

**Delaware State Epidemiological Outcomes  
Work Group (SEOW)**



**Parental Substance Use and Child Outcomes**

**Gap Report 9**

**September 2018**

The Delaware State Epidemiological Outcomes Workgroup (SEOW), formerly known as the Drug and Alcohol Tracking Alliance (or DDATA), is charged with providing assessments on gaps in services and programs for Delaware residents across the lifespan, as well as gaps in research and data to inform these services. This Gap Report discusses how parental use of substances has implications for children’s development, well-being, and future outcomes, with a particular focus on two populations of children that are affected by parental substance use: children who enter the child welfare system as a result of a parents’ substance use and substance exposed infants.

**Definition and Prevalence**

Analysis of combined data drawn from 2009-2014 National Survey on Drug Use and Health (NSDUH) found that an estimated one in eight children under the age of 17 live with a parent who had a substance use disorder within the past year (Lipari & Van Horn, 2017). Of these children, an estimated ten percent had parents with an alcohol use disorder, and about 1 in 35 had an illicit drug use disorder. Nine percent of households with children who responded to the [2016 National Survey of Children’s Health](#) reported that the child selected as a point of reference for the survey had ever lived with anyone who had a problem with alcohol or drugs.

Funding for this project (SP020704) has been provided by the Department of Health and Social Services, Division of Substance Abuse and Mental Health - State of Delaware through a grant from the Substance Abuse and Mental Health Services Administration (SAMHSA) - CFDA 93.243.

Nationwide, the number of children in foster care increased by 10% between 2012 and 2016 (U.S. Children’s Bureau, 2017). A detailed mixed methods study from the US Department of Health and Human Services published in 2018 found a statistically significant relationship between drug overdose deaths and drug-related hospitalizations and increased child welfare caseloads across the nation, with some variance in this relationship by region of the country<sup>1</sup>. Interviews and focus groups with stakeholders in eleven states provided additional information to support the argument that parental substance use plays a major role in the increase in child welfare placements nationwide. In addition, data from the Adoption and Foster Care Analysis System (AFCARS) shows that child welfare workers who report into the system increasingly cite parental alcohol or other drug use as a reason for removing children from their homes (see Table 1). In 2016, over a third of all children in foster care were removed from their homes due to parental alcohol or drug use (AFCARS, 2017).

