ARKANSAS FAMILY FIRST PREVENTION SERVICES ACT EVALUATION

SafeCare® Model

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Abstract

The Division of Children and Family Services (DCFS) is providing parenting interventions for families entering child protective services. Goals of the interventions are to prevent family separations or to hasten reunification when out-of-home placements are deemed necessary. DCFS has implemented multiple models, one of which includes SafeCare®.

SafeCare is an in-home parent training program designed for families with children ages birth to 5 who are at risk for maltreatment. SafeCare provides a curriculum of 3 modules for treatment over a span of 18-20 weeks. Families receive education in 1) Health, 2) Safety, and 3) either Parent-Infant Interaction or Parent-Child Interaction, depending on their child's age. Families typically participate in 6 sessions per module lasting 60-90 minutes.[1]

DCFS contracted with The University of Arkansas for Medical Sciences (UAMS), to conduct a well-designed and rigorous outcomes evaluation for SafeCare. *The major objectives of this evaluation are to determine if SafeCare is successful in improving child safety (i.e., reduced entry into foster care, reduced maltreatment recidivism), permanency, and family and child well-being.*

UAMS conducted a rigorous quantitative outcomes evaluation of SafeCare in Arkansas using a quasi-experimental design. The general method for determining the success of SafeCare on outcomes of interest was a prospective cohort analysis. To establish baseline equivalence of treatment and comparison groups, propensity score matches were performed. Propensity score match analysis is a selection bias reducing technique used to establish a comparison group in the absence of randomization. An intention-to-treat design was used to test differences in outcomes. An additional outcomes analysis was conducted using the subsample of participants who successfully completed the intervention.

SafeCare enrollees were matched with children who were potential candidates for SafeCare but did not subsequently enroll based on 1:1 match. The characteristics used to match are the child's and caregiver's demographics, geographic and socioeconomic indicators, prior involvement with DCFS, allegation type, and other risk indicators. Children in the comparison group received treatment as usual and may have had other services available in their community. Data extracts from the official record of child welfare information for DCFS, Children's Reporting Information System (CHRIS), were used for all propensity matching characteristics and program outcomes.

SafeCare is provided throughout Arkansas. Prior to the passage of Arkansas's Family First Prevention Services Act (FFPSA) plan, referral criteria for SafeCare included a Garrett's Law investigation or a protective services case for neglect.[2] However, starting October 1, 2019, FFPSA eligibility became a requirement for referral. There were a total of 2,380 caregivers and children who met the criteria for inclusion in this study; the majority of those were identified in administrative data and were eligible for matching (N=1,899). Over half of those who met the inclusion criteria for matching successfully completed the program (N=1,131). There were too few reunification cases (N=29) in the model to examine planned Research Questions 4 and 6.

Child safety research question 1 examined whether families served by SafeCare have reduced entry into foster care at 6, 12, and 18 months following completion of the intervention as compared to a propensity-matched comparison sample. In the intention-to-treat comparison, there were no group differences in the prevalence of foster care placements within 6, 12, or 18 months of program discharge. In the subgroup analysis of those families who successfully completed the program, there were significant group differences. Children whose caregivers successfully completed SafeCare had significantly lower odds of being in foster care in the first 6, 12, and 18 months after the end of the intervention compared to the matched comparison group.

Child safety research question 2 examined whether families served by SafeCare, who started services with a family preservation goal, have reduced entry into foster care during the treatment period compared to propensity matched non-SafeCare families. Analyses showed similar prevalence of foster care placement between the treatment and comparison groups with no differences in the intention-to-treat comparison. However, children whose caregivers successfully completed the program were significantly less likely to experience foster care placements during the treatment period than children in the matched comparison group.

Child safety research question 3 examined whether families served by SafeCare have reduced new true findings at 6, 12, and 18 months after completion of the intervention compared to propensity-matched counterparts. In the intention-to-treat comparison, there were no differences between groups in true findings at 6 and 18 months, but significantly more true findings during the 12-month follow-up period among families that participated in SafeCare. There were no statistically significant differences across groups in the subgroup analysis of families who successfully completed the program.

Child well-being research question 5 examined whether families served by SafeCare have increased family functioning from protective services entry to exit at a higher rate compared to a propensity-matched comparison sample. We analyzed each of the four Family Advocacy and Support Tool (FAST)[3] subscales making similar comparisons for the groups. In the intention-to-treat approach, Caregiver's Status and Caregiver's Advocacy Status improved more among SafeCare enrollees compared to the comparison group. Families who successfully completed SafeCare had a significantly more positive change over time in every FAST domain than the comparison group.

Evidence from this evaluation suggests that SafeCare as implemented in Arkansas has promising long-term impacts on child safety and family well-being. While there was one adverse finding for new true findings for the 12 month follow up, most findings demonstrated more optimal outcomes for the group receiving SafeCare. Findings demonstrate that fewer children were in out-of-home placements up to 18 months after the end of treatment if caregivers successfully completed SafeCare compared to the matched comparison group. Findings also show that families who successfully completed SafeCare reported more positive changes overtime in youth status, caregiver's status, caregiver's advocacy status, and family relations than the comparison group. Our findings are similar to those of other evaluations. For example, analyses of administrative data from the Colorado child welfare system documented positive impacts on out-of-home placements within 1 year of the cessation of services.[4]

Study Description

The Division of Children and Family Services (DCFS) supplied in-home parenting interventions for families entering child protective services. Goals of the interventions are to prevent family separations or to speed up reunification when out-of-home placements are necessary. DCFS has implemented multiple models, one of which is SafeCare®.

DCFS contracted with an independent evaluator, the University of Arkansas for Medical Sciences (UAMS), to conduct a well-designed and rigorous outcomes evaluation for SafeCare. *The major goals of this evaluation are to determine if SafeCare is successful in reducing the removal of children from the home into foster care, reducing maltreatment and subsequent maltreatment, and reducing future involvement with the child welfare system with the overall goals of improving child safety, permanency, and well-being.*

SafeCare is an in-home parent training program developed by the National SafeCare Training and Research Center (NSTRC) at Georgia State University.[5] The program is designed for families with children ages birth to 5 who are at risk for child abuse or neglect.

The California Evidence-Base Clearinghouse for Child Welfare (CEBC) has assigned SafeCare a “level 2 scientific rating (supported by research evidence)” in 5 different topic areas related to child abuse and neglect and “level 3 (promising research evidence)” in the area of Home Visiting Programs for Child Well-Being.[6]

Additionally, the model is rated as “Supported” by the Title IV-E Prevention Services Clearinghouse.[7] Reviewers found evidence of favorable impacts on out-of-home placements. However, the model does not meet the Home Visiting Evidence of Effectiveness (HomVEE) criteria for an evidence-based early childhood home visiting delivery model.[8] There has not been any high- or moderate-rated effectiveness studies on SafeCare according to the HomVEE guidelines. The HomVEE review found evidence that adaptations of SafeCare (SafeCare Augmented) were effective in domains of linkages and referrals, reductions in child maltreatment, and reductions in juvenile delinquency, family violence, and crimes among general populations but not for tribal populations.

Intervention Condition

SafeCare provides a curriculum of 4 possible modules for treatment.[1] All parenting skills are taught using these 4 principles: (1) explaining skills and why they are important, (2) demonstrating how to do each skill, (3) having parents practice the skills, and (4) providing positive and corrective feedback to parents on their use of skills. Each family receives either the Parent-Child Interaction or the Parent-Infant Interaction module, depending on the age of children. All families, regardless of age, participate in a Health module and Safety module. Families typically participate in 6 sessions per module over a span of 18-20 weeks. Sessions typically last 60-90 minutes. At the beginning of each module, providers conduct an observational assessment to determine parent skills and needs. Subsequent assessments also occur at the end of each module to determine skills uptake. Descriptions of each module are provided below.

Modules Descriptions

During the *Parent-Infant/Child Interaction* assessment and training, parents receive instruction on target behaviors that reduce risk of child physical abuse and neglect by improving parent-child interactions and reducing difficult child behaviors. To set the foundation for positive interactions, caregivers are provided Planned Activities Training (PAT), which supports them to organize activities by preparing in advance, establishing routines, explaining expectations, and following through with them, using positive verbal and physical interactions, and transitioning between activities. Providers assess parent-child interactions using the iPAT Assessment Form (infants 0-18 months) and the cPAT Assessment Form (children 18 months-5 years old).

To reduce the risk of unintentional injury from home hazards, caregivers participate in the *Home Safety* module. Providers assess home hazards with the Home Accident Prevention Inventory Assessment Form, help parents child-proof their homes, and teach the importance of adult supervision according to the developmental age of the child.

The *Child Health* module provides parent instruction on decision-making strategies aimed at reducing medical neglect. Providers assess parent skills using the Sick or Injured Child Checklist Assessment Form; teach caregivers how to differentiate between situations that require emergency medical services, non-emergency medical services, and home care; and teach caregivers how to maintain their children's medical records.

Dosage and Duration

Families typically participate in 6 sessions per module over a span of 18-20 weeks. Sessions usually last 60-90 minutes. Overall, 57% of program participants completed SafeCare, with the first module being the most common time for participants to leave services/become unenrolled. Approximately 72% of enrollees complete at least one of the three SafeCare modules. The overall completion rate in the fiscal year 2021 was 51%, with 64% of families completing at least one module.[2]

Program Implementation

Arkansas followed the NSTRC four-stage process (Pre-Implementation is a process that assesses organizational capacity to implement SafeCare, which is followed by Provider Education and Support, Coach Education and Support, and Sustainability)[9] in order to implement SafeCare.

The NSTRC conducts an implementation planning process for each agency that adopts the model. The NSTRC collects information about the agency to ensure readiness, conducts an initial webinar to introduce SafeCare, and provides materials to educate staff about the program. Agencies then review appropriate documents independently and evaluate the logistics of implementation at their site. Prior to initiating training, NSTRC faculty conduct an in-person orientation that confirms the agency's population is appropriate for SafeCare, that leadership and staff support SafeCare, and that staff have been familiarized with the program. When agencies are ready to move forward with implementation, the NSTRC conducts a 4-day training workshop for providers.

Throughout the implementation process, agencies continue to receive support. Certified Coaches support Providers by observing home visits to assess fidelity and guide feedback to the provider. Trainers support Coaches by assessing the reliability and quality of the coaching session. NSTRC also provides technical assistance to agencies during the first year of implementation.

When the agency is ready to assume autonomy, providers can complete a 2-day Coach training followed by 6 months of support from the NSTRC as they work toward Coach certification, which will allow the agency to train future Providers in-house. The NSTRC works with the agency to develop a sustainable plan that ensures program continuity as the agency becomes independent.

Practitioners and training

Education and support occur at 3 levels: Provider, Coach, and Trainer.[10]

Provider

Provider training prepares an individual to deliver home-based services using the SafeCare model, ensuring the Provider has core knowledge and skills to implement SafeCare. To become a SafeCare Provider, trainees must attend a 4-day workshop and complete the required curriculum. Providers receive support from SafeCare Coaches or Trainers to become certified SafeCare Providers. To reach certification, individuals must demonstrate proficiency in delivering SafeCare with families across 3 sessions in each module (9 total). As of June 2021, 100% of individual providers in Arkansas were certified, 2 of whom received a bi-lingual certification to provide services to Spanish-speaking families.[2] Although NSTRC does not have educational requirements for SafeCare providers, CEBC states that a bachelor's degree in human services is preferable.[6]

At the time of this report, SafeCare was provided by 50 SafeCare Providers. The majority of providers were women (92%). The racial and ethnic makeup of SafeCare providers was 64% White, 32% Black, and 4% multiracial. The majority of SafeCare providers held at least a Bachelor's degree (68% bachelor's prepared and 24% Master's prepared); the remaining 8% of providers had an Associate's degree.[2]

Coach

Coaches give onsite coaching to SafeCare Providers. To become a SafeCare Coach, individuals attend the Provider workshop, and they must attend a 1-day Coach Workshop. Following the workshop, a SafeCare Trainer supports the trainee to become certified as a SafeCare Coach. To reach certification, individuals must demonstrate proficiency in fidelity monitoring of SafeCare Providers, leading SafeCare team meetings, and providing coaching of SafeCare home visiting skills.

At the time of this report, there were 12 certified SafeCare Coaches in the state of Arkansas. All coaches were women (100%). The racial and ethnic makeup of SafeCare Coaches was 58% White, 25% Black, 8% Hispanic, and 8% multiracial. Half of Coaches had a Bachelor's degree, and half had a Master's degree and one is bilingual.

