

# HEALTH

## Community Level Goal

Improve Family and Infant Health and Reduce Racial and Economic Disparities in Related Indicators

**Key Indicator:** Regional Infant Mortality Rate

**Target:** Improvement of Infant Mortality Rates in families of color and low-income families, resulting in a regional Infant Mortality Rate of 6.0 by 2025.

<b>Strategic Health Priorities</b>	<b>Physical, Mental, and Behavioral Health for Family &amp; Infant</b>	<b>Strategies</b>
		Home Visiting Programming
		Community Health Workers
		Integrated Medical Care & Case Management (including Dental Care)
		Mental Health Treatment
		Substance Abuse Intervention and Treatment (including Smoking Cessation)
		Child Abuse & Neglect Prevention and Counseling
		Nutrition & Lifestyle Supports for Healthy Pregnancies and Breastfeeding
		<b>Indicators</b>
		# and % of Infants Served That Meet Healthy Birth Weight Criteria (Between 5.5 lbs. and 8.8 lbs.)
		# and % of Infants Served That Reach Full Gestational Term (39+ Weeks)
		# and % of Individuals Served Who Received Intermediate, Adequate, or Better Prenatal Care (Measured By Adequacy of Prenatal Care Utilization Index (APNCU), Kessner Index, or Kotelchuck Index)
		# and % of Women Receiving Regular Bi-Annual Dental Care During Pregnancy
		# and % of Women Served That Attend 6 Week Postpartum Appointment
		# and % of Children Served Showing On Track Development as Indicated by Ages & Stages Questionnaire (ASQ-3) or Ages & Stages Questionnaire: Social Emotional (ASQ-SE2)
		# and % of Children Served That are Fully Immunized (at 19-35 Months) (4:3:1:3:3:1:4 Series)
		# and % of Individuals Served That Demonstrate Improved Mental/Social Emotional Health As Measured By a Valid, Reliable, and Evidence-based Assessment Tool (e.g. Global Assessment of Functioning (GAF), WHO Disability Assessment Schedule (WHODAS 2.0), Daily Living Activities-20 (DLA-20))
	# and % of Individuals Served That Demonstrate Improved Substance Abuse Outcomes As Measured By a Valid, Reliable, and Evidence-based Assessment Tool (e.g. Addiction Severity Index (ASI))	
	# and % of Individuals Served That Demonstrate Improved Family Functioning As Measured By a Valid, Reliable, and Evidence-based Assessment Tool (e.g. Family Empowerment Scale)	
	# and % of Families Served That Are Successfully Reunified	
	# and % of Families Served Remaining Intact 12 Months Post Intervention	
	# and % of Participants Served That Achieve Positive Change in Body Mass Index (BMI) Scores	
	# and % of Women Served That Initiate Breastfeeding	
	# and % of Women Served Who Continue to Breastfeed at 6 Months Postpartum	
	<b>Strategies</b>	<b>Awareness, Education &amp; Engagement</b>
	Infant Health Education for Parents and Caretakers (including Safe Sleep)	
	Birth and Post Partum Doula Services	
	Community Awareness/Education (including Anti-Racism/Anti-Bias Training)	
<b>Indicators</b>		
Knowledge Attainment/Behavior Change Measured Via Pre and Post Tests		
# and % of Pregnant Mothers Reporting Positive Birth Experiences, Improved Ability to Self-Advocate for Care, and/or Confidence in Parenting		
# and % of Individuals Served/Reached That Enroll in Additional Community/Health Program(s)		

**UWBCKR has a special interest in equity and the reduction of economic and racial disparities in systems and outcomes. Therefore, programmatic elements that intentionally address these issues are encouraged, including but not limited to:**

- Anti-bias training and assessment
- Inclusive supports (e.g. multi-lingual service provision, non-traditional communication methods, transportation provision)
- Neighborhood-based programming in high-need areas

