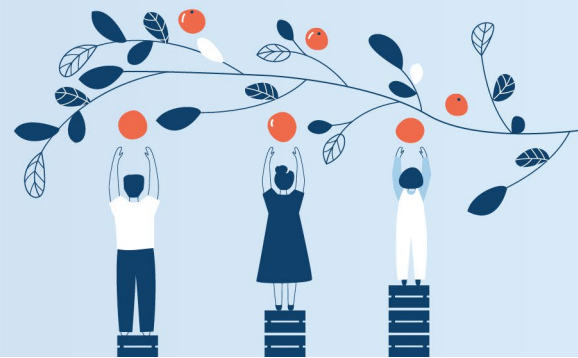


Children Whose Parents Died Due to Drug Poisoning

Michigan
2000-2022



Key Findings

- **Nearly 17,000** minor children had a parent, or parents, die due to drug poisoning between 2000 and 2022 in Michigan.
- **One-third** of minor children were **13-17 years old** when their parent died due to drug poisoning between 2000 and 2022 in Michigan.
- **Arenac, Benzie, Clinton, Crawford, Lake and Manistee** counties had the highest rate of minors whose parent died due to drug poisoning between 2018 and 2022 in Michigan.

Background

Between 2000-2022, 37,731 lives have been lost due to drug poisoning in Michigan, yet the impact on the decedent's children has not been widely studied. Studies investigating adverse childhood experiences (ACEs) show that parental substance use increases risk for substance use by the child,¹ particularly if the parental substance use occurred during teenage years (13-17).² Of all child removal cases by Children's Protective Services (CPS) in Michigan in 2022, parental substance use was a factor in approximately 40% of cases.³ A meta-analysis assessing parents with opioid use disorder (OUD) and behaviors of their children found the following when comparing to children of parents without OUD⁴:

- Children were more likely to have disorganized attachment, were less likely to seek social contact and were more avoidant.
- Children were more likely to have emotional and behavioral issues, perform poorly in school and have poor social skills.
- Younger children were more likely to be abused and/or neglected leading to unemployment, legal issues and substance use later in life.

The [Michigan ACE Initiative](#) is a coalition of cross-sector partners committed to raising awareness of the prevalence and impact of ACEs on children and communities. Because of this connection, the Michigan Department of Health and Human Services (MDHHS) conducted a linkage of birth and death certificates to identify children of parents who died by drug poisoning and inform the need of child bereavement support services. See page 5 for resources to learn more about ACEs.

Methods

Death certificates of Michigan residents who died due to any cause between 2000-2022 were linked to birth certificates between 1989-2022 by matching the **biological parent's first name, last name and date of birth**. These linked records were then restricted to parental deaths due to **drug poisoning** (ICD-10 codes X40-X49, X60-X694, X85-X90 and Y10-Y19) and those instances in which the decedent had **at least one minor child (less than 18 years old) at time of death**. Statistics and trends pertaining to children who lost at least one parent due to drug poisoning were derived from variables on both the birth and death certificates and are reported here. Rates were calculated using data on the population of children under age 18 from the social vulnerability index (SVI) created by the Centers for Disease Control and Prevention (CDC).⁵

Figure 1. Inclusion and exclusion criteria.