Trainer

Trainers can train individuals at their site to become SafeCare Providers and SafeCare Coaches. To become a SafeCare Trainer, individuals must complete certification in SafeCare home visiting and coaching and have substantial experience in using the SafeCare model. Additionally, they must attend a 3-day Trainer Workshop and complete required curriculum. Following the workshop an individual receives support from the NSTRC Trainer to become certified as a SafeCare Agency Trainer. To reach certification, individuals must demonstrate proficiency in delivering a SafeCare Provider Workshop. Additionally, they must demonstrate proficiency in supporting a Coach. After certification, SafeCare Trainers receive 6 months of support and are required to complete recertification every year. There are 3 Trainers certified by the NSTRC for the state of Arkansas.

Implementation Fidelity

The NSTRC uses various assessments to monitor fidelity post-implementation. CEBC states, “There are three fidelity assessment forms that are used for each SafeCare module to assess the provider’s delivery of the program to a family. Each assesses approximately 30 behaviors that should be performed during the SafeCare session (e.g., the provider opens the session, observes parent behavior during practice, and provides positive and corrective feedback). Each item is rated as ‘implemented,’ ‘not implemented,’ or ‘not applicable’ to that session. Coaching sessions are also rated for fidelity using a coach fidelity assessment form.” [6]

In 2016, NSTRC rolled out an accreditation process to ensure that agencies uphold SafeCare model standards.[11] SafeCare Arkansas has received national NSTRC accreditation in every year of its implementation with the most recent accreditation documented in March 2023.

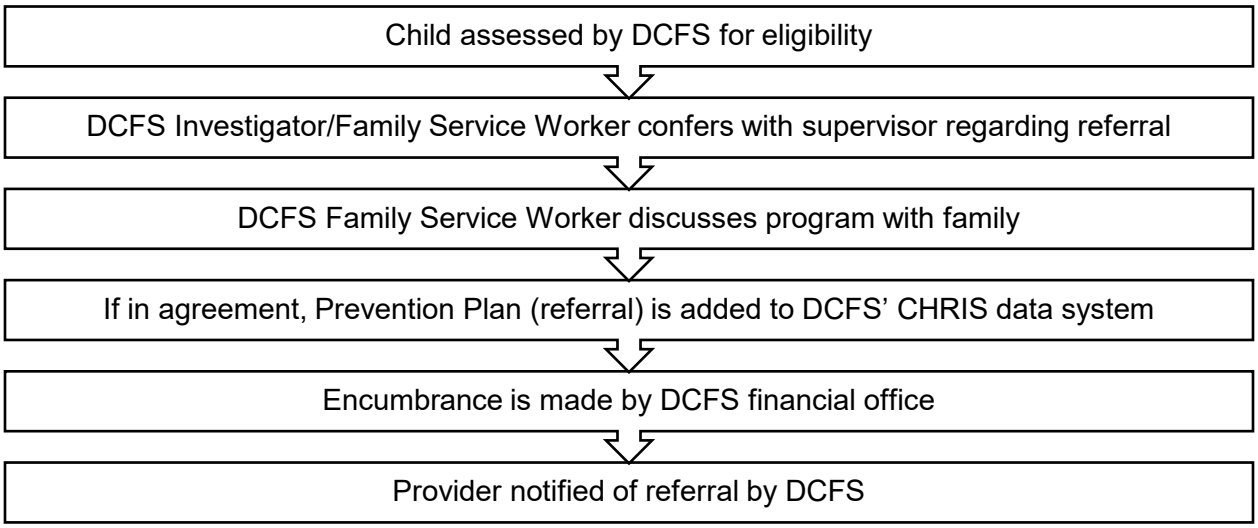
Setting

SafeCare is provided in all Arkansas counties through a central hub at Arkansas Children’s Hospital. Eligible families are those with children ages birth to 5 years. Prior to the passage of FFPSA, referral criteria for SafeCare included a Garrett’s Law investigation or a protective services case for neglect. However, starting October 1, 2019, FFPSA eligibility became a requirement for referral. Arkansas SafeCare implements the national model congruent with the SafeCare manual.[2]

In this single-site study cohort, the average duration of treatment for families who successfully completed the program was close to 6 months (170 days: interquartile range 134 to 197 days).

In Arkansas, the SafeCare model is implemented in families’ homes with in-person and virtual visits. Referrals to SafeCare are provided from DCFS staff (see Figure 1). After the referral by DCFS, a SafeCare representative acknowledges receipt of the referral and notifies DCFS if/when a provider has been assigned.

Figure 1. DCFS Referral Process



Comparison Conditions

The comparison condition is treatment as usual. Families eligible to be included in the comparison group were those identified in CHRIS and these families may have received typical services available for the population in the study. According to the state of Arkansas' Title IV-E Prevention Program Plan for 2020-2024,[12] existing services include in-home parenting support, also called Intensive In-Home Services (IIHS). Programs include Intercept, Family Centered Treatment, and Triple P Parenting.[13]

DCFS also funds Intensive Family Services (IFS) Program – which exists in 20 counties (31% of the state) that do not have IIHS.[13] These programs are like IIHS programs in that they offer an array of services including time-limited intensive counseling, skill building, support services, and referrals to resources that target the needs of the family. Like IIHS, the primary intent of IFS is to prevent out-of-home placements of children; however, it is also used to support a reunification of children with their families. Services are available for 4 to 6 weeks and are provided in family homes or in alternative natural environment settings. DCFS procures contract providers throughout the state to offer IFS to referred families.

Medicaid funding is also used to cover substance abuse and mental health services. Mental health services include Parent-Child Interaction Therapy, Child-Parent Psychotherapy, and Functional Family Therapy, for example. Many DCFS clients are covered with Medicaid. DCFS does have small contracts for counseling services for those children and caregivers who do not have coverage. These contracts are for counseling agencies and/or private licensed providers.

Study Participants

DCFS Investigators and Family Services Workers use two primary assessments for service planning with children and families involved in the Arkansas child welfare system: the Child and Adolescent Needs and Strengths (CANS)[14] is used to assess the strengths and service needs

of children and youth removed from the home, and the Family Advocacy and Support Tool (FAST)[3] is used to assess the strengths and service needs of intact families, including both children and parents. The tools, regardless of type, are to be completed within 30 days of the case opening. Needs identified by the FAST are to be used to inform the eligibility assessment and subsequent prevention plan.

According to the Arkansas Title IV-E Prevention Program Five-Year Plan, it is mandatory that all children from birth to 17 years of age be screened for Family First candidacy.[12] The screening is completed at the end of an investigation when the result is to open a case, reopen a closed case, or connect a new report to an already open case. Qualifying children and their caregivers are eligible to participate in prevention services for 12 months, with an option to renew or extend services if children or families need additional time to meet prevention goals.

Eligible families are those with children ages birth to 5 years. Caregivers and children who enrolled in SafeCare service between October 1, 2019 and August 1, 2022 were eligible for inclusion (N=2,380 families). Caregivers and children who did not meet each of the following criteria were excluded (see Figure 2): (1) Client and/or case is not identifiable in CHRIS records (2) CHRIS records are incomplete.

Additional exclusions from the SafeCare sample were made to ensure that the treatment group represents standard SafeCare program experience. Discharge reasons that would clearly impact child maltreatment recidivism included parent death during services (N=1) and those who ended services with parent imprisonment (N=16). Additional exclusions were made based on the quality of services provided, including a lack of fidelity in services which prompted the closure of the organization (N=1) and where child age was older than the ages targeted by the intervention (N=1).

Figure 2: Flow Diagram Depicting the Development of the Analyzable SafeCare Population

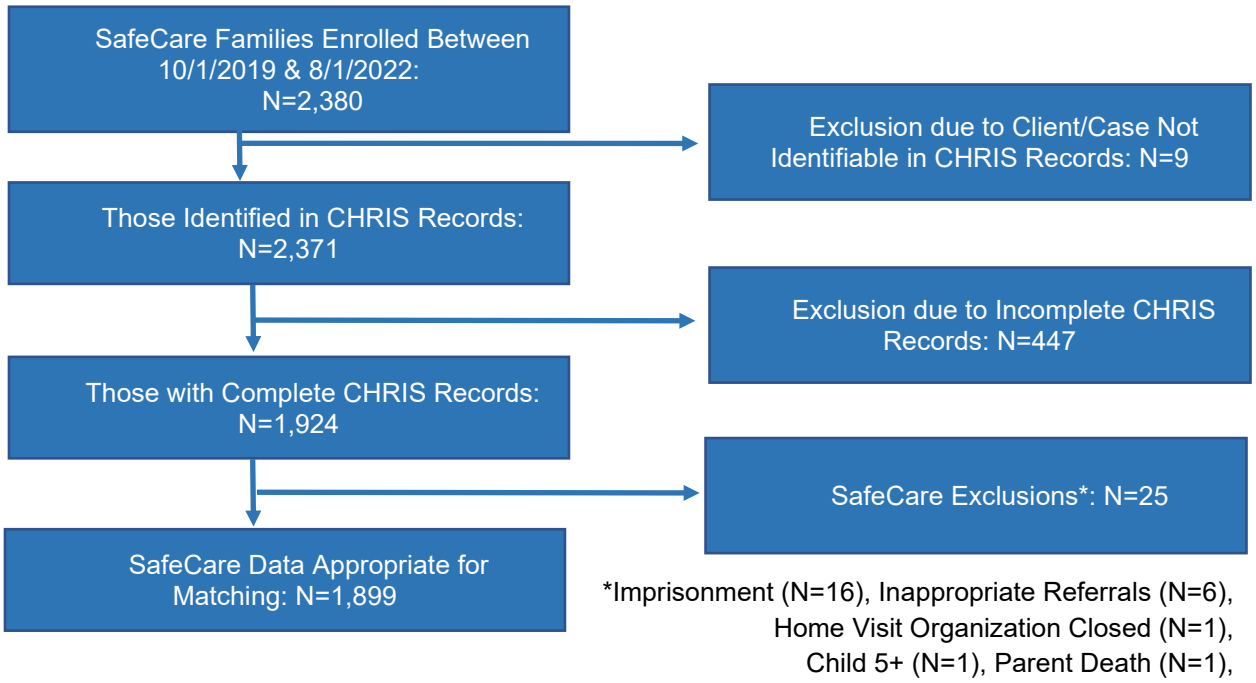


Table 1 provides the discharge reasons for 1,899 families eligible for the analyses. Over half (59.6%) of families in SafeCare successfully completed the program, and the resulting sample was sufficiently large to examine 6-, 12-, and 18-month outcomes for those who successfully completed the intervention in addition to the intention-to-treat comparisons.

Table 1. Discharge Reasons for SafeCare Participants

SafeCare Discharge Reason	Frequency	Percent
Successful Completion	1131	59.6%
Moved and/or Lost Contact	336	17.7%
DCFS Service Disruption	218	11.5%
Family Requested Service End or Refused Services	158	8.3%
Inpatient or Other Intensive Services	46	2.4%
Other	10	0.5%
Total	1899	100%

Study Design and Analysis

Design

UAMS conducted a rigorous quantitative evaluation of SafeCare in Arkansas using a quasi-experimental design. To measure program impact, we need to know what would have happened in the absence of program participation. To identify a comparison group whose experiences can be analyzed against those of the treated children, a propensity score match (PSM) analysis was used. PSM establishes a comparison group of similar background as the treatment group to reduce bias when a randomization of groups is infeasible or unethical. This study was not pre-registered.

The general method for determining the success of SafeCare on outcomes of interest was a prospective cohort analysis. An intention-to-treat design was used to test differences in outcomes at an individual level. When sample sizes were sufficient, an additional analysis was conducted using subsample participants who successfully completed the intervention. To establish baseline equivalence of treatment and comparison groups, propensity score matches were performed.

Records of SafeCare enrollment (e.g., program start and end dates) and information about completion, including whether the family met program goals, were drawn at child/family-level from the state SafeCare dataset. For each case, prospective data from enrollment into the intervention were analyzed to determine whether the outcome occurred within specified time frames as described in the research questions above. Data collection and processing procedure did not differ between the treatment and comparison groups.

