



# **The Increase in Out-of-Home Placements Due to Parent Chemical Abuse in Greater Minnesota, 2000-2002**

December 2003

Child Welfare Longitudinal Project  
Special Topics Report No. 1

Center for Advanced Studies in Child Welfare  
School of Social Work  
University of Minnesota  
1404 Gortner Ave  
St. Paul, MN 55108  
<http://ssw.che.umn.edu/cascw>

UNIVERSITY OF MINNESOTA

A publication of the Center for  
Advanced Studies in Child Welfare,  
205 Peters Hall, 1404 Gortner  
Avenue, Saint Paul, Minnesota 55108.  
612-624-4231

The content of this report is the  
responsibility of the authors and is not  
necessarily endorsed by School of  
Social Work, College of Human  
Ecology, or University of Minnesota.

Any part of this report may be  
photocopied and distributed when  
appropriate credits are given.  
Acknowledgment would, however, be  
appreciated, and CASCW would like  
to receive notice of any material thus  
reproduced.

The University of Minnesota is an equal  
opportunity educator and employer.

© 2003 by the Regents of the  
University of Minnesota

**The Increase in Out-of-Home Placements Due to Parent  
Chemical Abuse in Greater Minnesota, 2000-2002**

**December 2003**

by  
**Tami Swenson, M.A.**  
**Data Project Coordinator**

and

**Marcie Jefferys, Ph.D.**  
**Executive Director**

**Child Welfare Longitudinal Project**  
**Special Topics Report No. 1**



UNIVERSITY OF MINNESOTA



## **Acknowledgements**

A special thank you to the following advisory committee members for their work and suggestions in the development of this study and the final report:

Mary Brixius, Sherburne County Social Services  
Ruth Clinard, Minnesota Department of Human Services  
Deborah Durkin, Minnesota Department of Health  
Carol Falkowski, Hazelden Institute  
Linda Halbur, Pipestone County Family Services  
Patricia Johnson, Ramsey County Community Human Services Department  
Janet Reiter, Assistant Washington County Attorney  
Patricia Scott, Olmsted County Community Services  
Ann Stackpool-Gunderson, Isanti County Family Services  
Robyn Wood, Olmsted County Community Services

In addition, thank you to Dorothy Renstrom and Leeza Betzold at the Minnesota Department of Human Services for their continuing work as the project contacts for the Child Welfare Longitudinal Project.

All opinions and views expressed in this report are the authors and should not be construed as reflecting policies or opinions of the School of Social Work at the University of Minnesota, the Minnesota Department of Human Services, or any advisory committee member.

Please direct any comments or questions regarding this report to Tami Swenson, 212 Peters Hall, School of Social Work, University of Minnesota, St. Paul, MN 55108 (phone: 612-625-8169 or email: [tswenson@umn.edu](mailto:tswenson@umn.edu)).

**The Increase in Out-of-Home Placements Due to Parent Chemical Abuse in Greater Minnesota, 2000-2002**

**Table of Contents**

Acknowledgements..... ii

Table of Figures ..... iv

Table of Tables .....v

Executive Summary ..... vii

Introduction..... 1

The Impact of Parental Meth Abuse on the Child Welfare Caseload.....1

    Methamphetamine Addiction.....2

        Methamphetamine Compared to Cocaine.....2

        Methamphetamine Prenatal Exposure .....3

        Meth Addiction Treatment Services .....3

    Clandestine Laboratories .....4

        Child Welfare Worker Safety .....4

        Drug Endangered Children (DEC) Protocol.....5

Research Design.....6

Findings .....7

    Out-of-Home Caseload Changes .....8

    Geographical Patterns of Caseload Changes .....12

    Case and Placement Characteristics .....13

    Demographic Characteristics .....18

    Clandestine Lab Seizures.....22

Discussion.....28

Recommendations.....29

Conclusions.....31

References.....32

Appendix A: Data Tables for Corresponding Text Figures.....36

Appendix B: Additional Resources .....41

## Table of Figures

<u>Figure</u>		<u>Page</u>
1	Percentage of Entering Cohort With Any Previous Out-of-Home Placements .....	11
2	Percentage of Out-of-Home Placement Caseload Due to Parent Chemical Abuse, 2000 and 2002 .....	12
3	Percent Change in Number of Placements Due to Parent Chemical Abuse, 2000-2002.....	13
4	Placement Setting Percentage for First Living Situation.....	16
5	Emergency Placement Percentage .....	17
6	Age Distribution of Out-of-Home Placement Caseload .....	19
7	Percentage of Selected Special Needs for Children in Out-of-Home Placements .....	21
8	Percentage of Selected Disabilities for Children in Out-of-Home Placements.....	22
9	Number of Clandestine Lab Seizures Reported to EPIC, 1996-1999 and 2000-2002 .....	24
10	Number of Clandestine Lab Seizures Reported to EPIC Normalized to County Population, 1996-1999 and 2000-2002 .....	25
11	Methamphetamine Lab Capacity by Year of Seizure in Minnesota, 1996-2002 .....	25
12	Reported Number of Children in Seized Meth Labs, 1998-2002 .....	27

## Table of Tables

<u>Table</u>	<u>Page</u>
1	Percentage of Out-of-Home Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002.....9
2	Percentage of Entering Out-of-Home Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002.....10
3	Average Duration of Continuous Out-of-Home Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002.....11
4	Percentage of Primary Removal Conditions for Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002.....14
5	Percentage of Other (Non-Primary) Removal Conditions for Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002 .....15
6	Percentage of Reasons for Continuous Placement Closure for Closed Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002 .....18
7	Percentage of Children by Gender Comparing Placements Due to Parent Chemical Abuse to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002.....19
8	Percentage of Children by Race/Ethnicity Comparing Placements Due to Parent Chemical Abuse to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002.....20
9	Reported Clandestine Lab Seizures for State of Minnesota, 1996-2002 .....23
10	Reported Number of Children in Methamphetamine Laboratories in Minnesota, 1998-2002 .....26
11	Correlation Between Number of Placements Due to Parent Chemical Abuse and Meth Lab Seizures, 2000-2002 .....28

<u>Table</u>	<u>Page</u>
A-1 Percentage of New and Returning Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002.....	36
A-2 Percentage of Placement settings for First Living Situations During Continuous Out-of-Home Placement for Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002.....	37
A-3 Percentage of Emergency Placements for First Living Situations During Continuous Out-of-Home Placement for Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002.....	37
A-4 Percentage of Children by Age Category at Start of First Out-of-Home Placement in 2000-2002 Caseload Comparing Placements Due to Parent Chemical Abuse to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties .....	38
A-5 Percentage of Special Needs for Children in Out-of Home Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002 .....	38
A-6 Percentage of Disabilities for Children in Out-of Home Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002 .....	39
A-7 Methamphetamine Lab Production Capacity by Year of Seizure in Minnesota, 1996-2002 .....	40



## Executive Summary

Parental use of methamphetamine (also referred to as “meth”) and the effects of children residing in meth lab environments have been problems affecting child welfare caseloads in western coastal states since the early-1990s. In more recent years, child welfare systems in midwestern and southern states have started to see the impact of these emerging problems. Neglect and child endangerment are the most frequent reasons the child welfare system encounters families affected by substance abuse, such as parental meth abuse. The clandestine meth lab, however, is a recent challenge for the child welfare system because of the danger of physical harm for investigating caseworkers and the potential long term health and developmental effects on children due to chemical exposures.

In this report, out-of-home placements due to parent chemical abuse are examined for calendar years 2000-2002 for the state of Minnesota. For purposes of analysis in the report, the placement caseloads in Hennepin and Ramsey counties are compared with all other counties. These counties are labeled “Greater Minnesota” in the text and tables. Administrative data from the Minnesota Department of Human Services is used to examine out-of-home placement characteristics for all children in care during the three year period. While there is not a specific indicator of meth involvement in the administrative data, it does indicate if parent chemical abuse is a factor in the out-of-home removal decision.

The main findings show changes in the number of cases affected by parent drug abuse, geographical patterns associated with this change, differences in parent drug abuse cases compared to other parts of the caseload, and changes in the number of reported meth labs in Minnesota. The following is a summary of the report key findings:

- Out-of-home placements due to parent chemical abuse increased 82.3 percent in Greater Minnesota counties from 2000 to 2002. This trend contrasts with the overall decline in the total number of out-of-home placements throughout the state during this period.
- Two factors contributing to the increase in the number of placements due to parent chemical abuse in the total and entering caseloads are that these cases have a tendency to be longer in duration and are more likely to be recidivist.
- In 2000, counties in the western and central portion of the state had higher percentages of their placement caseloads due to parent drug use. By 2002, the pattern of higher caseload percentages changes to a more concentrated pattern in the metropolitan and suburban counties. Areas with the highest rates of change tend to cluster in the central and northeastern portions of the state.
- The typical removal conditions for out-of-home placements due to parent drug use are similar for Hennepin and Ramsey counties and Greater Minnesota counties. In those placements where parent drug use is a contributing factor,

neglect and parent incarceration are the most common primary removal conditions.

- Kinship care and non-family foster care are the more likely living situations for placements due to parent drug abuse than for placements not associated with drug use. For the first living situation of the out-of-home placement due to parent chemical abuse, many of these settings are emergency placements.
- Many placements that begin due to parent drug use end without reunification with parents or caretaker. Approximately 1 out of 3 of these placements in Greater Minnesota counties and 2 out of 5 of these placements in Hennepin and Ramsey counties end with the child living with other relatives, permanently adopted, guardianship, or permanent transfer of custody to another relative. In comparison, only 1 out of 10 non-parent drug placements in Greater Minnesota counties and 1 out of 7 in Hennepin/Ramsey close for these reasons.
- Demographic characteristics of the caseload affected by parent drug use are similar in urban and rural areas of the state. Children in out-of-home care due to parent drug abuse are younger in age than their counterparts, but both groups have similar gender and race/ethnicity distributions.
- Children in out-of-home care due to parent chemical abuse are more likely to be placed with siblings and to have had a history of multiple placements. These children are not more likely to have particular disabilities.
- Reported clandestine lab seizures have increased in number across the state. From 1996-1999, reported clandestine labs were seized in 39 of the state's 87 counties. From 2000-2002, reported labs were seized in 71 counties across the state. The typical meth lab seizure in Minnesota has the production capacity of only creating enough quantity for the user. The reported number of children found in these labs has also increased.
- The number of reported meth labs seized in the county has a statistically significant correlation with the number of out-of-home placements due to parent drug use and indicates that the two are positively related at the county level.

Based on the study's findings and the review of the academic literature and other publications, the suggested recommendations are: (1) revise county policies and procedures to encourage collaboration with law enforcement when children reside at seized meth labs and to have standard practices to evaluate children for chemical exposures from the meth lab, (2) attend to child welfare case worker safety, (3) address case plan or disposition alterations related to meth addiction and meth labs, and (4) provide special training and support to foster family and other contracted providers.

Public alarm about meth is frequently related to sensational crimes such as the two spree killers in Minneapolis and Long Prairie earlier this summer. In other states,

incidences have occurred where the child protection caseworker required hospitalization due to hazardous chemical exposures from the clandestine laboratory. The protocols and best practices developed in other states to address meth lab concerns, such as the Drug Endangered Children (DEC) program, may help to inform policy and practice in Minnesota. In several Minnesota counties, an extensive amount of work has already been done to increase collaborations among law enforcement, public health, and child welfare agencies.

As part of the child welfare longitudinal project, this special report is the first in a series of in-depth topics that will be examined. Future special topics reports will examine child welfare financing in the state, educational neglect and truancy, infant placement rates, and children that enter care due to child behavior reasons. Follow-up white papers will monitor the trends discussed in these special topics reports and are especially important for the topic examined in this report.

## **Introduction**

Since the insurgence of crack cocaine in the 1980s, parental drug use has become a common concern for child protective services in metropolitan areas (GAO 1991, 1997, 1998). Child neglect and child endangerment are the typical reasons for this group of families to be involved in the child welfare system (GAO 1994a, 1994b). Neglect is frequently a consequence of the parent's focus on obtaining and using drugs while endangerment may result from criminal activities associated with illegal drug use.

Starting in the late 1990s, rural caseloads began to see an increase in the need for child protective services due to parent chemical abuse, such as methamphetamine (also referred to as "meth"). Different areas of the country have been impacted more from meth-related incidents than other areas (U.S. Conference of Mayors, 1999). For example, it has been estimated that over 60 percent of foster care placements in some rural counties in Alabama and Tennessee are due to parent incarceration for home meth labs (Jubera, 2003). Alcoholism & Drug Abuse Weekly (2003) reports that 50 percent of the Knox County, Indiana foster care caseload is due to meth and that 40 out of 180 out-of-home placements in neighboring Vigo County, Indiana are due to parent meth use and incarceration. Washington state estimates that 9 out of 10 cases that enter due to parent meth use end in termination of parental rights (Martin, 1999).

In Minnesota, trends in drug utilization across the state show an increase in the use of methamphetamine, but it is not as common as marijuana or cocaine (Falkowski, 2003b). The major concern within the state has been the rise in clandestine drug labs that produce meth and the number of arrests related to methamphetamine (MDH, 2002b).

In this report, we examine child welfare and child protective services out-of-home placements due to parent chemical abuse across the state during calendar years 2000-2002. The main topics we explore are changes in the number of cases affected by parent drug abuse, geographical patterns associated with this change, and differences in parent drug abuse cases compared to other parts of the caseload. The next section will examine the academic literature and evaluation studies of the effects of methamphetamine and clandestine laboratories on child well-being and child welfare. The findings and discussion sections follow this review, and the report concludes with a recommendation section for addressing concerns about methamphetamine at the county service level.

### **The Impact of Parental Meth Abuse on the Child Welfare System**

Methamphetamine abuse by parents presents three different problems for child protective services to address: (1) "infants born with methamphetamine in their systems", (2) "parent using methamphetamine in the home, exposing children to meth by-products as well as limiting the parent's ability to adequately care for and supervise their children", and (3) "parents 'cooking' meth in or near the home, creating an environment which is both unhealthy (because of chemicals) and unsafe (because of the high risk of explosion)" (Gutchewsky, 2003a, p.1).