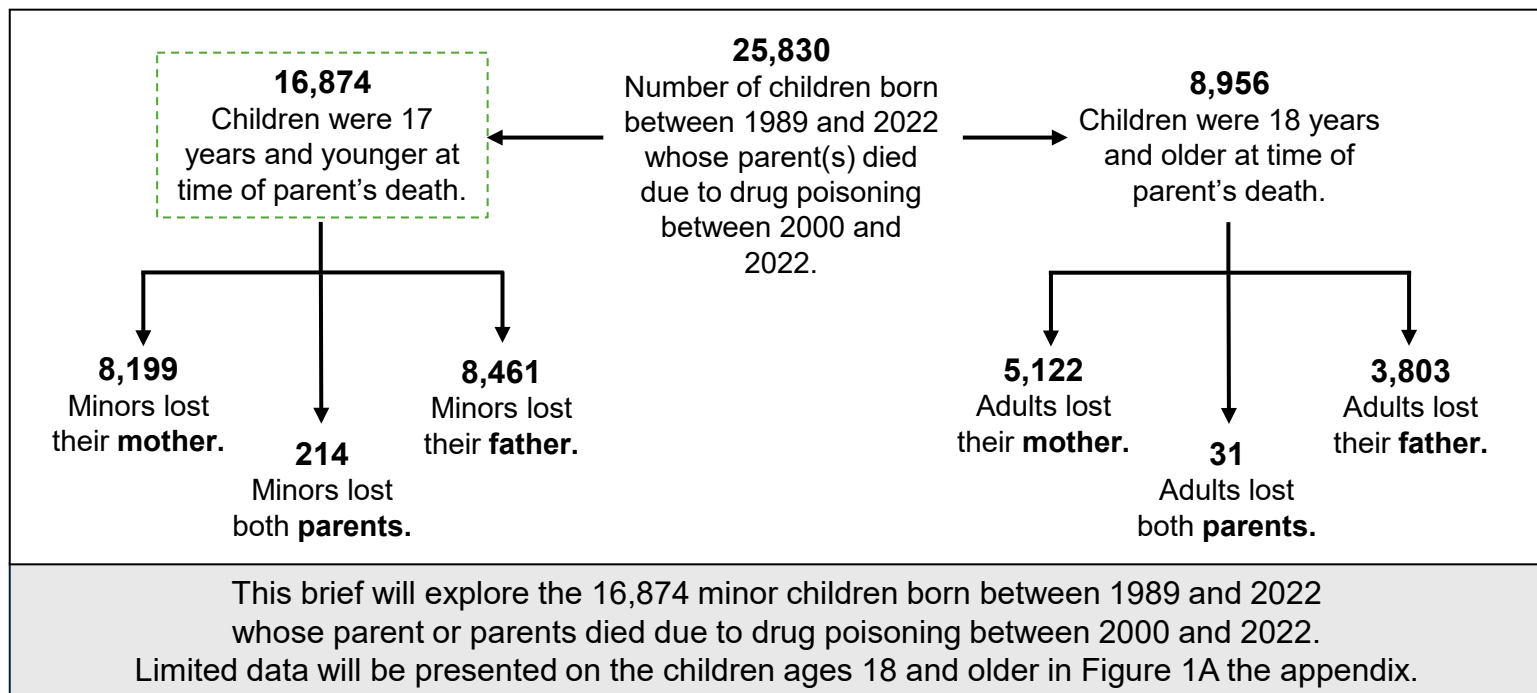


Figure 2. Proportion of minor children whose parent(s) died due to drug poisoning compared to any cause of death by year parent died, Michigan, 2000-2022.