Since the comparison group does not have an enrollment date, the time frame for observing outcomes for the comparison group was computed based on the date of the FFPSA eligibility assessment. To simulate a “program completion time” among the comparison group, a wait time of 6 months after the FFPSA eligibility was added to approximate the length of time that it would

have taken to complete SafeCare. This period has been used in other evaluations of the SafeCare program.[4]

Research Questions

The research questions were developed to assess impacts of SafeCare related to child safety, permanency, and well-being:

Child Safety Outcomes

1. Will families served by SafeCare have reduced entry into foster care at 6, 12, 18, and 24 months following completion of the intervention as compared to a propensity-matched comparison sample?
2. Will families served by SafeCare have reduced entry into foster care during the treatment period for SafeCare and propensity matched non-SafeCare families? This analysis will exclude families who started services as reunifications.
3. Will families served by SafeCare have reduced true findings after program closure at 6, 12, 18, and 24 months following completion of the intervention as compared to a propensity-matched comparison sample?

Permanency Outcomes

4. Will families served by SafeCare as a reunification case have increased permanency at 6, 12, 18, and 24 months following completion of the intervention as compared to a propensity-matched comparison sample?

Well-Being Outcomes

5. Will families served by SafeCare have increased family functioning from entry to exit from protective services as compared to a propensity-matched comparison sample?
6. Will families served by SafeCare as a reunification case have increased well-being from entry to exit from foster care compared to a propensity-matched comparison sample of children who were reunified with their families?

Propensity Score Match

In this single arm study, the SafeCare enrollees were matched with children who were potential candidates for SafeCare but did not subsequently enroll based on 1:1 propensity matching as follows:

First, a logistic regression model was fitted to estimate the probability of a child being assigned to the intervention using the child's demographics, caregiver's demographics, geographic and socioeconomic indicators, FFPSA eligibility assessment date, caregiver substance use, prior involvement with DCFS, and other risk indicators. These variables were selected based on a review of the literature and use in existing evaluations of SafeCare[15] and availability in the CHRIS system. Specifically, the match variables included the child's age, gender, and race/ethnicity, the caregiver's age, gender, substance use, the number of children and adults in the household, RUCA, the ZIP-code-level median household income, prior involvement with child welfare (investigations, open cases, and foster care placements), allegation type, and other risk indicators (see Table 2). Median household income quartiles were

derived from assigning the family address a median household income based on the ZIP-code. All match variables were based on status at the time of the FFPSA eligibility assessment.

Table 2. Propensity Matching Variables

Family Characteristics	Risk indicator
Child age	Child living with relative caregiver
Child gender	Domestic violence risk
Race/Ethnicity	High or intensive risk assessment
Caregiver age	Team Decision Making (TDM) and/or protection plan
Caregiver gender	Supportive Services (SS) case
Caregiver substance use	Abuse allegation
Number of children in household	Neglect allegation
Median household income based on ZIP-code	Prior foster care placements
RUCA based on ZIP-code	Prior DCFS involvement*
FFPSA assessment date	
NOTE: *Prior DCFS involvement is define as caregiver assessments, case involvement, and/or Arkansas State Police Crimes Against Children Division investigation with a true finding and an in-home or unknown offender within 3 years of FFPSA assessment date.	

Second, an optimal matching algorithm was used to 1:1 match SafeCare children (treatment) and non-intervention children (comparisons) based on model-derived propensity score. For a pair to be matched, child gender and race/ethnicity had to be identical.

Baseline Equivalence

Baseline equivalence of matched groups was assessed using Hedge's *G* for continuous values and the Cox transformation[16] for binary variables as recommended in the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures Handbook[17] used by the What Works Clearinghouse (WWC). According to the Handbook, baseline effect sizes (ES) less than 0.05 in demographic characteristics, socioeconomic characteristics, and pre-measurement in case or pre-post analyses are considered equivalent, and no further statistical adjustments are required to examine program impacts. Baseline ES between 0.05 and 0.25 indicate that statistical adjustments in the final models may be required. Evidence of large differences (ES > 0.25) imply that the individuals in the intervention and comparison conditions were drawn from very different settings and are not sufficiently comparable for the review.

Sample Sizes and Attrition

Of the 1899 families in SafeCare who are appropriate for matching, 1870 are in-home diversion and 29 are reunification cases (in foster care throughout program or reunified during program). We were unable to assess Research Questions 4 and 6, which focus on families who entered services as reunification cases, due to a low number of families within this group (N=29). Analytic sample sizes by condition (treatment/comparison) for each in-home-diversion outcome at each measurement point (pre-PSM, post-PSM) are summarized in Table 3 below.

Table 3. Sample Sizes

Outcomes	Pre-PSM		Post-PSM	
	Treatment	Comparison	Treatment	Comparison
Foster care placement during treatment	1,870	9,801	1,870	1,870
Subsample that successfully completed the intervention	1,123	9,801	1,123	1,123
Foster care, true finding at 6 months following completion of the treatment	1,539	8,412	1,539	1,539
Subsample that successfully completed the intervention	897	8,412	897	897
Foster care, true finding at 12 months following completion of the treatment	1,142	6,954	1,142	1,142
Subsample that successfully completed the intervention	642	6,954	642	642
Foster care, true finding at 18 months following completion of the treatment	729	5,420	729	729
Subsample that successfully completed the intervention	406	5,420	406	406

Measures

The official record of child welfare information for DCFS is maintained through CHRIS. Data extracted from CHRIS was used to measure all outcomes. CHRIS extracts are generated monthly. CHRIS data includes family and child characteristics, and other risk indicators. CHRIS data also includes case outcomes and their relevant dates. The specific dates used in this evaluation include the date of a true finding and dates of reunification and/or subsequent removal. Observation windows for treatment group were defined as follows:

- 6-months-follow-up window: From the date of discharge to the date of 6 months post discharge.
- 12-months-follow-up window: From the date of 6 months post discharge to the date of 12 months post discharge.
- 18-months-follow-up window: From the date of 12 months post discharge to the date of 18 months post discharge.

For control cases, the date of discharge is replaced with six months, which is an average time of the length of treatment for those who successfully complete SafeCare, after the FFPSA eligibility assessment date.

Child Safety Outcomes

Child safety outcomes were measured using CHRIS records of foster care entry and true findings. To answer Research Questions 1 and 2, we examined foster care placements (a)

during treatment and a comparable observation window for the comparison group, and (b) during each 6-month follow-up window. CHRIS records indicated when a child is removed from home and placed into foster care. Placements that lasted fewer than 7 days were excluded to account for 72-hour holds which may have occurred during holidays to account for state policy on this category of removal.[18] Foster care entry that occurred in one observation window and continued into subsequent observation windows was counted in the subsequent observation windows as well. For example, if a child entered into foster care within 6 months of program completion and stayed under the care in the 12-months-follow-up window, this child was counted as a child under foster care in the 12-months-follow-up window.

For Research Question 2, a binary variable was created that indicates an entrance into foster care during the treatment window. For Research Question 1, a binary variable was created that indicates an entrance into foster care or a continued foster care placement during the observation window. Families who entered the FFPSA system as a reunification were excluded from analysis of this outcome. If a child was adopted out of foster care, then he or she was not included in subsequent follow-up windows.

Research Question 3 addresses true findings from allegations that occur post-intervention. A binary outcome was created to indicate whether an investigation yielding a true finding had occurred during the 6-, 12-, or 18-month follow-up window.

Permanency Outcomes

Permanency outcomes were planned in cases that began as reunification. A binary outcome was created to represent foster care placement of a child during a follow-up window. We were unable to assess this outcome due to insufficient samples (N=29).

Well-Being Outcomes

FAST assessments were used to answer Research Questions 5. FAST assessments are designed for use with the entire family. DCFS uses the FAST tool within 30 days of protective services case initiation and completes the tool every 3 months.[18] The Arkansas FAST includes 50 indicators of family functioning broken into 4 domains:

1. *Family Together* includes 10 items that address collaboration and supportive relationships among family members, communication and role appropriateness, family conflict and safety, financial resources, housing condition, and residential stability.
2. *Caregiver's Status* includes 20 items that assess parenting and biopsychosocial resources.
3. *Caregiver Advocacy Status* includes 8 items that measure mastery to advocate for needed supports.
4. *Youth Status* includes 12 items that include multiple indicators of the child's status, including relationships with caregiver and others, health status, mental health status and adjustment to trauma, cognitive skills and educational status, and self-regulation and interpersonal skills.

FAST items identified as a 0 are often strengths that can be used in strength-based planning. Items rated a 1 should be monitored, and preventive efforts might be indicated. Items rated a 2 or 3 are actionable and should be addressed in the intervention plan. Average scores were computed for each domain (each average score has minimum 0 and maximum 3). When multiple parents were assessed in the same household, an average of their scores was computed. For an individual to be included in the FAST analysis cohort, they must have at least three appropriately timed FAST assessments. The first FAST assessment used occurred closest to the date the case opened. The second FAST assessment occurred between 2 and 5 months after the case opened and the third FAST assessment occurred between 5 and 8 months after the case opened. In the final analyses (described in the Statistical Techniques and Quasi-Experimental Methods section), the first FAST was used as the pre-test and the third FAST was used as the post-test.

CANS assessments were to be used to answer Research Question 6; however, we were unable to assess this outcome due to the small sample of cases that began as reunification (N=29).

Family Characteristics

Family characteristics were obtained from CHRIS administrative data and included in the analyses. Detail is provided in the Technical Appendix.

Analyses included demographic information including child and caregiver age, which were computed based on the individual's date of birth and the date of eligibility assessment for services, gender, and race/ethnicity. Caregiver substance use and the number of children in the household were retrieved from administrative data.

Two indicators, median household income and rurality/urbanicity, were created based on the family 5-digit ZIP-code. Median household income quartiles were derived from assigning the family address at the time of referral to a 5-digit ZIP-code level median household income obtained from the 2019 American Community Survey 5-Year Estimates.[19] The rural-urban commuting area code (RUCA) associated with family ZIP code was also used to create two categories to describe the area of the family residency: urban, and rural.[20]

Prior involvement with child welfare including investigations or open cases, and foster care placements were computed and included as two separate binary variables. If there were any investigations performed by either the Arkansas State Police Crimes Against Children Division (CACD) or DCFS or open cases in the 3 years prior to the FFPSA assessment, this was represented as a 1, and if there were not any investigations or open cases, this was represented as a 0. Any history of foster care placements was represented as 1 and the absence of foster care placements as 0. Abuse and neglect allegations are included as two separate binary variables.

Baseline Equivalence

Tables A-1 through A-9 and B-1 through B-2 in Appendix present the baseline characteristics of families served by SafeCare and the potential comparison sample before PSM is performed. There are significant differences across multiple demographics, DCFS

involvement, and other risk indicators. To achieve baseline equivalence of treatment and comparison samples, propensity score matches were performed in the following manner. For all comparisons, variables are balanced post-matching across treatment and comparison groups (effect size <0.25 and variance ratio within the recommended range of 0.5 to 2.0). The characteristics of treatment and comparison groups post-PSM as well as effect size and variance ratio.

Those variables with the balance in the adjustment range (effect size between 0.05-0.25) are included as covariates in the final regression model for the analyses of child safety outcomes. Analyses of well-being outcomes utilized difference-in-difference method, thus time-invariant covariates were not included.[21] Baseline equivalence of initial well-being scores are described in Table B-3.

Samples in this study included families who were enrolled and served in SafeCare regardless of the duration, intensity, and discharge reasons of services (i.e., intention-to-treat comparison). Additional analyses were conducted with a subsample of participants who successfully completed the intervention (i.e., successfully completed intervention comparison). There was a sufficient SafeCare participant in the observation window to examine the 6-, 12-, and 18-month follow-up.

Data Analysis and Findings

To test the association of SafeCare enrollment and binary outcomes addressed in Research Questions 1 through 3, logistic regression models were fitted using the SAS proc logistic procedure. A binomial distribution with a logit-link function was used and odds ratios were calculated. Odds ratios were subsequently converted to effect sizes using the Cox transformation.[16] All statistical analyses were performed using the SAS 9.4.

A difference-in-differences approach was used to test the association of SafeCare enrollment and the improvement in FAST scores addressed in Research Question 5. In addition, if baseline effect sizes of the initial well-being score was less than 0.05, the outcome was also assessed using generalized linear models fitted by the SAS proc glm procedure.

Child Safety Outcomes

Research Question 1: Will families served by SafeCare have reduced entry into foster at 6, 12, or 18 months following completion of the intervention as compared to a propensity-matched comparison sample?

In the intention-to-treat comparison, there were no statistically significant differences in the prevalence of foster care entry within 6, 12, or 18 months of program discharge between the treatment and comparison group.

