The Office of Innovation, Alignment, and Accountability

EXAMINATION OF INFANTS INDICATED FOR SUBSTANCE EXPOSURE/AFFECTED AT BIRTH
CONTENTS

Introduction........................................................................................................................................................................... 1
Key Findings.............................................................................................................................................................................. 1
Background............................................................................................................................................................................. 1
Section 1: Substance-Exposed/Affected Infants Referred to Child Welfare (2016 Cohort) .......................................................... 2
Section 2: Substance-Exposed Infants Placed in Out-of-Home Care (2016 Cohort) ............................................................... 4
  Descriptive Information............................................................................................................................................................. 4
  Reason for Removal ................................................................................................................................................................. 4
  Reunification.............................................................................................................................................................................. 5
  Assessed Needs of Substance-Exposed Infants in Out-of-Home Care (2016) ...................................................................... 5
Section 3: Trends in Placement of Substance-Exposed/Affected Infants Reported to Child Welfare Between 2012 and 2020 ........................................................................................................................................................................... 6
  Impact of Screening Discussion ................................................................................................................................................ 8
Discussion..................................................................................................................................................................................... 8
Limitations.................................................................................................................................................................................. 9
Appendix ................................................................................................................................................................................ 9

Introduction
This report examines the trajectory of infants who were reported to Child Welfare due, at least in part, to concerns of substance exposure/affected1 in utero or at birth (from here on referred to as SE/A). In order to explore this complex topic, this report examines the data in three separate ways. In the first and second sections, we examine an existing analytic dataset of an intake cohort of all families who received a referral to Child Welfare in 2016. The cohort includes detailed information on families and follows children placed in out-of-home care for a few years, allowing for a longitudinal examination. While the first two sections allow a more in-depth look at the infants and families linked to SE/A intakes, the third section, which includes all intakes in which an infant is identified for SE/A between 2012 and 2020 (Jan. 1, 2012 – Dec. 31, 2020), provides an opportunity to examine how trends related to SE/A intakes have changed over time.

Key Findings
1. Since 2012, there has been a steady increase in the number of infants who are reported to Child Welfare as being indicated as substance-exposed/affected – an increase of nearly 300% between 2012 and 2020.
2. Thirty-four percent of infants identified as potentially substance-exposed/affected are placed into out-of-home care within 30 days of the intake alleging substance-exposed/affected.
3. An increase in the number of intakes alleging an infant was substance-exposed/affected, as well as an increase in the likelihood of these intakes being screened in for investigation/services appears to be responsible for an increase in the likelihood of this population being placed in out-of-home care over the last few years.
4. Infants indicated and not indicated for substance exposure/affected have similar reunification rates within two years of removal (41% and 39%).
5. One in five referrals screened out due to an unborn victim are subsequently referred as a substance-exposed/affected infant. In addition, an estimated 57% of SE/A infant referrals have had a previous unborn victim referral during the same pregnancy.2
6. Parental Drug Abuse is indicated as a reason for removal at a much higher rate among infants placed in out-of-home care (71%) than other children placed into out-of-home care, regardless of whether the infant was indicated or not indicated as a substance-exposed/affected.
7. On initial measures of child wellbeing for children placed in out-of-home care, infants indicated as substance-exposed/affected had similar scores compared to those not indicated as substance-exposed/affected.
8. On the initial Behavior Domain of the Foster Care Rate assessment, infants with and without substance exposure/affected indicated had similar scores. However, at the follow-up assessment done six months later, substance-exposed/affected infants had scores indicating higher needs compared to other infants.

Background
Examining the impact of parental substance use and abuse is crucial to better serve children in our state. Among all parents involved in the Child Welfare system, 27% have a substance use disorder, and 58% of caregivers with children in out-of-home care have a substance use disorder.3 The needs of SE/A infants, and their families, are a growing issue of focus both nationally and locally. This report describes the characteristics of SE/A infants identified by the Child Welfare system in Washington State and their short-term outcomes.