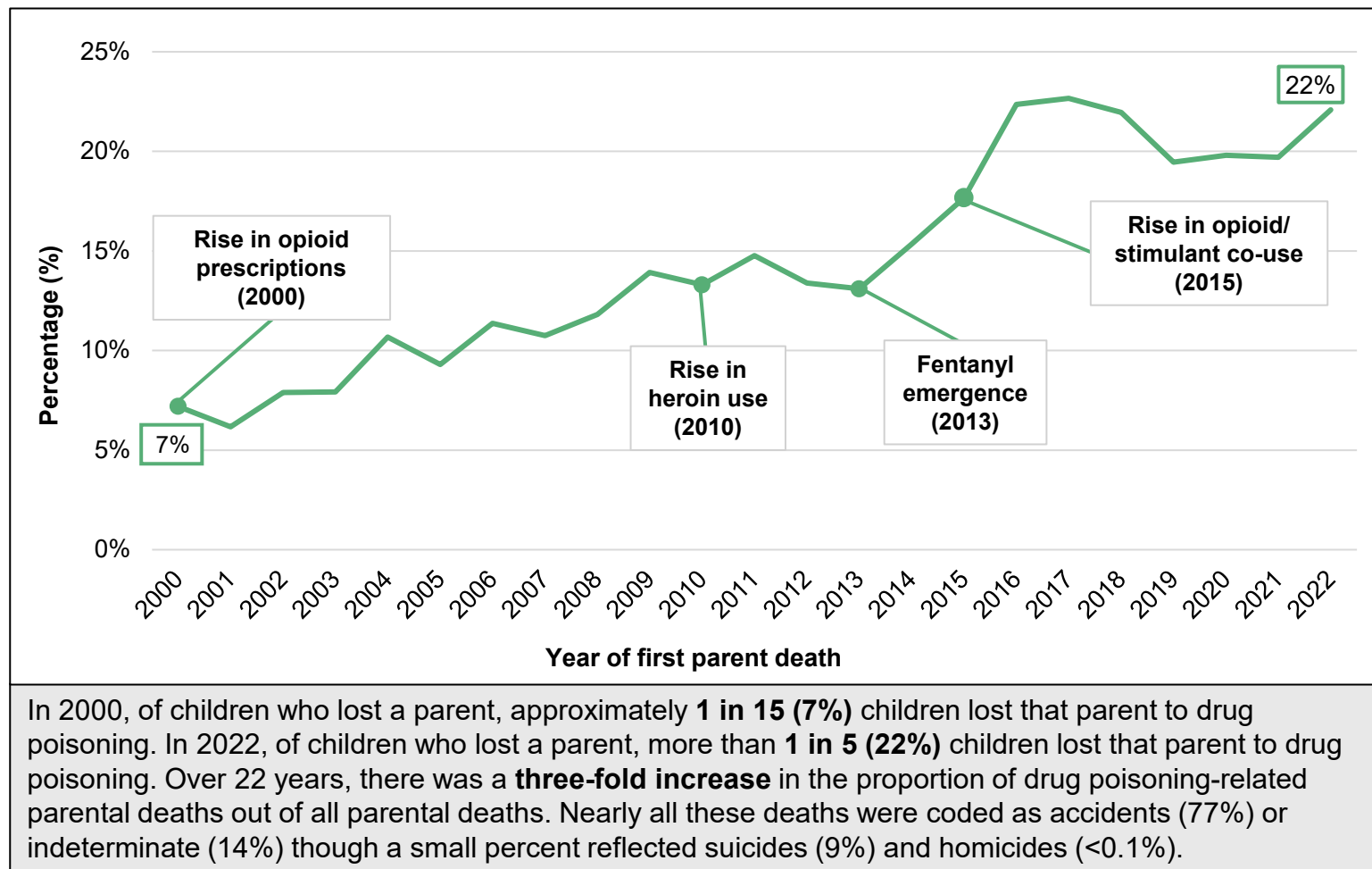
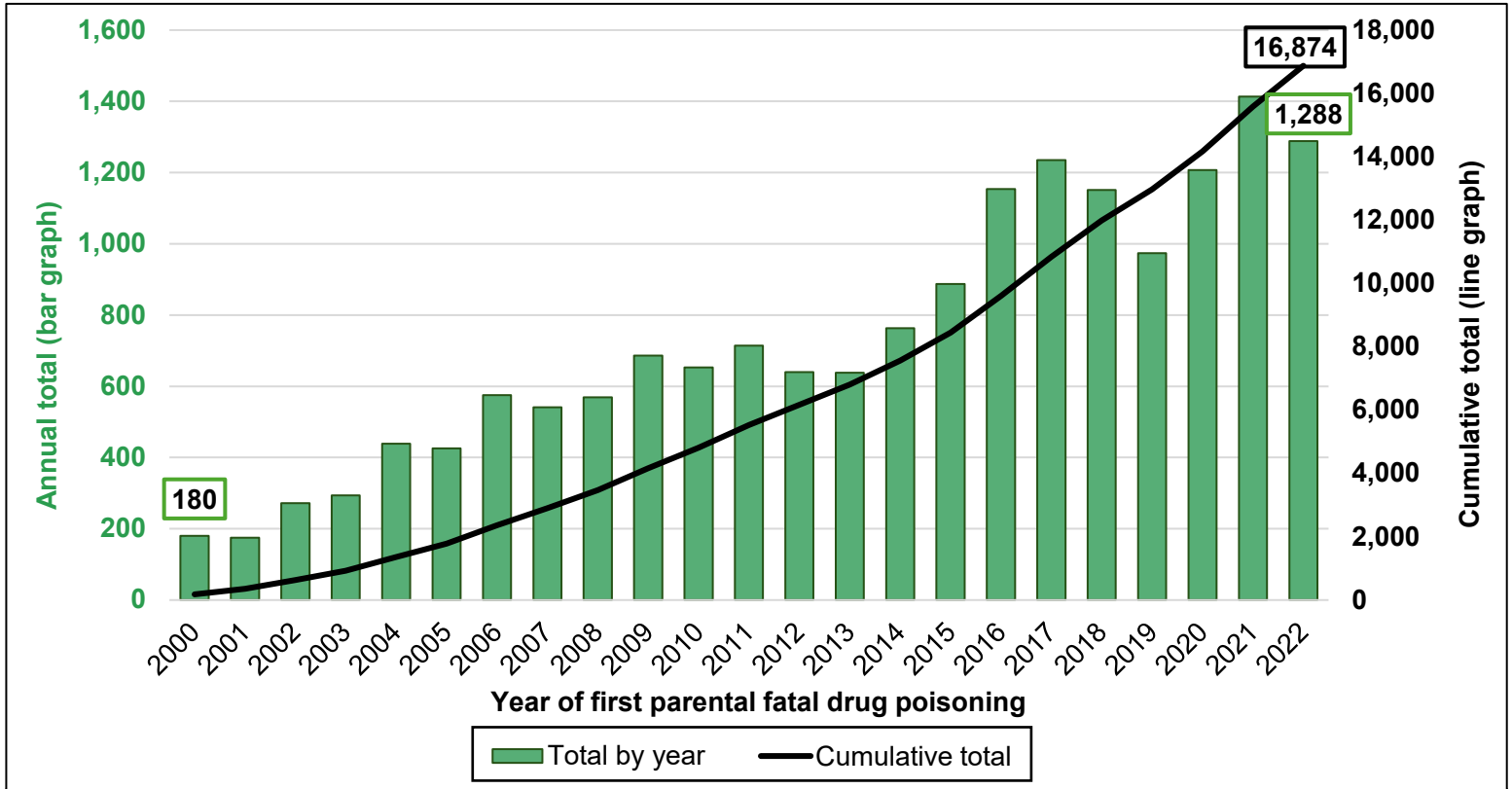


