

# A Cost Analysis of Colorado Community Response (CCR)

A Child Maltreatment Prevention Program Targeting Economic Security and Social Connections through Family-Driven Case Management

# **Technical Report**

### **REPORT HIGHLIGHTS**

- CCR can help strengthen families by increasing the protective factors of concrete supports and social connection
- To inform potential expansion of the CCR program, we estimated costs associated with starting a new CCR site
- Five categories of costs were examined: personnel services, travel, supplies and operating expenses, training and technical assistance, and indirect costs
- The total start-up cost per CCR site is estimated to be \$161,379
- The total cost per family served is estimated to be \$2,017
- Implications of this cost analysis for child maltreatment prevention investments are discussed in the accompanying policy brief

# **AUTHORS**

Sarah Prendergast, PhD Research Associate, Urban Institute

Kristin Klopfenstein, PhD Director, Colorado Evaluation and Action Lab

**Courtney L. Everson, PhD** Senior Researcher/Project Director, Colorado Evaluation and Action Lab



# **Table of Contents**

Introduction	4
Colorado Community Response Program Overview	5
Data Sources and Method	5
Personnel Services	6
Travel	6
Supplies and Operating Expenses	7
Training and Technical Assistance	
Indirect Costs	
Findings	9
Total Costs	9
Sensitivity Analyses	9
Costs by Uptake Rate	10
Conclusion	11
Appendix A	15
Endnotes	



# Acknowledgements

This research was conducted in partnership with the Office of Early Childhood within the Colorado Department of Human Services. The opinions expressed are those of the authors and do not represent the views of the State of Colorado, the Urban Institute, or the University of Denver. Policy and budget recommendations do not represent the budget or legislative agendas of state agencies, the Governor's Office, or other partners. Any requests for funding or statutory changes will be developed in collaboration with the Governor's Office and communicated to the legislature through the regular budget and legislative processes.

# **Suggested Citation**

Prendergast, S., Klopfenstein, K., & Everson, C. (July 2021). A Cost Analysis of Colorado Community Response: A child maltreatment prevention program targeting economic security and social connections through family-driven case management: Technical report. (Report No. 18-04B). Denver, CO: Colorado Evaluation and Action Lab at the University of Denver.



# Introduction

The Center for the Study of Social Policy (CSSP) developed the Strengthening Families<sup>™</sup> Protective Factors Framework as a research-informed approach to reducing child maltreatment, enhancing family strengths, and promoting healthy child development.<sup>1</sup> The approach rests on a robust body of literature that shows families thrive when five key protective factors are meaningfully present in their lives: (1) Parental resilience; (2) Social connections; (3) Knowledge of parenting and child development; (4) Concrete support in times of need; and (5) Social and emotional competence of children.

Colorado Community Response (CCR) is an innovative, voluntary program to prevent child maltreatment and strengthen families by targeting the protective factors of concrete support and social connections, leveraging a family-driven case management model with family goal setting at the center. Everyday actions can promote protective factors and act as a counterbalance to risk factors by buffering the impact of continuous and unbuffered stress (or "toxic stress"),<sup>2, 3, 4</sup> helping to ensure every family has the opportunity to thrive. As illustrated in Figure 1, CCR promotes everyday concrete support actions by increasing the financial stability and self-sufficiency of caregivers. Research has long demonstrated the link between economic insecurity and child maltreatment<sup>5</sup> and given the well-documented association between poverty and racial injustices,<sup>6</sup> economic security programs are also a promising approach to reducing racial and ethnic inequities.<sup>7</sup> In addition, the delivery of CCR is intentionally embedded into family resource and support centers to provide families wraparound opportunities to increase social connections and build social capital. In turn, CCR may also catalyze openings to nurture additional protective factors.



Figure 1: CCR's Unique Role in Increasing Protective Factors and Strengthening Families



# **Colorado Community Response Program Overview**

CCR is administered by the Office of Early Childhood (OEC) within the Colorado Department of Human Services (CDHS) and implemented by community sites—typically non-profits, but sometimes county human service departments—across the state. Currently, caregivers are referred to CCR after being reported to the state's child abuse and neglect hotline and "screened out" by county child welfare staff because the allegations do not meet the statutory definition of abuse or neglect and/or the child is not at imminent risk of harm. The hallmarks of CCR are family-driven goal-setting and comprehensive, short-term (about four months) case management to help caregivers access formal and informal services and supports to meet their immediate concrete needs, create a foundation for long-term economic security, and build social capital for sustained well-being and connections. Individual caregivers are referred to CCR, but the benefits of participating accrue to whole families.

