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Articles

*81 FAMILIES IN CRISIS, CHALLENGES FOR POLICYMAKERS: EXAMINING THE TROUBLED LIVES OF DRUG-ENDANGERED CHILDREN [FNa1]

Stephen L. Nelson, J.D., Ph.D. [FNa2]

Kort C. Prince, Ph.D. [FNa3]

Marjean Searcy, S.S.W. [FNa4]

I. Introduction

> I felt guilty when I started smoking meth again, but I also told myself it was helping me be a better mom. A few puffs gave me the energy to clean the apartment, do . . . laundry, run some errands, and still be wide awake whenever [my child] cried. I was very careful, though, never to smoke around [my child] . . . [I] would put [my] baby down securely in her crib, turn on an air purifier to keep smoke away from her, and go downstairs to light up. I somehow managed to convince myself that by doing it this way, I could take care of my habit - and my baby. [FN1]

Drug-endangered children are children exposed by their parents or caregivers to controlled and chemical substances. Perhaps the most well-known example of drug-endangered children is that of three-year-old Deon, two-year-old Jackson, and one-year-old Megan James of rural Riverside County, California. [FN2] The James children died on December 26, 1995, when the ***82** "white medicine," [FN3] or methamphetamine, [FN4] their mother, Kathy, was cooking exploded on the stove. [FN5] The explosion caused the kitchen walls and floor to erupt in fire, which eventually consumed their mobile home, trapping the three children inside. [FN6] At Kathy's jury trial, one of the firefighters who first responded to the explosion described seeing "green or yellow-green smoke, and blue or green flames" spewing from Kathy's mobile home and burning patches of dirt with green flames smoldering in the front yard. [FN7] Kathy was eventually found guilty of three counts of second degree murder, one count of manufacturing methamphetamine, and one count of conspiracy to manufacture methamphetamine. [FN8]

In the years following the death of Kathy's children, state legislatures across America began passing laws criminalizing drug endangerment. [FN9] As of February 2009, thirty-five of fifty states have passed some form of drug endangerment statute. [FN10] Although some of these statutes are now almost a decade old, state policy-makers and the public law community know surprisingly little about the lives of drug-endangered children, whom these laws are designed to protect. [FN11]

Most of what policymakers know about drug-endangered children comes from the medical community. For

years, medical professionals have documented the adverse effects of controlled and chemical substances, such as methamphetamine and crack cocaine, on the health and well-being of children. [FN12] While this literature offers critical information about the physical dangers controlled and chemical substances pose to children, it provides policymakers with only limited knowledge about the characteristics of parents ***83** and caregivers who endanger children, the crime scenes from which drug-endangered children are removed by first responders (such as police officers and child protection workers), the mental health problems of drug-endangered children, and the future for drug-endangered children (such as foster care referral and involvement in the criminal justice system). [FN13]

The purpose of this article is to supplement the medical community's knowledge about the dangers of exposing children to controlled substances by collecting data from government agencies and those entities charged by policymakers with protecting drug-endangered children. The data for this article, as described in Part III, were collected by members of the Salt Lake City Police Department's COPS Methamphetamine Initiative from police agencies, prosecutors, child protection offices, and substance abuse treatment services providers operating within Salt Lake County. [FN14] Once collected, these cases were analyzed to address the following questions and issues of concern among the agencies involved in this research project:

1. Who are the suspects in these cases and what are their criminal, legal, psychiatric, and treatment histories?
2. What properties defined the scenes of these investigations?
3. What agencies were contacted by police to aid in the investigations?
4. What mental and physical outcomes occurred in children as a result (at least partially) of being victims of drug endangerment?
5. Does Child Protective Services (“CPS”) involvement increase after these incidents?
6. How often are victims removed to foster care?
7. Did outcomes affecting the families and victims differ depending on the drug(s) found on scene?

Due to the fact that so many highly publicized cases of drug endangerment across the United States involve methamphetamine, [FN15] and because so many ***84** state drug endangerment statutes are specific to methamphetamine endangerment, [FN16] Part II of this article provides readers with background information about methamphetamine and the health-related dangers that it poses to children. Parts IV and V discuss the data collected for this article and make recommendations for state policymakers considering steps to further protect drug-endangered children within their community.

II. Methamphetamine and its Associated Health Risks

A. The Methamphetamine Problem

Methamphetamine is a central nervous stimulant that is smoked, snorted, orally ingested, or injected by users. [FN17] Methamphetamine is also known as “biker's coffee,” “cinnamon,” “crank,” “crystal,” or “speed,” [FN18] and it is restricted by the Controlled Substances Act. [FN19] While methamphetamine abuse dates back to World War II, [FN20] its use has spiked within the last fifteen years. For example, the federal government estimates that the number of Americans who have used methamphetamine in their lifetime jumped from 3.8 million in 1994 to 11.7 million in 2004. [FN21] Moreover, methamphetamine-related hospital ***85** admissions were four times greater in 2003 than in 1993. [FN22]

Unlike street drugs like cocaine and heroin, methamphetamine does not occur naturally, and must be synthetically produced by combining a number of legally available ingredients and chemicals in a "cooking" process. [FN23] The California Court of Appeals described Kathy James's method for "cooking" methamphetamine as follows:

> [James] began with 'Mini-Thin' tablets, an over-the-counter medicine containing pseudoephedrine. First, she dissolved the tablets in hot water; then she added Coleman fuel, acetone, and/or lye, and 'boil[ed] them down' to extract the ephedrine. Next, she 'gassed' the solution. That is, she combined salt and sulfuric acid to make hydrochloric gas; when she applied the gas to the solvent, solid pseudoephedrine dropped out. Next, she put the pseudoephedrine into a Pyrex coffeepot, added red phosphorus and iodine, and heated the mixture on a hot plate. She wrapped the coffeepot with tape so that, if it blew up, pieces of Pyrex would not fly around the room. Finally, she cleaned the methamphetamine with acetone. The acetone dissolved the methamphetamine, leaving any impurities behind. Then she removed and evaporated the acetone. This left pure methamphetamine. Sometimes [the] defendant would speed up the evaporation process by putting the acetone in the oven, on the stove top, or in the microwave. [FN24]

In addition to the danger of explosions, such as with the clandestine laboratory in Kathy's mobile home, "cooking" methamphetamine produces dangerous and unhealthy chemical waste byproducts that contaminate the homes or buildings where the drug is "cooked." [FN25]

***86** The social costs of methamphetamine are staggering. Between 1998 and 2005, the federal government allocated $385 million to combat methamphetamine use across the nation. [FN26] Moreover, in 2006, methamphetamine-related charges were filed against 5395 defendants in federal district courts. [FN27] State and local governments have also struggled to keep up with the spread of methamphetamine. In a 2005 survey conducted by the National Association of Counties, 88% of responding state and local law enforcement agencies reported an increase in methamphetamine-related arrests over the previous five years. [FN28]

The methamphetamine problem, and the strain it places on government resources, understandably evokes strong feelings from state legislators struggling to fund state programs that combat methamphetamine distribution and treat methamphetamine addiction. [FN29] For example, speaking in favor of laws restricting the sale of methamphetamine ingredients, Texas Senator Craig Estes said:

> These paranoid, delusional, homicidal meth cooks must be told that they cannot come to Texas to obtain pseudoephedrine and cook this drug . . . . If we do not act now, we wait for a peace officer in Texas to ***87** be murdered and we can count on Texas becoming the meth capital of the United States. [FN30]

B. The Health-Related Dangers of Methamphetamine

Dr. Michael Abrams, of the Broadlawn Medical Center in Des Moines, Iowa, aptly described methamphetamine as "'the most malignant, addictive drug known to mankind.'" [FN31] According to the National Institute on Drug Abuse, methamphetamine use damages nerve terminals in the brain and contributes to potentially dangerous increases in body temperature. [FN32] Long-term methamphetamine use may cause substantial damage to the heart and brain cells, and can result in serious physical disfigurement, hallucinations and delusions, and death. [FN33] Some methamphetamine users become delusional or violent while under the influence of the drug [FN34] and can experience hallucinations and psychotic behavior. [FN35] Because methamphetamine is sometimes injected, users are also at an increased risk of contracting HIV, AIDS, and Hepatitis from infected needles. [FN36]

Children exposed to methamphetamine suffer ear, eye, nose, and throat problems. [FN37] They are also at risk for pulmonary conditions common to drug environments, especially those where the drug is smoked or manufactured. [FN38] Methamphetamine also poses special dangers to pregnant women. Babies of methamphetamine-addicted mothers are often born with "defects, low birth weight, attention deficit disorder, and other behavior disorders." [FN39] One study found that newborns whose mothers used methamphetamine during pregnancy ***88** were 3.5 times more likely to be born underweight than newborns from normal pregnancies. [FN40] They are also more likely to develop type 2 diabetes and metabolic syndrome, a combination of heart attack risk factors including high blood pressure and obesity. [FN41]

In addition to the negative effects children suffer from methamphetamine directly, children living in environments where adults "cook" methamphetamine are also exposed to volatile and combustible chemicals, such as hydrochloric acid, sodium hydroxide, acetone, ether, and methyl alcohol. [FN42] Noting these dangers, the California Court of Appeals has held that "cooking" methamphetamine is an activity inherently dangerous to human life:

> The dangers of manufacturing methamphetamine are closely analogous to the dangers of possessing a destructive device . . . [it] involve[s] a dangerous instrumentality; its maker often loses control over it; it may wreak enormous havoc on persons and property; the victims are often unintended sufferers; and . . . the dangerous instrumentality is susceptible of fairly easy concealment . . . Thus, manufacturing methamphetamine "by its very nature, . . . cannot be committed without creating a substantial risk that someone will be killed[.] [FN43]

In addition to inhaling or swallowing toxic substances, children living in a methamphetamine lab may "receive an injection or accidental skin prick from discarded needles or other drug paraphernalia, or absorb methamphetamine or toxic substances through [their] skin following contact with contaminated surfaces." [FN44]

III. The Data

This study used a case matching methodology to study drug endangerment cases from multiple agencies operating within Salt Lake County, Utah's most populous county, to obtain a snapshot of the process children and their caregivers undergo from arrest to prosecution to treatment. Subsection A of ***89** this Part describes the statutory authority for the arrests and prosecutions of the suspects in this study. Subsection B of this Part details the methods used to collect this data.

