COLORADO

CHILD FATALITY PREVENTION SYSTEM

Child Maltreatment Death Data, 2013 - 2017

COLORADO
Department of Public Health & Environment

COLORADO CHILD FATALITY PREVENTION SYSTEM

CHILD MALTREATMENT DEATH DATA, 2013 - 2017

INTRODUCTION

The Child Fatality Prevention Act (Article 20.5 of Title 25, Colorado Revised Statutes) established the Child Fatality Prevention System (CFPS), a statewide, multidisciplinary, multi-agency effort to prevent child deaths. Although not codified in Colorado Revised Statutes (C.R.S.) until 2005, CFPS has been conducting retrospective reviews of child deaths in Colorado since 1989. CFPS applies a public health approach to prevent child deaths by aggregating data from individual child deaths, describing trends and patterns of the deaths and recommending prevention strategies. Child fatality prevention review teams and their partners implement and evaluate the identified strategies at the state and local levels with the goal of preventing similar deaths in the future.

The data presented within this data summary come from comprehensive, statutorily-mandated reviews of deaths among those under 18 years of age occurring in Colorado between 2013 and 2017. Local child fatality prevention review teams are responsible for conducting individual, case-specific reviews of deaths of children meeting the statutory criteria. Reviewable child deaths result from one or more of the following causes: undetermined causes, unintentional injury, violence, motor vehicle and other transportation-related, child maltreatment, sudden unexpected infant death (SUID) and suicide. During the 2018 fiscal year, local teams reviewed deaths that occurred in 2017.

The CFPS review process includes deaths of Colorado residents occurring in Colorado, as well as deaths of out-of-state residents who died in Colorado or were transported to a Colorado hospital and died. CFPS does not review deaths of Colorado residents that occur outside Colorado. These criteria are different from other reports of child fatality data and many other Colorado government data sources. As a result, the data presented in this topic-specific data brief may not match other statistics reported at both the state and national levels. This data brief provides an overview of child maltreatment death data from CFPS. Additional CFPS data is available in a state-level overview, cause-specific data briefs and an interactive data dashboard at: www.cochildfatalityprevention.com/p/reports.html.

STRUCTURAL INEQUITY

CDPHE acknowledges that generations-long social, economic and environmental inequities result in adverse health outcomes. They affect communities differently and have a greater influence on health outcomes than either individual choices or one's ability to access health care. Reducing health disparities through policies, practices and organizational systems can help improve opportunities for all Coloradans.[1]

Some families lose infants, children and youth to the types of deaths reviewed by CFPS not as the result of the actions or behaviors of those who died, or their parents or caregivers. Social factors such as where they live, how much money or education they have and how they are treated because of their racial or ethnic backgrounds can also contribute to a child's death.[2] In the United States, most residents grew up and continue to live in racially and economically segregated neighborhoods, which can lead to marginalization.[3,4] This marginalization of groups into segregated neighborhoods further impacts access to high-quality education,[5] employment opportunities,[6] healthy foods[7] and health care.[8] Combined, the economic injustices associated with residential, educational and occupational segregation have lasting health impacts that include adverse birth outcomes,

infant mortality,[9] high rates of homicide and gun violence[10] and increased motor vehicle deaths.[11]

When interpreting the data, it is critical not to lose sight of these systemic, avoidable and unjust factors. These factors perpetuate the inequities that we observe in child deaths across populations in Colorado. Research is making progress in understanding how race and ethnicity, economic status, sexual orientation and gender identity correlate with health. It is critical that data systems like CFPS identify and understand the life-long inequities that persist across groups in order to eradicate them.

A note about terminology: While "Latinx" is becoming the preferred way to identify people of Latin descent, this report uses "Hispanic" throughout the data section to reflect how CFPS data is collected and to align with terminology used in cited literature and research.[12]

OVERVIEW OF CHILD MALTREATMENT DEATHS

Although Colorado's Children's Code (C.R.S. 19-1-103 (1)) and legal definitions of child abuse and child neglect serve as guidance for the system, local teams make determinations of child maltreatment (abuse or neglect) based on available information from the case reviews and professional judgments. These multidisciplinary review teams include representatives from departments of human services. The determination is the subjective opinion of the local teams and does not trigger any prosecution or have any legal ramifications. As such, deaths classified as child maltreatment by local teams will not be the same as official counts of child abuse or child neglect deaths reported by the Colorado Department of Human Services (CDHS). Some of these deaths do not meet the criteria for review by the CDHS Child Fatality Review Team (CFRT). CFRT only reviews deaths of children with previous involvement with county departments of human services within the last three years.