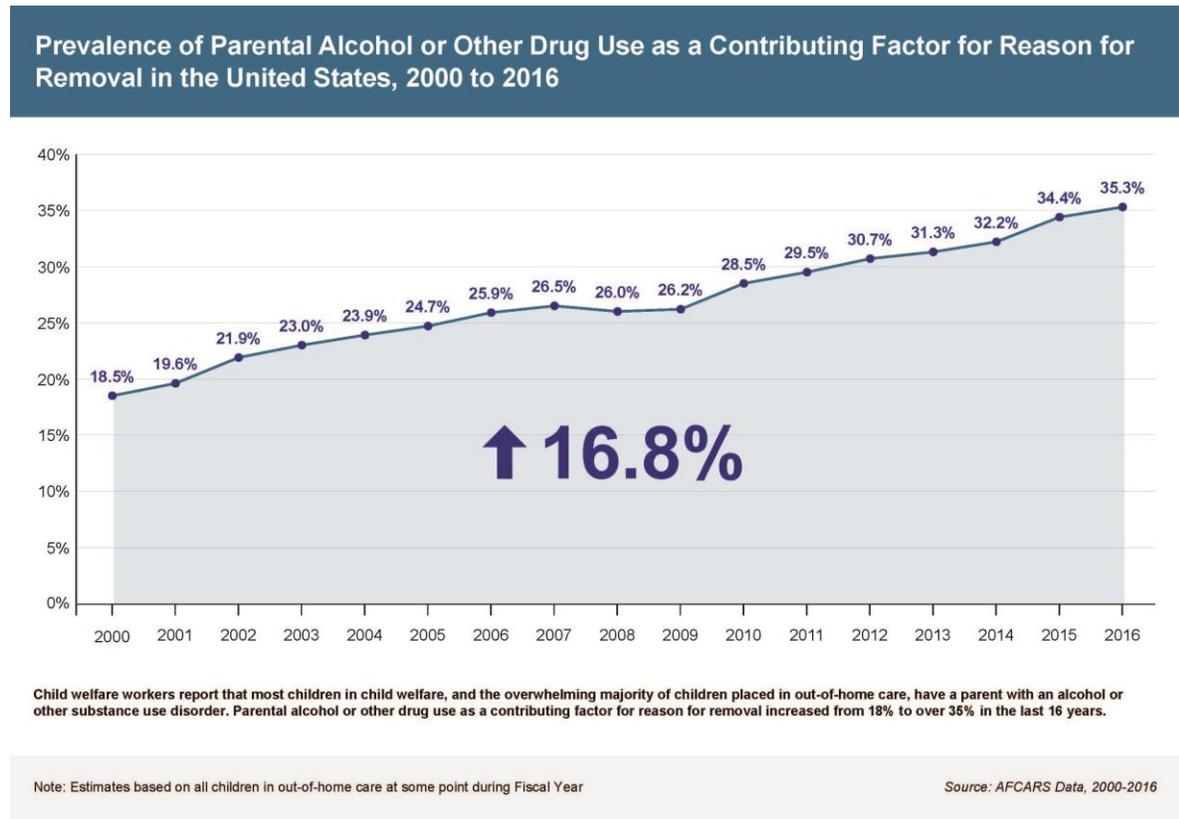


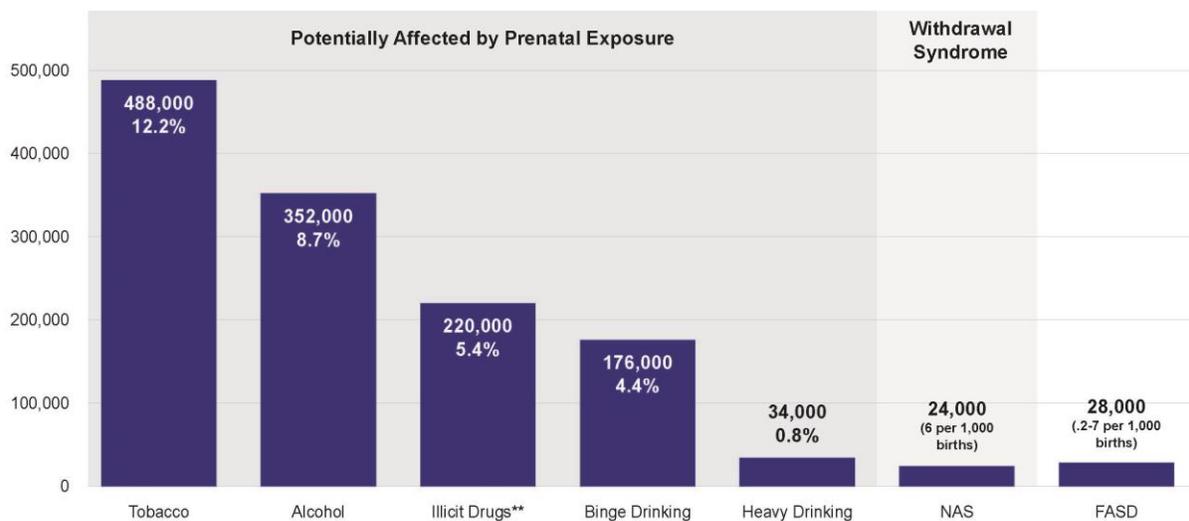
Table 1: Prevalence of Parental Alcohol or Other Drug Use as a Contributing Factor for Reason for Removal in the United States, 2000 to 2016. Source: AFCARS Data, 2000-2016. Image downloaded from the [National Center on Substance Abuse and Child Welfare](#), US, HHS.

<sup>1</sup> Delaware was one of the states that had high rates of drug overdose deaths and drug-related hospitalizations but has not seen increases in child welfare cases.

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In 2015, 4.7% of pregnant women between the ages of 15 to 44 who responded to the NSDUH reported that they used illicit drugs within the past month. Nearly one in ten (9.3%) of these women reported past month alcohol use, and 13.6% reported past month cigarette use (SAMSHA, 2016). [National data](#) from the Pregnancy Risk Assessment Monitoring System (PRAMS) found that approximately 8% of pregnant women reported using alcohol in the past three months of pregnancy, and 8.8% of pregnant women reported smoking cigarettes during the last three months of pregnancy (CDC, n.d.). Combining NSUDH response data with vital statistics on birth rates, analysts at the [National Center on Substance Abuse and Child Welfare](#) estimated the number of infants who were exposed to substance prenatally in 2016, with an estimated 12.2 % of infants with prenatal exposure to tobacco, 8.7% exposed to alcohol, and 5.4% exposed to other illicit drugs (See Table 2).

**Estimated Number of Infants\* Affected by Prenatal Exposure, by Type of Substance and Infant Disorder, 2016**



The prevalence rates of infants with prenatal substance exposure in the child welfare caseload is currently unknown due to states' variation in identification and reporting practices.

\*Approximately 4 million (3,945,875) live births in 2016; National Vital Statistics Report, Vol. 66, No. 1 [https://www.cdc.gov/nchs/data/nvsr/nvsr66/nvsr66\\_01\\_tables.pdf](https://www.cdc.gov/nchs/data/nvsr/nvsr66/nvsr66_01_tables.pdf)  
 Estimates based on rates of past month drug use: National Survey on Drug Use and Health, 2016; <https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.pdf>

\*\* Includes nine categories of illicit drug use: use of marijuana, cocaine, heroin, hallucinogens and inhalants, as well as the non-medical use of prescription-type pain relievers, tranquilizers, stimulants, and sedatives

Patrick, et al., (2015). Increasing incidence and geographic distribution of neonatal abstinence syndrome: United States 2009 to 2012. *Journal of Perinatology*, 35 (8), 667  
 May, P.A., and Gossage, J.P.(2001). Estimating the prevalence of fetal alcohol syndrome: A summary. *Alcohol Research & Health* 25(3):159-167. Retrieved October 21, 2012 from <http://pubs.niaaa.nih.gov/publications/ahr25-3/159-167.htm>

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Table 2: Estimated Number of Infants Affected by Prenatal Exposure, by Type of Substance and Infant Disorder, 2016. Image downloaded from the [National Center on Substance Abuse and Child Welfare](#), US, HHS.

Analysis of the State Inpatient Databases of the Healthcare Cost and Utilization Project (HCUP)<sup>2</sup> of the incidence of neonatal abstinence syndrome (NAS) found a 300% increase in NAS among 28 states between 1999-2013, with six out of every 1000 hospital births resulting in NAS (Ko, Patrick, Tong, Patel, Lind, & Barfield, 2016). Related to this topic, a separate analysis of HCUP data found that rates of opioid use disorder in women during hospitalization for delivery more than quadrupled between 1999-2014 (Haight, Ko, Tong, Bohm, & Callaghan, 2018).

In addition to rising NAS rates, high rates of Fetal Alcohol Spectrum Disorder are also of concern, although there is a wide variance in prevalence estimates by researchers. One study (May et al., 2018) of four communities in the United States from 2010 through 2016 found prevalence rates of between 11.3 per 1000 children to 50 per 1000 children, which surpassed the national 2012 Autism Spectrum Disorder (ASD) rates of 14.6 per 1000 children. While the rising rates of ASD have led to wide coverage in the mainstream media, FASD has not received the same amount of attention.

### **Why should this population receive special consideration?**

Parental substance use has been found to be significant risk factor for child abuse and neglect (Institute of Medicine & National Research Council, 2014), although it is likely compounded by additional risk factors such as poor mental health status of parents, or financial instability. Children of parents who abuse substances have higher rates of abuse and neglect than other children and often live in unstable households with low levels of parental monitoring (Smith & Wilson, 2016). Children in these households may also experience medical neglect, harsh discipline, and accidental injury or poisoning due to lack of supervision and/or drug or medical paraphernalia exposure (Staton-Tindall, Sprang, Clark, Walker, & Craig, 2013).

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<sup>2</sup> Delaware does not participate in the HCUP.

