

Marijuana and Child Abuse and Neglect

A HEALTH IMPACT ASSESSMENT

Colorado School of Public Health

IN COLLABORATION WITH

THE KEMPE CENTER FOR THE PREVENTION AND TREATMENT OF CHILD ABUSE AND NEGLECT AND
CHILDREN'S HOSPITAL COLORADO

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Table of Contents

| | |
|---|----|
| Executive Summary..... | 4 |
| About marijuana in Colorado..... | 4 |
| About child welfare in Colorado | 4 |
| About mandatory reporting in Colorado | 5 |
| Child abuse and neglect | 5 |
| About this report..... | 5 |
| Summary of findings | 6 |
| Summary of recommendations | 7 |
| Operational Recommendations | 7 |
| Research/Data Recommendations | 8 |
| Policy Recommendations..... | 8 |
| Introduction | 10 |
| Colorado child welfare law and system | 10 |
| Colorado mandatory reporting statute | 11 |
| Child abuse and neglect in Colorado | 11 |
| Why focus on marijuana | 12 |
| About Health Impact Assessments | 12 |
| Stakeholder Engagement..... | 13 |
| Scope and Purpose..... | 13 |
| Assessment | 14 |
| 1. Literature Review | 14 |
| Objective | 15 |
| Methods..... | 15 |
| Results..... | 16 |
| Discussion and Future Research | 19 |
| Summary | 19 |
| 2. Policy Scan..... | 20 |
| Methods..... | 20 |
| Results..... | 21 |
| 3. Key informant interviews with families | 32 |

| | |
|--|----|
| Findings | 32 |
| Summary of Assessment Findings | 35 |
| Recommendations | 37 |
| Operational Recommendations | 37 |
| Recommendations for Mandatory Reporters Regarding Marijuana Use and Exposure | 37 |
| Recommendations for Child Welfare Screening Regarding Referrals Related to Marijuana | 38 |
| Supporting Evidence and Justification | 39 |
| Table 1. HIA Recommendations and Justifications | 39 |
| Scientific Evidence..... | 40 |
| Stakeholder Input..... | 40 |
| Other Research/Data Recommendations | 41 |
| Policy Recommendations..... | 43 |
| Conclusion..... | 43 |
| References | 45 |
| Appendix A..... | 47 |
| Appendix B..... | 49 |

Executive Summary

The Colorado School of Public Health, in collaboration with Children’s Hospital Colorado and the Kempe Center for the Prevention and Treatment of Child Abuse and Neglect conducted a health impact assessment (HIA) to inform new state policies surrounding how marijuana use should be handled in child welfare decision-making. Previous work has examined the pros and cons of marijuana legalization, marijuana use and health including the potential benefits of medical usage, and revenue-related impacts. This HIA focuses on mandatory reporting and child welfare screening decisions when marijuana is involved and provides a set of evidence-informed recommendations to improve consistency in practice across the state of Colorado and reduce the number of families unnecessarily interfacing with the child welfare system. The recommendations are aimed at the state level regarding which policies and procedures related to mandatory reporting and screening decisions when marijuana is involved should be adopted by the Colorado Department of Human Services to maximize child health. The recommendations from this report have informed the development of House Bill (HB) 16-1385, which updates and modernizes the definition of child abuse or neglect in the Colorado Children’s Code as it relates to substances.

About marijuana in Colorado

Amendment 20 to Colorado’s state constitution was passed in 2000 via ballot initiative, legalizing limited amounts of medical marijuana for patients and their primary caregivers. Amendment 64 was passed, again via ballot initiative, in 2012, legalizing the retail sale, purchase, and possession of marijuana for state residents and visitors older than 21 years of age. This changing legislation, along with changing norms around the usage of marijuana, has resulted in some unexpected and adverse health effects. One unintended consequence of marijuana legalization on child health has been an increased number of children evaluated in the emergency department for unintentional marijuana ingestion. These health effects coupled with the changing norms of marijuana use have impacted the work of mandatory reporters and child welfare caseworkers in Colorado.

About child welfare in Colorado

In Colorado, child abuse or neglect (or child maltreatment) is defined as “an act or omission in one of several categories that threaten the health or welfare of a child”, including physical evidence of abuse, unlawful sexual behavior, inaction to provide services or supervision, emotional abuse, neglect (which is defined in Colorado Revised Statute 19-3-102), being on a premise where a controlled substance is manufactured, or testing positive for certain controlled substances. The child welfare system in Colorado is state supervised and administered by each of the 64 counties in the state. Given county administration, there is variation across the state in how county departments interpret the child maltreatment law and how they determine whether or not to respond to a report of suspected child abuse or neglect and how to respond. Given changing legislation and norms around the substance, this variation among counties is exacerbated when marijuana is the reason for the report along with increased uncertainty in when it is considered necessary

to intervene. As a result, both local and state government agencies have voiced a desire for greater guidance around child welfare decision making as it relates to marijuana.

About mandatory reporting in Colorado

Colorado state law outlines persons required by law to report child abuse or neglect under more than 50 categories of professions. According to C.R.S. 19-3-304, a mandatory reporter is required to report if he/she has: (1) “reasonable cause to know or suspect that a child has been subjected to abuse or neglect”, or (2) “observed the child being subjected to circumstances or conditions that would reasonably result in abuse or neglect”. The statute for mandatory reporting clearly states that reasonable cause to know or suspicion is grounds for reporting. However, many mandatory reporters express uncertainty in when they should make a report when marijuana is involved.

Child abuse and neglect

Child abuse and neglect impacts more than 37,000 children a year in Colorado. In 2015, 90,702 calls reporting concerns of child abuse or neglect (referrals) were made to child welfare statewide. About 37 percent (33,518/90,702) of these calls were accepted for assessment by child welfare workers; meaning 63% of calls were screened out, where reported families did not receive any contact from child welfare. These numbers and rates varied across counties.

Moreover, children affected by child maltreatment are at greater risk of psychosocial problems, such as developmental delays and problems with memory, attention, and language; physical health conditions including heart disease, lung and liver disease, high blood pressure, diabetes, asthma, and obesity; and poor mental health and behavioral issues including risky sexual behavior in adolescence, juvenile delinquency, adult criminal behavior, alcohol and drug use, and abusive behavior later in life, leading to a cycle of maltreatment. Given the negative consequences of child abuse and neglect, it is important to prevent the cycle of abuse and intervene with families early on to provide the necessary treatment and services to families in need.

About this report

In this report, we summarize the process, findings, and recommendations of an HIA. An HIA is a systematic process that combines evidence, through various methods and data, and stakeholder input to determine the potential effects of a proposed policy, plan, or project. This report and the process to develop it followed phases and frameworks consistent with HIA practice. The assessment activities and recommendations are based on input from the Marijuana and Child Abuse/Neglect HIA Stakeholder Group. This report provides estimated magnitudes of impact for each category of recommendation, rather than quantitative estimates of health outcomes.

The Marijuana and Child Abuse/Neglect HIA Stakeholder Group was intimately involved in several phases of the HIA process, including scoping, assessment, and recommendation generation. The stakeholder group consisted of representatives from a variety of organizations and departments including: county child welfare, state child

welfare, child abuse and neglect pediatricians, toxicology, hospital social work, cannabis advocacy, child health advocacy, and child welfare trainers.

Summary of findings

The stakeholder group helped to identify activities for the assessment phase of this HIA. We conducted three distinct activities: a literature review, a policy scan and qualitative interviews with county child welfare representatives, and key informant interviews with families who had interfaced with the child welfare system because of marijuana use. Key findings include:

- A recent review article found emerging evidence to support **marijuana's association with fetal growth restriction, stillbirth, and preterm birth**. There are also potential adverse effects of marijuana on fetal neurological development. However, studies in the review had limitations related to quantification of marijuana exposure, defined use of marijuana through self-report, and confounding by tobacco and other drugs, as well as sociodemographic factors.
- Our literature review revealed a **lack of research related to marijuana and parenting**. One cross-sectional study found no relationship between marijuana use and neglect, but a positive association between marijuana use and frequency of child physical abuse.
- Existing research supports that **physical hazards in marijuana grow-operations pose a threat to children living there**, but the specific associated health risks are unclear. Many homes with such operations tended to have illegal wiring or electrical bypasses, pesticide and chemicals present, unlocked access to the grow operation, and mold. These characteristics are hazardous and are potential threats to a child's health. However, two studies show little difference in the child's dermatologic and respiratory health among those living in grow-operations and those not.
- Only **two of the 35 counties** that participated in our policy scan **have implemented marijuana-specific policies** or guidance in their child welfare departments. Most counties follow similar protocols to receiving and responding to a report of child abuse and neglect.
- Most counties assess marijuana based on the impact on parenting and a child's access to the substance. However, counties differed in their perceptions of risks associated with marijuana with some drawing comparisons between marijuana and alcohol while others drawing comparisons between marijuana and methamphetamines.
- **Screening processes and thresholds for assessment of marijuana-related reports vary widely** among counties. Examples of significant variation include when a baby tested positive for THC at birth, or when a breastfeeding mother used marijuana.
- Based on key-informant interviews with families who had interfaced with the child welfare system, many **families are deeply afraid of Child Protective Services (CPS)** and lack knowledge of the child welfare system. Parents also

report a perceived lack of knowledge about marijuana among CPS caseworkers and a lack of transparency in CPS processes.

These findings from the three assessment activities informed the development of recommendations to (1) create greater consistency in practices related to mandatory reporting and child welfare screening decisions; (2) bring those families where there is a concern of suspected child abuse or neglect to the attention of CPS so that they receive the necessary treatment and intervention; and (3) reduce unnecessary contact with CPS among those families who are providing adequate care for their child, even when marijuana is involved.

Summary of recommendations

The recommendations relating to mandatory reporting and child welfare screening and response when marijuana is involved are based on scientific evidence from literature review, expert opinion from child welfare workers and child abuse/neglect pediatricians, and stakeholder input. There are two tiers of recommendations. The first tier are operational and research-related recommendations that are specific to marijuana; these operational recommendations are targeted towards mandatory reporting practices and child welfare screening decisions. The second tier of recommendations are policy-oriented that apply to substances more broadly; this set of recommendations is the language for HB 16-1385. This tiered approach reflects stakeholder input about how broader policy or legislative language regarding substances (not specific to marijuana) would provide child welfare practitioners and policy makers more practical and helpful information for child welfare practice. The operational recommendations below are aligned with proposed legislation and do not reflect an interpretation of existing law or statutes. The operational recommendations are intended to help inform decision-making and not intended to replace the professional judgment or statutory requirements of mandatory reporters and child welfare caseworkers.

Operational Recommendations

Recommendations for Mandatory Reporters Regarding Marijuana Use and Exposure

A child protection report should be made:

- when **adult use of marijuana** by a parent, guardian, relative or adult who cares for the child **threatens or results in harm** to the health or welfare of the child;
- when a **newborn tests positive for THC at birth**. Consideration should be given if the positive test is the result of the mother's lawful intake of medical marijuana as recommended and monitored by a licensed healthcare provider who is aware of the pregnancy;
- when there is reasonable **suspicion of purposeful or negligent pediatric exposure to or ingestion of marijuana**. Exceptions are pediatric use of medical marijuana that is medically justified and under the supervision of a license physician or the use of cannabidiol oil medicinally;
- when the **manufacture, distribution, production, or cultivation practices of marijuana is suspected of creating an environment that is injurious** to the child.

Recommendations for Child Welfare Screening Regarding Referrals Related to Marijuana

Child welfare Review, Evaluate, Direct (RED) teams should assign a report for assessment:

- when **adult use of marijuana** by a parent, guardian, relative or adult who cares for the child **threatens or results in harm** to the child's health or welfare. Adult use with no other concern should not be assigned. Considerations should be given if there is an alternative caregiving providing age-appropriate care;
- when a **newborn tests positive for THC at birth**. An exception is if there is evidence that the positive test is the result of the mother's lawful intake of medical marijuana as recommended and monitored by a licensed healthcare provider who is aware of the pregnancy;
- when there is a reasonable **suspicion that pediatric exposure or ingestion of marijuana has threatened or resulted in harm** to the child's health or welfare. An exception is an adolescent acquiring and using marijuana without parental knowledge;
- when the **manufacture, distribution, production, cultivation practices of marijuana is suspected of creating an environment that is injurious** to the child through exposure to a specific hazard.

Research/Data Recommendations

- **Enhancement to the Colorado TRAILS database** to tease out marijuana and other substances
- **Systematic analysis of fatality, near-fatality, and egregious harm data** in Colorado and examine association with marijuana
- More **rigorous study designs to examine causal pathways between marijuana use and parenting** abilities
- **Longitudinal research to investigate the effect** on child development of **marijuana use while breastfeeding**
- **Prospective cohort studies of children living in marijuana grow-operations** to examine exposures and long-term health impacts
- **Increased research assessing the effectiveness of public health home visitation programs** on preventing child maltreatment

Policy Recommendations

The operational recommendations have informed the development of HB 16-1385 in the 2016 Colorado legislative session. The development of the House Bill was led by the executive director of Illuminate Colorado – a key stakeholder in the HIA process – and did not utilize any Health Impact Project program grant funds. HB 16-1385 aimed to modernize the definition of child abuse or neglect in the Colorado Children's Code as it relates to substances. Although HB 16-1385 did not pass in the 2016 legislative session, stakeholders are interested in using this HIA report to drive efforts for the 2017 session.