In the subgroup analysis of those families who successful completed the program, the children whose caregivers successfully completed SafeCare had significantly lower odds (adjusted Odds Ratio [aOR]=0.21; 95% Confidence Interval [CI=[0.11, 0.35], p<0.001) of being placed in foster care in the first 6 months after the end of the intervention compared to children in the matched comparison group. The effect size was large (ES=-0.96; 95% CI=[-1.30, -0.61]). Similarly, the odds of being placed in foster care between 6 and 12 months after the successful

completion of SafeCare were significantly lower (aOR=0.41; 95% CI=[0.23, 0.70], p=0.001) compared to children in the matched comparison, and the effect size was medium (ES=-0.54; 95% CI=[-0.87, -0.21]). There was also a significant difference in the 12 to 18 months following the end of the successful intervention (aOR=0.46; 95% CI=[0.23, 0.89], p=0.025) and the effect size was small (ES=-0.47; 95% CI=[-0.88, -0.06]). Details are provided in Table 4.

Table 4. Treatment and Comparison Group Child Foster Care Outcomes Differences

Follow-Up Time	N	Treatment n (%)	Comparison n (%)	Estimated Effect		
				Effect Size	Odds Ratio (95% CI)	P-value
Intention-to-Treat Comparisons						
During treatment[a]	3740	94 (5.0%)	104 (5.5%)	-0.07 (-0.24, 0.11)	0.89 (0.67, 1.19)	0.438
6 month follow-up[b]	3078	114 (7.4%)	118 (7.7%)	-0.02 (-0.18, 0.14)	0.97 (0.74, 1.26)	0.795
12 month follow-up	2284	104 (9.1%)	110 (9.6%)	0.04 (-0.21, 0.13)	0.94 (0.71, 1.25)	0.667
18 month follow-up[c]	1458	72 (9.9%)	65 (8.9%)	0.05 (-0.16, 0.27)	1.09 (0.76, 1.56)	0.635
Successfully Completed Intervention Comparisons						
During treatment[d]	2246	4 (0.4%)	54 (4.8%)	-1.61 (-2.23, -0.99)	0.07 (0.02, 0.17)	<0.001
6 month follow-up[e]	1794	15 (1.7%)	68 (7.6%)	-0.96 (-1.3, -0.61)	0.21 (0.11, 0.35)	<0.001
12 month follow-up[f]	1284	20 (3.1%)	45 (7.0%)	-0.54 (-0.87, -0.21)	0.41 (0.23, 0.7)	0.001
18 month follow-up[g]	812	14 (3.4%)	27 (6.7%)	-0.47 (-0.88, -0.06)	0.46 (0.23, 0.89)	0.025

[a]Model was adjusted by TDM and/or protection plan. TDM and/or protection plan (yes/no) had a statistically significant effect with an odds ratio of 1.40 (95%CI: 1.03-1.90), p-value = 0.031. [b]Model was adjusted by abuse allegation. Abuse allegation (yes/no) did not have a statistically significant effect. [c]Model was adjusted by high or intensive risk assessment (yes/no) and TDM and/or protection plan. High or intensive risk assessment had a statistically significant effect with an odds ratio of 2.56 (95%CI: 1.74-3.73), p-value <0.001. TDM and/or protection plan had a statistically significant effect with an odds ratio of 1.61 (95%CI: 1.11-2.34), p-value = 0.012. [d]Model was adjusted by neglect allegation (yes/no), child living with relative caregiver (yes/no), and TDM and/or protection plan, all of which did not have a statistically significant effect. [e]Model was adjusted by abuse allegation. Abuse allegation did not have a statistically significant effect. [f]Model was adjusted by RUCA, high or intensive risk assessment, and prior DCFS involvement. RUCA (rural/urban) did not have a statistically significant effect. High or intensive risk assessment had a statistically significant effect with an odds ratio of 2.01 (95%CI: 1.10-3.51), p-value = 0.018. Prior DCFS involvement (yes/no) had a statistically significant effect with an odds ratio of 2.03 (95%CI: 1.19-3.42), p-value = 0.009. [g]Model was adjusted by high or intensive risk assessment, caregiver substance use, domestic violence risk, TDM and/or protection plan, and male caregiver present. High or intensive risk assessment had a statistically significant effect with an odds ratio of 4.03 (95%CI: 1.96-8.07), p-value <0.001. Caregiver substance use (yes/no), domestic violence risk (yes/no), TDM and/or protection plan, and male caregiver present (yes/no) were not statistically significant.

Research Question 2: Will families served by SafeCare have reduced entry into foster care during the treatment period for SafeCare and propensity matched non-SafeCare families?

In the intention-to-treat comparison, there was no statistically significant difference between SafeCare and comparison groups in the prevalence of foster care placements during the program duration. Detailed results are provided in Table 4.

In the analysis of those with successful completions, a significant difference was observed between groups (aOR=0.07; 95% CI=[0.02, 0.17], p<0.001) and the effect size was large (ES=-1.61; 95% CI=[-2.23, -0.99]). This observed difference indicated that children whose caregivers successfully completed SafeCare had significantly lower odds of being in foster care during the treatment period than children in the matched comparison group. Detailed results are provided in Table 4.

Research Question 3: Will families served by FCT have reduced true findings after program closure at 6, 12 and 18 months following completion of the intervention as compared to a propensity-matched comparison sample?

Table 5. Treatment and Comparison Group True Finding Outcomes Differences

Follow-Up Time	N	Treatment n (%)	Comparison n (%)	Estimated Effect		
				Effect Size	Odds Ratio (95% CI)	P-value
Intention-to-Treat Comparisons						
6 month follow-up[a]	3078	80 (5.2%)	86 (5.6%)	-0.05 (-0.24, 0.14)	0.93 (0.68, 1.27)	0.627
12 month follow-up	2284	53 (4.6%)	29 (2.5%)	0.38 (0.1, 0.66)	1.87 (1.19, 2.99)	0.008
18 month follow-up[b]	1458	32 (4.4%)	27 (3.7%)	0.11 (-0.21, 0.43)	1.19 (0.71, 2.03)	0.507
Successfully Completed Intervention Comparisons						
6 month follow-up[c]	1794	37 (4.1%)	38 (4.2%)	-0.02 (-0.3, 0.26)	0.97 (0.6, 1.55)	0.906
12 month follow-up[d]	1284	26 (4.0%)	17 (2.6%)	0.26 (-0.12, 0.64)	1.53 (0.83, 2.91)	0.181
18 month follow-up[e]	812	19 (4.7%)	18 (4.4%)	0.03 (-0.38, 0.43)	1.05 (0.54, 2.04)	0.896

[a]Model was adjusted by abuse allegation. Abuse allegation did not have a statistically significant effect. [b]Model was adjusted by high or intensive risk assessment and TDM and/or protection plan. Neither had a statistically significant effect. [c]Model was adjusted by abuse allegation. Abuse allegation did not have a statistically significant effect. [d]Model was adjusted by RUCA, high or intensive risk assessment, and prior DCFS involvement. Prior DCFS involvement had a statistically significant effect with an odds ratio of 2.26 (95%CI: 1.19-4.24), p-value = 0.012. RUCA and high or intensive risk assessment did not have a statistically significant effect. [e]Model was adjusted by high or intensive risk assessment, caregiver substance use, domestic violence risk, male caregiver present, and TDM and/or protection plan. None of these variables had a statistically significant effect.

In the intention-to-treat comparison, there were significantly more true findings during the 12-month follow-up period in families that participated in SafeCare compared to the matched comparison group (aOR=1.87; 95% CI=[1.19, 2.99], p=0.008) and the effect size was small (ES=0.38; 95% CI=[0.1, 0.66]). There were no statistically significant differences across groups in the subgroup analysis of families who successfully completed the program.

Well-Being Outcomes

Research Question 5: Will families served by SafeCare have increased family functioning from entry to exit from protective services as compared to a propensity-matched comparison sample?

For the intention-to-treat comparisons, there was a significant difference in change over time for the *Caregiver's Status* (Z=-0.085, p=0.010) and *Caregiver Advocacy Status* (Z=-0.193, p=0.002) with caregivers in the treatment group having more positive change over time than those in the comparison group. The estimated effect was negligible (Hedge's G of -0.098 and -0.128, respectively).

The difference in change over time for the successfully completed analysis was significant for *Youth Status* (Z=-0.137, p=0.032), *Caregiver's Status* (Z=-0.115, p=0.003), *Caregiver Advocacy Status* (Z=-0.243, p=0.001), and the *Family Together* (Z=-0.124, p=0.014). Estimated effect sizes were negligible for all comparisons.

It is not a standard practice to include covariates in the difference-in-difference approach. However, given that some PSM variables had an effect size great than 0.05 post-match, we include results of difference-in-difference analyses with these PSM variables as adjusting covariates in Table C-1.

Table 6. Treatment and Comparison Group Child Well-being Outcomes Differences

FAST Domain	Treatment Mean Diff (SE)	Comparison Mean Diff (SE)	Estimate (SE)	P-value	Effect Size[a]
Intention-to-Treat Comparisons (N=1632)					
Youth Status	-0.010 (0.003)	-0.010 (0.003)	-0.022 (0.057)	0.700	-0.000
Caregiver's Status	-0.053 (0.005)	-0.040 (0.005)	-0.085 (0.033)	0.010	-0.098
Caregiver's Advocacy Status	-0.026 (0.005)	-0.009 (0.004)	-0.193 (0.064)	0.002	-0.128
Family Together	-0.049 (0.007)	-0.042 (0.007)	-0.062 (0.044)	0.158	-0.031
Successfully completed SafeCare Comparisons (N=1350)					
Youth Status	-0.013 (0.003)	-0.006 (0.002)	-0.137 (0.064)	0.032	-0.107
Caregiver's Status	-0.060 (0.005)	-0.046 (0.005)	-0.115 (0.038)	0.003	-0.103
Caregiver's Advocacy Status	-0.027 (0.005)	-0.009 (0.004)	-0.243 (0.074)	0.001	-0.157

Family Together	-0.060 (0.007)	-0.047 (0.008)	-0.124 (0.051)	0.014	-0.066
[a]Effect size in the form of Hedge's G.					

Missing Data

Listwise deletion was performed when there was any data element missing.

Discussion

The results of this evaluation of the SafeCare intervention add to the current literature on the benefits of home visiting programs for child welfare participants. Our study investigated the effects of the Arkansas program on child safety outcomes during services and in the 6, 12, and 18 months post service completion. The study also examined change in responses to family well-being surveys conducted at the start and end of child welfare involvement.

Our results suggest that when families successfully complete SafeCare, there are positive impacts on out-of-home placements during services and in the 6, 12, and18 months after services have ended. Our longer-term findings are like those of other evaluations. An analysis of administrative data from the Colorado child welfare system documented positive impacts on out-of-home placements within 1 year of the cessation of services.[4]

When we examined substantiated maltreatment referrals post intervention, we did not find differences between groups for those who successfully completed SafeCare at any follow-up period. When we examined the true findings using the intention-to-treat approach, there were no differences between SafeCare enrolled families and the matched comparison group with 6 months and between 12 and 18 months of service completion. However, between 6 and 12 months following the end of treatment, SafeCare enrolled families had higher rates of true findings compared to the matched comparison group.

We conducted a post-hoc Kaplan-Meier survival analysis (see Appendix D) to investigate the rates of true findings for the intervention and matched comparison groups without the potential influence of events which can systemically alter the risks/detection likelihood for true findings (i.e., entry into foster care, moving out-of-state, or time period cut-offs). For both the intention-to-treat (see Figure D-1 in Appendix D) and successfully completed (see Figure D-2 in Appendix D) samples, there were no significant differences between the survival distribution of true findings between treatment and comparison. This finding suggests that the higher rates of true findings among SafeCare families compared to the comparison group between 6 and 12 months following the end or treatment in the intention-to-treat approach is likely attributable to the arbitrary observation windows and timing of censoring/true findings.

Our findings also demonstrated SafeCare enrollees having more positive change in child well-being captured by FAST rating. In the intention-to-treat approach, Caregiver's Status and Caregiver's Advocacy Status improved more among SafeCare enrollees compared to the comparison group. Families who successfully completed SafeCare had a significantly more improvement in FAST score comparing to the comparison group in every FAST domain. Findings from recent cluster randomized trials demonstrated increases in supporting positive

child behaviors, proactive parenting, and reducing parenting stress associated with participation in the SafeCare program.[22]

Overall, the findings demonstrate that, when successfully completed, SafeCare helps prevent out-of-home placement of children and improve family and children well-being.