What is the CDHS CFRT?

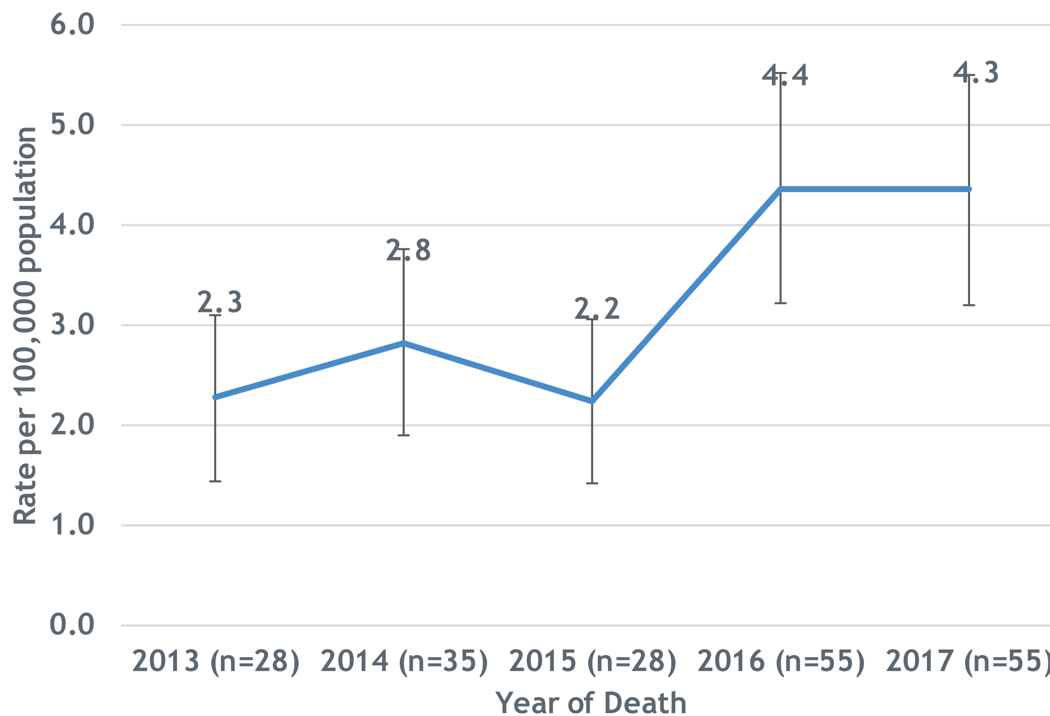
- The CDHS CFRT reviews incidents of fatal, near fatal or egregious abuse or neglect determined to be a result of child maltreatment when the child or family had previous involvement with the child welfare system within the last three years. CFRT reviews the incident and identifies factors that may have led to it. CFRT also assess the sufficiency and quality of services state and local agencies provide to families and their prior involvement with the child welfare system. As a result of identified strengths, as well as systemic gaps and/or deficiencies, CFRT puts forth policy and practice recommendations that may help prevent future incidents of fatal, near fatal or egregious abuse or neglect. These recommendations could also strengthen the systems that deliver services to children and families.

For the purpose of a public health-focused child fatality review process, child maltreatment is defined as an act or failure to act on the part of a parent or caregiver regardless of intent. From 2013-2017, there were 223 deaths where child maltreatment caused and/or contributed to the circumstances of death among children and youth ages 0-17 in Colorado.

Figure 1 displays the rates of child maltreatment deaths, as defined by CFPS, among Colorado residents under 18 by year. The crude rate of child maltreatment deaths from 2013-2017 was 3.2 per 100,000 population. The rate of 4.3 per 100,000 population in 2017 was statistically significantly different from the rate of 2.3 per 100,000 population observed in 2013.

Child maltreatment and its identification according to the previously provided definition allows CFPS review teams great latitude when determining whether child maltreatment contributed to the events leading to death. Some of the increase in the rate of child maltreatment deaths over the last several years may be attributed to improved technical assistance and guidance provided to local teams around identifying child abuse and neglect.

