental delay.

Supporting data – Environmental effects among Ohio’s Black families with babies

- According to the Ohio Department of Development, most Black families in Ohio live in urban areas, with more than one third of the state’s Black population living in the cities of Cincinnati, Cleveland, or Columbus.^{xxi}
- Mapping of Ohio’s areas of high environmental risk reflects a correlation between areas of high toxic releases to the air, lead paint, traffic proximity, and other toxins and areas with high concentrations of Black families in poverty.^{xxii}
- Air pollution is linked with miscarriage, low birth weight, and preterm birth and future developmental complications with the brain, lungs, and heart.^{xxiii}
- Prenatal lead exposure from contaminated water can increase the risk of low birth weight, and even low-level exposure can cause a variety of adverse effects on children, including permanent damage to the nervous system, behavior and learning disabilities, impaired hearing and impaired function of blood cells.^{xxiv}
- Young Black children living in housing and neighborhoods with lead exposure can experience related elevated blood lead levels as well as neuropsychological, heart, and respiratory development complications.^{xxv,xxvi}

The significance of lead exposure in Ohio cannot be overstated. The negative effects of lead have particularly impacted cities in Ohio because the state has the second highest lead levels in the United States. ***Based on a housing inventory conducted by the Ohio Department of Health’s (ODH’s) Ohio Healthy Homes and Lead Poisoning Prevention Program, more than 67% of all housing units in Ohio were built before 1980 and are likely to contain some lead-based paint on interior and/or exterior surfaces, and in the pipes carrying the main water supply.*** According to a new survey from the Natural Resources Defense Council (NRDC), ***Ohio has 650,000 lead pipes delivering water to homes statewide, the second highest number of any state in the nation.*** Ohio also has the second-highest number of lead lines per capita nationwide (at 5,509 lead lines per 100,000 people).

In 2012 and 2017, JAMA Pediatrics found that 5.2 % of children in Ohio had lead levels in their blood, more than twice the national rate (1.9%). BCDI Ohio seeks to identify and address the public health crises of lead poisoning and contamination that have disproportionately impacted Ohio's low-income, rural, and urban communities of color. The alarming statistics in the state of Ohio sparked a moral imperative for NBCDI and BCDI Ohio, to join forces to assist families across Ohio with combatting the palpable threat caused by lead poisoning and contamination. Special focus must be placed on the following five municipalities in Ohio (1) Northeast Ohio, which consists of metro Cleveland; (2) Dayton and Cincinnati, which are juxtaposed 50 miles apart; (3) Columbus; (4) Toledo; and (5) Youngstown and East Palestine, which are rural communities juxtaposed 20 miles apart.

An in-depth review of the selected Ohio municipalities (provided in Appendix A) outlines how the underserved constituents in these cities are disproportionately and directly impacted by the

public health crisis caused by lead. Additionally, focus must be placed on zip codes identified by the Ohio Department of Health as high risk for lead contamination. The high-risk lead contamination designation was based on high socioeconomic and environmental risk factors that demonstrate the prevalence of lead exposure. Those factors include the age of housing units (with a critical marker of housing built before 1978), high poverty, concentrated ethnicity, and NDRC's identification of the 650,000 lead pipes in Ohio that deliver water to homes statewide.

The following chart is an aggregate of the demographic breakdown of 38 high-risk zip codes for the selected municipalities, which includes ten zip codes in Northeast Ohio (metro Cleveland); seven zip codes in Dayton and Cincinnati; six zip codes in Toledo; 10 zip codes in Columbus; and five zip codes in East Palestine and Youngstown. In alignment with the national indicators and risk factors for lead contamination, the chart reveals that each municipality has 77% or more housing units built before 1978, is over 50% persons of color, and has a median household income close to or at the poverty level.