Figure 3. Annual and cumulative count of minor children whose parent(s) died due to drug poisoning by year parent died, Michigan, 2000-2022.



Over the course of two decades, 16,874 children were minors at time of parental death due to drug poisoning. Per year, the number of children aged 0-17 who lost a parent has increased seven-fold from 2000 to 2022 (180 children in 2000 to 1,288 children in 2022). For data on all children, regardless of age at the time of parent’s death, whose parents died due to drug poisoning refer to Figure A1 in the Appendix.

Figure 4. Age of minor child when parent died due to drug poisoning, 2012, 2017 and 2022, Michigan.

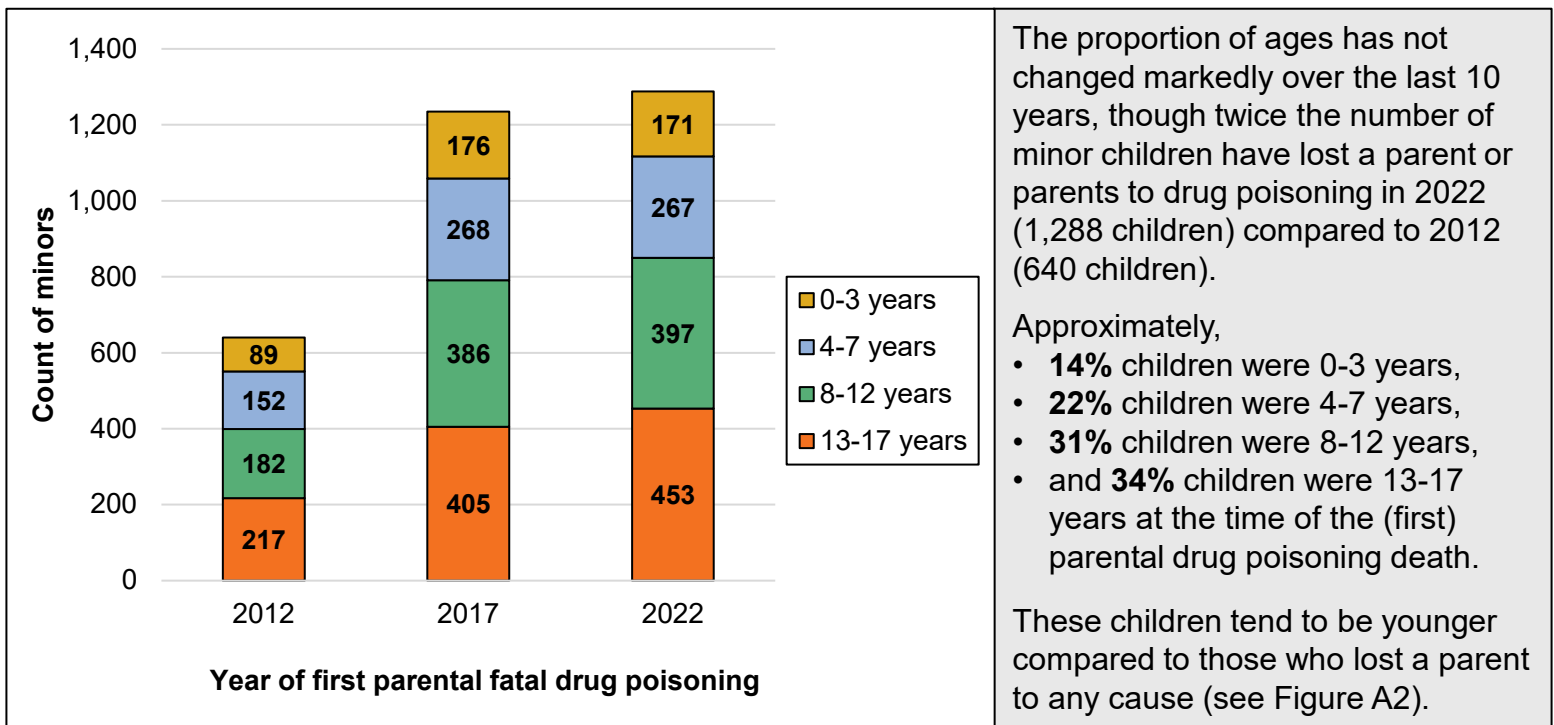
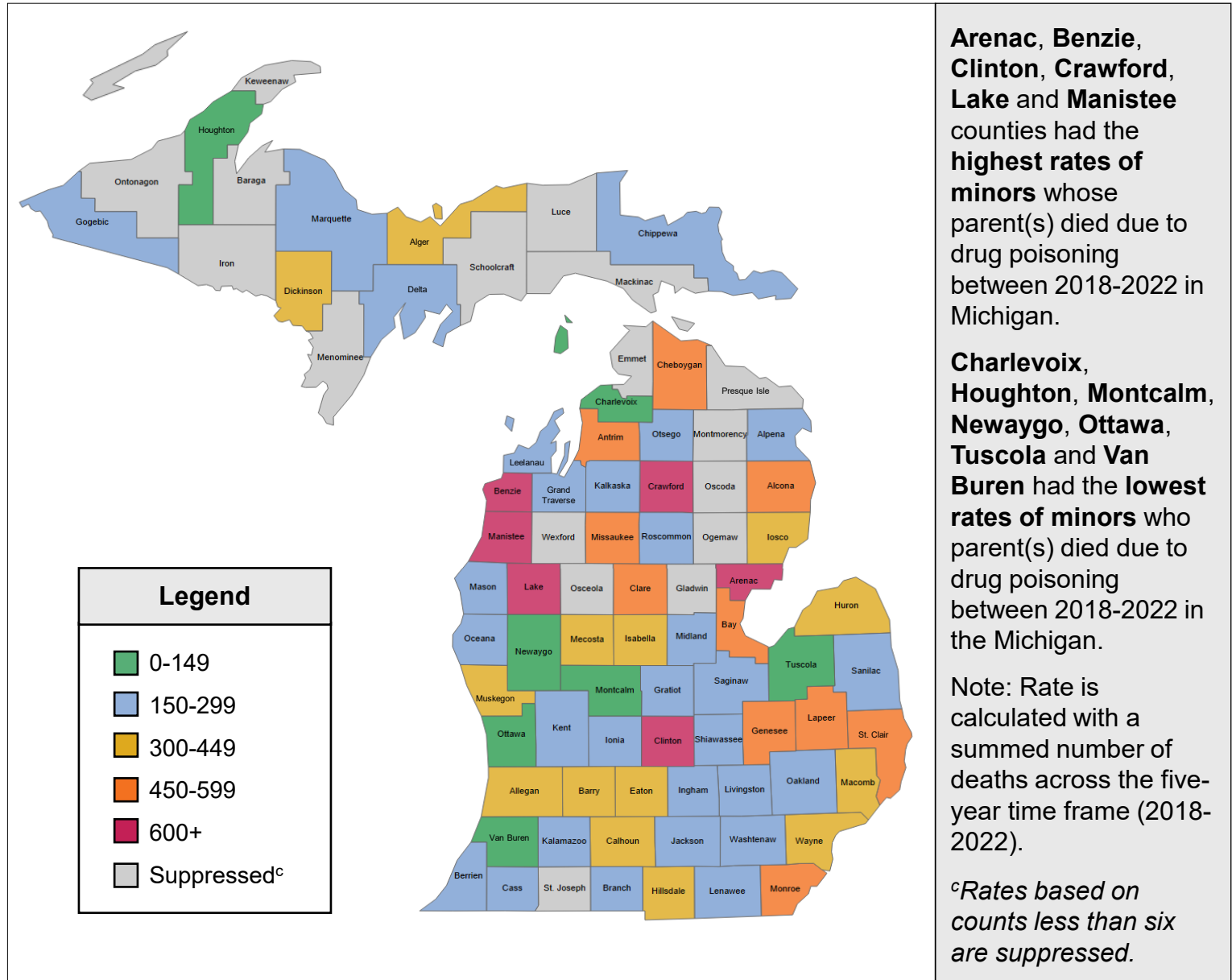