A. Statutory Authority Underlying the Data

Because these data come from Salt Lake County arrests and prosecutions, this subsection describes Utah's drug endangerment statute. Utah's statute was passed in 2000, [FN45] and it originally provided that:

> [A]ny person who knowingly or intentionally causes or permits a child or elder adult to be at risk of suffering bodily injury, substantial bodily injury, or serious bodily injury from exposure to, ingestion of, inhalation of, or contact with a controlled substance, chemical substance, or drug paraphernalia . . . is guilty of a felony of the third degree. [FN46]

If a child or elder adult suffers actual serious bodily injury as a result of their exposure to, ingestion of, inhalation of, or contact with a controlled substance (or chemical substance of drug paraphernalia), a person is

guilty of a second degree felony, and if a child or elder adult dies as a result of the exposure to, ingestion of, inhalation of, or contact with a controlled substance (or chemical substance of drug paraphernalia), a person is guilty of a first degree felony. [FN47]

In 2002, the Utah Legislature removed the "risk" element of the 2000 version of the statute. [FN48] With this amendment, prosecutors only needed to prove that a defendant "knowingly or intentionally cause[d] or permit[ted] a child or elder adult to be exposed to, to ingest or inhale, or to have contact with a controlled substance, or drug paraphernalia[.]" [FN49] Moreover, the legislature inserted into the statute an affirmative defense relating to prescription medicine. [FN50] With this amendment, defendants could assert that "the controlled substance was provided by lawful prescription for the child or elder adult, and that it was administered to the child or elder adult in accordance with the prescription instructions provided with the controlled substance." [FN51]

***90** In 2009, the Utah Legislature added three specific definitions to Utah's drug endangerment statute. [FN52] First, it changed the definition of "chemical substance" to include "any fumes or by-product resulting from the manufacture of a controlled substance." [FN53] Second, the term "exposed to" now means that the child or vulnerable adult is able to: access or view a controlled substance, chemical substance, or drug paraphernalia; or "smell an odor produced during, or as a result of, the manufacture or production of a controlled substance." [FN54] Finally, the legislature changed all references to "elder adult" to "vulnerable adult." [FN55] While Utah Code currently defines the terms "chemical substance," [FN56] "child," [FN57] "controlled substance," [FN58] "drug paraphernalia," [FN59] and "vulnerable ***91** adult," [FN60] Utah's statute is silent as to the meanings of "exposure to, ingestion of, inhalation of, or contact with." [FN61]

Utah is one of fourteen states to have passed general drug endangerment statutes, or statutes that protect children from all controlled and chemical substances. [FN62] Eighteen states have passed drug endangerment statutes that only ***92** prohibit endangering children through methamphetamine or the process of manufacturing a controlled substance, such as through a clandestine methamphetamine laboratory. [FN63] Three states have drug endangerment statutes that specifically prohibit endangering a child through the distribution or trafficking of controlled substances. [FN64] Fifteen states, Arkansas, California, Connecticut, Florida, Indiana, Maryland, Massachusetts, Michigan, North Carolina, Oklahoma, Pennsylvania, Rhode Island, Tennessee, Vermont, and Wisconsin, have not passed a drug endangerment statute of any kind. [FN65]

***93** B. Case Matching Methods

The first set of cases for this study come from sixteen police agencies in Salt Lake County [FN66] and one neighboring county that reports to Salt Lake County for substance abuse treatment purposes. From 2000, the year Utah's drug endangerment statute was passed, to 2006, the police agencies in this study investigated 565 drug endangerment cases. [FN67] Almost all of these cases (97.8%) came from three Salt Lake County agencies: the Salt Lake City Police Department (66.4%), the Salt Lake County Sheriff's Office (21.8%), and the West Valley City Police Department (9.6%).

The cases from the Salt Lake County police agencies were then matched to data from three other types of records: prosecution data from the Salt Lake County District Attorney's Office ("DA"), data from substance abuse treatment services providers within Salt Lake County ("Treatment Services"), and data from the Utah State Division of Child and Family Services ("CPS"). [FN68] Matching cases between these four agencies presented several obstacles for the research project. Foremost among these was the fact that no system exists in Salt Lake

County that is designed to match across these separate, yet interdependent, entities. Although each agency used common identifiers for their cases (such as individuals' first and last names), they were not completely unique to individuals because each agency has its own data collection procedures, its own database, and each agency collects data with varying levels of accuracy. For example, if an entity misreported, or even misspelled, a name, it became difficult to match that name across the other agencies.

In addition to difficulties matching cases that were true matches across all databases, there were also problems with missing cases. Not all people arrested ***94** by the police are charged with drug endangerment by prosecutors; not every suspect who endangers a child is assigned to treatment; and not all children who are endangered receive the treatment they need. Furthermore, suspects sometimes change their residence, receive treatment privately or outside of the county's jurisdiction (or do not receive treatment at all), and from time to timeare not prosecuted on charges. In other words, cases could fail to match because they were missing and had no true match due to these extraneous reasons. While this study did not have actual or proxy variables to assess missing cases, several methods were undertaken to ensure the most accurate matching possible within the study's control.

The most difficult aspect of the matching process was matching cases from police agencies and the DA's office to cases from CPS and Treatment Services. While police agencies and the DA's office both utilize a police case number to track cases, Treatment Services and CPS use other identifiers to track their cases. Because of this obstacle, this study developed and used an alternative matching system to match cases across all four agencies. [FN69] The variables used in this alternative system included the first name of the child or suspect, the last name of the child or suspect, and the suspect's or child's date of birth and gender. A match quality variable was created assigning the highest value of one (or “true” match) to cases in which all four variables matched, a two (or “partial” match) if only the date of birth did not match [FN70] (or was not available), and a three (or “indirect” match) if the date of birth did not match (or was not available) and only the first three letters of the first name matched. Computerized matching, using these criteria, was performed to eliminate false matches as a threat to the validity of a study tracking participant outcomes across agencies. In the end, however, all but one of the 565 cases (discussed below), regardless of their match quality level, were included in the study, as consistency of outcomes across the databases did not differ across the match quality levels.

To capture cases missed by the conservative matching procedure employed by this study, unmatched cases were reanalyzed by hand. In a relatively small number of cases, it was clear that police and treatment provider ***95** records often recorded different, but, in fact, matching first names of suspects or children. For example, if a police officer recorded an individual's name as “Bill,” but a treatment provider recorded the name as “William,” the lack of a match on the first three letters of the first name would eliminate the chance of accurate computerized matching given the criteria above. This failed computerized match was overridden by hand, thus increasing the accuracy of true matches in the database.

Unfortunately, this system revealed fairly poor matching rates. It is believed that the detailed and rigorous matching system revealed a maximum number of true matches, and conservatively minimized the number of false matches. However, the matching system may have missed some potential true matches (through false mismatches) due to both the strict matching criteria and the necessity of relying on outside agencies to conduct the matching (to ensure confidentiality). Though some true matches may be missing, the poor matching rates are, in large part, considered the result of the aforementioned extraneous factors leading to cases that were not just unmatched, but were missing from the system entirely. The 565 original police cases matched 278 (49.2%) DA cases, 331 (58.9%) Treatment Services cases, and 335 (59.3%) CPS cases. Ninety-five (16.8%) of the total po-

lice cases matched across all four databases.

Prior to analyzing the cases, the accuracy of the matching was tested for consistency across several outcomes. The cases were compared across databases to ensure consistency of gender and arrest history, and an analysis was performed on the pregnancy variable to ensure that all pregnant suspects were also female. Using these consistency checks, only one case was flagged as a potential mismatch: a case in which a pregnant individual was also marked as male (in all databases). [FN71]

After checking it for consistency and examining for outliers, the combined dataset was analyzed to address the following questions and issues of concern among the agencies who cooperated in the current research project:

1. Who are the suspects in these cases and what are their criminal, legal, psychiatric, and treatment histories?
2. What properties defined the scenes of these investigations?
3. What agencies were contacted by police to aid in the investigations?
4. What mental and physical outcomes occurred in children as a result (at least partially) of being victims of drug endangerment?
5. Does Child Protective Services ("CPS") involvement increase ***96** after these incidents?
6. How often are victims removed to foster care?
7. Did outcomes affecting the families and victims differ depending on the drug(s) found on scene?