Table 1: BCDI-Ohio target populations for lead:

Aggregate Data for:	NE Ohio (Cleveland) 10 zip codes	Dayton & Cincinnati 7 zip codes	Columbus 10 zip codes	Toledo 6 zip codes	Youngstown & East Palestine 6 zip codes
Housing Units	16,650	7,855	11,809	8,169	3,330
% Built before 1978	90	88	77.2	92	94
Median HH Income	\$30,300	\$29,571	\$20,800	\$24,333	\$19,800
Population	34,463	14,840	24,679	17,245	6,650
% Black	55.3	42.8	36.2	39.6	50.4
% White	38.7	52.3	55	39.7	38.9
% Asian	1.3	1.1	3.0	0.7	0.1
% Other Race	2.2	1.1	2.7	3.5	6.0
% Two+ Races	2.3	2.5	3.5	4.3	4.2

Based on EPA's EJSCREEN's lead paint national percentiles, eight of the ten targeted zip codes in Cleveland currently rank in the 95-100 percentile, and two rank in the 80-90 percentile. For

Dayton and Cincinnati, all seven targeted zip codes rank in the 95-100 percentile. For Columbus, six of the ten targeted zip codes rank in the 90-95 percentile, and four of the targeted zip code rank in the 80-90 percentile. For Toledo, all six of the targeted zip codes rank in the 95-100 percentile. For Youngstown and East Palestine, four of the five targeted zip codes rank in the 95-100 percentile, and one rank in the 80-90 percentile.

As an important backdrop to the high levels of lead throughout Ohio, for 153 years, Cleveland has been home to Sherwin-Williams, the largest paint manufacturer in the United States and the second largest paint manufacturer in the world, with more than 3000 stores globally. The paint company opened in the heart of the city in 1866 when Henry Sherwin moved to Cleveland and invested his savings into the Truman Dunham Company of Ohio, which later became Sherwin Williams. However, over a century before Sherwin Williams opened, lead began to be used in paint. So following suit with a century of trends, Sherwin Williams used lead in its paint due to the high demand because lead-based paint was affordable, washable, and durable. In fact, lead-based paint was repeatedly endorsed by state and local governments. It was even specified for preferred use on government buildings.

As noted above, detailed summaries of the reviews conducted in five can be viewed in Appendix A.

What are the Black underutilized solutions/strategies for addressing this issue?...

- Addressing environmental inequality by convening with climate and environmental justice experts to advocate for equity in air and water quality impacting Black communities
- Strategizing with local community leaders and develop a plan to advocate for stricter regulations in industrial districts to reduce the carbon emissions filtering into Black communities

SAFE COMMUNITIES

It is vital for Black babies and their families to live in an uplifting community that allows their infants and toddlers to play, explore, and thrive. As the majority of Ohio's Black population lives in urban areas, Black infants and toddlers in these communities can gain physical and social-emotional benefits from having green spaces in their neighborhoods and communities where they can engage in recreation and exploration.^{xxvii} ***Black babies are also more likely to live in neighborhoods that lack amenities associated with children's healthy development and well-being*** such as safe walking paths, recreation centers, parks and playgrounds, and libraries—a legacy of [residential segregation](#) and other [racial and environmental inequities](#).^{xxviii} Most importantly, as the incidence of gun violence increases throughout the country, Black parents of young children require the peace of mind of knowing that their babies are safe.^{xxix}

Supporting data – Safe communities and Ohio’s Black families with babies

- As many as **5.5% of all parents with babies in Ohio report living in a neighborhood that they feel is unsafe for their child**, similar to the national picture of 5.2%.^{xxx} Although data specific to Black families with babies cannot be reliably reported, a similar percentage (4.8%) of parents of babies with low income or in poverty report their neighborhood is not safe. Black families in the state are disproportionately more likely to have low income or live in poverty in the state and therefore among those families living in neighborhoods they feel are unsafe.
- As reported by the Children’s Defense fund, **gun violence, which disproportionately impacts communities of color, is the number one cause of death for children ages 1-19.**
 - Half of all child and teen gun deaths in 2021 occurred in just 10 states,² Ohio was among them with 221 deaths.^{xxxii}

What are the Black underutilized solutions/strategies for addressing this issue?...