In 2014, CCR was piloted in 21 rural and suburban sites and was <u>evaluated by the Social Work Research</u> <u>Center at Colorado State University</u>. Results demonstrated promising outcomes for CCR participants relative to a matched-comparison sample that did not participate in CCR, including:

- significantly fewer child welfare founded assessments and out-of-home placements one year following program completion; and
- demonstrated improvements in parental resilience, social support, and knowledge of parenting, three of the core protective factors that reduce the likelihood of child maltreatment.

In 2017, CCR was expanded to three additional sites, including Denver and Colorado Springs. Expansion of the program brought the total number of CCR sites to 24. The Colorado Lab is currently leading a randomized control trial assessing the efficacy of CCR at reducing the number of referrals to child welfare that result in substantiated cases. Findings from this study are expected in 2023.

The present study examines the cost of the CCR program to the state. Once program impacts are available from the randomized control trial, this cost will be combined with the impact to generate a benefit-cost ratio that can be compared to other programs and inform future policy and practice investments.

# **Data Sources and Method**

We conducted this cost analysis according to the ingredients method outlined by Levin and McEwan.<sup>8</sup> Under this method, every aspect of the program is assigned a value or cost. This approach requires an exhaustive review of the program and the resources required to provide services. We consulted the CCR program manual and members of the CCR implementation team to identify a list of ingredients to include in the study.

All CCR costs are incurred by the state and OEC distributes funding to sites to implement the program through grants. To inform potential expansion, we estimated costs associated with starting a new CCR site; we did not conduct a steady-state analysis to estimate costs associated with the maintenance of existing sites. Costs are estimated at the market value of the resource, not at the current costs incurred by OEC or CCR sites. Categories of costs examined included personnel services, travel, supplies and operating expenses, training and technical assistance, and indirect costs. We describe in greater detail the data sources and methods we used to assign each value or cost in the sections that follow. All assumptions made for this study can be located in Appendix A.



### **Personnel Services**

#### Family Advocate and Site Supervisor Salaries

We used salary estimates from the <u>U.S. Bureau of Labor Statistics (BLS) Occupational Employment</u> <u>Statistics (OES)</u> semi-annual survey collected in May of 2019. OES code 21-1093 (i.e., Social and Human Service Assistants) is the occupation that most closely describes the job responsibilities of CCR Family Advocates. We multiplied Colorado's median hourly wage (\$17.48) by 2,087 (i.e., the number of <u>hours in a</u> <u>typical work year</u>) to calculate an annual salary. There is not an OES code that closely describes the job responsibilities of a CCR Site Supervisor. To estimate CCR Site Supervisor salaries, we reviewed CCR nonprofit state fiscal year (SFY) 2019-20 contracts with OEC, which include budget information. Through this review and discussions with the CCR program manager, we determined that a current CCR Site Supervisor is typically compensated about 15% more than a Family Advocate. Thus, we estimated the CCR Site Supervisor salary to be 15% greater than that of the state median Family Advocate salary.

#### Family Advocate and Site Supervisor Fringe Benefits

We used BLS employer <u>costs for employee compensation in private industry by region</u> from March 2019 to determine typical employee fringe benefits. The average percentage of employer costs per employee that are directed to total benefits in the Mountain West is 28.7%. We calculated fringe benefits as 28.7% of the Family Advocate and Site Supervisor salaries.

### Travel

#### **Travel to Motivational Interviewing Training**

CCR staff (Family Advocates and Site Supervisors) are required to be trained in Motivational Interviewing (see Training and Technical Assistance section, below). We estimated CCR mileage costs to the Motivational Interviewing training in Denver to be 200 miles roundtrip per person, on average, and used the <u>State of Colorado's mileage reimbursement rate</u> from January 2019 for 4WD vehicles. To estimate lodging costs, we relied on the <u>U.S. General Services Administration's October 2019</u> per diem lodging and per diem meals/incidental rates for the Denver metro area. We calculated lodging costs for two nights and meal/incidental costs for three days.