An estimated 30,520 reports of addictive substance<sup>3</sup> exposures to children under the age of five were made to US poison centers in the United States in 2016, and it is likely that many more incidents went unreported (The National Center on Addiction and Substance Abuse/NCASA, 2018, p. 4). According to the NCASA, research has found that up to 30% of children who are exposed to such substances will have a repeat exposure. Children with parents who experience addiction or have mental illness have increased risk of substance exposure than other children (NCASA, 2018, p. 81).

Parental substance use can have long-term impacts on the social and emotional development of children. One literature review noted that children with parents who abuse substances have increased risk for emotional and behavioral problems, including anxiety, depression, low self-esteem, and aggression (Peleg-Oren & Teichman, 2006). Parental or other caregiver substance use has also been linked to a greater risk of adolescent substance use and criminal justice involvement (Staton-Tindall, Sprang, Clark, Walker, & Craig, 2013). Studies of adverse childhood experiences (ACEs) identify parental substance use and household substance use as one of several adversities that are known to have wide-ranging impacts on child development, as well as poor health and other negative outcomes across the lifespan. Among other social, behavioral, and health outcomes, researchers have found that ACEs are linked to alcohol abuse in adulthood (Strine et al., 2012) as well as illicit drug use in adolescence and adulthood (Dube et al., 2003). Results from the [BRFSS ACE Module](#) completed by adults in ten states in 2010 show that household substance use was the second most cited ACE, after emotional abuse, with over a quarter of respondents reporting living in a household with substance abuse as a child.

For those children who enter in the child welfare system as a direct or indirect result of caregiver substance use, the experience of leaving their homes or being placed in multiple settings can be destabilizing for children. Substance use disorders are chronic health conditions where relapse is common and long-term management of symptoms is central to treatment plans (US Surgeon General, 2017). As such, parents may have a difficult time adhering to treatment plans, and fulfilling the requirements needed for reunification with their children. Relapse may also mean that children move in and out of foster care multiple times. Several research studies have found that children with parents who abuse substances have longer periods before reunification with their parents – and are more likely

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<sup>3</sup> Addictive substances include the following: nicotine, tobacco, alcohol, caffeine, controlled prescription drugs, marijuana and other illicit drugs.

to reenter foster care following reunification with caregivers – than other children in foster care (Brook & McDonald, 2009; Lloyd & Akin, 2012). Additionally, caregivers may not be able to reach treatment goals within the time allotted by the federal Adoption and Safe Families Act, which mandates termination of parental rights if a child has been in foster care for 15 out of the past 22 months, although exceptions are permitted in some cases. For older children, adoption is unlikely, and frequently older children are assigned “another planned permanent living arrangement” (APPLA) as a case goal, which generally leads to long-term foster care and increased likelihood of “aging out” of the foster care system at adulthood (Tao, Ward, O’Brien, DiLorenzo, & Kelly, 2012). Numerous studies have found that youth who age out of foster care have far poorer outcomes than the general population. The longitudinal [Midwest Study](#) of youth in three states who aged out of foster care shows that several years after emancipating from care, these young adults show drastically different outcomes than same-aged peers across multiple social and health indicators. For example, one-fifth of the study respondents met the criteria for substance dependence at age 26. Nearly 60% of females and 81.8 % of males reported having been arrested since emancipation (Courtney, Dworsky, Brown, Cary, Love, Vorhies, 2011).

As noted, parental substance abuse is a significant risk factor for child maltreatment (Institute of Medicine & National Research Council, 2014), and state child welfare workers are reporting increased rates of maltreatment victims with a caregiver that has substance abuse problems. Researchers from the US Administration for Children and Families used data from the National Survey of Child and Adolescent Well-Being, an initiative which began data collection in 2008-2009, to estimate the number of ACEs children who were reported to child welfare systems for child maltreatment have experienced compared to same age peers. Over half of the children reviewed in this study had experienced four or more ACEs at first contact with child welfare systems. As a point of comparison, a third of the original Kaiser-Permanente sample of adults surveyed for ACEs reported having experienced no ACEs (Stambaugh et al., 2013). One study in California found that adults who reported five or more ACEs were seven to ten times more likely to report problematic illicit drug use than those who reported no ACEs (Dube et al., 2003).

Parental substance use during pregnancy can also have life-long implications for children . Depending on the substance and the mother’s use, prenatal exposure to alcohol, tobacco, and other drugs can lead to birth defects, complications in labor, low birth weight, developmental delays, and long-term physical

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and/or intellectual disabilities (US Children’s Bureau, Child Welfare Information Gateway, 2014). Fetal Alcohol Spectrum Disorder (FASD), for example, can lead to symptoms that range widely in severity, from mild learning problems to serious developmental disability. In addition, infants who are exposed to substances in utero can experience symptoms of withdrawal after birth, in a condition known as neonatal abstinence syndrome (NAS). The symptoms of withdrawal complicates regular healthy development, and often leads to additional time spent in the hospital after delivery.

### **Delaware Specific Data**

There is limited data available to understand the scope of parental substance abuse in Delaware, and related childhood outcomes. Nearly 8% of Delaware households with children who responded to the [2016 National Survey of Children’s Health](#) (NSCH) reported that the child selected for the survey response had ever lived with anyone who had a problem with alcohol or drugs. Almost one-third (29.7%) of Delaware respondents to the 2016 [Behavioral Risk Factor Surveillance System](#) who indicated that they are parents to one or more children reported past month binge drinking.

Literature reviews related to parental substance use and child outcomes cite research that shows that parental substance use can impact parenting skills, with harsh discipline and anger towards children being one factor related to parental use (Smith and Wilson, 2016; US Children’s Bureau, Child Welfare Information Gateway, 2014). Delaware NSCH data shows that survey respondents who reported that the child under consideration of the survey lived in a house with a problem of alcohol or drugs were more likely to report feeling angry at their children sometimes or usually than survey respondents who indicated that there was not a substance abuse problem in the household ([Center for Drug and Health Studies](#), 2018).

