



## Trends in Illinois Child Deaths Between 2004 and 2013

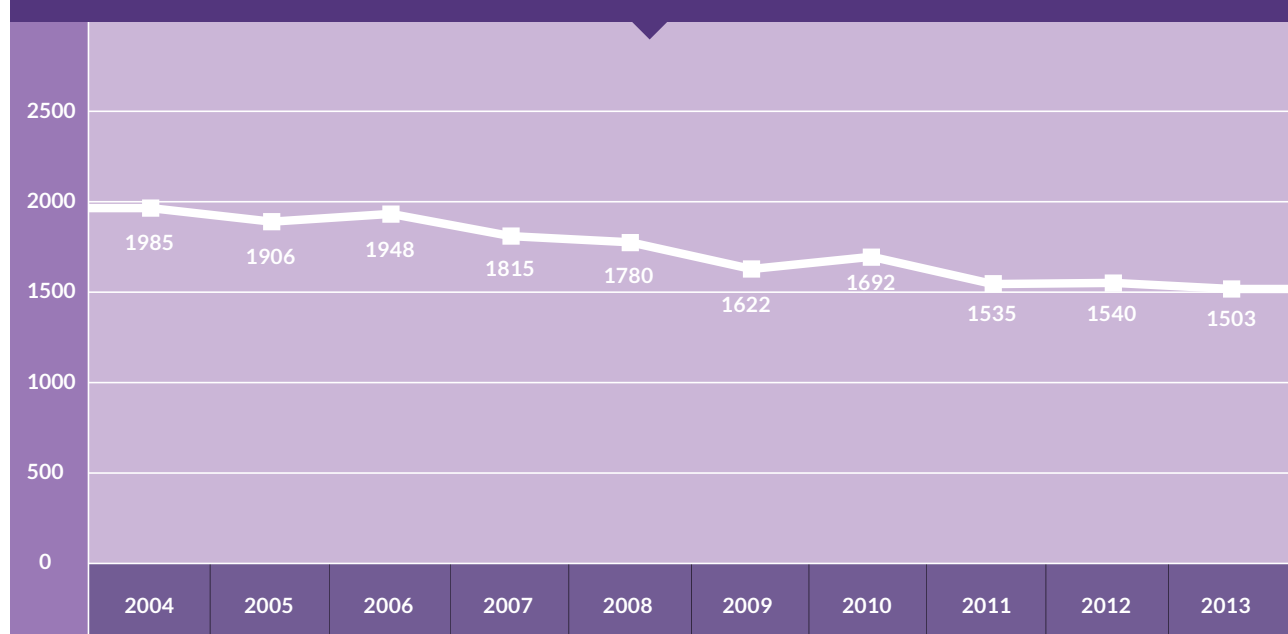
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In an effort to understand existing child deaths and prevent future deaths, Illinois' Child Death Review Teams (CDRTs) meet quarterly to systematically review the circumstances of certain child deaths and make recommendations to the Department of Children and Family Services (DCFS). As part of this effort, DCFS and the CDRT Executive Council collaborate with the Children and Family Research Center at the University of Illinois to publish and disseminate an annual report that examines child deaths in Illinois (Illinois Department of Children and Family Services, 2016). This research brief, the third in a series that highlights the important work of the CDRTs in Illinois, uses data from the annual CDRT reports to examine trends in child deaths over ten years. Examination of trends can highlight areas where additional efforts at prevention and intervention are needed or illuminate areas in which policy and practice changes may be working to reduce deaths.

### Child Deaths by Age

Nationally, child death rates have fallen dramatically since 1980, and have fallen most dramatically among infants under one year of age: from 1,288 per 100,000 in 1980 to less than 600 per 100,000 in 2013. During this same time period, death rates for children ages one to four years dropped from 64 to 26 per 100,000, rates among children age 5 to 14 years dropped from 31 to 13 per 100,000, and rates for teens ages 15 to 19 years declined from 98 to 45 per 100,000 (Child Trends DataBank, 2015). Similar to the national trend, the total number of child deaths in Illinois has decreased over the past decade: from 1,985 in 2004 to 1,503 in 2013 (see Figure 1).