Figure 5. Rate of minor children whose parent(s) died due to drug poisoning between 2018-2022 per 100,000 residents under 18 years old⁵ by county, Michigan.



Discussion & Public Health Implications

The death of a parent has significant implications on a child’s health status and well-being throughout their life, particularly if this death occurs while the child is a minor.² Nearly two-thirds of children whose parent(s) died due to drug poisoning were 17 years or younger and most of those children were between the ages of 8 and 17 years. Analysis of mortality trends and identification of vulnerable populations by both sociodemographic factors and geographic regions will enable more effective intervention from prevention and response perspectives.

To provide support to children, a meta-analysis exploring 17 studies suggests the following⁶ :

- Support for the remaining parent or caregiver is important so that they can support the child.
- Relatively brief supportive interventions can prevent children from developing severe problems (i.e. poor mental health, unemployment, poor social skills, etc.).
- The Family Bereavement Program has been continually evaluated over the last 3 decades and proves to be an effective intervention.

A report on the parents who died due to drug poisoning is available [here](#).

Resources to learn more about ACEs:

- **Michigan ACE Data Dashboard:**
 - [Home Page - MI ACE Data Dashboard](#)
- **ACEs Data Sources:**
 - [Behavioral Risk Factor Survey Surveillance \(BRFSS\)](#)
 - [Michigan Profile for Healthy Youth \(MiPHY\)](#)
 - [Michigan | County Health Rankings & Roadmaps](#)
 - [Michigan Child and Family Well-Being](#)
- **Data brief:**
 - [ACEs Michigan Youth Infographic - 2019](#)
- **Positive childhood experiences:**
 - [Why positive childhood experiences are important for all children and families | Tufts Hope](#)

Data Notes

Data Sources

MDHHS Division of Vital Records; Birth and Death Certificates.

Data on population under 18 years old comes from the social vulnerability index (SVI).⁵

Definitions

The year of parent death as used in this analysis was determined by the first parental drug poisoning death if both parents died due to drug poisoning.

References

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Limitations

1. The number of fathers who died due to drug poisoning may be undercounted due to lack of a named father on a birth certificate. Approximately 36% of children whose mother died due to drug poisoning did not have a father listed on the birth certificate.
2. Births before 1989 are not included in dataset and, therefore, the number of children affected by deaths during the period covered in this analysis may be an undercount.

MDHHS Non-Discrimination Policy: The Michigan Department of Health and Human Services (MDHHS) does not discriminate against any individual or group on the basis of race, national origin, color, sex, disability, religion, age, height, weight, familial status, partisan considerations, or genetic information. Sex-based discrimination includes, but is not limited to, discrimination based on sexual orientation, gender identity, gender expression, sex characteristics, and pregnancy.

