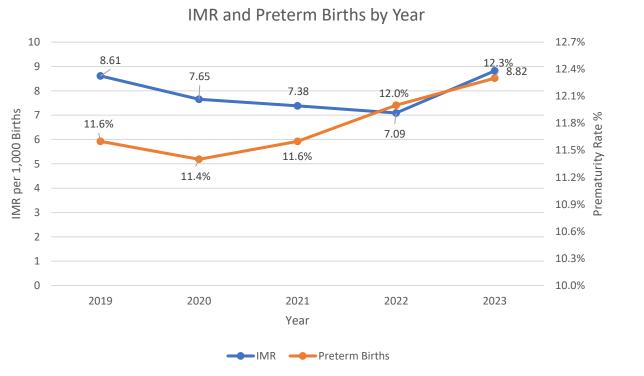
## Partnership for Change

# Data Presentation Infant Mortality in Cuyahoga County

Data sources: Cuyahoga County Board of Health, Cleveland Department of Public Health, and First Year Cleveland

2019-2023

## Two Emerging Trends in 2023: Mortality Increasing, Prematurity Climbing



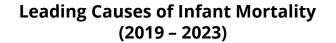
Infant mortality (per 1,000 live births) vs. Prematurity rate (%) from 2019-2023

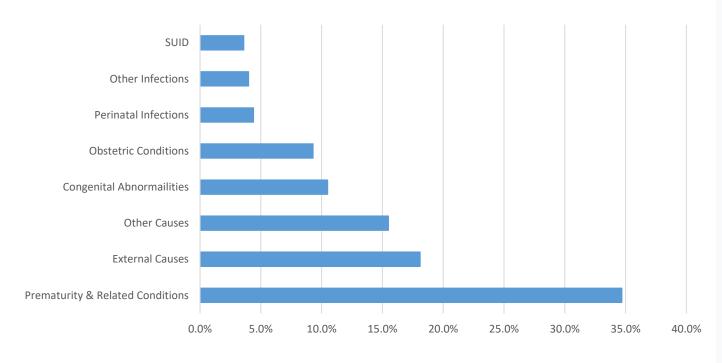
#### **Key Findings**

- 24.4% increase in infant mortality
   After steady progress, infant mortality spiked in 2023
- Steady rise in prematurity
   Both infant mortality and prematurity increased in 2023
- Connected trends emerging
   As prematurity rises, so does infant mortality

"The 2023 data reveals a concerning reversal of previous positive trends. We made real progress from 2019-2022, then lost ground dramatically. What changed?"

## The leading cause of mortality: Prematurity and Related Conditions (34.7%)





#### 1 in 3 Infant Deaths

Prematurity and related conditions are responsible for 34.7% of all infant deaths in Cuyahoga County.

#### **Prematurity-Related Causes:**

- 24.6% Short gestation/low birth weight
- 4.0% Respiratory distress
- 3.2% Cardiovascular diseases
- 1.2% Other respiratory diseases
- 1.0% Birth trauma
- 0.8% Necrotizing enterocolitis

Preventing prematurity would save more infant lives than any other single intervention. Understanding what causes prematurity is critical to reducing infant mortality.

## Why Babies Are Born Too Early: The Comprehensive Risk Factors



#### **Obstetric Conditions Risk Factors**

Among infant deaths

Incompetent cervix/premature rupture of membranes (4.6%)

Placental problems (previa, separation) (3.4%)

Multiple pregnancy (twins, triplets) (1.4%)



#### **Maternal Health Conditions**

Among births

Pre-pregnancy hypertension (7.7% in 2023)

Gestational hypertension (16.5% in 2023)

Pre-pregnancy diabetes (1.8% in 2023)

Gestational diabetes (8.5% in 2023)



#### **Pregnancy Risk Factors**

Among births

Smoking during pregnancy (3.2% in 2023)

No prenatal care in first trimester (23.5% in 2023)

Interpregnancy interval under 18 months (32% in 2023)



#### Why This Matters

Prematurity causes 1 in 3 infant deaths (34.7%) in Cuyahoga County. By addressing these underlying causes, especially hypertension and early prenatal care access, we could significantly reduce infant mortality rates and improve maternal outcomes.