Figure 1. Child Deaths in Illinois 2004–2013\*

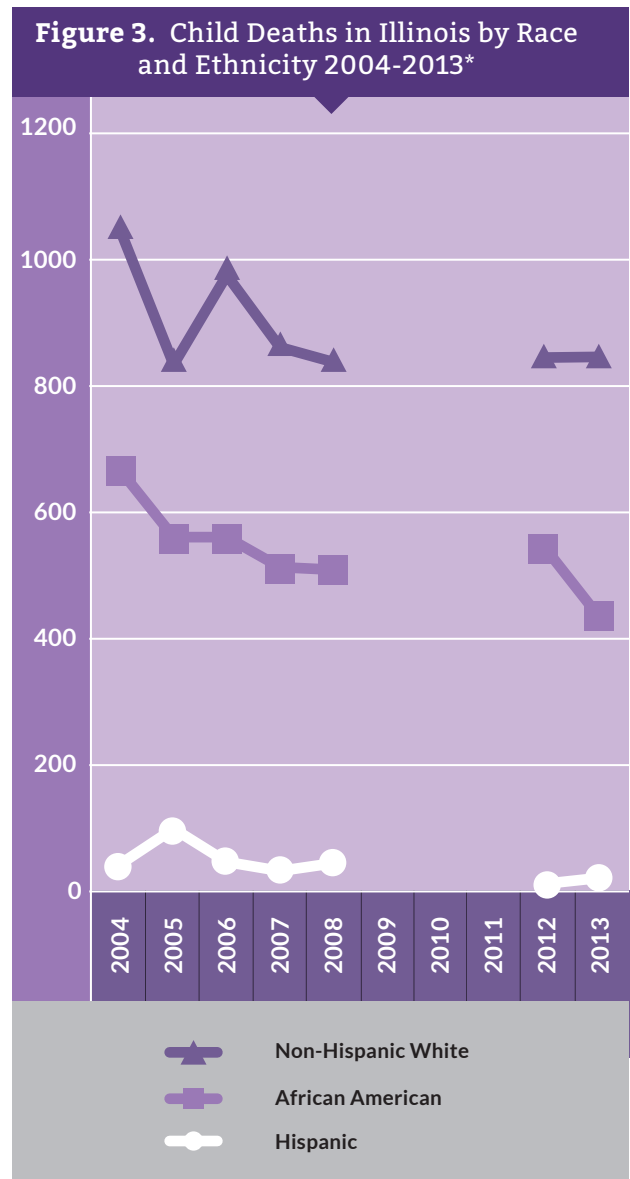
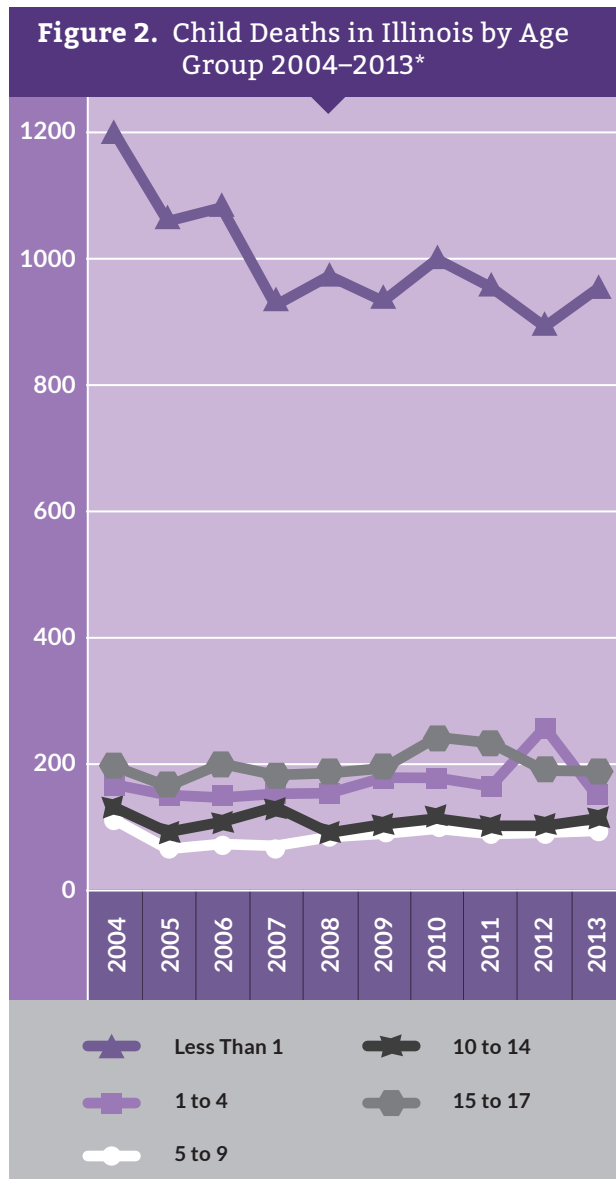


\* Number of child deaths reported to the Illinois Department of Public Health (IDPH)

Figure 2 shows the number of child deaths in Illinois reported to the CDRTs from 2004 to 2013, examined by child age. Most notably, and similar to the national data, the vast majority of child deaths each year occur among infants under one year of age. It is also apparent that the number of infants that die each year has been declining over the ten year period, from a high of 1,209 in 2004 to a low of 898 in 2012. Similar declines have not occurred in the other age groups, which leads to the conclusion that the reduction in the overall number of child deaths in Illinois has been mainly due to the declining number of infant deaths.