---

1 A substance-affected newborn means a newborn child who has withdrawal symptoms resulting from prenatal substance exposure and/or demonstrates physical or behavioral signs that can be attributed to prenatal exposure to substances. A substance-exposed newborn means a newborn child who tests positive for substance(s) at birth, or the mother tests positive for substance(s) at the time of delivery or the newborn is identified by a medical practitioner as having been prenatally exposed to substance(s). It is important to note that the designation of SE/A infant by Child Welfare policy is not the same as identification of parental substance abuse as a concern on the initial referral or as a reason for placement. Both parental substance abuse as a referral concern and reason for placement appear at higher rates, and thus SE/A infants represent a smaller portion of young children whose safety may be at risk due to parental substance abuse.
2 See DCYF FFPSA Prevention Plan.
According to Washington State Department of Children, Youth, and Families (DCYF) policy 2200, substance-affected infants are to be screened in for investigation regardless of the presence of other child abuse and neglect concerns. Referrals on substance-exposed infants are to be screened in for investigation if there is an allegation of child abuse or neglect and/or when other risk factors are present that would indicate imminent risk of serious harm. The decision screening matrix that intake workers use to determine SE/A is outlined in Table 1. It is important to keep in mind that SE/A is an optional data collection field in the intake report, likely resulting in an undercount of the number of newborns and infants with SE/A (e.g., an intake worker may document a substance exposure concern in the narrative text but not check the Substance Exposure box). Additionally, the SE/A field does not distinguish between substance-exposed and substance-affected infants, making it impractical to examine these two groups of infants separately.4

Table 1: Decision Screening Guidelines for Substance-Exposed or Substance-Affected Newborns5

<table>
<thead>
<tr>
<th>Intake staff must take the following actions on all intakes that identify a newborn as exposed to substance(s).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance-Exposed Newborn:</td>
</tr>
<tr>
<td>• Screen in the intake for Child Protective Services (CPS) investigation when there is an allegation of child abuse/neglect (CA/N).</td>
</tr>
<tr>
<td>• Screen in for CPS Risk Only when there is no allegation, but risk factor(s) indicate imminent risk of serious harm.</td>
</tr>
<tr>
<td>• Consider lack of prenatal care along with other risk factors</td>
</tr>
<tr>
<td>Substance-Exposed and Substance-Affected Newborn:</td>
</tr>
<tr>
<td>• Screen in for CPS investigation when the newborn is Substance-Affected, and there is an allegation of CA/N.</td>
</tr>
<tr>
<td>• Screen in for CPS Risk Only investigation when the newborn is Substance-Affected and there is no allegation of child abuse or neglect.</td>
</tr>
</tbody>
</table>

When the newborn is exposed prenatally to substance(s), check the SE box (Substance Exposure Evident at Birth) for the newborn in FamLink Intake Participants.

Document whether the medical practitioner identified the newborn as AFFECTED by substance(s) AND available information on risk and protective factors.

Section 1: Substance-Exposed/Affected Infants Referred to Child Welfare (2016 Cohort)

Section 1 focuses on an existing intake cohort of all cases that received at least one referral in 2016.6 Substance-exposed/affected infant referrals make up a small portion of all referrals made to DCYF.

When looking at the first referral (the index referral) on each of the 57,466 cases reported to Child Welfare in 2016,7 451 (<1%) of these intakes included a SE/A infant. When looking at all of the referrals received on the cases included in

---

4 While preferable for answering key questions, it would require reading and qualitative coding of freeform text of the referrals to distinguish between substance-exposed and substance-affected infants in a 2016 cohort.
6 For this analysis, the 2016 cohort tracks data through February 2019.
7 More information was collected on the index referral than the other referrals attached to the cases.
the 2016 cohort, in the three-year study period, 1.9% of the cases were associated with an SE/A infant referral<sup>89</sup> (Table 2).

### Table 2: Reason for Child Welfare Referral (2016 Cohort, Index Referral + ≈3 Years)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Frequency (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case attached to a Substance-Exposed/Affected infant referral</td>
<td>1,099 (1.9%)</td>
</tr>
<tr>
<td>Case not attached to Substance-Exposed/Affected infant referral</td>
<td>56,367 (98.1%)</td>
</tr>
<tr>
<td>Total</td>
<td>57,466 (100%)</td>
</tr>
</tbody>
</table>

Table 3 shows the reporter type (i.e., category characterizing the person who made the referral) for the index referral separately for referrals that indicate and do not indicate a SE/A infant. What is most notable is that medical professionals and social service professionals make up the vast majority of the reports involving a SE/A infant (97% combined), which is significantly different from the other referent types for the other categories of referrals. For other maltreatment referrals, medical and social service professionals only make up 27% of reporters and other reporter types, such as educators and law enforcement, are more frequent reporter types.