Figure 1. Crude rate of child maltreatment deaths occurring in Colorado among Colorado residents under age 18, 2013-2017 (n=201)

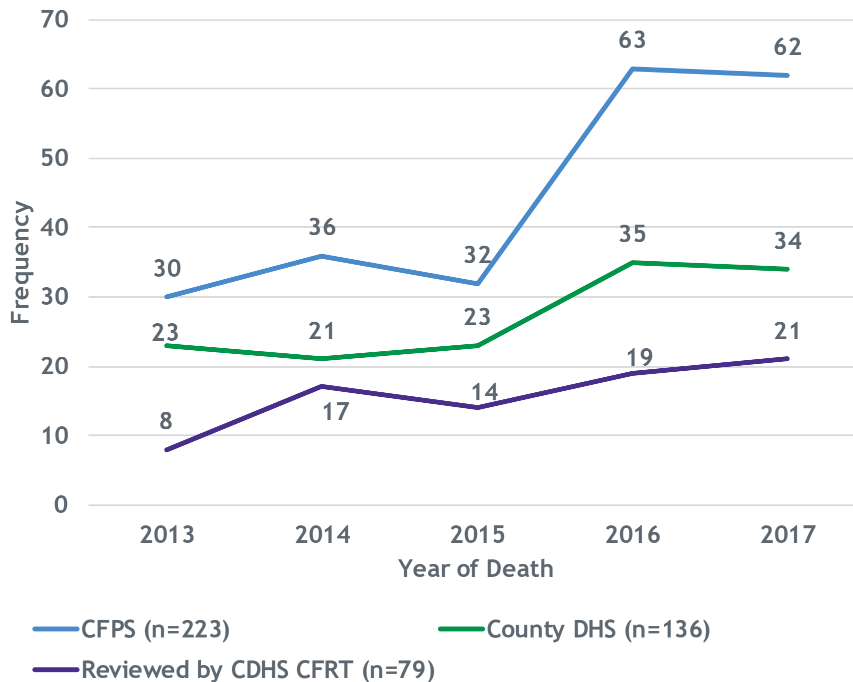


*Error bars represent 95% confidence limits for rates.

Prior to 2014, the CFPS State Review Team identified all child maltreatment deaths substantiated by county departments of human or social services as child maltreatment deaths. Local teams began reviewing child deaths in 2014; however, they did not always identify cases that were substantiated by county departments of human services as child maltreatment. These observations suggested that CDPHE should provide more technical assistance and training to local teams about CFPS's role in identifying when child maltreatment contributed to the deaths. The data presented here include all deaths substantiated by county departments of human services. The data also include additional deaths not substantiated by county departments of human services but ruled as child maltreatment by CFPS review teams.

Although CFPS review teams and county departments of human services define child abuse and neglect differently, county departments of human services substantiated 61.0 percent (n=136) of the 223 deaths CFPS identified as due to child maltreatment from 2013-2017. Additionally, 35.4 percent (n=79) of these deaths met the statutory criteria for CDHS CFRT review (Figure 2). CFPS review teams alone identified the remaining 39.0 percent (n=87) as child maltreatment deaths. These 87 deaths were either not reported to county departments of human services or the incident did not meet the statutory definition of child maltreatment that guides the work of CDHS.

Figure 2. Deaths occuring among those under age 18 in Colorado ruled child maltreatment by CFPS, substantiated by county departments, or reviewed by CDHS CFRT by year, 2013-2017



DEMOGRAPHICS OF CHILD MALTREATMENT DEATHS

Of the 223 child maltreatment deaths CFPS identified from 2013-2017, 68.2 percent (n=152) occurred among children under age 5, and 56.1 percent (n=125) were male. Table 1 displays the rates of child maltreatment deaths CFPS identified by age group. The highest rates of child maltreatment deaths were among children under age 5. The age-specific rate of child maltreatment deaths for children under age 1 was 25.3 per 100,000 population, almost eight times the rate for all ages and nearly 20 times the rate for those ages 5-9. For children ages 1-4, the rate of child maltreatment deaths was 4.1 per 100,000 population, 1.3 times the rate for all ages and more than three times the rate for children ages 5-9. The incidence of child maltreatment deaths among males was 3.5 per 100,000 population, a rate 1.2 times greater than that observed among females (2.9 per 100,000 population).