IV. Discussion of the Data

The following section describes the results of the analyses performed on the data collected for this study. Because of the differing numbers of individuals in the Treatment Services and CPS databases who could be matched to police cases, the number of cases available for each analysis varied depending on the database from which analyzed variables were drawn. Furthermore, although missing data were rare within databases, instances of missing data led to fewer cases available for analyses of some variables within the specific data systems (i.e., police data, the district attorney data, Treatment Services data, and CPS data).

A. Characteristics of the Suspects

1. Suspect Demographics

Of the suspects arrested for drug endangerment from 2000-2006, 52.1% were female and 47.9% were male. On average, these suspects were 32.6 years of age, and they ranged from eighteen to sixty-five years old. 84.3% of cases involved white suspects, while 6.3% involved Hispanics, 6.3% involved Blacks, 1.3% involved Asians, and 1.8% involved "other."

The number of times a suspect had been arrested ranged from zero to sixty-five, with a mean value of 4.3 arrests prior to the drug endangerment arrest that made them part of the study. The suspects had been in substance abuse treatment between zero and eighteen times prior to the incident, with an average of 4.3 times in treatment. A number of other negative outcomes that co-occur in suspects charged with drug endangerment are shown in Table 1. [FN72] The majority of these suspects are uninsured, are homeless or living in a supported residence,

and are also unemployed. Almost half of the suspects in this study have no form of legal income. Further, almost all of these suspects have some sort of a substance related disorder, and over one-third have a psychiatric disorder (other than substance abuse). The majority of suspects did not complete high school, and almost all suspects completed no post-high school education.

These data were also compared to Utah's general population using data from the U.S. Census Bureau. The U.S. Census reports that, among Utah ***97** residents age twenty-five and older, only 10.0% had not completed a high school education in 2000. [FN73] In comparison, the percentage of the drug endangerment suspects age twenty-five or older not completing high school is 48.7%. The high school dropout rate among this study's population is almost five times higher than the state of Utah as a whole, and it is significantly different from the state value, p=.000. [FN74]

Adult unemployment in Salt Lake City was 2.6% in 2007. [FN75] The last available month reported by the Bureau of Labor Statistics (as of the time of this writing) was November of 2008, at which time unemployment in Salt Lake County was 3.5%. [FN76] Unemployment among drug endangerment suspects is thus over sixteen times higher than that of Salt Lake County's population as a whole, and it is significantly different from the city value at p=.000.

The frequency of uninsured residents of the state of Utah in 2006 - 2007 was 15.1%. [FN77] Although no city or county level data was available for direct comparison with the data for this study, the rate of uninsured adults in the drug endangerment data is over four times the state value at 62.7%. This difference was significant at p=.000.

Table 1: Negative Outcomes Associated with Suspects in Drug-Endangered Children Cases in Salt Lake County

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***98** 2. Suspect Pregnancy Related Factors

Data involving pregnancy was of particular interest due to the risk of drug use and potentially dangerous lifestyles to the unborn child. [FN78] Only ten cases in the sample self-reported pregnancy. Because of the small sample size, generalizations should be drawn with extreme caution; however, many negative outcomes are associated with pregnant suspects. [FN79] All or almost all suspects have no education past high school, are divorced or single, are homeless or living in a supported residence, and are unemployed. [FN80] Most have a substance related psychiatric disorder, have no legal income, and have used drugs in the last thirty days. [FN81] Almost half have used methamphetamines in the last thirty days, have a non-substance related psychiatric disorder, and failed to complete high school. [FN82] Finally, one in five pregnant suspects has no insurance. [FN83] Relative to the sample as a whole (reported above), thus, outcomes for pregnant women were often more negative.

Table 2: Negative Outcomes Associated with Pregnant Suspects in Drug-Endangered Children Cases in Salt Lake County

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***99** 3. Suspect Criminal Histories

Table 3 below shows the arrest histories of the suspects in these cases. Over four out of ten suspects have a criminal history of arrest for drug abuse. [FN84] A criminal history of arrest for domestic violence was the second most common criminal history, and other criminal arrest histories were rare at less than 10% of cases. [FN85] Suspects with a drug endangerment history were extremely rare, which is understandable given the fact that Utah's drug endangerment statute is relatively new. [FN86]

Table 3: Criminal Histories of Suspects in Drug-Endangered Children Cases in Salt Lake County

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4. Suspect to Victim Relationships

In the majority of cases (76.6%), the suspect was the parent of the victim. The second most common victim-to-suspect relationship was a suspect who was a roommate, friend, or acquaintance of the victim's parent (8.2%). Other relationships, including grandparents, siblings, or aunts or uncles, each represented 3.0% or fewer of the cases.

B. Characteristics of the Scenes

1. Drug Endangerment Scene Outcomes

Facts regarding findings on the crimes scenes are reported in Table 4 below, and are derived from police data. They are provided, however, with the caveat that they are known to be underreported in the written police case reports recorded by officers at the scene. [FN87] Police are asked to complete an ***100** overwhelmingly large number of forms and fields at a crime scene, while also taking care of the suspects, the endangered children, and the details of the crime. The multifaceted nature of the job sometimes leads to underreported data. Underreporting data occurs for all outcomes below, but some outcomes are more likely to be underreported than others. Variables such as filth, porn, roaches, and vermin are frequently underreported because (1) they are ancillary to the immediate needs of the investigation, and (2) in the instances of porn, roaches, and vermin, evidence is often hidden. [FN88] The outcomes are, nonetheless, compelling in the sense that, though underreported, negative scene outcomes are common.

As seen in Table 4, the majority of locations possessed sufficient quantities of drugs to qualify as distribution locations, and probably as a result, the majority of the locations were considered “high traffic” areas. [FN89] The victim was removed in well over half of the cases. [FN90] About one-third of the locations were “filthy,” while about one-fourth of the cases involved weapons, bodily fluids on scene, syringes, stolen property, and rotten food. [FN91] Clandestine labs were found in over one in ten locations. [FN92] Other outcomes were relatively rare.

Table 4: Scene Properties of Drug-Endangered Children Cases in Salt Lake County

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***101** 2. Scene Locations and Outcomes

The drug endangerment cases were primarily located in single family residences (56.7%). Apartments were the second most common crime scene location, comprising 19.5% of the cases, while hotels were the location in 13.1% of cases. Vehicles (5.4%), "Other" (2.8%), and a public area (2.6%) were relatively less common.

Analyses were conducted to determine whether certain locations were more likely to have distribution and production of drugs or possession of drugs relative to one another. Potential differences were examined on heroin, cocaine, methamphetamine, and marijuana. Only one significant difference emerged. A test of proportions revealed that suspects were significantly more likely to produce and distribute marijuana out of a single family residence (16.6% of 193) compared to "other" (8.0% of 150) types of residences, p=.014.

3. Agency Notifications by Officers

Analyses also examined the protective agencies contacted by police when the child victim was removed from the home as a result of these drug endangerment cases. Data indicate that CPS was contacted most frequently (83.4% of the time). Surprisingly, "no agency," an indication that no outside protective organization was contacted, was the second most common outcome (15.3%). Other agencies, including the health department, "other," and animal control were contacted less than 2.0% of the time. Explanations for this unusual outcome are addressed in the discussion section infra.

C. Characteristics of the Victims and Victim Outcomes

1. Victim Demographics

The average age of the child victims was 7.5 years old. Victims ranged in age from the unborn (treated as zero) to seventeen years old. The majority of the victims were under the age of eleven (70.7%); additionally, 81.7% of victims were under age fourteen, and 11.3% of victims were under the age of one. Victims were only slightly more likely to be male (51.2%) than female (48.8%).

2. CPS Involvement and Physical/Mental Health Assessment

On average, the CPS workers became involved with the child victims 3.5 months after the incident, but CPS involvement occurred within one week for 65.9% of the cases and within one month for 75.2% of the cases. The time to CPS involvement ranged from the same day to no involvement (capped at six ***102** years by the data's timeframe). As part of their involvement CPS workers collect physical and mental health data about the victims. These outcomes can be seen in Tables 5 and 6 below. Examples of diagnoses for both physical and mental health outcomes are provided in the tables. [FN93] As seen in Table 5, several physical ailments were common among the victims. Almost one out of three had a physical ailment. [FN94] One in three victims had dental or general health conditions. [FN95] Over one in ten victims had ear, eyes, nose and throat ("EENT") conditions common to drug environments, skin (integumentary) conditions, or pulmonary conditions. [FN96] Approximately one in twenty had gastrointestinal, musculoskeletal, gastrourinary, or growth development conditions. [FN97] Other physical conditions occurred in 3% or less of the population. [FN98] It is important to keep in mind that some of these conditions (e.g., dental trauma, some types of asthma, broken bones, influenza, and

brain trauma) are more likely than others to be due to poor environment. Some conditions are purely biological (e.g., Down's Syndrome); hence, caution should be used when assuming a condition was created by the endangering environment.

***103** Table 5: Physical Ailments Among Drug-endangered Children in Salt Lake County

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***104** Table 6 shows the mental health diagnoses of child victims provided by mental health professionals. The mental and physical health diagnoses are divided by the Diagnostic and Statistical Manual into five axes, but only two are relevant here: clinical disorders ("Axis I") and personality disorders ("Axis II"). [FN99] Essentially, Axis I disorders describe a broad range of clinical conditions other than personality disorders and mental retardation disorders, the basis for which are mood, impulse, learning, anxiety, adjustment disorders, etc. [FN100] Personality disorders and mental retardation disorders form the basis for Axis II. [FN101] Examples of diagnoses are provided in Table 6.