Strengths and Limitations

There are substantial strengths of this study. The first is the availability of the CHRIS administrative data for this evaluation. These data provide a large, statewide source of potential matches and the opportunity to examine the same outcomes in the absence of a randomized trial. Second, optimal matching is an effective strategy to produce bias reduction when samples are small. Caliper matching can lead to a reduced sample size due to the possible exclusion of some treated subjects from the matched sample.[23] Thus, this matching algorithm was well-suited in this study.

The use of administrative data is a strength, but it is also a limitation. While there are mechanisms in place at the state level to ensure the correctness and completeness of data (e.g., area supervisors review candidacy with family service workers to ensure the appropriate candidacy reasons are included in the case files) the state has limited resources to conduct ongoing validation, correction, and update of individual data elements. As such, there was some sample loss due to incomplete or missing data in CHRIS.

While PSM has strengths for use in contexts such as this evaluation, unmeasured confounders may be present, which could potentially bias results. Limitations inherent in the use of a treatment-as-usual comparison condition also exist. While the interventions available through Arkansas' Prevention Plan are not funded at a level to serve every family, it is very possible that families selected for the comparison condition received other services, which may have included in-home parenting or mental health services, through their interaction with DCFS. Similarly, individuals in the treatment may have received additional supports through these other service mechanisms. As a result, it should be noted that the analyses presented are possibly a conservative estimate of SafeCare's impact.[24]

Conclusions

Early evidence from this evaluation suggests that SafeCare as implemented in Arkansas has promising impacts on child safety and well-being. Findings demonstrate that fewer children whose caregivers successfully completed SafeCare were in out-of-home placements up to 18 months after the end of treatment as compared to the matched comparison group. Caregivers who successfully completed SafeCare had a significantly more positive change over time in youth status, caregiver's status, caregiver's advocacy status, and family relations comparing to the comparison group.

Counterintuitively, there were significantly more true findings among SafeCare enrollees, who did not necessarily complete the entire curriculum, 6 to 12 months after discharge compared to the matched comparison group. Aside from this group, there were not significant differences identified for re-involvement with the child welfare system. Post hoc survival analyses demonstrated no differences between groups when examining time to event as a

continuous rather than discrete time event. Still, existing evaluations have suggested that even our longest post-intervention observation period may not be a sufficient timeframe to evaluate re-involvement.[4] For example, examination of the effects of SafeCare in Oklahoma documented reduced maltreatment recidivism over an average of 6 years.[25] Thus, it will be important to examine re-involvement outcomes over a longer period.

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Appendix A: Propensity Matching Outcomes

Table A-1. Treatment and Comparison Groups Background Characteristics, Pre-Propensity Score Matching

		Total	Treatment (N=1870)	Control (N=9801)	
Continuous variables		**Mean (SE)**	**Mean (SE)**	**Mean (SE)**	**P Value**
Child Age (years)		1.9 (0.02)	0.6 (0.03)	2.2 (0.02)	<0.001
Caregiver age (years)		30.4 (0.07)	28.1 (0.16)	30.9 (0.08)	<0.001
Number of children in household		2.8 (0.01)	2.1 (0.03)	2.9 (0.02)	<0.001
Median household income		$38,636 ($79)	$38,752 ($216)	$38,614 ($85)	0.520
Categorical variables	**Category**	**N (%)**	**N (%)**	**N (%)**	**P Value**
Child Race/Ethnicity	White	7,144 (61.2%)	1,078 (57.6%)	6,066 (61.9%)	<0.001
	Black	3,512 (30.1%)	686 (36.7%)	2,826 (28.8%)	<0.001
	Hispanic or Latino	794 (6.8%)	74 (4.0%)	720 (7.3%)	<0.001
	Other	221 (1.9%)	32 (1.7%)	189 (1.9%)	0.528
Binary variables		**N (%)**	**N (%)**	**N (%)**	**P Value**
Child gender: Female		5,658 (48.5%)	921 (49.3%)	4,737 (48.3%)	0.466
RUCA: Rural		4,883 (41.8%)	656 (35.1%)	4,227 (43.1%)	<0.001
Female caregiver present		11,174 (95.7%)	1,845 (98.7%)	9,329 (95.2%)	<0.001
Male caregiver present		6,260 (53.6%)	896 (47.9%)	5,364 (54.7%)	<0.001
Caregiver substance use		6,264 (53.7%)	1,522 (81.4%)	4,742 (48.4%)	<0.001
Child living with relative caregiver		1,935 (16.6%)	297 (15.9%)	1,638 (16.7%)	0.376
Domestic violence is a risk factor		1,373 (11.8%)	119 (6.4%)	1,254 (12.8%)	<0.001
High or intensive risk assessment		2,384 (20.4%)	333 (17.8%)	2,051 (20.9%)	0.002
TDM and/or protection plan		1,821 (15.6%)	500 (26.7%)	1,321 (13.5%)	<0.001
SS case opened to prevent removal		385 (3.3%)	9 (0.5%)	376 (3.8%)	<0.001
Abuse allegation		3,116 (26.7%)	178 (9.5%)	2,938 (30.0%)	<0.001
Neglect allegation		9,305 (79.7%)	1,742 (93.2%)	7,563 (77.2%)	<0.001
Prior foster care placements		658 (5.6%)	22 (1.2%)	636 (6.5%)	<0.001
Prior DCFS involvement		5,186 (44.4%)	558 (29.8%)	4,628 (47.2%)	<0.001

P-values were calculated with the T-test for continuous variable and the Chi-Square test for categorical variables. FFPSA eligibility assessment date was significantly different between groups (p<0.001). Abbreviations: DCFS= Division of Children and Family Services; RUCA = Rural-urban commuting area; SE = Standard Error; SS = Social Services; TDM = Team Decision Making

Table A-2. Treatment and Comparison Groups Background Characteristics, Post-Propensity Score Matching for 0-6 Months Post-Treatment Outcomes: Intention-to-Treat Analysis

		Treatment (N=1539)	Control (N=1539)			
Continuous variables		**Mean (SE)**	**Mean (SE)**	**P Value**	**Effect Size**	**Var Ratio**
Child Age (years)		0.5 (0.03)	0.6 (0.03)	0.185	-0.048	1.014
Caregiver age (years)		28.3 (0.18)	28.2 (0.17)	0.789	0.010	1.112
Number of children in household		2.1 (0.03)	2.1 (0.03)	0.685	0.015	1.216
Median household income		$38,790 ($237)	$38,539 ($208)	0.426	0.029	1.299
Categorical variables	**Category**	**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child Race/Ethnicity	White	898 (58.3%)	898 (58.3%)	1.000	-	-
	Black	558 (36.3%)	558 (36.3%)	1.000	0.000	1.000
	Hispanic or Latino	57 (3.7%)	57 (3.7%)	1.000	0.000	1.000
	Other	26 (1.7%)	26 (1.7%)	1.000	0.000	1.000
Binary variables		**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child gender: Female		749 (48.7%)	749 (48.7%)	1.000	0.000	1.000
RUCA: Rural		518 (33.7%)	538 (35.0%)	0.448	-0.035	0.982
Female caregiver present		1,518 (98.6%)	1,517 (98.6%)	0.878	0.029	0.955
Male caregiver present		733 (47.6%)	726 (47.2%)	0.801	0.011	1.001
Caregiver substance use		1,265 (82.2%)	1,271 (82.6%)	0.776	-0.016	1.018
Child living with relative caregiver		243 (15.8%)	243 (15.8%)	1.000	0.000	1.000
Domestic violence is a risk factor		99 (6.4%)	94 (6.1%)	0.710	0.034	1.050
High or intensive risk assessment		276 (17.9%)	273 (17.7%)	0.888	0.008	1.009
TDM and/or protection plan		424 (27.6%)	402 (26.1%)	0.371	0.044	1.034
SS case opened to prevent removal		8 (0.5%)	8 (0.5%)	1.000	0.000	1.000
Abuse allegation		145 (9.4%)	133 (8.6%)	0.450	0.058	1.081
Neglect allegation		1,436 (93.3%)	1,436 (93.3%)	1.000	0.000	1.000
Prior foster care placements		19 (1.2%)	19 (1.2%)	1.000	0.000	1.000
Prior DCFS involvement		453 (29.4%)	437 (28.4%)	0.525	0.031	1.022

P-values were calculated with the T-test for continuous variable and the Chi-Square test for categorical variables. FFPSA eligibility assessment date was also included in propensity score matching (Effect size of -0.016. Variance ratio of 0.810). Abbreviations: DCFS= Division of Children and Family Services; RUCA = Rural-urban commuting area; SE = Standard Error; SS = Social Services; Std Diff = Standardized Difference; TDM =Team Decision Making; Var Ratio = Variance Ratio

Table A-3. Treatment and Comparison Groups Background Characteristics, Post-Propensity Score Matching for Care 0-6 Months Post-Treatment Outcomes: Successful SafeCare Completion Analysis

		Treatment (N=897)	Control (N=897)			
Continuous variables		**Mean (SE)**	**Mean (SE)**	**P Value**	**Effect Size**	**Var Ratio**
Child Age (years)		0.5 (0.04)	0.6 (0.04)	0.685	-0.019	1.091
Caregiver age (years)		28.5 (0.23)	28.4 (0.23)	0.659	0.021	1.035
Number of children in household		2.1 (0.04)	2.1 (0.04)	0.668	-0.020	1.183
Median household income		$39,201 ($320)	$38,979 ($281)	0.603	0.025	1.298
Categorical variables	**Category**	**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child Race/Ethnicity	White	545 (60.8%)	545 (60.8%)	1.000	-	-
	Black	300 (33.4%)	300 (33.4%)	1.000	0.000	1.000
	Hispanic or Latino	32 (3.6%)	32 (3.6%)	1.000	0.000	1.000
	Other	20 (2.2%)	20 (2.2%)	1.000	0.000	1.000
Binary variables		**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child gender: Female		433 (48.3%)	433 (48.3%)	1.000	0.000	1.000
RUCA: Rural		302 (33.7%)	286 (31.9%)	0.421	0.049	1.028
Female caregiver present		885 (98.7%)	885 (98.7%)	1.000	0.000	1.000
Male caregiver present		442 (49.3%)	439 (48.9%)	0.887	0.008	1.000
Child living with relative caregiver		734 (81.8%)	734 (81.8%)	1.000	0.000	1.000
Caregiver substance use		136 (15.2%)	139 (15.5%)	0.844	-0.016	0.982
Domestic violence is a risk factor		54 (6.0%)	54 (6.0%)	1.000	0.000	1.000
High or intensive risk assessment		138 (15.4%)	134 (14.9%)	0.792	0.021	1.024
TDM and/or protection plan		240 (26.8%)	232 (25.9%)	0.668	0.028	1.022
SS case opened to prevent removal		2 (0.2%)	2 (0.2%)	1.000	0.000	1.000
Abuse allegation		81 (9.0%)	88 (9.8%)	0.572	-0.055	0.928
Neglect allegation		836 (93.2%)	832 (92.8%)	0.712	0.041	0.943
Prior foster care placements		11 (1.2%)	11 (1.2%)	1.000	0.000	1.000
Prior DCFS involvement		224 (25.0%)	223 (24.9%)	0.956	0.004	1.003

P-values were calculated with the T-test for continuous variable and the Chi-Square test for categorical variables. FFPSA eligibility assessment date was also included in propensity score matching (Effect size of -0.044. Variance ratio of 0.809). Abbreviations: DCFS= Division of Children and Family Services; RUCA = Rural-urban commuting area; SE = Standard Error; SS = Social Services; Std Diff = Standardized Difference; TDM = Team Decision Making; Var Ratio = Variance Ratio

Table A-4. Treatment and Comparison Groups Background Characteristics, Post-Propensity Score Matching for 6-12 Months Post-Treatment Outcomes: Intention-to-Treat Analysis