Table 1. Age-specific rate of child maltreatment deaths occurring in Colorado among Colorado residents under age 18 by age group, 2013-2017*

				95% Confidence Interval	
Age Group	n**	Population	Rate***	Lower Limit	Upper Limit
All Ages	201	6,262,004	3.2	2.8	3.7
< 1 year	84	332,027	25.3	19.9	30.7
1 through 4	55	1,329,681	4.1	3.0	5.2
5 through 9	23	1,753,976	1.3	0.8	1.8
10 through 14	20	1,802,674	1.1	0.6	1.6
15 through 17	19	1,043,645	1.8	1.0	2.6

*As defined by the Colorado Child Fatality Prevention System.
**Rates with fewer than 20 observations may be unstable.
***Per 100,000 Colorado residents.
Data source: Colorado Child Fatality Prevention System, Colorado State Demography Office

RACIAL AND ETHNIC INEQUITIES

There is a significant inequity in the rate of child maltreatment deaths by race and ethnicity in Colorado. The rate of child maltreatment deaths among non-Hispanic black infants, children and youth was 4.1 times higher (10.7 per 100,000 population) than for non-Hispanic whites (2.6 per 100,000 population). The rate of child maltreatment deaths among Hispanic infants, children and youth was 1.2 times higher (3.1 per 100,000 population) than for non-Hispanic whites, although this difference was not statistically significant.

Traditionally, individual level factors of caregivers have been shown to contribute to the racial differences in deadly child maltreatment, including low educational attainment, low income, inadequate employment, intimate partner violence and history of abuse as a child.[13] However, studies examining these individual-level factors have failed to fully explain the racial differences. Instead, research highlights the role that social determinants and contextual factors, particularly community and environmental inequities, play in child maltreatment prevention.[14]

Racialized residential segregation can lead to the racial and ethnic inequities in various child fatalities including child maltreatment deaths. These inequities are largely driven by discriminatory federal, state and local policies, such as redlining, that create unjust geographic divisions among racial and ethnic groups.[15] Racial segregation leads to neighborhood disadvantage by concentrating neighborhood poverty, increasing exposure to environmental stressors such as air pollutants, creating barriers to and fewer opportunities for a healthy lifestyle, limiting access to health services and increasing housing and food insecurity.[16] The consequences of residential segregation resulting from historical practices like redlining are still reverberating throughout communities of color today. In the United States, Hispanic families are significantly more likely to reside in segregated neighborhoods with higher rates of social isolation and lack of access to resources.[17,18] Similarly, black families are likely to live in communities that are highly segregated with limited access to basic needs assistance, mental health and substance abuse treatment and opportunity for employment.[19] Data show 19.9 percent of black and 19.3 percent of Hispanic Coloradoans live below the poverty level, compared to 8.5 percent of non-Hispanic white Coloradans.[20,21] This structural injustice which many black and Hispanic families unjustly experience may partly explain the inequities around child maltreatment deaths.

A significant amount of research has documented that racial and ethnic minority populations are overrepresented in the child welfare system, compared with the general population. Studies have consistently found that black infants, children and youth are more likely to be the subject of child maltreatment reports and substantiations than non-Hispanic whites.[22] Possible explanations for this have included 1) disparate needs of children and families of color, particularly due to higher rates of poverty, 2) racial bias and discrimination by caseworkers, mandatory reporters and the general public and 3) lack of resources for families of color in the child welfare system and other similar factors.[23] Studies have found no relationship between race and incidents of child maltreatment after controlling for poverty.[24] Instead, child abuse and neglect is strongly associated with poverty and other measures of economic well-being.[25]

Families of color inequitably and disproportionately experience poverty in the United States, manifesting the higher prevalence of abuse and neglect compared to non-Hispanic white families. Experiencing poverty may also amplify exposure to the social service system (e.g. financial or housing assistance) and increase exposure to mandatory reporters, an idea referred to as visibility or exposure bias.[26] This research urges an emphasis on social factors such as poverty, rather than a focus on bias within the child welfare system.