## **Methamphetamine Addiction**

The methamphetamine user profile is typically white, early-20s, high-school educated (NIDA, 1999). Users are about equally likely to be male or female. They frequently start using meth as a stimulant to increase energy levels (NIDA, 2002). The addiction process can proceed fairly rapidly because increasing amounts of meth are needed to achieve the same high or effect.

<b>Medical Effects of Methamphetamine Addiction</b>	
<b>Short-term effects</b>	<b>Long-term effects</b>
<ul style="list-style-type: none"><li>▪ Increased attention level</li><li>▪ Decreased fatigue</li><li>▪ Increased activity</li><li>▪ Euphoria and rush</li><li>▪ Decreased appetite</li><li>▪ Hyperthermia</li><li>▪ Increased respiration</li></ul>	<ul style="list-style-type: none"><li>▪ Dependence and addiction psychosis<ul style="list-style-type: none"><li>- Paranoia</li><li>- Hallucinations</li><li>- Mood disturbances</li></ul></li><li>▪ Repetitive motor activity</li><li>▪ Stroke</li><li>▪ Extreme weight loss</li></ul>

Source: National Institute on Drug Abuse, 2002, p. 4

Meth users are frequently grouped into three categories: low-intensity, bingers, and high-intensity (Falkowski, 2003a, pgs. 194-196). The low-intensity user begins using methamphetamine to stay awake or increase alertness during shift work or may take the drug to lose weight. Binge users follow an initial rush with repeated dosing to maintain the original “high” and enter into a “tweaking” phase. “Tweaking” may last anywhere from 4 to 24 hours and is a phase where the methamphetamine high continues without any additional dosing. It is during this phase that the user poses the greatest risk to others because the user has little control over his or her behavior and may exhibit aggression, rage, violence, paranoia, anxiety, hallucinations, and hyperactivity. High-intensity users continuously cycle between bingeing and tweaking phases.

### Methamphetamine Compared to Cocaine

Cocaine and methamphetamine are both stimulants, but they differ in terms of dosing behavior, length of drug effects, and user patterns. “Methamphetamine abusers typically take the drug early in the morning and take it at 2 to 4-hour intervals throughout the day” (Zickler, 2002, p. 2). In comparison, the typical cocaine user takes the drug in the evening and in a continuous manner for several hours (Zickler, 2002). The importance of these dosing differences suggests different types of triggers may lead to relapse during the recovery period (Simon, Richardson, Dacey, Glynn, Domier, Rawson, and Ling, 2002; Simon, Domier, Sim, Richardson, Rawson, and Ling 2002).

<b>Comparison of Drug Characteristics</b>	
<b>Methamphetamine</b>	<b>Cocaine</b>
<ul style="list-style-type: none"> <li>▪ Synthetic</li> <li>▪ Smoking produces a high that lasts 8-24 hours</li> <li>▪ 50 percent of drug is removed from the body in 12 hours</li> <li>▪ Limited medical use for narcolepsy treatment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Plant-derived</li> <li>▪ Smoking produces a high that lasts 20-30 minutes</li> <li>▪ 50 percent of the drug is removed from the body in 1 hour</li> <li>▪ Used as a local anesthetic in some surgical procedures</li> </ul>
Source: National Institute of Drug Abuse, 2002, p. 5.	

Methamphetamine Prenatal Exposure

Chemically-exposed infants share similar health conditions at birth such as low-birth weight and sensitivities to light, sound, and human touch (GAO, 1991). While the effects of crack cocaine have been well researched (Berger and Waldfogel, 2001), studies examining the effects of methamphetamine exposure are only at initial stages. There is an emerging consensus about the withdrawal effects after birth, but less information about how meth affects the gestational development at different periods during the pregnancy. Prenatal exposure to methamphetamine places a newborn at increased risk of abnormal reflexes and extreme irritability (Ells, Sturgis, and Wright, 2002). Tremors and coordination problems seem to be the common withdrawal effects (Reagan, 1998). Dr. Alex Stalcup, medical director at New Leaf Treatment Center in Concord, California, notes that one signature developmental abnormality of meth exposure is nicknamed “worm heart” (Olson, 1999). This condition results when the heart does not change position as it does during normal fetal development. If the infant survives following birth, the condition requires major surgery to correct the abnormality.

Meth Addiction Treatment Services

Evaluation studies examining treatment effectiveness for methamphetamine abuse are not conclusive, but some common findings have emerged regarding issues of treatment length and the importance of a poly-drug treatment focus. In their comprehensive review of all modalities of treatment for meth addiction, Cretzmeyer, Sarrazin, Huber, Black, and Hall (2003) conclude that the effectiveness and recidivism rates for meth addiction programs are still unknown and need further research. One point of consensus, however, is that treatment length and access to treatment are critical (Cretzmeyer, et al., 2003). Longer lengths of stay in residential facilities have been shown to produce improvements in functioning (Lukas, 1996), such as cognitive abilities and motor skills. Methamphetamine usage is frequently combined with other drug usage, such as marijuana, to help alleviate or manage the negative effects during the “tweaking” phase (Logan, 1996). Thus, treatment providers should frequently address poly-drug use (Cretzmeyer, et al., 2003).

Nationally, it has been estimated that 81 percent of meth users that seek treatment have no form of health insurance (SAMSHA, 1999). For those with insurance coverage, treatment services and program lengths vary by individual providers. Non-coverage or a lack of health insurance may place additional burdens on community-based programs. Furthermore, it may result in shorter stays in treatment facilities, which would decrease treatment effectiveness rates.

### **Clandestine Laboratories**

Although much of the supply of methamphetamine in Minnesota is created in drug “super labs” and transported from Mexico (DEA, 2003), there has been a substantial increase in some counties in the number of clandestine laboratories that create meth (MDH, 2002b). Tools for assembling and cooking methamphetamine can be readily purchased at a local hardware or discount convenience store. Recipes that use anhydrous ammonia, commonly known as liquid fertilizer, make the ease of cooking meth such that a batch may be produced within two hours of amassing the ingredients (Cretzmeyer, et al., 2003). Complete assembly and disassembly of a lab, including cooking time and waste disposal, may be done in 6 to 8 hours (DEA, 2003).

The hazards associated with illicit meth labs include chemical exposure, risks of fire and explosions, and dangers associated with firearms. Chemical exposure risks are from the ingredients used to create meth, such as ammonia, drain cleaner, lye, lithium batteries, and muriatic acid. In addition to the ingredients, the byproducts produced in the cooking process pose severe health hazards. Meth labs create 5 to 7 pounds of toxic waste per pound of meth produced (MDH, 2002a). The risks of fire and explosion are a result of “cooks” handling and combining the toxic ingredients in the presence of an open flame or heat source. Another common danger associated with meth lab environments is the presence of firearms. In many meth lab seizures, law enforcement confiscate firearms as well as other weapon arsenals (Scott, 2003).

Children residing in meth lab environments face prolonged exposure to chemical solvents and other toxic ingredients. This exposure has the potential of increasing the likelihood of the development of cancer and other serious neurological diseases. Depending on their physical developmental stage, children are not as efficient at metabolizing toxins in the liver and kidneys as adults. It has been estimated that 35 to 45 percent of the lab seizures within Minnesota were residences with children (MDH, 2002b). In Tulsa, Oklahoma, child welfare workers have found that 60 to 75 percent of the children removed from meth labs test positive for methamphetamines or other hazardous chemical exposures and burns (Associated Press, 2003).

### Child Welfare Worker Safety

Any person entering a meth lab environment faces the risk of chemical exposure. Symptoms of exposure may include dizziness, itching and burning sensations, heart palpitations, and wheezing (Cooper, Souther, Hanlon, Fischer, Leiker, Tsongas, Harter, and Comeau, 2000). Additionally, if the meth lab is in use there is the risk of fire and explosions. These risks for the child welfare worker, in most cases, will be minimal since

s/he is not involved in the meth lab clean up and evidence collection. Nonetheless, it is important to be aware of the hazards and to exercise caution.

<b>Common Meth Lab Chemicals and their Physical Effects</b>		
<b>Chemical Type</b>	<b>Common Meth Chemicals</b>	<b>Symptoms/Health Effects</b>
Solvent	Actone, ether/starter fluid, Freon, Hexane (Coleman fuel), Methanol, Toluene, White Gas, Xylene	Irritation to skin, eyes, nose and throat; headache; dizziness; depression; nausea; vomiting; visual disturbance; cancer
Corrosives/Irritants (acids/bases)	Anhydrous ammonia, hydriodic acid (iodine), hydrochloric acid (muriatic acid), phosphine, sodium hydroxide (lye), sulfuric acid (drain cleaner)	Cough; eye, skin and respiratory irritation; burns and inflammation; gastrointestinal disturbances; thirst; chest tightness; muscle pain; dizziness; convulsions
Metals/Salts	Iodine, lithium metal, red phosphorus, yellow phosphorus, sodium metal	Eye, skin, nose, and respiratory irritation; chest tightness; headache; stomach pain; birth defects; jaundice; kidney damage
Source: Minnesota Department of Health, 2002b, p. 2		

In addition to the risk of chemical exposure and burns from the clandestine lab, case workers may also be at risk of physical harm due to the possible altered mental state of the clients to whom they are providing or attempting to provide services, particularly if working with clients who are methamphetamine bingers or high-intensity users and not in treatment. Methamphetamine has the potential to alter the neurological synapses within the user's brain resulting in paranoia and psychosis that persist even when the user is not high (NIDA, 2002). Thus, child welfare workers may be perceived as a threat when offering assessment services.

#### Drug Endangered Children (DEC) Protocol

The Drug Endangered Children (DEC) program was developed in Butte County, California, to provide a multiagency coordinated response to illicit methamphetamine labs and child welfare. As a largely rural county north of Sacramento, the Butte County child welfare caseload was impacted in the early 1990s by the effects of methamphetamine and meth labs. The program developed to serve the needs of children removed during meth lab seizures and ensure that the proper agencies are involved and common procedures followed (Swetlow, 2003).

The primary purpose of the DEC program is the involvement of a child welfare worker with law enforcement during the seizure of clandestine laboratories with children present. Butte County officials found that, many times, in meth lab busts the sheriff or



police simply found a relative for the emergency placement and the child was then returned to the home when the parent was released on bail. “Without a social worker at the scene children often are handed over to relatives, friends, or neighbors while the mother goes to jail, and they end up back in the drug home without any report to county Child Protective Services workers” (DEC, 1994).

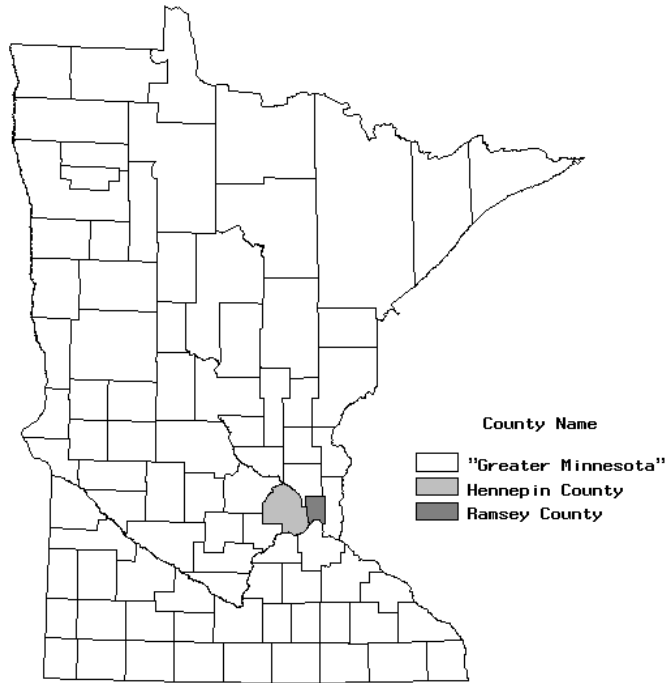
Another important aspect of the DEC program is the involvement of law enforcement any time a case worker is investigating suspected child abuse or neglect at a meth lab. As Ells, et al. (2002, p. 5) recommend, “the team approach may never be more important for safety reasons than during this type of investigation.” As previously discussed, potential harms include chemical exposure, fires, explosions, and possible “booby” traps or other security devices surrounding the meth lab.

Working with the University of California-Davis, Butte County developed a medical protocol to follow when children were seized from meth labs or were suspected of residing in meth labs. In Minnesota, Olmsted County, in conjunction with the Rochester Mayo Clinic, adapted this medical protocol and established guidelines for medical assessments and testing procedures (Olmsted County, 2003). A key aspect of this protocol is the timeline for the non-invasive tests for methamphetamine and chemical exposures following the child’s removal from the meth lab environment.

## **Research Design**

Given the potential effects of parental methamphetamine abuse on child well being in Minnesota, this report examines issues of parent drug use in the child welfare and child protective services out-of-home placement caseload. Administrative data from the Minnesota Department of Human Services are examined for all out-of-home placements within the state from 2000 to 2002. The child welfare/child protective services administrative data is a relational database called the Social Services Information System (SSIS). The dataset contains all placement information and demographic characteristics of the children that enter into the social service system through out-of-home placements or intake reports. In the SSIS data, there is not a specific variable that indicates meth involvement in the case or as a removal condition. Instead, the measure we examine has a broad definition that indicates if the out-of-home removal condition was primarily due to parent drug use or if parent chemical abuse was a contributing factor to the removal decision. Limitations of the use of administrative data are that it may be subject to coding errors or incomplete information (DHS, 2003).

The analytical structure of the tables and figures presented in the next section classifies all out-of-home placements from 2000 to 2002 in Minnesota into two comparative groupings. The first comparison is Hennepin and Ramsey counties (center city counties of Minneapolis and St. Paul) with all other counties in the state, referred to as “Greater Minnesota” in this report. This classification contrasts the two largest county caseloads in the state, Hennepin and Ramsey counties, with all other counties. In the tables and figures, this comparison is labeled Hennepin/Ramsey counties and Greater Minnesota counties.