### Table 3: Referent Type for the Index Referral in 2016, With and Without Substance-Exposed/Affected Infant Indicated

<table>
<thead>
<tr>
<th>Type of referent on reference report for the 2016 cohort</th>
<th>Other child maltreatment referrals (Age prenatal - 18)</th>
<th>Substance-Exposed infant indicated (Age prenatal – 30 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Anonymous</td>
<td>2,223</td>
<td>3.9</td>
</tr>
<tr>
<td>Child Care Provider</td>
<td>898</td>
<td>1.6</td>
</tr>
<tr>
<td>Corrections</td>
<td>569</td>
<td>1.0</td>
</tr>
<tr>
<td>DSHS (DCYF)</td>
<td>1499</td>
<td>2.6</td>
</tr>
<tr>
<td>Educator</td>
<td>10,861</td>
<td>19.0</td>
</tr>
<tr>
<td>Foster Care Provider</td>
<td>255</td>
<td>.4</td>
</tr>
<tr>
<td>Friend/Neighbor</td>
<td>2,511</td>
<td>4.4</td>
</tr>
<tr>
<td>Law Enforcement Officer</td>
<td>4,978</td>
<td>8.7</td>
</tr>
<tr>
<td>Medical Professional</td>
<td>4,283</td>
<td>7.5</td>
</tr>
<tr>
<td>Mental Health Professional</td>
<td>6,343</td>
<td>11.1</td>
</tr>
<tr>
<td>Other</td>
<td>3,426</td>
<td>6.0</td>
</tr>
<tr>
<td>Other Relative</td>
<td>3,360</td>
<td>5.9</td>
</tr>
<tr>
<td>Parent/Guardian</td>
<td>6,251</td>
<td>11.0</td>
</tr>
<tr>
<td>Social Service Professional (e.g., hospital social worker)</td>
<td>9,210</td>
<td>16.2</td>
</tr>
<tr>
<td>Subject</td>
<td>11</td>
<td>.0</td>
</tr>
<tr>
<td>Victim and/or Self</td>
<td>337</td>
<td>.6</td>
</tr>
<tr>
<td>Total</td>
<td>57,015</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<sup>8</sup> The 2016 cohort follows the family (Case ID) until 2/2019, so some of the infants would not have been born at the time of the index referral in 2016.

<sup>9</sup> Note that in some cases the index referral is received prior to birth, thus the universe for potential index referrals includes the prenatal period.
Lastly, we examine the population of infants for which the index referral was screened-out due to an unborn victim being indicated and for whom a subsequent SE/A referral was made within eight months (240 days) of the index referral. There were 852 index referrals that were screened out due to an unborn victim, and 154 (18%) of these cases had a subsequent referral alleging SE/A within eight months.

Section 2: Substance-Exposed Infants Placed in Out-of-Home Care (2016 Cohort)

Descriptive Information

From the 57,466 cases included in the 2016 cohort, 9,505 children (N=9,505) were placed in out-of-home care at some point between the index referral and February 2019. Of these children placed in out-of-home care, 577 (6.1%) had been identified in a referral as a SE/A infant. Of those 577 reportedly SE/A infants, 349 (61%) entered out-of-home care within the first month of their life.

Of all infants under one month of age who were placed in out-of-home care, one-third were indicated as SE/A. Among infants placed in out-of-home care prior to one month of age, males and Native Americans appear to be at increased risk of being indicated as SE/A (Table 4) relative to infants in out-of-home care referred for other forms of maltreatment.

<table>
<thead>
<tr>
<th>Table 4: Descriptive Characteristics of Children Placed in Out-of-Home Care Prior to One Month of Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Category</td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>African American</td>
</tr>
<tr>
<td>Asian/PI</td>
</tr>
<tr>
<td>Hispanic</td>
</tr>
<tr>
<td>Native American</td>
</tr>
<tr>
<td>White*</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

*One substance-exposed infant and four not substance-exposed infants did not have race/ethnicity indicated and are excluded from the race metrics.