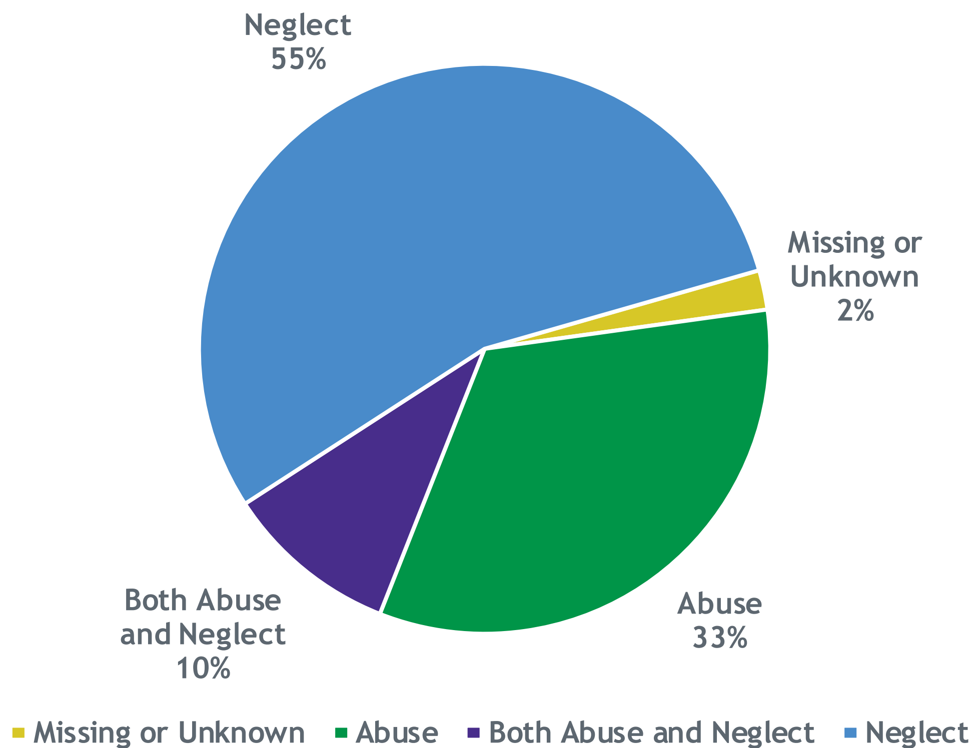
While we have made progress in understanding the overrepresentation of children and youth of color within the child welfare system,[27,28,29] it remains critical to identify, understand, and eradicate the life-long inequities that persist across racial and ethnic groups that contribute to child maltreatment.[30]

CHILD MALTREATMENT TYPES AND CIRCUMSTANCES

Of the 223 child maltreatment deaths occurring between 2013 and 2017, neglect caused or contributed to 54.7 percent (n=122) of the deaths, abuse caused or contributed to 33.2 percent (n=74), both abuse and neglect caused or contributed to 9.9 percent (n=22).

There was too little information available for five (2.2 percent) of the deaths, due to ongoing investigation or litigation. Because of this, local teams were unable to determine whether abuse, neglect or abuse and neglect caused or contributed to the death (Figure 3).

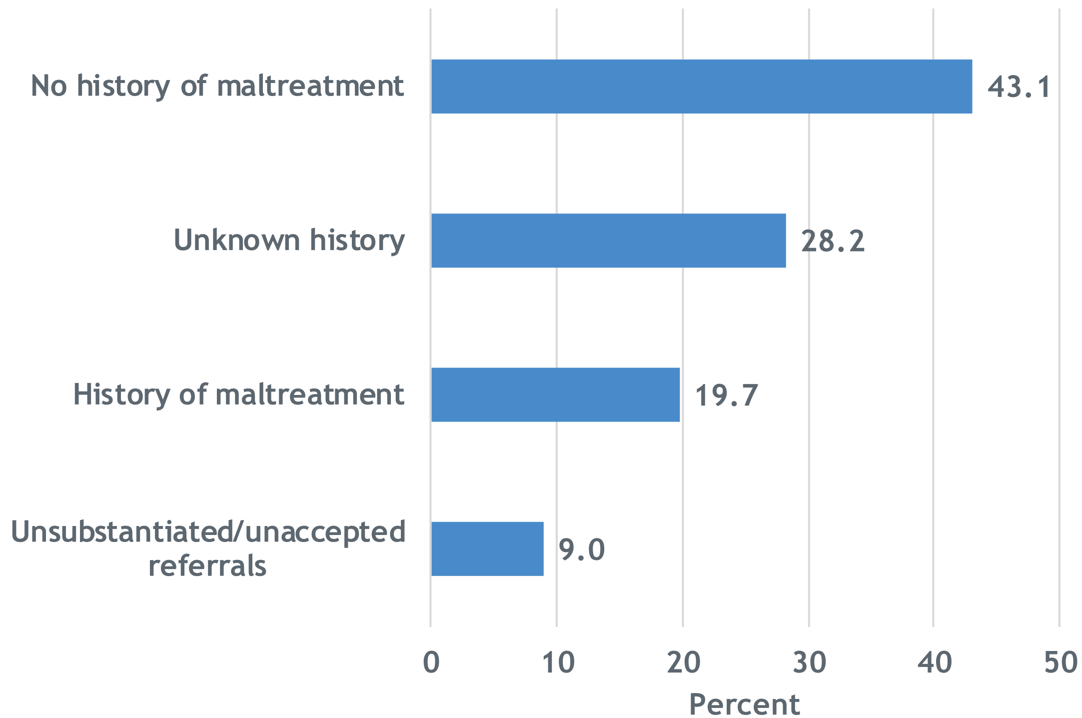
Figure 3. Deaths occurring among those under age 18 in Colorado ruled child maltreatment by CFPS by type, 2013-2017 (n=223)