The second comparison is between placements due to parent chemical abuse and all other placements. As per federal reporting standards, there are fifteen different factors that may be indicated as the removal conditions: physical abuse, sexual abuse, neglect, parent alcohol abuse, parent drug abuse, child behavior, child alcohol abuse, child drug abuse, child disability, relinquishment, parent death, parent

incarceration, caretaker inability, abandonment, and inadequate housing. Every out-of-home placement has one primary removal condition indicated and may have any number (none, one or more) of the other 14 categories listed as a contributing or secondary factor in the removal decision. The classification of placements due to parent drug use have parent chemical abuse listed as the primary or contributing condition in the removal decision, and these placements are compared to all other placements without this criteria indicated. This comparison is labeled as parent drug use and non-parent drug use in the tables and figures.

In the analytical tables presented in the findings section, appropriate statistical tests, such as chi-square, t-tests for difference in means, and Pearson’s correlation coefficients, are use to measure the association between the variables examined and to test for significant differences between categories. Chi-square is used, when appropriate, to test for any differences between parent drug and non-parent drug placements and the explanatory variable in the table. Chi-square is a measure of association, which is a statistical test to determine if categorical groupings between two variables are significantly different from one another. The t-test for difference in means is a test to determine if the difference between two averages is statistically significant. Pearson’s correlation coefficient measures the relationship between two interval-level variables.

Data to measure the change in meth lab seizures at the county level were extracted from the National Clandestine Lab Database and obtained from the El Paso Intelligence Center (EPIC). EPIC is a collaborative effort of more than 15 federal and state agencies concerned with tracking drug movement and immigration. The National Clandestine Lab Database is self-reported by local law enforcement officers and drug enforcement agents. Since reporting is not required or enforceable, the counts are likely undercounted and under-reported. For Minnesota, it is estimated that approximately one third of all clandestine seizures within the state are reported in the EPIC database. For example, it has been estimated by the Minnesota Bureau of Criminal Apprehension that there were approximately 350 meth labs seizures in 2001, and the EPIC database has 152 reported clandestine seizures of which 103 were assembled labs. With these noted limitations, the EPIC data are still the only publicly-available source to examine meth lab trends over time at the county-level within the state, and it is used in this report to illustrate these trends. Since the out-of-home placement data do not indicate the type of drug used by the parent, it is important to examine the EPIC data to see how the number of reported meth lab seizures correlate or relate to the placement trends. The EPIC database reports type of clandestine seizure, meth lab size, and child involvement and exposure.

## **Findings**

As the discussion of the academic literature and government agency reports highlighted, methamphetamine is a highly addictive chemical substance that may affect the lives of children by exposing them to conditions of neglect and endangerment as well as physical harm caused by chemical exposures in a meth lab environment. While the administrative data examined in this report does not have a specific indicator of meth involvement, the broader category of parental substance abuse is specified in the data. The findings are organized to examine caseload changes from 2000 to 2002, geographical patterns, placement characteristics, demographic traits and disabilities of children in placement, and meth lab activity in Minnesota during this period.

### **Out-of-Home Caseload Changes**

*Key Finding #1 – Out-of-home placements due to parent chemical abuse increased 82.3 percent in Greater Minnesota counties from 2000 to 2002. This trend contrasts with the overall decline in the number of out-of-home placements throughout the state during this period.*

**Table 1: Percentage of Out-of-Home Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002**

Removal Condition	Out-of-Home Caseload		
	2000	2001	2002
<i>Greater Minnesota Counties</i>			
Non-Parent Drug Use	95.98%	94.48%	92.12%
Parent Drug Use	4.02%	5.52%	7.88%
Total Number of Placements	13,507	13,079	12,566
<i>Hennepin/Ramsey Counties</i>			
Non-Parent Drug Use	83.33%	82.63%	83.03%
Parent Drug Use	16.67%	17.37%	16.97%
Total Number of Placements	7,942	7,396	7,211

Source: Author calculations from Social Services Information System (SSIS) administrative data.

As shown in Table 1, the total number of out-of-home placements in the state has declined each year from 2000 to 2002, but the number of placements affected by parent drug abuse has not followed this trend in Greater Minnesota (i.e., counties outside of Hennepin and Ramsey). Out-of-home placements due to parent chemical abuse increased 82.3 percent from 543 to 990 cases and comprised 8 percent of the total caseload in 2002 in Greater Minnesota. In comparison, these types of cases remain a constant 17 percent of the out-of-home placements in Hennepin and Ramsey counties during this period, declining in number similar to the total caseload from 1324 to 1224 cases.

**Table 2: Percentage of Entering Out-of-Home Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002**

Removal Condition	Out-of-Home Caseload		
	2000	2001	2002
<i>Greater Minnesota Counties<sup>a</sup></i>			
Non-Parent Drug Use	96.22%	94.95%	92.21%
Parent Drug Use	3.78%	5.05%	7.79%
<hr/>			
Total Number of Entering Placements	8,705	8,483	7,827
<i>Hennepin/Ramsey Counties<sup>b</sup></i>			
Non-Parent Drug Use	85.65%	84.42%	85.61%
Parent Drug Use	14.35%	15.58%	14.39%
<hr/>			
Total Number of Entering Placements	4,257	3,908	3,828

Source: Author calculations from SSIS administrative data.

Notes: <sup>a</sup>Chi-square value is statistically significant.

<sup>b</sup>Chi-square value is not statistically significant.

Table 2 presents the comparison of the number of entering placements during the calendar year. These findings confirm the total caseload findings in Table 1. The total caseload is all out-of-home placements that occur during the calendar year regardless of the start and end date of the placement, while the entering caseload is only those placements that begin during the calendar year. In Greater Minnesota counties, the proportion of entering placements due to parent chemical abuse increases from 3.8 percent in 2000 to 7.8 percent in 2002, and this difference is statistically significant, which suggests that the change in the relationship between placements due to parent drug use and all other cases from 2000 to 2002 is not due to chance. In comparison, the proportion of entering placements due to parent drug use in Hennepin and Ramsey counties did not change significantly and remained at 14.4 percent in 2000 and 2002 with a slight increase in 2001 to 15.6 percent. It is important to note that, although Greater Minnesota counties have had a significant change in the number of entering placements due to parent drug use, the proportion of these placements in Hennepin and Ramsey is still more than twice the rate in Greater Minnesota.

*Key Finding #2 – Two factors contributing to the increase in the number of placements due to parent chemical abuse in the total and entering caseloads are that these cases have a tendency to be longer in duration and are more likely to be recidivist.*

**Table 3: Average Duration of Continuous Out-of-Home Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002**

Removal Condition	Greater Minnesota <sup>a</sup>	Hennepin/Ramsey <sup>b</sup>
Non-Parent Drug Use	296 days	452 days
Parent Drug Use	344 days	522 days

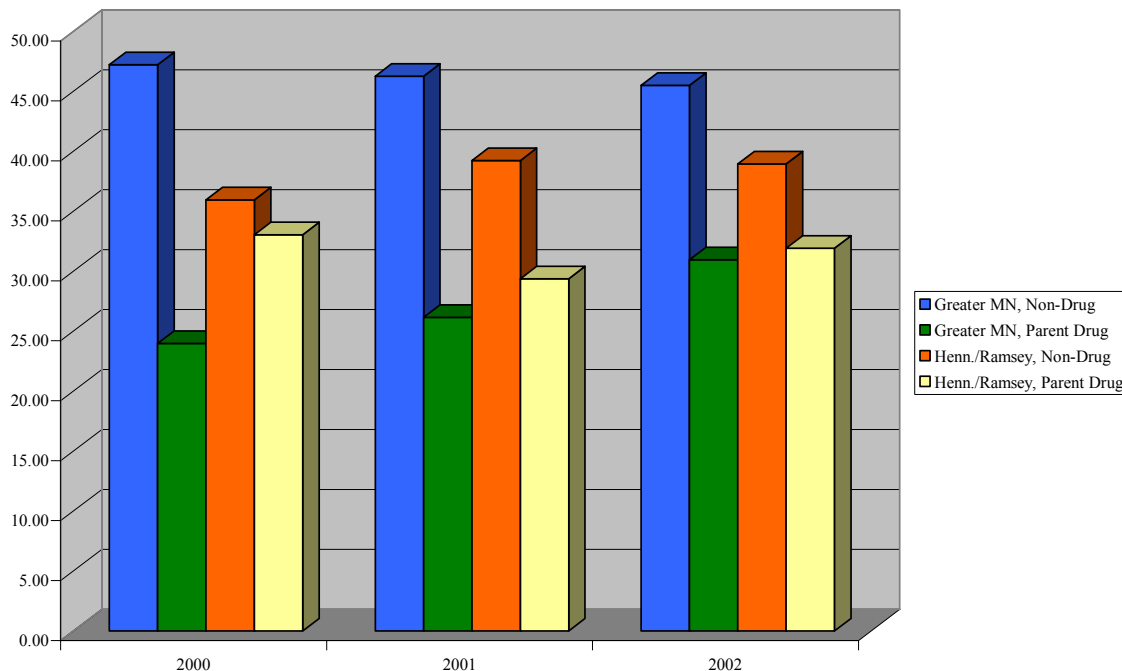
Source: Author calculations from SSIS administrative data.

Notes: <sup>a</sup>T-test for difference in means is statistically significant.

<sup>b</sup>T-test for difference in means is statistically significant.

Table 3 shows the average duration in terms of days for out-of-home placements in Hennepin and Ramsey counties compared to Greater Minnesota counties. The placement duration is calculated for all placements that occur from 2000 to 2002, which means that long-term placements that began prior to 2000 are included because they are open during this period. The average duration for placements due to parent drug use is longer in both caseloads compared to placements due to other factors. The difference between the averages was 48 days in Greater Minnesota counties and 70 days in Hennepin and Ramsey counties. The t-test for difference in means shows that these differences in duration between placements due to parent drug use and all other placements are statistically significant and not due to chance.

**Figure 1: Percentage of Entering Cohorts With Any Previous Out-of-Home Placements**



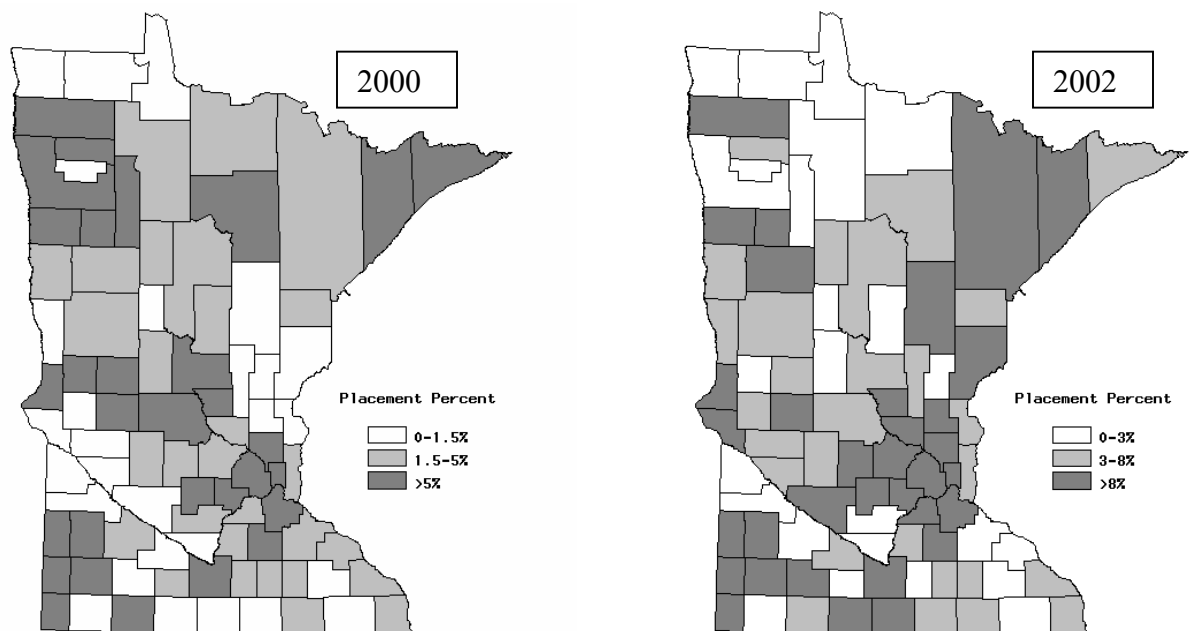
Source: Author calculations from SSIS administrative data.

Figure 1 compares the recidivism rates of the entering cohorts by year in Greater Minnesota counties and Hennepin and Ramsey counties. The corresponding data table for this figure is listed in Table A-1 in Appendix A. Figure 1 shows placements not attributed to parent drug use have higher percentages re-entering in both Greater Minnesota and Hennepin/Ramsey counties. However, the percentage of re-entering cases due to parent drug use steadily and significantly increases in Greater Minnesota from 2000 to 2002. In 2000, 24.0 percent of the entering placements due to parent drug use were returning or recidivist placements, and this significantly increases to 31.0 percent by 2002. In contrast the re-entry rate for parent chemical abuse placements in Hennepin and Ramsey counties was not statistically significant and stayed at close to 31.0 percent for the three-year period. Table A-1 shows the chi-square values for the statistical tests of these relationships.

### Geographical Patterns of Caseload Changes

*Key Finding #3 – In 2000, counties in the western and central portion of the state had higher percentages of their placement caseloads due to parent drug use. By 2002, the pattern of higher caseload percentages changes to a more concentrated pattern in the metropolitan and suburban counties. Areas with the highest rates of change tend to cluster in the central and northeastern portions of the state.*

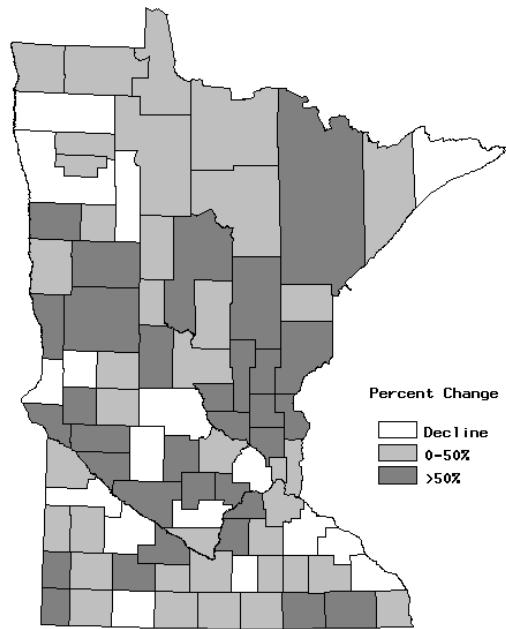
**Figure 2. Percentage of Out-of-Home Placement Caseload Due to Parent Chemical Abuse, 2000 and 2002**



Source: Author calculations from SSIS administrative data.