#### Travel to Colorado Family Support Assessment (CFSA) Training

All CCR staff (Family Advocates and Site Supervisors) are required to attend CFSA training (see Training and Technical Assistance section, below). We estimated mileage costs using the <u>State of Colorado's mileage</u> reimbursement rate from January 2019 for 4WD vehicles. We multiplied the mileage rate by an estimated travel distance of 200 miles (round trip) per person, on average.

#### Travel to Annual Meeting (Mandatory Grantee Meeting or Conference)

Each year, CCR sites are required to attend an annual three-day meeting, generally in the fall. To estimate lodging costs, we relied on the <u>U.S. General Services Administration's October 2019</u> per diem lodging and per diem meals/incidental standard rates for Colorado. We calculated lodging costs for two nights and meal/incidental costs for three days. We estimated mileage costs using the <u>State of Colorado's mileage</u> reimbursement rate from January 2019 for 4WD vehicles. We multiplied the mileage rate by an estimated travel distance of 200 miles (round trip) per person, on average.



# **Supplies and Operating Expenses**

#### **Laptops and Tablets**

Family Advocates use a tablet to enter required data while in the field (i.e., during home visits) and while in the office, they use a laptop computer to enter additional data, provide case management, and perform other necessary duties. Laptop and tablet costs were estimated for each full-time equivalent (FTE) Family Advocate. The median cost of a new tablet (Windows, Chrome, or Android Operating System; 10+ inch screen) and a new laptop was recorded from Best Buy online on June 30, 2020.

#### **Cell Phones and Service Plan**

A cell phone and service plan were estimated per FTE Family Advocate. Unlimited cell phone talk, text, and data plans for businesses through Verizon Wireless begin at \$40 per line, per month at the time of this study (June 30, 2020). To estimate the cost of a smartphone device, we recorded the median retail value of a smartphone from Verizon Wireless on June 30, 2020. We estimated the total cost of cell phone service per FTE Family Advocate to include the annual cost of service per line and the retail cost of a smartphone.

#### **Outreach Materials**

CCR Family Advocates send outreach materials in the mail to families who are referred to CCR. CCR outreach materials were developed by OEC and all sites have access to print the materials. In total, the outreach materials consist of three greeting cards to connect with caregivers for the first time, one card to follow up with caregivers who have disengaged, and one card for caregivers who have completed the program. Each family who enters the program also receives a brochure with information. We estimate that each site should budget for two cards per family outreached (i.e., 400 cards), one card per family served (i.e., 80 cards), and one brochure per family served (i.e., 80 brochures). We estimated printing the materials using Staples. Costs were quoted for letter-sized, two-sided prints on medium-heavy cardstock using colored ink. We assume that sites fold their own cards. We used Staples to estimate the cost of white, 7.25" by 5.25" inch, 100-pack envelopes for the estimated 480 outreach cards. Using these filters returned only one item, thus this item was selected for cost estimation purposes. Postage estimates were made using the U.S. Postal Service's postage rates.

#### **Financial Health Institute Subscriptions**

Family Advocates are required to use tools and complete trainings offered through the Financial Health Institute. These tools and trainings are available through an annual site-level subscription to the Financial Health Institute.

#### **Salesforce Licenses**

All CCR staff (Family Advocates and Site Supervisors) are required to utilize the data system maintained by OEC (Salesforce). Licenses are purchased for each CCR staff member through OEC's current subscription.

#### **Mobile Caddy Licenses**

Family Advocates are required to utilize Mobile Caddy, an application that interfaces with Salesforce, to complete case management and data entry tasks while in the field (i.e., during home visits). Mobile Caddy licenses are purchased for Family Advocates through OEC's current subscription.



#### **Commercial Real Estate Lease Costs**

To the best of our knowledge, average real estate lease prices are only available for each county in Colorado through subscription services. We identified the average commercial real estate lease price per square foot in Arapahoe County during the first quarter of 2019 through a publicly available resource published by the City of Englewood and adjusted it based on a cost of housing index in other counties.

We created a county-level housing cost index using the <u>Economic Policy Institute's (EPI) Family Budget</u> <u>calculator</u>. The index divides each county's monthly housing cost by Arapahoe County's. Estimates of each county's commercial real estate lease price were then calculated by multiplying Arapahoe County's commercial real estate lease price per square foot (\$24.06) by the county's housing index. For example, El Paso County's housing cost index relative to Arapahoe County is 1.006, so the estimated commercial lease price in El Paso County is 1.006 \* 24.06. We then calculated the median price per square foot across counties (\$15.79).