An abuse or neglect-related mental health condition was the most common Axis I condition in these data. [FN102] Just under one in ten victims suffered from mood, attention/disruptive, or adjustment disorders. [FN103] One in twenty suffered from a substance abuse disorder. [FN104] Some of these disorders are more likely than others to be created by the poor living environment of these children. Clearly, abuse/neglect is a purely environmental condition. It is important to keep in mind that other disorders, such as mood, attention/disruptive, adjustment, anxiety, and most other mental health disorders can be both biological and environmentally caused.

Axis I diagnoses are more common in Table 6 and in the data, not necessarily because they are always more frequent, but because they are more easily diagnosed than Axis II disorders. Axis II diagnoses are typically more difficult to provide. Because they are more pervasive over the lifespan, less acute, and often indicate a relatively more severe mental health condition, Axis II disorders are typically diagnosed by a long-term mental health provider rather than during an intake process (which is the basis for these data). Moreover, because these data are derived from relatively brief intake procedures and exams, the actual frequency of both Axis I and II diagnoses is likely underreported, and underreporting is likely greater among Axis II conditions.

***105** Table 6: Mental Health Diagnoses Among Drug-Endangered Children in Salt Lake County

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***106** 3. Child Protective Services ("CPS") Involvement

Significance tests were conducted to determine whether the families were more likely to be involved with CPS after the drug endangerment incident. A test of proportions indicated that families were significantly more likely to be involved with CPS after the incident (65.1% of 335) relative to before the incident (53.1% of 335), p=.002. Additionally, families were also significantly more likely to receive home-based CPS services after the incident (39.4% of 335) relative to before the incident (19.7% of 335), p=.000.

4. Victim Foster Care

After the arrests of their parents or caregivers, child victims spent an average of eight months in foster care, but that time frame ranged from zero to 16.5 years. As indicated in Table 7, the majority of victims spent no time in foster care; however, more than one in ten victims spent over one year in foster care and 4.8% spent over five years in foster care. A test of proportions revealed that drug endangering parents were significantly more likely to have children in foster care after the incident (30.9% of 335) relative to before the incident (6.6% of 335), p=.000.

Table 7: Time in Foster Care Among Drug-Endangered Children in Salt Lake County

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5. Victims to Suspects

Descriptive analyses were also conducted examining the percentage of drug-endangered youth who later became suspects in criminal cases as adults. Of the former victims who had turned eighteen at the time of the study, 38.5% were later arrested for felony or misdemeanor crimes, and 14.8% were later arrested for a felony crime. It is important to note that these percentages may under represent the actual number of crimes, as many former victims who are now eighteen may have moved elsewhere. The criminal arrests, if any, of these victims are not contained in the Salt Lake County arrest database, and were ***107** therefore not available for this study.

D. Outcomes Affecting the Family as a Function of Drugs Found on Scene

The data were also analyzed to determine whether outcomes affecting the family, particularly the child, differed as a function of the drugs found on scene. Outcomes could only be examined reliably for marijuana, methamphetamine, and cocaine. Other drugs, including heroin, occurred too infrequently for these analyses. The authors expected that outcomes would be more favorable for marijuana relative to other drugs, such as methamphetamine or cocaine. When examining the results for this portion of the study, it is important to note that, in this analysis, possession of one drug does not preclude possession of another. These categories, therefore, are not mutually exclusive. In other words, an individual in possession of marijuana might also be in possession of methamphetamine. To the extent that this occurs, outcomes for a less legally severe drug, like marijuana, may appear more severe because, though it is sometimes the only drug found, it sometimes co-occurs with methamphetamines, cocaine, or other drugs. Additionally, other factors besides controlled substances on scene, such as the mental state of the suspect or presence of possible alternative caretakers (not assessed in this study), can predict some of these outcomes. Significant outcomes are not presented as causal.

Table 8 below shows the frequency of child removal, foster care, residence closure, weapons found on scene, syringes found on scene, and whether the parent or guardian was incarcerated by the type of drug found on scene. Significance tests were conducted within these six outcomes to test for differences between the drugs. When one drug is significantly different from another on an outcome, a letter in the “Percentage “Yes”/Significance” column denotes the drug from which it is significantly different at p<.05. <fnrf> [FN105] For example, in Table 8, under the “Syringes?” outcome, marijuana and methamphetamine differ from one another; hence, a superscript “c” in the marijuana row denotes that marijuana (a) is significantly different from methamphetamine (c). In some cases, differences may appear to be significant, but are not due to sample size issues (the total sample size is provided). This was most often the case with cocaine.

Results in Table 8 indicate two significant differences: one on the “Syringes” variable and the other on the “Parent/Guardian Incarcerated” ***108** variable. Locations in which methamphetamine were found were significantly more likely to have syringes than locations with marijuana on scene, p=.039. Locations in which methamphetamine were found were also significantly more likely to lead to parent or guardian incarceration than locations with marijuana on scene, p=.026. [FN106]

Table 8: Outcomes Affecting the Family as a Function of Drugs on Scene in Drug Endangerment Cases

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Table 9 shows the same six outcomes for cases in which only one drug ***109** was found. Analyses revealed three significant differences, all between marijuana and methamphetamine. A victim was significantly more likely to be removed from a scene at which methamphetamine was found relative to marijuana, p=.029. [FN107] Relative to marijuana scenes, methamphetamine scenes were also significantly more likely to have syringes, p=.01, and to lead to parent/guardian incarceration, p=.043. [FN108]

Table 9: Outcomes Affecting the Family as a Function of Drugs on Scene in Drug Endangerment Cases (where only one drug was found on scene)

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V. Conclusions From the Data

Data involving suspects revealed a myriad of negative outcomes associated with individuals charged with drug endangerment. These ***110** individuals typically had long arrest histories, a diverse range of criminal histories, and long treatment histories. They often suffered from psychiatric disorders and had no legal income. Comparisons to state and city rates revealed that these individuals were significantly less likely to complete high school, significantly more likely to be uninsured relative to the general population of Utah, and were significantly more likely to be unemployed relative to the general population of Salt Lake City. Though only a small sample of pregnant suspects was available, outcomes for this group were often worse than for the drug endangerment population as a whole. Though it cannot be argued that these outcomes are causally related to problems with controlled substances and the drug endangerment charges, the evidence is compelling. These outcomes also suggest a very difficult job for substance abuse treatment providers, as many of these demographic factors are difficult to change, especially in the short-term.

Further exacerbating the already negative situation for the children in these cases are several scene outcomes suggesting a toxic living environment. Drug distribution was occurring in the majority of cases, and the majority of cases were “high traffic,” placing children in direct contact with illicit drug users. Over one-third of the children's home environments were “filthy,” and many homes contained bodily fluids, syringes, stolen property, rotten food, and open pornography. Situations were sufficiently detrimental to the child to warrant the child's removal from the home in almost two-thirds of the cases. CPS was contacted in nearly all of these cases. Clearly, CPS should have been notified in 100% of the cases in which a child victim was removed from a home. Further investigation revealed the discrepancy between CPS contact and victim removal to be a matter of accurate data collection and underreporting by officers on scene. The problems in underreporting of police data are discussed in the next section.

The toxic living environments of these children are no doubt partially responsible for negative physical and mental health outcomes. As noted above, [FN109] controlled substances, such as methamphetamine, pose significant health-related dangers to children. Other physical ailments were common, but are more difficult to directly attribute to the drug endangering environment. Although the environment may not have been the direct cause of many conditions, the failure of guardians to seek substance abuse treatment is likely responsible for the high rate of these conditions at the time of the assessment.

From a mental health standpoint, one-fourth of the children suffered from some mental health condition. [FN110] Most common among these conditions was an abuse/neglect diagnosis, though mood, attention/disruptive, and adjustment ***111** conditions were somewhat common. [FN111] Given the young age of the population, the fact that one in twenty children had a substance abuse condition is also notable. [FN112]

As a result of their parental demographics, living situations, and the levels of neglect, almost one-third of these children were removed to foster care. [FN113] This rate likely would have been higher were the foster care system not inundated with children, causing an insufficient number of suitable homes for long-term care which is often required for children of drug abusing parents. [FN114] Moreover, although causation cannot be determined from these data, over one in three child victims from these environments later committed crimes as adults.

Despite the large number of negative outcomes associated with these environments, some environments were more likely to negatively impact the family than others. As expected, scenes at which methamphetamine were found were more likely to lead to syringes being found, the child being removed from the scene, and the suspect being incarcerated. [FN115]

Viewed concurrently, the findings of this article suggest a difficult life for drug-endangered children. They live with parents in need of substance abuse treatment and often in need of psychiatric care. Their parents/guardians often have extensive criminal histories. The children typically live in poverty and in dangerous and unhealthy home environments. They are often placed in direct contact with non-familial drug users at high-traffic locations. Together, these outcomes serve to highlight the importance of continued efforts and resources being dedicated to helping improve the lives of drug-endangered children and their caretakers.