The initial version of the proposed legislative language for HB 16-1385 that was informed by the operational recommendations of this HIA are as follows:

Colorado Children's Code
Colorado Revised Statutes, 19-1-103 Sections VI and VII

19-1-103. Definitions. As used in this title or in the specified portion of this title, unless the context otherwise requires:

(1) (a) "Abuse" or "child abuse or neglect", as used in part 3 of article 3 of this title, means an act or omission in one of the following categories that threatens the health or welfare of a child:

(VI) Any case in which ~~in the presence of a child, or on the premises where a child is found, or where a child resides, a controlled substance, as defined in section 18-18-102 (5), C.R.S., is manufactured or attempted to be manufactured;~~ SUBSTANCE USE OR SUBSTANCE EXPOSURE

DEMONSTRABLY THREATENS OR RESULTS IN HARM TO THE CHILD'S HEALTH OR WELFARE AS SUGGESTED BY ANY OF THE FOLLOWING:

(A) A STATEMENT OR BEHAVIOR SUGGESTING IMPAIRMENT OF A PARENT, STEPPARENT, GUARDIAN, LEGAL CUSTODIAN, RELATIVE, SPOUSAL EQUIVALENT AS DEFINED IN SUBSECTION (101) OF THIS SECTION, OR ANY OTHER PERSON WHO RESIDES IN THE CHILD'S HOME OR WHO IS REGULARLY IN THE CHILD'S HOME FOR THE PURPOSE OF EXERCISING AUTHORITY OVER OR CARE FOR THE CHILD; OR

B) EXPOSURE TO OR INGESTION OF ANY LEGAL OR ILLEGAL SUBSTANCE THAT IS PURPOSEFULLY OR NEGLIGENTLY ACCESSIBLE TO THE CHILD;
OR

(C) THE MANUFACTURE, DISTRIBUTION, PRODUCTION, POSSESSION, CULTIVATION, OR USE OF A LEGAL OR ILLEGAL SUBSTANCE CREATES AN ENVIRONMENT THAT IS PURPOSEFULLY OR NEGLIGENTLY INJURIOUS TO THE CHILD.

(VII) Any case in which a child tests positive at birth for ~~either a schedule I controlled substance, as defined in section 18-18-203, C.R.S., or a schedule II controlled substance, as defined in section 18-18-204, C.R.S.,~~ A SIGNIFICANT EXPOSURE TO ALCOHOL OR FOR A CONTROLLED SUBSTANCE, AS DEFINED IN SECTION 18-18-102, C.R.S., unless the child tests positive ~~for a schedule II controlled substance~~ as a result of the mother's lawful intake of such substance as prescribed OR RECOMMENDED AND MONITORED BY A HEALTH CARE PROVIDER WHO IS AWARE OF THE PREGNANCY AND WHO IS LICENSED TO PRESCRIBE OR RECOMMEND A CONTROLLED SUBSTANCE.

Introduction

Amendment 20 to Colorado's state constitution was passed in 2000, via ballot initiative, which effectively legalized limited amounts of medical marijuana for patients and their primary caregivers. In November 2012, Amendment 64 was passed, again via ballot initiative, legalizing the retail sale, purchase, and possession of marijuana for state residents and visitors who are older than 21 years of age. This changing legislation along with changing norms around the usage of marijuana has resulted in a range of unintended and, at times, adverse health effects. One unintended consequence of marijuana legalization is related to child health. Data from the Children's Hospital of Colorado has shown an increase in the number of children evaluated in the emergency department for unintentional marijuana ingestion post legalization as compared to years preceding legalization.¹ The rate of pediatric exposures to marijuana reported to the National Poison Data System among decriminalized and transitional states had increased (30.3% and 11.5% respectively) as compared to no change in non-legal states.² The Rocky Mountain Poison and Drug Center reports a significant increase in calls regarding marijuana exposures since 2005, with 106 marijuana-related exposures among children aged 0 to 5 from 2010 to 2014 compared to 27 exposures from 2005 to 2009.³ These health effects coupled with the changing norms of marijuana use have impacted the work of mandatory reporters and child welfare caseworkers in Colorado.

Previous work has examined the pros and cons of marijuana legalization, marijuana use and health including the potential benefits of medical usage, and revenue-related impacts. This following report summarizes a Health Impact Assessment (HIA) process used to provide a set of evidence-informed recommendations for practices related to child welfare decision-making when marijuana is involved, with the goal of improving consistency in practice and reducing the number of families unnecessarily interfacing with the child welfare system. The HIA team is made up of one faculty member, one staff member, and two MPH practicum students, all from the Colorado School of Public Health. We led the HIA process to generate recommendations to inform new policies to the state – the Colorado Department of Human Services (CDHS), related to 1) mandatory reporting practices and 2) child welfare screening decisions when marijuana is involved in a suspected case of child abuse or neglect. The recommendations from this report also informed the development of House bill (HB) 16-1385 for the 2016 legislative session, which adjourned on May 11, 2016. We also provide recommendations related to future research. This HIA was conducted through a joint effort with Children's Hospital Colorado and the Kempe Center for the Prevention and Treatment of Child Abuse and Neglect.

Colorado child welfare law and system

In Colorado, child abuse or neglect (or child maltreatment) is defined as “an act or omission in one of several categories that threaten the health or welfare of a child”, including physical evidence of abuse, unlawful sexual behavior, inaction to provide services or supervision, emotional abuse, neglect (which is defined in Colorado Revised Statute 19-3-102), being on a premise where a controlled substance is manufactured, or testing positive for certain controlled substances.⁴ The child welfare system in Colorado is state

supervised and administered by each of the 64 counties in the state. The state provides oversight and guidance related to child welfare practice and policy direction as well as 80% of funding for services.⁵ Given county administration, there is variation across the state in how county departments interpret the child maltreatment law, determine whether or not to respond to a report of suspected child abuse or neglect and how to respond. Given changing legislation and norms around the substance, this variation among counties is exacerbated when marijuana is the reason for the report along with increased uncertainty in when it is considered necessary to intervene. As a result, both local and state government agencies have voiced a desire for greater guidance around child welfare decision making as it relates to marijuana.

Colorado mandatory reporting statute

Colorado state law outlines persons required by law to report child abuse or neglect under more than 50 categories of professions. According to C.R.S. 19-3-304, a mandatory reporter is required to report if he/she has: (1) “reasonable cause to know or suspect that a child has been subjected to abuse or neglect”, or (2) “observed the child being subjected to circumstances or conditions that would reasonably result in abuse or neglect”.⁴ The statute for mandatory reporting clearly states that reasonable cause to know or suspicion is grounds for reporting. However, many mandatory reporters express uncertainty in when they should make a report when marijuana is involved.

There also exist differences in practice among clinicians and hospital social workers when reporting to and navigating the child welfare system. Mandatory reporters in various organizations have requested support and clarifications on their role when marijuana is involved. In fact, hospital social workers have acknowledged a range of responses across county child welfare departments to specific types of reports (for example a positive test for THC at birth), from not accepting the report to assigning an immediate assessment, typically dependent on the county in which the family resides. This variation in response by county departments has created challenges for mandatory reporters who work with multiple counties, particularly hospital social workers who are tasked to communicate between clinicians, Child Protective Services (CPS) workers, and families without knowing how CPS may respond.

Child abuse and neglect in Colorado

Child abuse and neglect impacts more than 37,000 children a year in Colorado.⁶ In 2015, 90,702 calls reporting concerns of child abuse or neglect (referrals) were made to child welfare statewide. About 37 percent (33,518/90,702) of these calls were accepted for assessment by child welfare workers; meaning 63% of calls were screened out, where reported families did not receive any contact from child welfare. These numbers and rates varied across counties. With regard to number of referrals, Mineral County received the least (6) and Arapahoe County received the most (13,854). With regard to percentage of referrals accepted for assessment, Mineral County had the lowest rate (0%) and Montezuma County had the highest (66%); the rates of screen-out ranged from 34 to 100 percent. These statistics demonstrate the variation in county practices in Colorado.⁶

Children affected by child maltreatment are at greater risk of psychosocial problems, such as developmental delays; problems with memory, attention, and language; and even development of anti-social traits.⁷ Other negative outcomes relate to physical health including heart disease, lung and liver disease, high blood pressure, diabetes, asthma, and obesity. Maltreatment victims also face poor mental health and behavioral issues including risky sexual behavior in adolescence, juvenile delinquency, adult criminal behavior, alcohol and drug use, and abusive behavior later in life.⁸ Given the negative consequences of child abuse and neglect, early intervention is important to prevent abuse and neglect.

Why focus on marijuana

There is a need to establish marijuana-specific recommendations for approaching child welfare decision making at the operational level. As previously explained, the legalization of medical and recreational marijuana along with the changing norms regarding marijuana usage has led to unintended health consequences. Further, mandatory reporters and child welfare workers have vocalized both uncertainty in their decision making when marijuana is involved and inconsistencies in current practice within and across health systems and county child welfare departments. This uncertainty and inconsistency in practice is greater when marijuana is involved, as compared to any other legal or illegal substance.

In addition, during the 2013 and 2014 legislative session in Colorado, proposed legislation was introduced to define a “drug endangered child.” This definition has significant implications for child welfare decision-making. During the time that this HIA was being conducted, there were ongoing legislative efforts to revisit the definition of “drug endangered child.”

We used this HIA to generate evidence-informed recommendations to address the operational needs of mandatory reporters and child welfare agencies. These operational recommendations are marijuana specific but were used by the executive director of Illuminate Colorado, a united network of three established non-profits – Colorado Alliance for Drug Endangered Children, Prevent Child Abuse Colorado, Colorado Chapter of the National Organization on Fetal Alcohol Spectrum Disorder – to inform and develop policy recommendations.

About Health Impact Assessments

A Health Impact Assessment (HIA) is a structured framework for “assessing and improving the health consequences of projects and policies” within a health lens.⁹ It is a systematic process that combines evidence, through various methods and data, and stakeholder input to determine the potential effects of a proposed policy, plan, or project. HIAs are valuable tools for decision-making in that they provide recommendations that maximize health and minimize negative impacts.

Stakeholder Engagement

Within the state of Colorado, there are a number of engaged organizations who are interested in or are already working on initiatives related to marijuana and its impact on child health. These organizations include the Kempe Center, Children's Hospital of Colorado, Denver Family Crisis Center, Illuminate Colorado, and others involved with children's health. This HIA capitalized on existing networks and meetings to connect with key stakeholders. The HIA team met with several initially identified stakeholders during the screening process of the HIA. These stakeholders suggested additional individuals and organizations with whom they had strong relationships with or had previously worked together collaboratively on other projects. The HIA stakeholder engagement process built upon these established relationships. A full listing of stakeholders involved in the Marijuana and Child Abuse/Neglect HIA Stakeholder Group is available in Appendix A.

We also recognized the multiple demands on people's time and efforts contributing to difficulty for convening. Thus, this HIA process engaged people in venues where they already met and organized new meetings when necessary. The formal stakeholder group agreed to meet in-person three to four times over the duration of the HIA process. We also incorporated the perspectives of families who had interfaced with the child welfare system as a result of marijuana use through conducting qualitative interviews in the assessment phase. In addition, we engaged with an established network of county CPS directors by presenting at several of their standing monthly meetings. As we moved forward in the stakeholder engagement process, we were urged by the county child welfare representative on the stakeholder group to include additional county CPS representation and cannabis industry representation on the formal stakeholder group. Through utilizing our connections with individuals already engaged in the formal group, seven additional county CPS representatives and the director of a local patient cannabis advocacy organization agreed to participate in the formal stakeholder group. In the end, the stakeholder group included representation from child abuse/neglect-trained clinicians, hospital social workers, a toxicologist, child welfare trainers, state child welfare, county child welfare, child health advocacy, and cannabis advocacy.

Stakeholders were primarily engaged in the scoping, assessment, and recommendations phases of the HIA. The scope of the HIA was refined and assessment activities were finalized through discussions with and feedback from members of the formal stakeholder group. Upon completion of the assessment activities, the results were presented to the group and recommendations were generated, developed, and finalized through a combination of in-person stakeholder group meetings and asynchronous online communication in a consensus building process.

Scope and Purpose

This HIA provides a set of evidence-informed recommendations for mandatory reporting and screening practices related to child welfare when marijuana is involved, to

improve consistency in practice and reduce the number of families unnecessarily interfacing with the child welfare system. Screening in child welfare refers to the decision-making process in which a county CPS department determines whether or not a referral of suspected child abuse or neglect should be screened-in for assessment or investigation, or screened-out with no response from the department. These recommendations are based on a review of relevant scientific evidence, expert opinion from county child welfare workers, family perspectives based on qualitative data, and stakeholder input.

The goals of the HIA are to improve consistency in practice among mandatory reporters to refer suspected child abuse and neglect due to marijuana to CPS, as well as improve consistency in practice among child welfare workers when determining whether or not to assign a referral of marijuana-related maltreatment for further assessment. Adopting this HIA's recommendations will facilitate the necessary intervention and treatment of child abuse and neglect when marijuana is a factor by accurately identifying families who should be brought to the attention of child welfare and decreasing the number of unnecessary contacts with families by child welfare, which is emotionally burdensome for families as well as taxes state and county resources.

The scope of this HIA was largely determined by the stakeholder group. Rather than adopting a health lens, we encouraged the stakeholder group to use their own "lens"; thus incorporating a wide range of perspectives including medical, clinical social work, child welfare, child advocacy, and cannabis advocacy. This approach facilitated the needed engagement of various groups throughout the HIA process. Although we did not identify specific health-related pathways in this HIA, the recommendations through the provision of guidance towards consistent practice will impact the number of families interfacing with the child welfare systems. In doing so, the recommendations will indirectly affect the health of these families and their children.

