FIRST 5 KERN

Annual Report 2020-2021

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Acknowledgments

Evaluation findings are derived in this report from 39 programs that receive over $9.2 million of state investment in early childhood services. Following the state statute, assessment data are gathered through collaboration of First 5 Kern staff, service providers, and parents or guardians to address the requirement of results-based accountability from Proposition 10, the California Children and Families First Act of 1998.

The report completion is supervised and/or assisted by the following professionals and organizations:

- Commissioners: Lucinda Wasson (Chair), John Nilon (Vice Chair), Dena Murphy (Treasurer), Jennie Sill (Secretary), Michelle Curioso, Russell Judd, Kelly Richers, Zack Scrivner, Debbie Wood

- First 5 Kern Commission staff:
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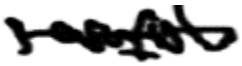
- Theresa Martinez-Ortiz, First 5 Kern consultant

- The Institutional Review Board led by Drs. Chandra Commuri and Isabel Sumaya at California State University, Bakersfield (CSUB).

- The Technical Advisory Committee (TAC).

TAC Members are recognized in Appendix B. Alternate Commissioners are listed in Exhibit 1. In addition, Ms. Lisa Wang of UCI offered good suggestions to several parts of this report. While acknowledging their indispensable contributions, I wrote the report, and shall be fully responsible for any inaccuracies in the findings.

Jianjun "JJ" Wang, Ph.D.



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Executive Summary

In 1998, California voters passed Proposition 10 to fund early childhood services with a 50 cent-per-pack tax on cigarettes and other tobacco products. Following the Health and Safety Code (Sections 130100-130155), the Kern County Board of Supervisors created First 5 Kern, a.k.a., Kern County Children and Families Commission, for program administration. Per state statute, 80% of the tax revenue is distributed across counties according to the rate of live births. In Fiscal Year (FY) 2020-2021, First 5 Kern received $9,209,190 tobacco tax revenue to sponsor local programs in child health, parent education, and early childhood development. The commission also invested in the systems of care to promote service integration.

This report is required by Proposition 10 to justify Outcome-Based Accountability [or Result-Based Accountability (RBA)]. Based on the state guidelines, First 5 Kern reviewed and updated its strategic plan to define result indicators of service delivery. Two programs from last year, i.e., Community Health Initiative of Kern County (CHI) and Indian Wells Valley Family Resource Center (IWVFRC), are discontinued in the current funding cycle.[1] Nonetheless, they are relevant to program expenditures in this report because of retroactive fund reimbursement. In addition, the Improve and Maximize Programs so All Children Thrive (IMPACT) grant is funded by First 5 California. Therefore, direct services covered in this report are delimited to 39 programs[2] across Kern County.

To justify the return of state investment, RBA is evaluated in five modules: (1) descriptive data to demonstrate the extent of early childhood support across Kern County, (2) assessment results to track value-added improvements in local service programs under a pretest and posttest setting, (3) partnership analyses to evaluate the strength and scope of service integration, (4) trend comparison to monitor changes of program outcomes on the time dimension, and (5) future recommendations to sustain the *Turning the Curve* process according to the commission strategic plan (First 5 Kern, 2021). This report structure is aligned with a Statewide Evaluation Framework (First 5 California, 2005) to delineate the impact of state funding across four focus areas of *Child Health, Family Functioning, Child Development,* and *Systems of Care.*

New Developments

During the pandemic, particularly with program lockdown, service access becomes an issue for young children and their families. First 5 Kern delivered essential supplies, including sanitization materials and protection equipment, for disaster relief.[3] Throughout the year, the commission led the systems of care in two fronts:

1. Advocating the *whole-child* and *whole-family* strategy to strengthen equity of local program support for all young children to thrive

First 5 Kern funded well-rounded programs to address comprehensive needs of children and their families. It is reported that 49.2% of the local population are in the

[1] https://www.first5kern.org/wp-content/uploads/2021/07/Funded-Programs-Guide-2021-07-01.pdf
[2] Medically Vulnerable Care Coordination Program (MVCCP) and MVCCP Kern County (MVCCP KC) are combined for streamlining services of case identification and special need referral.
[3] https://first5association.org/2020/11/02/first-5-kern-delivers-covid-supply-help/

Hispanic or Latino group in 2020,[4] and Latino children suffered a higher rate of COVID-19 than other groups (Aguilera, 2020). To ensure the support for all children, including ethnic minorities in remote communities, First 5 Kern funded three new service providers, *Family Caregivers Project, Infant and Toddler Program*, and *Oasis Family Resource Center*, to reduce geographical and language barriers in service delivery.

2. Recruiting a planning grant from *Adverse Childhood Experiences (ACEs) Aware Initiative* to foster the *whole- community* support for child health and development

The commission participated in a statewide grant competition to recruit nearly $300,000 from California Department of Health Care Services. The funds are devoted to creating a countywide *Network of Care* that not only offers ACEs screening, but also extends professional training to hundreds of stakeholders in the *health* and *human service* community for strengthening ACEs support coalition. The effort further promotes the *whole-child* and *whole-family* agenda because "Policies that support the whole child can reduce and even prevent adverse experiences in childhood and potentially break the cycle of adversity" (Lopez, Wong, & Raphael, 2020, p. 10).

Summary of Evaluation Approaches

Per state mandate, evaluation approaches have been taken to gather performance indicators on (1) how much has been done and (2) how well each service provider performed in its specialty areas of *Child Health, Family Functioning*, and/or *Child Development*. In supporting service integration across programs, a *NetDraw* software is employed to configure the network of service providers across Kern County. The quantitative and qualitative results are triangulated through four assessment approaches:

1. Monitoring program investment across focus areas of *Child Health, Family Functioning*, *Child Development,* and *Systems of Care*

First 5 Kern tracked state investment in 10 service areas of the annual report glossary.[5] In Child Health, First 5 Kern invested $640,988 in *Early Intervention*, $302,725 in *General Health Education and Promotion*, $811,714 in *Oral Health Education and Treatment*, and $439,727 in *Prenatal and Early Childhood Home Visiting*. In Family Functioning, the Commission spent $1,800,380 on *General Family Support* and $973,574 on *Intensive Family Support*. In Child Development, First 5 Kern used $485,363 for *Quality Early Learning Supports* and $1,167,352 for *Early Learning Programs*. In Systems of Care, $1,152,220 was invested in enhancing *Policy and Public Advocacy* and $339,448 was devoted to supporting *System Building*. In comparison to last year, First 5 Kern increased a total of $377,257 investment in Systems of Care, including additional $56,571 in Policy and Public Advocacy and $276,821 in System Building. Due to COVID-19, First 5 Kern also spent $43,883 to sustain material supplies in early childhood services.

2. Comparing results of 16 instruments to assess program effectiveness in 12 aspects

Over a dozen instruments have been incorporated to collect information on program effectiveness. More specifically, this report is based on analyses of program data from

[4] https://data.elpasotimes.com/census/total-population/total-population-change/census-tract-702-kern-county-california/140-06029000702/
[5] First 5 Kern's annual report to the State Commission.

(1) Ages and Stages Questionnaire-3 (ASQ-3) on child growth across 21 programs; (2) Ages and Stages Questionnaire: Social-Emotional, Version 2 (ASQ:SE-2) for early detection of potential social or emotional problems in seven programs; (3) Adult-Adolescent Parenting Inventory-2.1 (AAPI-2.1) on parenting outcomes from six programs; (4) Child Assessment-Summer Bridge (CASB) on preschool learning in six programs; (5) Core Data Elements (CDE) and Birth Survey from 28 programs; (6) Family Stability Rubric (FSR) from 15 programs; (7) Desired Results Developmental Profile (DRDP)-Infant/Toddler for infants/toddlers in two programs; (8) DRDP-IT Modified Essentials for infants/toddlers in one program; (9) DRDP-Fundamental View for preschoolers in one program; (10) DRDP-Comprehensive View for preschoolers in four programs; (11) Parenting Survey from Nurturing-Parenting workshops across four programs; and (12) Program-specific surveys from Buttonwillow – Raising A Reader Assessment, Dyadic Assessment of Naturalistic Caregiver-Child Experiences (DANCE), Family Caregivers Project (FCPS) – Participant Survey, and North Carolina Family Assessment Scale for General Services (NCFAS-G) for individual service providers.

3. Analyzing the partnership strengths to facilitate program networking

Organizational data are collected from the Integration Service Questionnaire (ISQ) to assess the scope and depth of partnership building across service providers, including outreach links with the IMPACT project of First 5 California. The network scope is analyzed to examine direct/indirect support, unilateral/reciprocal connection, and primary/non-primary collaboration in both quantitative and qualitative dimensions. A 4C (*Co-Existence, Collaboration, Coordination*, and *Creation*) model is used to investigate the depth of service integration.

4. Articulating success stories of First 5 Kern to track the service impact between adjacent years

In FY 2020-2021, 38 impact stories are downloaded from a First 5 Kern website.[6] Plots of (a) top-impact words, (b) keyword dispersions, (c) token-word relations, and (d) word clouds are created to summarize the service outcomes from various programs. The results show a consistent highlight of keywords, such as *children, students, parents,* and *families*, in the impact stories to reconfirm the program focus on primary stakeholders.

Altogether, First 5 Kern funded 12 programs in *Child Health,*[7] 17 programs in *Family Functioning*, and 10 programs in *Child Development* (see Appendix A). In *Systems of Care*, First 5 Kern leads a Resilient Kern Initiative that involves 21 organizations to support children with adverse childhood experiences (ACEs). Sustainability of the community partnership is important because the impact of ACEs is rooted in health outcomes across the lifespan.[8] The evaluation pursuits are aligned with the state statute to "use Outcome-Based Accountability to determine future expenditures" (Proposition 10, p. 4).

Primary Aspects of Evaluation Tasks

In supporting the annual result reporting, primary evaluation tasks are illustrated in 11 aspects:

[6] https://www.first5kern.org/about-us/success-stories/
[7] Footnote 2 combines MVCCP and MVCCP-KC in program count, but the ISQ data set them as separate entities.
[8] https://www.eurekalert.org/news-releases/669212

1. Dissemination of qualitative stories on the program impact across 39 service providers;
2. Implementation of an Institutional Review Board (IRB) protocol, including site visits, consent form administration and IRB training for 206 program staff;
3. Comparison of *target* and *actual* counts across 53 result indicators in Child Health, Family Functioning, Child Development, and Systems of Care;
4. Collection of service integration data to assess capacity of program networking;
5. Monitoring of leveraged funds to track external resource recruitment in each program;
6. Articulation of the achieved results with program funding to justify cost effectiveness;
7. Analysis of the evaluation findings to support new recommendations in an annual report;
8. Gathering of eight assessment data to report improvement of service outcomes on the time dimension;
9. Training of the evaluator as a certified analyst in multiple data imputations;
10. Examination of the Ages & Stages Questionnaire Social Emotional, Second Edition (ASQ:SE-2) threshold gaps to improve social emotional screening;
11. Highlight of grant outcomes from the ACEs Aware Initiative to strengthen Trauma-Informed Networks of Care across Kern County.

Meanwhile, evaluation findings are derived from the seamless efforts of data collection to support:

1. Illustration of the profound differences First 5 Kern made in the real lives of children and their families;
2. Compliance of data handling according to federal, state, and local laws or regulations;
3. Assessment of the quarterly progress in service deliveries toward the annual target;
4. Summary of social network patterns in service integration;
5. Continuation of First 5 Kern's leadership in expanding sources of program support;
6. Justification of Proposition 10 funding with program outcomes;
7. Documentation of old and new recommendations for improvement of program administration;
8. Configuration of value-added assessment on the program impact between pretest and posttest results;
9. Presentation of new analytic methods for missing data treatment at the 2021 annual meeting of the American Statistical Association (Wang, 2021);
10. Development of an article on social emotional assessment for submission in Journal of Nursing Measurement;
11. Demonstration of the local capacity building with an ACEs grant funding.

Policy Impact of First 5 Kern Funding

The extensive impact of COVID-19 has created unprecedented stress for children, families, and service providers. To meet the needs in child health, early learning, and parent education, First 5 Kern collaborated with 39 service providers on multiple tasks, including 26 programs in parental supports, 21 programs for child and/or infant services, 20 programs on case management, nine programs in early learning, and three programs for service referrals (Ibid. 1). The well-rounded service funding not only supports the

whole-child, whole-family wellbeing initiative[9] of First 5 Association of California across focus areas of *Child Health, Family Functioning*, and *Child Development*, but also demonstrates a strategy of using the *whole-community* resources to strengthen equity of local program access for all young children to thrive.

Report Structure

To facilitate the result presentation at both commission and program levels, the report content is divided into five chapters. Chapter 1 includes an overview of First 5 Kern's vision, mission, and partnership building at the Commission level. Chapter 2 contains service outcomes in focus areas of *Child Health, Family Functioning*, and *Child Development*. Chapter 3 is devoted to social network analyses across programs to evaluate effectiveness of partnership building in the fourth focus area, *Systems of Care*. Chapter 4 focuses on improvement on common service indicators across programs to describe the *Turning the Curve* effects between adjacent years (Friedman, 2005). The report ends with a "Conclusions and Future Directions" chapter to review past recommendations and adduce new recommendations for the next year. Consistency of the report structure has been maintained since FY 2010-2011 with ongoing improvement of research methodology every year. All past reports have been peer-reviewed and published by Education Resources Information Center (ERIC) of the U.S. Department of Education.

[9] https://first5association.org/advocacy/policy-agenda/

Chapter 1: First 5 Kern Overview

Located in the southern California Central Valley, Kern County covers an area over 8,163 square miles. The terrain extends from the *valley floor* to *Coastal Ranges* in the west and *Sierra Nevada Range* in the east. It also includes parts of *Mojave Desert, Indian Wells Valley*, and *Antelope Valley*. Program outreach is needed for service access in remote communities. However, the distance factor was not considered in Proposition 10 fund allocation. At the county level, distribution of the state revenue is solely based on the proportion of live birth. Consequently, First 5 Kern has to absorb additional cost of program offerings in the vast rural area under a frugal budget. As Robison-Frankhouser (2003) recollected,

> KCCFC [Kern County Children and Families Commission, or First 5 Kern] faced geographical and demographic challenges within Kern County. The challenge of mountain ranges that surround the valley region and also isolate the desert areas limited families' access to needed services. Low-income and/or LEP [Limited English Proficiency] families often struggled to reach services that were too far from their homes. Too often, they found themselves isolated from medical care and child-care services. (p. 6)

On the time dimension, program funding is particularly important in FY 2020-2021 when childcare costs nearly doubled during COVID-19.[10] As Brown Armstrong Accountancy Corporation (2020), an auditing agency for the county, acknowledged, "The [Kern] County's Commission is a leader at the state level and serves as a model for others. Contractors are held to strict standards of financial and program compliance" (p. 3). Despite the fluctuation of state revenue in recent years, First 5 Kern has been maintaining stability of program funding to meet the needs of young children ages 0-5, a critical period for brain development and kindergarten preparation.

Focus Area Designation

In the past, few private foundations reached the valley, mountain, and desert communities to sponsor programs that are strategically designed to make comprehensive improvement in child health, early learning, and family support. The lockdown confinement during the pandemic further created more issues of mental stress, as well as obesity for lacking physical exercises among family members.[11] As a result, quality of child health is entangled with family functioning because dietary choices often depend on parental discretion. To guide the support for young children and their families, Kern 5 Kern (2020) has identified two of its focus areas as (1) *Health and Wellness* and (2) *Parent Education and Support Services*.

Under COVID-19, childcare is not only a sector of social services, but also the foundation for economic recovery (Darling-Hammond & Johnson, 2020). In a long run, quality of early learning opportunities must be sustained to nurture the minds of young children for future success. Due to the indisputable needs of supporting child growth, First 5 Kern assigned its third focus area in *Early Childcare and Education*.

[10] https://www.cnn.com/videos/business/2021/07/09/childcare-costs-rise-covid-brown-dnt-lead-vpx.cnn
[11] https://www.economist.com/international/2020/07/19/lockdowns-could-have-long-term-effects-on-childrens-health

Prior to the pandemic, it was already reported that "Poverty disproportionately affects Kern County children with more than a third living below poverty compared to less than a quarter of Californian children" (Constantine & Jonah, 2017, p. 9). It is crucial to amend the shortage of family resources with community support for child protection. Accordingly, First 5 Kern highlighted *Integration of Services* as the fourth focus area to promote *Systems of Care*.

Per stipulation of the Health and Safety Code of California, the state commission reaffirmed that "While counties design their programs to fit their local needs, they must provide services in each of the following four focus areas: Child Health, Child Development, Family Functioning, Systems of Care".[12] In designing its strategic plan, First 5 Kern (2021) recapped the four focus areas as:

> Three focus areas advance specific children's issues of Health and Wellness, Parent Education and Support Services, and Early Childcare and Education. The fourth focus area, Integration of Services, ensures collaboration with other agencies, organizations, and entities with similar goals and objectives to enhance the overall efficiency of provider systems. (p. 3)

The local focus areas are aligned with the state focus areas in Table 1.

Table 1: Focus Area Alignments at State and Local Levels

	State Focus Area	First 5 Kern Focus Area
I.	Child Health	Health and Wellness
II.	Family Functioning	Parent Education and Support Services
III.	Child Development	Early Childcare and Education
IV.	Systems of Care	Integration of Services

Vision Statement

Across the golden state, "Every child deserves a chance to thrive. That's California's promise to our children" (Silard & Gaskins, 2019, p. 1). Following the state-mandated RBA, First 5 California (2019) announced its vision to *have all children receive the best possible start in life and thrive*. First 5 Kern (2021) incorporated the statewide vision statement and added a key phrase of "supportive, safe, and loving homes and neighborhoods" to emphasize the local capacity building. In the 2020-2025 funding cycle, the Commission stated its vision as:

> All Kern County children will be born into and thrive in supportive, safe, loving homes and neighborhoods and will enter school healthy and ready to learn. (p. 2)

This statement is employed as a compass to ensure identification, implementation, and promotion of best practices for improving child and family wellbeing in Kern County.

Following requirement of Proposition 10, the commission conducted an annual review to update its strategic plan through public hearings. Guided by its vision statement, First 5 Kern served as the primary agency to address the local program needs in early childhood support.

[12] First 5 California (2010). *2009-2010 Annual Report*. Sacramento, CA: Author.

Mission Statement

Through its broad-based strategic planning, First 5 Kern adopts both proven and innovative practices to create, leverage, and maximize local funding for early childhood support. The partnership building has led First 5 Kern to embrace the following mission statement:

> To strengthen and support the children of Kern County prenatal to five and their families by empowering our providers through the integration of services with an emphasis on health and wellness, parent education, and early childcare and education. (First 5 Kern, 2021, p. 2)

By design, the mission is outcome-driven to ensure the best possible start for all young children. In FY 2020-2021, the mission statement attached great importance to articulating different program features in early childhood support. It is the dual emphases of the mission statement on *program funding* and *service integration* that differentiate First 5 Kern from other organizations with a similar vision statement.