Reason for Removal

When a child is placed in out-of-home care, the caseworker indicates the reason(s) for removal. The caseworker can select more than one reason for removal. Infants in the 2016 cohort who were placed in out-of-home care in the first month of life who were identified as SE/A were more likely to have a reason for removal of “Parent Drug Abuse” (79%) compared with infants placed in out-of- home care in the first month of life who were not indicated as a SE/A infant (68%) (Table 5). However, “Parent Drug Abuse” is the leading reason for infants placed in out-of-home care in the first month of life, regardless of whether SE/A at birth was identified. Additionally, the rates of removal for “Parent Drug Abuse” for infants with and without substance exposure identified (79% and 68%) are significantly higher than the rest of the population in the cohort; about 30% of children removed between age 31 days and 17 years have “Parent Drug Abuse” indicated as the reason for removal.
Table 5: Reason for Removal Comparing Those Infants With and Without Substance Exposure Indicated at Birth

<table>
<thead>
<tr>
<th>Reason for Removal</th>
<th>Not identified for Substance Exposure N=729</th>
<th>Substance Exposed/Affected N=349</th>
<th>% Point Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caretaker Inability to Cope</td>
<td>11%</td>
<td>11%</td>
<td>0</td>
</tr>
<tr>
<td>Inadequate Housing</td>
<td>17%</td>
<td>14%</td>
<td>-3</td>
</tr>
<tr>
<td>Neglect</td>
<td>48%</td>
<td>44%</td>
<td>-4</td>
</tr>
<tr>
<td>Parent Abuse Alcohol</td>
<td>6%</td>
<td>4%</td>
<td>-2</td>
</tr>
<tr>
<td>Parent Death</td>
<td>0%</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>Parent Drug Abuse</td>
<td>68%</td>
<td>79%**</td>
<td>+11</td>
</tr>
<tr>
<td>Parent Incarceration</td>
<td>7%</td>
<td>3%*</td>
<td>-4</td>
</tr>
<tr>
<td>Physical Abuse</td>
<td>4%</td>
<td>0%**</td>
<td>-4</td>
</tr>
<tr>
<td>Sex Abuse</td>
<td>1%</td>
<td>0%</td>
<td>-1</td>
</tr>
</tbody>
</table>

Chi Square test, sig of *=.05 and **=.01

Reunification

In the 2016 cohort, infants who are placed in out-of-home care within their first 30 days of life are reunified with their parents within two years about 41% of the time. On average, those infants who are reunified within two years are in care 304 days (approximately 10 months), though the range of length of stays is large. Interestingly, there were no significant differences in the length of stay or reunification rates between infants with and without SE/A indicated at birth (Table 6). When compared to all other children in the cohort 31 days and older who were placed in out-of-home care, infants were less likely to be reunified (37% compared to 51% within two years) and, on average, spent more time in out-of-home care.

Table 6: Placement Episode Length and Episode Outcome for Those With and Without Substance Exposure Indicated

<table>
<thead>
<tr>
<th>Exit reason within two years of removal is reunification</th>
<th>Length to reunification for those reunified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td>Mean (Std.Dev)</td>
</tr>
<tr>
<td>Substance exposure not identified at birth (Removal age 30 days or under) N=729</td>
<td>39%</td>
</tr>
<tr>
<td>Substance exposure identified at birth (Removal age 30 days or under) N=349</td>
<td>41%</td>
</tr>
<tr>
<td>All other children</td>
<td>55%</td>
</tr>
</tbody>
</table>

Assessed Needs of Substance-Exposed Infants in Out-of-Home Care (2016)

Differences in the needs of infants with and without SE/A indicated at birth appear to develop over time, as indicated on one of the child wellbeing measures used by DCYF. The Foster Care Rate Assessment is completed with foster parents early in the placement of a child in their care and is used to determine the foster care reimbursement rate. It is then repeated every six months. On the first Foster Care Rate Assessment, infants indicated and not indicated for SE/A had very similar scores in the Behavior and Physical Domains (6.4 and 6.4 on Behavioral and 5.1 and 5.0 on Physical