### Child Deaths by Race and Ethnicity

Figure 3 shows the number of child deaths that occurred in three racial and ethnic groups. Unfortunately, conclusions about deaths among the three racial and ethnic groups are hampered because race data were not available for three years due to an IDPH database error. It appears that declines in the number of child deaths have occurred among all three groups, perhaps most noticeably among African American children, which have dropped from 665 in 2004 to 437 in 2013. Given that the number of African American children in Illinois remains largely stable (U.S. Census Bureau, 2015), the drop in the number of deaths in this group is encouraging.

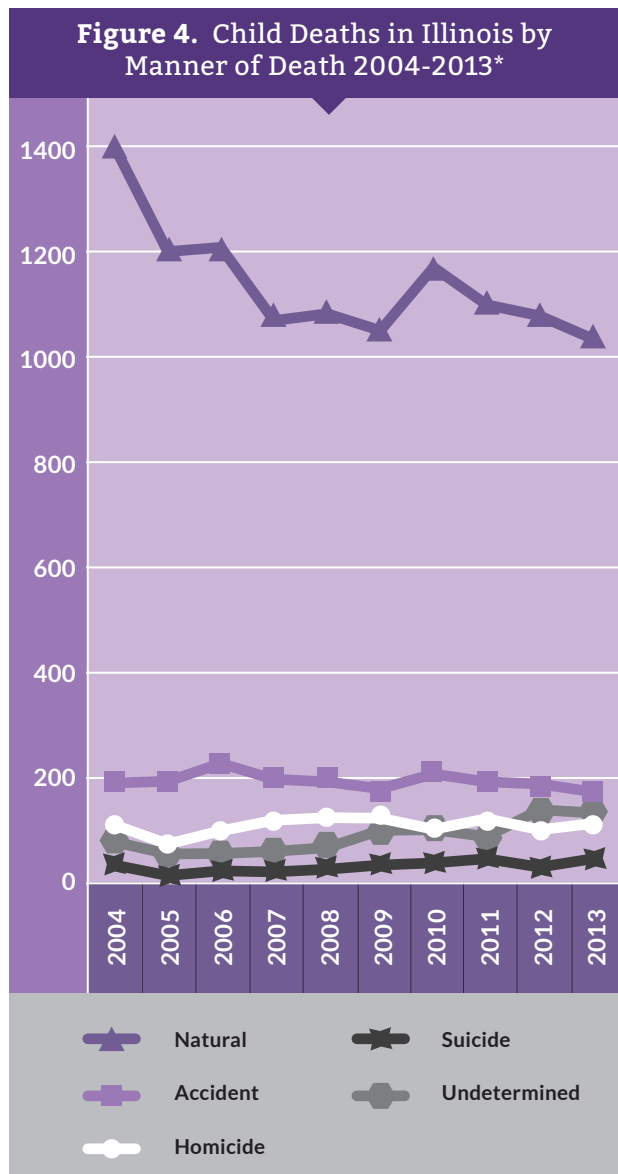


\* Number of deaths reported to the CDRTs. In years prior to 2012, the total number of deaths in each age group may not sum to the total deaths reported in Figure 1. This is because of a reporting discrepancy between IDPH and the CDRTs. This issue has been corrected since 2012, and no data suggest any systematic over- or under-counting of deaths by age group, race, or other category.

\*Child deaths reported to the CDRTs. Due to an IDPH database error, race data is not available for 2009-2011.

## Child Deaths by Manner of Death

Manner of death is a categorization used by medical examiners, coroners, and physicians when completing a death certificate to clarify the circumstances of death. In most states, including Illinois, manner of death is classified into one of five categories: natural causes, accident, homicide, suicide, and undetermined. Figure 4 shows the number of child deaths by manner of death from 2004 through 2013. The majority of child deaths in Illinois are due to natural causes, and those numbers have shown a noticeable decline over the ten years, from 1,399 to 1,034. The numbers of deaths due to accidents, homicides, suicides, and undetermined causes are much smaller and have shown no clear trend over the ten year period.