The average square foot per employee used in this study is 204 square feet per worker. This figure is <u>70%</u> of the BOMA average square feet in the Denver area for private sector office space (291 rentable square feet per office worker) and aligns with space standards of Colorado state agencies. We multiplied the median price per square foot by 204 square feet to get a total cost per CCR staff member.

#### **Flex Funds**

Flex funds refer to a site-level stipend that Family Advocates can allocate to support families with a onetime, necessary purchase (e.g., refrigerator, car parts). Families vary in the amount of financial support needed and sites vary in location, which can further affect the level of financial support required (e.g., rent). We analyzed data from SFY 2019-20 and determined the median flex fund dollars spent per family to be \$500. We determined that a median of 40% of eligible families (defined as those that have completed a baseline CFSA) receive flex funds. Therefore, we multiplied the total number of families served by a typical CCR site (n = 80) by .40 and multiplied the sum by \$500.

#### **Gas Reimbursement**

Family Advocates are required to meet in person with caregivers at least four times. These visits may take place in the home or at another convenient location. Based on the <u>State of Colorado's mileage</u> reimbursement rate from January 2019 for 4WD vehicles, we assume \$20 in travel costs by the caregiver and the family advocate combined. This covers about 36 miles of travel, or about nine miles round trip, per visit.

### **Training and Technical Assistance**

#### **Colorado Family Support Assessment (CFSA) Training**

All CCR staff (Family Advocates and Site Supervisors) are required to be trained in the CFSA. Family Advocates work with families to complete the CFSA twice, once at the start (i.e., baseline) and once at the conclusion of services (i.e., post). The CFSA training is offered through the Colorado Family Resource Center Association.



#### **Motivational Interviewing Training**

All CCR staff (Family Advocates and Site Supervisors) are required to be trained in Motivational Interviewing. Motivational Interviewing training is offered to 25 people every other month by the Colorado Division of Criminal Justice (CDCJ) in Denver. Training costs include the hourly pay for one trainer for two eight-hour training days and five hours of preparation time. Costs are calculated using figures reported by CDCJ in 2017, including an average hourly salary and fringe of \$42/hour for an Implementation Specialist (Analyst 4).

### **Indirect Costs**

#### **Indirect Rates**

The indirect rate for CCR is set at 10% or less by OEC. For the purposes of this study, we estimated the indirect rate at 10%. The current CCR expenditures covered under the indirect rate most closely align with the Code of Federal Regulations Direct Allocation Method (<u>2 CFR § 200, Appendix IV</u>). Under this method, indirect costs include general administration and general expenses. General administration and general expenses include those that are incurred for the overall general executive and administrative offices of the organization and other general expenses that are not specific to any major function (e.g., program or service) of the organization. In the present study, we considered indirect expenses to include executive and administrative personnel (e.g., human resources, accounting) and general office supplies including printing and copying, office desks and chairs, pens and paper or other supplies.

# **Findings**

### **Total Costs**

Estimated costs for a typical CCR site comprised of two FTE Family Advocates who provide outreach to 100 caregivers each (200 families total) and provide services to 40 caregivers each (80 families total) are presented in Table 1 (overall cost analysis). Each row of data in Table 1 summarizes costs described in the preceding sections. For example, the Family Advocate salary is calculated per FTE at a cost of \$36,481 and is multiplied by two FTE for a total of \$72,962. The total start-up cost per CCR site is estimated to be \$161,379 and the total cost per family served is estimated to be \$2,017.

To calculate CCR costs per family served, we estimated the number of caregivers that receive outreach from CCR and that are served by CCR. We included outreach because the CCR program model requires CCR Family Advocates to dedicate a large amount of time to initial connection with families (i.e., outreach phone calls, letters, home visits). To estimate the number of caregivers that can be outreached and served per FTE Family Advocate, we relied on the experiences of the CCR Implementation Team, which includes representatives from four CCR sites across the state. The CCR Implementation Team determined that each FTE Family Advocate can provide outreach for up to 100 caregivers per year and serve 40 families per year. We defined families served as those families who complete the CCR intake with a baseline Colorado Family Support Assessment (CFSA). For the typical site used in the current study, this estimate translates to a total of 200 caregivers outreached, and 80 families served.