Assessment

Upon discussion and agreement with stakeholders, the assessment phase of this HIA was designed to include three distinct activities: a literature review, a policy scan including qualitative interviews with county child welfare representatives, and key informant interviews with families. These assessment activities focus on the scope of mandatory reporting and child welfare screening when marijuana is involved.

1. Literature Review

We completed a literature review related to marijuana and child welfare decision making as well as marijuana and impact on child health. In our initial search, we found recent review articles about marijuana use in pregnancy and breastfeeding (or lactation) and health effects. In particular, one review by Metz and Stickrath¹⁰ was recently published in 2015 and was thorough and rigorous in their methods. Due to these factors, we chose not to conduct our own literature review on this health topic, but are reporting findings from the review:

Metz and Stickrath¹⁰ discusses literature that supports marijuana's association with fetal growth restriction, stillbirth, and preterm birth. Specifically, marijuana may have adverse effects on fetal neurological development (resulting in hyperactivity and poor cognitive function). However, many of the studies included in their review did not quantify when marijuana exposure occurred, for example which trimester; did not confirm a mother's self-reported use with other methods, such as obtaining biological samples; and were confounded by factors related to tobacco and other drug exposures, and sociodemographic characteristics. Further, many of the studies were conducted in the 1980s, when marijuana products contained much lower quantities of delta-9-tetrahydrocannabinol (THC) than are found currently. The modes of consumption were also different (e.g. increased use of edibles today). Finally, research on use in breastfeeding is especially lacking. One study aimed to examine the effects on infant development due to ongoing marijuana use, but were unable to tease out the effect of marijuana use during pregnancy versus during lactation.

Objective

Based on the availability of previous reviews on marijuana use in pregnancy and breastfeeding, we conducted a literature review to assess current research related to (1) marijuana use and impact on parenting, and (2) impacts of marijuana cultivation on health. Although an abundance of literature has shown the link between substance use and child maltreatment, most studies do not tease out marijuana use or cannabis use disorders alone, making it difficult to draw marijuana-specific findings. Few studies have looked at the public health effects of marijuana legalization, and in particular its impacts on children's health and welfare. Moreover, though indoor marijuana grow-operations have inherent dangers and potential health hazards, some literature show that hazardous conditions exist but do not examine the impact on children as a result of this exposure.^{11,12} The purpose of this review is to examine evidence related to the effects of marijuana (not general substances) on parenting as well as the health effects of marijuana cultivation and grow-operations.

Methods

Pubmed was searched on February 17, 2016 for relevant articles. A focused search was conducted with the search terms: ("marijuana" or "cannabis") and ("child welfare" or "child protection" or "child abuse" or "neglect" or "maltreatment" or "parenting"). A search with a language restriction of English only and publication year limited to 1980 onwards yielded 275 unique citations. Abstracts were reviewed and all pertinent articles that referred to marijuana specifically (not substances broadly) and had the full text available were obtained and reviewed. In addition, the reference lists of identified articles were scanned and additional articles that fit the above criteria in addition to being any peer-reviewed published article, dissertation, or report published by a formal organization were included in this review.

Results

Description of studies

Of the studies identified in the search, three met the criteria for inclusion for marijuana use and parenting, while six met the criteria for health effects of cultivation. Most of the excluded studies were excluded because they examined substances broadly (estimated effects/association were not specific to marijuana), were not relevant to the topic, or were not available in full text. Of the included studies for marijuana use and parenting, two were review articles^{13,14} on neurological impact of marijuana use and one was a peer-reviewed article¹⁵ on survey research related to current marijuana use and maladaptive parenting behaviors. Of the included studies for cultivation effects on health, two formal reports^{16,17} examined the potential harm and health effects associated with indoor marijuana grow operations, one focusing on data from British Columbia and the other from Colorado. An additional published article¹⁸ was included that provided specific findings from the Colorado report on the potential exposures associated with indoor marijuana grow operations. Specifically related to the health and safety of children living in grow-operations or drug-producing homes, two peer-reviewed articles^{12,19} and one dissertation¹¹ were included.

Marijuana use and impact on parenting

Background

A substance abusing parent has impaired judgment and priorities, thus unable to provide the consistent care, supervision, and guidance that children need.²⁰ Children may come into direct contact with drugs, for example by breathing air containing smoke drugs such as marijuana, cocaine, or methamphetamine. They may find the drugs themselves and ingest them. Previous literature shows a strong relationship between parental substance abuse and child maltreatment, with studies showing more than two fold increase in the risk of exposure for both child physical and sexual abuse²¹ and relative risks of 2.90 and 3.24 for the onset of both abuse and neglect respectively.²² Some studies have also explored a history of substance use disorder and increased abuse potential;²³ and that mothers with current or a history of substance problems are more punitive toward their children.²⁴ Other literature support a significant increase in pediatric marijuana exposure or unintentional ingestion in states where marijuana use is legalized compared to states where it is not^{2,25}; many cases of unintentional ingestion are often child welfare related. It is suggested that a multidisciplinary approach is needed in all cases of marijuana intoxication among children, particularly the intervention of child protective services and social workers to help detect parental neglect.²⁶

Findings

In our literature review, marijuana use among adults was associated with, and possibly the cause of, acute impairment of learning and memory, such as immediate episodic memory and delayed free recall¹³ as well as acute impairment of attention and working memory.¹⁴ However, there is less evidence to support marijuana use and enduring neuropsychological impairment.¹⁴ Other neuropsychological impacts of marijuana use include decreased visual processing speed and significantly lower IQ scores among current marijuana users who only used marijuana and no other substance compared to former

users.¹³ Heavy use is associated with reduced or impaired motivation, or as others have defined it, an amotivational state. However, the changes in concentration of the active ingredients (e.g. THC) of marijuana could affect the risk of amotivation or addiction. Despite literature supporting reduced motivation, there is little evidence to support whether marijuana use is a cause, a consequence, or purely a correlate.¹⁴

Additionally, our literature review found research examining abstinence of marijuana use among regular users. Among regular users abstaining one day from marijuana use, deficits in psychomotor skills, episodic, prospective memory, and updating component of executive functions were observed.¹³ However, there were no significant differences after 28 days of ceasing use. Planning and perceptual organization differences between users and non-users as long-term cognitive effects were also observed, but there were no other significant cognitive deficits.¹³

Despite evidence linking marijuana use to neuropsychological performance such as acute impairment of attention and short-term memory, we found no studies relating such impacts to parenting and caregiving of children. Only one study¹⁵ in our review has extended research on marijuana and maladaptive parenting behaviors. Marijuana use and frequency of child physical abuse were found to be positively related. However, current marijuana use was negatively related with physical neglect. Contrary to the author's hypothesis and an existing literature that marijuana use impairs attention span, short term memory, and motor coordination, presumably making it difficult to pick up on child cues or respond quickly when a child is in danger (otherwise consistent with neglectful parenting), marijuana use was not related with supervisory neglect in this study.¹⁵

Health effects of marijuana cultivation

Background

The homes where there are cultivation or grow-operations may pose physical hazards and environmental conditions threaten the health of children living there.²⁷⁻²⁹ Marijuana grow-operations typically create warm, moist environments to foster optimal growth which also create optional growing conditions for mold. Chemical products such as fertilizers and pesticides are often used in the cultivation of marijuana. "Re-venting" is also common to redirect carbon dioxide from gas furnaces and hot water tanks to enhance growth – which may permeate through the house. The literature supports that the presence of chemical products, mold, and poor air quality contribute to health concerns with associated respiratory problems and dermatological disorders among children living in these homes.³⁰⁻³⁴

Findings

Our review found that marijuana cultivation or grow-operations are associated with increased hazards (including chemicals and pesticides, mold, and compromised air quality); unsafe and illegal electrical practices such as illegal wiring and electric bypasses; and increased fire risk.^{12,17}

According to one Canadian report,¹⁷ among marijuana cultivation cases deemed founded by the police, 2.1% had hazards present (including booby traps, explosives, and dangerous chemical products) while 20% had electricity by-passes (to steal electricity). By-passes are considered unsafe and pose electrocution and fire risk.³⁵ The report found that 8.7% of fires in single family residences involved electrical issues connected to marijuana grow operations, with an estimated one in 22 probability of fire associated with a grow operations (about 24 times greater than a home in general).¹⁷ Another article¹⁸ reported on findings from a 2010 National Jewish Health report,¹⁶ that focused on exposures associated with Colorado indoor marijuana grow-operations. The study found that grow-operations used low-toxicity fertilizers, pesticides, and growth enhancers; though use of these materials may result in potential exposures, this use did not appear to pose a hazard. Airborne THC concentrations were not observed and volatile organic compound concentrations were below levels of concern for short-term exposures. However, fungal spore levels were found to be elevated compared to outdoor levels, with 42% of indoor grow-operations having at least 5 times higher levels of airborne fungal colonies or countable spores.¹⁸

Our literature review found a dissertation that examined the health and safety of children living in marijuana grow-operations, and it supported some of these findings related to presence of potential hazards.¹¹ Douglas (2010) found that 90% of marijuana home grow-operations had illegal wiring, 73% had electrical bypasses, and 96% had pesticide and chemicals present. It was also reported that 58% of homes had unlocked access to the grow operation and 77% had locatable mold. Despite high percentages of homes with these characteristics, there were no significant differences between household characteristics of marijuana grow-operations where children were removed from the home compared to home grow-operations from which children were not removed.¹¹

Two additional articles^{12,19} from our literature review reported that children living in marijuana cultivating or drug-producing homes were generally healthy and not significantly different, health wise, than other children in regular homes. One article published findings from the aforementioned dissertation and noted that 21% of children living with homes of marijuana grow-operations reported feeling unwell, often with respiratory concerns (17.7%), dermatological symptoms (11.2%), and ear infections (1.2%).¹² However, these statistics did not significantly differ from a comparison group of children with similar characteristics not living in marijuana grow-operations. The second study examined children living in or removed from residences in which drug production was occurring, with about 80% of the children's home being marijuana grow-operations or where large quantities of marijuana was found; other children were living methamphetamine-producing homes.¹⁹ Despite a 26.3% positivity rate for children in marijuana homes testing for marijuana, the majority of these children did not have clinical symptoms related to the substance. Most of the children in the study were in good health, with about 4% having dermatologic conditions (e.g. eczema) and 4% having respiratory conditions (asthma and bronchitis) which are much lower than Canadian averages of 14.5-22% and 15-20% respectively.

Discussion and Future Research

Our review identified a research gap in the literature related to the use of marijuana and parenting abilities or maladaptive parenting. Only one study¹⁵ looked at the relationships between marijuana use and the inability of parents to provide for a child's basic needs (physical neglect), lack of adequate supervision (supervisory neglect), or harsh and punitive parenting (physical abuse). Although this study offered insight into a relationship between past year marijuana use and physical abuse, the study was cross-sectional and used a telephone survey method. Data was not collected on whether parents used marijuana medicinally and/or as prescribed or recommended by a health care provider.

These issues limit the ability of this study to provide insight into the relationship between marijuana use and child physical abuse. Further research is needed. In addition, this study reported on marijuana users who were also alcohol drinkers; similarly previous studies often include co-substance users (such as tobacco and marijuana users). Studies on poly-substance users offer little evidence on the risks of child maltreatment, or lack thereof, by the use of marijuana alone. Future research should examine the co-use or polyuse of substances compared to marijuana users alone, and also consider alternative modes of ingestion (e.g. edibles), varied levels of concentration of THC, and associations with different levels of child abuse or neglect.

With regards to literature reviewed on the health effects of grow-operations, many homes with such operations tended to have illegal wiring or electrical bypasses, pesticide and chemicals present, unlocked access to the grow operation, and mold. These characteristics are hazardous and are potential threats to a child's health. However, only Douglas' dissertation¹¹ and associated published study¹² compared the frequency of these characteristics to a comparison group of similar children and found no significant differences. When comparing the health of children in marijuana-producing homes who were removed by CPS to those not removed, there were no significant differences in dermatologic and respiratory conditions – suggesting that there is little medically justified reason to remove children from their homes or receive child welfare intervention. On the other hand, the 2010 National Jewish Health report¹⁶ and associated published article¹⁸ reported on findings related to higher fungal spores in grow-operations than outdoor levels. However, all of these studies had limitations: none were population based and lacked generalizability; not all studies had a comparison group and reported on frequency observations. Although physical hazards found in grow-operations pose a threat to children living there, the associated health risks are unclear. Future research should consider prospective cohort studies of children of this population to examine exposures and long-term health impacts.

Summary

The associated impacts of marijuana use on parenting and health risks associated with marijuana grow-operations are unclear. There are few studies that explore marijuana use and its impact on parenting and some studies that show mixed evidence on the health risks related to grow homes. Though there is an abundance of literature examining the relationship between substance use and child maltreatment and some literature in our

review showing an association between adult marijuana use and acute impairment of attention and memory, there is much more limited evidence comparing marijuana use specifically to impaired parenting. Only one study in our literature review examined impairments to maladaptive parenting behaviors as a result of marijuana use. This study found no relationship between marijuana use and neglect, but found a positive relationship between marijuana use and frequency of physical child abuse. Though this study provides insight into marijuana's impact on impaired parenting, there were limitations that restrict the ability to determine a potential causal relationship between marijuana use and child physical abuse. Much more research is needed to determine the specific effects of marijuana use on providing age-appropriate care and supervision. Our literature review also found evidence to support that physical hazards in grow-operations pose a threat to children living there; but the associated health risks are unclear. Literature reviewed show mixed findings, with some showing no significant differences among children removed from in-home grow-operations and those not removed; while another study found elevated fungal spores (contributing to mold) in grow-operations than outdoor levels. Given mixed evidence on the health risks of grow homes, we would also benefit from additional research on adverse child health outcomes as a result of exposure to grow-operations.