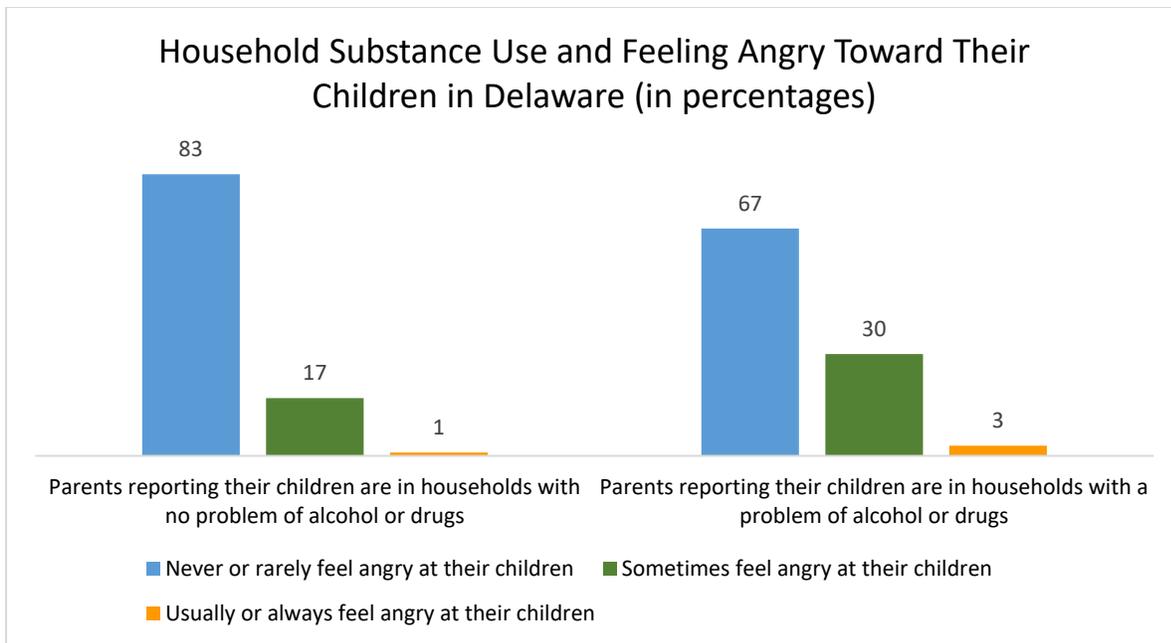


Table 3: Household Substance Use and Feeling Angry Toward Their Children in Delaware. Source: National Survey of Children’s Health, data drawn from Hussaini, K., Offutt-Powell, T., Christensen, M., & Woodall, L. The impact of adverse childhood experiences (ACE) on health-related quality of life, mental health, and hospitalizations in Delaware, *Delaware Journal of Public Health*, 2016.

Aligned with national trends, an increasing percent of victims in Delaware’s child welfare system are identified as having an alcohol or drug abuse caregiver risk factor, although some change in rates may be due to changes in reporting over time. In 2016, nearly four out of ten children who entered into the child welfare system were noted to have a caregiver with an alcohol abuse risk factor, and 37.2% had a caregiver with a drug abuse risk factor ([US Administration for Children and Families website](#), NCANDS data; See Table 3). While entry into the child welfare system does not necessarily indicate the presence of caregiver substance abuse, these data show that a significant number of children in Delaware who are in the care of the child welfare system had caregivers that abused alcohol or drugs prior to removal from their homes. These data may also underestimate the extent of the problem, as full information may not be known at the time of reporting.

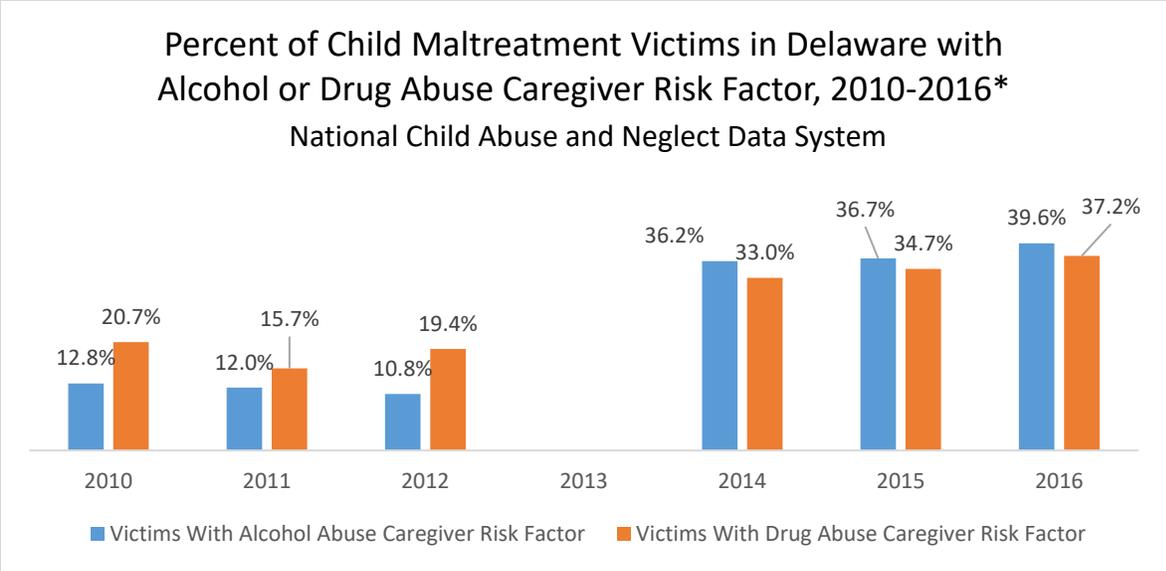


Table 4: National Child Abuse and Neglect Data System (NCANDS). Data drawn from annual [Child Maltreatment](#) reports available on the U.S. Administration for Children and Families website. \*Data is not available for 2013.

School-based surveys, such as the Delaware School Survey (DSS) and the Youth Risk Behavior Survey (YRBS), do not specifically ask students questions related to parental drug use, therefore we cannot use these sources of local data to show associations between caregiver substance abuse and youth drug abuse behavior, mental health, and other social and behavioral indicators. However, one measure from the DSS may give some measure for youth in the child welfare system, with caveats that this measure does not adequately capture kinship care, such as removal from home to live with grandparents. Since we can only assume that a portion of these students have experienced parental substance use based on national and state level data of child welfare caregiver risk factors, responses may only capture a small segment of youth who have parents who abuse alcohol or drugs. Respondents to the DSS who indicated that they live with a foster parent or guardian reported higher rates of past month cigarette, alcohol, and marijuana rates, and similar rates of prescription painkiller use, than respondents who did not report living with a foster parent or guardian. These youth also reported slightly higher rates of feeling depressed, feeling alone or isolated, feeling nervous or anxious, and reported attempting suicide in the past year at more than twice that of other youth surveyed.