Commission Leadership

Commissioners of First 5 Kern are appointed according to the California Health and Safety Code (Section 130140), i.e., "The county commission shall be appointed by the board of supervisors and shall consist of at least five but not more than nine members." To fulfill its responsibility of supervising fund administration, the commission is made up of local community leaders, experts, and advocates. Under its leadership, First 5 Kern took part in a Child Care Task Force to assist service access during the pandemic. "The commission also performs administrative site visits to monitor contractor compliance with the requirements of their general agreement and to assist in program evaluation, sustainability, and improvement" (Brown Armstrong Accountancy Corporation, 2020, p. 3). As shown in Exhibit 1, the Commission leadership has a balanced representation of key stakeholders, including elected officials, service providers, program administrators, and community volunteers.

Exhibit 1: First 5 Kern Commission Members

Commissioner	Affiliation
Lucinda Wasson (Chair)	Retired Kern County Director of Nursing
John Nilon (Vice Chair)	Retired County Administrative Officer of Kern
Dena Murphy (Treasurer)	Director, Kern County Department of Human Services
Jennie Sill (Secretary)	Children's System of Care Administrator
Michelle Curioso	Kern County Department of Public Health Services
Russell Judd	Chief Executive Officer, Kern Medical
Kelly Richers	Superintendent, Wasco Union School District
Zack Scrivner	Supervisor, County of Kern
Debbie Wood	Retired Coordinator of Health, Bakersfield City School District

Under the Commission leadership, four committees, *Budget and Finance Committee* (BFC), *Executive Committee* (EC), *Personnel Committee* (PC), and *Technical Advisory Committee* (TAC), are composed in this funding cycle. BFC is led by the Treasurer and three Commissioners to guide the Commission and the Executive Director on budgetary and financial planning. EC consists of the Commission Chairperson, the Vice-Chairperson, the Secretary, and the Treasurer to act on any matters pertaining to First 5 Kern operation. PC is supervised by the Commission Vice-Chairperson and three Commissioners to attend all personnel matters, including employment, evaluation, compensation, and discipline of Commission employees. TAC includes four Commissioners and 14 community representatives to advise on all matters relevant or useful to fulfillment of the Commission responsibilities. The EC, BFC, and PC memberships are publicized in the agenda of each Commission meeting. TAC members are recognized in Appendix B of this report.

A Commissioner, by virtue of being the Public Health Officer, the Director of Human Services, or the Director of the Behavioral Health and Recovery Services Department, is authorized to designate an Alternate Commissioner to participate at any Commission meetings when the Commissioner is unavailable. Starting on January 1, 2006, any person newly appointed as a Commissioner shall complete a course in ethics training approved by the Fair Political Practices Commission and Attorney General. Repeat of the training is scheduled every two years. Commissioners also fill out a government document (i.e., Form 700) to declare no conflict of interest in the funding decisions. The Commission in Kern County collectively brings more than two decades of experience in building and improving *Systems of Care* for young children across various communities.

Profile of Young Children in Kern County

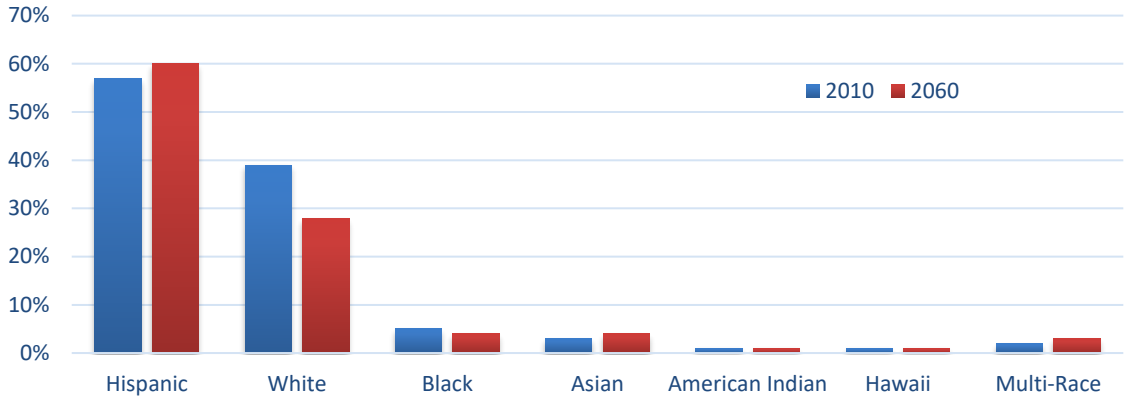
In Fall 2021, the U.S. federal government announced that "The Census Bureau will not release its standard 2020 ACS 1-year estimates because of the impacts of the COVID-19 pandemic on data collection".[13] In 2019, California had 8,865,747 children under 18 years and 32% of them were under age 6 (Census Table S0901). In Kern County, the proportion of children under age 6 was 32.5%, which corresponded to 84,034 headcounts. In comparison to the state average, the slightly higher percent corresponded to 1,293 additional children eligible for First 5 Kern service.

Among 58 counties in the state, Kern ranked 57 on both *health factors* and *health behaviors* in 2020.[14] Kern County is also the third largest county in California by land area. San Bernardino and Inyo are the two counties larger than Kern. Nonetheless, service demand is much lower in Inyo because of its the population density at 1.8 person per square mile. In contrast, Kern County population density is 111 people per square mile, which is also larger than the population density of San Bernardino. The proportion of children under age 6 in San Bernardino is 31.9% (Census Table S0901), below the state average. Hence, Kern County spans across a widespread region with a population density higher than both Inyo and San Bernardino. To address the need of service outreach, First 5 Kern created a mobile service mechanism to extend dental and immunization support for young children in various communities.

[13] https://data.census.gov/cedsci/advanced?g=0100000US_0400000US06_0500000US06029
[14] https://www.countyhealthrankings.org/app/california/2020/rankings/kern/county/outcomes/overall/snapshot

Based on the world population review, Kern County population has reached 913,090 by 2021 with a growth rate of 0.71% in the prior year.[15] In addition, an increase of Latino/Hispanic population has been projected in Figure 1, and approximately 40% of local children have a foreign-born parent.[16] To overcome language barriers, First 5 Kern-funded programs, such as 2-1-1 Kern County, offered bilingual services to reduce impediments of service access. Attention on the equity concerns is well-justified across focus areas during the pandemic when "Latino children are testing positive [on virus infection] at higher rates than other groups of children" (Aguilera, 2020, p. 1).

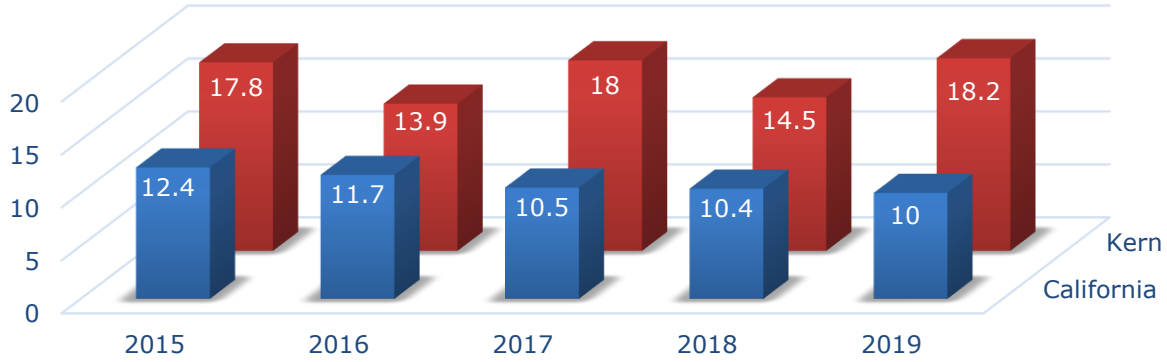
Figure 1: Proportion of Kern Population by Race in 2010 and 2060



Source: https://www.shfcenter.org/assets/SJVHF/SJVHF_Kern_County_Report_Oct_2017.pdf

In *Child Health*, nutrition, breastfeeding, and safety education are classified in a service category of *General Health Education and Promotion*. In addition, the *Early Intervention* category includes care coordination and mild-to-moderate support services. Nurse Family Partnership is another program to fit the *Perinatal and Early Childhood Home Visiting* category. First 5 Kern also funded *Oral Health Education and Treatment* services. Altogether, 12 programs received funding in the *Health and Wellness* focus area.

Figure 2: Percent of Population with Education below High School Graduation



Source: Census S1501

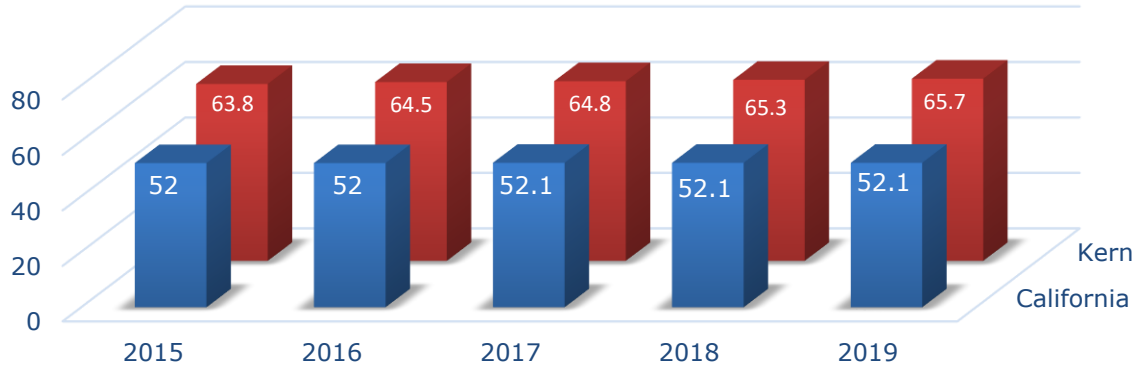
[15] https://worldpopulationreview.com/us-counties/ca/kern-county-population
[16] https://www.first5kern.org/about-us/about-kern/

In *Family Functioning*, 60% of mothers shortened their breastfeeding period during COVID-19 (Deliso, 2020). Domestic violence and child abuse are also on the rise (Abramson, 2020). Within Kern County, a trend plot in Figure 2 shows a higher proportion of the population 18-24 years *unmet the compulsory education requirement*. "Given that children learn their habits from the adults in their life, it is important for adults to both create an environment conducive to healthy living and lead by example" (Constantine & Jonah, 2017, p. 28). To improve learning opportunities in the family setting, First 5 Kern funded 17 programs in *Parent Education and Support Services*.

In a broad scope, Sitaraman (2019) reported that "the U.S. is far behind other nations in investment in early childhood" (p. 2) and "early childhood is not just important on an individual level but should be a matter of national importance" (p. 2). This year the commission channeled $12,375 pass-through funds of California Children & Families Foundation from United Way of California to educate families on the benefits of Earned Income Tax Credit (Ibid. 5). Following its strategic plan, the commission also funded 10 programs in *Early Childcare and Education*.

According to Jones (2017), Latino students face large inequities in educational achievement compared to white peers. Heckman (2017) cautioned that "gaps between the advantaged and disadvantaged open up early in the lives of children" (p. 50). With a higher proportion of the minority population in Kern County than the state average (Figure 3), more local children are likely to face English language barriers in preschool, which corroborate with the trend of education outcomes in Figure 2.

Figure 3: Percent of Population with Hispanic or Latino Origin



Source: Census S1501

In summary, children represent community future, and "Tracking child population helps project a community's potential needs for education, child care, health care, and other services for children."[17] Based on the characteristics of Kern County children, First 5 Kern sponsored family-focused, culturally appropriate, and community-based service deliveries in Health *and Wellness, Parent Education and Support Services,* and *Early Childcare and Education.* Information about the 39 service providers is released online (see Ibid. 1) to maintain transparency of program funding.

[17] http://kern.org/kcnc/wp-content/uploads/sites/43/2018/08/2018-Important-Facts-About-Kern_s-Children.pdf

Enhancement of Local Community Support

In FY 2020-2021, First 5 Kern sponsored a website[18] to support Trauma-Informed Care (TIC), including dissemination of information about local partners, training opportunities, past workshop resources, and news from the ACEs project. According to Zimlich (2021), trauma presents as a spectrum, and it can look different in every person—especially in children. Thus, TIC networks are developed to address toxic stress with $205,659 extern grant investment (Ibid. 5). In addition, innovative approaches have been taken to extend service deliveries through social media and hybrid-virtual platforms to sustain access to court-mandated parent education, center-based programs, and case management services.

Table 2: Sources and Leveraged Funds for Program Support in FY 2020-2021

Source	Leveraged Funds
Borax Visitor Center	$3,000.00
California Department of Public Health	$183,631.00
California Department of Social Services (COVID)	$20,158.00
California Office of Emergency Services	$242,945.00
Chevron	$40,000.00
County of Kern	$698,057.00
Desert Lake Community Services District	$840.00
Dignity Healthcare	$3,992.00
Anonymous or Individual Donation	$44,249.00
Corporate Donation – Corporate	$67,772.00
Emergency Food and Shelter Program	$55,416.00
Fees/Tuition	$45,350.00
Fundraiser	$37,077.00
Kern County Aging & Adult Services	$33,950.00
Kern Family Health Care	$10,000.00
Kern Regional Center	$136,927.00
Medical Administrative Activities	$15,730.00
Network for a Healthy California	$49,166.00
Other Organizations	$1,116,930.00
Packard Foundation	$5,167.00
PG&E CARE Program Stipend	$370.00
Southwest Healthcare District	$9,169.00
The Wonderful Company	$1,000.00
Title V	$691,893.00
United Way	$313,658.00
United Ways of California	$6,500.00

Treating Proposition 10 funding as *seeds* money (Edelhart, 2016), First 5 Kern supported fund leverage at the program level to sustain service delivery in local communities. Table 2 shows the leveraged fund of $3,832,947 from 26 external sources this year, far above the corresponding annual amount of $2,805,558 from 27 sources prior

[18] www.ResilientKern.org

to COVID-19. To facilitate service coordination across the community-based programs, First 5 Kern held three TAC[19] and six Commission meetings[20] that were open to the general public for input gathering and information dissemination. Altogether, First 5 Kern took part in 40 countywide undertakings for enhancement of community support (Table 3).

Table 3: First 5 Kern's Participation in Local Undertakings

- 34th Street Neighborhood Partnership
- ACEs Aware and Resilient Kern Leadership Group Meetings
- Bakersfield College Child Development Advisory Committee
- Bakersfield City School District – School Health Advisory Committee
- Buttonwillow Community Collaborative
- Community Action Partnership of Kern – Health Services Advisory Committee
- County Nutrition Action Plan
- Delano Neighborhood Partnership
- Early Childhood Council of Kern
- East Bakersfield Community Collaborative
- East Kern Collaborative
- Family First Prevention Services Act (FFPSA) Part I Implementation Planning Committee
- Greenfield H.E.L.P.S (Healthy Enriched Lives Produce Success) Collaborative
- Health Net Kern Community Advisory Committee
- Home Visiting and Early Childhood Systems Coordination Meetings
- Indian Wells Valley Collaborative
- Keep Bakersfield Beautiful Committee
- Kern Connected Community Network – Community Advisory Group
- Kern County Network for Children – General Collaborative
- Kern County Prevention Council
- Kern Complete Count Committee (Census 2020)
- Kern Pledge – Kinder Readiness Workgroup
- Kern River Valley Collaborative
- Lost Hills Community Collaborative
- McFarland Collaborative
- Medically Vulnerable Care Coordination Committee
- Medically Vulnerable Children Resource Fair Planning Committee
- Mountain Communities Collaborative
- Oildale Community Collaborative
- Resilient Kern Leadership Committee
- Richardson Special Needs Collaborative
- Robert Wood Johnson and Prevention Institute P3 – Power, People, and Parks Initiative
- Safe Sleep Coalition of Kern County

[19] https://www.first5kern.org/meetings/tech-advisory-meetings/
[20] https://www.first5kern.org/meetings/commission-meetings/

Table 3: First 5 Kern's Participation in Local Undertakings

• Safely Surrender Baby Coalition
• Shafter Healthy Start Collaborative
• South Chester Partnership Collaborative
• South Valley Neighborhood Partnership Arvin/Lamont/Weedpatch Collaborative
• Southeast Neighborhood Partnership General Collaborative
• West Side "Together We Can" Collaborative
• Wasco Community Collaborative

In First 5 Kern's (2021) strategic plan, program funding is designed to enhance "Community strengthening efforts that support education and community awareness" (Objective 4.4). For instance, a mother faced financial difficulties to support early learning activities for her daughter. First 5 Kern funded free preschool services at West Side Outreach and Learning Center (WSOLC) to offset the tuition cost. WSOLC staff reported that "she [the mother] was so very thankful and told us how this would be a huge financial relief to her family" (Ibid. 6). During the pandemic, real life stories indicated parent struggles to support families while filling the void of in-person schooling and/or day care service (Doocy, Kim, & Montoya, 2020). Table 4 lists 65 outreach services led by First 5 Kern at the community, county, and state levels.