### **Sensitivity Analyses**

We conducted sensitivity analyses (see Table 2) to test some of the highest-cost assumptions we made for this cost analysis. We determined personnel, real estate lease, and flex fund costs to be the highest cost



items and these items were included in the sensitivity analyses. We adjusted all costs per site and per family served by appropriate indirect rates, but did not present this information in Table 2. All other costs remained the same as presented in the overall cost analysis in Table 1, and we did not repeat this information in Table 2.

#### **Personnel Sensitivity Analysis**

For personnel costs, we estimated the Family Advocate and Site Supervisor salaries with a range of plus or minus 10%. Because fringe rates are dependent on salaries, we recalculated fringe rates as well. Table 2 demonstrates that adjusting personnel costs to be 10% less results in a CCR cost per family served of \$1,870 and adjusting personnel costs to be 10% more results in a CCR cost per family served of \$2,165.

#### **Real Estate Sensitivity Analysis**

As previously mentioned, the cost per square foot of office space is not readily available for other counties in Colorado. We were, however, able to locate publicly available data for two cities in Larimer County during the first half of 2019 (Fort Collins and Loveland). We averaged the two rates to compute a Larimer County estimate. Using the same method as described in the Commercial Real Estate Lease Costs section above, we replaced Arapahoe County with Larimer County's estimated average commercial real estate lease price per square foot. The resulting median price per square foot in Colorado was \$14.04 (as compared to \$15.79 using Arapahoe County's estimate). We selected \$14.04 to represent a lower bound median cost and \$15.79 to represent the upper bound median cost. Table 2 demonstrates that real estate lease costs per square foot calculated using a rate of \$14.04 results in a CCR cost per family served of \$2,006, or about \$11 less than the cost per family served using a rate of \$15.79, as was used in the overall cost analysis.

#### **Flex Funds**

We estimated flex fund costs at a lower bound of 30% and an upper bound of 50% of eligible families (defined as those that have completed a baseline CFSA). Table 2 demonstrates that the cost per family served with 30% of eligible families receiving flex funding is about \$1,962, and about \$2,072 when 50% of eligible families receive flex funding.

#### **Upper and Lower Bound Estimates for All Estimates**

The final two rows in Table 2 demonstrate the upper and lower bound estimates for all estimates. For example, if all costs in the sensitivity analysis noted above were estimated in the cost analysis at the lower bound, the cost of serving a family would decrease to \$1,803 and if all costs were estimated in the cost analysis at the upper bound, the cost of serving family would increase to \$2,220.

### **Costs by Uptake Rate**

In Table 3, we present findings from the overall cost analysis (Table 1) and upper and lower bound estimates from the sensitivity analyses (Table 2), by the percentage of families served per 100 caregivers outreached to. In the overall cost analysis, we assumed that uptake at the typical CCR site is 40% of the 200 caregivers outreached to. However, this uptake rate has not yet been formally tested. Thus, we also computed the costs of CCR across various uptake rates. As Table 3 demonstrates, the cost of CCR per family served decreases as uptake rates increase.



## Conclusion

CCR is unique in its focus on targeting the protective factors of concrete support and social connections to strengthen families by leveraging a family-driven case management model with family goal setting at the center. Findings from this cost analysis situate CCR as a lower cost child maltreatment prevention model at about \$2000 per family served. Implications of these findings, including ensuring CCR reaches its full benefit to cost potential, are discussed in the accompanying <u>policy brief</u>.