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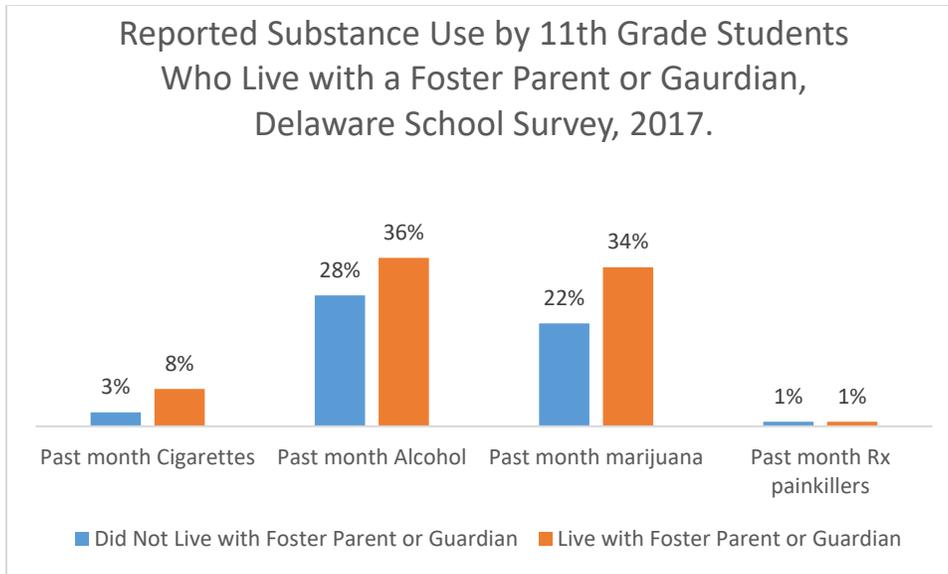


Table 5: Reported Substance Use by 11<sup>th</sup> Grade Students Who Live with a Foster Parent or Guardian, Delaware School Survey, 2017. [Center for Drug and Health Studies](#), University of Delaware.

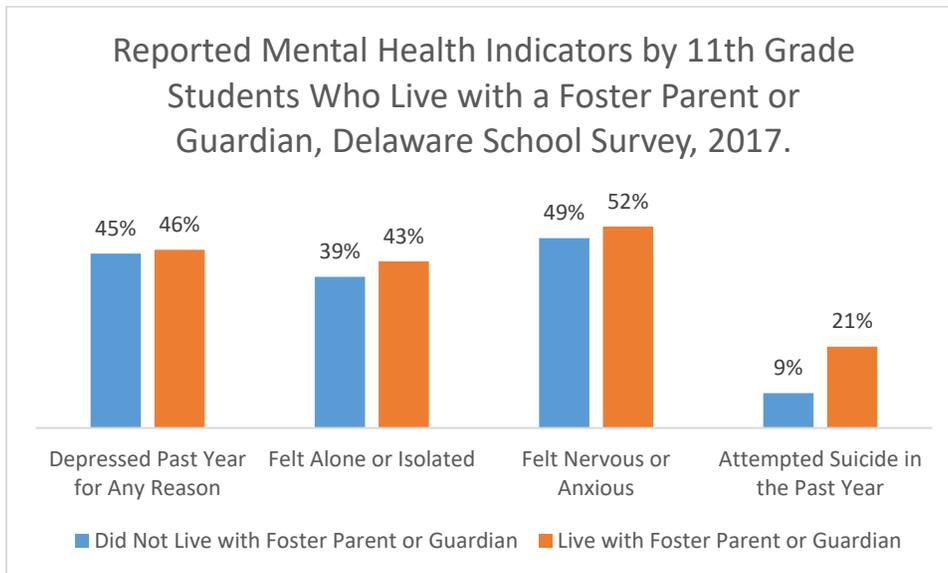


Table 6: Reported Mental Health Indicators by 11<sup>th</sup> Grade Students Who Live with a Foster Parent or Guardian, Delaware School Survey, 2017. [Center for Drug and Health Studies](#), University of Delaware.

Two additional sources of data related to social, behavioral, and other health outcomes related to child welfare experiences can be derived from the National Youth in Transition Database (NYTD) and the NSCH. Delaware NYTD data from FY 2015 shows that of the youth who had transitioned out of foster care in Delaware and responded to the survey at age 21 (47 out of a potential 70 respondents), 50% had

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been incarcerated in the past two years, one in four had been referred to substance abuse treatment in the past two years, just over half had experienced homelessness in the past two years, and only half of the population had completed high school or obtained a GED (NYTD data compiled by [ChildTrends](#), n.d.). Additionally, as noted above, children in child welfare systems, nationwide, report significantly more ACEs than the general population, and research has found that individuals with ACEs have poorer health outcomes than those without. In Delaware, adults who reported experiencing four or more ACEs had far higher rates of poor or fair health, mental health and substance abuse problems than adults who reported never being exposed to ACEs (Hussaini, K., Offutt-Powell, T., Christensen, M., & Woodall, L., 2016).