- Imploring housing developers to see the importance of providing safe areas for children and families to socialize, play, and thrive.
- Identifying resources for families in rural, suburban, and urban communities; acknowledging the unique experiences of Black families in each region; and creating community-based strategies to improve their neighborhood safety conditions.
- Advocating for meaningful gun control reforms, including banning assault rifles, and reversing open and concealed carry laws that worsen the violence present in Black communities and further jeopardize the lives of Black children and their families.

III. Early Care and Learning

EDUCATION

Every Black baby in Ohio should have the opportunity to participate in an early learning experience that supports who they are and can be. Children engaged in quality early childhood education (ECE) and child care settings gain critical cognitive, social interaction, and social-emotional skills that provide the foundation for subsequent learning (e.g., such as letter and number recognition, group play, and classroom routines). While identity formation of young Black children begins at home, shaped to a great extent by their parents, their sense of identity and self-worth is advanced in ECE settings that provide ample opportunities for them to “see themselves” in books, educational materials, and classroom experiences that reflect and celebrate their culture.^{xxxii}

² Texas, California, Illinois, Georgia, Florida, Ohio, North Carolina, Louisiana, Pennsylvania, and Missouri

Despite the benefits of ECE, the COVID-19 pandemic further limited the access that parents of young Black children had to affordable, quality care and early learning programs. Importantly, the teacher shortage also decreased the number of Black educators who are culturally-attuned and able to affirm the identities of infants and toddlers. And the prohibitively high costs of child care, particularly for infants and toddlers continues to keep quality early learning experiences out of reach for many Black parents. Opportunities for detection of developmental delays and early intervention programs are also important to ensure every child can fulfill their full potential.

Supporting data – Early care and learning for young Black children in Ohio

As reported in the 2022 *State of Babies Yearbook* report:

- ***The cost of infant care in Ohio falls above the recommended limit of 7% of family income. The cost for two parent families was 10.3% of the State Median Income (SMI) and 39.9% of SMI for single-parent families.***
- ***Only 12% of Ohio's income-eligible infants and toddlers were enrolled in Early Head Start***
- ***Only 4.3% of the state's low/moderate income infants and toddlers were enrolled in CCDF funded-care***
- ***The state does not allow families above 200% of FPL to be eligible for child care subsidy***
- ***Ohio does not reimburse center-based child care***

- ***Only 1 in 3 (33.8%) of the state's infants and toddlers received a developmental screening; and children at risk for developmental delay were not included in Part C eligibility.***

What are the Black underutilized solutions/strategies for addressing this issue?...

- Recruitment and training of Black educators to teach in predominantly Black early learning programs.
- Encouraging Black college students to become ECE teachers, particularly Black males to teach in ECE settings.

Despite facing many challenges, young Black children and their families continue to prove their ability to lead happy lives —achieving everyday milestones and great things. In many ways, their success can be attributed to the unwavering support of their families and communities who provide them with the necessary love and guidance to navigate a world that often

marginalizes them and threatens their very existence. They deserve access to the same safety, opportunity and support as all children; it is our responsibility to work together and make it possible. This requires a collective effort from individuals, communities, governments, and other institutions to promote an equitable and justice future for Ohio's Black babies.

Appendix A.

A more in-depth review of Cleveland (NE Ohio) reveals the following. In 2014, 10.22%—nearly half—of children in Ohio with elevated blood-lead levels (EBLLs) lived in Cuyahoga County, which is home to Cleveland. The percentage designated Cuyahoga County as having the highest percentage of tested children with EBLLs in 2014. Underserved communities of color in Metro Cleveland have been disproportionately impacted by high lead levels, which have caused irreversible harm to several generations of its citizens dating back to the late 1800s. Based on research gathered by Case Western Reserve University's (CWRU) School of Applied Social Sciences, Cleveland is an unfortunate example of the public health crisis posed by lead exposure. The School of Applied Social Sciences (SASS) provides research and data to lead safe initiatives in Cleveland and maintains an interactive dashboard tracking the progress of those initiatives. SASS found that Cleveland lags behind in successfully implementing its lead initiatives. A study conducted by the Cleveland Clinic found that Cleveland's lead poisoning rates are almost four times the national average. In 2022, the Pulitzer Center on Crisis Reporting (PCCR), a publication that raises awareness of underreported global issues, reported extensively on lead issues in Ohio. According to PCCR, the most consequential cause of lead poisoning is exposure to lead-based paint and leaded dust. Chipping, peeling, or deteriorating paint in an older home is a visible sign of potential lead exposure. Given this, the risk of lead exposure remains a particularly high and substantial threat in Cleveland because over 90% of the housing in Cleveland was built before 1978, the year lead-based paint was banned.