From 2000 to 2002, the geographic distribution of caseloads with higher proportions due to parent chemical abuse changes slightly. Figure 2 shows that the western and central portions of Minnesota had higher caseload percentages in 2000. By 2002, the pattern shifts to more concentration in the metropolitan and suburban counties of the state. Figure 2 shows the percentage of the total placement caseload due to parent chemical abuse removal conditions during the calendar year by county. In comparison, Figure 3 shows the percent change in the number of placements in the total county caseload due parent drug use from 2000 to 2002. As Figure 3 shows, counties with the largest amount of change in their caseloads tend to cluster along the I-35, I-94, and major state highway corridors in the central and northeastern portions of the state.

**Figure 3: Percent Change in Number of Placements Due to Parent Chemical Abuse, 2000-2002**



Source: Author calculations from SSIS administrative data.

## Case and Placement Characteristics

*Key Finding #4 – The typical removal conditions for out-of-home placements due to parent drug use are similar for Hennepin and Ramsey counties and Greater Minnesota counties. In those placements where parent drug use is a contributing factor, neglect and parent incarceration are the most common primary removal conditions.*



**Table 4: Percentage of Primary Removal Conditions for Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002**

Primary Removal Condition	Greater Minnesota <sup>a</sup>		Hennepin/Ramsey <sup>b</sup>	
	Non-Parent Drug	Parent Drug	Non-Parent Drug	Parent Drug
Physical abuse	5.09%	3.86%	12.14%	5.39%
Sexual abuse	1.81%	1.14%	4.09%	1.05%
Neglect	11.40%	19.48%	18.42%	18.20%
Parent alcohol abuse	2.02%	5.50%	2.07%	3.26%
Parent drug abuse	--	42.82%	--	52.66%
Child reasons <sup>c</sup>	62.93%	5.31%	40.53%	3.14%
Relinquishment or Parent Death <sup>d</sup>	1.08%	1.08%	2.40%	1.01%
Parent incarceration	2.22%	8.03%	3.72%	7.17%
Caretaker inability	9.93%	7.27%	7.87%	1.89%
Abandonment	2.17%	3.67%	6.48%	5.19%
Inadequate housing	1.35%	1.83%	2.29%	1.05%
<b>Total Number of Placements</b>	<b>28,236</b>	<b>1,581</b>	<b>13,194</b>	<b>2,484</b>

Source: Author calculations from SSIS administrative data.

Notes: <sup>a</sup>Chi-square value is statistically significant.

<sup>b</sup>Chi-square value is statistically significant.

<sup>c</sup>Child reasons include child behavior, child alcohol abuse, child drug abuse, and child disability.

<sup>d</sup>Parent death as a removal condition is recoded with Relinquishment in this table due to a cell count of less than 5 placements.

Table 4 shows the primary removal condition for all placements during 2000-2002. In this table, the chi-square values for both Greater Minnesota counties and Hennepin/Ramsey counties are statistically significant, which indicates that there are differences between placements due to parent drug use and all other placements. For those placements that are classified as parent drug use placements in this analysis, parent drug use is the primary removal condition for 42.8 percent of the placements in Greater Minnesota counties and 52.7 percent for placements in Hennepin and Ramsey counties. Since each placement may have only one primary removal condition indicated, these findings suggest that the parent's drug use is the major factor or carries the most weight in the decision to remove the child from his/her home. Neglect and parent incarceration are the next most common reasons for removal in both sets of county caseloads. For those placements that are not associated with parent drug use, child reasons are the most common primary removal condition, 62.9 percent for Greater Minnesota counties and 40.5 percent for Hennepin and Ramsey counties.

**Table 5: Percentage of Other (Non-Primary) Removal Conditions for Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002<sup>a</sup>**

Primary Removal Condition	Greater Minnesota		Hennepin/Ramsey	
	Non-Parent Drug	Parent Drug	Non-Parent Drug	Parent Drug
Physical abuse	1.64%	4.11%	2.52%	3.86%
Sexual abuse	0.93%	1.52%	1.80%	2.42%
Neglect	3.69%	27.89%	7.09%	24.80%
Parent alcohol abuse	2.18%	26.38%	2.08%	21.22%
Parent drug abuse	--	57.18%	--	47.34%
Child reasons <sup>b</sup>	11.60%	9.61%	9.28%	6.56%
Relinquishment or Parent Death <sup>c</sup>	0.35%	1.64%	0.81%	1.93%
Parent incarceration	0.81%	9.93%	1.83%	10.31%
Caretaker inability	7.03%	17.58%	6.68%	10.27%
Abandonment	0.74%	4.36%	2.31%	8.13%
Inadequate housing	1.64%	12.14%	2.71%	12.68%
<b>Total Number of Placements</b>	<b>28,236</b>	<b>1,581</b>	<b>13,194</b>	<b>2,484</b>

Source: Author calculations from SSIS administrative data.

Notes: <sup>a</sup>Column percentages do not add to 100.0 because each placement may have any number of other factors indicated as removal conditions.

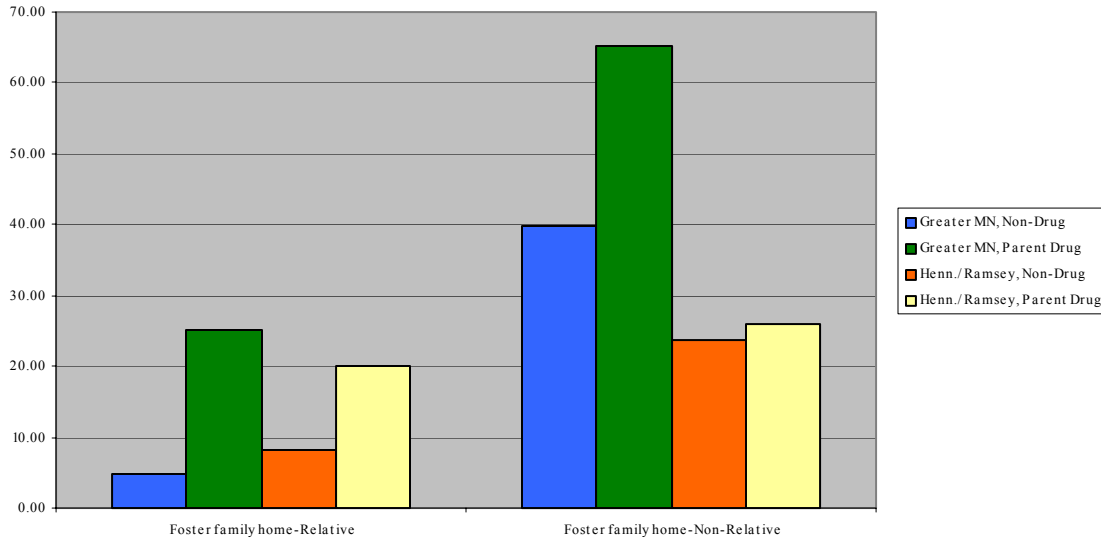
<sup>b</sup>Child reasons include child behavior, child alcohol abuse, child drug abuse, and child disability.

<sup>c</sup>Parent death as a removal condition is recoded with Relinquishment in this table due to a cell count of less than 5 placements.

Table 5 shows the contributing factors or non-primary removal conditions. Every placement has one primary removal condition but may have any number (none, one, or more) of other removal conditions indicated as factors affecting the out-of-home placement decision. For this reason, the column percentages do not add to 100.0 percent in this table, but each cell percentage indicates the percent of the total number of placements that have the removal decision indicated as a contributing factor. Table 5 shows that Greater Minnesota counties and Hennepin/Ramsey counties have similar patterns for contributing factors in parent drug use placements. Neglect and parent alcohol abuse are the most common secondary removal conditions for out-of-home placements due to parent drug abuse. In Hennepin and Ramsey counties, 24.8 percent indicate neglect and 21.2 percent indicate parental alcohol abuse as secondary removal conditions for placements due to parent drug abuse. In Greater Minnesota counties, 27.9 percent indicate neglect and 26.4 percent indicate parental alcohol abuse as secondary conditions.

*Key Finding #5 – Kinship care and non-family foster care are the more likely living situations for placements due to parent drug abuse than for placements not associated with drug use. For the first living situation of the out-of-home placement due to parent chemical abuse, many of these settings are emergency placements.*

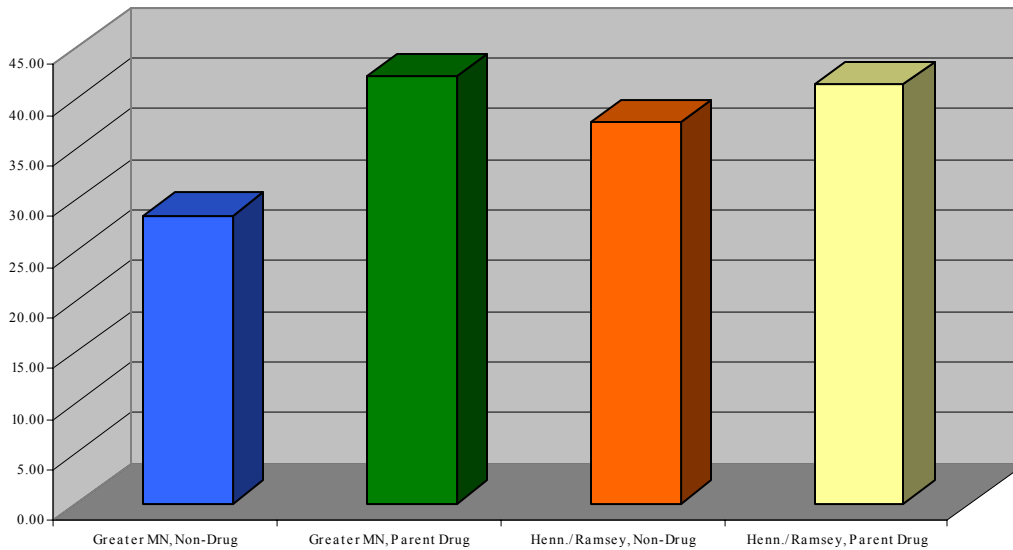
**Figure 4: Placement Setting Percentage for First Living Situation**



Source: Author calculations from SSIS administrative data.

Figure 4 shows the comparison of relative and non-relative foster families as the first placement settings for the out-of-home removal. In Appendix A, Table A-2 presents the corresponding data for this figure. In this table, the chi-square values for both Greater Minnesota counties and Hennepin/Ramsey counties are statistically significant, which indicates that there are differences between placements due to parent drug use and all other placements. The figure shows that in Greater Minnesota counties, 65.2 percent of the first placement settings for cases associated with parent drug use are with non-family foster care. This finding suggests that caseworker time may be affected by the increases in the number of placements due to parent chemical abuse because of the extra time associated with the emergency licensure of family shelter.

**Figure 5: Emergency Placement Percentage**



**Source:** Author calculations from SSIS administrative data.

Figure 5 shows the percentage of first placement settings that are emergency placements. Table A-3 in Appendix A presents the data that corresponds with this figure. In this table, the chi-square values for both Greater Minnesota counties and Hennepin/Ramsey counties are statistically significant, which indicates that there are differences between placements due to parent drug use and all other placements. In Greater Minnesota counties, 42.1 percent of the placements due to parent drug use are emergency placements. Hennepin and Ramsey counties have similar emergency placement rates for placements due to parent drug use and those that are not with 41.3 percent of the parent drug use placements and 37.6 percent of the non-parent drug abuse placements classified as emergency settings.

*Key Finding #6 – Many placements that begin due to parent drug use end without reunification with parents or caretaker. Approximately 1 out of 3 of these placements in Greater Minnesota counties and 2 out of 5 of these placements in Hennepin and Ramsey counties end with the child living with other relatives, permanently adopted, guardianship, or permanent transfer of custody to another relative. In comparison, only 1 out of 10 non-parent drug placements in Greater Minnesota counties and 1 out of 7 in Hennepin/Ramsey close for these reasons.*

**Table 6: Percentage of Reasons for Continuous Placement Closure for Closed Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002**

Closure Reason	Greater Minnesota <sup>a</sup>		Hennepin/Ramsey <sup>b</sup>	
	Non-Parent Drug	Parent Drug	Non-Parent Drug	Parent Drug
Reunification with Parents/Caretaker	78.03%	60.58%	67.74%	52.31%
Living with other Relatives	4.49%	12.93%	6.94%	15.21%
Adoption finalized	3.75%	9.80%	6.33%	17.32%
Reached age of majority	5.18%	3.21%	5.33%	3.35%
Guardianship	0.67%	2.27%	0.67%	1.43%
Transfer to another Agency	3.68%	1.57%	4.40%	1.82%
Runaway or Death	3.43%	3.21%	7.05%	3.40%
Permanent transfer of Custody to Relative	0.77%	6.43%	1.54%	5.17%
<b>Total Number of Closed Placements</b>	<b>25,675</b>	<b>1,276</b>	<b>11,461</b>	<b>2,032</b>

Source: Author calculations from SSIS administrative data.

Notes: <sup>a</sup>Chi-square value is statistically significant.