2. Policy Scan

We conducted a policy scan as part of the assessment phase of the HIA to understand (1) what existing written policies or protocols were in place to guide caseworkers in their practice when marijuana was involved, and (2) in counties without written policies, what informal procedures and/or practices existed.

Methods

Data collection was conducted between September and November 2015. All 64 county departments of human or social services in Colorado were recruited to participate in the policy analysis. An initial recruitment email was sent to county department directors and their respective child welfare managers. A protocol of a second email along with a follow-up phone call was then implemented to recruit counties that did not respond to the initial contact.

Written documents that provided protocols, procedures, policies, or guidance to caseworkers regarding marijuana use and child welfare decision-making were requested. In counties that did not have written documentation, phone interviews were then scheduled and conducted by MPH practicum students. A semi-structured interview guide was used to collect data regarding what unwritten protocols or procedures existed that related to marijuana use, how the county screened or responded to referrals of suspected child abuse and neglect when marijuana was involved, assessment and open case practices, approaches used with families, existing challenges, and opportunities. Notes were taken during the interview.

For each interview completed, a memo was written to document details, experiences, and examples across pre-determined themes. Thematic memos across all counties were then written to summarize similarities and differences.

Results

Of the 64 counties contacted, 35 counties responded (55% response rate). Of those counties that responded, only two counties had written documents (e.g. protocol or guidance) related to marijuana and child welfare decision making. The remaining counties provided details on their protocols and procedures through in-depth qualitative interviews. A total of 33 interviews were conducted with a variety of child welfare personnel, including front-line intake caseworkers, supervisors, unit managers, child welfare directors, and directors of county health and human services. Interviews ranged from 15 to 45 minutes long and were completed by phone. 33 interview memos and five thematic memos were completed.

Written Policies or Protocols

Only two of the 35 counties in this analysis provided written documents that addressed marijuana within child welfare decision-making. Both counties were urban based on the Office of Management and Budget metro county definition. The content and framing of the documents varied drastically.

One policy encompassed marijuana within a policy that addressed marijuana, alcohol, and prescription drugs. This policy was specific in providing examples of safety concerns when these types of substances were involved (including access, inadequate storage, cultivation environment posing a health issue, usage with the child present, impairment of parenting ability, lack of sober caretaker, young age or factors inhibiting child's ability to self-protect, and driving under the influence). No additional information was offered in the policy.

On the other hand, the second written document was a guide for caseworkers in approaching marijuana use. Colorado Revised Statutes were referenced related to a child's positive test at birth for a schedule I or II controlled substance and to a child's residence or presence within a setting that manufactured such substances. This guidance document was framed in a manner of Frequently Asked Questions. The questions related to how and when mandatory reporters and caseworkers should test, report, or become involved due to marijuana use in pregnancy and breastfeeding, as well as usage by a child. The answers to these questions were developed based on existing statutes and the State Constitution and referenced when marijuana use fell within the definition of neglect or abuse.

Major Themes

Upon completion of the interviews and analysis of the memos, four major themes arose:

- I. Screening and response*
- II. Assessment*
- III. Open cases and treatment*
- IV. Approaches with families*

I. Screening and response

All of the child welfare agencies that we interviewed stated that they received reports of suspected child abuse and neglect related to marijuana. A few of these agencies explained that the reports were received through county specific “hotlines.” County representatives described the individuals who received these calls or reports as “screeners” and/or “caseworkers.” These county representatives also consistently described a general process of gathering information related to individual reports and then inputting this information into TRAILS – the statewide automated child welfare database. A few of these counties described the gathering of information through a standard set of questions, such as inquiring about what the reporter had witnessed and the condition of the child, including physical, mental, and social well-being factors. A few counties further elaborated that they also received reports from hospitals related to a positive THC test at birth. In these situations, health care workers in the hospital conducted tests on newborns when they suspected that a baby was born with THC in his/her system.

After gathering information for a specific report, all counties explained that a determination would be made about whether or not there was immediate risk to the child. In some counties, an “experienced” screener, caseworker, or supervisor made the determination, while one county specified that only supervisors reviewed reports and made the determinations. If a determination of immediate risk was made, the agency would respond within 24 hours. If there was not an immediate risk, the report would then be referred to RED team (Review, Evaluate, and Direct) and reviewed at the next RED team meeting to determine whether or not a report should be screened-in for assessment. All counties we interviewed consistently described this process.

Review, Evaluate, Direct (RED) Team

All counties stated that they employed RED teams in their practice, although some counties reported distinct processes by which they conducted their RED teams. All counties described a RED team as a group of supervisors and caseworkers who systematically reviewed reports and determined whether or not a response was necessary and within what timeframe. All counties further explained that they followed the Children’s Code and Volume VII to determine whether the report met the definitions of child abuse and neglect; and if so, the appropriate response time (typically three to five days). Some counties also stated that the purpose of the RED team was to be an unbiased decision-making process. Some counties noted this intention, but also stated that the outcomes of RED teams were often influenced by personal views and the potential biases of individuals serving on the RED team.

Most counties described the logistics for conducting RED teams. These counties stated that RED teams typically took place either the next calendar day or next business day after a report was received. In larger counties, a few representatives explained that they had also conducted RED teams on the weekends. In most counties, the size of a RED team was dependent on the size of their county. Some smaller counties stated that their entire staff was utilized on the RED team - about five to seven caseworkers and one to two

supervisors, while one larger county said that they utilized one supervisor and three caseworkers.

All counties went on to explain that referrals involving marijuana were typically treated the same as referrals involving other substances within their RED team reviews. However, these counties then drew comparisons between how they treated marijuana and a range of different substances. For instance, some counties expressed that they treated marijuana similar to alcohol, due to the legality of both substances. Other counties said that they treated marijuana like methamphetamines (meth) because they perceived use of either of these substances as a serious concern. A couple counties further explained that they often received referrals of co-occurring substance use of marijuana and meth, which influenced their perception that marijuana use was highly concerning. In addition, a couple counties noted that marijuana is a Schedule I drug while meth is a Schedule II drug. Finally, a few counties stated that they treated marijuana like prescription drugs, because while both substances had medical applications, there was still the potential for abuse.

Lastly, all counties explained the final step of their RED team protocol after the gathering of information and discussion of all aspects related to the referral. This final step was to screen the referral in for further assessment or investigation by a caseworker or screen the referral out with no response from child welfare. One county shared that no response meant that the family would not be contacted by child welfare and would not be aware that a report of child abuse or neglect was ever made.

Screening In and Screening Out

Most counties described that a referral was screened in or out based on whether or not the report showed evidence of child abuse and neglect. A screened-in referral was explained by most counties as a report where their RED team found evidence of present or potential harm to the child/children, while a screened-out referral did not concern child abuse and neglect. It was noted by the same counties that a screened-out referral could also mean that there was insufficient information to generate a response (e.g. a referral only stating that a parent may be smoking) or the responsibility for responding to the referral was that of another agency or jurisdiction (e.g. the military).

As previously explained, all counties expressed that their RED teams assigned responses to individual reports. However, there existed both similarities and variation among counties in how they assigned responses based on different types of scenarios. Most counties shared that they screened in referrals involving marijuana use that included: evidence of physical abuse, evidence of neglect, prior criminal history, co-substance use, previous history with CPS (e.g. repeat referral), documentation of marijuana effects (e.g. smell, absence from class, or parental use mentioned by the child in the school setting), and inadequate environmental conditions. Among most counties, evidence of neglect was said to be determined by documented lack of supervision by the parents, regular absence from the home, failure to smoke or use marijuana away from the child, lack of fulfillment of parental duties (e.g. not cooking dinner or cleaning the house), or failure to store marijuana properly and creating access for the child (e.g. leaving marijuana edibles on a coffee table instead of in a locked container). Many counties also described inadequate environmental

conditions as improper ventilation, hazardous and visible wiring, or overloading of electrical outlets – typically related to marijuana cultivations in the home.

In contrast, the response for the same scenario sometimes varied between counties. One county expressed that they typically screened in a breastfeeding mother who used marijuana, while most counties stated that they tended to screen out these referrals. The same county explained that they typically screened out a newborn who tested positive for tetrahydrocannabinol (THC); while some counties screened these referrals in. One county shared that they screened in every referral involving marijuana use, unless the child had documentation from a physician for medical use of cannabidiol oil; screening in all referrals involving marijuana was not described by any other county. In contrast, a few counties explained that they did not screen in referrals if only marijuana use was present – although such referrals were rare; they typically looked for co-occurring substance use, which was usually screened-in.

A few counties provided additional details regarding the screening process. One county explained that evidence of physical abuse was usually exhibited as bruises on the child, sometimes caused by a parent who was using marijuana and suffering from behavioral or mental health condition(s). The same county mentioned that physical abuse by a parent under the influence of marijuana could be witnessed by a neighbor, friend, teacher, etc. Another county explained that they often screened out adolescent marijuana use and notified law enforcement, as underage use was typically handled by that agency. Similarly, one smaller county described a process in which they automatically notified law enforcement if the child was directly impacted in a negative way as a result of a marijuana use (e.g. a parent smoked in front of the child).

Differential Response

Most large counties described using Differential Response (DR) to respond to reports involving marijuana. These counties said that they used DR to determine the response or pathway to screened-in reports of alleged maltreatment. Two tracks were described by all DR counties: High Risk Assessment (HRA) and Family Assessment Response (FAR). HRA was described as the track for more severe cases, involved a forensics focused approach, and was investigative; while FAR was described to have a focus on the family, used in low to medium risk cases, and was less punitive. DR was also explained by counties that implemented the framework as allowing caseworkers to more specifically alter their response to the needs presented in the referral; which some counties found helpful. One county mentioned that there are about 20 counties that currently implement DR, while counties not currently implementing DR expressed interest in becoming a DR county within the next year.

A couple counties provided specific details on how they assigned referrals to the two tracks. One county described a process where all referrals were first deemed as low risk, with the potential of increased severity level based upon specific factors exhibited in the referral. This county gave the example of a parent smoking marijuana in the presence of their child once a day. This type of referral was assigned to FAR. However, if the

frequency of use in the presence of the child was five times a day, the referral may be moved to high risk, which meant the referral was then assigned to HRA. Another county explained that if they felt a referral could easily be remediated through education or meetings with a caseworker, it was assigned to FAR. These types of referral included a breastfeeding mother who used marijuana or child had access to marijuana. Otherwise, the referral was assigned to HRA; such as referrals related to co-occurring substance use.

Although most counties mentioned similar criteria for determining whether a report was screened in or screened out, several counties explained that their level of response varied based upon whether or not they implemented DR. An example was a referral of a mother breastfeeding while using marijuana. One DR county described this type of referral as assigned to FAR, while a few non-DR counties responded to this same type of referral differently. One non-DR county stated that they screened in these referrals and conducted tests, such as urinary analyses (UA), to determine the actual presence of THC. Another county also screened in these referrals but would provide education either by the caseworker or an outside organization. Yet another county mentioned that these referrals were screened out.

II. Assessment

Assessment practices were shared by all counties and were consistently related to understanding the potential impact of marijuana use on or exposure to a child. To understand the impact of marijuana use, most counties typically gathered information around three domains: frequency of use, time of use, and location of use. Counties stated that asking about frequency of use gave them an indication of whether or not the child was constantly around marijuana and/or living in a poor environmental condition; these factors demonstrated a negative impact on the child. Time and location of use gave an indication as to whether or not the parent was using in the presence of the child. For example, if use was at home, the child may be in contact with the substance and potentially resulting in adverse health consequences. However, use at home could be in front of the child or outdoors; which have different degrees of impact on the child. If use was during times when the child was at school, use was typically considered not problematic and/or the child was not impacted. One county elaborated that gathering information in these domains revealed potential situations that constituted neglect or abuse.

In addition to the consistent need to determine impact on the child within assessments, almost all counties explained that they assessed marijuana in a similar fashion to varying types of substances. Some counties compared marijuana to meth in their assessment. Some counties noted that marijuana and meth were different schedules of controlled substances, and that the reason for the comparison was the potential for abuse of either substance. At other counties, marijuana was assessed similarly to alcohol because both substances are legal in Colorado. These counties stated that caseworkers assessed if parents were irresponsibly using, such as providing care under the influence or while using. Some specific examples of irresponsible use that counties shared included: failing to use a babysitter while they used, using mainly on the weekends when the child/children were present at home, and failing to adequately care for the child/children while under the influence (or impaired). Although most counties expressed that they did not know how to

scientifically or medically assess for physical signs and symptoms of marijuana use, they stated that caseworkers often used their professional judgment and past experience for such assessments.

Methods of assessment

All counties expressed similar strategies in assessment within their practice, particularly through reviewing records and conducting home visits, interviews, and various testing methods to determine the presence of THC in an individual's system. A few counties provided additional details on ways that they conducted assessments related to referrals involving breastfeeding mothers who used marijuana.

Most counties explained that they reviewed records to gather evidence of abuse or neglect, including information on a parent's criminal history, history of prior abuse or neglect, and history of domestic violence. Home visits were shared by many counties as another method of assessment, to collect information on co-occurring substance use, abusive behavior exhibited by one or both parents, the child's living/environmental conditions, etc. At all counties, interviews were described as another tool to gather information on evidence of abuse or neglect, by assessing family situations and gathering insight into the child's life. Most counties explained that interviews were conducted with parent(s), the child/children, relatives living in the home, and neighbors. Yet, how the interviews were conducted differed by county. The majority of counties explained that interviews were conducted individually, while a few counties shared that most interviews were conducted in a group setting.