---

10 The Foster Care Rate Assessment form does not include a Behavioral and Physical Domain, but rather includes a series of questions. Using factor analysis these domain were established. For additional information, see the Foster Rate Assessment evaluation document.
EXAMINATION OF INFANTS INDICATED FOR SUBSTANCE EXPOSURE/AFFECTED AT BIRTH

domain, for SE/A and not SE/A respectively). However, by the second rate assessment, those indicated for SE/A had increased scores in the Behavior domain (7.1 and 6.4), while the scores on the physical domain remained similar (5.5 and 5.2) (Table 7). Although the difference in the Behavior domain may seem small, the domain score can be translated into an approximate number of hours needed a week to care for the infant’s behavioral needs. When this is done, by the second Foster Care Rate Assessment SE/A infants needed approximately 25.7 hours a week of care in the Behavior domain compared to 19.5 hours a week of care for infants not indicated for SE/A.11,12

Table 7: Child behavior/development comparing those with and without SE/A indicated at birth as reported on the Foster Care Rate Assessment

<table>
<thead>
<tr>
<th>Assessment 1</th>
<th>Assessment 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance Exposed</td>
<td>Not Substance Exposed</td>
</tr>
<tr>
<td>N=160</td>
<td>N=352</td>
</tr>
<tr>
<td>Substance Exposed</td>
<td>Not Substance Exposed</td>
</tr>
<tr>
<td>N=81</td>
<td>N=194</td>
</tr>
<tr>
<td>Behavioral Needs (Scale of 5-18)</td>
<td>** Behavioral Needs (Scale of 5-18)</td>
</tr>
<tr>
<td>6.4 (2.1)</td>
<td>6.4 (2.4)</td>
</tr>
<tr>
<td>7.05 (2.3)**</td>
<td>6.36 (2.1)</td>
</tr>
<tr>
<td>Physical Needs (Scale of 4-12)</td>
<td>Physical Needs (Scale of 4-12)</td>
</tr>
<tr>
<td>5.01 (1.8)</td>
<td>5.07 (2.0)</td>
</tr>
<tr>
<td>5.49 (2.2)</td>
<td>5.22 (2.0)</td>
</tr>
</tbody>
</table>

Independent Sample T-Test. **sig.01, Not all infants received a Foster Care Rate Assessment (e.g., those placed in relative care)

The Denver Scale is a child development screening tool administered by a Child Health and Education Tracking screener within the first 30 days of the infant’s placement in out-of-home care. The Denver Scale screens for personal, fine motor, gross motor, and language. There were no significant differences between the two groups on any of the Denver domain results (See Table B in Appendix).

Section 3: Trends in Placement of Substance-Exposed/Affected Infants Reported to Child Welfare Between 2012 and 2020

Over the past nine years, there has been a steady increase in the number of intakes with a newborn indicated as SE/A, increasing from 262 in 2012 to 972 in 2020.12 Figure 1 shows the total number of intakes in each year for which the SE/A newborn check box was selected. As the screening policy (Table 1) focuses on newborn infants, only referrals received between the child’s birth and 30 days after birth are included in this section.

---

11 Table A and Figure A in the Appendix shows the results of a repeated measures Anova which along with substance exposure also includes Sex and Race in the model. In the Repeated Measure Anova the substance-exposed infant variable remains significant as shown both in the table and well as in the figure.

12 Some cases had multiple intakes on the same infant alleging SE/A. In these instances, only the first intake is included in the analysis. Additionally, when an intake included twins, only one infant was included in the dataset.
Figure 1: Number of intakes with a newborn indicated for substance exposure/affected 2012-2020

Figure 2 is an Event Curve representing the first 30 days after the intake indicating a SE/A infant. The lines in the figure show the percent of the population at any given point in time for which an event has not occurred. For these nine years (2012-2020), approximately 36% of the infants identified as SE/A were placed in out-of-home care within 30 days of the referral. As can be seen in Figure 2, most of the events occur closer to the intake date. For example, in 2020 (the light green line), by the 10th day after the intake, over 30% of the infants had been placed in out-of-home care compared to approximately 40% by the end of the 30 days. In Figure 2, it can also be seen that the risk of a SE/A infant being placed in out-of-home care has increased since 2012. Over the course of the first 30 days, the 2012 group (blue line) is associated with the lowest percentage of infants being placed in out-of-home care and the 2020 group (light green line) with the highest percentage.