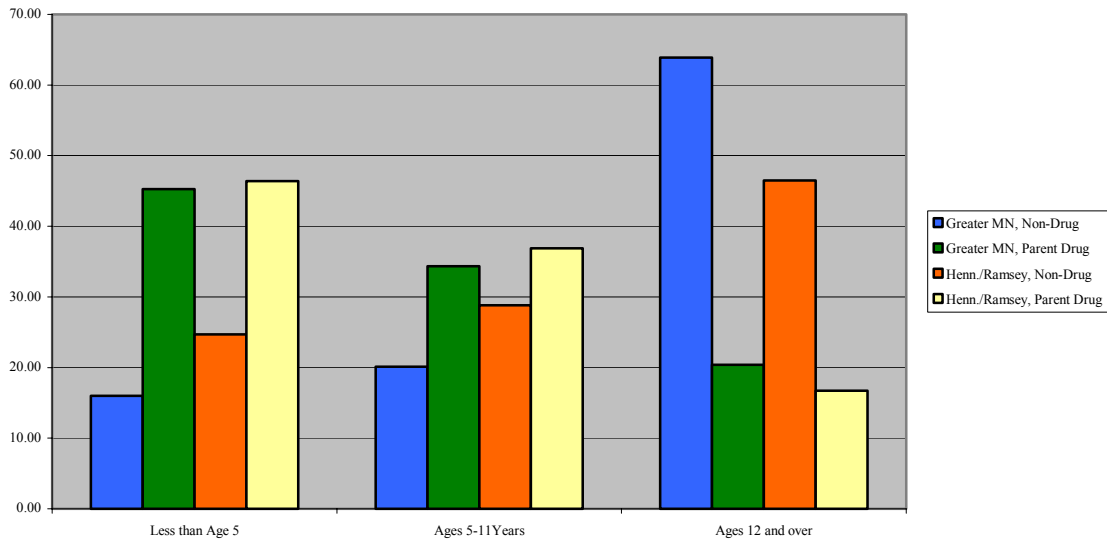
<sup>b</sup>Chi-square value is statistically significant.

Table 6 presents the percentage distribution of continuous placement closure reasons. In this table, the chi-square values for both Greater Minnesota counties and Hennepin/Ramsey counties are statistically significant, which indicates that there are differences between placements due to parent drug use and all other placements. The majority of all placements end with reunification with parents or caretakers, but placements that are associated with parent drug use are less likely to close this way. In Greater Minnesota, 31.4 percent of all placements due to parent chemical abuse close for reasons of living with other relatives, finalized adoption, guardianship, or permanent transfer of custody to relative. In Hennepin and Ramsey counties, 39.1 percent of parent drug use placements end for these reasons. In comparison, only 9.7 percent of non-parent drug placements in Greater Minnesota counties and 15.5 percent in Hennepin/Ramsey close for these reasons.

## Demographic Characteristics

*Key Finding #7 – Demographic characteristics of the caseload affected by parent drug use are similar in urban and rural areas of the state. Children in out-of-home care due to parent drug abuse are younger in age than their counterparts, but both groups have similar gender and race/ethnicity distributions.*

**Figure 6: Age Distribution of Out-of-Home Placement Caseload**



Source: Author calculations from SSIS administrative data.

Figure 6 presents the age category distribution for all children with an out-of-home placement from 2000-2002. In Appendix A, Table A-4 presents the corresponding data table for the figure. In this table, the chi-square values for both Greater Minnesota counties and Hennepin/Ramsey counties are statistically significant, which indicates that there are differences between placements due to parent drug use and all other placements. The age distribution for children in the out-of-home placement caseload due to parent drug use is very similar in Hennepin/Ramsey and Greater Minnesota counties. Children less than age 5 are 45.3 percent of the Greater Minnesota parent chemical abuse placements and 46.4 percent of Hennepin and Ramsey. In comparison, children ages 12 and over are 20.4 percent of children in Greater Minnesota counties and 16.7 percent of children in Hennepin/Ramsey counties in placements due to parent chemical abuse.

**Table 7: Percentage of Children by Gender Comparing Placements Due to Parent Chemical Abuse to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002**

Gender	Greater Minnesota <sup>a</sup>		Hennepin/Ramsey <sup>b</sup>	
	Non-Parent Drug	Parent Drug	Non-Parent Drug	Parent Drug
Female	43.14%	49.96%	44.34%	50.12%
Male	56.86%	50.04%	55.66%	49.88%
Total Number of Children	19,834	1,343	10,470	2,099

Source: Author calculations from SSIS administrative data.

Notes: <sup>a</sup>Chi-square value is statistically significant.

<sup>b</sup>Chi-square value is statistically significant.

Table 7 is the percentage of children with an out-of-home placement by gender. In this table, the chi-square values for both Greater Minnesota counties and Hennepin/Ramsey counties are statistically significant, which indicates that there are differences between placements due to parent drug use and all other placements. As the percentages show, children in out-of-home care due to parent chemical abuse are almost equally distributed between males and females in both Greater Minnesota counties and Hennepin and Ramsey counties.

**Table 8: Percentage of Children by Race/Ethnicity Comparing Placements Due to Parent Chemical Abuse to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002**

Race/Ethnicity	Greater Minnesota <sup>a</sup>		Hennepin/Ramsey <sup>b</sup>	
	Non-Parent Drug	Parent Drug	Non-Parent Drug	Parent Drug
Non-Hispanic or Non-Latino:				
White, Only	73.72%	66.94%	29.14%	16.91%
Black or African American, Only	5.60%	6.92%	41.72%	50.60%
American Indian, Only	10.13%	12.73%	7.05%	11.62%
Asian or Pacific Islander, Only	1.14%	0.37%	6.39%	0.91%
Two or More Races	3.53%	6.92%	9.42%	11.62%
Hispanic/Latino Ethnicity, All Races	5.87%	6.11%	6.28%	8.34%
Total Number of Children	19,834	1,343	10,470	2,099

Source: Author calculations from SSIS administrative data.

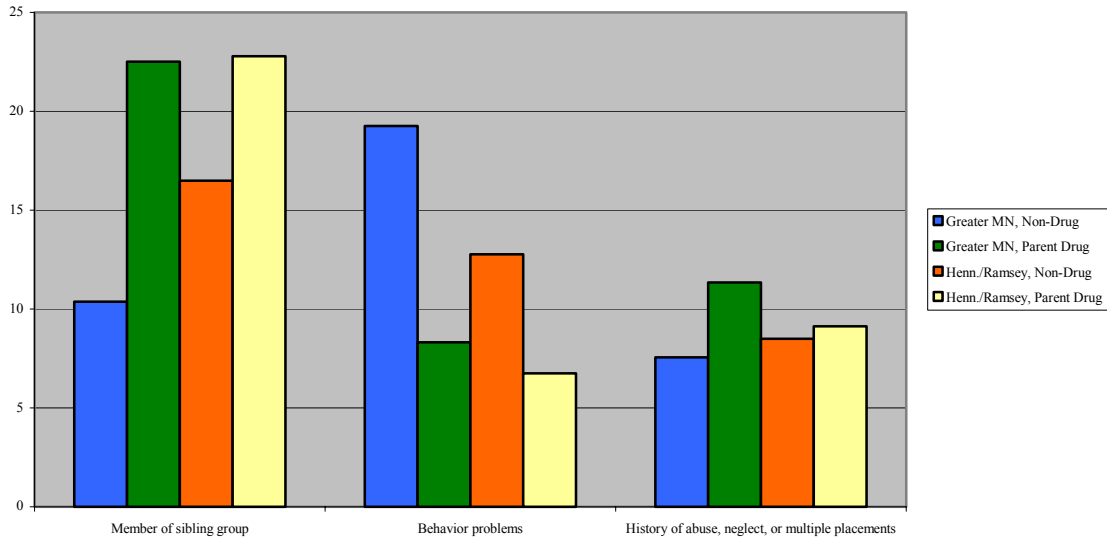
Notes: <sup>a</sup>Chi-square value is statistically significant.

<sup>b</sup>Chi-square value is statistically significant.

Table 8 shows the race/ethnicity of children in out-of-home placements from 2000-2002. In this table, the chi-square values for both Greater Minnesota counties and Hennepin/Ramsey counties are statistically significant, which indicates that there are differences between placements due to parent drug use and all other placements. Differences between children that enter placements due to parent drug abuse and non-drug reasons tend to be similar within the two county caseload groupings. In Hennepin and Ramsey counties, children that enter placements due to parent drug use are slightly more likely to be African American (41.7% for non-parent drug use and 50.6% for parent drug use) or American Indian (7.1% for non-parent drug use and 11.6% for parent drug use) than their counterparts that enter for non-parent drug use reasons.

*Key Finding #8 – Children in out-of-home care due to parent chemical abuse are more likely to be placed with siblings and to have had a history of multiple placements. These children are not more likely to have particular disabilities.*

**Figure 7: Percentage of Selected Special Needs for Children in Out-of-Home Placements**

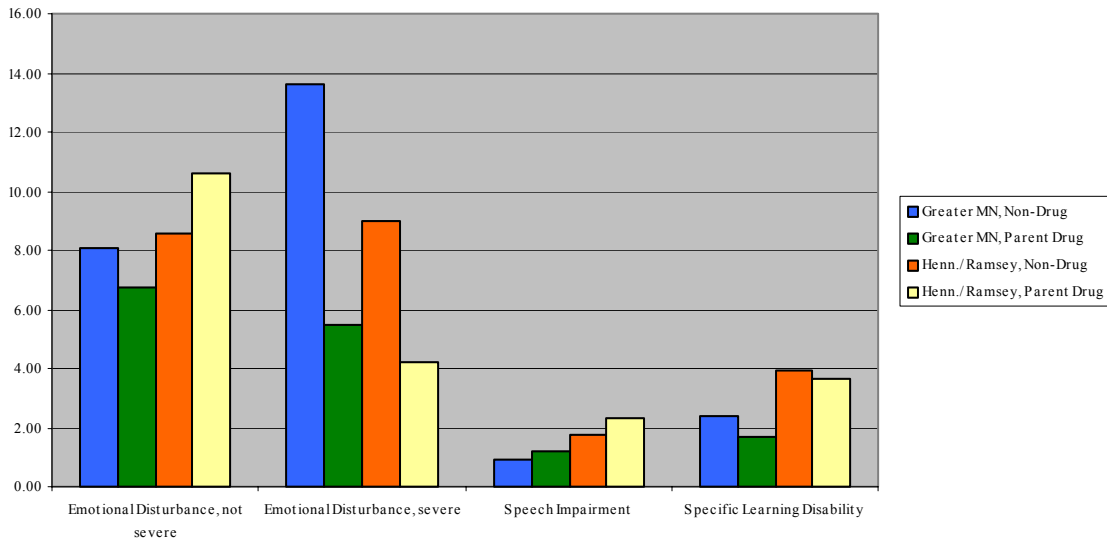


**Source: Author calculations from SSIS administrative data.**

In Figure 7, selected special needs categories are shown comparing children that were in out-of-home placements due to parent chemical abuse and non-parent drug reasons. The corresponding data table for this figure is presented in Table A-5 in Appendix A. In this table, the chi-square values for both Greater Minnesota counties and Hennepin/Ramsey counties are statistically significant, which indicates that there are differences between placements due to parent drug use and all other placements. The figure shows that 22.5 percent of children in Greater Minnesota counties and 22.8 percent in Hennepin and Ramsey counties are members of sibling groupings. Furthermore, children in Greater Minnesota counties in placements due to parent drug use are more likely to have had a history of multiple placements, abuse, and neglect.



**Figure 8: Percentage of Selected Disabilities for Children in Out-of-Home Placements**



Source: Author calculations from SSIS administrative data.

Figure 8 shows the percentages of selected disabilities for children in out-of-home care during 2000-2002. Table A-6 in Appendix A presents the corresponding data for the figure. In this table, the chi-square values for both Greater Minnesota counties and Hennepin/Ramsey counties are statistically significant, which indicates that there are differences between placements due to parent drug use and all other placements. The figure illustrates that there are not large differences in the number of disabilities between children that enter due to parent drug use and children that do not. One exception is that children with a severe emotional disturbance enter care due to non-parent drug abuse reasons, but this would most likely be reflective of the finding that child reasons are the most frequently cited removal condition for this group of children.

### Clandestine Lab Seizures

*Key Finding #9 – Reported clandestine lab seizures have increased in number across the state. From 1996-1999, reported clandestine labs were seized in 39 of the state’s 87 counties. From 2000-2002, reported labs were seized in 71 counties across the state. The typical meth lab seizure in Minnesota has the production capacity of only creating enough quantity for the user. The reported number of children found in these labs has also increased.*

**Table 9: Reported Clandestine Lab Seizures for State of Minnesota, 1996-2002**

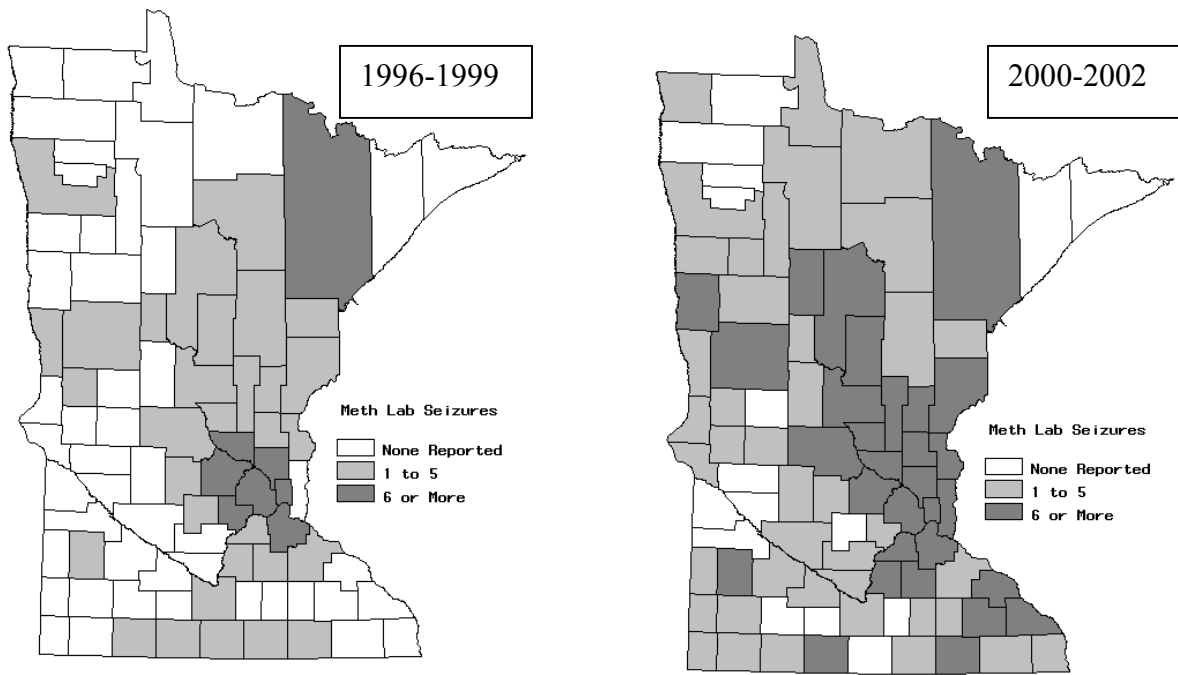
Reported Type	1996	1997	1998	1999	2000	2001	2002
Assembled Laboratory	14	9	35	101	106	103	165
Chemicals, Glass and Equipment	--	--	--	1	13	35	57
Toxic Dump Site	--	--	--	0	5	14	17
Total Reported Clandestine Seizures	14	9	35	102	124	152	239

Source: National Clandestine Lab Database, El Paso Intelligence Center

As reported to the El Paso Intelligence Center (EPIC) in the National Clandestine Lab Database, the number of clandestine seizures within the state, as shown in Table 9, increased from 124 to 239 sites, a 93 percent change from 2000 to 2002. The reported number of assembled or functioning lab seizures was at a relatively flat rate from 1999 to 2001 at around 2 lab seizures per week, but increased to over 3 lab seizures per week in 2002. During this same period, the reporting of the number of seizures of disassembled labs (chemicals, glass, and equipment) steadily increased from 13 seizures in 2000 to 57 seizures in 2002.