		Treatment (N=1142)	Control (N=1142)			
Continuous variables		**Mean (SE)**	**Mean (SE)**	**P Value**	**Effect Size**	**Var Ratio**
Child Age (years)		0.5 (0.04)	0.6 (0.03)	0.690	-0.017	1.104
Caregiver age (years)		28.6 (0.21)	28.7 (0.20)	0.628	-0.020	1.127
Number of children in household		2.2 (0.04)	2.2 (0.03)	0.826	-0.009	1.236
Median household income		$38,726 ($274)	$38,888 ($253)	0.664	-0.018	1.179
Categorical variables	**Category**	**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child Race/Ethnicity	White	679 (59.5%)	679 (59.5%)	1.000	-	-
	Black	401 (35.1%)	401 (35.1%)	1.000	0.000	1.000
	Hispanic or Latino	42 (3.7%)	42 (3.7%)	1.000	0.000	1.000
	Other	20 (1.8%)	20 (1.8%)	1.000	0.000	1.000
Binary variables		**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child gender: Female		565 (49.5%)	565 (49.5%)	1.000	0.000	1.000
RUCA: Rural		369 (32.3%)	371 (32.5%)	0.929	-0.005	0.997
Female caregiver present		1,126 (98.6%)	1,126 (98.6%)	1.000	0.000	1.000
Male caregiver present		558 (48.9%)	545 (47.7%)	0.586	0.028	1.002
Caregiver substance use		943 (82.6%)	931 (81.5%)	0.513	0.043	0.955
Child living with relative caregiver		182 (15.9%)	193 (16.9%)	0.534	-0.043	0.954
Domestic violence is a risk factor		72 (6.3%)	67 (5.9%)	0.662	0.046	1.070
High or intensive risk assessment		220 (19.3%)	217 (19.0%)	0.873	0.010	1.011
TDM and/or protection plan		308 (27.0%)	294 (25.7%)	0.506	0.038	1.030
SS case opened to prevent removal		6 (0.5%)	6 (0.5%)	1.000	0.000	1.000
Abuse allegation		110 (9.6%)	117 (10.2%)	0.624	-0.042	0.947
Neglect allegation		1,063 (93.1%)	1,068 (93.5%)	0.676	-0.042	1.063
Prior foster care placements		12 (1.1%)	12 (1.1%)	1.000	0.000	1.000
Prior DCFS involvement		352 (30.8%)	361 (31.6%)	0.684	-0.022	0.986

P-values were calculated with the T-test for continuous variable and the Chi-Square test for categorical variables. FFPSA eligibility assessment date was also included in propensity score matching (Effect size of -0.013. Variance ratio of 0.846). Abbreviations: DCFS= Division of Children and Family Services; RUCA = Rural-urban commuting area; SE = Standard Error; SS = Social Services; Std Diff = Standardized Difference; TDM = Team Decision Making; Var Ratio = Variance Ratio

Table A-5. Treatment and Comparison Groups Background Characteristics, Post-Propensity Score Matching for 6-12 Months Post-Treatment Outcomes: Successful SafeCare Completion Analysis

		Treatment (N=642)	Control (N=642)			
Continuous variables		**Mean (SE)**	**Mean (SE)**	**P Value**	**Effect Size**	**Var Ratio**
Child Age (years)		0.5 (0.05)	0.6 (0.04)	0.373	-0.050	1.069
Caregiver age (years)		28.8 (0.28)	28.5 (0.27)	0.446	0.043	1.023
Number of children in household		2.1 (0.05)	2.2 (0.05)	0.757	-0.017	1.127
Median household income		$39,170 ($384)	$39,278 ($341)	0.834	-0.012	1.268
Categorical variables	**Category**	**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child Race/Ethnicity	White	402 (62.6%)	402 (62.6%)	1.000	-	-
	Black	204 (31.8%)	204 (31.8%)	1.000	0.000	1.000
	Hispanic or Latino	20 (3.1%)	20 (3.1%)	1.000	0.000	1.000
	Other	16 (2.5%)	16 (2.5%)	1.000	0.000	1.000
Binary variables		**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child gender: Female		318 (49.5%)	318 (49.5%)	1.000	0.000	1.000
RUCA: Rural		207 (32.2%)	188 (29.3%)	0.251	0.084	1.055
Female caregiver present		633 (98.6%)	633 (98.6%)	1.000	0.000	1.000
Male caregiver present		328 (51.1%)	331 (51.6%)	0.867	-0.011	1.000
Caregiver substance use		532 (82.9%)	535 (83.3%)	0.823	-0.020	1.022
Child living with relative caregiver		102 (15.9%)	109 (17.0%)	0.598	-0.048	0.948
Domestic violence is a risk factor		40 (6.2%)	40 (6.2%)	1.000	0.000	1.000
High or intensive risk assessment		109 (17.0%)	99 (15.4%)	0.449	0.070	1.081
TDM and/or protection plan		172 (26.8%)	169 (26.3%)	0.850	0.015	1.011
SS case opened to prevent removal		1 (0.2%)	0 (0.0%)	0.317	-	-
Abuse allegation		58 (9.0%)	60 (9.3%)	0.847	-0.023	0.970
Neglect allegation		596 (92.8%)	596 (92.8%)	1.000	0.000	1.000
Prior foster care placements		9 (1.4%)	9 (1.4%)	1.000	0.000	1.000
Prior DCFS involvement		168 (26.2%)	157 (24.5%)	0.480	0.055	1.046

P-values were calculated with the T-test for continuous variable and the Chi-Square test for categorical variables. FFPSA eligibility assessment date was also included in propensity score matching (Effect size of -0.041. Variance ratio of 0.889). Abbreviations: DCFS= Division of Children and Family Services; RUCA = Rural-urban commuting area; SE = Standard Error; SS = Social Services; Std Diff = Standardized Difference; TDM = Team Decision Making; Var Ratio = Variance Ratio

Table A-6. Treatment and Comparison Groups Background Characteristics, Post-Propensity Score Matching for 12-18 Months Post-Treatment Outcomes: Intention-to-Treat Analysis

		Treatment (N=729)	Control (N=729)			
Continuous variables		**Mean (SE)**	**Mean (SE)**	**P Value**	**Effect Size**	**Var Ratio**
Child Age (years)		0.5 (0.04)	0.6 (0.04)	0.550	-0.031	1.066
Caregiver age (years)		28.6 (0.26)	28.5 (0.26)	0.882	0.008	1.017
Number of children in household		2.2 (0.05)	2.1 (0.05)	0.524	0.033	1.192
Median household income		$38,789 ($358)	$38,779 ($309)	0.982	0.001	1.345
Categorical variables	**Category**	**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child Race/Ethnicity	White	424 (58.2%)	424 (58.2%)	1.000	-	-
	Black	261 (35.8%)	261 (35.8%)	1.000	0.000	1.000
	Hispanic or Latino	27 (3.7%)	27 (3.7%)	1.000	0.000	1.000
	Other	17 (2.3%)	17 (2.3%)	1.000	0.000	1.000
Binary variables		**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child gender: Female		358 (49.1%)	358 (49.1%)	1.000	0.000	1.000
RUCA: Rural		222 (30.5%)	211 (28.9%)	0.528	0.044	1.030
Female caregiver present		721 (98.9%)	721 (98.9%)	1.000	0.000	1.000
Male caregiver present		352 (48.3%)	359 (49.2%)	0.714	-0.023	0.999
Caregiver substance use		606 (83.1%)	598 (82.0%)	0.581	0.046	0.951
Child living with relative caregiver		120 (16.5%)	117 (16.0%)	0.831	0.018	1.021
Domestic violence is a risk factor		42 (5.8%)	41 (5.6%)	0.910	0.015	1.023
High or intensive risk assessment		151 (20.7%)	129 (17.7%)	0.144	0.118	1.128
TDM and/or protection plan		191 (26.2%)	204 (28.0%)	0.444	-0.055	0.959
SS case opened to prevent removal		3 (0.4%)	3 (0.4%)	1.000	0.000	1.000
Abuse allegation		77 (10.6%)	82 (11.2%)	0.674	-0.043	0.946
Neglect allegation		675 (92.6%)	675 (92.6%)	1.000	0.000	1.000
Prior foster care placements		7 (1.0%)	7 (1.0%)	1.000	0.000	1.000
Prior DCFS involvement		239 (32.8%)	237 (32.5%)	0.911	0.008	1.004

P-values were calculated with the T-test for continuous variable and the Chi-Square test for categorical variables. FFPSA eligibility assessment date was also included in propensity score matching (Effect size of 0.037. Variance ratio of 0.933). Abbreviations: DCFS= Division of Children and Family Services; RUCA = Rural-urban commuting area; SE = Standard Error; SS = Social Services; Std Diff = Standardized Difference; TDM = Team Decision Making; Var Ratio = Variance Ratio

Table A-7. Treatment and Comparison Groups Background Characteristics, Post-Propensity Score Matching for 12-18 Months Post-Treatment Outcomes: Successful SafeCare Completion Analysis

		Treatment (N=406)	Control (N=406)			
Continuous variables		**Mean (SE)**	**Mean (SE)**	**P Value**	**Effect Size**	**Var Ratio**
Child Age (years)		0.5 (0.06)	0.6 (0.06)	0.583	-0.039	1.029
Caregiver age (years)		28.8 (0.34)	28.7 (0.36)	0.818	0.016	0.908
Number of children in household		2.2 (0.07)	2.1 (0.06)	0.782	0.019	1.352
Median household income		$39,480 ($515)	$39,491 ($409)	0.986	-0.001	1.585
Categorical variables	**Category**	**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child Race/Ethnicity	White	247 (60.8%)	247 (60.8%)	1.000	-	-
	Black	130 (32.0%)	130 (32.0%)	1.000	0.000	1.000
	Hispanic or Latino	15 (3.7%)	15 (3.7%)	1.000	0.000	1.000
	Other	14 (3.4%)	14 (3.4%)	1.000	0.000	1.000
Binary variables		**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child gender: Female		197 (48.5%)	197 (48.5%)	1.000	0.000	1.000
RUCA: Rural		124 (30.5%)	124 (30.5%)	1.000	0.000	1.000
Female caregiver present		403 (99.3%)	403 (99.3%)	1.000	0.000	1.000
Male caregiver present		203 (50.0%)	218 (53.7%)	0.292	-0.090	1.005
Caregiver substance use		337 (83.0%)	345 (85.0%)	0.444	-0.089	1.105
Child living with relative caregiver		65 (16.0%)	65 (16.0%)	1.000	0.000	1.000
Domestic violence is a risk factor		26 (6.4%)	33 (8.1%)	0.344	-0.156	0.803
High or intensive risk assessment		74 (18.2%)	60 (14.8%)	0.186	0.152	1.183
TDM and/or protection plan		103 (25.4%)	110 (27.1%)	0.577	-0.054	0.959
SS case opened to prevent removal		1 (0.2%)	1 (0.2%)	1.000	0.000	1.000
Abuse allegation		41 (10.1%)	42 (10.3%)	0.908	-0.016	0.979
Neglect allegation		375 (92.4%)	375 (92.4%)	1.000	0.000	1.000
Prior foster care placements		5 (1.2%)	5 (1.2%)	1.000	0.000	1.000
Prior DCFS involvement		118 (29.1%)	112 (27.6%)	0.640	0.044	1.032

P-values were calculated with the T-test for continuous variable and the Chi-Square test for categorical variables. FFPSA eligibility assessment date was also included in propensity score matching (Effect size of 0.020. Variance ratio of 0.942). Abbreviations: DCFS= Division of Children and Family Services; RUCA = Rural-urban commuting area; SE = Standard Error; SS = Social Services; Std Diff = Standardized Difference; TDM = Team Decision Making; Var Ratio = Variance Ratio

Table A-8. Treatment and Comparison Groups Background Characteristics, Post-Propensity Score Matching for Foster Care During Treatment: Intention-to-Treat Analysis

