

Birth Defects Profile in Michigan Prosperity Region 10

(Macomb, Oakland, and Wayne Counties)



Michigan Birth Defects Registry (MBDR)

- ❖ By law, hospitals and medical labs report certain health conditions affecting Michigan born babies up to 2 years of age.
- ❖ MBDR information is confidential. It is used to:
 - ❖ Calculate baseline rates
 - ❖ Analyze trends
 - ❖ Identify and respond to public health concerns
- ❖ MBDR data helps us understand health and development needs, identify causes, and share prevention strategies

Birth Defects in Region 10 (2011-2017)

- ❖ There were roughly 46,100 infants born in Region 10 each year.
- ❖ Just over 8,500 of these infants were born with a birth defect.
- ❖ Hypospadias and Trisomy 21 were the most prevalent birth defects in Michigan and Prosperity Region 10 (Table 1).
- ❖ The prevalence of all birth defects was similar between Prosperity Region 10 and Michigan as a whole.



Table 1. Prevalence of Selected Birth Defects within Prosperity Region 10 and the State of Michigan, 2011-2017

| Birth Defect | Prosperity Region 10 | | Michigan | |
|-------------------------------------|----------------------|-------------------------------------|-----------------|-------------------------------------|
| | Number of Cases | Prevalence (per 10,000 live births) | Number of Cases | Prevalence (per 10,000 live births) |
| Anencephaly | 24 | 0.7 | 79 | 1.0 |
| Cleft Lip with Cleft Palate | 228 | 7.1 | 597 | 7.5 |
| Cleft Lip without Cleft Palate | 94 | 2.9 | 292 | 3.7 |
| Cleft Palate without Cleft Lip | 232 | 7.2 | 589 | 7.4 |
| Gastroschisis | 114 | 3.5 | 362 | 4.6 |
| Hypoplastic Left Heart Syndrome | 135 | 4.2 | 333 | 4.2 |
| Hypospadias | 1,383 | 42.9 | 3,116 | 39.3 |
| Limb Deficiencies | 151 | 4.7 | 360 | 4.5 |
| Spina Bifida | 176 | 5.5 | 363 | 4.6 |
| Tetralogy of Fallot | 181 | 5.6 | 443 | 5.6 |
| Transposition of the Great Arteries | 152 | 4.7 | 408 | 5.1 |
| Trisomy 21 | 448 | 13.9 | 1,071 | 13.5 |
| Total Number of Live Births | 322,554 | | 793,151 | |

MBDR Data Limitations and Cautions

- Data are based on passive reporting which means it is the responsibility of facilities to identify and report cases of birth defects. Not all facilities report cases as completely and timely as would be the ideal.
- Some facilities report children with a birth defect that is later “ruled out” resulting in an over count of the actual number of cases.
- Children diagnosed and treated in facilities in other states may be missed which will significantly affect the completeness of data for Michigan’s border counties.

Birth Characteristics among all Mothers and Babies

Between 2011 and 2017, roughly **46,100** babies were born in Prosperity Region 10 each year.

During an average year in Prosperity Region 10:

Mom's Race and Ethnicity

- ❖ **25,440** or **55 percent** of infants were born to **white, non-Hispanic** mothers.
- ❖ **14,200** or **31 percent** of infants were born to **Black, non-Hispanic** mothers.
- ❖ **3,680** or **8 percent** of infants were born to **all other non-Hispanic** mothers.
- ❖ **2,750** or **6 percent** of infants were born to **Hispanic** mothers.



Mom's Socioeconomic and Educational Status

- ❖ **19,050** or **41 percent** of all births reported **Medicaid** as the intended payer.
- ❖ **6,100** or **13 percent** of infants were born to mothers with **less than a high school** education.
- ❖ **10,900** or **24 percent** of infants were born to mothers that had a **high school** education.
- ❖ **14,600** or **32 percent** of infants were born to mothers that had **some college** or an **associate degree**.
- ❖ **13,900** or **30 percent** of infants were born to mothers that had a **college degree**.

Mom's Age

- ❖ **2,850** or **6 percent** of infants were born to **teenage** mothers (15 to 19 years).
- ❖ **36,000** or **78 percent** of infants were born to mothers of **reproductive age** (20 to 34 years).
- ❖ **7,300** or **16 percent** of infants were born to mothers **35 years of age** or older.

Mom and Baby Health Before, During, and After Pregnancy

- ❖ **22,500** or **49 percent** of infants were born to mothers who were **overweight** or **obese**.
- ❖ **6,650** or **14 percent** of infants were born to mothers that **used tobacco** during pregnancy.
- ❖ **4,960** or **11 percent** of infants were **born prematurely**.
- ❖ **4,400** or **10 percent** of infants were born at a **low birth weight**.
- ❖ **370** or **1 percent** of infants were born to mothers who had **pre-pregnancy diabetes type 1 or type 2**.

Data source: Michigan resident live birth files, MDHHS, Division of Vital Records and Health Statistics, 2011-2017.