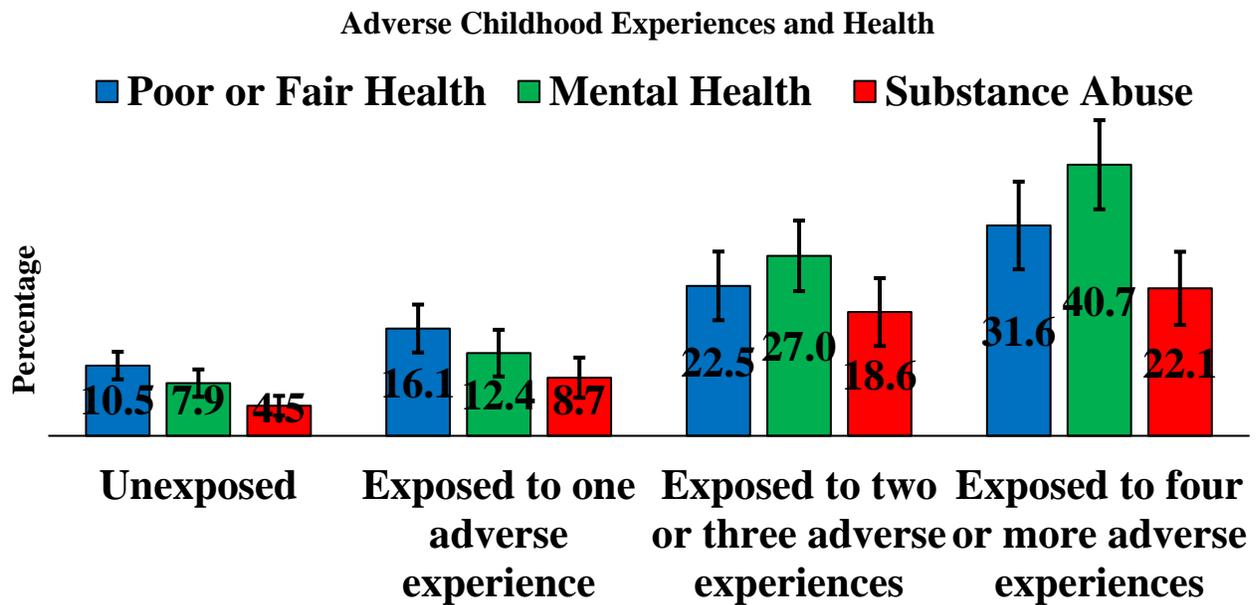


Table 7: Adverse Childhood Experiences and Health. Source: National Survey of Children’s Health, data drawn from Hussaini, K., Offutt-Powell, T., Christensen, M., & Woodall, L. The impact of adverse childhood experiences (ACE) on health-related quality of life, mental health, and hospitalizations in Delaware, [Delaware Journal of Public Health](#), 2016.

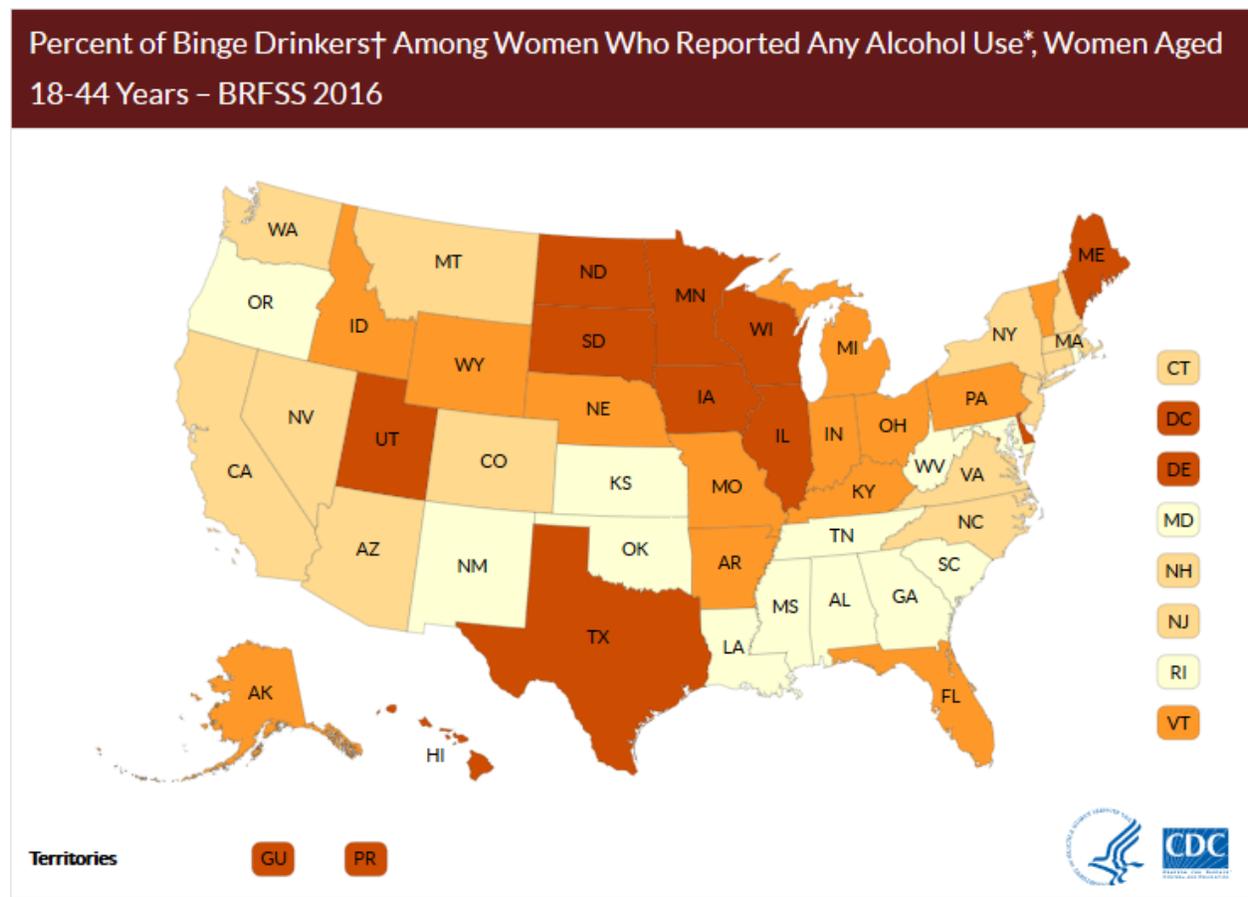
*Substance Exposed Infants (SEI)*

Nationwide, there has been an increased focus on substance exposed infants and creating mechanisms for ongoing monitoring of these infants through state Plans of Safe Care, as required under the federal Comprehensive Addiction and Recovery Act (CARA) which amended portions of the Child Abuse and

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Prevention Treatment Act (CAPTA). Recent legislation in Delaware, House Bill 140, *Aiden's Law*, signed into law in June 2018 establishes a plan of safe care for substance exposed infants in Delaware, which mandates inter-agency collaboration to address the treatment needs of the family and the child, and to ensure that the child's well-being and safety is monitored after the delivery.