Table 4: First 5 Kern's Outreach Effort to Promote Public Awareness

Event	Initiator	Participant
Community	• COVID Diaper Delivery to Family Resource Centers • First 5 Kern Newsletter • First 5 Kern Strategic Plan • First 5 Kern Website • First 5 Kern Weekly Headlines e-blast • Operation School Bell Celebration	• Caring Corner, Bakersfield Pregnancy Center and United Way Resource Fairs • Fox Theater Marquee Sponsorship: Immunizations, Resilient Kern, and Talk, Read, Sing • Help Me Grow Kern County Marketing: Appearances on KGET, Telemundo, KBFX, Univision, OTT platforms, social media partnership with Bakersfield Condors, Kern County Family Magazine, and Fox Theatre marquee • Oasis Family Resource Center Grand Opening • United Way Book of the Month Club Sponsorship • Safely Surrender Campaign
County	• Ages and Stages Questionnaire Trainings • Black Infant and Maternal Health Initiative • Community of Excellence (Tobacco Free Coalition of Kern County) • Distributed personal protective equipment and cleaning supplies	• Chamber of Commerce Governmental Review Council • Family First Prevention Services Act (FFPSA) Part I Implementation Planning Committee • Fetal Infant Mortality Review • Kern Association for the Education of Young Children • Kern Complete Count 2020 Census

Event	Initiator	Participant
	for distribution to child care providers during COVID-19 pandemic • Coalition Participants: Dolores Huerta Foundation, First 5 Kern, Vision y Compromiso, CAPK, Garden Pathways, and City of Bakersfield, Building Healthy Communities Kern County • First 5 California – purchased and coordinated personal protective equipment and cleaning supplies for child care and other programs • First 5 Kern Home Visitation and Early Systems Change Partnership • Help Me Grow Kern County Partner Meeting • Kern County - Child Assessment Team • Kern County Child Development Conference • Nurturing Parenting – Trainings • Medically Vulnerable Care Coordination – Trauma Informed Care Trainings • Robert Wood Johnson and Prevention Institute P3 – Power, People, and Parks Initiative • SMART Goals Training	• Kern County Board of Supervisors Meetings • Kern County Breastfeeding Coalition • Kern County Child Death Review Team • Kern County Homeless Collaborative – Coordinated Entry and Assessment Committee • Kern County Infant Toddler Seminar • Kern County Network for Children Governing Board • Kern County Prevention Council • Kern Early Stars Consortium • Kern Medical Safe Home, Safe Baby • Kern Pledge Kinder Readiness Work Group • Mercy and Memorial Hospitals – Community Benefit Committee • Nurse Family Partnership Community Advisory Board • Outreach, Enrollment, Retention, Utilization Committee (OERUC) • Safe Sleep Coalition of Kern County • Safely Surrender Baby Coalition • Tobacco Free Coalition of Kern County Steering Committee
State	• California Department of Health Care Services – ACEs Aware Initiative • First 5 Kern Legislative Visits • SMART Growth California – San Joaquin Valley Funders Network • UCLA Luskin School of Public Affairs UCLA Human Rights to Water Solution Lab • United Way of California	• Central Valley ACEs Leadership Committee • Central Valley Regional Meeting • Central Valley Safe Sleep Coalition • Earned Income Tax Credit-ACEs Partnership • First 5 Association of California Meetings • First 5 Association Evaluation Workgroup Meetings

Event	Initiator	Participant
		• First 5 Association of California Policy Committee • First 5 California Meetings • First 5 California Statewide Communications Region Representative • First 5 IMPACT Hub – Region 5 • Local meetings with state representatives • Safer California Unintentional Injury Prevention Conference • Quality Counts California Consortium

Summary of Evaluation Approaches

Per state mandate, evaluation approaches have been taken to gather performance indicators on (1) how much has been done and (2) how well each service provider performed in its specialty areas of *Child Health, Family Functioning*, and/or *Child Development*. In supporting service integration across programs, a *NetDraw* software is employed to configure the network of service providers across Kern County. The quantitative and qualitative results are triangulated through four assessment approaches:

1. Monitoring program investment across focus areas of *Child Health, Family Functioning*, *Child Development,* and *Systems of Care*

First 5 Kern tracked state investment in 10 service areas of the annual report glossary (Ibid. 6). In Child Health, First 5 Kern invested $640,988 in *Early Intervention*, $302,725 in *General Health Education and Promotion*, $811,714 in *Oral Health Education and Treatment*, and $439,727 in *Prenatal and Early Childhood Home Visiting*. In Family Functioning, the Commission spent $1,800,380 on *General Family Support* and $973,574 on *Intensive Family Support*. In Child Development, First 5 Kern used $485,363 for *Quality Early Learning Supports* and $1,167,352 for *Early Learning Programs*. In Systems of Care, $1,152,220 was invested in enhancing *Policy and Public Advocacy* and $339,448 was devoted to supporting *System Building*. In comparison to last year, First 5 Kern increased a total of $377,257 investment in Systems of Care, including additional $56,571 in Policy and Public Advocacy and $276,821 in System Building. Due to COVID-19, First 5 Kern also spent $43,883 for *Emergency and Disaster Relief* to sustain material supplies in early childhood services.

2. Comparing results of 16 instruments to assess program effectiveness in 12 aspects

Over a dozen instruments have been incorporated to collect information on program effectiveness. More specifically, this report is based on analyses of program data from (1) Ages and Stages Questionnaire-3 (ASQ-3) on child growth across 21 programs; (2) Ages and Stages Questionnaire: Social-Emotional, Version 2 (ASQ:SE-2) for early detection of potential social or emotional problems in seven programs; (3) Adult-Adolescent Parenting Inventory-2 (AAPI-2.1) on parenting outcomes from six programs; (4) Child Assessment-Summer Bridge (CASB) on preschool learning in six programs; (5)

Core Data Elements (CDE) and Birth Survey from 28 programs; (6) Family Stability Rubric (FSR) from 15 programs; (7) Desired Results Developmental Profile (DRDP)-Infant/Toddler for infants/toddlers in two programs; (8) DRDP-IT Modified Essentials for infants/toddlers in one program; (9) DRDP-Fundamental View for preschoolers in one program; (10) DRDP-Comprehensive View for preschoolers in four programs; (11) Parenting Survey from Nurturing-Parenting workshops across four programs; and (12) Program-specific surveys from Buttonwillow – Raising A Reader Assessment, Dyadic Assessment of Naturalistic Caregiver-Child Experiences (DANCE), Family Caregivers Project (FCPS) – Participant Survey, and North Carolina Family Assessment Scale for General Services (NCFAS-G) for individual service providers.

3. Analyzing the partnership strengths to facilitate program networking

Organizational data are collected from the Integration Service Questionnaire to assess the scope and depth of partnership building. Partnership extents are analyzed in multiple dimensions, including direct/indirect support, unilateral/reciprocal connection, and primary/non-primary collaboration. A *Co-Existence, Collaboration, Coordination, and Creation* model is used to examine the depth of service integration.

4. Articulating success stories of First 5 Kern to track the service impact between adjacent years

In FY 2020-2021, 38 impact stories are downloaded from First 5 Kern website (Ibid. 6). For instance, Lamont/Vineland School Readiness Program served a mother whose husband passed away during COVID-19. She was pregnant and had young children. The program staff recollected,

> They needed cleaning supplies, diapers, and clothing, all of which we were able to provide due to the generous donations we received from First 5 Kern and Kern Family Healthcare funding … the mother has expressed that they are in a much better place due to the assistance they have received, and that she is very grateful to be aware of the Family Resource Center and the resources available here. (Ibid. 6)

In this report, impact stories are aggregated to plot (a) top-impact words, (b) keyword dispersions, (c) token-word relations, and (d) word clouds for description of the service outcomes across various programs. The results show consistent appearances of keywords, such as *children, students, parents,* and *families*, in the impact stories to reconfirm the program focus on primary stakeholders.

Altogether, First 5 Kern funded 12 programs in *Child Health*, 17 programs in *Family Functioning*, and 10 programs in *Child Development* (see Appendix A). In addition, *Integration of Services* has been identified as the fourth focus area in First 5 Kern's (2021) strategic plan to enhance the *Systems of Care*. The evaluation pursuits are aligned with the state statute to "use Outcome-Based Accountability to determine future expenditures" (Proposition 10, p. 4).

Primary Aspects of Evaluation Tasks

In supporting the annual result reporting, primary evaluation tasks are illustrated in 11 aspects:

1. Dissemination of qualitative stories on the program impact across 39 service providers;
2. Implementation of an IRB protocol, including site visits, consent form administration and IRB training for 206 program staff;
3. Comparison of *target* and *actual* counts across 53 result indicators in Child Health, Family Functioning, Child Development, and Systems of Care;
4. Collection of service integration data to assess capacity of program networking;
5. Monitoring of leveraged funds to track external resource recruitment in each program;
6. Articulation of the achieved results with program funding to justify cost effectiveness;
7. Analysis of the evaluation findings to support new recommendations in an annual report;
8. Gathering of eight assessment data to report improvement of service outcomes on the time dimension;
9. Training of the evaluator as a certified analyst in multiple data imputations;
10. Examination of the ASQ:SE-2 threshold gaps to improve social emotional screening;
11. Highlight of grant outcomes from the ACEs Aware Initiative to strengthen Trauma-Informed Networks of Care across Kern County.

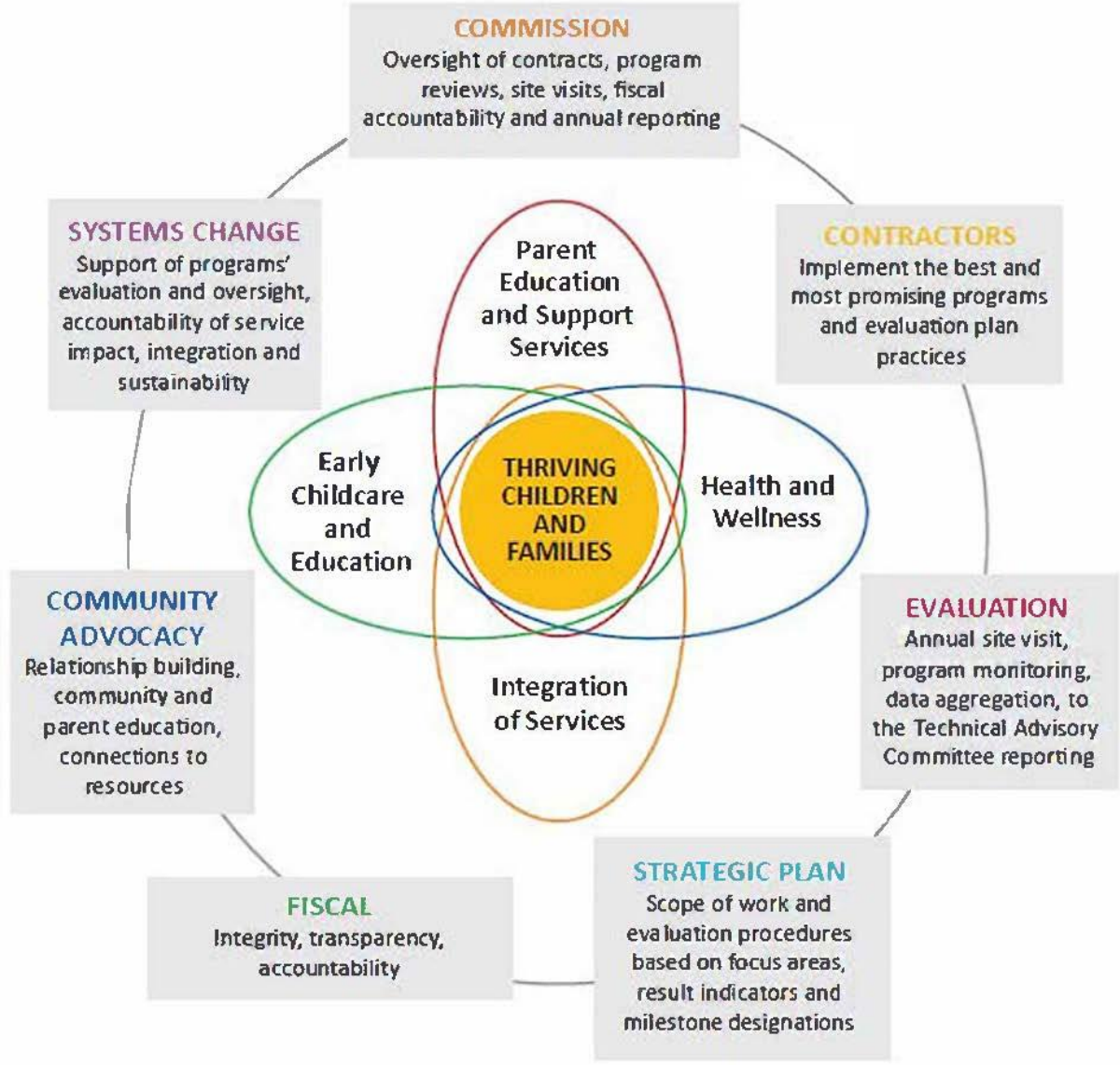
Meanwhile, evaluation findings are derived from the seamless efforts of data collection to support:

1. Illustration of the profound differences First 5 Kern made in the real lives of children and their families;
2. Compliance of data handling according to federal, state, and local laws or regulations;
3. Assessment of the quarterly progress in service deliveries toward the annual target;
4. Summary of social network patterns in service integration;
5. Continuation of First 5 Kern's leadership in expanding sources of program support;
6. Justification of Proposition 10 funding with program outcomes;
7. Documentation of old and new recommendations for improvement of program administration;
8. Configuration of value-added assessment on the program impact between pretest and posttest results;
9. Presentation of new analytic methods for missing data treatment at the 2021 annual meeting of the American Statistical Association (Wang, 2021);
10. Development of an article on social emotional assessment for submission in Journal of Nursing Measurement;
11. Demonstration of the local capacity building with an ACEs grant funding.

Description of the Evaluation Framework

FY 2020-2021 is the first year of the current funding cycle under a five-year strategic plan. First 5 Kern followed the mandates of Proposition 10 to collect program data for demonstrating results. To support both *needs-based assessment* and *asset-based assessment*, a coherent system has been established to combine service evaluation with program administration in Exhibit 2 that places "Thriving Children and Families" at the center of the commission operation.

Exhibit 2: First 5 Kern System for Program Administration and Evaluation



The asset-based assessment was conducted quarterly to monitor state investment and service delivery at the program level. Service providers also articulated *needs statements* and *measurable objectives* in a Scope of Work-Evaluation Plan (SOW-EP) to delineate resources, data collection tools, result indicators, performance measures, and annual targets. The evaluation team attended TAC meetings regularly to meet an expectation of First 5 Kern's (2015b) strategic plan for this funding cycle, i.e., "The evaluation process provides ongoing assessment and feedback on program results. It allows the identification of outcomes in order to build a 'road map' for program development" (p. 8).

As an important part of strategic planning, evaluation mechanism is fully incorporated in First 5 Kern's daily operation to facilitate assessment of program performance in *Child Health*, *Family Functioning*, and *Child Development*, and sustain partnership building for improvement of child wellbeing in Kern County. Friedman (2009)

noted, "RBA makes a fundamental distinction between Population Accountability and Performance Accountability" (p. 2). Whereas performance accountability is an important component of program evaluation, population accountability relies on partnership building (Friedman, 2011). In collaboration with CSUB, the *evaluation design* and *evaluator responsibility* are reviewed by an IRB panel to ensure *adequate, transparent*, and *accurate* data collection across 39 programs.

It was stipulated by Proposition 10 that "each county commission shall conduct an audit of, and issue a written report on the implementation and performance of, their respective functions during the preceding fiscal year" (p. 12). The RBA requirements also support site visits to identify service gaps. More specifically, the state statute is fulfilled by this report in five modules: (1) descriptive data from program reviews to demonstrate the evidenced-based support for children ages 0-5 and their families across Kern County, (2) assessment results to track value-added improvements on the effectiveness of funded programs under a pretest and posttest setting, (3) partnership analyses to meet resource demands for service deliveries in hard-to-reach communities, (4) trend comparison to monitor changes of program outcomes between adjacent years, and (5) future recommendations to sustain the "Turning the Curve" process according to the commission strategic plan (First 5 Kern, 2021).

Altogether, the report structure is aligned with a Statewide Evaluation Framework (First 5 California, 2005) to delineate the impact of state funding across four focus areas of *Child Health, Family Functioning, Child Development,* and *Systems of Care.* Built on the description of Commission functioning in Chapter 1, program effectiveness is examined in Chapter 2 according to service outcomes in each focus area. Chapter 3 is devoted to addressing the results of program collaboration across focus areas. While the first three chapters are focused on evaluation findings within FY 2020-2021, key indicators of child-wellbeing and family functioning are tracked between adjacent years in Chapter 4 to demonstrate result improvement. Conclusions in Chapter 5 are grounded on the program impact configuration under a framework of *Program Administration and Evaluation System* in Exhibit 2.

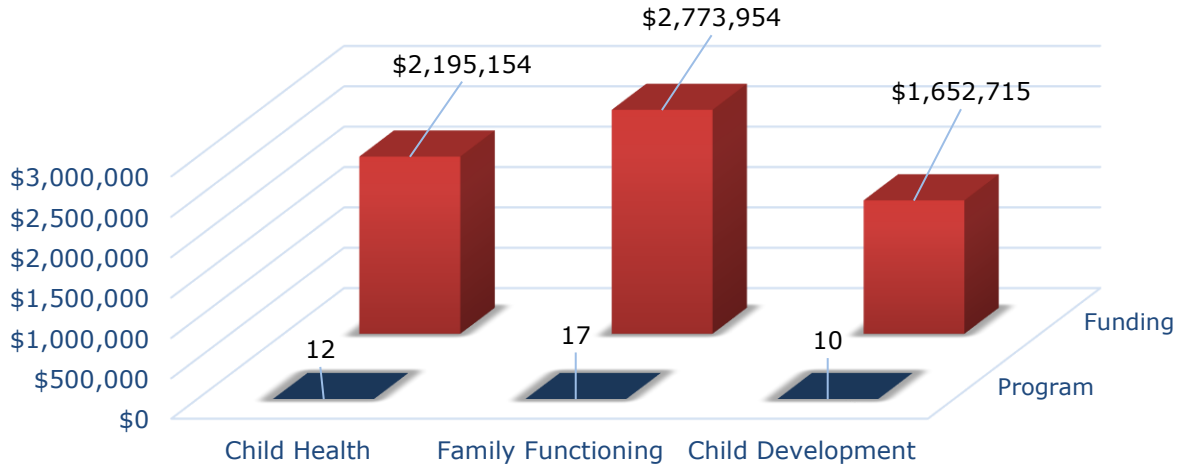
Chapter 2: Impact of First 5 Kern-funded Programs

At the core of Proposition 10 investment is a commitment to amending service gaps in early childhood support throughout the state (Bodenhorn & Kelch, 2001). In Kern County, disparities of early childhood support are major challenges because of "scarce availability of pre-k slots" and "rising counts of young children" (Manship, Jacobson, & Fuller, 2018, p. 6). In addition, some Kern communities lack vital necessities, such as clean air and water, healthy food, high quality schools and health care. Program funding from the state is essential to overcoming impediments in these traditionally underserved neighborhoods.

In promoting its 2021 policy agenda, First 5 Association of California also stressed a "focus [of service delivery] on those farthest from opportunity".[21] Under a conviction that all children deserve to be healthy, safe, and ready to succeed in school and life, the association specifically identified four modules in its agenda: (1) Comprehensive Health and Development, (2) Resilient Families, (3) Quality Early Learning, and (4) Sustainability and Scale (Ibid. 21). The first three modules naturally match First 5 Kern's (2021) focus areas in *Health and Wellness*, *Parent Education and Support Services,* and *Early Childcare and Education*. First 5 Kern set the fourth focus area, *Integration of Services*, which overlaps with the *Sustainability* module to strengthen systems of care. Regarding the *Scale* component of the fourth module, First 5 Kern contracted a consultant to work on result tracking in the Persimmony data management system.[22]

The Commission funding and program count are displayed in Figure 4 across focus areas of service delivery. In comparison, Bui et al. (2017) noted that "newborn care was one of the top 5 conditions in terms of total hospitalization costs" (p. 186). Thus, healthcare programs tend to cost more even though the program count in *Child Health* is not substantially larger than other focus areas.

Figure 4: Commission Investments and Program Counts in Three Focus Areas



Source: State Annual Report 2020-2021.

[21] https://first5association.org/wp-content/uploads/2021/04/2021-Policy-Agenda.pdf
[22] https://www.first5kern.org/wp-content/uploads/2021/05/CFC-Commission-packet-060221.pdf

To address essential needs of children and their families, similar services are delivered in different communities. For instance, 50 families received support for health insurance applications from two programs in *Child Development*, i.e., Arvin Family Resource Center (AFRC) and Buttonwillow Community Resource Center (BCRC) [Result Indicator (RI) 1.1.1].[23] In this report, program affiliations are based on the primary service features in *Child Health, Family Functioning*, and *Child Development* (Ibid. 1). Due to the structure of RI coverage, the state focus areas (see Table 1) are used interchangeably in this chapter with First 5 Kern's (2021) focus areas of *Health and Wellness, Parent Education and Support Services*, and *Early Childcare and Education* to streamline the result presentation.

Following the state report glossaries (First 5 Association of California, 2013), 10 service domains are identified for describing local programs of First 5 Kern. Two of the domains, *Policy and Public Advocacy* and *Programs and Systems Improvement Efforts*, belong to the fourth focus area of *Systems of Care*. The remaining eight domains address the direct impact of service outcomes for program beneficiaries, including children and caregivers. In addition, First 5 Kern's (2021) mission includes support for service providers in partnership building. Table 5 contains the number of beneficiaries in each report domain.