VI. Recommendations

A. Improving Systems of Accountability

An analysis of efforts aimed at improving the lives of drug-endangered children and their caretakers, such as this one, will be an on-going necessity to ensure agency accountability and improvement of the government's ability to help children and rehabilitate caregivers. It became clear in the course of this research that the first step toward meeting these goals is the adoption of a multi-***112** agency data collection system, to foster better communication among interdependent agencies and facilitate better data collection (especially within the police). The data for this article, for example, would have been much easier to collect if all agencies involved utilized a single reference number for children and caregivers. The difficulty in reconciling data about drug-endangered children from one agency to another, in other words, may be indicative of broader communication problems between agencies working to protect drug-endangered children. The authors of this study suggest that agencies either adopt or reference police case numbers in their databases so that these individuals can be efficiently tracked from agency to agency.

These data also raise the concern that crime scene-level information, about the homes where drug-endangered children are found by police and removed by CPS workers, is not accurately reported to medical professionals and prosecutors who later become involved in the effort to protect drug-endangered children. The authors of this study recommend instituting an electronic field card system with a National Crime Information Center ("NCIC") code specific to drug-endangered children so that police officers and CPS workers can record accurate and detailed scene-level information to assist medical and treatment professionals working with drug-endangered children. In addition to the fact that these field cards would contain more detailed information about drug-endangered children than currently available, the NCIC code accompanying these field cards would facilitate more-efficient data collection for analysts studying drug-endangered children.

B. General Drug Endangerment Statutes in the United States

One especially important issue for future studies involving drug-endangered children is counting the number of drug-endangered children in the United States. Because state statutes criminalizing drug endangerment are so different [FN116] (and, therefore, state level data on drug endangerment varies significantly from state to state), accurately counting the number of drug-endangered children in the United States is almost impossible. To remedy this situation, the authors of this study suggest that all states adopt a general drug endangerment law.

There are at least two advantages to having a general drug endangerment law: (1) such a law would encompass endangerment from all drugs, not just methamphetamine; and (2) general drug endangerment laws have been held to be constitutional. First, while methamphetamine has understandably been the ***113** focus of eighteen drug endangerment laws, [FN117] given the dangers methamphetamine poses to children, children can also suffer negative effects from other controlled substances. [FN118] General drug endangerment laws, thus, protect children from exposure to methamphetamine and other dangerous drugs their parents or caregivers might be abusing. Second, while some "reckless endangerment" statutes have been declared unconstitutional, [FN119] general drug endangerment laws have withstood constitutional scrutiny in state appellate courts. [FN120] General drug endangerment laws at the state level, thus, would more completely protect drug-endangered children, would be more likely to survive constitutional challenges, and would facilitate better national data collection on ***114** drug endangerment. If they have not yet done so, thus, state legislatures should take steps to pass general drug endangerment laws.

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[FNa2]. J.D. (University of Utah, 2002), Ph.D. (University of Utah, 2009); Deputy District Attorney, Salt Lake County District Attorney's Office; and Law Enforcement Subcommittee Chair, Salt Lake City Police Department COPS Methamphetamine Initiative. The data for this article were presented at the 2008 National Drug-Endangered Children Conference in Salt Lake City, Utah, on October 7, 2008, and at the 2008 International Family Violence and Child Victimization Conference in Portsmouth, New Hampshire, on July 28, 2008.

[FNa3]. Ph.D. (University of Utah, 2004); Statistical Analyst/Project Director, Bach-Harrison, LLC, Salt Lake City, Utah.

[FNa4]. B.A., S.S.W. (Southern Utah University, 1992); Coordinator, Salt Lake City Police Department COPS Methamphetamine Initiative. The author would like to thank the following individuals who assisted with collecting the data for this article: Officers David Caruso, Jon Campball (Ret.), and Frank Werner (Ret.), Salt Lake City Police Department; Michelle Tapia, West Valley City Police Department; Navina Forsyth, Utah State Department of Human Services (Division of Child and Family Services); and Cory Westergard, Salt Lake County Division of Substance Abuse and Mental Health.

[FN1]. Elizabeth Fish as told to Lisa Collier Cool, Mother's (Dangerous) Little Helper, Babytalk, Apr. 1, 2006, at 62, available at http:// www.drugfree.org/portal/stories/mothers_dangerous_little_helper.

[FN2]. See People v. James, 74 Cal. Rptr. 2d 7, 11 (Dist. Ct. App. 1998).

[FN3]. One of Kathy's children, seven-year-old Jimmy, was able to escape the fire with only minor injuries. During his testimony at Kathy's homicide trial, Jimmy referred to the cooking methamphetamine on the kitchen stove as his mother's “white medicine.” Id.

[FN4]. Methamphetamine is described in detail later in the article. See infra Part II and accompanying text.

[FN5]. James, 74 Cal. Rptr. 2d at 11.

[FN6]. Id.; see also Anastasia Toufexis et al., There is No Safe Speed, Time, Jan. 8, 1996, at 37. (describing the circumstances of the fire at the James' mobile home).

[FN7]. James, 74 Cal. Rptr. 2d at 11.

[FN8]. Id. at 9.

[FN9]. Drug endangerment statutes passed by state legislatures are discussed in more detail later in the article. See infra part III.A and accompanying text.

[FN10]. See infra notes 65-68 and accompanying text.

[FN11]. Public law scholarship on the issue of drug endangerment is very limited. See, e.g., Holly Elizabeth Hopper, Exploring the Evolution of Drug-Endangered Children's Movement and Drug Courts, 82 N.D. L. Rev. 1443, 1446 (2006); Michelle Kommer, Note, Protecting Children Endangered by Meth: A Statutory Revision to Expedite the Termination of Parental Rights in Aggravated Circumstances, 82 N.D. L. Rev. 1461, 1478-80 (2006).

[FN12]. The negative effects of methamphetamine and crack cocaine on children's health are discussed in detail later in the article. See infra Parts II.B and VI.B and accompanying text.

[FN13]. See, e.g., Janice Denehy, The Meth Epidemic: Its Effects on Children and Communities, 22 J. Sch. Nursing 63, 63-64 (2006); see generally Melinda Hohman et al., Methamphetamine Abuse and Manufacture: The Child Welfare Response, 49 Soc. Work 373 (2004).

[FN14]. Salt Lake County is Utah's most populous county. Mount Olympus: Local Mount Olympus Utah Online Guide, Mount Olympus in Salt Lake County Utah, http://www.mountolympusutah.net/information/ (last visited Sept. 21, 2009).

[FN15]. News media outlets across the country regularly report on stories involving children, like the James children, who are endangered by methamphetamine. For example, in April 2005, CBS News warned of a "generation of meth babies" being born in Ottumwa, Iowa. See Christine Lagorio, Generation of Meth Babies: Heartland Doctors Meth Addict-Moms Cope, CBS News, April 28, 2005, available at http:// www.cbsnews.com/stories/2005/04/28/eveningnews/main691764.shtml (noting that one Iowa doctor described 80% of his practice as coming from methamphetamine-addicted mothers); see also Debra Hale-Shelton, Teen drug case has man facing $100,000 bond Dad got child's pal to smoke methamphetamine, police say, Arkansas Democrat-Gazette, Dec. 28, 2005, at Arkansas (describing how a father approached his daughter's 16-year-old friend with "a small Baggie of white stuff" that "would not hurt her, [but] only make her hyper[ ]"); Tammy McCoy, Lost Baby Bottle Derails Death Case: Mistrial: Jurors Can't Decide How the Defendant's Child Received the Methamphetamine That Killed Him," Press-Enterprise, June 23, 2006, at A1 (discussing jury trial Riverside County, California, in which the defendant was alleged to have killed her three and a half month old son with methamphetamine-tainted breast milk); Josh Swartzlander, Methamphetamine users also harming their children: Kids can grow up with respiratory, dental and psychological problems, St. Louis Post-Dispatch, July 27, 2007, at C6 (discussing interview with Cpl. Dave Curtis of Jefferson County Sheriff's Office who describes seeing methamphetamine users hide chemicals used to manufacture methamphetamine, such as anhydrous ammonia and acetone, in children's blankets, clothes, and stuffed animals).

[FN16]. Fourteen of the thirty-five state drug endangerment statutes are specific to methamphetamine or methamphetamine production. See infra note 66 and accompanying text.

[FN17]. Nat'l Inst. On Drug Abuse, Research Report Series: Methamphetamine Abuse and Addiction 1, 3 (2006), available at http:// www.nida.nih.gov/pdf/rrmetham.pdf [hereinafter NIDA Research Report].

[FN18]. Office of Nat'l Drug Policy, Executive Office of the President, Street Terms: Drugs and the Drug Trade (2005), available at http:// www.whitehousedrugpolicy.gov/streetterms/ByType.asp?intTypeID=14.

[FN19]. See Uniform Controlled Substances Act, 21 U.S.C. §§ 801-974 (2009) (codifying, at section 812, that methamphetamine is a Schedule II drug); U.S. Drug Enforcement Administration, Drug Scheduling, http:// www.usdoj.gov/dea/pubs/scheduling.html (last visited Sept. 21, 2009).

[FN20]. See Lester Grinspoon & Peter Hedblom, The Speed Culture: Amphetamine Use and Abuse in America, 18-20 (1975).