A more in-depth review of Dayton and Cincinnati reveals the following. In 2021, Dayton had the highest number of confirmed cases of lead poisoning in the state. Since 2016 approximately 125 kids in Montgomery County, which includes the city of Dayton, tested with elevated blood-lead levels. According to Cincinnati-based nonprofit People Working Cooperatively (PWC), three out of four homes in Hamilton County—home to Cincinnati—may contain lead-based paint, with more than 30,000 children living in these homes. In 2014, the Hamilton County Department of Public Health found that 390 (2.36%) of 16,527 children tested for lead poisoning had elevated blood-lead levels. Greater Cincinnati Water Works' found 39,500 lead lines in its 800-square mile service area, with more than 35,000 of those within Cincinnati limits. Based on analysis by Community Matters, a local Cincinnati nonprofit, in 2019, the Cincinnati Health Department identified 321 local children with elevated lead levels in their blood.

A more in-depth review of Toledo reveals the following. Toledo passed its current lead ordinance in 2020, which targets 1-4 unit rentals. However, a lawsuit filed in June 2022 has indefinitely delayed the enforcement of the ordinance. According to the Toledo Lead Poisoning Prevention Coalition (TLPPC), only 2,800 housing units in Toledo have obtained lead-safe certificates out of about a possible 40,000. Overall, TLPPC, in collaboration with The Ohio State University, prepared a report that found the dangers posed to children by lead poisoning fall disproportionately on Toledo's low-income and African American populations.

A more in-depth review of Columbus reveals the following. Based on an analysis of data by the Columbus Dispatch, each year, approximately 600 children in Franklin County, Ohio (which includes the City of Columbus) are diagnosed with lead poisoning annually. According to the study, *Neighborhood-Level Lead Paint Hazard for Children under 6: A Tool for Proactive and Equitable Intervention*, most of the lead risk hazard in Franklin County, Ohio, exists within the City of Columbus, which is a direct result of Columbus' aggressive annexation policies that started in 1950. According to Danella Pettenski, Columbus Division of Water Administrator, there are 28,000 public-side lead service lines in Franklin County's water system, which is about 10% of the city's total service lines; and the projected cost to replace those lines is 1.8+ million dollars.

A more in-depth review of East Palestine and Youngstown reveals the following. Both cities are located in rural Ohio, and Environmental Protection Agency (EPA) Administrator, Mike Regan, states that based on research and data, rural communities are just as susceptible to lead contamination as urban metropolises. An analysis of data from both cities aligns with Administrator Regan's data. Based on U.S. Census Bureau data, more than 40% of Youngstown's residents are Black, 34.9% live below the poverty level, and the median household income is \$20,000, 66% lower than Ohio's median income of \$59,000. Overall, Youngstown has a child poverty rate of 54.8% and ranks as the poorest city in Ohio. According to ODH's child lead exposure data, in 2012, 0.9% of the nearly 2,700 Mahoning County (home to Youngstown) children screened for lead had blood-lead levels of at least ten micrograms per deciliter — which was considered elevated. It was the 16th highest rate among Ohio's 88 counties. Also, in 2012, ODH predicted more than 1 in 3 children in Youngstown's Warren neighborhood would have a blood-lead level of at least five micrograms per deciliter — nearly 38%, the highest probability in the county. East Palestine has approximately 2169 housing units, most built before 1947. Also, hundreds of water service lines installed before 1947 run under the city's rural roads. Based on data collected in 2017 by the Village of East Palestine's Water Department, 1105, or roughly 52.1% of East Palestine, public service lines have a moderate probability of containing lead.

Endnotes

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