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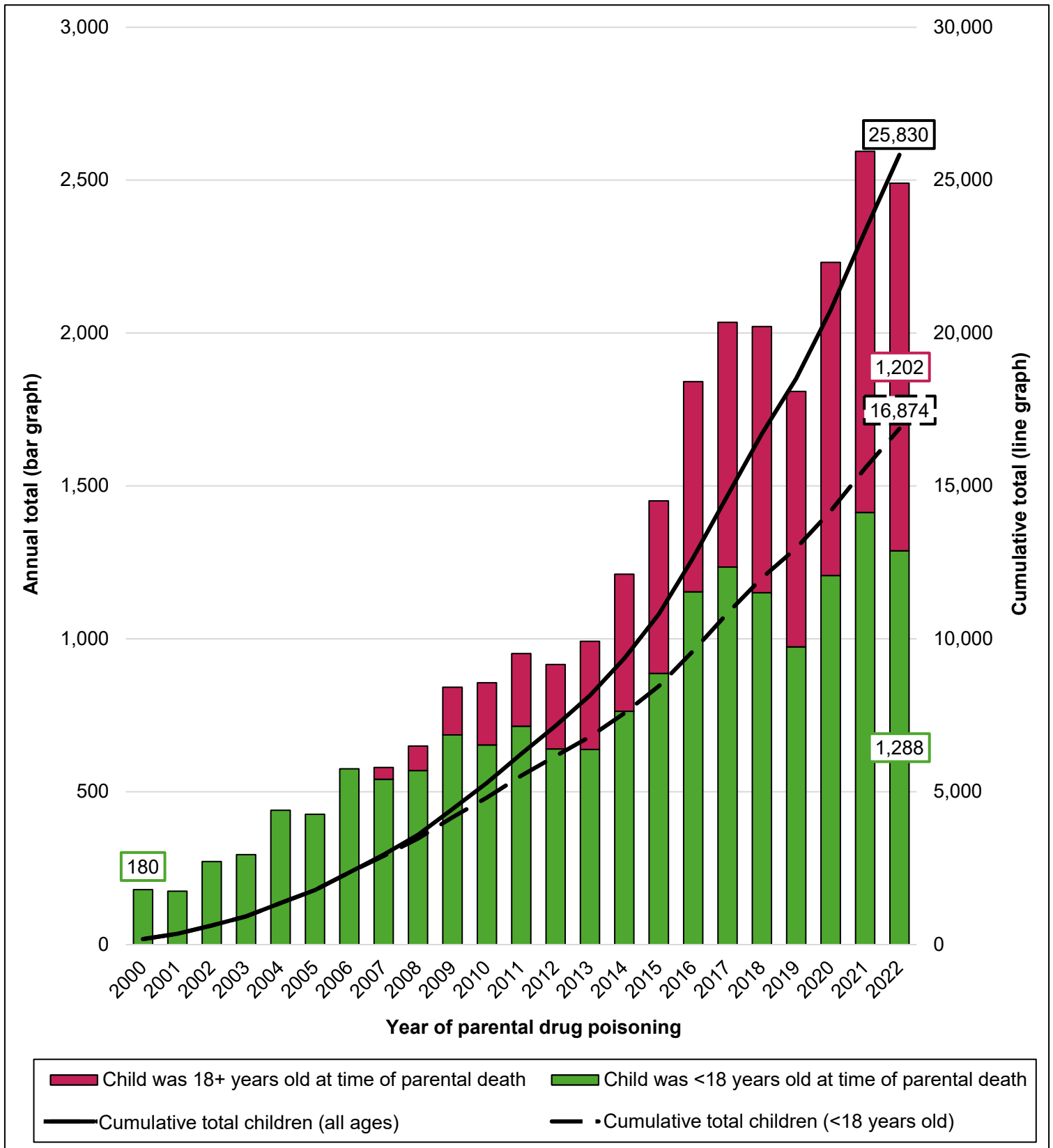
MORE DATA AVAILABLE:

For more data and information on substance use disorder and overdose, go to Michigan.gov/OpioidsData