Data from the 2106 BRFSS shows that adult women of childbearing age (ages 18-44) who reported any alcohol use, also reported higher rates of binge drinking in Delaware than in the majority of other states in the nation, at nearly 40% (CDC, n.d.). Binge drinking can be a sign of alcohol abuse disorder, which may create challenges to abstain from drinking in the event that a woman becomes pregnant. Alcohol use in pregnancy can lead to FASD. In 2015, 8% of women in Delaware who reported to the [PRAMS](#) indicated that they had used alcohol within the last 3 months of pregnancy, which is the same as the national rate.



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Figure 1: Percent of Binge Drinkers Among Women Who Reported Any Alcohol Use, Women Aged 18-44 Years – BRFSS 2016. Image downloaded from the [CDC FASD website](#).

In 2017, 450 notifications of prenatally exposed infants were reported to the Delaware Division of Family Services (Delaware Office of the Child Advocate, 2018). While marijuana is the most common substance among infants who have been exposed to a single substance, opioids are the most commonly identified substance among cases where the infant is exposed to two or more substances. Forty percent of the mothers who gave birth to prenatally exposed infants reported a history of involvement with child welfare system as children. Additionally, 34% of the mothers had an existing mental health condition, and 28% of the mothers had a prior SEI birth (Delaware, Investigation Coordinator Data, 2017).

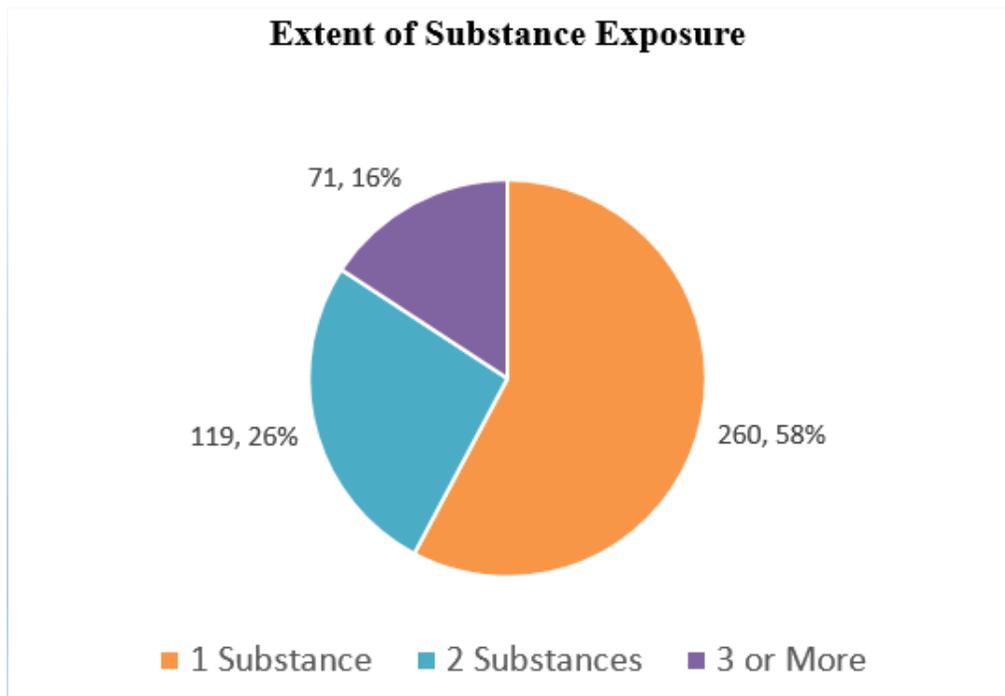


Figure 2: Extent of Substance Exposure. Source: Delaware, Investigation Coordinator Data, 2017.

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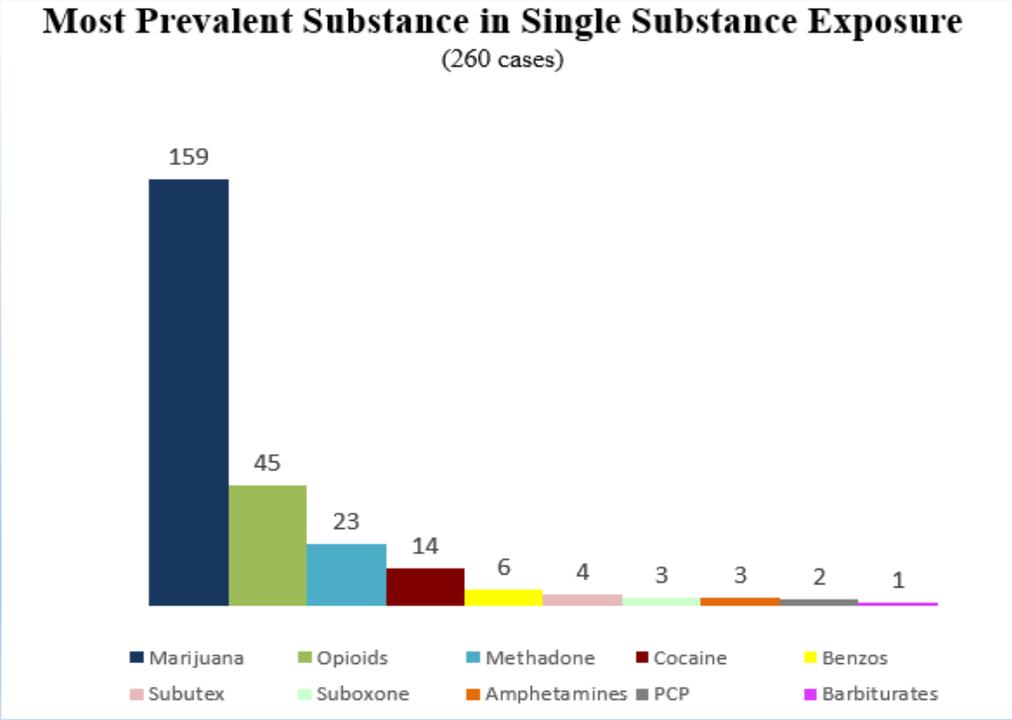
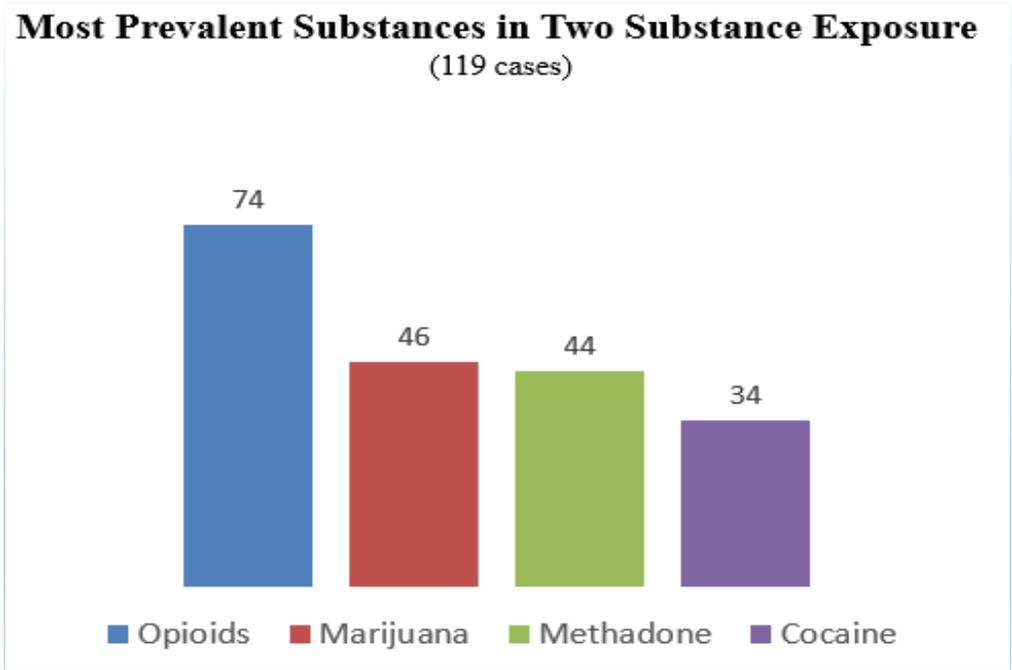