		Treatment (N=1870)	Control (N=1870)			
Continuous variables		**Mean (SE)**	**Mean (SE)**	**P Value**	**Effect Size**	**Var Ratio**
Child Age (years)		0.6 (0.03)	0.6 (0.03)	0.691	-0.013	1.117
Caregiver age (years)		28.1 (0.16)	28.2 (0.16)	0.612	-0.017	1.041
Number of children in household		2.1 (0.03)	2.2 (0.03)	0.738	-0.011	1.194
Median household income		$38,752 ($216)	$38,547 ($189)	0.473	0.023	1.302
Categorical variables	**Category**	**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child Race/Ethnicity	White	1,078 (57.6%)	1,078 (57.6%)	1.000	-	-
	Black	686 (36.7%)	686 (36.7%)	1.000	0.000	1.000
	Hispanic or Latino	74 (4.0%)	74 (4.0%)	1.000	0.000	1.000
	Other	32 (1.7%)	32 (1.7%)	1.000	0.000	1.000
Binary variables		**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child gender: Female		921 (49.3%)	921 (49.3%)	1.000	0.000	1.000
RUCA: Rural		656 (35.1%)	664 (35.5%)	0.784	-0.011	0.995
Female caregiver present		1,845 (98.7%)	1,845 (98.7%)	1.000	0.000	1.000
Male caregiver present		896 (47.9%)	882 (47.2%)	0.647	0.018	1.001
Caregiver substance use		1,522 (81.4%)	1,523 (81.4%)	0.966	-0.002	1.002
Child living with relative caregiver		297 (15.9%)	302 (16.1%)	0.824	-0.012	0.987
Domestic violence is a risk factor		119 (6.4%)	128 (6.8%)	0.553	-0.047	0.934
High or intensive risk assessment		333 (17.8%)	338 (18.1%)	0.831	-0.011	0.988
TDM and/or protection plan		500 (26.7%)	466 (24.9%)	0.204	0.058	1.047
SS case opened to prevent removal		9 (0.5%)	9 (0.5%)	1.000	0.000	1.000
Abuse allegation		178 (9.5%)	173 (9.3%)	0.779	0.019	1.026
Neglect allegation		1,742 (93.2%)	1,743 (93.2%)	0.948	-0.005	1.007
Prior foster care placements		22 (1.2%)	22 (1.2%)	1.000	0.000	1.000
Prior DCFS involvement		558 (29.8%)	587 (31.4%)	0.304	-0.044	0.972

P-values were calculated with the T-test for continuous variable and the Chi-Square test for categorical variables. FFPSA eligibility assessment date was also included in propensity score matching (Effect size of 0.003. Variance ratio of 0.818). Abbreviations: DCFS= Division of Children and Family Services; RUCA = Rural-urban commuting area; SE = Standard Error; SS = Social Services; Std Diff = Standardized Difference; TDM = Team Decision Making; Var Ratio = Variance Ratio

Table A-9. Treatment and Comparison Groups Background Characteristics, Post-Propensity Score Matching for Foster Care During Treatment: Successful SafeCare Completion Analysis

		Treatment (N=1123)	Control (N=1123)			
Continuous variables		**Mean (SE)**	**Mean (SE)**	**P Value**	**Effect Size**	**Var Ratio**
Child Age (years)		0.5 (0.04)	0.6 (0.03)	0.758	-0.013	1.105
Caregiver age (years)		28.4 (0.21)	28.5 (0.20)	0.596	-0.022	1.025
Number of children in household		2.1 (0.04)	2.1 (0.03)	0.945	-0.003	1.240
Median household income		$39,069 ($289)	$38,719 ($233)	0.346	0.040	1.533
Categorical variables	**Category**	**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child Race/Ethnicity	White	665 (59.2%)	665 (59.2%)	1.000	-	-
	Black	388 (34.6%)	388 (34.6%)	1.000	0.000	1.000
	Hispanic or Latino	46 (4.1%)	46 (4.1%)	1.000	0.000	1.000
	Other	24 (2.1%)	24 (2.1%)	1.000	0.000	1.000
Binary variables		**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child gender: Female		550 (49.0%)	550 (49.0%)	1.000	0.000	1.000
RUCA: Rural		401 (35.7%)	404 (36.0%)	0.895	-0.007	0.997
Female caregiver present		1,109 (98.8%)	1,108 (98.7%)	0.852	0.042	0.934
Male caregiver present		561 (50.0%)	545 (48.5%)	0.499	0.035	1.001
Caregiver substance use		910 (81.0%)	912 (81.2%)	0.914	-0.007	1.007
Child living with relative caregiver		169 (15.0%)	157 (14.0%)	0.472	0.052	1.063
Domestic violence is a risk factor		68 (6.1%)	68 (6.1%)	1.000	0.000	1.000
High or intensive risk assessment		172 (15.3%)	166 (14.8%)	0.723	0.025	1.030
TDM and/or protection plan		294 (26.2%)	273 (24.3%)	0.308	0.060	1.050
SS case opened to prevent removal		2 (0.2%)	2 (0.2%)	1.000	0.000	1.000
Abuse allegation		102 (9.1%)	105 (9.3%)	0.827	-0.019	0.974
Neglect allegation		1,042 (92.8%)	1,048 (93.3%)	0.618	-0.050	1.074
Prior foster care placements		13 (1.2%)	13 (1.2%)	1.000	0.000	1.000
Prior DCFS involvement		285 (25.4%)	285 (25.4%)	1.000	0.000	1.000

P-values were calculated with the T-test for continuous variable and the Chi-Square test for categorical variables. FFPSA eligibility assessment date was also included in propensity score matching (Effect size of-0.041. Variance ratio of 0.797). Abbreviations: DCFS= Division of Children and Family Services; RUCA = Rural-urban commuting area; SE = Standard Error; SS = Social Services; Std Diff = Standardized Difference; TDM = Team Decision Making; Var Ratio = Variance Ratio

Appendix B: Baseline Equivalence for Child Well-being Outcomes

Table B-1. Treatment and Comparison Groups Background Characteristics, Post-Propensity Score Matching for Well-being Outcomes: Intention-to-Treat Analysis

		Treatment (N=816)	Control (N=816)			
Continuous variables		**Mean (SE)**	**Mean (SE)**	**P Value**	**Effect Size**	**Var Ratio**
Child Age (years)		0.6 (0.04)	0.7 (0.04)	0.285	-0.053	1.075
Caregiver age (years)		28.4 (0.25)	28.6 (0.24)	0.486	-0.034	1.052
Number of children in household		2.2 (0.04)	2.3 (0.04)	0.034	-0.105	1.122
Median household income		$37,927 ($325)	$38,391 ($283)	0.282	-0.053	1.322
Categorical variables	**Category**	**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child Race/Ethnicity	White	487 (59.7%)	487 (59.7%)	1.000	-	-
	Black	297 (36.4%)	297 (36.4%)	1.000	0.000	1.000
	Hispanic or Latino	26 (3.2%)	26 (3.2%)	1.000	0.000	1.000
	Other	6 (0.7%)	6 (0.7%)	1.000	0.000	1.000
Binary variables		**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child gender: Female		373 (45.7%)	373 (45.7%)	1.000	0.000	1.000
RUCA: Rural		364 (44.6%)	362 (44.4%)	0.921	0.006	1.001
Female caregiver present		803 (98.4%)	801 (98.2%)	0.703	0.088	0.869
Male caregiver present		409 (50.1%)	418 (51.2%)	0.656	-0.027	1.001
Caregiver substance use		644 (78.9%)	644 (78.9%)	1.000	0.000	1.000
Child living with relative caregiver		123 (15.1%)	128 (15.7%)	0.732	-0.029	0.968
Domestic violence is a risk factor		66 (8.1%)	65 (8.0%)	0.927	0.010	1.014
High or intensive risk assessment		164 (20.1%)	177 (21.7%)	0.429	-0.058	0.945
TDM and/or protection plan		211 (25.9%)	186 (22.8%)	0.149	0.101	1.089
Abuse allegation		89 (10.9%)	98 (12.0%)	0.484	-0.066	0.920
Neglect allegation		755 (92.5%)	749 (91.8%)	0.581	0.062	0.918
Prior foster care placements		11 (1.3%)	16 (2.0%)	0.332	-0.231	0.692
Prior DCFS involvement		257 (31.5%)	280 (34.3%)	0.226	-0.077	0.957

P-values were calculated with the T-test for continuous variable and the Chi-Square test for categorical variables. FFPSA eligibility assessment date was also included in propensity score matching (Effect size of 0.075. Variance ratio of 0.842). Abbreviations: DCFS= Division of Children and Family Services; RUCA = Rural-urban commuting area; SE = Standard Error; Std Diff = Standardized Difference; TDM = Team Decision Making; Var Ratio = Variance Ratio

Table B-2. Treatment and Comparison Groups Background Characteristics, Post-Propensity Score Matching for Well-being Outcomes: Successful SafeCare Completion Analysis

		Treatment (N=675)	Control (N=675)			
Continuous variables		**Mean (SE)**	**Mean (SE)**	**P Value**	**Effect Size**	**Var Ratio**
Child Age (years)		0.5 (0.04)	0.6 (0.04)	0.255	-0.062	1.021
Caregiver age (years)		28.4 (0.27)	28.4 (0.27)	0.947	0.004	1.007
Number of children in household		2.0 (0.05)	2.2 (0.04)	0.053	-0.105	1.207
Median household income		$38,188 ($359)	$38,180 ($321)	0.988	0.001	1.250
Categorical variables	**Category**	**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child Race/Ethnicity	White	409 (60.6%)	409 (60.6%)	1.000	-	-
	Black	236 (35.0%)	236 (35.0%)	1.000	0.000	1.000
	Hispanic or Latino	20 (3.0%)	20 (3.0%)	1.000	0.000	1.000
	Other	10 (1.5%)	10 (1.5%)	1.000	0.000	1.000
Binary variables		**N (%)**	**N (%)**	**P Value**	**Effect Size**	**Var Ratio**
Child gender: Female		330 (48.9%)	330 (48.9%)	1.000	0.000	1.000
RUCA: Rural		294 (43.6%)	303 (44.9%)	0.622	-0.033	0.994
Female caregiver present		666 (98.7%)	666 (98.7%)	1.000	0.000	1.000
Male caregiver present		342 (50.7%)	331 (49.0%)	0.549	0.040	1.000
Caregiver substance use		547 (81.0%)	534 (79.1%)	0.376	0.073	0.930
Child living with relative caregiver		99 (14.7%)	105 (15.6%)	0.648	-0.042	0.953
Domestic violence is a risk factor		47 (7.0%)	46 (6.8%)	0.914	0.014	1.020
High or intensive risk assessment		112 (16.6%)	118 (17.5%)	0.664	-0.038	0.959
TDM and/or protection plan		175 (25.9%)	153 (22.7%)	0.163	0.108	1.096
Abuse allegation		59 (8.7%)	64 (9.5%)	0.636	-0.054	0.929
Neglect allegation		626 (92.7%)	623 (92.3%)	0.756	0.039	0.947
Prior foster care placements		6 (0.9%)	6 (0.9%)	1.000	0.000	1.000
Prior DCFS involvement		171 (25.3%)	197 (29.2%)	0.112	-0.118	0.915

P-values were calculated with the T-test for continuous variable and the Chi-Square test for categorical variables. FFPSA eligibility assessment date was also included in propensity score matching (Effect size of 0.096. Variance ratio of 0.847). Abbreviations: DCFS= Division of Children and Family Services; RUCA = Rural-urban commuting area; SE = Standard Error; Std Diff = Standardized Difference; TDM = Team Decision Making; Var Ratio = Variance Ratio

Table B-3: SafeCare Treatment and Comparison Group Family Well-Being Baseline Differences

FAST Domain	Treatment Mean (SD)	Comparison Mean (SD)	Baseline Effect Size[a]
Intention-to-Treat Comparisons (N=816 matched dyads)			
Youth Status	0.07 (0.13)	0.08 (0.16)	-0.063
Caregiver's Status	0.23 (0.20)	0.24 (0.22)	-0.065
Caregiver's Advocacy Status	0.11 (0.22)	0.12 (0.24)	-0.051
Family Together	0.24 (0.30)	0.28 (0.33)	-0.127
Successfully completed SafeCare (N=675 matched dyads)			
Youth Status	0.06 (0.12)	0.07 (0.13)	-0.018
Caregiver's Status	0.21 (0.18)	0.24 (0.22)	-0.130
Caregiver's Advocacy Status	0.10 (0.20)	0.11 (0.22)	-0.046
Family Together	0.22 (0.29)	0.27 (0.31)	-0.156

[a]Baseline Effect Size is measured by Hedge's *G*.

Appendix C: Child Well-being Outcomes Supplement

The following table includes results of difference-in-difference analyses with PSM variables with the effect size greater than 0.05 as adjusting covariates.

Table C-1: Treatment and Comparison Group Child Well-Being Outcomes

FAST Domain	Treatment Mean (SE)	Comparison Mean (SE)	Estimate (SE)	P-value	Effect Size[a]
Successfully completed SafeCare Comparisons (N=1350)					
Youth Status[b]	0.051 (0.005)	0.060 (0.005)	-0.007 (0.006)	0.292	0.000
Caregiver's Advocacy Status[c]	0.071 (0.007)	0.099 (0.008)	-0.026 (0.010)	0.015	0.004

[a]Effect size in the form of ω^2

All models were adjusted by age, number of children, income, date of FFPSA assessment, caretaker substance use, TDM and/or protection plan, abuse allegation, and prior DCFS involvement.