EPIC data is self-reported by local law officials and drug enforcement agents. As such, it not possible to distinguish between trends in the increase in reporting accuracy and an increase in the true prevalence of meth labs. Some counties without any reported meth lab seizures may have limited staffing resources such that filing extra paperwork to report the seizure is prohibitive. Other counties may have immediately recognized the importance of accurate reporting to monitor the problem. Still others may face both scenarios and just report prosecutable seizures or labs where sufficient evidence is collected to support a criminal prosecution. It is not possible to disentangle these possibilities, but it can be assumed that the reported trend encompasses both increases in reporting accuracy and prevalence of illicit meth labs. Therefore, while the absolute numbers likely underestimate reality, they most likely do reflect an upward trend in illegal meth-related activity.

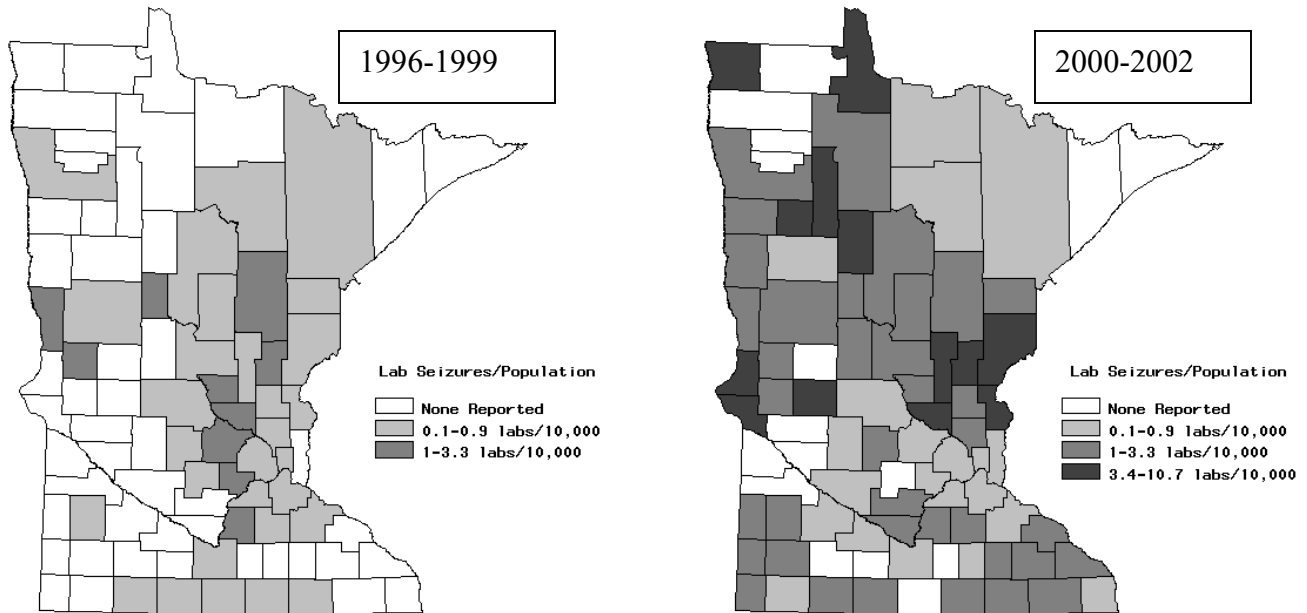
**Figure 9: Number of Clandestine Seizures Reported to EPIC, 1996-1999 and 2000-2002**



Source: National Clandestine Lab Database, El Paso Intelligence Center

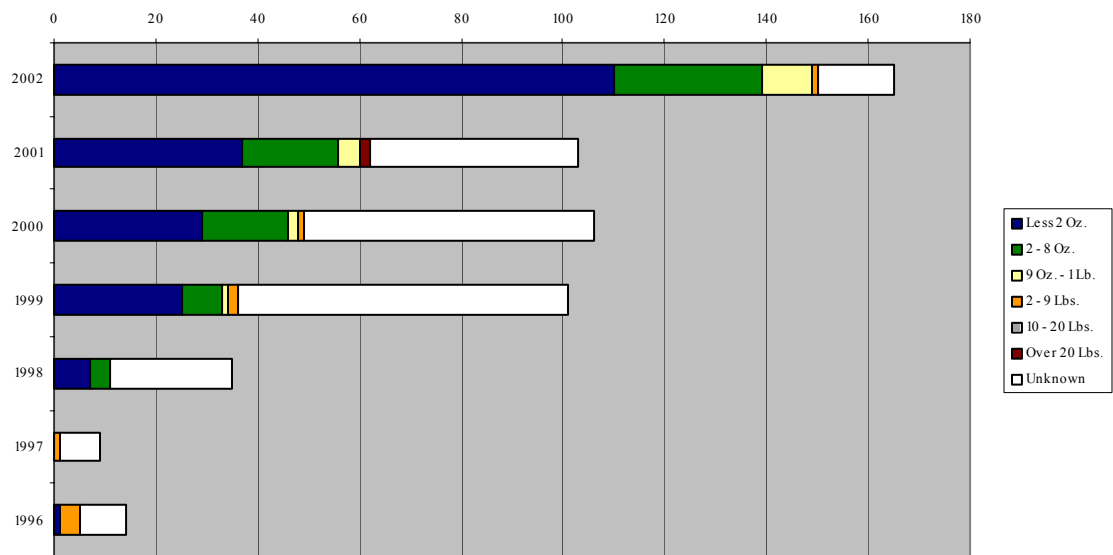
From 1996-1999, clandestine labs, as shown in Figure 9, were seized in 39 out of 87 counties in the state. From 2000 to 2002, Figure 9 shows that labs were seized in 71 counties across the state and that counties clustered on the eastern border and central portion of the state had numerous clandestine seizures. Figure 10 shows the same data normalized to the county population size. As these accompanying figures show, the concentration of seized labs per county population shows higher levels in the northwestern, north central, and southern areas of the state from 2000 to 2002.

**Figure 10: Number of Clandestine Lab Seizures Reported to EPIC Normalized to County Population, 1996-1999 and 2000-2002**



Source: National Clandestine Lab Database, El Paso Intelligence Center

**Figure 11: Methamphetamine Lab Capacity by Year of Seizure in Minnesota, 1996-2002**



Source: National Clandestine Lab Database, El Paso Intelligence Center

Figure 11 shows the lab production capacity for seizures of assembled clandestine labs in the state. The corresponding data table for the figure is Table A-7 in Appendix A. As the figure shows, most of the lab seizures did not list the lab capacity from 1996 through 2001 so the capacity is unknown. Starting in 2002 and where the capacity is indicated for the other years, most of the seized labs have a capacity to produce less than two ounces of methamphetamine. This indicates that frequently meth lab seizures within the state are from users producing meth for their own consumption and not for widespread sale and distribution.

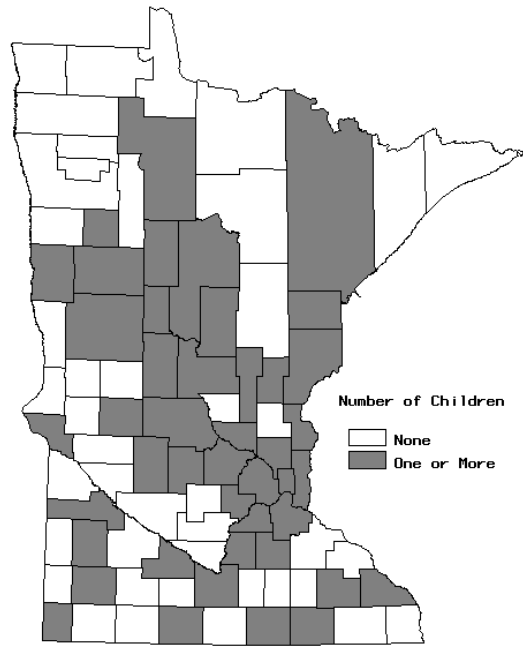
**Table 10: Reported Number of Children in Methamphetamine Laboratories in Minnesota, 1998-2002**

Child Involvement Type	1998	1999	2000	2001	2002
Affected	--	--	1	9	57
Exposed	1	6	5	6	30
Present	4	15	15	11	25
Child Protective Custody	2	7	4	6	23
Resided	--	--	1	5	47
Injured	--	--	0	1	0
Killed	--	--	0	0	2
Minimum Number of Involved Children	4	15	15	11	57

Source: National Clandestine Lab Database, El Paso Intelligence Center

Table 10 shows the number of children involved in the clandestine lab seizures. The categories listed are not exclusive, which means that a child may be listed in more than one category such as exposed and resided. As such, it is not possible to determine a total count of children involved in meth seizures or to calculate a measure of number of children per meth lab seizure. It is possible to examine the modal category to determine the minimum number of children involved in clandestine seizures during the year. As the table shows, the number of children has a sharp increase in 2002, which may be reflective of better reporting by law enforcement to EPIC as well as an increase in the number of children residing in clandestine lab environments. One important note is that there were two deaths of children within the state due to a meth lab fire in 2002. Of the 15,353 clandestine lab incidents reported in 2002 in the National Clandestine Laboratory Database at EPIC, there were only two reported child deaths nationwide (Swetlow, 2003).

**Figure 12: Reported Number of Children in Seized Meth Labs, 1998-2002**



Source: National Clandestine Lab Database, El Paso Intelligence Center

Figure 12 shows the geographical pattern of counties with reported child involvement in the clandestine lab environment. Out of the 87 counties in the state, 44 counties have reported one or more children involved in a seized meth lab reported to EPIC. It is estimated that 35 to 45 percent of the meth lab seizures are made within residences with children in the state (MDH, 2002b). This is higher than the nationwide reported estimate of 30 percent (Swetlow, 2003).

*Key Finding #10 – The number of reported meth labs seized in the county has a statistically significant correlation with the number of out-of-home placements due to parent drug use and indicates that the two are positively related at the county level.*

**Table 11: Correlation Between Number of Placements Due to Parent Chemical Abuse and Meth Lab Seizures, 2000-2002**

Variable Names	Pearson Correlation Coefficient	Level of Significance
Number of Parent Drug Placements in 2000 * Meth Lab Seizures	0.316	0.0029
Number of Parent Drug Placements in 2002 * Meth Lab Seizures	0.387	0.0002
Number of Parent Drug Placements in 2000 * Number of Children at Meth Lab Seizures	0.179	0.0965
Number of Parent Drug Placements in 2002 * Number of Children at Meth Lab Seizures	0.242	0.0241

Source: Author calculations from SSIS administrative data and National Clandestine Lab Database, El Paso Intelligence Center.

Table 11 presents the correlation coefficients between parent drug placements and meth lab seizures. The first two rows show the correlation between the number of parent drug placements and clandestine lab seizures in the county for 2000 and 2002, and the last two rows show the correlation between the placements and the number of children involved in the meth lab seizures in the county. For both sets, the correlation increases in 2002. Parent drug placements and clandestine labs are positively and significantly correlated in 2000 and 2002. The correlation coefficient for this pair is 0.32 in 2000 and increases to 0.39 in 2002. The correlation between parent drug placements and number of children in the meth lab is not statistically significant in 2000, but the correlation relationship increases to 0.24 in 2002 and is statistically significant. This suggests that the number of parent drug abuse placements is related to the number of meth labs within the county and the number of children residing in meth lab environments.

## Discussion

Taken together, the findings suggest that the increase in the number of parent drug abuse placements in Greater Minnesota counties in the state is related to the number of reported clandestine labs seized in the county. The placement caseload trends clearly show that counties outside of Hennepin and Ramsey counties have had significant increases in the number of placements due to parent chemical abuse from 2000 to 2002. Nonetheless, Hennepin and Ramsey counties still have a larger proportion of their caseloads affected by parent drug use than Greater Minnesota counties.

The characteristics of the placements and children affected by parent drug use reported in this analysis are similar to other studies examining characteristics of parent drug use placements (Barth, 2001; Frame, 2002; Karoll and Poetner, 2002; Maluccio and

Ainsworth, 2003; McNichol, 1999; Semidei, Radel, and Nolan, 2001; Walker, Zangrillo, and Smith, 1994). The children are younger in age (Semidei, et al., 2001) and are more likely to enter the placement due to chronic neglect (Walker, et al., 1994). The findings in this study also show that incarceration was frequently overlapping with parent drug use as a removal condition, which is similar to other academic studies (e.g., Smith and Young, 2003). Placements due to parent drug use are generally longer in duration and more likely to be recidivist (Barth, 2001; Frame 2002; Fuller and Wells, 2003; McNichol, 1999). In Minnesota, non-parent drug use placements have high recidivism rates, but there were significant increases in the recidivism rates for parent drug use placements in Greater Minnesota counties from 2000 to 2002.