[FN21]. Compare Office of Applied Studies, U.S. Dep't of Health & Human Services, Overview of Findings from the 2004 National Survey on Drug Use and Health, at 46, tbl. A.1 (2005), available at http:// www.oas.samhsa.gov/NSDUH/2k4NSDUH/2k4Overview/2k4Overview.pdf, with Office of Applied Studies, U.S. Dep't of Health & Human Servs., Advance Report No. 18, National Household Survey on Drug Abuse tbl. 32 (1996), available at http:// www.oas.samhsa.gov/nhsda/ar18ttoc.htm.

[FN22]. See Office of Applied Studies, U.S. Dep't of Health & Human Servs., Trends in Methamphetamine/Amphetamine Admissions to Treatment: 1993-2003 1, 3, tbl. 1 (2006), available at http://oas.samhsa.gov/2k6/methTX/methTX.pdf.

[FN23]. Many methamphetamine users and producers often refer to the methamphetamine production process as "cooking." Felisa Cardona, Meth Cooking 101: DEA holds awareness class to show citizens how easy it is to make the drug, which is increasingly imported, Denver Post, May 28, 2007, at B5, available at ht-

tp://www.denverpost.com/ci_6003018.

[FN24]. James, 74 Cal. Rptr. 2d at 10.

[FN25]. See Office of Nat'l Drug Control Policy, Executive Office of the President, National Synthetic Drugs Action Plan 20-22 (2004), available at http://www.ncjrs.gov/ondcppubs/publications/pdf/national_synth_drugs.pdf (the process of cleaning up property contaminated by a methamphetamine lab can be incredibly expensive.).

[FN26]. See Office of Community Oriented Policing Services Methamphetamine Initiative, Office of Inspector General, Audit Report 6-16, tbl. 3 (2006), available at http://www.usdoj.gov/oig/reports/COPS/a0616/intro.htm (noting that "[m]eth[amphetamine] is currently the most prevalent manufactured illegal drug produced in the United States . . .") [hereinafter COPS Audit Report].

[FN27]. See Office of Nat'l Drug Control Policy, Executive Office of the President, Methamphetamine Facts & Figures, available at http://www.whitehousedrugpolicy.gov/drugfact/methamphetamine/methamphetamine_ff.html (noting that "[a]pproximately 98% of the [methamphetamine arrests underlying the prosecutions in federal district court] involved methamphetamine trafficking").

[FN28]. See Angelo D. Kyle & Bill Hansell, The Meth Epidemic in America: Two Surveys of U.S. Counties: The Criminal Effect of Meth on Communities the Impact of Meth on Children 4 (2005), available at http://www.naco.org/Content/ContentGroups/publications1/surveys1/special_ surveys/MethSurveys.pdf (Kyle and Hansell also note that:

> [a]lthough the use of methamphetamine is itself a crime, there are several other crimes that have been increasing because of the prolific use of this drug. Seventy percent of the responding officials say that robberies or burglaries have increased because of meth use, while 62 percent report increases in domestic violence. In addition, simple assaults (53%) and identity thefts (27%) have also increased. Id.

[FN29]. The United States Congress is also concerned about methamphetamine. On July 21, 2000, Senator Tom Harkin said: "many states in the Midwest, West and Southwest have been working hard to reduce the supply and demand of the methamphetamine epidemic. But meth has brought another unique problem to our states - highly toxic labs that are often abandoned or exposed to our communities . . . . We cannot risk exposing these dangerous meth labs to our communities." 146 Cong. Rec. S7439 (daily ed. July 21, 2000).

[FN30]. Natalie Gott, Senate approves meth bill, Associated Press, May 11, 2005, at State and Regional; see also 720 Ill. Comp. Stat. 646/5 (2009) (the Illinois legislature's declaration that "methamphetamine is fundamentally different from other drugs regulated by [state law] because the harms relating to methamphetamine stem not only from the distribution and use of the drug, but also from the manufacture of the drug . . . .").

[FN31]. Dirk Johnson, Good People Go Bad in Iowa, And a Drug Is Being Blamed, N.Y. Times, Feb. 22, 1996, at A1.

[FN32]. NIDA Research Report, supra note 17, at 4.

[FN33]. See id. at 4-5 (noting that some methamphetamine users experience delusions of bugs creeping under their skin).

[FN34]. See Ira Sommers & Deborah Baskin, The Social Consequences of Methamphetamine Use 49-59 (2004).

[FN35]. See COPS Audit Report, supra note 26.

[FN36]. See NIDA Research Report, supra note 17, at 6.

[FN37]. See John W. Martyny, Shawn L. Arbuckle, Charles S. McCammon Jr., Eric J. Esswein, Nicola Erb & Mike Van Dyke, Chemical concentrations and contamination associated with clandestine methamphetamine laboratories, 14 J. Chemical Health & Safety 40, 40-52 (2007).

[FN38]. See Kathryn Wells, Medical Concerns Regarding Clandestine Labs, available at http://www.nationaldec.org/user_files/3584_125954.pdf (last visited Sept. 21, 2009).

[FN39]. Kyle & Hansell, supra note 28, at 6.

[FN40]. See Lynne M. Smith, Linda L. LaGasse, Chris Derauf, Penny Grant, Rizwan Shah, Amelia Arria, Marilyn Huestis, William Haning, Arthur Strauss, Sheri Della Grotta, Jing Liu, and Barry M. Lester, The Infant Development, Environment and Lifestyle Study: Effects of Prenatal Methamphetamine Exposure, Polydrug Exposure, and Poverty on Intrauterine Growth, 118 Pediatrics 1149, 1150, 1152-53 (2006).

[FN41]. See id. at 1150, 1155.

[FN42]. See Mark Ells, Barbara Sturgis and Gregg Wright, Behind the Drug: The Child Victims of Meth Labs, 15 National Center for Prosecution of Child Abuse 2 (Feb. 2, 2002) (update), available at http://www.ndaa.org/publications/newsletters/update_volume_15_number_2_2002.html.

[FN43]. James, 74 Cal. Rptr. 2d at 23-24 (quoting People v. Burroughs, 35 Cal. 3d 824, 830 (1984)).

[FN44]. New Mexico Sentencing Commission, Research Overview: Methamphetamine Production, Precursor Chemicals, and Child Endangerment 9 (2004), available at http://nmsc.isrumm.net/index.php/download_file/-/view/194.

[FN45]. S.R. 188, Gen. Sess. (Utah 2000).

[FN46]. Utah Code Ann. § 76-5-112.5 (2009). A third degree felony in Utah is punishable by an indeterminate prison term of zero to five years and a $5,000 fine. Id. § 76-3-203(3), -301(1)(b).

[FN47]. Utah Code Ann. § 76-5-112.5(3). A first degree felony in Utah is punishable by an indeterminate prison term of five years to life and a $10,000 fine. Id. § 76-3-203(1), -301(1)(a).

[FN48]. See H.R. 125, Gen. Sess. (Utah 2002).

[FN49]. Utah Code Ann. § 76-5-112.5(2).

[FN50]. See H.R. 125, Gen. Sess. (Utah 2002).

[FN51]. Utah Code Ann. § 76-5-112.5(4)(a). “Prescription” is defined by the Utah Code as: an order issued by a licensed practitioner, in the course of that practitioner's professional practice, for a controlled substance, other drug, or device which it dispenses or administers for use by a patient or an animal. The order may be issued by

word of mouth, written document, telephone, facsimile transmission, computer, or other electronic means of communication as defined by rule. Id. § 58-37-2(1)(ll).

[FN52]. H.R. 26, 58th Leg., Gen. Sess. (Utah 2009).

[FN53]. Id. at 169-73.

[FN54]. Id. at 180-86.

[FN55]. "Vulnerable adult" is defined by Utah Code as: [A]n elder adult, or an adult 18 years of age or older who has a mental or physical impairment which substantially affects that person's ability to: (i) provide personal protection; (ii) provide necessities such as food, shelter, clothing, or medical or other health care; (iii) obtain services necessary for health, safety, or welfare; (iv) carry out the activities of daily living; (v) manage the adult's own resources; or (vi) comprehend the nature and consequences of remaining in a situation of abuse, neglect, or exploitation. Utah Code Ann. § 76-5-111(1)(t)(i)-(vi) (2009).

[FN56]. See Utah H.R. 26, at 169-73.

[FN57]. "'Child' means a human being who is under 18 years of age." Utah Code Ann. § 76-5-109(1)(a).

[FN58]. "Controlled substance" is defined by Utah Code as "a drug or substance included in Schedules I, II, III, IV, or V of [Utah Code], and also includes a drug or substance included in Schedules I, II, III, IV, or V of the federal Controlled Substances Act, Title II, P.L. 91-513, or any controlled substances analog." Id. § 58-37-2-(f)(i). Utah Code specifically excludes the following from its definition of "controlled substance": "distilled spirits, wine, or malt beverages;" "any drug intended for lawful use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals, which contains ephedrine, pseudoephedrine, norpseudoephedrine, or phenylpropanolamine if the drug is lawfully purchased, sold, transferred, or furnished as an over-the-counter medication without prescription;" and "dietary supplements, vitamins, minerals, herbs, or other similar substances including concentrates or extracts, which are not otherwise regulated by law, which may contain naturally occurring amounts of chemical or substances listed [in the Utah Controlled Substances Act]." Id. at § 58-37-2(f)(ii)(A)-(C).