Beyond reviewing records and conducting home visits or interviews, most counties shared testing methods to detect marijuana use that included UAs and hair follicle tests. These methods were necessary to assess if a child or parent had THC in his/her system. Some counties conducted UAs for any screened-in referral that involved marijuana, while other counties only used UAs if there was abuse or neglect present, which was determined by information from the original referral or from home visits or interviews. One county specified that they also conducted UAs for repeat referrals of marijuana use where previous UA tests were positive.

In the case of breastfeeding, different counties shared varying methods of assessment. A few counties expressed that tests were sometimes conducted to assess the level of THC in the mother's system, but most counties stated that their assessment focused on interviewing the mother for the reasoning behind her use. Other counties shared that they had assessed for co-occurring substance use in breastfeeding referrals. Among counties that used interviewing in their assessment of breastfeeding mothers, they shared that many women often said their physicians were aware of their use while breastfeeding/lactating. These women frequently expressed that their physician considered use during such period as safe for the infant. As a result, these counties felt that there was a disconnect between what physicians and child welfare perceived as safe when breastfeeding mothers used marijuana.

Areas of assessment

All counties spoke of the various domains that were assessed among most screened-in referrals. These areas included the environment (e.g. living conditions and impact of cultivations), accessibility to the substance, mental health considerations, and medical justifications.

With regards to environmental conditions, several counties discussed how they assessed for in-home cultivations. A few counties stated that caseworkers wore hazardous materials suits when conducting assessments of in-home cultivations. The same counties also provided examples of poor environmental conditions that they had assessed; these included: lack of appropriate ventilation (e.g. venting into the child's room), evidence of fire hazards (e.g. visible wires or overloading of electrical outlets), and poor air quality (e.g. visible smoke). Evidence of poor environmental conditions could also be in the form of health effects as noted in the child (e.g. asthma or bronchitis). Most counties explained that such evidence was based upon the child's medical history (such as a formal diagnosis) and presentation of illness in the child (e.g. coughing or difficulty breathing). Many counties described opening cases after assessing for these factors and finding hazardous conditions. Beyond cultivations, most counties expressed that assessing for accessibility was vital. For most counties, assessing for accessibility was related to understanding how marijuana was stored (e.g. in a high cabinet, on the coffee table, above the counter, etc.) taking into consideration the age of the child. A few counties gave the example that an infant or young child could easily access marijuana stored on a coffee table, which was concerning; while marijuana stored in a high cabinet was less concerning for this age group. However, a teenager could easily access marijuana regardless of where it was stored; so having a locked container might be necessary. The same counties noted that if the marijuana was kept in a locked container and out of sight, there was no concern for a child of any age; in this case, abuse or neglect was not constituted and the assessment was closed. However, if concerns were present, a case was then opened.

One county stated that mental health was a particular area of assessment. This county explained the importance of assessing for any and all mental health components related to the parent's use of marijuana around their child. They had found that many parents were using marijuana to "cope with life" and not just for recreational use. Although this county shared that such use did not usually constitute abuse or neglect (unless the mental health concerns exhibited in the parent caused physical abuse to the child), parents were typically asked to participate in mental evaluations as part of the formal assessment.

A couple of counties described including a medical justification component in their assessments of families. These counties assessed for whether or not a doctor's prescription or recommendation was involved. For example, if the assessment of the screened-in referral found a child with a doctor's note for the use cannabis oil or a parent approved by a licensed doctor for use of medicinal marijuana, the assessment would then be closed. Several counties provided additional examples of when they had opened cases that involved marijuana. These examples highlight variation in open cases among the different counties. These examples included: a mother blowing smoke into her baby's face to calm him/her down; a pregnant mother smoking marijuana to treat nausea; a child accessing

gummy edibles; and parents smoking marijuana while neglecting their child with special medical needs. Counties responded to these scenarios differently, but for each scenario, at least one county had opened a case. One county mentioned that their number of open cases did not rise with the legalization of recreational marijuana, but rather when medicinal marijuana became legal.

Assessment within Differential Response (DR)

Most DR counties shared examples both of what they assessed for and what they found in their assessment when implementing the two DR tracks. Accessibility and associated contact with marijuana were considered major points of assessment within the two tracks. Among HRAs, most counties found that there was constant contact with the substance (for example a parent smoked in front of the child multiple times a day), while there was usually no or little contact with the substance in FARs. In FARs where a child was in some contact with marijuana, examples provided included: a mother breastfeeding while using marijuana, a parent smoking marijuana in front of their child once or twice a day, and/or marijuana edibles being stored on a cabinet where the child could easily access them.

Moreover, most DR counties expressed distinct assessment findings based on the track in which the referral was assigned. When HRA was used, counties expressed serious concerns about the health and safety of the child and provided examples such as: the manifestation of illness in the child (such as respiratory conditions like asthma), risk of fatality (e.g. co-sleeping with the child under the influence), physical abuse while under the influence, and in-home cultivations, where the child/children were exposed to hazardous elements. At the same counties, when FAR was used, their assessment found that the parent was using responsibly (e.g. always smoking outside of the home), or education could easily remediate the risks associated with marijuana use.

III. Open Cases/Treatment

All counties that we interviewed expressed that they had no current set protocol for approaching open cases or treatment related to marijuana use, although most counties shared that the goal of treatment was to mitigate risk associated with substance use generally. Among all counties, open cases tended to include treatment plans, which usually involved education for parents and the provision of various resources. Most counties explained that treatment plans were required for each open case, where the severity of the case influenced how the treatment plan was written. An example shared by one county for a high risk open case involved full remediation of marijuana in the house in the treatment plan, while a low risk open case did not include full remediation and typically involved education.

After a case was opened, some counties described an ongoing monitoring period. This monitoring period typically included caseworkers following the family after the initial assessment visit had taken place. Among most counties, this follow-up was expressed as constant monitoring through home visits or one follow-up visit after the parent(s) had utilized services offered to them. One county elaborated that this period of monitoring took place one to two weeks after the initial assessment. Another county provided additional

details as to what actions took place during monitoring. This county explained that caseworkers looked specifically for improved parenting skills (for example, cessation of smoking in front of the child), learned skills becoming habits, and a change from risky parenting behavior to responsible parenting behavior (such as transitioning from leaving a child alone to hiring a babysitter).

At all counties, if a family showed evidence of positive change, treatment was deemed successful, and an open case was then closed. Most counties stated that any issues surrounding the use of marijuana had to be resolved for a case to become closed. Resolution of these issues could involve physical change of the environment (e.g. cessation of use or placement of the child with a different family member or relative), responsible parenting behavior, or the acceptance and utilization of counseling services by the parents.

Treatment, Education, and Safety Planning

Most counties stated that treatment for open cases involving marijuana always involved a form of education, discussion and implementation of safety or treatment plans, and/or treatment for the substance use (or abuse).

Education as a treatment tool was frequently used in open cases by all counties. Although counties provided different examples of education that they had provided for families, counties all noted the need to educate families about marijuana's effects and referring families to community partners, such as counseling services or drug prevention programs. Some examples of education provided to families included: teaching the parent how to properly store drug paraphernalia in locked cabinets as well as basic parenting skills (such as smoking outside of the home so that the smoke did not directly impact the child's health or welfare).

Furthermore, some counties reported that education was provided in the form of safety planning. These counties developed safety plans, which were explicitly written for families to follow. A safety plan was described by most of the counties as a fact sheet, with directions on addressing the safety concerns for the family. Such directions may include how to properly store marijuana to increase safety for the child in the home.

Similar to safety plans, treatment plans were also written and utilized by most counties. One county referred to these plans as support plans. Many counties described treatment plans as including available resources for the family and steps that the county required the parent to take in order to decrease the chances of a repeat referral and to remediate safety and risk concerns posed to the child/children. Such resources written in the treatment plan were usually community partners of the county, such as counseling services, local hospitals, and Alcoholics Anonymous. Although Alcoholics Anonymous did not discuss marijuana use in their meetings, many counties found that open cases that only presented marijuana use were rare, and most open cases involved co-occurring substance use (e.g. alcohol and marijuana). For this reason, Alcoholics Anonymous was used as a resource for these families who were co-substance users.

At most counties where co-occurring substance use was prevalent in open cases, substance abuse outpatient treatment was utilized. One county explained that this treatment was usually offered on a voluntary basis where the parent must be willing to use such a service. In some cases, the treatment was involuntary (court-ordered) and the caseworker would further assess the situation to understand why the parent(s) was/were unwilling to use the service. Another county shared a different approach to substance abuse outpatient treatment, where such treatment was only referred for adolescents who were using marijuana. This county stated that this approach was used due to the higher risk of adverse health outcomes posed to the pediatric population as compared to adults.

IV. Approaches with Family

Most counties noted that they used a non-investigative approach with families when marijuana was the primary reason for involvement. A non-investigative approach, as explained by one county, centered on talking with and building relationships with families in an informal and collaborative way. Some counties further expressed that this approach involved caseworkers facilitating discussions around marijuana, instead of analyzing a family's actions or decisions through invasive methods like UAs. Indeed, communication with these families was the main focus of this approach. Many counties provided additional details around discussions with families, including the focus on group-decision making and finding solutions. This type of approach was a way to engage with families, where one county described this approach as "family engagement". Family engagement could also come in the form of interviews between the parents, children, or neighbors. The same county said that they utilized a family engagement model in "over 66% of their cases."

On the contrary, a few counties differed in that they were always investigative in their approach with families. One county explained that they automatically began an open case with outpatient substance abuse treatment and if appropriate, offered additional services such as mental health counseling. The same county also assessed for levels of THC in the parent through multiple UAs to determine whether or not the THC levels were decreasing. Although this county expressed using more invasive methods when working with families, they tried to maintain openness with the desire to be helpful in their interactions.

As explained by some counties, family engagement was not utilized when the referral inferred danger (e.g. showed signs of child abuse and neglect). Instead, a large proportion of these counties responded to these instances within one to three days and used a more investigative approach of formal testing (for example through UAs or hair follicle tests) and conducting of formal interviews. One county stated that law enforcement was always involved with a referral that showed evidence of child abuse and neglect.

With some referrals, a few counties expressed that they approached families on a case by case basis. Similarly, a couple other counties said that they did not have concrete or defined approaches for interacting with families at the time that they were interviewed. Indeed, one county shared that they did not have any plans with regards to how they should

approach families, but planned on discussing ideas for approaches in their next department meeting.

Approaches with interviewing families

Some counties differed in their approach when conducting interviews and described both formal and informal approaches. At one county, the parents spoke to the caseworker informally (such as through solution focused inquiry). Solution focused inquiry was explained as a way of teaching caseworkers how to converse with families. Instead of solely asking questions, caseworkers were taught to focus on solutions instead of problems. This form of interviewing was stated by the county as yielding positive outcomes including better family responsiveness and increased willingness to converse with the caseworker. In other counties, the caseworker conducted formal individual interviews with the child/children, other members of the household, and/or anyone else who had constant contact with the parents and/or child/children. These individuals who had constant contact with the family were considered collaterals who could provide detailed information on the family's dynamics, parental substance use, or parenting styles. However, some other counties mentioned that they did not typically interview the child. Finally, a few counties conducted group discussions as a form of interview.

Approaches when remediating risk

Among many counties, different strategies to reduce risks among the families were shared. Most counties stated that through their discussions they found parents and families to not be well educated on the effects of marijuana. As a result, conversations with the families about these effects were considered solutions to resolving issues of risk and safety. Several counties mentioned remediation, which was defined as decreasing repeat referrals, as the end goal of any approach they used with families. To accomplish this, counties stated that caseworkers looked towards outcomes showing that parents had successfully changed their habits; positive outcomes could include the cessation of marijuana use or altering the time and place that they used. Although smaller counties did not formally use the term remediation as an approach with their families, they still engaged with families through discussions and provided education or resources when possible. However, these smaller counties had a high rate of repeat referrals, which they attributed to a lack of services available for families.

Among most largely populated counties, social services were available for and utilized by families. These services included mental health counseling through a psychologist (or in rare cases, a more affluent family would utilize a private psychiatrist), drug prevention programs, medical office referrals, and community programs (typically providing education or parenting skills). One county further explained that these services were either voluntary or court ordered. Families at most counties were described as using these services voluntarily. The counties who were able to make use of these services found that they greatly helped each family in increasing their education around marijuana and decreasing their odds of becoming a repeat referral. However, at most smaller counties, funds were not adequate to offer these services to all families and/or due to the population size, there were no such services nearby. These counties expressed that these services were much needed and would greatly enhance their response to open cases.

Other strategies to remediate a referral were shared by a few counties. One county said that they had assisted families in obtaining lockboxes to safely store marijuana. This action greatly helped remediate a referral in terms of reducing accessibility to the child. A few other counties had offered parenting classes, in-home classes, and fact sheets for their families. However, one county that utilized these strategies mentioned that though these efforts were aimed to educate parents, they were rarely successful because few parents were receptive to learning and understanding the information.

Other areas of approaching families

In addition to different ways of approaching families involved in the child welfare system, one county shared about details related to people applying to become foster parents. Although these individuals were good candidates and able-bodied, many were turned away solely due to their marijuana use. This county mentioned that they were conflicted on how to handle this issue, as they had experienced some cases where marijuana use greatly impacted parenting and other cases where it did not.