The restrictions and timelines implemented by the 1997 Adoption and Safe Families Act (ASFA) are the main difference between the earlier crack cocaine insurgence and the current emerging meth problem. Child protection services must now adhere to set timelines to achieve permanency for children that enter out-of-home care (Reid, Macchetto, and Mann, 1999; Smith and Testa, 2002; Smith, 2003). Under ASFA requirements, children in out-of-home care must have a permanency plan established at 12 months, and the state must file a petition for the termination of parental rights (TPR) if the child has been in out-of-home care for 15 out of the 22 consecutive months. This presents many potential difficulties with substance abuse treatment courses that may take several months and relapses. Furthermore, the ASFA time clock may find many children exceeding the 15 out of 22 month criteria if they are reunified with parents that have drug relapses.

Further research is needed to fully understand the effects of parent drug use on the Minnesota child welfare and child protective services caseloads. For instance, the actual number of children affected by parent methamphetamine abuse or residing in clandestine labs is not known at this time so it is difficult to estimate the scope of the problem. An example of such a study would be to examine the prevalence rate of parent drug use on the caseload similar to the studies performed in the Council Bluffs service area in Iowa (Gutchewsky, 2003a, 2003b). In these studies, case workers were asked to note if the case they were working on at a particular time point had a parent or caretaker with known meth involvement. In these two studies, they found meth prevalence rates of approximately 35 percent for the total caseload and 49 percent for ongoing child protection cases. In Minnesota, it would be important to examine all illegal substances and to list which ones were involved to try to measure the full impact of parent substance abuse.

## **Recommendations**

Based on the study's findings and the review of the academic literature and other publications, the following recommendations are suggested:



(1) Revise county policies and procedures

- Adopt the Drug Endangered Children (DEC) protocol that links first responders, such as law enforcement and health officials, with child protective services in the county when children are removed from meth labs.
- Implement the Olmsted County Medical Protocol that lists the relevant medical diagnostic tests and screening exams for children removed from homes with clandestine laboratories.

(2) Attend to child welfare caseworker safety

- Review county human service hazardous chemical exposure policy.
- Include protective clothing that can be decontaminated prior to re-entering your car when entering a house or site of a known meth lab. Examples of protective clothing may include a lab coat and boots or other shoes that may be rinsed off and serve as a barrier between street clothes and items exposed to the lab environment.
- Include extra children's clothing or something as simple as a bed sheet when removing children from homes with meth labs to reduce the likelihood of possible contamination in car or office.
- Consult with local law enforcement officers and public health officials to assess the exposure risks and hazard severity of the clandestine laboratory environment. Since the caseworker is not part of the team needed to collect criminal evidence, collaborative arrangements to view videotape from the scene may be preferred to formal onsite assessments needed for the case plan and disposition hearing.

(3) Address case plan or disposition alterations related to meth addiction and meth labs

- Specify the requirement for assessment of mental health services to determine if anti-depressant or anti-psychotic medications are needed for parents with severe meth addiction.
- Ensure that the parent is receiving treatment that focuses on poly-drug use, if applicable.
- Include the stipulation of a public health-certified clean up of the residence for children removed from meth labs prior to any re-entry into the home.
- Require that the medical exams for methamphetamine and chemical exposure are completed within the 72-hour hold for children removed from meth lab environments. In some instances, it may be more effective to designate a caseworker to ensure these appointments are scheduled and filled rather than delegating it to the foster care provider.

(4) Provide special training and support to foster family and other contracted providers

- Additional foster family recruitment may be needed since out-of-home placements due to parent drug abuse tend to be longer in duration and are more likely to be recidivist.
- Educate foster families that they are not directly at risk of chemical exposure by simply letting a child removed from a meth lab environment into their home. This training should include education on severity of exposure risks. For example, in many instances properly washing the child's clothing, followed by two empty rinse cycles, will effectively remove most possible contamination. In other cases, none of the children's clothing or possessions should be brought into the foster home environment.

## **Conclusions**

The purpose of this report was to examine the rates of out-of-home placement due to parent drug use and to provide information to counties for addressing these caseload changes. To this end, the findings suggest that the characteristics of placements due to parent substance abuse are similar in Hennepin and Ramsey counties compared to all other counties in the state, but that these placements have been increasing in Greater Minnesota counties from 2000 to 2002. Furthermore, the increases in placements due to parent drug use are related to meth lab seizures in the county.

As part of the child welfare longitudinal project, this special report is the first in a series of in-depth topics that will be examined. Future special topics reports will examine child welfare financing in the state, educational neglect and truancy, infant placement rates, and children that enter care due to child behavior reasons. Follow-up white papers will monitor the trends discussed in these special topics reports and are especially important for the topic examined in this report. A recurring theme throughout this report is the importance of accurate data collection and measurement to monitor the placement and meth lab trends. Follow-up reports on this topic will help to disentangle the changes in reporting differences and the changes in prevalence rates.

Methamphetamine has the potential to transform rural caseloads similar to how crack cocaine affected urban child welfare caseloads. The findings from the examination of meth lab seizures and children involved in the meth lab environment suggest that methamphetamine does not have a uniform dispersion pattern or similar effect statewide. Some places have a more concentrated problem while other areas have little impact from methamphetamine. The importance of this differentiation is that best practices for addressing issues of meth addiction and its effect on the caseload may be related to these differing prevalence rates, which would suggest that counties adapt remedies to appropriately address the severity of the problems of meth addiction and clandestine labs within their county. Follow-up reports on this topic will examine these issues and track any changes in the caseload trends.

## References

- Alcoholism & Drug Abuse Weekly. 2003. "Methamphetamine in Rural States Raises Census of Foster Children." Alcoholism & Drug Abuse Weekly 15(5):6-7.
- Associated Press. 2003. "Many Children Living in Meth Lab Homes Test Positive for Drug." Associated Press State & Local Wire April 27, 2003 Sunday Edition.
- Barth, Richard P. 2001. "Research Outcomes of Prenatal Substance Exposure and the Need to Review Policies and Procedures regarding Child Abuse Reporting." Child Welfare 80(2):275-96.
- Berger L.M. and J. Waldfogel. 2000. "Prenatal Cocaine Exposure: Long-Run Effects and Policy Implications." Social Service Review 74(1):28-54.
- Cooper, D., L. Souther, D. Hanlon, P. Fischer, R. Leiker, T. Tsongas, L. Harter, and C. Comeau. 2000. "Public Health Consequences Among First Responders to Emergency Events associated With Illicit Methamphetamine Laboratories – Selected States, 1996-1999." Morbidity and Mortality Weekly Report 49(45):1021-4
- Cretzmeyer, Margaret, Mary Vaughan Sarrazin, Diane L. Huber, Robert I. Block, and James A. Hall. 2003. "Treatment of Methamphetamine Abuse: Research Findings and Clinical Directions." Journal of Substance Abuse Treatment 24:267-77.
- Ells, Mark, Barbara Sturgis, and Gregg Wright. 2002. "Behind the Drug: The Child Victims of Meth Labs." American Prosecutors Research Institute Volume 15, Number 2.
- Falkowski, Carol L. 2003a. Dangerous Drugs – Second Edition: An Easy-to-Use Reference for Parents and Professional. Center City, MN: Hazelden Publishing and Educational Services.
- Falkowski, Carol L. 2003b. Drug Abuse Trends: Minneapolis/St. Paul. Center City, MN: Hazelden Foundation, Butler Center for Research, June 2003.
- Frame, L. 2002. "Maltreatment Reports and Placement Outcomes for Infants and Toddlers in Out-of-Home Care." Infant Mental Health Journal 23(5):517-40.
- Fuller, Tamara L. and Susan J. Wells. 2003. "Predicting Maltreatment Recurrence among CPS Cases with Alcohol and Other Drug Involvement." Children and Youth Services Review 25(7):553-69.
- Gutchewsky, Carol. 2003a. Methamphetamine Prevalence Study. Council Bluffs, IA: Iowa Department of Human Services, Council Bluffs Service Area, May 2003.

- Gutchewsky, Carol. 2003b. Methamphetamine and Child Welfare. Council Bluffs, IA: Iowa Department of Human Services, Council Bluffs Service Area, August 2003.
- Jubera, Drew. 2003. "Moonshine Country Overrun by Meth: Drug Labs Turn Out a New Home-Brew in Hills of North Alabama and East Tennessee." Atlanta Journal and Constitution February 9, 2003, Sunday Home Edition.
- Karoll, B.R. and J. Poertner. 2002. "Judges', Caseworkers', and Substance Abuse Counselors' Indicators of Family Reunification with Substance-Affected Parents." Child Welfare 81(2):249-69.
- Logan, B.K. 1996. "Methamphetamine and Driving Impairment." Journal of Forensic Sciences 41:457-64.
- Lukas, S.E. 1996. Proceedings of the National Consensus Meeting on the Use, Abuse and Sequelae of Abuse of Methamphetamine with Implications for Prevention, Treatment, and Research. Baltimore, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment.
- Maluccio, Anthony N. and Frank Ainsworth. 2003. "Drug Use by Parents: A Challenge for Family Reunification Practice." Children and Youth Services Review 25(7):511-33.
- Martin, Jonathan. 1999. "A Drug's Innocent Victims." The Spokesman-Review of Spokane, Washington. Special News Series.
- McNichol, Theresa. 1999. "The Impact of Drug-Exposed Children on Family Foster Care." Child Welfare 78(1):184-96.
- Minnesota Department of Health (MDH). 2002a. Clandestine Drug Labs in Minnesota: Health, Safety and Remediation Issues. St. Paul, MN: Minnesota Department of Health, Division of Environmental Health, Site Assessment and Consultation Unit, March 2002.
- Minnesota Department of Health (MDH). 2002b. Response to Clandestine Drug Labs. St. Paul, MN: Minnesota Department of Health, Division of Environmental Health, Site Assessment and Consultation Unit, June 2002.
- Minnesota Department of Human Services (DHS). 2003. Placement Re-Entry and Stability. St. Paul, MN: Minnesota Department of Human Services, Child Safety and Permanency Division, Children's Research, Planning and Evaluation.
- National Institute on Drug Abuse (NIDA). 1999. InfoFacts: Methamphetamine. Baltimore, MD: National Institutes of Health.

- National Institute on Drug Abuse (NIDA). 2002. Methamphetamine: Abuse and Addiction. Research Report Series. NIH Publication Number 02-4210. Baltimore, MD: National Institutes of Health.
- Olmsted County, Minnesota Social Services. 2003. Medical Protocol for Children Found at Methamphetamine Lab Sites. Rochester, MN: Olmsted County Social Services.
- Olson, Ken. 1999. "A Health Peril for All of Us." The Spokesman-Review of Spokane, Washington. Special News Series.
- Regan, Kerri. 2000. "Doctor Explains How Children Suffer from Meth 'Epidemic.'" Redding Newspaper June 22, 2000.
- Reid, Jeanne, Peggy Macchetto, and David Mann. 1999. No Safe Haven: Children of Substance-Abusing Parents. New York: Columbia University, The National Center on Addiction and Substance Abuse (NCASA).
- Scott, Michael S. 2003. Clandestine Drug Labs. Washington, DC: U.S. Department of Justice, Office of Community Oriented Policing Services, Problem-Oriented Guides for Police Series No. 16.
- Semidei, Joseph, Laura Feig Radel, and Catherine Nolan. 2001. "Substance Abuse and Child Welfare: Clear Linkages and Promising Responses." Child Welfare 80(2):109-28.
- Simon, Sara L., K. Richardson, J. Dacey, S. Glynn, C.P. Domier, R.A. Rawson, and W. Ling. 2002. "A Comparison of Patterns of Methamphetamine and Cocaine Use." Journal of Addictive Diseases 21(1):35-44.
- Simon, Sara L., C.P. Domier, T. Sim, K. Richardson, R.A. Rawson, and W. Ling. 2002. "Cognitive Performance of Current Methamphetamine and Cocaine Users." Journal of Addictive Diseases 21(1):61-74.
- Smith, Brenda D. and Mark F. Testa. 2002. "The Risk of Subsequent Maltreatment Allegations in Families with Substance-Exposed Infants." Child Abuse & Neglect 26:97-114.
- Smith, Carrie Jefferson and Diane S. Young. 2003. "The Multiple Impacts of TANF, ASFA, and Mandatory Drug Sentencing for Families Affected by Maternal Incarceration." Children and Youth Services Review 25(7):535-52.
- Smith, Mickey J. 2003. ASFA and Substance Abuse: Understanding the Issues Impacting Two Systems of Care. Washington, DC: National Association of Social Workers, Child Welfare Practice Update, October 2003.

- Substance Abuse and Mental Health Services Administration (SAMSHA). 1999. Treatment Episode Data Set (TEDS). Baltimore, MD: National Institutes of Health.
- Swetlow, Karen. 2003. Children at Clandestine Methamphetamine Labs: Helping Meth's Youngest Victims. Washington, DC: Office of Victims of Crime (OVC) Bulletin, U.S. Department of Justice.
- United States Conference of Mayors. 2000. No Place to Hide: Substance Abuse in Mid-Size Cities and Rural America. Washington, DC: Government Printing Office.
- United States Drug Enforcement Agency (DEA). 2003. DEA Briefs & Background: Drugs and Drug Abuse – Minnesota State Factsheet. Washington, DC: United States Department of Justice.
- United States General Accounting Office (GAO). 1991. Drug Abuse: The Crack Cocaine Epidemic: Health Consequences and Treatment. Washington, DC: Government Printing Office.
- United States General Accounting Office (GAO). 1994a. Child Welfare: Complex Needs Strain Capacity to Provide Services. Washington, DC: Government Printing Office.
- United States General Accounting Office (GAO). 1994b. Foster Care: Parental Drug Abuse Has Alarming Impact on Young Children. Washington, DC: Government Printing Office.
- United States General Accounting Office (GAO). 1997. Parental Substance Abuse: Implications for Children, the Child Welfare System, and Foster Care Outcomes. Washington, DC: Government Printing Office.
- United States General Accounting Office (GAO). 1998. Foster Care: Agencies Face Challenges Securing Stable Homes for Children of Substance Abusers. Washington, DC: Government Printing Office.
- Walker, Clarice Dibble, Patricia Zangrillo, and Jacqueline Marie Smith. 1994. "Parental Drug Abuse and African American Children in Foster Care." In Child Welfare Research Review, Volume 1, Richard Barth, Jill Duerr Berrick, and Neil Gilbert, Editors. New York: Columbia University Press.
- Zickler, Patrick. 2002. "Methamphetamine, Cocaine Abusers Have Different Patterns of Drug Use, Suffer Different Cognitive Impairments." NIDA Notes 16(5).