[FN59]. "Drug paraphernalia" is defined by Utah Code as "any equipment, product, or material used, or intended for use, to plant, propagate, cultivate, grow, harvest, manufacture, compound, convert, produce, process, prepare, test, analyze, package, repackage, store, contain, conceal, inject, ingest, inhale, or to otherwise introduce a controlled substance into the human body in violation of" the Utah Controlled Substances Act. Id. at § 58-37a-3. This definition includes the following:

> [K]its used, or intended for use, in planting, propagating, cultivating, growing, or harvesting any species of plant which is a controlled substance or from which a controlled substance can be derived; kits used, or intended for use, in manufacturing, compounding, converting, producing, processing, or preparing a controlled substance; isomerization devices used, or intended for use, to increase the potency of any species of plant which is a controlled substance; testing equipment used, or intended for use, to identify or to analyze the strength, effectiveness, or purity of a controlled substance; scales and balances used, or intended for use, in weighing or measuring a controlled substance; diluents and adulterants, such as quinine hydrochloride, mannitol, mannited, dextrose and lactose, used, or intended for use to cut a controlled substance; separation gins and sifters used, or intended for use to remove twigs, seeds, or other impurities from marihuana; blenders, bowls, containers, spoons and mixing devices used, or intended for use to compound a controlled substance; capsules,

balloons, envelopes, and other containers used, or intended for use to package small quantities of a controlled substance; containers and other objects used, or intended for use to store or conceal a controlled substance; hypodermic syringes, needles, and other objects used, or intended for use to parenterally inject a controlled substance into the human body; and objects used or intended for use to ingest, inhale, or otherwise introduce a controlled substance into the human body, including but not limited to: metal, wooden, acrylic, glass, stone, plastic, or ceramic pipes with or without screens, permanent screens, hashish heads, or punctured metal bowls; water pipes; carburetion tubes and devices; smoking and carburetion masks; roach clips: meaning objects used to hold burning material, such as a marihuana cigarette, that has become too small or too short to be held in the hand; miniature cocaine spoons and cocaine vials; chamber pipes; carburetor pipes; electric pipes; air-driven pipes; chillums; bongs; and ice pipes or chillers.

Id. at § 58-37a-3(1)-(12). The following factors, according to Utah Code, are also relevant when judges and juries determine whether an object is drug paraphernalia: [S]tatements by an owner or by anyone in control of the object concerning its use; prior convictions, if any, of an owner, or of anyone in control of the object, under any state or federal law relating to a controlled substance; the proximity of the object, in time and space, to a direct violation of this chapter; the proximity of the object to a controlled substance; the existence of any residue of a controlled substance on the object; instructions whether oral or written, provided with the object concerning its use; descriptive materials accompanying the object which explain or depict its use; national and local advertising concerning its use; the manner in which the object is displayed for sale; whether the owner or anyone in control of the object is a legitimate supplier of like or related items to the community, such as a licensed distributor or dealer of tobacco products; direct or circumstantial evidence of the ratio of sales of the object to the total sales of the business enterprise; the existence and scope of legitimate uses of the object in the community; and expert testimony concerning its use.

Id. § 58-37a-4(1)-(13).

[FN60]. See supra note 55 and accompanying text.

[FN61]. Utah Code Ann. § 58-37-2.

[FN62]. As of February 2009, Alabama, Alaska, Delaware, Hawaii, Idaho, Kentucky, Louisiana, Minnesota, Nevada, North Dakota, Ohio, Oregon, Utah, and Wyoming had passed general drug endangerment statutes prohibiting the endangerment of a child through exposure to controlled or chemical substances or drug paraphernalia. See Ala. Code § 26-15-3.2 (2009); Alaska Stat. § 11.51.110 (2009); Del. Code Ann. tit. 11, § 1102 (2009); Haw. Rev. Stat. § 709-904 (2009); Idaho Code Ann. § 37-2737A (2009); Ky. Rev. Stat. Ann. § 218A.1441-1443 (LexisNexis 2009); La. Rev. Stat. Ann. § 14:93 (2009); Minn. Stat. Ann. § 609.378 (West 2009); Nev. Rev. Stat. § 453.3325 (LexisNexis 2009); N.D. Cent. Code § 19-03.1-22.2 (2009); Ohio Rev. Code Ann. § 2919.22 (West 2009); Or. Rev. Stat. § 163.575 (2009); Utah Code Ann. § 76-5-112.5 (2009); Wyo. Stat. Ann. § 6-4-405 (2009).

[FN63]. As of February 2009, Georgia, Illinois, Iowa, Kansas, Mississippi, Missouri, Montana, Nebraska, New Hampshire, South Carolina, Virginia, Washington, West Virginia, and South Dakota had passed drug endangerment laws specific to methamphetamine. See Ga. Code Ann. § 16-5-73 (2009); 720 Ill. Comp. Stat. 646/50 (2009); Iowa Code Ann. § 726.6 (2009); Kan. Stat. Ann. § 21-3608a (2009); Miss. Code Ann. § 41-29-313(5) (2009); Mo. Ann. Stat. § 568.045(4)-(5) (West 2009); Mont. Code Ann. § 45-5-622 (2009); Neb. Rev. Stat. Ann. § 28-457(2-3) (LexisNexis 2009); N.H. Rev. Stat. Ann. § 639-A:2 (2009); S.C. Code Ann. § 44-53-378 (2009); S.D. Codified Laws § 26-8A-2(10) (2009); Va. Code Ann. § 18.2-248.02 (2009); Wash. Rev. Code Ann. § 9.94A.605 (West 2009); W.Va. Code § 60A-10-12 (2009). Colorado's statute protecting drug-endangered children, in fact, contains the following specific declaration about the dangers methamphetamine poses to children:

"Methamphetamine use and manufacturing place countless Colorado children at risk of methamphetamine ingestion and exposure to toxic chemicals, weapons, pornography, predators, and impaired and neglectful caretakers. These children are at increased risk of neglect as well as physical and sexual abuse." Colo. Rev. Stat. Ann. § 18-18.5-101(1)(d) (West 2009). As of February 2009, Arizona, Colorado, New Mexico, and Texas had passed drug endangerment laws specific to the process of manufacturing controlled substances, such as through clandestine methamphetamine labs. See Ariz. Rev. Stat. § 13-3623 (LexisNexis 2009); Colo. Rev. Stat. Ann. § 18-6-401 (West 2009); N.M. Stat. Ann. § 30-6-1 (2009); Tex. Code Ann. § 481.1122 (West 2009).

[FN64]. As of February 2009, Maine, New Jersey, and New York had passed drug endangerment statutes specific to endangering a child through the distribution of controlled substances. See Me. Rev. Stat. Ann. tit. 17-A § 1105-A-1105-C (2009); N.J. Stat. Ann. § 2C:35-6 (2009); N.Y. Penal Law § 220.28 (2009).

[FN65]. Although these fifteen states have not passed drug endangerment statutes as of February 2009, each of these states have "reckless endangerment" statutes. See Ark. Code Ann. §§ 5-27-205-207 (2009); Conn. Gen. Stat. § 53-21 (2009); Fla. Stat. Ann. § 827.03 (West 2009); Ind. Code Ann. § 35-46-1-4 (West 2009); Md. Code Ann., [Crim. Law] § 3-204 (2009); Mass. Gen. Laws ch. 265, § 13L (2009); Mich. Comp. Laws § 750.136b (2009); N.C. Gen. Stat. § 14-318.2 (2009); Okla. Stat. tit. 21, § 852.1 (2009); 18 Pa. Cons. Stat. § 4304 (2009); R.I. Gen. Laws § 11-9-5 (2009); S.D. Codified Laws § 26-7A-12 (2009); Tenn. Code Ann. §§ 39-15-401-39-15-402 (2009); Vt. Stat. Ann. tit. 13, § 1304 (2009); Wis. Stat. § 948.03 (2009); D.C. Code Ann. § 22-1101 (LexisNexis 2009). "Reckless endangerment" statutes criminalize reckless conduct towards children, but do not specifically reference endangering a child through exposure to controlled substances, chemical substances, or drug paraphernalia. Arkansas's reckless endangerment of a child statute, which prohibits "knowingly engag[ing] in conduct creating a substantial risk of serious harm to the physical or mental welfare of another person known by the person to be a minor," is representative of these types of statutes. Ark. Code Ann. § 5-27-206(a)(1) (2009). If an individual in Arkansas creates "a substantial risk of death of serious physical injury to a minor" through their conduct, they are guilty of a Class D Felony. Id. § 5-27-205(a)(1), (b). If an individual in Arkansas knowingly creates a "substantial risk of serious harm to the physical or mental welfare" of a child, they are guilty of a Class A misdemeanor. Id. § 5-27-206(a)(1), (b). If an individual in Arkansas "recklessly engages in conduct creating a substantial risk of serious harm to the physical or mental welfare" of a minor, they are guilty of a Class B misdemeanor. Id. § 5-27-207(a)(1), (b). Both Indiana and Oklahoma, in their "reckless endangerment" statutes state that reckless endangerment occurs when a child is present where a controlled substance is being manufactured; however, these states have not enacted a separate or detailed drug endangerment statute. See Ind. Code Ann. § 35-46-1-4; Okla. Stat. tit. 21, § 852.1.