## Geographic Disparities: Hypertension Clustering in Cuyahoga County

**Highest Gestational HTN** Zip Code 44117 (2019-2023)

**Highest Pre-pregnancy HTN** Zip Code 44112 (appears in both categories)

#### **Hypertension Hotspot Zip Codes:**

#### **Gestational HTN:**

**9** 44117: 20%

**9** 44108: 19%

**9** 44112: 19%

**9** 44132: 19%

**9** 44119: 18%

**9** 44103: 18%

#### **Pre-pregnancy HTN:**

44112: 9%

44137: 8%

44105: 8%

**9** 44127: 8%

44110:8%

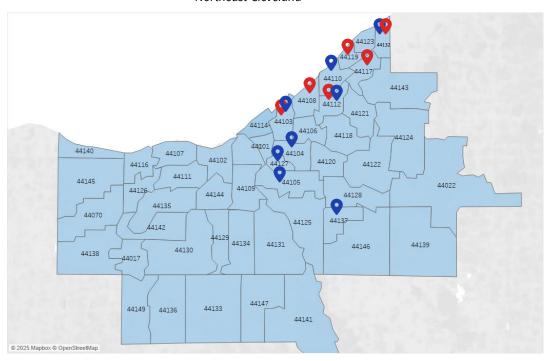
44132: 8%

**9** 44104: 8%

**9** 44103: 8%

#### **Hypertension Concentration**

Northeast Cleveland



#### Why This Matters

Hypertension (both pre-pregnancy and gestational) is concentrated in specific neighborhoods, with Zip Codes 44112, 44132 and 44103 appearing in both highrisk categories. These hotspots correlate with areas of higher prematurity and infant mortality rates. These zip codes are historically redlined and divested in, highlighting the importance of reinvestment and targeted interventions.

## **Breaking the Cycle: From Crisis to Prevention**

After steady progress from 2019-2022, we saw a 24.4% increase in infant mortality in 2023 in Cuyahoga County. We need targeted interventions where prematurity, the leading cause of infant death (34.7% of deaths), and hypertension rates are highest.

#### **Immediate take aways:**

#### **Target Hypertension in High-Risk Zip Codes**

Focus interventions in zip codes 44117, 44108, 44112, and 44132 where gestational hypertension rates reach 19-20%

#### **Improve First-Trimester Prenatal Care**

Nearly 1 in 3 Black mothers (33.9%) receive no first-trimester care, compared to 16.8% of White mothers

#### Improve Interpregnancy Interval

32% of births have a short interpregnancy interval when the recommendation is 18 months for healing

#### The Data Story: 2019-2023

2019-2022

MR down to 7.09 17.7% improvement 2022-2023

✓ IMR up to 8.82 24.4% increase



#### Prematurity's Impact

34.7% of all infant deaths

Prematurity rate increasing:  $11.4\% \rightarrow 12.3\%$  (2020-2023)

low birth weight: 24.6%



Critical Zip Codes: 44112, 44132, 44103

Appears in both pre-pregnancy and gestational hypertension hotspots, requiring targeted intervention

## **Key Driver Diagram: Cradle Cincinnati**

IM PRIMARY DRIVERS

June 2025

In 5 years/By December 31, 2030, \_\_\_\_\_[insert County or name of region] will activate the framework necessary to achieve a reduction of [each county will insert 3 SD below baseline of 12 month rolling average] in total infant mortality, with a specific focus on reducing Black infant mortality by \_\_\_\_[insert specific Black IMR number].