Among deaths classified as involving abuse (those classified as abuse or abuse and neglect, n=95), all involved physical abuse, including 48.4 percent (n=46) where abusive head trauma occurred and 42.1 percent (n=40) where other abusive injuries (such as beating, kicking, gunshot injuries, and stabbing) occurred. Among deaths classified as involving neglect (those classified as neglect or abuse and neglect, n=144), 62.5 percent (n=90) involved a failure to protect from hazards. The next most common categories were failure to provide medical treatment (12.5 percent, n=18) and failure to provide supervision (10.4 percent, n=15) (data not shown).

Figure 4 displays information on the history of child maltreatment for infants, children and youth who died. Approximately 19.7 percent (n=44) of the children who died had a CDHS-substantiated history of child maltreatment, 9.0 percent (n=20) had unsubstantiated or unaccepted referral(s) and 43.1 percent (n=96) had no known previous history of maltreatment. Information on history of child maltreatment was missing or unknown for 28.2 percent (n=63) of the cases reviewed by CFPS.

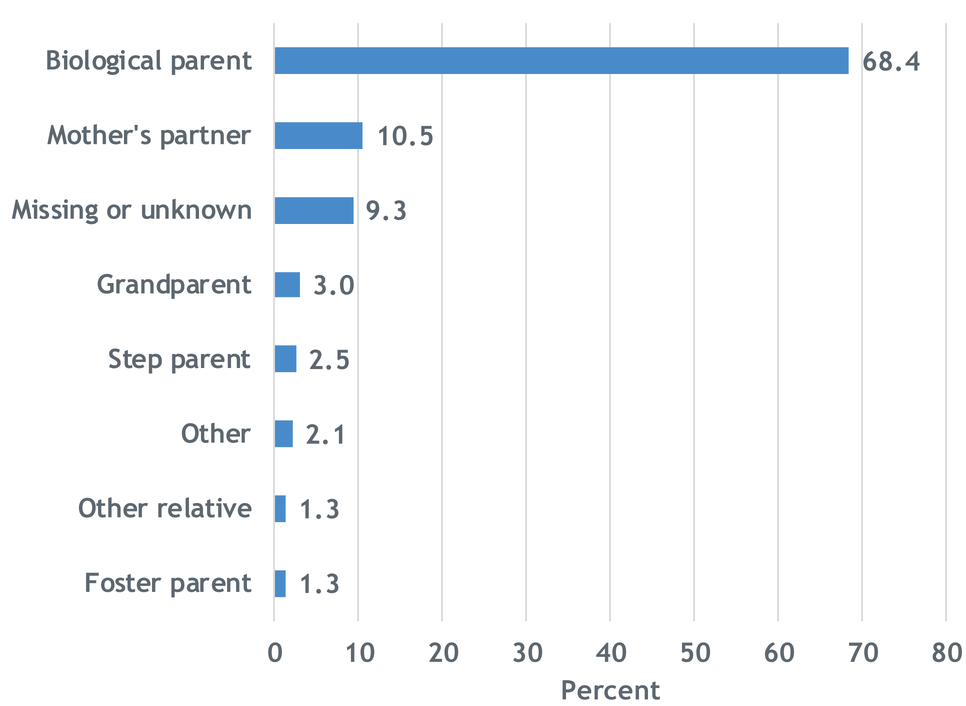
Figure 4. Decedent's history of maltreatment for child maltreatment deaths occurring among those under age 18 in Colorado, 2013-2017 (n=223)



PERPETRATORS OF CHILD MALTREATMENT

The CFPS review process can identify up to two perpetrators for each child maltreatment death reviewed (i.e. one perpetrator may have caused the death and another perpetrator may have substantially contributed to the death). From 2013-2017, 237 total perpetrators caused or contributed to 223 child maltreatment deaths. As shown in Figure 5, biological parents were most often the perpetrators of child abuse or neglect (68.4 percent, n=162) followed by the mother's partner (10.5 percent, n=25). When stratified by maltreatment type (abuse or neglect), the proportion of biological parents identified as perpetrators is higher for deaths involving neglect (78.6 percent, n=129), while the proportion where the mother's partner is identified is higher for deaths involving abuse (21.1 percent, n=24).