Category	Item	Unit	Cost/Unit	# of Units	Tota
Personnel					
	Family Advocate Salary	Per FTE	\$36,481.00	2.00	\$72,962.00
	Family Advocate Fringe	Per FTE	\$10,470.00	2.00	\$20,940.00
	Site Supervisor Salary	Per FTE	\$41,953.00	0.25	\$10,488.00
	Site Supervisor Fringe	Per FTE	\$12,040.00	0.25	\$3,010.00
Travel					
	Travel to MI Training	Per Family Advocate and Site Supervisor	\$728.00	3.00	\$2,184.00
	Travel to CFSA Training	Per Family Advocate and Site Supervisor	\$110.00	3.00	\$330.00
	Travel to Meeting	Per Family Advocate and Site Supervisor	\$467.00	3.00	\$1,401.00
Supplies and Operating					
	Laptop	Per FTE (Family Advocate)	\$1,500.00	2.00	\$3,000.00
	Tablet	Per FTE (Family Advocate)	\$480.00	2.00	\$960.00
	Cell Phone	Per FTE (Family Advocate)	\$1,128.00	2.00	\$2,256.00
	Outreach material printing	Per Material: 2 per outreached, 2 per served	\$1.36	560.00	\$762.00
	Outreach material envelopes	Per Envelope: 2 per outreached, 1 per served	\$0.15	480.00	\$72.0
	Outreach material postage	Per Card: 2 per outreached, 1 per served	\$0.55	480.00	\$264.0
	Financial Health Institute Subscription	Per site	\$2,395.00	1.00	\$2,395.0
	Salesforce License	Per Family Advocate and Site Supervisor	\$125.00	3.00	\$375.0
	Mobile Caddy License	Per Family Advocate	\$29.00	2.00	\$59.0
	Real Estate Lease	Per Site: Based on 204 square feet per FTE	\$3,220.00	2.25	\$7,246.0
	Flex Funds	Per family; 40% of families served	\$500.00	32.00	\$16,000.0
	Gas Reimbursement	Per family; 100% of families served	\$20.00	80.00	\$1,600.0
Training					
	CFSA Training	Per Family Advocate and Site Supervisor	\$100.00	3.00	\$300.0
	Motivational Interviewing Training	Per Family Advocate and Site Supervisor	\$35.00	3.00	\$106.0
Indirect					
	Direct	Per Site	-	-	\$146,709.0
	Indirect	Per Site	10%	-	\$14,671.0
Cost per Site					\$161,379.0
Cost per Family Served					\$2,017.0

### Table 1: Estimated Costs for a Typical CCR Site (two FTE Family Advocates who provide outreach to 100 caregivers each and service to 40 caregivers each)



#### Table 2: Sensitivity Analysis of Estimated Costs for a Typical CCR Site

Category	Item	Unit	Cost Range/Unit	# of Units	Total Range	
Personnel						
	Family Advocate Salary (+/- 10%)	Per FTE	\$32,833 - \$40,129	2.00	\$65,665 - \$ 80,258	
	Family Advocate Fringe	Per FTE	\$9,423 - \$11,517	2.00	\$18,846 - \$23,034	
	Site Supervisor Salary (+/- 10%)	Per FTE	\$37,758 - \$46,148	0.25	\$9,439 - \$11,537	
	Site Supervisor Fringe	Per FTE	\$10,836 - \$13,245	0.25	\$2,709 - \$3,311	
Cost Range per Site					\$149,565 - \$173,193	
Cost Range per Family Served					\$1,870 - \$2,165	
Supplies and Operating						
	Real Estate Lease (Larimer - Arapahoe)	Per Site: Based on 204 square feet per FTE	\$2,862 - \$3,220	2.25	\$6,440 - \$7,246	
Cost Range per Site					\$160,493 - \$161,379	
Cost Range per Family Served					\$2006 - \$2017	
Supplies and Operating						
	Flex Funds (30% - 50% of eligible families)	Per family	\$500	24 - 40	\$12,000 - \$20,000	
Cost Range per Site					\$156,979 - \$165,779	
Cost Range per Family Served					\$1,962 - \$2,072	
Total Costs	Ranges of Each Item Above	-	-	-	-	
Cost Range per Site					\$144,279 - \$177,593	
Cost Range per Family Served					\$1,803 - \$2,220	

*Note.* All cost ranges per site and cost ranges per family served were calculated including the adjusted indirect rate.

	Percent of Families Served per 100 Outreached					
	Cost per Site	20%	30%	40%	50%	60%
Sensitivity Analysis: Lower Bound	\$144,279	\$3,607	\$2,405	\$1,803	\$1,443	\$1,202
Cost Analysis: Estimated Cost	\$161,379	\$4,034	\$2,690	\$2,017	\$1,614	\$1,345
Sensitivity Analysis: Upper Bound	\$177,593	\$4,440	\$2,960	\$2,220	\$1,776	\$1,480

Table 3: Cost findings from the overall cost analysis (Table 1) and upper and lower bound estimates from the sensitivity analyses (Table 2) by uptake rate

*Note.* \$2,017 represents the cost per family served when including assumptions from the overall cost analysis presented in Table 1. All other costs listed in this table represent sensitivity estimates when including all lower bound assumptions (i.e., row 1) and using all upper bound assumptions (i.e., row 3).