Figure 2: Event Curve showing the rate of placement in out-of-home care for the first 30 days after intake alleging a SE/A infant (2012 – 2020)
Impact of Screening Discussion

As indicated in the screening policy (Table 1), not all intakes that include a SE/A infant allegation screen in for an investigation/services. Figure 3 shows the number of SE/A intakes for each year and the percentage of intakes that screen in (e.g., CPS-Investigation and CPS-Risk Only) by year. There is a trend over time for intakes with SE/A infants to be increasingly more likely to be screened in for investigation/services. Additionally, shown in Figure 3 is the percent of intakes indicating SE/A that result in a placement of the infant in out-of-home care. As can be seen, in addition to the increase in SE/A intakes being screened in, there is also a trend for a higher percentage of infants to be placed in out-of-home care who are associated with SE/A referrals. Although there is also a small but significant trend over time for more SE/A infants to be placed in out-of-home care even when controlling for the screen-in rate of all SE/A infants, it appears that the increasing screen-in rate of the SE/A intakes is driving most of the increase in the likelihood of infants being placed into out-of-home care. (See Table C and Figure B in Appendix for regression analysis, which includes both year and screen-in rates). These increases in the screen-in rate of SE/A infant intakes taken together with the large increase in recent years in the number of additional intakes alleging SE/A infants seems to explain a large portion of the increasing number of SE/A infants being placed into out-of-home care.13

Figure 3: Intakes with an infant identified as substance-exposed/affected that screened in for investigation and resulted in a placement by intake year

Discussion

This study provides a number of important findings. Since 2012, there has been a steady increase in the number of intake reports indicating substance-exposed/affected newborns. Additionally, there has been an increasing trend to screen in for investigation/services reports with a SE/A infant. While the reason for these increases is not clear, taken together, these trends have led to both a higher number and a higher likelihood of SE/A infants being placed in out-of-home care. There seems to be little difference between the placement trajectories of infants indicated and not indicated for SE/A (e.g., the length of stay and the reunification rate for both groups is about the same). However, there is some limited evidence that SE/A infants may show increasing rates of behavioral needs while in out-of-home care. This finding is based on limited data from the Foster Care Rate Assessment and is in need of more careful examination. Lastly, there is strong indication that infants are placed in out-of-home care with Parental Drug Abuse as a contributing

---

13 The screen-in rate of intakes reporting SE/A is not only much higher than CPS intakes in general, but also has been trending upwards, a pattern not seen in the total population of CPS intakes. The screen-in rate for all CPS intakes over the same years as shown in Figure 3 is: 2012-48%, 2013-47%, 2014-43%, 2015-42%, 2016-41%, 2017-43%, 2018-42%, 2019-41%, 2020-40% (InfoFamlink).
reason at a much higher rate than older children are (71% compared to 30%). The 71% placement rate of infants for parental substance abuse may indicate that many more infants are SE/A prenatally than are currently being reported.

Limitations
This report examines infants who were indicated at birth as being substance-exposed/affected (SE/A). A substantial limitation of this report is that, due to the data collection system, a distinction could not be made between those infants who were substance-exposed and those determined to be substance-affected. Having this information would have permitted a targeted examination of the placement and developmental trajectory of substance-affected infants placed in out-of-home care. Additionally, the lack of more robust developmental assessments of SE/A infants placed in out-of-home care limits the insight into how prenatal substance abuse is affecting the development of this group of children relative to other children in out-of-home care. The Denver Scale screener used in the first 30 days after a child is born may lack the necessary sensitivity and/or specificity to show meaningful developmental differences between those with and without prenatal substance exposure in the first 30 days of life. Additionally, the Denver Scale lacks studies of its validity, particularly for infants.14

Appendix
Table A: Repeated Measures ANOVA using the first and second Foster Care Rate Assessment along with other relevant variables – Behavioral Needs domain for infants placed in out-of-home care between birth and 30 days. The results indicate that an infant indicated for substance exposure is likely to have a significantly higher increase in their score in the Behavior domain than infants not indicated for substance exposure.