Figure 5. Perpetrators of child maltreatment deaths occurring among those under age 18 in Colorado by type, 2013-2017 (n=237)



People who behave violently are more likely to both continue being violent and commit additional forms of violence.[31] Among perpetrators of child maltreatment deaths in Colorado, 16.0 percent (n=38) had a known, previous history of child maltreatment as a perpetrator, 9.3 percent (n=22) had an unsubstantiated or unaccepted referral(s) and 31.2 percent (n=74) had no previous history of child maltreatment as a perpetrator. However, this information was missing or unknown for 43.5 percent (n=103) of the perpetrators.

Additionally, adults who have a history of either perpetrating or surviving intimate partner violence are at higher risk of perpetrating child maltreatment.[32,33] Among perpetrators of child maltreatment deaths in Colorado between 2013 and 2017, 27.4 percent (n=65) had a history of intimate partner violence, 15.6 percent (n=37) as a perpetrator and 11.8 percent (n=28) as a victim. Information on history of intimate partner violence was missing or unknown for 59.1 percent (n=140) of perpetrators listed.

For more information and CFPS data, please contact the CFPS Support Team at the Colorado Department of Public Health and Environment:

Sasha Mintz, Child Fatality Prevention System Epidemiologist | sasha.mintz@state.co.us

REFERENCES

1. Office of Health Equity, Colorado Department of Public Health and Environment, Statement on structural inequity. Retrieved from www.colorado.gov/pacific/cdphe/statement-on-structural-inequity.
2. Bailey, Z. D., Krieger, N., Agénor, M., Graves, J., Linos, N., & Bassett, M. T. (2017). Structural racism and health inequities in the USA: evidence and interventions. *The Lancet, 389*(10077), 1453-1463.
3. Pager, D., & Shepherd, H. (2008). The Sociology of Discrimination: Racial Discrimination in Employment, Housing, Credit, and Consumer Markets. *Annual Review of Sociology, 34*, 181-209.
4. Williams, D. R., & Collins, C. (2016). Racial residential segregation: a fundamental cause of racial disparities in health. *Public Health Reports, 116*(5), 404-16.
5. Williams, D. R., & Collins, C. (2016). Racial residential segregation: a fundamental cause of racial disparities in health. *Public Health Reports, 116*(5), 404-16.
6. Collins, C. A., & Williams, D. R. (1999). Segregation and mortality: the deadly effects of racism?. In *Sociological Forum*, 14(3), 495-523. Kluwer Academic Publishers-Plenum Publishers.
7. Larson, N. I., Story, M. T., & Nelson, M. C. (2009). Neighborhood environments: disparities in access to healthy foods in the US. *American journal of preventive medicine, 36*(1), 74-81.
8. White, K., Haas, J. S., & Williams, D. R. (2012). Elucidating the role of place in health care disparities: the example of racial/ethnic residential segregation. *Health Services Research, 47*(3pt2), 1278-1299.
9. Acevedo-Garcia, D., Lochner, K. A., Osypuk, T. L., & Subramanian, S. V. (2003). Future directions in residential segregation and health research: a multilevel approach. *American journal of public health, 93*(2), 215-221.
10. Collins, C. A., & Williams, D. R. (1999, September). Segregation and mortality: the deadly effects of racism?. In *Sociological Forum* (Vol. 14, No. 3, pp. 495-523). Kluwer Academic Publishers-Plenum Publishers.
11. King, M. (2017). Under The Hood: Revealing Patterns Of Motor Vehicle Fatalities In The United States. *Publicly Accessible Penn Dissertations. 2396*. Retrieved on June 19, 2019 from: repository.upenn.edu/edissertations/2396.
12. Office of Health Equity, Colorado Department of Public Health and Environment, Health Inequities Fact Sheet 2019: Latinx Coloradans Fact Sheet. Retrieved from: drive.google.com/file/d/1z1b15A9hGaRxvx4XTTa9BiPnz5lwjvfr/view.
13. Merritt, D. H. (2009). Child abuse potential: Correlates with child maltreatment rates and structural measures of neighborhoods. *Children and Youth Services Review, 31*(8), 927-934.
14. Coulton, C. J., Korbin, J. E., & Su, M. (1999). Neighborhoods and child maltreatment: A multi-level study. *Child Abuse & Neglect, 23*(11), 1019-1040.
15. Brown, K. S., Kijakazi, K., Runes, C., & Turner, M. A. (2019). *Confronting Structural Racism in Research and Policy Analysis*. Urban Institute. Retrieved from www.urban.org/sites/default/files/publication/99852/confronting_structural_racism_in_research_and_policy_analysis_0.pdf.
16. Bailey, Z. D., Krieger, N., Agénor, M., Graves, J., Linos, N., & Bassett, M. T. (2017). Structural racism and health inequities in the USA: evidence and interventions. *The Lancet, 389*(10077), 1453-1463.
17. Hipp, J., & Yates, D. (2011). Ghettos, thresholds, and crime: Does poverty really have an accelerating increasing effect on crime?. *Criminology, 49*(4), 955–990.
18. Lee, M. (2000). Concentrated poverty, race and homicide. *Sociological Quarterly, 41*, 189–206.
19. Allard, S. (2009). *Out of reach: Place, poverty and the New American Welfare state*. New Haven, CT: Yale University Press.
20. Office of Health Equity, Colorado Department of Public Health and Environment, Health Inequities Fact Sheet 2019: Black/African American Coloradans Fact Sheet. Retrieved from drive.google.com/file/d/1s0dh56JHqKpbduwjh0_9MUVY_EfBysrg/view.
21. Office of Health Equity, Colorado Department of Public Health and Environment, Health Inequities Fact Sheet 2019: Latinx Coloradans Fact Sheet. Retrieved from: drive.google.com/file/d/1z1b15A9hGaRxvx4XTTa9BiPnz5lwjvfr/view.
22. Miller, M. G. (2008). *Racial disproportionality in Washington State's child welfare system*. Olympia, WA: Washington State Institute for Public Policy.
23. Fluke, J., Harden, B. J., Jenkins, M., & Ruehrdanz, A. (2011). Research synthesis on child welfare: Disproportionality and disparities. *Disparities and Disproportionality in Child Welfare: Analysis of the Research*, 1. Retrieved from casala.org/wp-content/uploads/2015/12/Disparities-and-Disproportionality-in-Child-Welfare_An-Analysis-