3. Key informant interviews with families

We conducted key informant interviews with parents who had previously interacted with hospital social work or child welfare in Colorado or other states as a result of medical or recreational marijuana, or had a perspective to share regarding marijuana and child welfare. Parents were purposively selected through collaborations with the director of the Cannabis Patient's Alliance who had pre-established relationships with these families. Interviews were conducted by phone and not recorded to maintain anonymity, with interviews ranging from 1-1.5 hours. Participants were asked about their experience of interfacing with the CPS system and what suggestions or solutions they had for CPS regarding marijuana and decision making.

Six individuals participated in total, of which five were female and one was male. Four of the participants had been reported to child welfare and received a formal assessment or investigation; with one participant sharing a CPS experience from a different state. One participant recalled her experience with hospital social work and another participant spoke about her experience with her child as a medical marijuana patient.

Findings

Among all participants, there was a genuine fear of CPS and that CPS would "take their child away." This fear of CPS was present among participants who used marijuana either recreationally or medically and among the participant whose child was using medical marijuana. A couple of participants spoke about the trauma they experienced after being visited by CPS at their home. Many participants were unclear about the CPS process, what was considered CPS involvement, and what CPS was capable of or had authority to do. In fact, one participant thought that the hospital social worker she interacted with worked for CPS. It was suggested by several participants that there needed to be greater transparency but also consistency in how CPS operates.

Suggestions for CPS

Most participants shared that CPS should consider several key areas when someone is reported for child abuse or neglect for marijuana. First, the impact on the child must be considered. Several participants felt that the substance itself was not important, but that there was a need to assess the impact of the substance use on behavior. Many of the participants felt that it was possible to responsibly use marijuana without affecting their lifestyle or the functionality of the home. In fact, a couple of participants perceived marijuana use as helpful for parenting, e.g. using marijuana made them a calmer, patient, or more imaginative parent or allowed them to better cope with pain. A few participants emphasized the need for CPS to better understand the medical side of marijuana usage, particularly among the pediatric population.

One participant elaborated that caseworkers needed to understand the impact on the child if he/she did not receive his/her medication (marijuana). Most participants suggested that CPS should ask the parents directly about their usage during their assessment and whether the parent thought that usage had impacted their parenting negatively. Answers to such questions would help a caseworker determine impairment within their assessment and considerations for safety criteria. One participant explained that it was important to assess the role of marijuana and understand what were the real issues within the family, while another participant stated that CPS needed to assess the method of intake which could impact impairment, e.g. whether or not it was psychoactive. Almost all participants felt that the substance of choice (in this case, marijuana) was not important, but that CPS needed to assess the behavior of the individual as a result of use. One participant specifically stated that if an individual was jobless or unmotivated, and the use of marijuana had affected his/her lifestyle and the home environment, these were considered concerns of negative impact on the child.

A common perspective shared among all participants was the need to educate mandatory reporters, CPS caseworkers, and general societal members regarding the effects of marijuana, the differences between hemp versus marijuana, and various forms of marijuana such as edibles and cannabidiol oil. Several participants felt that many people in the community were uneducated about these aspects of marijuana and often unfairly stigmatized their or their child's usage. As a result, they were reported to CPS. A couple of participants also noted that CPS workers specifically should be educated about the effects of marijuana on parenting and signs of abusing the substance. Another participant stated that paranoia around marijuana was misplaced and that laws around marijuana needed to be changed; she felt that her confidence in the government's ability to govern was minimized.

Interactions with CPS

A few participants shared their experiences with CPS after they had been reported for child abuse or neglect. Each participant's experience was different and unique, with variations in the demeanor of the caseworker(s) with whom they had interacted.

One participant had been involved with CPS over the last five years with over 10 open investigations. Her initial reason for involvement was related to owning and running a dispensary prior to Amendment 20, with some subsequent cases opened voluntarily to access services that she and her family needed. Over the period that she was involved with CPS, she had experienced a range of responses and reactions from CPS caseworkers. She stated that some were open, helpful, and non-judgmental; where she felt that she could be more honest in her interactions. However, other caseworkers automatically judged her ability to parent solely because of her involvement with marijuana.

Another participant shared his experience with CPS responding to a report related to cultivation of marijuana in his home. He was using marijuana medically for severe pain. He explained that the caseworker was respectful and asked questions about his cultivating practices and inspected his home. He explained that his grow-room had a concrete floor with a drain, proper ventilation, and non-porous walls, and was kept away from his children. The case was closed after the caseworker approved these conditions.

Despite a resolution with CPS, there continued to be repercussions for this participant mainly due to his community's perception of marijuana. Although his home was inspected and approved for conditions with no endangerment to the child, this participant stated that the caseworker was unwilling to protect his rights as a parent in the family courts. He shared that he was falsely accused of encouraging his children to use and grow cannabis. Further, a statement from his ex-wife that she was "getting high off her kids' smell", though unproven, contributed to the restriction of his involvement with his children and their activities. He felt that the system placed greater scrutiny on him simply because he cultivated marijuana for personal medical use. He stated that there was no regulation of alcohol's accessibility nor enforcement of smoking or use of tobacco around children. Indeed, he shared that the judge discredited marijuana as effective pain management and his community perceived cannabis users as "addicts" while it was socially accepted to be a social smoker or drinker.

Another participant was reported to CPS after giving birth to her baby. She explained that her "pediatrician" had approved her occasional use of marijuana while pregnant to relieve nausea and morning sickness. Her pediatrician had said that THC was "safer than narcotics". However, when she was ready for discharge, a nurse stated she needed to report to CPS because her baby had tested positive for THC. A couple weeks later, a CPS caseworker visited her home and conducted an interview. The caseworker was not rude and told her "not to worry about it" because "it was not a big deal". This participant had relied on the pediatrician's knowledge of the potential impact of marijuana use during pregnancy and so felt that the nurse was misinformed about the need to involve CPS when her baby tested positive for THC. Her pediatrician was also upset that she went through this experience and wrote a letter on her behalf to CPS. She stated that no other CPS contacts were made beyond the initial home visit.

Interactions with Mandatory Reporters

Beyond actual interaction with CPS, several participants spoke about interactions with hospital social workers and school mandatory reporters. One participant shared about

hospital protocols for testing at birth after admitting to use in pregnancy. There was an inconsistency in that her physician (an OB/GYN) had approved marijuana use in her pregnancy, but hospital staff seemed to require the testing of THC at birth – which would likely be a positive test given her usage in pregnancy. She expressed concern and distress during a vulnerable period of her life – after giving birth. Although some nurses were sympathetic to her situation, she felt that one nurse was especially judgmental and perceived her to be “worse than a crack addict” for using marijuana in pregnancy. She ended up never receiving any contact from CPS but felt an “impending doom” of uncertainty as to whether or not CPS would become involved. She suggested that each patient should be provided with the testing protocol of the hospital so that he/she is aware of the potential repercussions of using in pregnancy.

A couple participants expressed that school mandatory reporters were not well educated on the effects of marijuana and tended to stereotype parents who used marijuana whether medically or recreationally as “bad parents.” One participant stated that mandatory reporting among schools was problematic because of different interpretations of what constituted abuse or neglect. She felt that many teachers were progressive and would confiscate edibles or vape pens, but would not report to law enforcement. However, she also stated that counselors and teachers were often forced to report everything.

Summary of Assessment Findings

Our literature review found limited evidence around the use of marijuana and its impact on parenting, although there is an abundance of literature examining the relationship between substance use and child maltreatment. Additional literature in our review showed an association between adult marijuana use and acute impairment of learning and memory, as well as adult marijuana use and acute impairment of attention and working memory.¹⁴ Although these impairments may impact ones’ ability to parent, we found only one study that examined such impairments to maladaptive parenting behaviors.¹⁵ This study found no relationship between marijuana use and neglect, but found a positive relationship between marijuana use and frequency of physical child abuse. Though this study provides insight into marijuana’s impact on impaired parenting, there were limitations including being a cross-sectional design and using a telephone survey method. Data were not collected on whether parents used marijuana medicinally and/or as prescribed or recommended by a health care provider. These issues limit the ability of this study to conclude a potential causal relationship between marijuana use and child physical abuse.

Our literature review found evidence to support that physical hazards in grow-operations pose a threat to children living there; but the associated health risks are unclear. One doctoral dissertation and associated published study compared the frequency of hazardous grow-operation characteristics to a comparison group of similar children and found no significant differences.^{11,12} When comparing the health of children in drug-producing homes who were removed to those not removed, there were no significant differences in dermatologic and respiratory conditions. On the other hand, a 2010 National Jewish Health report and associated published article reported on findings related to

higher fungal spores in grow-operations than outdoor levels.¹⁶ Although our literature review found support on the existence of hazardous conditions in grow-operations that impact a child's respiratory health, the mixed evidence on the impact of these health risks suggest that additional research is needed. Future work should examine adverse child health outcomes and long-term health impacts as a result of exposure to grow-operations.

Our policy scan revealed that among the 35 counties who participated only a couple counties had implemented marijuana-specific policies or guidance within their departments. Among these two counties, their written guidance/policy documents varied dramatically. Among counties without such policies, most counties followed similar protocols to receiving and responding to a report of suspected child abuse and neglect, as well as similar approaches to assessing a report, working with families, and provision of treatment. Although all counties expressed that their RED teams assigned responses to individual reports, there existed both similarities and variation among counties in how they assigned responses based on different types of scenarios. Most counties shared that they typically screened in referrals involving marijuana use that included: evidence of physical abuse, evidence of neglect, prior criminal history, co-substance use, previous history with CPS (e.g. repeat referral), documentation of marijuana effects (e.g. smell, absence from class, or parental use mentioned by the child in the school setting), and inadequate environmental conditions. However, variability among counties revolved around the thresholds and situations that were assigned for additional assessment; such that the response for the same scenario sometimes varied between counties. Examples of these scenarios included: a breastfeeding mother who used marijuana and newborns who tested positive for tetrahydrocannabinol (THC).

Through key-informant interviews with families who had interfaced with the child welfare system, we found that many families were deeply afraid of Child Protective Services (CPS), lacked knowledge of the system, and experienced varying degrees of contact with CPS in their respective counties. Many participants were unclear about the CPS process, what was considered CPS involvement, and what CPS was capable of or had authority to do; this related to a lack of transparency from CPS that some participants expressed feeling, including not knowing what actions or inactions they made would lead to the removal of their child. A couple of participants also spoke about the trauma they experienced after being visited by CPS at their home or at the hospital, often because they were extremely worried again about the potential outcome that CPS would "take their child away." Finally, families who were interviewed provided consistent feedback in how CPS should handle reports related to marijuana use. Many of the participants felt that it was possible to use marijuana responsibly and parent. Indeed, most participants suggested that CPS should consider how the substance impacted behavior and not necessarily judge a parent because of the use of marijuana alone.

The findings from the three assessment activities informed the development of recommendations to (1) create greater consistency in practices related to mandatory reporting and child welfare screening decisions; (2) bring those families where there is a concern of suspected child abuse or neglect to the attention of CPS so that they receive the necessary treatment and intervention; and (3) reduce unnecessary contact with CPS among

those families who are providing adequate care for their child, even when marijuana is involved.

Recommendations

The following section lays out the recommendations related to mandatory reporting and child welfare screening and response when marijuana is involved, based on scientific evidence from literature review, expert opinion through key informant interviews, and stakeholder input. We presented the findings from the assessment activities to the stakeholder group, who then informed the development of this HIA's recommendations. There are two tiers of recommendations. The first tier are operational and research-related recommendations that are specific to marijuana; the operational recommendations are targeted towards mandatory reporting practices and child welfare screening decisions. The second tier of recommendations are policy-oriented that apply to substances more broadly; this set of recommendations is the language for HB 16-1385.

The stakeholder group felt that it was necessary to present recommendations both as operational and policy-oriented. Many stakeholders, particularly the representatives from county child welfare departments, felt that policy or legislative language regarding substances broadly was more practical and helpful for child welfare practice than marijuana specific language. In fact, several stakeholders expressed that developing marijuana-specific legislation would hinder and potentially be detrimental to child welfare practice, because of the focus on one substance. There were concerns that caseworkers would interpret marijuana-specific legislation to treat it differently from other substances, when many stakeholders felt that all substances should be treated equally in child welfare decision making by examining the impact of such substance use on the child's health or welfare. Thus, the operational recommendations below are aligned with proposed legislation (HB 16-1385) and do not reflect an interpretation of existing law or statutes.

Operational Recommendations

Recommendations for Mandatory Reporters Regarding Marijuana Use and Exposure

The following recommendations are intended to help inform decision-making and not intended to replace professional judgment or statutory requirements. The statutory requirement to report remains if you:

- (1) have reasonable cause to know or suspect that a child has been subjected to abuse or neglect, or
- (2) observed the child being subjected to circumstances or conditions that would reasonably result in abuse or neglect.