<table>
<thead>
<tr>
<th>Source</th>
<th>factor 1</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time (First compared to second score)</td>
<td>Linear</td>
<td>.825</td>
<td>1</td>
<td>.825</td>
<td>.324</td>
<td>.570</td>
</tr>
<tr>
<td>Time * Prior Substance-Exposed Infant</td>
<td>Linear</td>
<td>10.720</td>
<td>1</td>
<td>10.720</td>
<td>4.207</td>
<td>.041</td>
</tr>
<tr>
<td>Time * Sex</td>
<td>Linear</td>
<td>1.957</td>
<td>1</td>
<td>1.957</td>
<td>.768</td>
<td>.382</td>
</tr>
<tr>
<td>Time * Race</td>
<td>Linear</td>
<td>25.495</td>
<td>4</td>
<td>6.374</td>
<td>2.502</td>
<td>.043</td>
</tr>
<tr>
<td>Error(factor1)</td>
<td>Linear</td>
<td>682.814</td>
<td>268</td>
<td>2.548</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14 More information on the functioning of the Denver Scale can be found in the Assessment of the Denver report completed as part of the 2020 Evaluation of the Assessment System in Child Welfare.
Figure A: Comparison of the scores on the first and second Foster Care Rate Assessment comparing those infants placed in out-of-home care who were indicated and not indicated for substance exposure/affected at birth.

Table B: Resulting Denver Scale Scores (differences between groups were not statistically significant)

<table>
<thead>
<tr>
<th>Denver Domain</th>
<th>Indicated for Substance Exposure/Affected</th>
<th>N</th>
<th>Percent Indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denver Personal Results</td>
<td>Not substance-exposed</td>
<td>501</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Substance-exposed</td>
<td>244</td>
<td>5%</td>
</tr>
<tr>
<td>Denver Fine Motor Results</td>
<td>Not substance-exposed</td>
<td>501</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Substance-exposed</td>
<td>243</td>
<td>15%</td>
</tr>
<tr>
<td>Denver Language Result</td>
<td>Not substance-exposed</td>
<td>501</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Substance-exposed</td>
<td>244</td>
<td>5%</td>
</tr>
<tr>
<td>Denver Gross Motor Result</td>
<td>Not substance-exposed</td>
<td>501</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Substance-exposed</td>
<td>244</td>
<td>7%</td>
</tr>
<tr>
<td>Denver Overall Score Result</td>
<td>Not substance-exposed</td>
<td>499</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>Substance-exposed</td>
<td>239</td>
<td>17%</td>
</tr>
</tbody>
</table>
EXAMINATION OF INFANTS INDICATED FOR SUBSTANCE EXPOSURE/AFFECTED AT BIRTH

Table C: Binary Regression model: Placement rate of infants referred for substance exposure/affected by year and referral screening decision – Indicates the significant impact of the screen-in rate of intakes for SE/A infants. But also suggests that even when controlling for the screen-in, rate there has also been a greater tendency since 2015 to place infants associated with SE/A into out-of-home care.

<table>
<thead>
<tr>
<th>Year</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 (Ref)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>-.002</td>
<td>.195</td>
<td>.000</td>
<td>1</td>
<td>.993</td>
<td>.998</td>
</tr>
<tr>
<td>2014</td>
<td>.260</td>
<td>.189</td>
<td>1.892</td>
<td>1</td>
<td>.169</td>
<td>1.297</td>
</tr>
<tr>
<td>2015</td>
<td>.575</td>
<td>.185</td>
<td>9.688</td>
<td>1</td>
<td>.002</td>
<td>1.776</td>
</tr>
<tr>
<td>2016</td>
<td>.646</td>
<td>.173</td>
<td>13.920</td>
<td>1</td>
<td>.000</td>
<td>1.908</td>
</tr>
<tr>
<td>2017</td>
<td>.375</td>
<td>.168</td>
<td>4.962</td>
<td>1</td>
<td>.026</td>
<td>1.455</td>
</tr>
<tr>
<td>2018</td>
<td>.371</td>
<td>.168</td>
<td>4.906</td>
<td>1</td>
<td>.027</td>
<td>1.449</td>
</tr>
<tr>
<td>2019</td>
<td>.422</td>
<td>.167</td>
<td>6.420</td>
<td>1</td>
<td>.011</td>
<td>1.525</td>
</tr>
<tr>
<td>2020</td>
<td>.462</td>
<td>.166</td>
<td>7.725</td>
<td>1</td>
<td>.005</td>
<td>1.587</td>
</tr>
<tr>
<td>Reference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Referral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screened Out</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-2.552</td>
<td>.170</td>
<td>225.988</td>
<td>1</td>
<td>.000</td>
<td>.078</td>
</tr>
</tbody>
</table>

Negelkerke R Square .151
5945 cases and 2133 placements within 30 days of the intake

Figure B: Likelihood of placement within 30 days adjusted for the screen-in rate