Table 5: Counts of Service Beneficiaries Across Report Domains

Report Domains	Number of Beneficiaries
General Health Education/Promotion	860 children; 97 caregivers
Oral Health Education/Treatment	1,040 children
Perinatal/Early Childhood Home	109 children; 153 caregivers
Early Intervention	326 children; 217 caregivers
General Family Support	2,705 children; 13,669 caregivers; 81 providers
Intensive Family Support	2,886 children; 2,276 caregivers
Quality Early Learning Supports	600 children; 42 providers
Early Learning Programs	824 children; 876 caregivers; 49 providers

Due to smoke cessation, First 5 Kern received $977,486 less funding from the state tobacco tax this year. Program spending also reduced by $981,962 for service capacity shrinking, including COVID-19 furloughs and staff downsizing. Despite the financial constraints, the number of caregivers increased from 10,342 last year to 13,669 this year in *General Family Support*. In *Intensive Family Support*, First 5 Kern slightly increased the child count from 2,880 to 2,886 between the adjacent years. The commission also increased the caregiver count from 2,133 to 2,276. In *Early Learning Programs*, the number of providers increased from 27 last year to 49 this year. The result tracking demonstrated resilience of the local service system led by First 5 Kern during the pandemic.

In this chapter, the program impacts are described by service deliveries for children ages 0-5 and their families. Through collaboration of First 5 Kern staff, service providers, and parents or guardians, assessment data are gathered to examine improvement of program outcomes under a pretest and posttest setting. The leveraged funds are

[23] https://www.first5kern.org/wp-content/uploads/2021/05/strategic-plan-2021-2022.pdf

summarized at end of this chapter to indicate the capacity of partnership building. Built on the program-specific findings, the fourth focus area, *Systems of Care*, is addressed in Chapter 3 to report the effect of service integration.

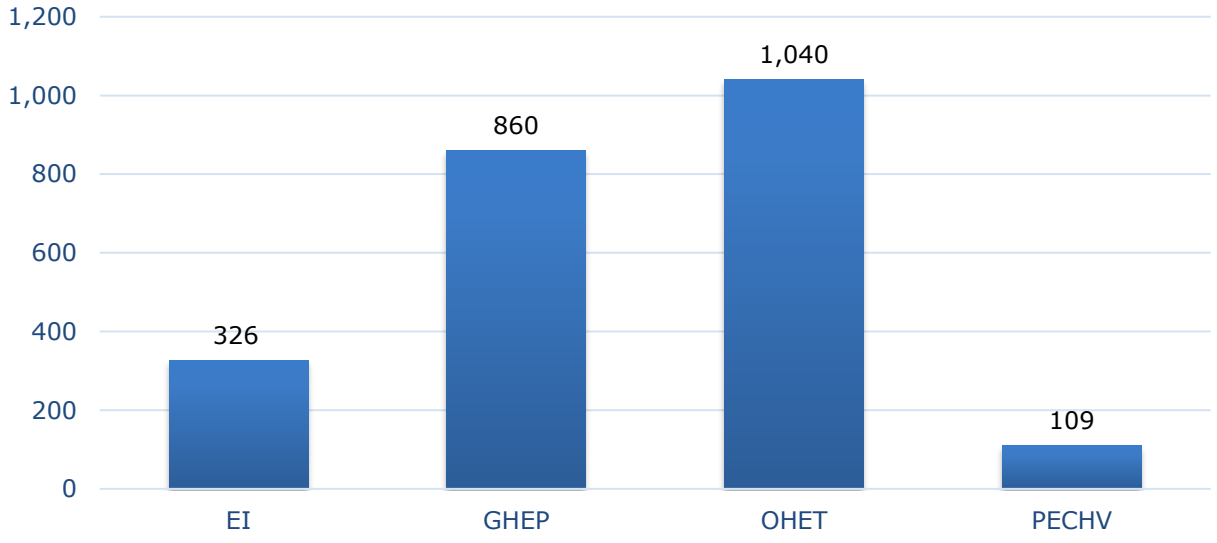
(I) Service Improvement in *Child Health*

Surrounded by mountains at three sides, most Kern communities endure some of the worst air quality in the United States, including the highest density of particulate matter (PM 2.5). The PM 2.5 exposure is linked to a high risk of preterm birth (Smith, 2021), which may cause many health issues. Kern County also reported more emergency room visits by children under age 5 (Constantine & Jonah, 2017). To offer well-rounded programs in *Health and Wellness*, First 5 Kern extended its support in four service domains of the state report glossary (First 5 Association of California, 2013):

[1] Early Intervention (EI)
[2] General Health Education and Promotion (GHEP)
[3] Oral Health Education and Treatment (OHET)
[4] Perinatal and Early Childhood Home Visiting (PECHV)

Altogether, First 5 Kern invested $640,988 in EI and $439,727 in PECHV. Additional $302,725 was devoted to GHEP and $811,714 was designated to OHET. In comparison, home visiting is time-consuming. Hence, the number in PECHV is relatively smaller than the client counts in other categories. EI service is grounded on program specialty, and thus, its count is lower than the head counts of GHEP or ORET for the general population. With its effort to deliver services across the county, First 5 Kern aggregated its annual client counts in Figure 5 to document fulfillment of its responsibility in sponsoring critical services that are otherwise not available through for-profit organizations.

Figure 5: Client Counts in Four Domains of *Child Health*



While administering the state funds, First 5 Kern developed sustainable partnership with local programs for service delivery. In compliance with its strategic plan, First 5 Kern has identified **six objectives** to support a common goal in *Health and Wellness*, i.e., "All

children will have an early start toward good health" (p. 6). Table 6 shows connections between state glossary domains and local service objectives.

Table 6: Association between State Domains and Local Objectives

Objectives of *Health and Wellness*	Glossary Domain
1. Children will be enrolled in existing health insurance programs.	[2]
2. Pregnant women will be linked to early and continuous care.	[4]
3. Children will be provided health, dental, mental health, developmental and vision screenings and/or preventative services.	[1] [2] [3]
4. Children with identified special needs will be referred to appropriate services.	[1]
5. Children will develop early healthy habits through nutrition and/or fitness education.	[2]
6. Children and their parents/guardians will be provided with safety education and/or injury prevention services.	[2]

Capacity of Program Support in *Health and Wellness*

Program capacity needs to meet the needs of Kern population that is larger than the combination of five states, Alaska, North Dakota, South Dakota, Vermont, and Wyoming. The county is also as large as New Jersey in land size. With an annual investment of nearly $9 million from Proposition 10, First 5 Kern sponsored extensive service delivery and program outreach to support young children and their families. To address results-based accountability of the state investment, this section focuses on service outcomes of 12 programs using RI in the *Health and Wellness* section of the commission strategic plan (First 5 Kern, 2021).

Depending on program offerings, health insurance enrollment (**Objective 1**), healthy habit development (**Objective 5**), and safety education for injury prevention (**Objective 6**) are linked to service capacities at both *child* and *family* levels, i.e., RI 1.1.1-1.1.7, 1.5.1, 1.5.2, 1.6.1-1.6.4 of the strategic plan (First 5 Kern, 2021). **Objective 3** in Table 6 relies on delivery of various clinic services. The corresponding result indicators represent the number of children being served (RI 1.3.1-1.3.8, 1.3.11-1.3.13), as well as the program capacity on service coverage (RI 1.3.9, 1.3.10). **Objectives 2** and **4** address services for *mothers in pregnancy* and *children with special needs*, respectively. Therefore, result indicators are developed for prenatal care (RI 1.2.1-1.2.7) and special needs identification (RI 1.4.2) to reflect the service features.

According to Gearhart (2016), "Kern County often ranks as one of the poorest providers of healthcare in the country. … Not only is our population in ill health, but the county does not have the healthcare resources to alleviate these issues" (p. 13). To meet the dual challenges in *Child Health*, Glossary Domains [1] and [4] are adopted to address special program needs for young children and their families. Additional services are funded in Domains [2] and [3] to support health education, general treatment, and dental care. The alignment between RI designation and service description is presented in Table 7.

In Domain [1] of the state report glossary, early interventions are introduced by Medically Vulnerable Infant Program (MVIP) to incorporate case management services for medically vulnerable infants and their families. Meanwhile, Richardson Special Needs Collaborative (RSNC) offers case management services, behavioral needs screenings, parent education, and referrals for children ages 0 to 5 and their families. A Family Resource Library is sponsored by RSNC to disseminate information about children with special needs. Special Start for Exceptional Children (SSEC) expands quality early childhood education, parent support, and childcare services in non-traditional hours for medically fragile infants and toddlers. The broad spectrum of services represents varieties of program offerings across *medical and mental health treatments*, *infant and toddler services*, and *expanded hours of program operation*.

Table 7: Service Description and RI Designation in *Health and Wellness*

Objective	Service Description	RI Designation
[1]	Health Insurance Enrollment	Family and Child Coverage
[2]	Prenatal Services	Support for Mothers during Pregnancy
[3]	Clinic Services in Child Health	Child Service Count; Provider Support
[4]	Special Needs Referral	Support for Children with Special Needs
[5]	Healthy Habit Development	Family and Child Support
[6]	Safety Education	Services for Children and Parents

In comparison to last year, Court Appointed Special Advocates (CASA) is added as a new program in the current funding cycle to enhance health and safety of infants and toddlers under a circumstance of abuse and/or neglect. Besides weekly visits of CASA volunteers in foster care, the program offers resource packets to guide client access to health and education services. The program partners with Help Me Grow (HMG) to support service provider training in child developmental screening. Meanwhile, Health Literacy Program (HLP), a program reclassified in *Child Development*, continues its services in nutrition and fitness education to address **Objective 5** of *Child Health* (Table 7). To support *Health Insurance Enrollment* in **Objective 1**, Family Caregivers Project (FCP), Medically Vulnerable Care Coordination Program (MVCCP), and MVIP supported 176 providers to attend trainings or other educational services related to Health and Wellness this year (RI 4.1.3), an increase over the target count of 134. Through the service alignment with State Domain [4], BIH, Children's Mobile Immunization Program (CMIP), and Nurse Family Partnership (NFP) offer education on the importance of prenatal care to 192 mothers (RI 1.2.3), surpassing the total annual target of 154 for these programs. The collaborative efforts demonstrate First 5 Kern's support for *whole-child, whole-family wellbeing* across different programs in each focus area.

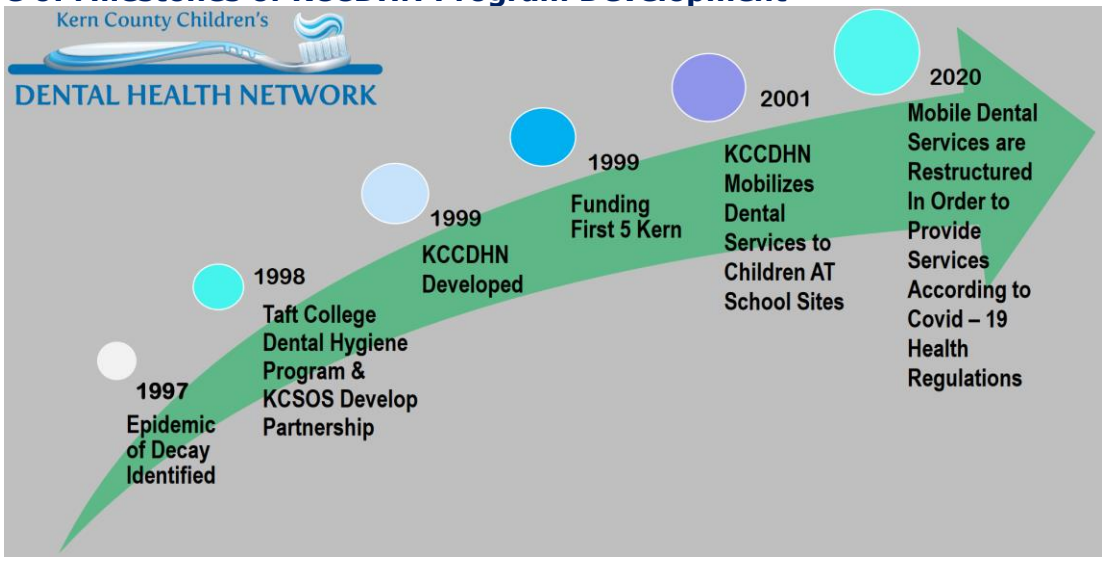
In addition, First 5 Kern promotes program specialties in service delivery. Although California has a low death rate nationally among pregnant women and new mothers, the baby mortality ratio for Black mothers is six times worse than the rate for white women (Ronayne, 2021). To address the issue, BIH offers case management services to 30 children (RI 2.1.7) and education workshops for 44 parents (RI 2.2.3). As a result, 24 women obtained prenatal referrals (RI 1.2.2). BIH also provided 56 pregnant women and mothers with information on prenatal care education (RI 1.2.3), substance abuse education (RI 1.2.5), tobacco cessation education (RI 1.2.6), and home visit arrangement (RI 1.2.7), as prescribed in **Objective 2**.

Furthermore, First 5 Association of California urges "an intentional focus on Prenatal-3 during this critical stage of child development" (Ibid. 23). In FY 2020-2021, 97 pregnant women and/or mothers were visited by nurses from NFP to obtain information and education on prenatal and postnatal care (RI 1.2.7), including 96 participants in breastfeeding education (RI 1.2.4), exceeding the target count of 58 this year. Despite the pandemic interference, NFP effectively incorporated virtual visits to maintain service access (Jacobson, 2020b).

In preparation for kindergarten admission, First 5 Kern funded CMIP with a mission to protect children from preventable diseases by providing immunizations and education.[24] The program offered immunization services to 741 children ages 0-5 (RI 1.3.11). As announced at the CMIP website, "If you can't afford your child's vaccinations, let us help. Our mobile unit brings the immunization clinic to you, and, thanks to our partnership with First 5 Kern, there's no charge for children who qualify."[25] With expansion of CMIP support at 118 clinics (RI 1.3.10), health screenings were offered to 368 children this year (RI 1.3.2), above the target count of 360. These efforts are aligned with program description in Domain [2] of the state glossary. This service is important during COVID-19 as the rate of immunization declines for young children across the nation (DeTrempe, 2020).

Another core component of **Objective 3** is *Clinic Services in Child Health*. First 5 Kern funded dental services because tooth decay ranked among the most common reasons for chronic absenteeism in kindergarten (First 5 Association of California, 2017). Kern County Children's Dental Health Network (KCCDHN) is one of the longest service providers in *Child Health*. Milestones of the program are depicted in Figure 6 to show First 5 Kern support since its inception. Built on the effective service mechanism that has been practiced for more than two decades, KCCDHN has restructured its mobile dental services in 2020 according to COVID-19 health regulations. As a result, Drive-Thru Dental Screenings are completed in four steps:

Figure 6: Milestones of KCCDHN Program Development

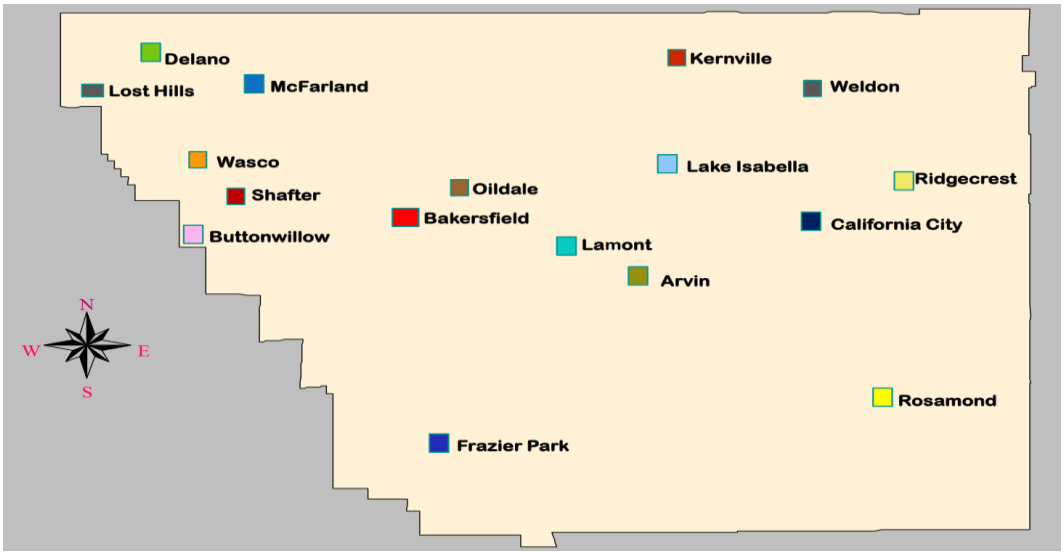


Source: Ibid. 24

[24] https://www.first5kern.org/wp-content/uploads/2021/07/August-CFC-agenda-packet-080421.pdf
[25] https://www.adventisthealth.org/bakersfield/services/childrens-immunizations/

- Professional teams for dental screenings are stationed in a designated parking lot;
- Up to 3 Families are scheduled every 10 minutes;
- Parents complete consent forms on site;
- Children receive a dental screening, fluoride varnish application, dental education and referral for treatment, if needed.

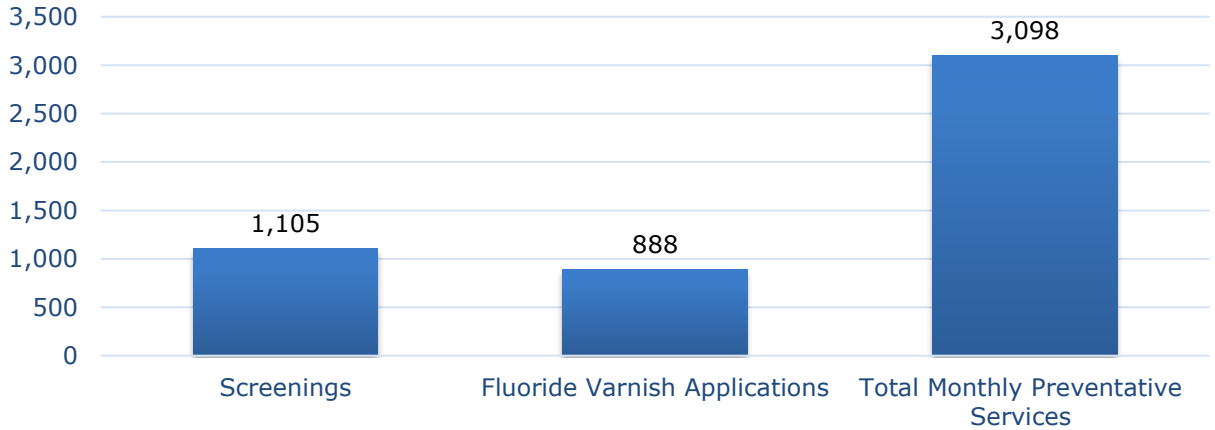
Figure 7: Distribution of KCCDHN Service Access across 17 Communities



Source: Ibid. 24

In FY 2020-2021, KCCDHN set 76 clinics (RI 1.3.9) to offer dental services in 17 communities (Figure 7), a sharp increase from 58 clinics last year. The program also provided dental screening for 1,113 children, fluoride varnish to 895 children, restorative dental care for 102 children, as well as 151 dental exams and 476 appointments for pediatric dentists (RI 1.3.4, 1.3.8). New collaborations have been established between KCCDHN and four local agencies, *Children's Immunization Mobile Unit, Community Action Partnership of Kern, Grimmway Academy's Shafter & Arvin*, and *Kern County Public Health Department*, to cope with more cases of extreme decay this year.[26]

Figure 8: Service Count across Preventative Dental Treatments



[26] https://www.first5kern.org/wp-content/uploads/2021/07/August-CFC-agenda-packet-080421.pdf

The partnership building expands KCCDHN's network of service support at schools, Family Resource Centers (FRC), and other agency sites. In particular, the drive thru process not only provides COVID-19 safe dental screenings (RI 1.3.6), but also supports 502 cases of preventative treatment and 859 cases of restorative treatment (RI 1.3.7). Altogether, the monthly preventative treatment count has surpassed the combination of service numbers between screening and fluoride varnish application (Figure 8).