- 1. A child protection report should be made when use of marijuana by a parent, guardian, relative or adult who cares for the child threatens or results in harm to the health or welfare of the child.**

- Marijuana use resulting in impairment in the ability to supervise or provide age-appropriate care, as suggested by a statement or behavior, should be reported.
 - Marijuana use that results in an environment that is injurious to the child should also be reported.
 - Marijuana use during pregnancy and/or while breastfeeding should be reported if it results in a specific concern of harm or threat to the health or welfare of a child.
2. **A child protection report should be made when a newborn tests positive for THC at birth. Consideration should be given if the positive test is the result of the mother's intake of medical marijuana as recommended and monitored by a licensed healthcare provider who is aware of the pregnancy.**
 3. **A child protection report should be made when there is reasonable suspicion of pediatric exposure to or ingestion of marijuana as a result of knowing, reckless or negligent access.**
 - Exceptions to this recommendation are:
 - pediatric use of marijuana that is medically justified and under the supervision of a licensed physician;
 - the use of cannabidiol (CBD) oil medicinally.
 4. **A child protection report should be made when the manufacture, distribution, production, or cultivation practices of marijuana is suspected of creating an environment that is injurious to the child.**

Recommendations for Child Welfare Screening Regarding Referrals Related to Marijuana

The following recommendations are intended to help inform decision-making and not intended to replace professional judgment or statutory requirements. The assignment decision should always take into account: history, child vulnerability, and the totality of safety concerns and risk factors presented in the referral.

1. **Child welfare Review Evaluate and Direct (RED) teams should assign a report for assessment when use of marijuana by a parent, guardian, relative or adult who cares for the child threatens, or results in harm to the child's health or welfare. Adult use with no other concern should not be assigned. Considerations should be given if there is an alternative caregiver providing age-appropriate care.**
 - This may include behavior suggesting impairment that impacts the ability to supervise or provide age-appropriate care.
 - This may also include marijuana use that results in an environment that is injurious to the child.
2. **Child welfare RED teams should assign a report for assessment when a newborn tests positive for THC at birth.**
 - An exception to this recommendation is:

- if there is evidence that the positive test is the result of the mother’s intake of medical marijuana as recommended and monitored by a licensed healthcare provider who is aware of the pregnancy.
- 3. Child welfare RED teams should assign a report for assessment when there is a reasonable suspicion that pediatric exposure or ingestion of marijuana has threatened or resulted in harm to the child’s health or welfare.**
- An exception to this recommendation is:
 - an adolescent acquiring and using marijuana without parental knowledge.
- 4. Child welfare RED teams should assign a report for assessment when the manufacture, distribution, production, or cultivation practices of marijuana is suspected of creating an environment that is injurious to the child through exposure to a specific hazard.**

Supporting Evidence and Justification

This section details the scientific evidence from the literature review and stakeholder input that was used to support and justify the recommendations of this HIA.

Table 1. HIA Recommendations and Justifications

| Recommendation | Justification | Anticipated Magnitude of Health Impact* | Quality of Evidence** |
|--|---|--|------------------------------|
| Adult use | Scientific evidence and stakeholder input | Medium | Low |
| Positive test at birth | Scientific evidence and stakeholder input | High | Low |
| Pediatric exposure or ingestion | Scientific evidence and stakeholder input | Medium | Low |
| Manufacture, distribution, cultivation, production or possession | Scientific evidence and stakeholder input | Low | Low |

*Impact Magnitude was considered High if it would drastically affect the number of families brought to child welfare’s attention, Medium if it would moderately affect this number, and Low if it would slightly affect this number.

**Quality of Evidence was considered Low if there was less than four rigorous peer-reviewed article published OR we did not conduct a formal review of the evidence and relied on the knowledge of experts in the field who participated in the stakeholder group.

Scientific Evidence

Our scientific inquiry examined work that explicitly incorporated a parenting and child welfare “frame”, including research related to adult marijuana use and parenting practices; maternal marijuana use and implications on infant health; exposure to and ingestion of marijuana among the pediatric populations; and the health implications of cultivation of marijuana.

Adult use and positive test at birth

Evidence supporting the impact on child health as a result of adult use is weak. There exists some literature to support an association between marijuana use in pregnancy and some adverse health outcomes, including fetal growth restriction, stillbirth, and preterm birth. Marijuana may also be a potential cause of poor neurological development (resulting in hyperactivity, poor cognitive function, and changes in dopaminergic receptors). However, literature is lacking as it relates to use while breastfeeding and the impact of use on parenting.

Pediatric exposure or ingestion

Although we did not conduct a formal literature review on the effects of pediatric exposure to or ingestion of marijuana, the pediatrician conducting this research from Children’s Hospital of Colorado was engaged in the stakeholder group and provided expertise and knowledge on the following information. Data from the Children’s Hospital of Colorado has shown an increase in the number of children evaluated in the emergency department for unintentional marijuana ingestion post legalization as compared to years preceding legalization. Examples of clinical effects of marijuana exposure includes drowsiness/lethargy, ataxia/dizziness, agitation, vomiting, tachycardia, dystonia/muscle rigidity, respiratory depression, bradycardia/hypotension, and seizures. The increase in children being evaluated for unintentional marijuana ingestion post legalization is a public health and child welfare concern, especially when the exposure or ingestion threatens or causes harm to the child’s health or wellbeing.

Cultivation

Evidence supporting the negative health outcomes of cultivation is weak. There exists an abundance of literature supporting the negative health outcomes associated with mold growth, poor air quality, and electrical hazards. However, literature that examines the associations of these factors with marijuana grow-operations and subsequent poor health is less rigorous and conclusive.

Stakeholder Input

The Marijuana and Child Welfare HIA Stakeholder Group consisted of a wide range of stakeholders: county child welfare, state child welfare, child abuse and neglect pediatricians, toxicologist, hospital social work, cannabis advocate, child health advocate, and child welfare trainers. There were a total of 20 stakeholder members. Each stakeholder brought a unique perspective to the issue of marijuana and child maltreatment. In order to build rapport, we first contacted each member separately for individual meetings to explain the HIA and stakeholder commitment. Stakeholders who were interested in participating in the HIA process were invited to the broader group meetings. A total of four

broader group meetings were held between October 2015 and March 2016 to build consensus on the scope, assessment activities, and recommendations for this HIA. Additional asynchronous interactions and meetings were held with stakeholders who had additional feedback after the fourth group meeting to finalize the operational recommendations.

Due to the limited scientific evidence available on the scope of this HIA, stakeholder input was vital to informing the development of recommendations. Members of the stakeholder group reviewed findings from the assessment activities and utilized their expert opinion and experiences to generate evidence-informed recommendations. The findings from the policy scan, such as existing caseworker practice, and family perspective interviews, including specific suggestions of examining behavior rather than substance alone, were also considered in the generation of the recommendations. This recommendation generation process took place between December 2015 and March 2016.

All stakeholders noted the current inconsistencies in practice and thus need for greater clarity and guidance for (1) when a mandatory report should be made for marijuana use and/or exposure; and (2) when a report of suspected child abuse or neglect regarding marijuana should be screened-in for additional assessment. All members also agreed on the underlying goal of keeping children safe and healthy. It is important to note that many of the stakeholders felt that the operational recommendations informed by the assessment activities for marijuana were relevant and applicable to other substances. Due to this factor, there was a push to develop policy level recommendations (proposed legislative language) on the operationalization of substances broadly within child welfare decision making.

Other Research/Data Recommendations

The following recommendations are intended to help drive areas of future research and practice. Our literature review highlighted weak scientific evidence to support the recommendations. The stakeholder group also felt it necessary that additional research should specifically examine marijuana and child maltreatment in Colorado.

1. Enhancement to the Colorado TRAILS database to tease out marijuana and other substances

TRAILS is the official system of record for child welfare in Colorado. It is used for case management and financial transactions for the 64 counties. Currently, when a county department receives a call of suspected child abuse or neglect, a caseworker documents information of the referral in TRAILS. A couple of the documentation areas are the reason for the referral and other risk or safety factors. Currently, caseworkers can only select substance use as a factor, but not specify the type of substance. Many stakeholders from the stakeholder group believed that it was necessary to capture marijuana specific data for future analysis to better understand the impact of marijuana on child welfare in Colorado, as compared to other substances.

2. Systematic analysis of fatality, near-fatality, and egregious harm data and examine association with marijuana

All 64 county departments in Colorado are mandated by statute to notify the State Department of Human Services (CDHS) of any incident that is suspicious for an egregious abuse and/or neglect, or near fatality or fatality of a child, which is suspicious for abuse and/or neglect within 24 hours of becoming aware of the incident. Since 2011, CDHS has statutory authority to oversee a child fatality review process and is responsible for creating an annual child maltreatment fatality report. The Child Fatality Review Team conducts this work and conducts an in-depth case review of cases where allegations of abuse or neglect is substantiated and have either prior or current child welfare involvement. They use data from TRAILS and other agencies (such as law enforcement and coroners) during the review process. A couple of members in the stakeholder group suggested that additional research should analyze the association between marijuana and these types of cases.

3. More rigorous study designs to examine causal pathways between marijuana use and parenting abilities, including co-use or polyuse of substances compared to marijuana users alone, alternative modes of ingestion (e.g. edibles), varied levels of concentration of THC, and associations with different levels of child abuse or neglect.

Our literature review showed gaps in the current scientific literature related to the use of marijuana and parenting abilities or maladaptive parenting. More rigorous study designs are necessary to establish the causal pathways (if any) between marijuana use and maladaptive parenting practices.

4. Longitudinal research to investigate the effect on child development of marijuana use while breastfeeding

Our literature review showed gaps in the current scientific literature related to long-term evidence of marijuana use during breastfeeding and lactation and impact on child development.

5. Prospective cohort studies of children living in marijuana grow-operations to examine exposures and long-term health impacts

Our literature review showed gaps in the current scientific literature related to long-term evidence of child health impacts of exposure to in-home marijuana grow-operations.

6. Increased research assessing the effectiveness of public health home visitation programs on preventing child maltreatment

Early childhood is an important time to prevent and intervene against child maltreatment. Early childhood interventions (such as home visitation programs) are especially needed to positively influence a child's life trajectory. Literature shows that early intervention programs can lead to permanent changes in social behavior;³⁶ and that home

visitation has the potential for positive results, particularly on using health care and child development.³⁷⁻⁴⁰ Future research should include more rigorous designs to examine the causal relationships between home visitation programs and prevention of child maltreatment to informing policymaking of effective funding allocation for such prevention efforts.

Policy Recommendations

We have provided two versions of the HB 16-1385 legislative language to the Colorado Children's Code in the Appendix B. Version one is language generated based on the operational recommendations stated above in combination with stakeholder input. The executive director of Illuminate Colorado (purpose of the group is previously described) worked directly with the Cannabis Patients Alliance, county child welfare departments, and other child health professionals to elicit feedback and develop this language.

Illuminate Colorado worked with House Representative Singer to introduce language for HB 16-1385 on March 16, 2016. The language was amended by external stakeholders and other House Representatives in committee. After amendments, the House Bill ultimately passed through house committee and the House. Despite these successes, HB 16-1385 did not get approved through Senate and was postponed indefinitely as of May 6, 2016. The other version of the House Bill in Appendix B is the last amended version of the language that did not pass through Senate. This HIA report thus includes the HB 16-1385 language (that arose from this HIA's recommendations through an external process) as a conduit for discussion for the 2017 legislative session.

Note: Illuminate Colorado utilized their own funding to lead these lobbying efforts. The HIA team did not utilize Health Impact Project program grant funds while participating in this process.

Conclusion

The legalization of recreational marijuana has impacted the health of our communities in Colorado. Indeed, legalization has adversely impacted the health of children a range of ways, including increased emergency visits due to marijuana exposure and/or ingestion, exposure through cultivation, and potential child maltreatment as a result of adult usage. These laws have also resulted in uncertainty around practices related to mandatory reporting when marijuana is a concern of child abuse or neglect and inconsistencies in child welfare decision-making particularly in a state that implements a county-administered child welfare system.

The HIA findings showed that there is limited scientific evidence supporting negative effects of marijuana use on parenting, nor support for adverse health as a result of exposure to marijuana cultivations. There is some scientific literature showing a correlation between marijuana use and adverse neo-natal health, including fetal growth restriction, stillbirth, preterm birth, and poor fetal neurological development. Though the

inclusion criteria for the literature review may have reduced the number of relevant articles in the analysis, the articles included provided important knowledge related to marijuana use and parenting practices as well as cultivation effects on health.

Our policy scan found that only a couple child welfare county departments instituted formal marijuana policies guiding child welfare decision-making, but many county departments implemented informal procedures and methods when approaching these types of referrals. Although child welfare procedures for assessment and treatment generally followed the same protocols according to the Children's Code and Volume VII, criteria and thresholds for determining screening decisions of referrals differed by county. Many counties differed in their response to certain referrals, particularly those related to a breastfeeding mother who used marijuana and infants who tested positive for THC at birth. In fact, response to these types of referrals ranged from no response to being screened-in for additional assessment. This highlights inconsistency in screening decisions based simply on the locality of a child welfare department. However, it is important to note the limitations of the policy scan. About 55% (35/64) of counties responded to our request of participating in the policy scan; so we lacked information from almost half of the county departments in Colorado. Also, the representatives from counties that did not have written marijuana policies may have self-selected to participate in qualitative interviews resulting in potential bias.

Finally, families who had interfaced with the child welfare system shared about genuine fear of the CPS system and a lack of knowledge of the CPS system. Participants also provided suggestions for how CPS should approach families who used marijuana, by assessing the behavior resulting from substance use and not focusing on the substance alone. The limitation of purposive sampling for the key informant interviews may have resulted in self-selection bias.

Recommendations designed to guide mandatory reporting and child welfare screening decisions when marijuana is involved will serve to guide these professionals in their practice. We provide specific guidance on situations related to adult/guardian use of marijuana (including use in pregnancy and while breastfeeding), testing positive for THC at birth, pediatric exposure/ingestion of marijuana, and manufacture/cultivation of marijuana. While these recommendations may increase the workload of both mandatory reporters and child welfare workers, they are likely to reduce the number of families who are appropriately providing care for their children from interfacing with CPS and positively impact the health of children and families who do not require intervention from the child welfare system.