Table 8: Most Prevalent Substance in Single Substance Exposure. Source: Delaware, Investigation Coordinator Data, 2017.



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Table 8: Most Prevalent Substance in Two Substance Exposure. Source: Delaware, Investigation Coordinator Data, 2017.

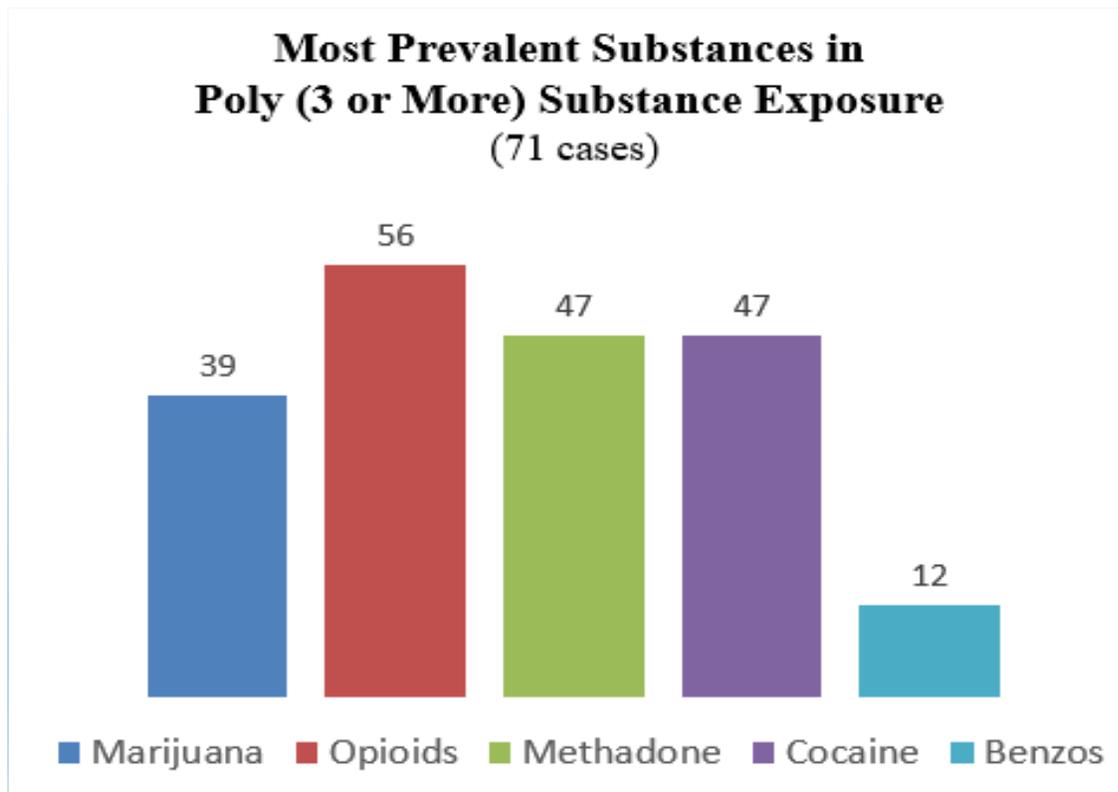


Table 9: Most Prevalent Substance in Poly (3 or More) Substance Exposure. Source: Delaware, Investigation Coordinator Data, 2017.

### **Implications**

While a significant gap in data exists in Delaware related to parental substance use and child outcomes, limited data exists from behavioral health surveys and child welfare reporting systems to get a sense of the scope of the problem in this state. National research has shown that parental substance use has wide-ranging implications for the social, emotional, and behavioral health of children, including an increased likelihood of using substances themselves later in life. For this reason, substance abuse prevention programs that target both parents or potential parents and the children of parents or caregivers who abuse substances are necessary to improve the health outcomes of these children. Additionally, treatment programs that accommodate families are important, and increased interaction

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and collaboration between the child welfare system, and the behavioral health and substance abuse systems are necessary for improving the outcomes related to this population. Finally, this also supports the argument for trauma informed approaches for schools and other settings to address the needs of youth who have been exposed to parental substance abuse as well as other ACEs.

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