**\*Annual Demographic Data to Be Collected By All Funded Partner Agencies and Programs**

**Population(s) of Interest: Women of Color, Women with Previous Poor Birth Outcome, Fathers**

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### Baseline Data

<b>Overall Infant Mortality Rates (IMR)*</b>	Kalamazoo County → 6.5 ↑ (6.5 infant deaths per every 1,000 live births)		
	Battle Creek → 8.6 ↓		
<b>Racial Disparity*:</b>	Kalamazoo County →	Black IMR: 15.3 ↓	White IMR: 4.7 ↑
	Battle Creek →	Black IMR: 15.9 ↑	White IMR: 5.9 ↓
<b>Economic Disparity*:</b>	Kalamazoo County →	Medicaid Birth IMR: 10.4 ↑	Non Medicaid Birth IMR: 3.6 ↑
	Battle Creek →	Medicaid Birth IMR: 14 ↑	Non Medicaid Birth IMR: Too low to calculate ↓

*\*(MDCH Vital Records Data) (2013-2015 3 year moving averages)*

### Rationale

Infant mortality rates (IMR) are a recognized measure of the health and well-being of children and the overall health of a community. IMRs are indicative of the status of maternal health, the accessibility and quality of primary health care, and the availability of supportive services in the community. Additionally, the racial disparity present in our region's rates highlight root issues such as racism and disproportionate rates of poverty that result in grossly inequitable health outcomes. While our region's IMR is trending downward overall, the ratio of black deaths to white deaths is growing. Fundamentally, this indicates that the systems that touch our expecting parents and families of infants are failing many members of our population. There are various regional and community specific potential partners and there is energy around this issue, which indicates great opportunity for building upon and enhancing existing work, adapting national best practices, and designing new initiatives.

### Research

While reducing the infant mortality rate and eliminating the racial disparity is critical, research shows that the improvement of poor birth outcomes (such as low birth weight and prematurity) also has the potential to greatly affect the trajectory of the thousands of children in the region who survive their first 12 months:

- Weighing less than 5.5 pounds at birth increases the probability of dropping out of high school by one-third, reduces yearly earnings by about 15 percent and burdens people in their 30s and 40s with the health of someone who is 12 years older.  
*Birthweight Study. Panel Study of Income Dynamics Produced and distributed by the Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, MI.*
- Pre-term infants with no medical conditions have more learning disabilities, struggles with mathematics and need more school services than full-term babies. One of Sullivan's studies determined that at least one-third of babies born pre-term needed school services at some point during their education. Out of that group, 22 percent of the healthy pre-term babies received school services. Almost one quarter of this group had an Individualized Education Plan (IEP) (special education plan governed by federal and state law), with 15 percent receiving resources, 7 percent in self-contained classroom settings, and 11 percent receiving speech and language services.  
*Msall, M. E., Sullivan, M. C., and Park, J. (2010). Pathways of risk and resilience after prematurity: Role of socioeconomic status. In C. Nosarti, R. Murray, M. Hack (Eds). Preterm birth: Long-term effects on brain and behavior. Cambridge University Press.*

Employers pay 12 times as much in healthcare costs for premature/low birthweight (LBW) babies as for babies born without complications. Each premature/low birth weight baby costs employers an additional \$58,917 more in maternal and newborn health care costs.  
*March of Dimes, 2015.*

The annual societal economic burden associated with preterm birth in the United States was at least \$26.2 billion in 2005, or \$51,600 per infant born preterm. Medical care services contributed \$16.9 billion to the total cost and maternal delivery costs contributed another \$1.9 billion. In terms of longer-term expenditures, early intervention services cost an estimated \$611 million, whereas special education services associated with a higher prevalence of four disabling conditions among premature infants added \$1.1 billion. Finally, the committee estimates that lost household and labor market productivity associated with those disabilities contributed \$5.7 billion.  
*Institute of Medicine (US) Committee on Understanding Premature Birth and Assuring Healthy Outcomes; Behrman RE, Butler AS, editors. Washington (DC): National Academies Press (US); 2007.*

Risk factors and subsequent strategies and indicators were informed by Fetal Infant Mortality Review data and other localized Michigan Department of Community Health (MDCH) data from each county.