[FN66]. The U.S. Census estimates that, in 2007, the population of Salt Lake County was 973,251. See U. S. Census Bureau American FactFinder fact sheet: Salk Lake County, Utah, http://factfinder.census.gov/servlet/ACSSAFFFacts?_event=Search&geo_id=&_geoContext=&_street=&_county=salt+lake+county&_cityTown=salt+lake+county&_state=&_zip=&_lang=en&_sse=on&pctxt=fph&pgsl=010 (accessed January 27, 2009). The state has slightly more males (50.8%) than females (49.2%). Id. Salt Lake County's population is 85.9% White, while 15.1% also indicate being at least partially of Hispanic origin (of any race). Id.

[FN67]. The original number of cases was 566; however, one case was eliminated for an inconsistency discussed below.

[FN68]. For purposes of this data, the acronym "CPS" (or child protective services) refers to the Utah State Di-

vision of Child and Family Services ("DCFS"), an agency of the Utah State Department of Human Services. The authors use the term "CPS" to describe "DCFS" data in this article to avoid confusion for readers because agencies across the country have different names and acronyms to describe child protection workers.

[FN69]. Before beginning the case matching process, the authors addressed issues of client confidentiality of adults and children receiving treatment. The authors submitted an application to the State of Utah requesting Institutional Review Board approval to obtain confidential information in a deidentified form. The application was approved, and allowed the principal investigator on the study to provide identifiers from the public record police and DA data to database managers in treatment. These database managers then matched the data using the procedures discussed in this section, and returned deidentified data to the principal investigator.

[FN70]. It should be noted that dates of birth provided by the police was often an estimate, especially for children; in other words, failure to match the date of birth across databases did not necessarily mean the match was inaccurate.

[FN71]. This case came from a match quality level of one, or a "true" match. It is most likely the case that pregnancy was simply miscoded in the treatment database, but with only the deidentified data, there was no way to be certain. Accordingly, the case was eliminated to avoid the potential deleterious effect of a false match on the study's validity. This elimination resulted in the 565 cases discussed in this section.

[FN72]. See infra tbl. 1.

[FN73]. See U. S. Census Bureau, American FactFinder fact sheet: Utah, http://factfinder.census.gov/servlet/ACSSAFFFacts?_event=Search&geo_id=&_ geoContext=&_street=&_county=&_cityTown=&_state=04000US49&_zip=&_lang=en&_sse=on&pctxt=fph&pgsl=010 (last visited Jan. 20, 2009).

[FN74]. Unless otherwise noted, significance tests are two-tailed.

[FN75]. See Bureau of Labor Statistics website, Local Area Unemployment Statistics, http://data.bls.gov/cgi-bin/surveymost? (last visited Jan. 20, 2009).

[FN76]. Id.

[FN77]. See Health Insurance Coverage of the Total Population, states (2006-2007), http://www.statehealthfacts.org/comparebar.jsp? ind=125&cat=3&sub=39&yr=85&typ=2.Statehealthfacts.org is a website that tracks various health-related trends, including health insurance information, at the state level.

[FN78]. See supra part II.B and accompanying text (noting negative outcomes in medical literature involving pregnancies of methamphetamine-addicted mothers).

[FN79]. See infra tbl. 2.

[FN80]. Id.

[FN81]. Id.

[FN82]. Id.

[FN83]. Id.

[FN84]. See infra tbl. 3.

[FN85]. Id.

[FN86]. See supra part III.A and accompanying text (Utah's drug endangerment statute was originally passed in 2000.).

[FN87]. The authors presented the data in this article to nearly every Salt Lake City Police officer during the Salt Lake City Police Department's Fall 2008 Quarterly Training Session, held from October 6th, 2008, through October 25th, 2008. When discussing the data from Table 4 infra, a substantial number of officers expressed belief to the authors (based on their experiences in responding to drug endangerment crime scenes) that the data were underreported because patrol-level police reports did not completely and accurately document crime scenes in their reports.

[FN88]. Id.

[FN89]. See infra tbl. 4.

[FN90]. Id.

[FN91]. Id.

[FN92]. Id.

[FN93]. See infra tbls. 5 & 6.

[FN94]. See infra tbl. 5.

[FN95]. Id.

[FN96]. Id.

[FN97]. Id.

[FN98]. Id.

[FN99]. See generally American Psychiatric Association, Diagnostic and Statistical Manual of Mental Disorders (4th ed. 2000).

[FN100]. Id. at 25-26.

[FN101]. Id.

[FN102]. See infra tbl. 6.

[FN103]. Id.

[FN104]. Id.

[FN105]. Because marijuana outcomes were expected to be less severe than for other controlled substances, comparisons involving marijuana are one-tailed. No predictions were made for cocaine outcomes relative to methamphetamine outcomes; accordingly, these tests without a priori predictions are two-tailed.

[FN106]. As mentioned, these results are somewhat ambiguous due to the fact that possession of one drug is not mutually exclusive of possession of another; hence, the same analyses were next repeated, but were repeated selecting cases for which only one drug was found. It is also important to keep in mind that this is not the most accurate representation of the data, as drugs often co-occur in possession cases; however, while it is atypical that only one drug was found, this approach does facilitate a more unequivocal picture of true differences on outcomes by drug. It also, however, has the deleterious effect (statistically) of reducing the sample size for analysis.

[FN107]. See infra tbl. 9.

[FN108]. Id.

[FN109]. See supra part II.B and accompanying text.

[FN110]. See supra tbl. 6.

[FN111]. Id.

[FN112]. Id.

[FN113]. Id.

[FN114]. See United States General Accounting Office, Foster care: Agencies face challenges securing stable homes for children of substance abusers 3-5 (1998) (report to the chairman, Committee on Finance, U.S. Senate) (describing funding and logistical constraints on the foster care system).

[FN115]. See supra tbls. 8, 9.

[FN116]. The 35 state statutes criminalizing drug endangerment are all constructed differently. While these statutes can be broadly categorized, such as through the categories described in Subsection II.A. supra, these statutes do not use a uniform definition for a drug-endangered child.

[FN117]. See supra note 63 and accompanying text (describing drug endangerment laws specific to methamphetamine).

[FN118]. See generally David A. Bateman, M.D., and Margaret C. Heagarty, M.D., “Passive Freebase Cocaine ('Crack') Inhalation by Infants and Toddlers,” 143 ADJC 25, 26 (Jan 1989) (noting that in utero exposure to cocaine can cause “irritability, tremulousness, hypertonicity, and cerebral infarctions” in infants and children); M. Alina Battle, M.D. & W.D. Wilcox, M.D., “Pulmonary Edema in an Infant Following Passive Inhalation of Free-Base ('Crack') Cocaine,” Clinical Pediatrics 105, 106 (1993) (describing problems such as constricted and poorly responsive pupils, peripheral vasoconstriction, lethargy, tachycardia, and elevated blood pressure in cocaine-exposed infants); Andrew S. Lustbader, Linda C. Mayes, Barbara A. McGee, Peter Jatlow and William L. Roberts, “Incidence of Passive Exposure to Crack/Cocaine and Clinical Findings in Infants Seen in an Outpatient Service,” Pediatrics 102 (1998) (concluding that passive exposure to crack cocaine can increase risk for chronic and acute respiratory illnesses in infants).

[FN119]. At least three "reckless endangerment" statutes have been held to be unconstitutionally vague. See State v. Downey, 476 N.E.2d 121, 122-23 (Ind. 1985) (holding that literal construction of statute prohibiting a "'person having the care, custody or control of a dependent"' from "'knowingly or intentionally [placing] the dependent in a situation that may endanger his life or health"' had "a broadness and vagueness which would prevent it from meeting constitutional muster[ ]") (quoting Ind. Code. § 35-46-1-4 (1982)); see also Commonwealth v. Carter, 462 S.E.2d 582, 584-85 (Va. Ct. App. 1995) (holding that statute prohibiting a child's custodian from "'willfully or negligently"' permitting the child "'to be placed in a situation that its life, health or morals may be endangered' . . . criminalize[d] any act which present [ed] a 'possibility' of physical or moral harm to the child," and was therefore unconstitutionally vague) (quoting Va. Code. Ann. § 40.1-103 (1995)); State v. Scruggs, 905 A.2d 24, 27, 36 (Conn. 2006) (holding that statute prohibiting "'willfully or unlawfully"' causing or permitting a child under sixteen to be placed in such a situation that the life or limb of such child is endangered, the health of such child is likely to be injured or the morals of such child are likely to be impaired was vague as applied to the defendant's conduct because a person of ordinary intelligence would not have been on notice "that the conditions in her apartment posed an unlawful risk to the mental health of a child[ ]") (quoting Conn. Gen. Stat. § 53-21).

[FN120]. State v. Gallegos is currently the only drug endangerment statute that has been subjected to a constitutional challenge in a state appellate court. Gallegos, 171 P.3d 426, 429 (holding that Utah's drug endangerment statute was constitutional, but that "for a child to be 'exposed to . . . a controlled substance, chemical substance or drug paraphernalia' under [Utah's] drug endangerment statute, a real, physical risk of harm to the child must exist"). The constitutionality of Colorado's drug endangerment statute has also been challenged, but the Colorado Court of Appeals held that the defendant lacked standing to challenge the statute. See People v. Laurent, 194 P.3d 1053, 1060 (Colo. Ct. App. 2008) (noting that Colorado's drug endangerment statute is not overbroad because "manufacturing controlled substances is not a constitutional right").
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