Depending on birthday dates, age 6 is considered as a category bordering ages 0-5, and prolonged treatments might occur for special cases starting at age 5. In FY 2020-2021, less than 2.6% of the KCCDHN funding is designated to the case tracking up to age 7 (Figure 9). Hence, First 5 Kern has been collaborating with the dental program to primarily support children ages 0-5.

Figure 9: Fund Allocation for Oral Health Case Management

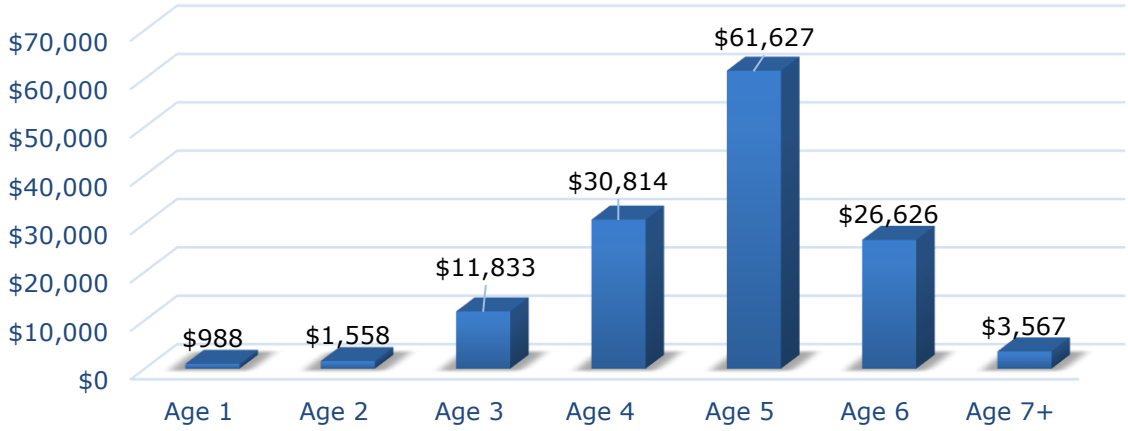
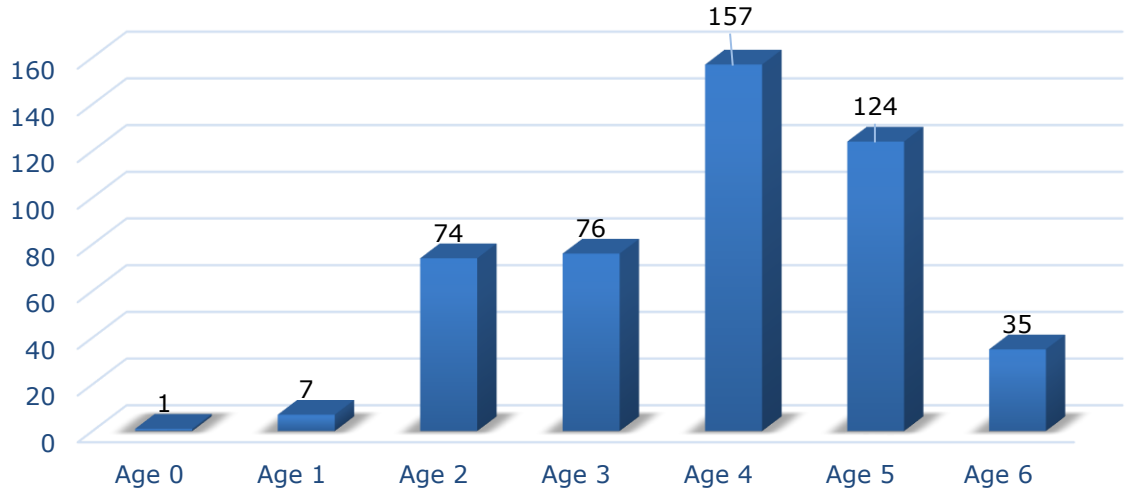


Figure 10: Number of Children Case-Managed for Oral Health



KCCDHN also delivered case management services for 474 children with oral health issues (Figure 10). As a result, the program offers dental homes for 124 children (RI 1.1.6). A six-month reminder is sent to families to continue the services after dental home

establishment. These services generate positive outcomes in Domain [3] of the state report glossary to streamline effective oral health treatments for young children.

Beyond *General Health Education and Promotion*, "Care coordination is especially critical for children with special health care needs" (Children Now, 2018, p. 35). In particular, MVCCP and MVCCP Kern County (MVCCP-KC) are combined in the funded program list (Ibid. 1) to reflect the seamless function of case identification and referrals in **Objective 4**. The program started in 2008 as a Kern County Medically Vulnerable Workgroup to address the complex needs of medically vulnerable children and their families. In November 2020, First 5 Kern teamed up with Kaiser Permanente, Kern Family Health Care, and Health Net to sponsor the annual MVCCP conference that was attended virtually by healthcare professionals, social workers, case managers, parents, and childcare providers. The funding is intended to bring together different partners working across a service network.

Throughout FY 2020-2021, MVCCP has convened partners bi-weekly for supporting medically vulnerable children. HMG concurrently addresses RI 4.4.1 by supporting 12 service providers to participate in events of early childhood education. Social service referrals were provided by 2-1-1 to 7,549 families, far above the target count of 4,000 for RI 2.4.1. The program also referred 557 families for services of developmental screening.

In FY 2020-2021, HMG, MVIP and MVCCP also assist 347 children with special needs in service access (RI 1.4.2). Besides completion of developmental screening for 397 children by the IMPACT project of the state commission, AFRC, Blanton Child Development Center (BCDC), HLP, and HMG screened 322 children for potential developmental delay (RI 1.3.1). The service expansion is important because "Accessible, quality health care and seamless care coordination are critical to achieving positive health outcomes for children and to promoting efficient care through prevention, early detection and disease management" (Children Now, 2018, p. 35).

Across California, First 5 county commissions have been recognized as the largest funders of home visiting programs (First 5 Association of California, 2017). Effectiveness of NFP support has been demonstrated through randomized trials across the nation (Heckman, 2014). In addition, BIH is another program that has a proven record of success in reducing mortality of African-American infants across 13 counties and two cities in California. The *group-based education in BIH* and *home-based consultation in NFP* have jointly contributed to enhancement of *Perinatal and Early Childhood Home Visiting* indicators in Domain [4] of the state report glossary. The early intervention is cost-beneficial because "The highest rate of return in early childhood development comes from investing as early as possible" (Heckman, 2012, ¶. 2).

KVAP and MAS are programs of *Safety Education* in **Objective 6**. In Kern County, an important aspect of *Safety Education and Injury Prevention* hinges on child protection against the risk of drowning around swimming pools, canals, lakes, and the Kern River. KVAP and MAS provide swimming pool access to families with children ages 0-5. The safety education includes First Aid classes, swim lessons, and water safety trainings on different devices in remotely located Weldon and densely populated Bakersfield. In FY 2020-2021, outcomes in Domain [2] of the state report glossary were reflected by swim lesson completion by 100 children in KVAP and MAS (RI 1.6.2). Meanwhile, 44 parents or guardians participated in swim lessons in KVAP (RI 1.6.3). Training for first

aid/Cardiopulmonary Resuscitation is offered by FCP and KVAP to 114 and 16 parents/ guardians, respectively (RI 1.6.4). KVAP also offered water safety education for 69 children (RI 1.6.1).

In summary, young children are "the most likely to experience severe injury or death" (Kern County Network for Children, 2017, p. 10). Parent education on hazard prevention, such as water safety, is particularly important for maintaining health and wellness of infants, toddlers, and preschoolers. CMIP expands its service capacity from a target count of 96 clinics to 118 clinics. In traditionally underserved communities with special needs, oral, medical, and mental health services were provided by BIH, KCCDHN, MVIP, NFP, RSNC, and SSEC. The systems of care further incorporated MVCCP for case identification and service coordination. As a result, a dozen programs collectively addressed six objectives of *Health and Wellness*:

(1) Children were enrolled in existing health insurance programs with support of AFRC and BCRC;
(2) Prenatal support was provided by BIH and NFP programs;
(3) Medical, dental, and behavioral health services were delivered by CMIP, KCCDHN, and RSNC;
(4) Special-needs services were supported by MVCCP, MVIP, RSNC, and SSEC;
(5) Early screening of developmental delay was conducted by CASA, HMG, MVCCP, and MVIP;
(6) Injury prevention and water safety were addressed by KVAP and MAS.

Built on First 5 Kern funding, service providers in *Health and Wellness* raised $1,803,649.86, nearly doubling $892,825.89 from the year prior to COVID-19. Primary features of program support are categorized in four domains to differentiate the *health education*, home visiting, *oral health*, and *early intervention* services for children ages 0-5 (Table 8).

Table 8: Program Features in *Health and Wellness*

Domain	Program*	Primary Services	Age
Early Intervention	HMG	Developmental Screening	0-5
	MVIP	Targeted Intensive Intervention	0-2
	SSEC	Targeted Intensive Intervention	0-2
	RSNC	Targeted Intensive Intervention	3-5
General Health Education and Promotion	CASA	Developmental Screening on Potential Delay	0-5
	CMIP	Mobile Program for Immunizations	0-5
	KVAP	Safety Education in Weldon	0-5
	MAS	Safety Education in Bakersfield	0-5
	MVCCP-KC	Quality Health Systems Improvement	0-5
Oral Health	KCCDHN	Mobile Program for Oral Healthcare	0-5
Prenatal/Infant Home Visiting	BIH	Maternal/Child Healthcare	0-2
	NFP	Maternal/Child Healthcare	0-2

*Program full names are listed in Appendix A.

Improvement of Program Outcomes across Service Providers

In FY 2020-2021, improvement in *Health and Wellness* has been tracked on service tasks at the program level, including child developmental screening, parent education, behavioral health intervention, and infant service coordination. In each domain,

assessment outcomes are gathered to evaluate the benefit for local children ages 0-5 and their families.

1. Support of Healthy Child Development

With dual foci on *thriving children and families* as the major results in the assessment framework (see Exhibit 2), indicators of early childhood development in CASA, HMG, MVIP and NFP are collected from ASQ-3 screening. Table 9 contains the percent of children with performance levels above the age-specific ASQ-3 thresholds in *Communication* (COM)*, Gross Motor* (GM)*, Fine Motor* (FM)*, Personal-Social* (PerS), and *Problem Solving* (ProS) domains. With exception of CASA as a new program in FY 2020-2021, other programs tracked the ASQ-3 between adjacent years.

Table 9: Percent of Children with Performance Level above ASQ-3 Threshold

Program*	Fiscal Year	N	COM	GM	FM	PerS	ProS
CASA	2020-2021	27	70.4	77.8	74.1	81.5	85.2
HMG	2019-2020	160	87.5	81.9	72.5	86.3	88.8
	2020-2021	279	85.3	81.0	74.6	83.9	93.2
MVIP	2019-2020	35	82.9	45.7	71.4	71.4	85.7
	2020-2021	43	93.0	65.1	86.0	95.3	100
NFP	2019-2020	61	98.4	93.4	98.4	98.4	100
	2020-2021	45	91.1	91.1	95.6	97.8	97.8

*Program full names are listed in Appendix A.

CASA is designed to support young children from an environment of abuse and/or neglect in the past. Its relatively small sample size in Table 9 fits the desire having few children with the adverse experience. ASQ-3 screening is conducted for these children to detect developmental delays. Due to the potential trauma experiences, children enter CASA with relatively lower passing rates than their peers in other programs. Nonetheless, over 70 percent of the children performs above the ASQ-3 threshold to indicate no signs of developmental delay.

Table 9 shows a substantial increase of the HMG assessment sample from 160 last year to 279 this year. HMG has been implemented across 17 states to serve families in need of social support for young children. In collaboration with Kern Behavioral Health and Recovery Services, HMG monitors adverse developmental and behavioral outcomes of young children and connects clients to community-based services. The ASQ-3 results indicate comparable passing rates across the development constructs between adjacent years. With a much larger sample this year, more children demonstrate no developmental delays despite the pandemic.

MVIP is redesigned from a project, *High Risk Infant Program*, to promote family-centered, community-based, and coordinated care for children with special healthcare needs. In the past, Clinica Sierra Vista received a Title V grant in June 2000 to sponsor nurse visits and case management services for over 2,000 infants in Kern County. The program focuses on (1) reducing hospitalizations and emergency room visits; (2) identifying developmental disabilities and/or delays and referring to appropriate resources to help minimize/prevent delays; (3) linking families to community resources; (4) helping families establish safe homes for medically fragile infants; (5) empowering families

through education; (6) helping families adjust to infant's special needs; (7) reducing infant mortality in high-risk population; and (8) preventing child abuse. Table 9 shows that more children in MVIP perform above the ASQ-3 thresholds than last year.

Public health nurses in NFP maintain home visiting services to support low-income, first-time mothers at *prenatal* and *infant care* stage for two and a half years. To improve pregnancy outcomes and infant development, intensive case management services are arranged in sequential steps: (1) weekly during the first month of enrollment, (2) every other week until the birth of the baby, (3) weekly during the first six weeks after delivery, (4) every other week until the baby is 21 months, and (5) monthly during months 22-24. Topics of parent education include newborn care, parenting preparation, baby-friendly environment setting, referral assistance, and healthy pregnancy. The program also offers communications in both English and Spanish to ensure effective parental engagement. By design, the service outreach extends to communities of Bakersfield, Lamont, Ridgecrest, Rosamond, Shafter and Wasco. This year, however, COVID-19 has negatively impacted the vulnerable child population in NFP. Consequently, a relatively lower percent of children perform above the thresholds than last year across ASQ-3 domains (Table 9).

It should be noted that the samples vary from 27 to 279 in Table 9. To control the impact of sample volume, the minimum effect size is computed for each program across the ASQ-3 domains. The results for this year are 1.26, 2.17, 2.22, and 3.58 for CASA, HMG, MVIP, and NFP, respectively. Hence, all of the results are above 0.80 in FY 2020-2021, suggesting strong practical program impacts on five ASQ-3 indicators (Cohen, 1988). Developmental delays do not seem to be a critical issues in these programs because children perform significantly above the ASQ-3 thresholds at α=.05 in Table 10.

Table 10: t Values from CASA, HMG, MVIP, and NFP

ASQ-3 Domain	2019-2020			2020-2021			
	HMG	MVIP	NFP	HMG	MVIP	NFP	CASA
COM	12.77	6.58	19.43	18.11	14.65	13.29	4.51
GM	19.45	2.29	20.81	26.02	7.21	15.01	4.31
FM	15.65	2.97	20.22	19.37	7.98	11.89	5.72
PerS	13.96	4.82	21.98	22.39	9.43	17.53	3.21
ProS	15.58	4.46	19.05	20.30	9.98	20.56	4.70

2. Improvement of Parent Health Literacy

"Given that children learn their habits from the adults in their life, it is important for adults to both create an environment conducive to healthy living and lead by example" (Constantine & Jonah, 2017, p. 27). In support of the family-based learning, First 5 Kern funded HLP to offer health literacy education for 45 parents (RI 2.3.2). The program designs *Be Choosy Be Healthy* lessons for its monthly interactive parent and child workshops to illustrate easy and practical recipes for child health. This year, it was reported that "more than ever, it seems that parents are really engaging in the Choosy lesson plans and materials because it is something that they are not getting anywhere else" (Ibid. 6). Strategies are shared by HLP on healthy lifestyles, including incorporation of physical activities for a minimum of 60 minutes a day into daily routines for children. The program staff reported,

> Several families have expressed to the teaching staff how much it means to them and their children that we are continuing to engage and educate them during this difficult time. One of the parents mentioned that she is very grateful for the staff's support and all the activities being provided. She thanked the teacher for sending the Choosy activities because she is getting new ideas on nutritious meals and how to keep her daughter physically active. The parent said adjusting to her children being at home all the time has been difficult, but the activities provided makes it easier to keep her children busy. She said her daughter also tried peas for the first time because the Choosy puppet motivated her to try something new. The parent also stated that each time she sees her teachers face on a video call she sees how happy it makes her. (Ibid. 6)

Even though the workshops are offered online during the pandemic, the program keeps families engaged in improving child health and wellness. Based on the Scope of Work and Evaluation Plan, FCP and HLP offered nutrition and fitness education to 97 parents or guardians this year. The service on enhancing health literacy has addressed RI 1.5.2 of First 5 Kern's (2021) strategic plan, i.e., "Number of parents/guardians who received nutrition and/or fitness education" (p. 5).

3. Support of Healthy Parent-Infant Interaction

Parent-infant interaction is important in developing an infant's central nerve system (Barlow et al., 2007). NFP adopts the Dyadic Assessment of Naturalistic Caregiver-Child Experiences (DANCE) to monitor quality of the interaction. Due to COVID-19, the program did not have enough opportunity for direct case observation. Based on the data from four cases this year, not all DANCE indicators were gathered during the 20-63 minutes of observation for each case.

The limited information indicates that no families demonstrate *negative verbal* or *negative touch* patterns in Bakersfield and Shafter. The parent behaviors also show *positive affect expression* and *verbal quality*. The preliminary outcomes appear to suggest positive interactions between parents and children at the two sites of data collection.

4. Coordination of Infant Medical Services

To strengthen the support for network building, MVCCP and MVCCP-KC "enhanced coordination of existing case management services to measurably improve long-term outcomes for children, birth to 5 years of age, who are at risk of costly, lifelong medical and developmental issues" (Thibault, 2017, p. 3). The projects were designed to bridge gaps and leverage resources for improvement of the service system to benefit parents, providers, and other partners of healthcare, education and social service. Other organizations, such as Adventist Health, Kaiser Permanente, Kern Family Health Care, Lucile Packard Foundation for Children's Health of Palo Alto, and Health Net, contributed funding to support the MVCCP effort in the past.

The MVCCP partnership also includes collaboration with the Maternal, Child, and Adolescent Health (MCAH) program of Kern Department of Public Health. As MVCCP staff reported,

> MCAH-MVCCP coordinated initial response through public health field nursing to

> provide education to parents on disease process and risk to infant, importance of prophylactic medication adherence, signs & symptoms of adverse medication reactions, and education on importance of follow-up evaluation by medical providers. Parents of infant were provided education in their native language using interpreter services and were provided culturally competent care. Parents of infant were able to enroll child in Medi-Cal managed care insurance and keep VCH [Valley Children's Hospital] appointment with infectious disease specialist. (Ibid. 6)

First 5 Kern funding is used to identify needs and coordinate services for medically vulnerable infants through case management and healthcare service. The coordination services not only supported medically vulnerable children ages 0-5, but also promoted system building across service providers. Prior to the commission support, few organizations offered similar programs for infants with serious health conditions in Kern County. According to Proposition 10, "A requirement of the state laws governing the county commissions is to ensure that money from the Children and Families Trust Fund is not used to replace or 'supplant' existing local funding for programs and services."[27] The care coordination reflects the Proposition 10 spirit of filling a void in the existing system.