[b]Age had a significant effect with an estimate of 0.017 (SE=0.003), p-value <0.001. FFPSA date had a significant effect with an estimate of -0.000 (SE=0.000), p-value = 0.040. Caretaker substance use (yes/no) had a significant effect with an estimate of -0.024 (SE=0.009), p-value = 0.009.

[c]Age had a significant effect with an estimate of 0.013 (SE=0.005), p-value = 0.013. Income had a significant effect with an estimate of -0.000 (SE=0.000), p-value = 0.040. Prior DCFS involvement had a significant effect with an estimate of -0.033 (SE=0.013), p-value = 0.008.

Appendix D: Survival Analysis for Time to New Substantiated Report

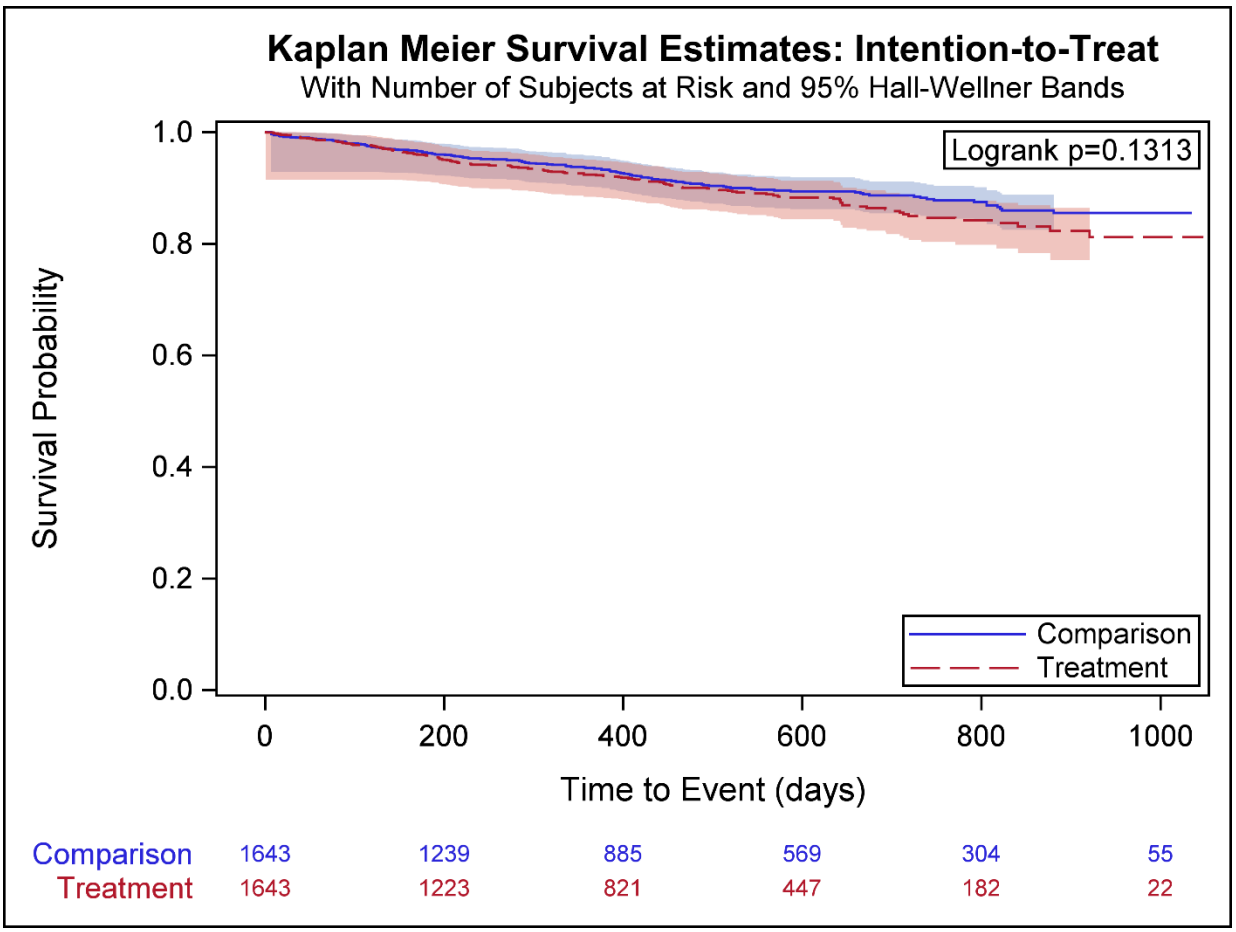
To investigate the rate of true findings without the potential influence of observation windows and other factors that would influence the possibility of a child maltreatment report, including the family moving out-of-state or the child's entry into foster care, we conducted a post-hoc survival analysis. The survival time was defined as the number of days, beginning with the treatment end date (or six months after the date of the DCFS involvement for the comparison group) and ending with the first true finding date or the censor date. The censor date is the end of the observation period for individuals that did not have a true finding. Here, the observation period ended when an individual moved out of state, was placed in foster care, or on the last follow-up date which was January 31, 2023.

Prior to survival analysis, PSM matching was used to establish baseline equivalence of treatment and comparison groups. In both the intention-to-treat and the subsample of those who successfully completed SafeCare, all PSM variables were within the recommended range (effect size below 0.05 and variance ratio between 0.5 and 2.0). After matching, the intention-to-treat sample included a total of 3,286 individuals and the subsample of individuals that completed treatment included 2,142 individuals.

For the survival analysis, the Kaplan-Meier method was used to estimate survival rates and the log-rank test (SAS proc lifetest) was used to determine significance in the difference in the survival time between treatment and comparison groups. For both intention-to-treat and successfully completed samples, the log-rank showed no significant difference between the survival distribution of true findings between treatment and comparison. Results are shown in Figure D-1 for the intention-to-treat comparison and Figure D-2 for the successfully completed SafeCare comparison.

In the intention-to-treat subgroup, median follow-up time was 417 days, mean was 444.0 days, and range was 1 to 1047 days. In the treatment group, median follow-up time was 398 days, mean was 422.9 days, and range was 1 to 1047 days. In the comparison group, median follow-up time was 439 days, mean was 465.2 days, and range was 1 to 1033 days.

Figure D-1: Kaplan-Meier Survival Curve: Intention-to-Treat



In the successful completion subgroup, median follow-up time was 390 days, mean was 426.6 days, and range was 1 to 1047 days. In the treatment group, median follow-up time was 388 days, mean was 418.7 days, and range was 1 to 1047 days. In the comparison group, median follow-up time was 395 days, mean was 434.4 days, and range was 2 to 1033 days.

Figure D-2: Kaplan-Meier Survival Curve: Successful Completion

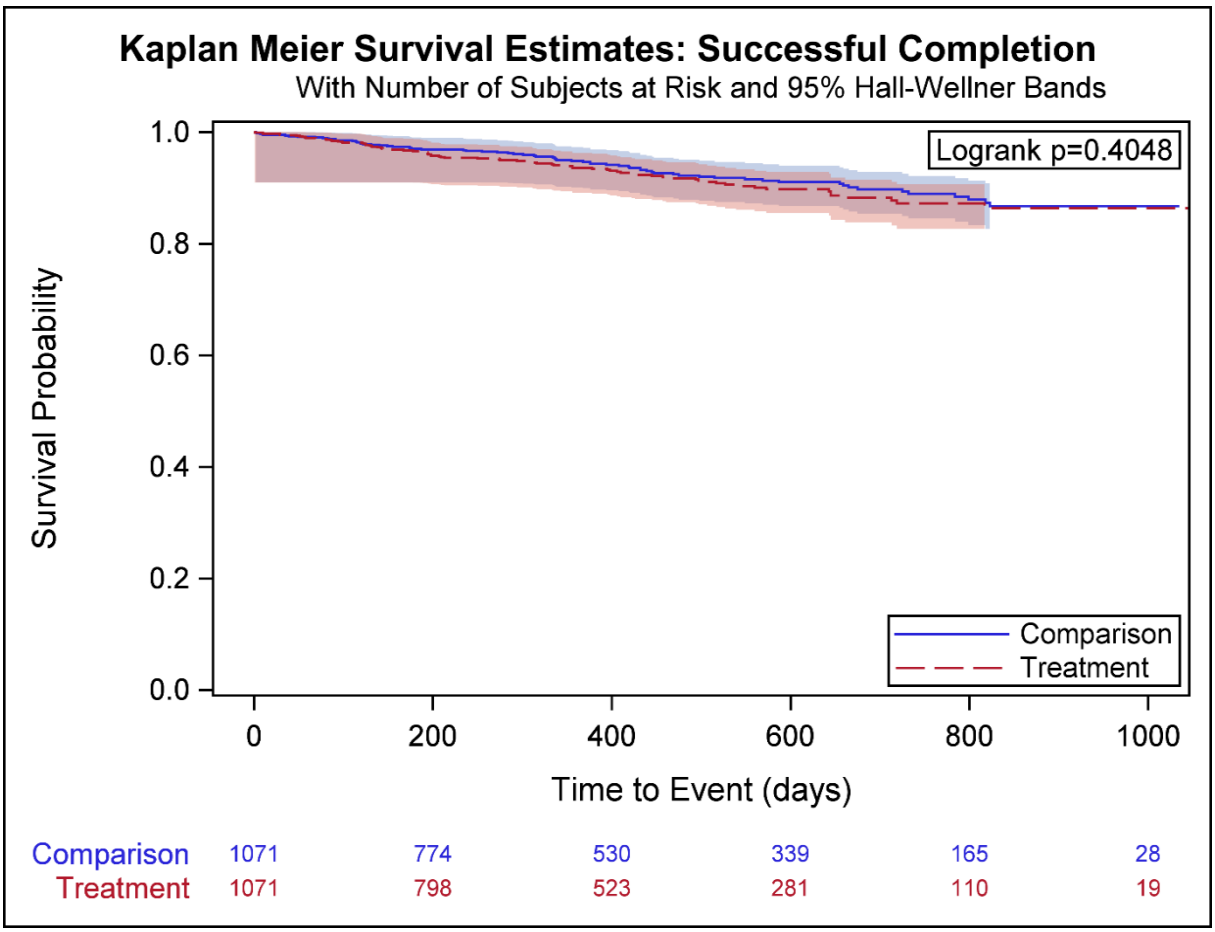


Table D-1 summarizes the survival distribution, end point event, and true finding reporter type by sample and treatment status. According to the latest SafeCare program implementation report,[2] the Child Health module, which provides parent instruction on decision-making strategies aimed at reducing medical neglect, was completed by the largest proportion (67%) of SafeCare enrollees. If there were an intervention effect on use of healthcare, other studies of other parenting interventions demonstrate a surveillance bias, where an increase in healthcare encounters is also correlated with an increase in maltreatment reporting.[26–29] We completed an additional post-hoc investigation into the reporters for substantiated maltreatment post intervention. Although the difference is not statistically significant, substantiated reports were indeed made by healthcare providers at a higher rate for SafeCare enrollees than for matched comparison group.

Table D-1: Survival Distribution and True Finding Reporter Type by Treatment Status

	Intention-to-Treat N=3286		Successfully Completed N=2142	
	Treatment	Comparison	Treatment	Comparison
Length of time to event				
Mean (days)	422.9	465.2	418.7	434.4
Median (days)	398	439	388	395
Range (days)	1-1047	1-1033	1-1047	2-1033
Observed event (N%)				
True Finding	152 (9.3%)	138 (8.4%)	80 (7.5%)	72 (6.7%)
Censored (Moved out-of-state or entered foster care)	86 (5.2%)	54 (3.3%)	33 (3.1%)	40 (3.7%)
Censored (End of observation period)	1405 (85.5%)	1451 (88.3%)	958 (89.4%)	959 (89.5%)
True finding reporter category (N%)				
Hospital/Health Practitioner	72 (47.4%)	58 (42.0%)	38 (47.5%)	33 (45.8%)
Law Enforcement	28 (18.4%)	36 (26.1%)	18 (22.5%)	18 (25.0%)
Social Service and Mental Health Providers	11 (7.2%)	11 (8.0%)	4 (5.0%)	2 (2.8%)
Education Providers	16 (10.5%)	12 (8.7%)	5 (6.3%)	6 (8.3%)
Community Members	12 (7.9%)	8 (5.8%)	5 (6.3%)	4 (5.6%)
Other or Unreported	13 (8.6%)	13 (9.4%)	10 (12.5%)	9 (12.5%)

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The information, content, or conclusions expressed in this material are those of the authors.

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