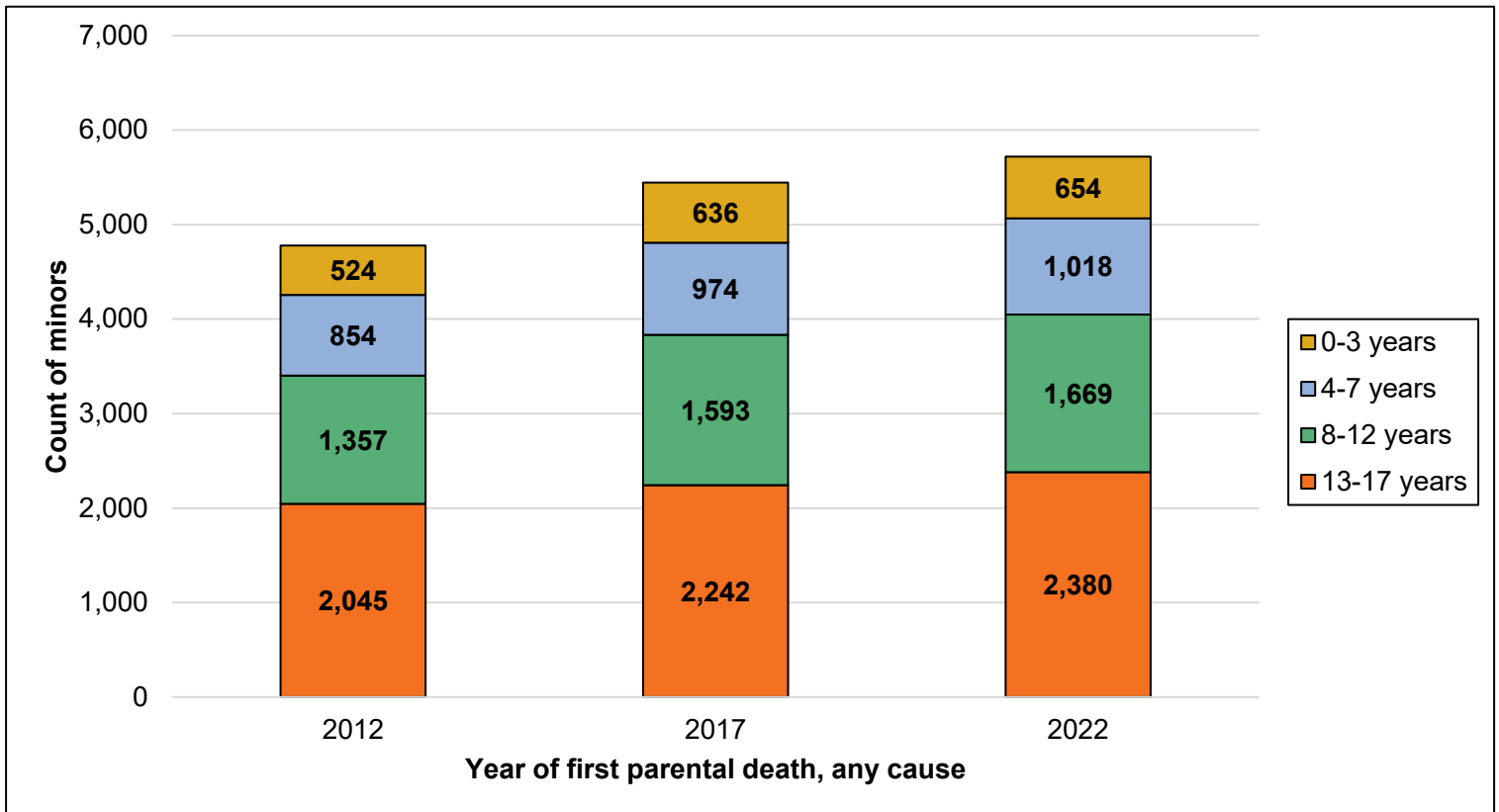
Appendix

Figure A1. Number of children whose parent(s) died due to drug poisoning by year parent died, 2000-2022, Michigan.



Appendix

Figure A2. Age of minor child when parent died due to any cause, 2012, 2017, and 2022, Michigan.



While there was a 20% increase in number of minor children whose parents died due to any cause in 2022 (5,721 children) compared to 2012 (4,780 children), the proportion of ages has not changed markedly over the last 10 years.

Among children whose parent died due to **any cause**, between 2012 and 2022, approximately:

- **11%** of children were 0-3 years,
- **18%** of children were 4-7 years,
- **29%** of children were 8-12 years,
- and **42%** of children were 13-17 years at the time of the (first) parental death.

Among children whose parent died due to **drug poisoning**, between 2012 and 2022, approximately:

- **14%** children were 0-3 years,
- **22%** children were 4-7 years,
- **31%** children were 8-12 years,
- and **34%** children were 13-17 years at the time of the (first) parental death (see figure 4).