In summary, information in this section focuses on service outcomes of First 5 Kern-funded programs in *Health and Wellness*. Program features are classified by *service types* (e.g., dental care, mental health, insurance application, parental education), *child conditions* (general support vs. special-needs assistance), *delivery methods* (group-based vs. home-based service), *facility capacities* (mobile service vs. community-based support), and *age groups* (infants, toddlers, and preschoolers). To justify the result-based accountability on these dimensions, evaluation findings are derived from different sources of data (e.g., ASQ-3, DANCE) and service providers (KCCDHN, HLP, and MVCCP). As First 5 Kern (2021) maintained,

> Evaluation is an important component of the Strategic Plan and the Proposition 10 implementation process in Kern County. Carefully tracked and reported information details program outcomes and the impact on the communities served. (p. 2).

The service tracking and value-added assessment in this section consistently indicated First 5 Kern's positive impact in *Health and Wellness* across Kern County.

(II) Program Enhancement in *Family Functioning*

Home-based support, including parent education and child protection, is critical because "Parents are the medium through which child behavior and family functioning are influenced" (Van As, 1999, p. 48). Accordingly, *Parent Education and Support Services* are identified as a focus area in First 5 Kern's (2021) strategic plan to fund 17 programs for improving family functioning and child wellbeing.

Jolie (2020) cautioned, "By the time we emerge from the COVID-19 crisis, violence will have scarred the lives of many children" (p. 1). When domestic conflict cannot be resolved in a family setting, community-based programs should play an important role for child protection. "The need for family- and community-centered care is particularly critical in pregnancy and the first five years of life, when the architecture of the brain is

[27] http://first5association.org/overview-of-proposition-10/

established and neural connections grow at the fastest rate in a person's lifetime" (Briscoe, 2019, p. 1). In coping with child abuse and neglect, First 5 Kern funded Differential Response Services (DR), Domestic Violence Reduction Project (DVRP), and Guardianship Caregiver Project (GCP) to provide safe net support in Kern County.

To extend the collaboration, Community Action Partnership of Kern (CAPK) received funding from First 5 Kern to offer 2-1-1 for service referral. The mission of 2-1-1 is to connect families to medical facilities, family resource centers, legal assistance programs, and other community support systems. In addition, First 5 Kern funded 13 center-based programs to deliver *general parenting workshops, court-mandated parent education*, and *case management* services.

Two new programs in this focus area are FCP and Oasis Family Resource Center (OFRC). FCP trains parents and caregivers on nutrition education, parenting skills, and healthy development of children ages 0-5. The program also distributes a toolkit to introduce culturally and linguistically specific tools, activities, and materials for service outreach and network building. OFRC supports case management, parent education, and service referrals through *home-based services* and *kindergarten transition* programs. OFRC is centrally located to expand service access in Ridgecrest and its surrounding hard-to-reach communities.

In FY 2020-2021, First 5 Kern invested $2,773,954 in *Family Functioning*. Despite cost inflation and wage increase, program spending in this focus area has been strictly controlled under the original annual contract. The budget savings add up to $159,323.77 across 17 programs in Table 11, which is larger than $137,180.23 last year.

Table 11: Program Savings in *Parent Education and Support Services*

Program Name	Budget Savings
2-1-1 Kern County	$0.46
Arvin Family Resource Center	$22,265.08
Buttonwillow Community Resource Center	$16,295.80
Differential Response Services	$40.60
Domestic Violence Reduction Project	$24,633.47
East Kern Family Resource Center	$18,613.34
Family Caregiver Project	$5.585.01
Greenfield School Readiness	$104.14
Guardianship Caregiver Project	$2,669.94
Kern River Valley FRC/Great Beginnings Program	$250.63
Lamont Vineland School Readiness Program	$24,990.99
McFarland Family Resource Center	$0.18
Mountain Communities Family Resource Center	$10.76
Oasis Family Resource Center	$34,648.70

Altogether, 17 programs in *Family Functioning* are designated to ensure that "All parents/guardians and caregivers will be knowledgeable about [1] early childhood

development, [2] effective parenting and [3] community services" (First 5 Kern, 2021, p. 5). The three-fold considerations are aligned with two domains of the statewide report glossary (see First 5 Association of California, 2013), [1] General Family Support and [2] Intensive Family Support. To articulate different service configurations, Table 12 shows a match between these service domains and the four objectives of *Parent Education and Support Services* in First 5 Kern's (2021) strategic plan.

Table 12: Service Domains and Objectives in Family Functioning

Objectives in Family Functioning	Domain
1. Children and families will be provided with targeted and/or clinical family support services.	[2]
2. Parents/guardians will be provided culturally relevant parenting education and supportive services.	[1]
3. Parents/guardians will be provided with educational services to increase family reading and/or literacy.	[1]
4. Parents/guardians and children will be provided social services.	[1]

Capacity of Program Support to Strengthen Family Functioning

The capacity of program support is indicated by Result Indicators (RI). Based on First 5 Kern's (2021) strategic plan, *Targeted and/or clinical supports* in **Objective 1** are linked to service deliveries at both child (RI 2.1.1-2.1.3, 2.1.7-2.1.9, Ibid. 23) and family (RI 2.1.4-2.1.6, Ibid. 23) levels. Objectives 2-4 depend on implementation of education and social services for enhancement of parenting skills. Therefore, multiple result indicators have been developed to evaluate the attainment of **Objectives 2-4**:

1. Court-mandated parent education, group parenting education, and educational workshops (RI 2.2.1-2.2.3, Ibid. 23) are assessed to reflect family support in **Objective 2**;
2. Reading strategy development and literacy workshops (RI 2.3.1, 2.3.2, Ibid. 23) are evaluated to address parent/guardian education in **Objective 3**;
3. Program referrals and transportation services (RI 2.4.1, 2.4.2, Ibid. 23) are adopted to support program outreach in **Objective 4**.

The alignment between RI designation and service capacity is presented in Table 13.

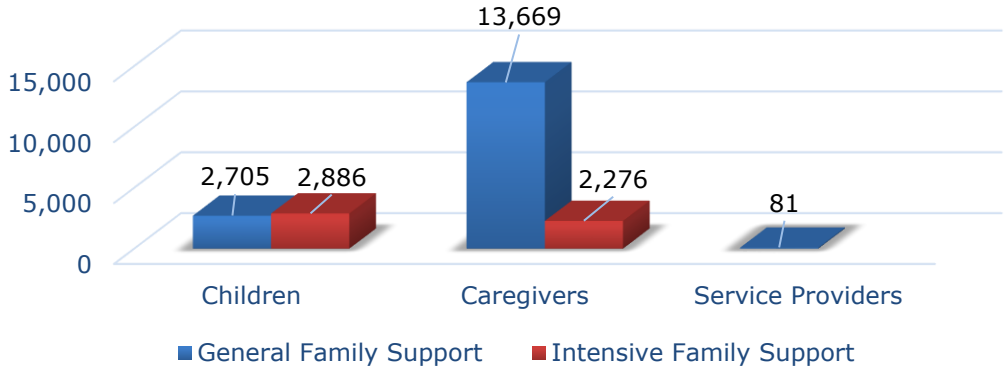
Table 13: Service Capacity and RI Designation

Objective	Service Capacity	RI Designation
[1]	Targeted/Clinical Family Support	Parent and Child Participation
[2]	Parent Education Offerings	Parent Learning Outcome
[3]	Reading Literacy Services	Parent Training Outcome
[4]	Referral/Transportation Support	Family Service Access

In reference to state report domains (see Table 12), First 5 Kern funded special services in Domain [2] to restore and/or improve the home environments. General services in Domain [1] were offered through parent education and social support. More importantly, service networking has been established through program referrals (e.g., 2-1-1) and collaborations (e.g., WSN with DR, DVRP, and GCP). The beneficiary counts are

depicted in Figure 11 to show the capacity of First 5 Kern support for local children, caregivers, and service providers in these domains.

Figure 11: Capacity of General Family Support and Intensive Family Support



In comparison, *General Family Support* (GFS) includes services of family resource centers. The caregiver number is much larger in that category because the beneficiaries include parents and guardians (Figure 11). The need for service consultation has increased during the pandemic. As a result, the caregiver count increased from 10,162 last year to 13,669 this year. Meanwhile, the program spending in GFS was controlled at $1,800,380, less than $1,959,081 in FY 2019-2020. The program expenditure in IFS was curtailed at $973,574, less than $1,066,916 last year. Except for OFRS that was established near end of this fiscal year, the remaining 16 service providers in *Parent Education and Support Services* raised $1,759,172.22 to enhance program sustainability.

First 5 California (2015b) highlighted the need to "Support sustainability of Family Resource Centers and other community hubs for integrated services for children and families" (p. 1). As Thompson and Uyeda (2004) observed,

> Family resource centers have also emerged as a key platform for delivering family support services in an integrated fashion. They serve as "one-stop" community-based hubs that are designed to improve access to integrated information and to provide direct and referral services on site or through community outreach and home visitation. (p. 14)

Besides integration of service offerings among FRCs, 2-1-1 is part of a nationwide network connecting over 14 million people to services each year. The local 2-1-1 program provides information about community services 24 hours a day, seven days a week across Kern County. In FY 2020-2021, 2-1-1 responded to a total of 1,848 unduplicated callers with children ages 0-5. The referrals served 3,678 young children and 269 callers with a pregnant woman in the household. Without the referral support, families could have been misguided, and service delays might occur to young children with special needs for program access.

Altogether, capacity building occurs in both *referral support* and *direct services* to connect *what is needed* with *what is available* in *Parent Education and Support Services*. The emphases on parent services have been well-justified because "Of all the things that influence a child's growth and development, the most critical is reliable, responsive, and sensitive parenting" (Bowman, Pratt, Rennekamp, & Sektnan, 2010, p. 2). It is the

combination of program support and partnership collaboration that sustain service deliveries for children ages 0-5 and their families across Kern County.

Overview of Program Alignment with the Strategic Plan

While children are born equal, family characteristics may vary. To improve parenting skills for all children, First 5 Kern (2021) strategically funded programs to enrich caregiver knowledge about early childhood development, childrearing strategies, and community services. These efforts are aligned with State Commission's attempt to "strengthen families' resilience, expand support systems, and reduce child abuse and neglect" (First 5 Association of California, 2017, p. 7).

For child protection, DR examines reports of child abuse and neglect based on information from Child Protective Services (CPS). DR case managers meet weekly with service supervisors to discuss family assessments, care plans, service delivery strategies, as well as positive and negative implications to child development. Intensive home visitations are conducted to reduce the recurrence rate. Case closures are dependent on mitigation of risk factors with confirmation from DR supervisors.

During COVID-19, extra stressors are added to families due to an economic shutdown that puts low-income households in financial jeopardy. The family strains might have caused more child abuse or neglect (Hager, 2020), but the social distancing policy has made it more difficult to reveal severe cases. Through its extensive community networking, DR identifies cases and offers strength-based, family-centered support, such as counseling, parent education, job training, food, utility, housing assistance and transportation.

Table 14: DR Roles in Strengthening Family Functioning

Roles	Projects
Administrative and Fiscal Agent	Promoting Safe and Stable Families
Administrative and Fiscal Agent	Child Abuse Prevention, Intervention, and Treatment
Administrative and Fiscal Agent	Community Based Child Abuse Prevention
Administrative and Fiscal Agent	Kern County Children's Trust Fund
Administrative Agent	Foster Youth Services Program/AB490 Liaison Activities
Administrative Agent	County Accreditation of Local Community Collaborative

As the DR provider, "Kern County Network for Children [KCNC] serves many functions benefiting children and families in Kern County."[28] Its leadership roles are illustrated by six projects (Table 14). The capacity building has supported its partnerships with nine county agencies, 15 community-based organizations, 21 family resource centers, and five funders of local child services.[29] DR's intense case management led to home visits to 1,819 families (RI 2.1.5) that impacted 2,485 children ages 0-5 (RI 2.1.8). In addition, CASA completed intense case management services for 45 children (RI 2.1.8) in FY 2020-2021.

[28] http://kern.org/kcnc/about/
[29] http://kern.org/kcnc/links/

DVRP is a DR partner to provide legal assistance and representation for victims of domestic violence. Infants experiencing domestic violence tend to have worse academic outcomes in school due to neurodevelopmental lags and a higher risk of health issues, including gastrointestinal distress, trouble eating and sleeping, as well as stress and illness (Bullock et al., 2021). Furthermore, children ages 0 to 3 are too fragile to recover from severe injuries due to abuse or neglect (KCNC, 2017). DVRP takes specific steps to address the need of early protection, including court document preparation, legal consulting, safety planning, victim representation, and resource referral, in Bakersfield, Delano, Frazier Park, Mojave, and Shafter.

The partnership support also depends on in-depth understanding of the legal system. In an impact story of DVRP, a woman applied protective orders for herself and custody orders for her daughter to end an abusive relationship. However, criminal cases supersede civil cases. DVRP is able to use its expertise to reduce the victim's mental stress from the court appearance. Meanwhile, the program staff persistently guided the mother and daughter through five postponements of court hearings over a 10-month period. Eventually, DVRP persuaded the judge to grant the orders of protection and custody after the criminal case was over (Ibid. 6).

Like DVRP, GCP is another program affiliated with a non-profit organization, Greater Bakersfield Legal Assistance, Inc. (GBLA). GCP assists grandparents and non-parent caregivers to obtain guardianship for children in need of stable and loving homes. The new settlement is critical to discontinuation of physical, mental, and emotional harm to child victims. It is also much needed during the pandemic when the virus claims the lives of primary caregivers, and thus, grandparents are expected to step in for childcare (Dube & Magalhaes, 2021). To reduce attachment problems, mental anxiety, and psychological depression among young children, the program supports guardianship transitions under critical circumstances, including parent incarceration or unemployment, substance or child abuse, child neglect or abandonment, physical or mental illness, parent divorce, and teen pregnancy.

Along with GBLA's launch of a Community Homeless Law Center Project, WSN offered family counseling, group therapy, parent education, case management, and medical or legal support in homeless shelters. Altogether, GCP, DVRP, and WSN served 438 children (RI 2.1.9) and 329 parents or guardians (RI 2.1.6) this year. These services contributed to prevention of domestic violence and alleviation of substantiated child abuse/neglect, which, in turn, reduced the burden of foster care facilities.

Across the state, "Half of kids in foster care have endured four or more adverse childhood experiences" (Children Now, 2018, p. 49). In Kern County, Corson (2017) noted, "On average, 50 children per day are referred to CPS for abuse or neglect with an average of 10 substantiated referrals per day" (p. 2). To deal with the widespread issue, First 5 Kern funded the following FRCs to strengthen family stability:

1. Arvin Family Resource Center (AFRC)
2. Buttonwillow Community Resource Center (BCRC)
3. East Kern Family Resource Center (EKFRC)
4. Greenfield School Readiness (GSR)
5. Kern River Valley Family Resource Center-Great Beginnings Program (KRVFRC)
6. Lamont Vineland School Readiness Program (LVSRP)

7. McFarland Family Resource Center (MFRC)
8. Mountain Communities Family Resource Center (MCFRC)
9. Oasis Family Resource Center (OFRC)
10. Shafter Healthy Start (SHS)
11. Southeast Neighborhood Partnership Family Resource Center (SENP)

Four additional programs are funded in *Focus Area III: Early Childcare and Education* that share the scope of work in *Parent Education and Support Services*:

1. Delano School Readiness (DSR)
2. Lost Hills Family Resource Center (LHFRC)
3. Neighborhood Place Community Learning Center (NPCLC)
4. West Side Outreach and Learning Center (WSOLC)

All these FRCs are set at central community locations to increase service accessibility. Resources from the National Association for the Education of Young Children (NAEYC) are employed to enrich culturally relevant parent education and support services. In particular, SENP overcome technical challenges to offer its first online parenting class last fall and graduated 10 participants, seven in Bakersfield and three from Ridgecrest. It was reported that

> Once we decided to use Zoom application, the task became educating clients on how to navigate through the application and become familiar in how to use it. Overall the learning curve was short, and we were up and running in on time. We received several updated from our graduates after graduation of successful reunifications with their children which made our efforts so worthwhile. (Ibid. 6)

Table 15: Number of Family Support Recipients in 14 Programs

Focus Area	Program	Recipient Count
Child Health	RSNC	110
Family Functioning	AFRC	84
	BCRC	300
	EKFRC	218
	GSR	1,078
	KRVFRC	54
	LVSRP	417
	MCFRC	84
	MFRC	1,194
	OFRC	4
	SENP	581
	SHS	267
Child Development	DSR	686
	WSOLC	29

Table 15 shows delivery of family support services by 14 programs to 5,106 parents/guardians in three focus areas (RI 2.4.3). In particular, OFRC is a new program funded toward end of this year. It has already served four parents. For all programs in Table 15, around 84% of the service deliveries occurs with 11 programs in *Family Functioning*, which substantiates the support for program categorization in First 5 Kern's

(2021) strategic plan.

While most programs in *Focus Area I: Child Health* are countywide in nature, the majority of service providers in *Focus Areas II* and *III* are FRCs and community-based agencies. Inseparability between *Family Functioning* and *Child Development* is illustrated on RI 2.1.2 that indicates 11 children receiving group therapy from WSN in *Focus Area II* to facilitate child development in *Focus Area III*. Due to the overlap of program supports across focus areas, parent education outcomes in *Focus Area II* are presented in the next five sections. The last part of this chapter is devoted to reporting evaluation findings in *Focus Area III, Early Childcare and Education*.

Establishment of Parenting Beliefs against Child Maltreatment

FRCs offer parent education to reduce abusive parenting patterns in family functioning. Depending on program capacities, the service includes court-mandated parent education, nutrition instruction, financial training, school readiness preparation, nurse consultation, transportation support, and legal assistance. The well-rounded support is demonstrated by a list of nearly two dozen partners in FRC brochures for program referrals pertaining to (1) medical, dental, and mental health treatment, (2) child developmental screening, (3) parent employment and education, (4) household utility and rental assistance, (5) domestic violence prevention, (6) family insurance application, (7) health screening, and (8) clothing, food, shelter, and other emergency/safety support.

Court-mandated parent education is designed to promote changes of parental belief according to the positive norms of nurturing parenting (RI 2.2.1). Samuelson (2010) noted, "Effective parent education programs have been linked with decreased rates of child abuse and neglect, better physical, cognitive and emotional development in children, increased parental knowledge of child development and parenting skills" (p. 1). To assess the extensive impacts, researchers identified a norm-referenced Adult-Adolescent Parenting Inventory-2 (AAPI-2.1) for measuring attitudes and beliefs about parenting and assessing parental knowledge of child development (Berg, 2011; Moore & Clement, 1998). Constructs of the AAPI-2.1 assessment reflect five parent beliefs on child maltreatment:

A. Inappropriate developmental expectations of children
B. Lack of parental empathy toward children's needs
C. Strong parental belief in the use of physical punishment
D. Reversing parent-child family roles
E. Oppressing children's power and independence

The instrument was recommended by California Evidence-Based Clearinghouse for Child Welfare (2014). Besides First 5 Kern, at least nine other First 5 county commissions employed AAPI-2.1 to evaluate effectiveness of parent education.[30] "Responses to the inventory provide an index of risk of behaviors known to be attributable to child abuse and neglect" (First 5 California, 2021, p. 37).