## Appendix A

### Data Tables for Corresponding Text Figures

**Table A-1: Percentage of New and Returning Entering Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002**

	<u>Non-Parent Drug Removals</u>			<u>Parent Drug Removal</u>		
	2000	2001	2002	2000	2001	2002
<i>Greater Minnesota Counties</i>						
New Placement	52.75%	53.71%	54.47%	75.99%	73.83%	69.02%
Returning Placement	47.25%	46.29%	45.53%	24.01%	26.17%	30.98%
Total Number of Placements	8,376	8,055	7,217	329	428	610
Significance Test	Degrees of Freedom	Chi-Square	Sig. Level	Degrees of Freedom	Chi-Square	Sig. Level
Chi-Square	2	4.682	0.0962	2	6.000	0.0498
<i>Hennepin/Ramsey Counties</i>						
New Placement	64.02%	60.75%	61.03%	66.94%	70.61%	68.06%
Returning Placement	35.98%	39.25%	38.97%	33.06%	29.39%	31.94%
Total Number of Placements	3,646	3,299	3,277	611	609	551
Significance Test	Degrees of Freedom	Chi-Square	Sig. Level	Degrees of Freedom	Chi-Square	Sig. Level
Chi-Square	2	9.794	0.0075	2	1.993	0.3692

Source: Author calculations from Social Service Information System (SSIS) administrative data.

**Table A-2: Percentage of Placement settings for First Living Situations During Continuous Out-of-Home Placement for Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002**

First Placement settings	Greater Minnesota <sup>a</sup>		Hennepin/Ramsey <sup>b</sup>	
	Non-Parent Drug	Parent Drug	Non-Parent Drug	Parent Drug
Pre-adoptive home-Relative	0.25%	0.76%	0.24%	0.60%
Pre-adoptive home-Non-Relative	0.45%	0.82%	0.28%	0.64%
Foster family home-Relative	4.84%	25.17%	8.16%	20.01%
Foster family home-Non-Relative	39.89%	65.21%	23.84%	25.93%
Group home	23.63%	4.49%	7.44%	2.01%
Residential treatment/Institution	30.15%	3.29%	58.50%	49.88%
Other	0.79%	0.25%	1.54%	0.93%
Total Number of First Living Situations	28,236	1,581	13,194	2,484

Source: Author calculations from SSIS administrative data.

Notes: <sup>a</sup>Chi-square value is statistically significant.

<sup>b</sup>Chi-square value is statistically significant.

**Table A-3: Percentage of Emergency Placements for First Living Situations During Continuous Out-of-Home Placement for Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002**

First Placement Situation	Greater Minnesota <sup>a</sup>		Hennepin/Ramsey <sup>b</sup>	
	Non-Parent Drug	Parent Drug	Non-Parent Drug	Parent Drug
Non-Emergency	71.58%	57.87%	62.39%	58.66%
Emergency Placement	28.42%	42.13%	37.61%	41.34%
Total Number of First Living Situations	28,236	1,581	13,194	2,484

Source: Author calculations from SSIS administrative data.

Notes: <sup>a</sup>Chi-square value is statistically significant.

<sup>b</sup>Chi-square value is statistically significant.



**Table A-4: Percentage of Children by Age Category at Start of First Out-of-Home Placement in 2000-2002 Caseload Comparing Placements Due to Parent Chemical Abuse to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties**

Age Category	Greater Minnesota <sup>a</sup>		Hennepin/Ramsey <sup>b</sup>	
	Non-Parent Drug	Parent Drug	Non-Parent Drug	Parent Drug
Less than Age 5	15.98%	45.27%	24.69%	46.40%
Ages 5-11 Years	20.12%	34.33%	28.83%	36.87%
Ages 12 and over	63.90%	20.40%	46.49%	16.72%
Total Number of Children	19,834	1,343	10,470	2,099

Source: Author calculations from SSIS administrative data.

Notes: <sup>a</sup>Chi-square value is statistically significant.

<sup>b</sup>Chi-square value is statistically significant.

**Table A-5: Percentage of Special Needs for Children in Out-of Home Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002<sup>a</sup>**

Special Need	Greater Minnesota <sup>b</sup>		Hennepin/Ramsey <sup>c</sup>	
	Non-Parent Drug	Parent Drug	Non-Parent Drug	Parent Drug
No known special needs	32.69%	26.26%	26.04%	20.35%
Physical, mental, or emotional disability	14.27%	8.31%	8.30%	6.61%
Member of sibling group	10.37%	22.51%	16.49%	22.79%
Religious and cultural needs	3.18%	5.00%	14.03%	18.36%
Older child	4.66%	4.20%	7.02%	5.46%
Behavior problems	19.25%	8.31%	12.77%	6.74%
High risk family genetic/health background	3.10%	6.83%	3.36%	4.93%
History of abuse, neglect, or multiple placements	7.55%	11.34%	8.50%	9.13%
Adolescent parent with child(ren)	0.36%	0.54%	0.47%	0.47%
High risk of developing disability	4.58%	6.70%	3.02%	5.17%
Total Number of Special Needs	28,672	2,239	17,073	3,813

Source: Author calculations from SSIS administrative data.

Notes: <sup>a</sup>Each child may have more than one special need listed.

<sup>b</sup>Chi-square value is statistically significant.

<sup>c</sup>Chi-square value is statistically significant.

**Table A-6: Percentage of Disabilities for Children in Out-of-Home Placements Due to Parent Chemical Abuse Compared to Other Removal Conditions in Greater Minnesota and Hennepin/Ramsey Counties, 2000-2002<sup>a</sup>**

Disability	Greater Minnesota <sup>b</sup>		Hennepin/Ramsey <sup>c</sup>	
	Non-Parent Drug	Parent Drug	Non-Parent Drug	Parent Drug
No known disability	52.01%	70.93%	54.88%	55.94%
Chemical Dependency-Alcohol	5.00%	1.57%	0.93%	0.21%
Chemical Dependency-Drugs	3.81%	2.02%	1.62%	0.58%
Developmentally Disabled-Mental Retardation Only	1.05%	0.65%	1.09%	0.78%
Developmentally Disabled (DD)-Mental Retardation with Other DD	1.88%	0.39%	2.09%	0.82%
Developmentally Disabled-Without Mental Retardation	0.98%	0.98%	2.48%	2.84%
Emotional Disturbance, not severe	8.10%	6.73%	8.59%	10.61%
Emotional Disturbance, severe	13.59%	5.49%	9.01%	4.20%
Hearing/Visual Impairment	0.92%	0.46%	0.94%	1.48%
Speech Impairment	0.89%	1.18%	1.72%	2.30%
Specific Learning Disability	2.37%	1.70%	3.93%	3.62%
Physical Disability, Limited Ambulation	0.62%	0.65%	0.85%	0.53%
Physical Disability, Not Limited	0.37%	0.46%	0.65%	0.78%
Fetal Alcohol Syndrome (FAS)	0.51%	0.98%	0.37%	0.70%
Other Disability <sup>d</sup>	2.55%	1.76%	4.78%	5.84%
Other Clinically Diagnosed Condition	2.58%	1.89%	1.71%	2.26%
Unknown	2.76%	2.16%	4.36%	6.50%
<b>Total Number of Disabilities</b>	<b>23,805</b>	<b>1,531</b>	<b>12,526</b>	<b>2,431</b>

Source: Author calculations from SSIS administrative data.

Notes: <sup>a</sup>Each child may have more than one disability diagnosis indicated.

<sup>b</sup>Chi-square value is statistically significant.

<sup>c</sup>Chi-square value is statistically significant.

<sup>d</sup>Other Disability includes HIV and Traumatic Brain Injury (TBI) in this table due to a cell count of less than 5 placements for these categories.

**Table A-7: Methamphetamine Lab Production Capacity by Year of Seizure in Minnesota, 1996-2002**

Lab Capacity	1996	1997	1998	1999	2000	2001	2002
Less 2 Oz.	1	0	7	25	29	37	110
2 - 8 Oz.	0	0	4	8	17	19	29
9 Oz. - 1 Lb.	0	0	0	1	2	4	10
2 - 9 Lbs.	4	1	0	2	1	0	1
10 - 20 Lbs.	0	0	0	0	0	0	0
Over 20 Lbs.	0	0	0	0	0	2	0
Unknown	9	8	24	65	57	41	15
Total Number of Meth Labs	14	9	35	101	106	103	165

Source: National Clandestine Lab Database, El Paso Intelligence Center

## **Appendix B Additional Resources**

### **General References**

Drug Endangered Children's Resource Center  
<http://www.decresourcecenter.org/default.html>

Minnesota Department of Health – Meth Webpage  
<http://www.health.state.mn.us/divs/eh/meth/>

### **Photos of Meth Labs**

Keys to recognizing a Clandestine Laboratory  
California Department of Justice  
<http://www.stopdrugs.org/recognizinglabs.html>

Chattanooga Police Department  
<http://www.chattanooga.gov/police/MethFAQ.htm>

California Law Enforcement Officers  
<http://www.decresourcecenter.org/DECmethphotos.html>

News Clip of Mobile Meth Labs  
<http://www.nmtf.us/>

### **Newspaper series describing meth's impact on community**

City Pages series discusses the impact of meth in the Austin area and Mower County in Minnesota.  
<http://www.citypages.com/databank/24/1171/article11240.asp>

Rochester, MN Post Bulletin series on the spread of meth labs in Minnesota  
<http://www.postbulletin.com/meth/index2.html>

Seattle Post-Intelligencer  
<http://seattlepi.nwsourc.com/methamphetamines/>

Spokesman Review  
<http://www.msnbc.com/news/498823.asp>

## **Information on Substance Abuse and Child Welfare**

National Center on Substance Abuse and Child Welfare

<http://www.nesacw.samhsa.gov/>

Health and Human Services Report “Blending Perspectives and Building Common Ground: A Report to Congress on Substance Abuse and Child Protection”, April 1999

<http://aspe.hhs.gov/hsp/subabuse99/subabuse.htm>

National Association of Social Workers (NASW) October, 2003 Practice Note on ASFA and Substance Abuse

<http://www.naswdc.org/practice/children/cws1003.pdf>

## **Drug Endangered Children (DEC) Programs**

Multi-Agency Partnerships: Linking Drugs and Child Endangerment Guidebook.

Prepared by: Giarretto Institute and The Advisory Board on Drug Endangered Children.

“The California Office of Criminal Justice Planning (OCJP) has taken initiative to develop a cohesive strategy to address the needs of children found at the sites of clandestine methamphetamine laboratories. Funded by OCJP, this guidebook was developed for counties to organize a foundation base and create programs that will attend to the needs of a population of children neglected by the system (law enforcement and child protective services). This guidebook addresses the problem of children subjected to harm by their parents or caretakers through drug related behaviors and/or offences, particularly in-home illegal drug production.” To Obtain guidebook please contact: Cindy McGuire-Berry, Violence Against Children Branch, Governor's Office of Criminal Justice Planning at (916) 323-7449.

PDF version of above guidebook

<http://www.decresourcecenter.org/multiagency.pdf>

Riverside, California Drug Endangered Children Program

<http://dec.co.riverside.ca.us/>

Shasta County, CA

<http://www.notinourtown.net/decprogram.htm>

Colorado Drug Endangered Children Program

<http://www.colodec.org/>

## Medical protocols for children removed from meth labs

Olmsted County, Minnesota

<http://www.health.state.mn.us/divs/eh/meth/sidechildren.html>

UC-Davis, California

<http://www.decresourcecenter.org/DECmedical.html>

## Infants and Meth

[http://www.kci.org/meth\\_info/Crank\\_Babies/index.htm](http://www.kci.org/meth_info/Crank_Babies/index.htm)

## Information on Drug Characteristics and Substance Abuse

Dangerous Drugs – Second Edition: An Easy-to-Use Reference for Parents and Professionals. By Carol Falkowski. Hazelden Publishing and Educational Services, 2003. “In a world where the drug abuse scene is more confusing and dangerous than ever, the 2<sup>nd</sup> edition of *Dangerous Drugs: An Easy to Use Reference for Parents and Professionals* is the answer. Now with color photos of drugs and paraphernalia, *Dangerous Drugs* is a concise, comprehensive, clear, and handy reference that answers your questions at a glance, with:

- Up-to-date information on drugs of abuse
- Demographics of users
- Explanations of how a drug is used, where it’s found, and how it affects the mind and body
- The names and forms under which drugs are sold
- Their addictive, lethal, and overdose potential
- Signs of drug abuse and where/how to seek help, and more.

Written in clear language, *Dangerous Drugs* provides straightforward, authoritative, comprehensive, and up-to-the-minute information. It covers the full range of drugs of abuse, whether illegal (marijuana, heroin, cocaine, LSD, methamphetamine, etc.) or legal (alcohol, prescription, tobacco, or Internet-marketed herbal remedies). *Dangerous Drugs* is written for professionals and non-professionals alike, and is a book that no one concerned about drug use can afford to be without.” To obtain a copy of this book, visit

[www.hazelden.org](http://www.hazelden.org) and click on the link for the bookstore or

[http://www.hazelden.org/OA\\_HTML/ibeCCtpItmDspRte.jsp?item=3308](http://www.hazelden.org/OA_HTML/ibeCCtpItmDspRte.jsp?item=3308)