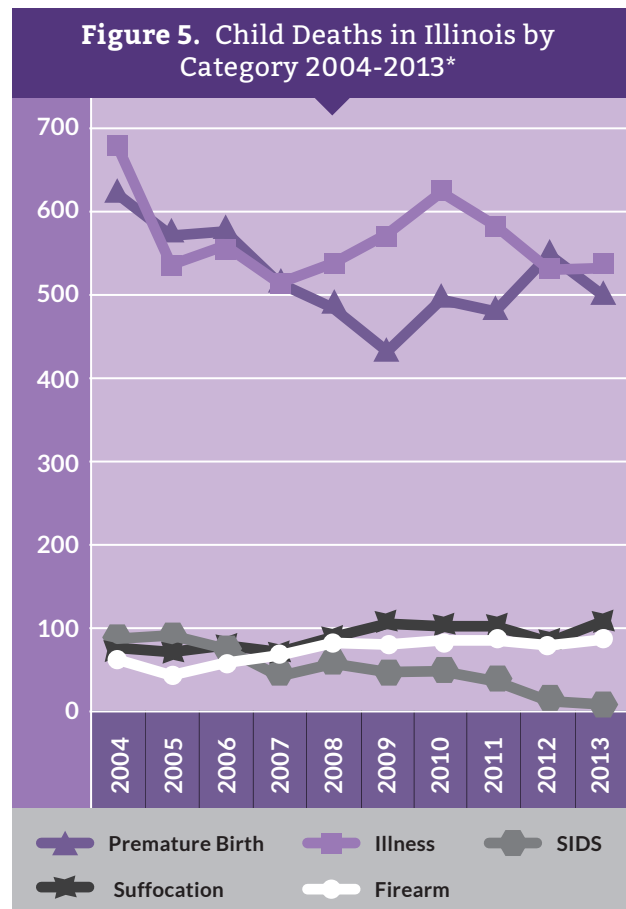


\* Deaths reported to the CDRTs.

## Child Deaths by Category of Death

The CDRT Executive Council has identified 13 categories of death that are used during their reviews, along with categories for undetermined and “other” deaths. Category of death is used to describe what caused the death. For example, if a teenager died after being accidentally shot while hunting, the manner of death would be “accidental” and the category of death would be “firearm.”

Trends in the numbers for five of the most common categories of death are shown in Figure 5. Deaths due to illness and premature births have both shown overall declines since 2004, although the numbers of deaths due to premature birth have increased since their low point in 2009. Firearm deaths show the largest increase, rising from 42 in 2005 to 85 in 2013, a 102% relative increase. Deaths due to suffocation have increased from 70 in 2005 to 107 in 2013. One positive trend: deaths due to Sudden Infant Death Syndrome (SIDS) have declined steadily, from 86 in 2004 to just 7 in 2013. This decline corresponds with the Back to Sleep campaign and other similar efforts to avoid any obstruction to infant airways. These campaigns also encourage parents to put babies to sleep on their backs, rather than their fronts, which has been shown to decrease the risk of SIDS.



\* Deaths reported to the CDRTs.

## Conclusion

In the decade between 2004 and 2013, the number of child deaths in Illinois has declined by about one quarter. A more detailed examination of the trends among different subgroups of children suggests that the declines in the number of deaths have occurred most noticeably among infants, with overall improvements in the number of children who die due to illness, prematurity, and SIDS. This suggests that programs aimed at improving maternal and child health and campaigns aimed at improving “safe sleep” practices may have had an impact in reducing child deaths (Illinois Department of Human Services, 2014).

## Recommended Citation

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## References

Child Trends Databank. (2015). *Infant, child, and teen mortality: Indicators on children and youth*. Retrieved from <http://www.childtrends.org>.

Illinois Department of Children and Family Services. (2016). *The Illinois Child Death Review Team Annual Report - 2014*. Available at <http://www.illinois.gov/dcfs/>

Illinois Department of Human Services. (2014). *The Reduction of Infant Mortality in Illinois: Annual Report for Fiscal Year 2013*. Springfield, IL: author.

U.S. Census Bureau. (2015). *Children characteristics 2010 - 2014 American Community Survey 5-year estimates*. Retrieved from <http://factfinder.census.gov/>

## Related Reports

Fuller, T., Braun, M. T. & Zhang, S. (2016). *Understanding Child Death Review in Illinois*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-Champaign.

Zhang, S., Fuller, T., & Braun, M.T. (2016). *Examining Child Deaths in Illinois: Highlights from the Child Death Review Team Annual Report*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-Champaign.