In this funding cycle, First 5 Kern funded court-mandated parent education in seven center-based settings: (1) East Kern Family Resource Center (EKFRC), (2) Kern River Valley Family Resource Center (KRVFRC), (3) Lamont Vineland School Readiness Program

[30] These nine other counties are Los Angeles, Madera, Sacramento, San Bernardino, Santa Barbara, Santa Cruz, Solano, Shasta, and Tuolumne.

(LVSRP), (4) Neighborhood Place Community Learning Center (NPCLC), (5) Oasis Family Resource Center (OFRC), (6) Shafter Healthy Start (SHS), and (7) Southeast Neighborhood Partnership Family Resource Center (SENP). OFRC has a late start, and will complete APPI-2 data collection next fiscal year. For the remaining six programs, AAPI-2.1 data are gathered in pretest and posttest sessions to track responses of 108 parents. In comparison, SENP is the only program that has a relatively large sample (N=36). Significant impact has been found from that program on all five AAPI-2.1 constructs (Table 16).

Data sizes in other programs are much smaller than 30. In particular, EKFRC and SHS data contain 12 and 11 records, respectively. Significant differences are detected from these programs on only one construct at α=.05. Other programs have slightly larger samples to identify significant findings on multiple constructs. All effect sizes in Table 16 are larger than 0.80 to suggest strong practical impacts from program intervention.

Table 16: Changes of Parental Belief in Using Physical Punishment

Construct	Program*	Results
A	KRVFRC	t(16)=3.28, p=.0047; Effect Size=1.64
	LVSRP	t(16)=5.62, p<.0001; Effect Size=2.81
	NPCLC	t(14)=8.86, p<.0001; Effect Size=4.74
	SENP	t(35)=5.90, p<.0001; Effect Size=1.99
B	EKFRC	t(11)=2.54, p=.0275; Effect Size=2.18
	KRVFRC	t(16)=3.00, p=.0085; Effect Size=1.50
	LVSRP	t(16)=5.61, p<.0001; Effect Size=2.81
	NPCLC	t(14)=7.47, p<.0001; Effect Size=3.99
	SENP	t(35)=11.81, p<.0001; Effect Size=3.99
C	KRVFRC	t(16)=4.14, p=.0008; Effect Size=2.07
	LVSRP	t(16)=9.14, p<.0001; Effect Size=4.57
	NPCLC	t(14)=5.02, p=.0002; Effect Size=2.68
	SENP	t(35)=6.44, p<.0001; Effect Size=2.18
	SHS	t(10)=3.34, p=.0074; Effect Size=2.11
D	NPCLC	t(14)=4.29, p=.0007; Effect Size=2.29
	SENP	t(35)=9.25, p<.0001; Effect Size=3.13
E	LVSRP	t(16)=6.08, p<.0001; Effect Size=3.04
	NPCLC	t(14)=5.99, p<.0001; Effect Size=3.20
	SENP	t(35)=5.81, p<.0001; Effect Size=1.96

*Program full names are listed in Appendix A.

It should be noted that the parenting classes are court-mandated to address dissolution of marriage with minor children.[31] The small samples, albeit their lack of power in statistical testing, indicate fewer children living in broken families. Due to complexity of family functioning, the program intervention is not equally effective across the AAPI-2.1 constructs – Results in Table 16 show more practical impacts on changing *developmental expectations, parental empathy*, and *physical punishment* toward children (i.e., Constructs A-C). However, improvement of family cultures, such as *reversing*

[31] https://clevelandstatecc.edu/training/continuing-education/parenting-and-divorce-workshops.html

parent-child family roles and *child oppression* in Constructs D and E, appears to be less sensitive to the short-term influence of court-mandated training.

Bocanegra (2014) pointed out, "A critical factor in buffering children from the effects of toxic stress and adverse childhood experiences is the existence of supportive, stable relationships between children and their families, caregivers, and other important adults in their lives" (p. 3). Programs in both *Family Functioning* (i.e., EKFRC, KRVFRC, LVSRP, SHS, and SENP) and *Child Development* (NPCLC) participated in court-mandated parental education. Despite its involvement of 15 parents in the AAPI-2.1 data collection, NPCLC shows as much positive impacts as SENP on Constructs A-E. Based on the evaluation findings, reverse of negative parental beliefs is not only crucial to restoring *Family Functioning*, but also important for supporting *Child Wellbeing*.

Restoration of Family Functioning for Child Protection

While FRC fulfills its role in parent education to improve family functioning, external intervention is sometimes needed for child protection. For instance, Children Now (2018) pointed out,

> Children need access to quality, affordable mental health care and supports that monitor and treat mental illness, help kids build positive relationships, assist kids who have experienced trauma, and give kids the ability to face typical stressors with resilience. (p. 37)

In this funding cycle, First 5 Kern funded four programs to improve family functioning for early childhood protection. The result tracking is reported in this section to assess program effectiveness.

1. DR Service to Strengthen Child Protection

To strengthen child protection, DR combines state funding with First 5 Kern support to create partnerships across 45 agencies at both county and community levels. In delivering the countywide services, DR supports around 4,000-6,000 children every year to reduce the burden of child welfare system.

In FY 2020-2021, DR continued adopting the North Carolina Family Assessment Scale for General Services (NCFAS-G) to monitor improvement of family functioning on eight dimensions, *Environment, Parental Capabilities, Family Interactions, Family Safety, Child Well-being, Social/Community Life, Self-Sufficiency*, and *Family Health*. As a broad-based measure, NCFAS-G indicators have been tracked between pretest and posttest. Cronbach's alpha index is computed from 196 observations on the gain scores, and the result of 0.94 confirms consistency of the measurement outcomes.

Due to the large sample size, statistical testing has been conducted on the DR impact. Table 17 shows significant enhancement of family functioning across all eight domains of NCFAS-G assessment. In addition, effect size values are computed to assess practical impacts from the program intervention. The results are larger than 0.80, indicating strong program effects in the eight scale domains of NCFAS-G.

Table 17: Impact of DR Services on the NCFAS-G Scales

Scale Domain	Results	
Environment	t(195)=9.40, p<.0001;	Effect Size=1.35
Parental Capabilities	t(195)=8.23, p<.0001;	Effect Size=1.18
Family Interactions	t(195)=8.09, p<.0001;	Effect Size=1.16
Family Safety	t(195)=8.64, p<.0001;	Effect Size=1.24
Child Well-Being	t(195)=8.34, p<.0001;	Effect Size=1.19
Social/Community Life	t(195)=6.30, p<.0001;	Effect Size=0.90
Self-Sufficiency	t(195)=8.89, p<.0001;	Effect Size=1.27
Family Health	t(195)=7.64, p<.0001;	Effect Size=1.09

2. DVRP Support to Reduce Domestic Violence

DVRP creates a comprehensive protocol to provide a full range of legal assistance for child protection. Upon case identification, DVRP assigns a supervising attorney and a paralegal to examine the issue of a child's exposure to domestic violence. Feasible plans are implemented to protect children and other victims with *substantiated abuse* experiences. The service also includes interpretation support for clients in 21 languages.[32] In FY 2020-2021, DVRP supported 144 parents or guardians and 197 children to prevent domestic violence, child abuse and/or neglect.

At end of the DVRP services, 46 victims of domestic violence responded to a program survey. All of them "agreed" or "strongly agreed" to the following six statements:

- My sense of safety and peace of mind have been restored;
- The child(ren) live in a safe environment;
- The child(ren) live in a stable environment;
- The child(ren) are no longer exposed to domestic violence;
- I know my rights and protections as a victim of domestic violence; and
- The child(ren) in the household are not subjected to abuse and/or neglect.

Consistency of the responses is reconfirmed by Cronbach's alpha index of 0.99. Since "Child abuse and neglect present serious threats to children's well-being" (Children Now, 2018, p. 45), the results suggest an important role of DVRP in reducing child victimization and repairing family functioning as prescribed by RI 2.1.6 and 2.1.9 of First Kern's (2021) strategic plan.

3. GCP Services for Child Protection

Bera (2020) reported that grandparents raised about 2% of U.S. children. Grandparent involvement is often related to adverse childhood experiences in a home with drug abuse, parent divorce/decease, domestic violence, or psychiatric illness. While legal procedures are established to serve adult victims from domestic violence, "increasing attention is now focused on the children who witness domestic violence" (Bragg, 2003, p. 5). GCP assists caregivers to prevent abuse or neglect of children ages 0-5 through establishment of guardianship protection. The services include (1) representation of

[32] http://gbla.org/about-gbla/history/

prospective caregivers in preparing guardianship petitions, (2) responding to objections, (3) planning for mediations and guardianship hearings, and (4) completion of post-hearing letters and orders. In FY 2020-2021, GCP offered services to 154 guardians and 205 children to prevent domestic violence, child abuse and/or neglect (RI 2.1.6, 2.1.9).

For more than a decade, the rate of child abuse/neglect in Kern County has been around 9.2% while the state rate was kept under 7%.[33] GCP maintains quality services to close the gap in this much-needed region. "When a child cannot be returned home and adoption is not in the child's best interests, then guardianship is considered to be a more permanent plan for a child" (KCNC, 2016, p. 50). For GCP program evaluation, exit survey data were gathered from 50 clients this year. Except for one case with an "uncertain" answer to all questions, all respondents chose "strongly agreed" to the following statements:

- The child(ren) live in a safe environment;
- The child(ren) live in a stable environment;
- I am more knowledgeable about the duties, rights, and responsibilities of legal guardianship;
- I am able to access mental health treatment for the child(ren); and
- The child(ren) in the household are not subjected to abuse and/or neglect.

The Cronbach alpha index reached 0.96 to indicate consistency of the responses.

GCP's direct legal services to grandparents and caregivers have created effective guardianship for children to avoid neglect and physical or sexual abuse. In the GCP survey, four participants "agreed" and 45 participants "strongly agreed" to a statement that "I am able to access medical services for the child(ren) in the household". The case management has achieved its intended goal to establish a stable environment for grandchildren and support family access to medical homes, health or mental health services, and preschool education. As Children Now (2018) reported, "A child that has a stable placement or finds a permanent home, through reunification with parents, guardianship or adoption, is more likely to receive the services and supports they need to heal and thrive" (p. 47).

4. Collaborative Interventions on Family Support

Ages and Stages Questionnaires®: Social-Emotional, second edition (ASQ:SE-2) is employed to help professionals of home visiting, early intervention, and child welfare screen and assess infants and young children in the area of social-emotional development. The ASQ:SE-2 data contain 378 cases from seven programs. BCDC collected data from only one boy at the sixth month. He scored at 25, below the cutoff score of 45, and indicated no concern on social emotional status. But one point of data is not enough to generate a variability index for statistical testing. With this case exclusion, Table 18 contains results of the ASQ:SE-2 data analysis from the remaining programs, CASA, HLP, HMG, MCFRC, NFP, and WSN. All effect sizes are larger than 0.80 to show strong practical importance of the program service on the screening outcomes.

[33] www.Kidsdata.org

As a new program, CASA assists infants and toddlers to overcome the impact of child abuse and/or neglect. Although the sample size is small (i.e., N=10), children scored significantly lower than the ASQ:SE-2 threshold at α=.001. The *large effect size* and *90% passing rate* indicate strong practical influences of CASA in eliminating the need for mental health referrals.

Table 18: Percent of Children with Screening Results below Referral Thresholds

Program*	Descriptive Statistics		Statistical Testing			
	N	Percent	df	t	p	Effect Size
CASA	10	90.0	9	5.18	.0006	3.45
HLP	40	95.0	39	5.73	<.0001	1.84
HMG	245	80.0	244	9.43	<.0001	1.21
MCFRC	17	76.5	16	2.31	.0346	1.16
NFP	50	100.0	49	21.15	<.0001	6.04
WSN	15	73.3	14	1.62	.1298	0.87

*Program full names are listed in Appendix A.

Like CASA, HMG and HFP are affiliated in the focus area of *Child Health*. HMG offers screening options *online* or *over the phone* through 2-1-1 Kern County. NFP provides home visiting services to support low-income, first-time mothers at *prenatal* and *infant care* stages. Both *center-based* and *home-based* programs show ASQ:SE-2 scores significantly below the threshold at α=.0001. The NFP results also indicate a perfect passing rate to waive mental health referrals for all children this year.

HLP is a program in *Child Development* with a sample size larger than 30. Children in HLP demonstrated a passing rate of 95% in the social emotional screening. On average, children performed significantly below the ASQ:SE-2 threshold to reconfirm their good mental health status at α=.0001.

MCFRC and WSN are two programs in *Family Functioning*. The small sample (i.e., N=17) for MCFRC hinges on the sparse population density in the mountain community. Statistical testing shows child scores below the ASQ:SE-2 threshold at α=.05. Thus, there is no significant need for more in-depth examination on social emotional issues. In addition, the WSN sample is small (N=15) because of its services to mothers who have experienced family violence (Ibid. 1). Under the shelter circumstances, children in WSN reached a passing rate of 73.3%, close to 76.5% in MCFRC for children in a normal FRC setting. However, statistical testing indicates insignificant difference between child performance in WSN and the ASQ:SE-2 thresholds at α=.05. With First 5 Kern's support for mental health screening, children who are identified with social-emotional challenges can be referred to in-depth evaluation and intervention.

In summary, ASQ:SE-2 screening has been administered in seven programs across focus areas of *Child Health, Family Functioning*, and *Child Development*. Except for BCDC with inadequate data collection, the passing rate for the remaining programs ranges from 73.3% in WSN to 100% in NFP. The results also justify the need of social emotional support for children in WSN.

5. Case Management Services for General Family Support

First 5 Kern funded 18 programs to extend general case management support for

children and families across focus areas. Except for MVIP in *Child Health*, all programs in Table 19 delivered case management services at the child level. While the infant support in BIH and NFP and dental services in KCCDHN demand individualized attention, all other programs offer family-based supports to reflect the emphasis of result reporting in *Parent Education and Support Services*. Altogether, 550 families (RI 2.1.4) and 971 children (RI 2.1.7) received general case management support in FY 2020-2021.

Table 19: General Case Management Support across Eighteen Programs*

Focus Area	Program	Family Count	Child Count
Child Health	BIH	--	30
	KCCDHN	--	276
	MVIP	59	--
	NFP	--	78
	RSNC	29	29
Family Functioning	AFRC	40	55
	BCRC	15	21
	EKFRC	34	30
	GSR	36	47
	KRVFRC	71	82
	LVSRP	30	43
	MCFRC	25	34
	MFRC	23	23
	SENP	87	98
	SHS	37	47
Child Development	DSR	20	30
	LHFRC	26	23
	WSOLC	18	25

*Program full names are listed in Appendix A.

Implementation of Nurturing Parenting Curriculum in Parent Education

Stephen Bavolek (2000), the Nurturing Parenting (NP) curriculum developer, asserted that parenting patterns were learned in childhood and replicated later in life when children became parents. Thus, negative experiences may engulf children in parenting models of abuse, neglect, exploitation, and victimization. The NP curriculum is considered as a high-quality program and has been employed in both court-mandated and non-court-mandated parent education settings. Due to its positive impact on improving parenting skills, the Departments of the Army and Navy utilized the NP program to enhance parenting skills for first-time parents in military bases worldwide (Family Development Resources, 2015). NP has also been recognized as an effective approach by the Substance Abuse and Mental Health Services Administration (SAMHSA) and the National Registry for Evidence-based Parenting Programs (NREPP).

In Kern County, NP workshops were offered this year to remediate five maltreatment patterns: (1) having inappropriate developmental expectations of children, (2) demonstrating a consistent lack of empathy towards meeting children's needs, (3) expressing a strong belief in the use of corporal punishment and utilizing spanking as their principle means of discipline, (4) reversing the role responsibilities of parents and children, and (5) oppressing the power and independence of children by demanding strict obedience

(Schramm, 2015). The NP materials on the *Infant, Toddler, and Preschooler* track are available in six languages, including English and Spanish. There is no minimum education requirement for program training.

In FY 2020-2021, AFRC, BCRC, GSR, and MFRC used NP in non-court-mandated parent education. A three-day training was sponsored by First 5 Kern to introduce NP concepts and procedures to the FRC staff. Each workshop lasted 120 minutes. A variety of topics were presented in the workshops to improve positive lifestyles, design appropriate expectations, strengthen mutual understandings, develop self-concepts, establish family values, and handle discipline issues. An unduplicated count of 113 parents participated in the workshops at four program sites (RI 2.2.2). Specific goals have been set for these workshops in Table 20.

Table 20: Goals of Nurturing Parenting Workshops

Workshop	Goal
1	Increase parent's knowledge of nurturing parenting and nurturing as a lifestyle
2	Increase parent's awareness of appropriate expectations of children
3	Increase parents' ability to promote healthy brain development in their children
4	Help parents recognize and communicate their feelings and their child's feelings
5	Improve parent's and children's self-worth and self-concept
6	Help parents recognize and understand their feelings and their child's feelings
7	Increase parents' skills in developing family morals, values, and rules
8	Increase parents' understanding of the importance of praise
9	Increase parents' awareness of other ways to discipline besides spanking
10	Increase parents' ability to recognize and handle stress

Participants were asked to rate usefulness of the workshops on a five-point scale with 5 representing the most positive result. Table 21 showed the range of average ratings between 4.39 and 4.84. The result reconfirmed usefulness of workshop contents.

Table 21: Mean Ratings on the Usefulness of NP Workshops

Workshop	N	Mean
1	74	4.39
2	61	4.59
3	59	4.51
4	50	4.42
5	39	4.59
6	42	4.64
7	43	4.49
8	39	4.72
9	36	4.56
10	43	4.84

The 10 workshops were also offered in sequence. At the beginning phase, workshop 1 was attended by 74 parents. The feedback survey included two special questions on practicing the concept of nurturing parenting at the introduction stage:

- Before this workshop, how much did you practice the concepts of nurturing parenting?
- How likely are you to practice the concepts you learned today?

At the concluding section of parental training, two additional questions were employed in Workshop 10 to assess the learning outcomes:

- As a result of today's workshop, how do you feel about your ability to handle your own stress in positive ways?
- As a result of today's workshop, how do you feel about your ability to help your child or children handle their stress in positive ways?

On average, Table 22 showed that participants initially practiced nurturing parenting concepts at 3.66, below a scale value of four for the "some/a lot" category. After the first workshop, the value increased to 4.57, approaching "a lot" of practice at the highest level. At conclusion of the 10th workshop, parents reported that they gained "some" or "a lot of" ability to handle own stress in positive ways. More importantly, participants seemed to have more confidence in helping children handle stress.