### BACKBONE ORGANIZATION TO LEAD THE WORK

Elevate local backbone organizations to align partners in change efforts

## DATA TRANSPARENCY & INTERVENTION SELECTION

Transparently and effectively share data to create actionable interventions to guide decision making

#### CENTERED COMMUNITY VOICES

Co-create with Queens Village to reinforce community voices as experts

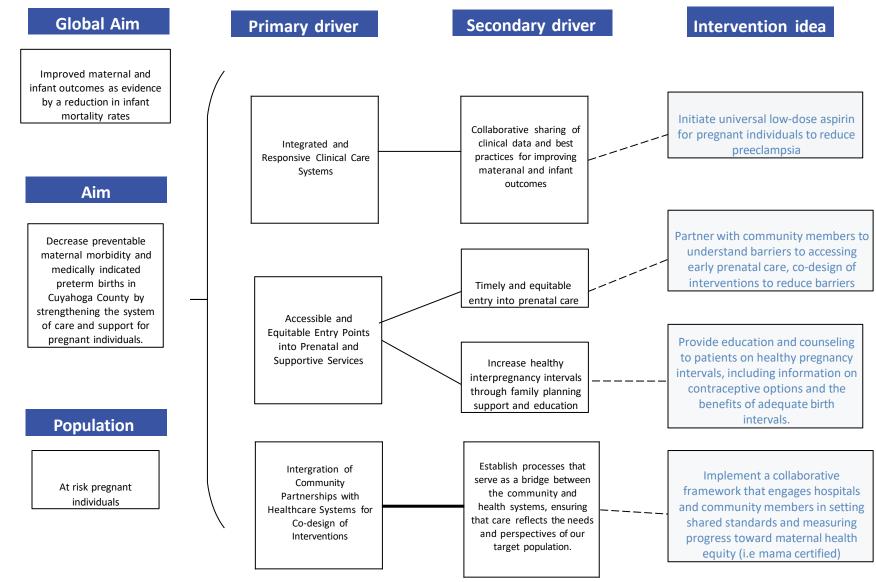
INTER-INSTITUTIONAL HEALTHCARE LEARNING COLLABORATIVE TO IMPROVE OUTCOMES FOR BABIES AND MAMAS

COLLECTIVE CULTURE OF TRUST, SHARED POWER, AND FOCUS ACROSS GEOGRAPHY

#### SECONDARY DRIVERS

- Manage local learning collaborative network/collective impact work
- Elevate community voices to engage in solutions (patients, providers, policymakers, local gov representatives, etc.)
- · Form multi-level stakeholder teams for cross-sector collaboration
- Ensure community is heard and part of shaping solutions
- · Manage frequent communications
- · Staff a dedicated team to focus on infant mortality efforts
- · Establish county-level data infrastructure
- Review infant mortality data monthly (internal)
- Collectively understand how and what data are shared and why
- Conduct thoughtful review of data that understands realities of impacted families (external)
- Use data to advance collective efforts towards system change, ex. Mama Certified
- Reduce Black women's stress by creating spaces for relaxation, rest, and empowerment
- Change the narrative about Black women through spaces and content created by and for Black women, celebrating and amplifying their voices
- Invest in Black women's leadership by building social capital and community power through advisory boards
- Promote economic and professional growth for Black women's success and flourishing
- Engage social, political, and medical communities to advocate for equity initiatives and address implicit biases impacting Black women
- Facilitate regular, structured learning sessions where care teams and health leaders exchange insights, review data, and adapt practices in real time.
- Use shared data systems to identify trends, track progress, and guide contextspecific interventions that improve maternal and infant health outcomes.
- · Create culture of continuous learning, innovation and collaboration
- · Celebrate successes and wins
- · Share power through active listening
- · Create shared goal that can be clearly articulated by the entire county
- · Ensure continuous engagement to build trust

## **Key Driver Diagram: Partnership for Change**



Note: Intervention ideas shown are preliminary and subject to refinement or additional input

## **Designing for Impact: Group Reflection Activity**

## **Prompt**

Purpose

1. What's getting in the way of better outcomes in this area?

Identify root causes and pain points.

2. What's already working or showing promise (locally or elsewhere)?

Build on what exists.

3. What is one idea that could make a real difference in this area?

Co-create an intervention.