of-the-Research-December-2011-1.pdf.
24. Sedlak, A. J., & Broadhurst, D. D. (1996). Executive summary of the third national incidence study of child abuse and neglect (NIS-3). *National Center on Child Abuse and Neglect (DHHS), Washington, DC*.
25. Sedlak, A., McPherson, K. S., Das, B., & Westat, Inc. (2010). *Supplementary analyses of race differences in child maltreatment rates in the NIS-4*. Westat, Incorporated.
26. Font, S. A., Berger, L. M., & Slack, K. S. (2012). Examining racial disproportionality in child protective services case decisions. *Children and Youth Services Review, 34*(11), 2188-2200.
27. Hill, R. B. (2004). *Institutional racism in child welfare. Race and Society, 7*(1), 17–33.
28. Johnson-Motoyama, M., Putnam-Hornstein, E., Dettlaff, A., Zhao, K., Finno-Velasquez, M., & Needell, B. (2014). Disparities in reported and substantiated infant maltreatment by maternal Hispanic origin and nativity: A birth cohort study. Maternal and Child Health Journal.
29.Drake, B., & Rank, M. (2009). The racial divide among American children in poverty: Reassessing the importance of neighborhood. *Children and Youth Services Review, 31*, 1264–1271.
30. Maguire-Jack, K., Lanier, P., Johnson-Motoyama, M., Welch, H., & Dineen, M. (2015). Geographic variation in racial disparities in child maltreatment: The influence of county poverty and population density. *Child Abuse & Neglect, 47*, 1-13.
31. Wilkins, N., Tsao, B., Hertz, M., Davis, R., Klevens, J. (2014). *Connecting the Dots: An Overview of the Links Among Multiple Forms of Violence*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention Oakland, CA: Prevention Institute.
32. Knickerbocker, L., Heyman, R. E., Smith Slep, A. M., Jouriles, E. N., & McDonald, R. (2007). Co-occurrence of child and partner maltreatment. E*uropean Psychologist, 12*(1), 36-44.
33. American Psychological Association. Presidential Task Force on Violence and the Family. (1996). *Violence and the family: Report of the American Psychological Association presidential task force on violence and the family*. American Psychological Association.