# **Appendix A**

### **Key Assumptions**

- Costs are estimated based on 2019 (calendar year) and state fiscal year (2019-20) dollars as available. Costs of electronics are estimated as of June 30, 2020.
- Services are implemented in non-profit settings.
- A typical CCR site consists of:
  - o Two FTE Family Advocates, fulfilled by two employees
  - o 0.25 FTE Site Supervisor, fulfilled by one employee
- Site supervisors are compensated 15% more than Family Advocates.
- One FTE Family Advocate can provide outreach to 100 caregivers per year, and provide services to 40 caregivers per year.
  - $\circ~$  A typical CCR site receives 200 referrals and serves 80 families annually.
  - We assume 40% of caregivers outreached to accept services (uptake rate).
- Family Advocates and supervisors require 204 square feet of office space each.
- Laptops, tablets, and cell phones are purchased for Family Advocates and not Site Supervisors.
- Housing rental costs by county correlate with commercial real estate leasing costs by county.
- The median cost of electronics (laptop, tablet, cell phone and service) can be accurately identified through large-inventory online stores at a given point-in-time.
- County Child Welfare Case Workers spend five minutes per client they refer to CCR; at a typical site this would translate to a total of \$396.00 of in-kind time contributed to CCR per year.
- Families travel, on average, nine miles (round trip) per visit with a Family Advocate.
- CCR staff travel, on average, 200 miles (round trip) for Motivational Interviewing training.
- CCR-related fixed costs incurred by the state (e.g., CCR program manager, maintenance and improvements of Salesforce as the CCR data management system) are not impacted by a marginal increase in the number of CCR providers and thus are excluded here.
- Indirect costs are calculated using the Code of Federal Regulations Direct Allocation Method.



# **Endnotes**

- <sup>1</sup> Center for the Study of Social Policy. (2018). *About Strengthening Families™ and the Protective Factors Framework.* Washington, DC: Center for the Study of Social Policy. Retrieved from https://cssp.org/wpcontent/uploads/2018/11/About-Strengthening-Families.pdf
- <sup>2</sup> Crouch E., Radcliff E., Strompolis M., & Srivastav A. (2019). Safe, stable, and nurtured: Protective factors against poor physical and mental health outcomes following exposure to adverse childhood experiences (ACEs). *Journal of Child & Adolescent Trauma*, *12*(2), 165-173. doi:10.1007/s40653-018-0217-9
- <sup>3</sup> Franke H. A. (2014). Toxic stress: Effects, prevention and treatment. *Children*, 1(3), 390-402. doi:10.3390/children1030390
- <sup>4</sup> Harper Browne, C. (2014, September). *The Strengthening Families Approach and Protective Factors Framework: Branching out and reaching deeper*. Washington, DC: Center for the Study of Social Policy. Retrieved from https://cssp.org/wp-content/uploads/2018/11/Branching-Out-and-Reaching-Deeper.pdf
- <sup>5</sup> Conrad-Hiebner A., & Byram, E. (2020). The temporal impact of economic insecurity on child maltreatment: A systematic review. *Trauma, Violence, & Abuse, 21*(1), 157-178. doi:10.1177/1524838018756122
- <sup>6</sup> O'Brien, R., Neman, T., Seltzer, N., Evans, L., & Venkataramani, A. (2020). Structural racism, economic opportunity and racial health disparities: Evidence from U.S. counties. *SSM Population Health*, *11*, 100564. https://doi.org/10.1016/j.ssmph.2020.100564
- <sup>7</sup> Trisi, D., & Saenz, M. (2021). Economic security programs reduce overall poverty, racial and ethnic inequities. Washington, DC: Center on Budget and Policy Priorities. Retrieved from https://www.cbpp.org/sites/default/files/atoms/files/1-28-21pov.pdf
- <sup>8</sup> Levin, H. M., & McEwan, P. J. (2001). *Cost effectiveness: Methods and applications* (2nd ed.). Thousand Oaks: Sage Publications.