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Appendix A

The Marijuana and Child Abuse/Neglect HIA Stakeholder Group consisted of the following members:

| Organization | Representative | Position in Organization | Role in HIA |
|--|-----------------------|----------------------------------|--|
| The Kempe Center | Dr. Desmond Runyan | Executive Director | Provides knowledge on training and expertise regarding state child welfare, the prevention and treatment of child abuse and neglect |
| Colorado Children's Hospital | Dr. George Sam Wang | Pediatric ER Physician | Engaged in pediatrics marijuana research and provides toxicologist perspective |
| Colorado Children's Hospital | Amy Stevens | Director of Social Work | Hospital is an institutional partner of the HIA |
| Colorado Children's Hospital | Tiffany Glick | NICU Social Worker | Mandatory reporter with experience in reporting for marijuana |
| Colorado Department of Human Services, Division of Child Welfare | Paige Rosemond | Associate Director of Programs | Provides perspective from the state's child welfare division and leads the introduction of legislation that impacts child welfare practice |
| Colorado Department of Human Services, Division of Child Welfare | Lucinda Connelly | CPS Unit Manager | Provides specific guidance and communications to local county child welfare |
| Kempe Center, Child Protection Team | Dr. Antonia Chiesa | Child abuse/neglect pediatrician | Provides expertise in child abuse and neglect |
| Denver Family Crisis Center | Dr. Kathryn Wells | Medical Director | Pediatrician with expertise in substance use and child abuse and neglect |
| Illuminate Colorado | Jade Woodward | Executive Director | Provides expertise on marijuana and drug endangered children |
| Colorado Child Welfare | Kasey Matz | Project Director | Develops Colorado's statewide training system for child welfare workers |

| Organization | Representative | Position in Organization | Role in HIA |
|---|-------------------------------|---|---|
| Training System | | | |
| Arapahoe DHS, Division of Children, Youth & Family Services | Michelle Dossey | Intake Administrator | Practical experience in procedures among child welfare workers |
| Larimer County DHS, Children, Youth, and Family Division | John Gillies | Deputy Division Manager | Practical experience in procedures among child welfare workers |
| Boulder County Department of Housing and Human Services | Terrie Ryan-Thomas | Family and Children's Services Division Manager | Practical experience in procedures among child welfare workers |
| Douglas County DHS | Nicole Becht | CPS/APS Program Manager | Practical experience in procedures among child welfare workers |
| Denver DHS | Rebecca Ball | Intake Administrator | Practical experience in procedures among child welfare workers |
| Bent County Department of Social Services | Claudia Budd | Child Welfare Supervisor | Provides the rural child welfare county perspective |
| Morgan County DHS | Jacque Frenier | Director | Provides the rural child welfare county perspective |
| El Paso County DHS | Patsy Hoover and Gail Harwood | CPS Supervisors | Practical experience in procedures among child welfare workers |
| Cannabis Patients Alliance | Teri Robnett | Executive Director | Provides the perspective of patients and families using marijuana |

Appendix B

The initial version of the proposed legislative language for HB 16-1385 that was informed by the operational recommendations of this HIA are as follows:

Colorado Children's Code Colorado Revised Statutes, 19-1-103 Sections VI and VII

19-1-103. Definitions. As used in this title or in the specified portion of this title, unless the context otherwise requires:

(1) (a) "Abuse" or "child abuse or neglect", as used in part 3 of article 3 of this title, means an act or omission in one of the following categories that threatens the health or welfare of a child:

(VI) Any case in which ~~in the presence of a child, or on the premises where a child is found, or where a child resides, a controlled substance, as defined in section 18-18-102 (5), C.R.S., is manufactured or attempted to be manufactured;~~ SUBSTANCE USE OR SUBSTANCE EXPOSURE DEMONSTRABLY THREATENS OR RESULTS IN HARM TO THE CHILD'S HEALTH OR WELFARE AS SUGGESTED BY ANY OF THE FOLLOWING:

(A) A STATEMENT OR BEHAVIOR SUGGESTING IMPAIRMENT OF A PARENT, STEPPARENT, GUARDIAN, LEGAL CUSTODIAN, RELATIVE, SPOUSAL EQUIVALENT AS DEFINED IN SUBSECTION (101) OF THIS SECTION, OR ANY OTHER PERSON WHO RESIDES IN THE CHILD'S HOME OR WHO IS REGULARLY IN THE CHILD'S HOME FOR THE PURPOSE OF EXERCISING AUTHORITY OVER OR CARE FOR THE CHILD; OR

B) EXPOSURE TO OR INGESTION OF ANY LEGAL OR ILLEGAL SUBSTANCE THAT IS PURPOSEFULLY OR NEGLIGENTLY ACCESSIBLE TO THE CHILD; OR

(C) THE MANUFACTURE, DISTRIBUTION, PRODUCTION, POSSESSION, CULTIVATION, OR USE OF A LEGAL OR ILLEGAL SUBSTANCE CREATES AN ENVIRONMENT THAT IS PURPOSEFULLY OR NEGLIGENTLY INJURIOUS TO THE CHILD.

(VII) Any case in which a child tests positive at birth for ~~either a schedule I controlled substance, as defined in section 18-18-203, C.R.S., or a schedule II controlled substance, as defined in section 18-18-204, C.R.S.,~~ A SIGNIFICANT EXPOSURE TO ALCOHOL OR FOR A CONTROLLED SUBSTANCE, AS DEFINED IN SECTION 18-18-102, C.R.S., unless the child tests positive ~~for a schedule II controlled substance~~ as a result of the mother's lawful intake of such substance as prescribed OR RECOMMENDED AND MONITORED BY A HEALTH CARE PROVIDER WHO IS AWARE OF THE PREGNANCY AND WHO IS LICENSED TO PRESCRIBE OR RECOMMEND A CONTROLLED SUBSTANCE.

The final version of the amended proposed legislative language for HB 16-1385 that was passed through the Colorado House of Representatives but not Senate are as follows:

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. Legislative declaration. (1) The general assembly finds and declares that:

- (a) The definition of "child abuse or neglect" in the Children's Code needs to be modified to accommodate behavioral changes relating to substances; and
- (b) The general assembly's intent behind any modifications to the definition of "child abuse or neglect" in the Children's Code as it relates to substances is to focus on guiding assessments and investigations in the Child Welfare system.

SECTION 2. In Colorado Revised Statutes, 19-1-103, **amend** (1) (a) (VI) and (1) (a) (VII) as follows:

19-1-103. Definitions. As used in this title or in the specified portion of this title, unless the context otherwise requires:

- (1) (a) "Abuse" or "child abuse or neglect", as used in part 3 of article 3 of this title, means an act or omission in one of the following categories that threatens the health or welfare of a child:

(VI) Any case in which in the presence of a child, or on the premises where a child is found, or where a child resides, a controlled substance, as defined in section 18-18-102 (5), C.R.S., is manufactured or attempted to be manufactured; SUBSTANCE USE OR SUBSTANCE EXPOSURE THREATENS OR RESULTS IN HARM TO THE CHILD'S HEALTH OR WELFARE UNDER ANY OF THE FOLLOWING CIRCUMSTANCES:

(A) BEHAVIOR INDICATING IMPAIRMENT OF A PERSON THAT THREATENS OR RESULTS IN HARM TO THE CHILD. FOR PURPOSES OF THIS SUB-SUBPARAGRAPH (A), A "PERSON" 1 INCLUDES A PARENT, STEPPARENT, GUARDIAN, LEGAL CUSTODIAN, RELATIVE, SPOUSAL EQUIVALENT, OR ANY OTHER PERSON WHO RESIDES IN THE CHILD'S HOME OR WHO IS REGULARLY IN THE CHILD'S HOME AND HAS SOLE AUTHORITY OVER OR SOLE RESPONSIBILITY FOR THE CARE OF THE CHILD.

(B) THE KNOWING, RECKLESS, OR NEGLIGENT EXPOSURE TO OR INGESTION OF ANY LEGAL OR ILLEGAL SUBSTANCE BY A CHILD THAT THREATENS OR RESULTS IN HARM TO THE CHILD, UNLESS SUCH EXPOSURE OR INGESTION IS THE RESULT OF THE CHILD'S LAWFUL INTAKE OF SUCH SUBSTANCE; OR

(C) THE MANUFACTURE, DISTRIBUTION, PRODUCTION, OR CULTIVATION PRACTICES OF A LEGAL OR ILLEGAL SUBSTANCE THAT CREATES AN ENVIRONMENT THAT THREATENS OR RESULTS IN HARM TO THE CHILD.

(VII) (A) Any case in which a child tests positive at birth for either a schedule I controlled substance, as defined in section 18-18-203, C.R.S., or a schedule II controlled substance, as defined in section 18-18-204, C.R.S. AN EXPOSURE TO ALCOHOL OR FOR A CONTROLLED SUBSTANCE, AS DEFINED IN SECTION 18-18-102, C.R.S., unless the child tests positive for a schedule II controlled substance as a result of the mother's lawful intake of such substance as prescribed OR RECOMMENDED BY A LICENSED HEALTH CARE PROVIDER WHO IS AWARE OF THE PREGNANCY AND THE USE OF SUCH SUBSTANCE, AND MONITORED BY THE SAME OR ANOTHER

LICENSED HEALTH CARE PROVIDER WHO IS AWARE OF THE PREGNANCY AND THE USE OF SUCH SUBSTANCE.

(B) A COUNTY DEPARTMENT SHALL NOT DETERMINE A CHILD TO BE ABUSED OR NEGLECTED BASED SOLELY ON THE CHILD TESTING POSITIVE FOR A LEGAL SUBSTANCE 1 UNDER COLORADO LAW AT BIRTH.

SECTION 3. In Colorado Revised Statutes, **add** 19-3-308.1 as follows:

19-3-308.1. Implementation of the definition of abuse as it relates to use of or exposure to substances - rules - SMART report.

(1) ON OR BEFORE JULY 1, 2017, THE STATE DEPARTMENT SHALL PROMULGATE AND ADOPT RULES TO ENSURE THE CONSISTENT IMPLEMENTATION OF THE DEFINITION OF ABUSE SET FORTH IN SECTION 19-1-103 (1) (a) (VI) AND 19-1-103 (1) (a) (VII) AS IT RELATES TO THE USE OF OR EXPOSURE TO SUBSTANCES. THE RULES MUST ADDRESS, AT A MINIMUM, ANY PROCEDURES A COUNTY DEPARTMENT MUST FOLLOW UPON RECEIVING A REPORT THAT AN INFANT HAS TESTED POSITIVE FOR A SUBSTANCE AT BIRTH.

(2) THE STATE DEPARTMENT SHALL COLLECT DATA ON THE USE OF THE MODIFIED DEFINITION OF "CHILD ABUSE OR NEGLECT" IN SECTION 19-1-103 (1) (a) AS CREATED IN HOUSE BILL 16-1385, AS WELL AS THE USE OF THE GUIDELINES FOR THE IMPLEMENTATION OF THAT DEFINITION ESTABLISHED THROUGH RULES PROMULGATED PURSUANT TO SUBSECTION (1) OF THIS SECTION. THE STATE DEPARTMENT SHALL INCLUDE SUCH DATA AS PART OF ITS "STATE MEASUREMENT FOR ACCOUNTABLE, RESPONSIVE, AND TRANSPARENT (SMART) GOVERNMENT ACT" HEARING REQUIRED BY SECTION 2-7-203, C.R.S. AT A MINIMUM, THE STATE DEPARTMENT SHALL COLLECT AND REPORT DATA ON THE DISPOSITION OF CHILD WELFARE ASSESSMENTS RELATED TO THE MODIFIED DEFINITION OF "CHILD ABUSE OR NEGLECT" AS IT RELATES TO SUBSTANCES AND CORRELATED WITH ECONOMIC STATUS, RACE, AND ZIP CODE. THE FOLLOWING REPORTS MUST INCLUDE DATA AS FOLLOWS:

(a) THE JANUARY 2018 1 REPORT MUST INCLUDE DATA FROM JANUARY 1, 2017, THROUGH JULY 1, 2017, OR SUCH DATE AS THE RULES PROMULGATED PURSUANT TO SUBSECTION (1) OF THIS SECTION TAKE EFFECT, AND A SEPARATE COMPARISON DATA SET FROM THE DATE THE RULES TAKE EFFECT THROUGH DECEMBER 31, 2017; AND (b) THE JANUARY 2019 REPORT MUST INCLUDE DATA FROM JANUARY 1, 2018, THROUGH DECEMBER 31, 2018. THE JANUARY 2019 REPORT MUST PROVIDE SEGREGATED DATA GATHERED TO ALLOW FOR A COMPARISON OF THE EFFECT BEFORE THE CHANGE IN THE DEFINITION, AFTER THE CHANGE IN THE DEFINITION BUT BEFORE THE RULES WERE IMPLEMENTED, AND AFTER THE PROMULGATION OF RULES REGARDING THE IMPLEMENTATION OF THE MODIFIED DEFINITION.

SECTION 4. Appropriation. (1) For the 2016-17 state fiscal year, \$16,000 is appropriated to the department of human services for use by the division of Child Welfare. This appropriation is from the general fund. To implement this act, the division may use this appropriation for training. (2) For the 2016-17 state fiscal year, the general assembly anticipates that the

department of human services will receive \$600 in federal funds to implement this act. The appropriation in subsection (1) of this section is based on the assumption that the department will receive this amount of federal funds, which is included for informational purposes only.

SECTION 5. Safety clause. The general assembly hereby finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.