Table 22: Mean Ratings on Special Survey Items for Workshops 1 and 10

Item	N	Mean
Practice nurturing parenting before Workshop 1	74	3.66
Practice nurturing parenting after Workshop 1	74	4.57
Ability to handle own stress after Workshop 10	43	4.33
Ability to help child handle stress after Workshop 10	43	4.40

While Workshops 1 and 10 served as the introduction and conclusion sessions, Workshop 9 was designed to increase parents' awareness of alternative ways to disciplining children besides spanking. The data were reversely scaled with 1 representing "Children should never be spanked" and 5 indicating "Children should be spanked every time they do something wrong, no matter how small". The data from 36 participants showed reduction of the scaled average from 2.39 to 1.44. The result against spanking was significant [$t(35)=5.18$, $p<.001$] at $\alpha=.05$ with an effect size of 1.75.

Table 23: Increase of Participant Knowledge on the Content of Workshops 2-8

Workshop	N	Pretest Mean	Posttest Mean	t	p	Effect Size
2	6	2.28	4.23	13.8	<.0001	3.45
3	5	2.88	4.10	7.98	<.0001	2.10
4	5	3.08	4.36	7.57	<.001	2.16
5	3	3.87	4.69	5.28	<.001	1.71
6	4	3.43	4.48	7.47	<.001	2.33
7	4	3.47	4.51	6.17	<.001	1.90
8	3	3.87	4.64	4.00	<.001	1.30

For Workshops 2-8, Table 23 showed significant improvement of participant knowledge. Effect sizes were computed to assess the practical impact of workshop training beyond statistical testing. Except for a moderate effect in Workshop 4 that addressed communication of feeling between parents and children, all of the remaining effect sizes were larger than 0.80, suggesting strong impact of these workshops this year.

Researchers maintained that "investments in high-quality parenting education will be among the best investments any community can make" (Bowman, Pratt, Rennekamp, & Sektnan, 2010, p. 8). Through the NP workshop offerings, positive impacts occurred in parent education to support child development. First 5 Kern funding has been employed to reach an original goal of the State Commission in *Family Functioning*, i.e., "Families and communities are engaged, supported, and strengthened through culturally effective resources and opportunities that assist them in nurturing, caring, and providing for their children's success and well-being" (First 5 California, 2014, p. 7).

Strengthening Commitment to Caregiver Training

COVID-19 increases service demands for community health workers. In FCP, caregiver training has paved the way for program capacity building. This year FCP hired two participants from its 6-week parenting curriculum workshop. As new employees, they are inspired by the personal learning experiences, and decide to help FCP promote safety measures and schedule vaccine appointments for young children (Ibid. 6).

Effectiveness of the FCP workshop is evaluated by responses from 16 participants, and the facilitator is praised for *explaining topics and concepts clearly* by 14 respondents. In addition, all respondents *agreed* or *strongly agreed* that "training topics were presented interactively allowing the participation of the participants". Thirteen participants *agreed* or *strongly agreed* that "the location and schedule were adequate for the training". All participants *strongly agreed* to a statement, "I feel better prepared to support my child's healthy development".

Built on its staff recruitment and workshop offering, FCP incorporated audiovisual learning aids and developed TALK (i.e., Tell, Ask, Listen, and KeepSafe) steps to minimize the impact of COVID-19 in caregiver's hands-on skill development.[34] In the end, FCP enhances caregiver's preparation in service delivery and empowers them with useful resources to support children of Latino origin.

Adoption of *Raising a Reader* Curriculum for Caregiver Engagement

California placed a strong emphasis on teaching children to read for more than a decade, but the quality of reading instruction is still lacking for disadvantaged Latino students (Jacobson, 2021). As a new approach, a *Raising a Reader* (RAR) curriculum is adopted by BCRC to engage caregivers in a routine of book sharing with their children. Survey data are gathered from 30 RAR participants. Half of the families earn an annual income under $30,000 and only 20% of the adults have a college degree. English language development is needed for 86.7% of the children with Hispanic/Latino ethnicity.

[34] https://visionycompromiso.org/what-we-do/training/

RAR has an instructional strategy to foster healthy brain development, healthy relationships, a love of reading, and literacy skills critical for school success. Through the program intervention, respondents indicated that 40% of the families established a routine for looking at a book with children and 46.7% of the parents had no difficulty to share books with children on a regular basis. Typically, readers spent 21.67 minutes with children each time they looked at books together. The program featured:

- letting children choose what to read by 80% of the parents;
- asking children questions about the story by 63.3% of the readers;
- talking about new words and what they meant by 26.7% of the parents;
- using different voices for different characters in the story by 43.3% of the readers.

In reaction, children engaged attentively in the ARA activities. The survey respondents reported the following outcomes among children:

- 93.3% paid much attention to the story;
- 66.7% turned pages of the book;
- 56.7% asked questions about the book;
- 43.3% read the book to parents or told them a story about the pictures;
- 60% wanted to read the book again.

RAR is held by BCRC as an evidence-based, scalable, and affordable program. It is also backed by 39 independent evaluation projects to document the learning impact over time and across diverse settings.[35] This year BCRC adopted the RAR survey to document the baseline evidence of reading engagement. On average, the result indicated that children asked to *look at books 3.27 times per week*.

In summary, the service impact has been examined in *Family Functioning* across 17 programs. To equip local parents with childrearing skills, First 5 Kern sponsored court-mandated and non-court-mandated parent education at 12 FRCs across Kern County. A total of 689 parents participated in educational workshops from 15 programs across three focus areas (RI 2.2.3). AAPI-2.1, RAR, FCP, and NP workshop data were analyzed to show effective services of program training in early childhood support. In delivering the service on child protection, parent/guardian reports were employed to indicate program outcomes after the DR, DVRP, and GCP interventions. The positive impact of DR was illustrated by the NCFAS-G results. Meanwhile, ASQ:SE-2 data were analyzed from CASA, HLP, HMG, MCFRC, NFP, and WSN to determine the need for mental health referrals. Based on these findings, children are not only well-protected in their living environment, but also fully-supported for reading literacy and social emotional development.

(III) Funding Impact in *Child Development*

COVID-19 pushed many childcare providers to the brink of closure (Stavely, 2020). Consequently, low income families are left with no access to quality childcare and education. Miller (2019) reported, 93% of fathers and 72% of mothers with children at home are in the labor force. The rate dropped during the pandemic (Burns, 2020), and economic recovery depends on availability of daycare and early learning programs.

[35] https://www.raisingareader.org/

The state report glossaries offer two general domains to categorize First 5 Kern-funded services in *Early Childcare and Education*: [1] Quality Early Learning Supports (QELS) and [2] Early Learning Programs. The early childhood support becomes a burden for childrearing families because "parents are being hit especially hard by the coronavirus pandemic, and as far as job losses go, mothers and fathers are faring equally poorly" (Rabouin & Pandey, 2020, p. 1).

Prior to the pandemic, California ranked on top of the nation for supporting health and wellbeing of young children with statewide comprehensive programs (Jacobson, 2020a). However, the state also had a low share of women working and high cost of child care (Miller, 2019). Families on average spend more on childcare costs than on housing, healthcare, food, and college (Bonello, 2019). To lower the burden, First 5 Kern channeled $509,350 of IMPACT (Improve and Maximize Programs so All Children Thrive) grant from the state commission to expand the number of high-quality early learning initiatives, including engaging families in the early learning process, in the QELS domain. In Domain [2], First 5 Kern devoted $1,143,365 to fund 10 programs in *Early Childcare and Education*. Including the investment from IMPACT, the total program spending in FY 2020-2021 adds to $1,652,715.

Altogether, forty-nine local service providers attended meetings on early learning support for 1,424 children this year (Ibid. 5). The number of caregivers reached 876. Since IMPACT is not governed by the local strategic plan, outcomes in Domain [1], QELS, are beyond the boundary of First 5 Kern's funding accountability. In Domain [2], HLP offers monthly parent and child workshops to promote interactive learning and reading strategies. Parents are given take-home health kits to expand knowledge of early developmental milestones and child behavioral norms. BCDC, Discovery Depot Child Care Center (DDCCC), and SSCDC support early childcare for families with special needs. In particular, BCDC works with parenting teens, DDCCC supports homeless families, and SSCDC is accessed by children under a risk of domestic violence. These programs jointly promote parent education, early childhood reading literacy, and school readiness across Kern County.

To facilitate the service outreach, First 5 Kern funded South Fork Preschool (SFP) and Wind in the Willows Preschool (WWP) to offer school readiness and developmentally appropriate activities in rural communities of Boron, Kern River Valley, Lake Isabella, and Mojave Desert. These program extend quality daycare and early education to traditionally-underserved children ages 3 to 5.

While kindergarten readiness is mandatory under the law of compulsory education, program support needs to reach local communities to ensure that each child has the best possible start in life and thrive. To that end, First 5 Kern sponsored 11 programs for preschool preparation. Four of them are in Focus Area III: *Early Childcare and Education*:

1. Delano School Readiness (DSR)
2. Lost Hills Family Resource Center (LHFRC)
3. Neighborhood Place Community Learning Center (NPCLC)
4. West Side Outreach and Learning Center (WSOLC)

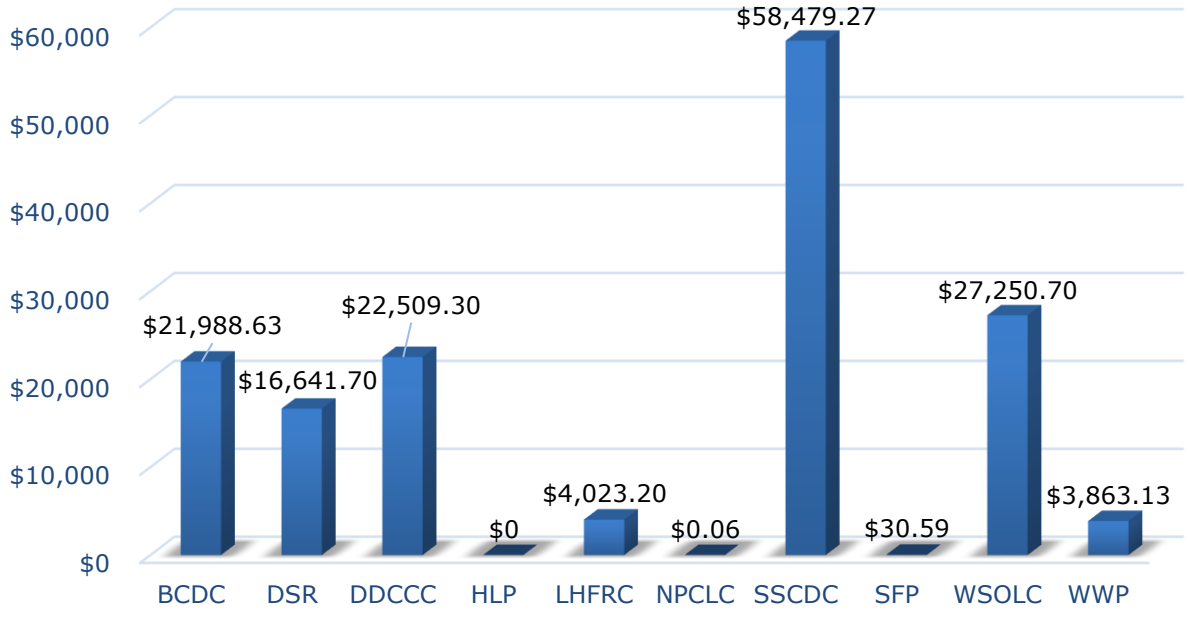
DSR and LHFRC originated from a First 5 California School Readiness Initiative (SRI). In addition, First 5 Kern sponsored development of Summer-Bridge classes across eight programs in Focus Area II: *Parent Education and Support Services*:

1. Arvin Family Resource Center (AFRC)
2. Buttonwillow Community Resource Center (BCRC)
3. East Kern Family Resource Center (EKFRC)
4. Greenfield School Readiness (GSR)
5. Lamont Vineland School Readiness Program (LVSRP)
6. McFarland Family Resource Center (MFRC)
7. Oasis Family Resource Center (OFRC)
8. Shafter Healthy Start (SHS)

Similar to extension of the SRI services with a primary focus on parent education, the four programs in *Child Development* also provide direct family support services through case management, referral support, and parent education on developmental milestones and norms. Due to COVID-19, only DSR, EKFRC, GSR, MFRC, OFRC, and SHS collected data to evaluate Summer-Bridge programs this year.

Through strategic planning, all programs in this focus area operated within their budgets. In particular, seven programs saved $154,786.58 from the original annual budget (Figure 12), far more than the corresponding savings of $81,333.46 in the year prior to COVID-19. In addition, service providers in *Early Childcare and Education* raised $270,125.11 to enhance program sustainability.

Figure 12: Program Budget Savings in *Early Childcare and Education*



In summary, First 5 Kern's support in *Early Childcare and Education* has addressed two objectives of the local strategic plan: (1) Children will enter school prepared as a result of their participation in early childhood education and childcare services, and (2) Children under special circumstances (e.g. non-traditional hours and/or children with

special needs) are given access to early childhood education and childcare services (First 5 Kern, 2021). In the current strategic plan, multiple Result Indicators (RI) have been specified to link **Objective 1** to service outcomes of home-based, center-based, and Summer-Bridge programs (RI 3.1.1-3.1.3, Ibid. 23). **Objectives 2** targets on the service access by children with special needs (RI 3.2.1, 3.2.2, Ibid. 23) and/or during non-traditional hours (RI 3.2.3, Ibid. 23).

The alignment between RI designation and service description is summarized in Table 24. Service outcomes are examined in the following sections to assess effectiveness of center-based, home-based, and Summer-Bridge programs, as well as the support services for children with special needs.

Table 24: Service Description and RI Designation in Child Development

Objective	Service Description	RI Designation
[1]	Home-Based, Center-Based, and Summer-Bridge Childcare and Education	Child Service Access
[2]	Accommodation of Children with Special Needs and During Non-Traditional Hours	Service Availability

Capacity of Program Support in Child Development

Program capacities are interconnected and multiple services are delivered by First 5 Kern-funded programs across focus areas, which fit the original purpose of making FRCs function as a one-stop hub in local communities (Thompson & Uyeda, 2004). In Table 25, center-based service counts are listed for 14 programs across two focus areas. These center-based programs provided education services for 479 children (RI 3.1.1).

Table 25: Delivery of Early Education Services on Center-Based Platforms

Focus Area	Program*	Count
Family Functioning	EKFRC	18
	GSR	59
	MFRC	19
	SHS	23
Child Development	BCDC	20
	DDCCC	31
	DSR	17
	HLP	46
	LHFRC	26
	NPCLC	120
	SFP	19
	SSCDC	31
	WSOLC	24
	WWP	26

*Program full names are listed in Appendix A.

First 5 Kern also funded home-based education services. These programs are located in different communities (Table 26). In FY 2020-2021, BCRC, EKFRC, DSR, and LHFRC delivered home-based education for 85 children (RI 3.1.2), exceeding the total target count of 48 children. SSEC also served 22 children in center-based education activities during non-traditional hours (RI 3.2.3). Together with SFP, SSEC served 31 children with special needs in educational center-based activities (RI 3.2.1).

Table 26: Delivery of Early Education Services on Home-Based Platforms

Focus Area	Program Acronym*	Child Count	
		Target	Total
Family Functioning	BCRC	17	8
	EKFRC	47	15
Child Development	DSR	5	15
	LHFRC	16	10

*Program full names are listed in Appendix A.

To prepare preschoolers for kindergarten, First 5 Kern (2021) set a result indicator on *the number of children who participated in Summer Bridge center-based activities*. In FY 2020-2021, six programs in Table 27 served a total of 72 preschool-aged children (RI 3.1.3). Due to COVID-19, the count is below the 120 total enrollment target.

Table 27: Participant Counts in Summer-Bridge Programs

Focus Area	Program Acronym*	Child Count	
		Target	Total
Family Functioning	EKFRC	10	14
	GSR	30	30
	MFRC	20	6
	OFRC	10	6
	SHS	20	10
Child Development	DSR	30	6

*Program full names are listed in Appendix A.

In summary, First 5 Kern led countywide efforts to champion the wide-ranging support for early childhood education across the vast valley, mountain, and desert communities. "Children who attend preschool are not only more prepared for kindergarten but some also say children are better set up for the rest of their lives" (Mauskopf, 2019, p. 2). To strengthen school readiness for children in different family backgrounds, result indicators have been monitored on the quality of home-based, center-based, and Summer-Bridge programs. The early childcare services have addressed persistent issues of program access by children *with special needs* and *in remote locations*.

Assessment of Program Outcomes in Early Childhood Education

To track program improvement, assessment data have been gathered from pretest and posttest settings using several instruments, including Ages and Stages Questionnaire-3 (ASQ-3), Child Assessment-Summer Bridge (CASB), Desired Results Developmental Profile (2015) - Infant/Toddler View (DRDP-IT), DRDP-IT Modified Essentials, Desired Results Developmental Profile (2015) – Preschool/Fundamental View, and Desired Results

Developmental Profile (2015) – Preschool/Comprehensive View. The instrument features are listed in Table 28 to support data analyses in early childhood development.

Table 28: Instruments for Data Collections in Focus Areas II & III

Instrument	Feature	Population
ASQ-3	Age-appropriate measures to assess child development in *Communication, Gross Motor, Fine Motor, Personal-Social*, and *Problem Solving* domains.	Ages 0-5
CASB	Value-added assessment in child *Communication, Cognitive, Self-Help, Scientific Inquiry, Social Emotional* and *Motor* skills.	Ages 4-5
DRDP-IT View/Modified Essentials	Indicators of *Approaches to Learning – Self-Regulation, Cognition, Language and Literacy Development, Physical Development-Health, and Social and Emotional Development*.	Infant or Toddler
DRDP-PS Fundamental/ Comprehensive Views	Indicators of *Approaches to Learning – Self-regulation, Cognition, History-Social Science, Language and Literacy Development, Physical Development-Health, Social and Emotional Development,* and *Visual and Performing Arts*.	Preschooler

1. ASQ-3 Findings

ASQ-3 outcomes include child growth indicators in *Communication*, *General Motor*, *Fine Motor*, *Personal-Social*, and *Problem Solving* domains. Among programs funded by First 5 Kern, 21 service providers tracked child growth against age-specific thresholds for 1,661 children during Months 2-60. In Section (I) of this chapter, ASQ-3 findings were reported for 394 children from CASA, HMG, MVIP and NFP programs in *Health and Wellness*. This section is devoted to reporting ASQ-3 findings from 973 children, 691 from 11 programs in *Focus Areas II: Parent Education and Support Services* and 282 children from six programs of *Focus Areas III: Early Childcare and Education* (Table 29).

Table 29: Scope of ASQ-3 Data Collection in Focus Areas II & III

Focus Area	Program*	Months	Sample Size
II	AFRC	2-60	90
	BCRC	2-60	43
	EKFRC	2-60	31
	GSR	2-60	71
	KRVFRC	2-60	125
	LVSRP	2-54	70
	MCFRC	2-60	51
	MFRC	33-60	43
	SENP	2-60	99
	SHS	48-60	49
	WSN	2-60	19
III	BCDC	2-27	37
	DSR	36-60	27
	LHFRC	18-60	81
	NPCLC	2-60	74

Focus Area	Program*	Months	Sample Size
	SSCDC	2-60	27
	WSOLC	2-60	36

*Program acronyms are listed in Appendix A.

Table 30 showed that a couple of programs reached a 100% passing rate in *Communication* (COM), *Fine Motor* (FM), and *Problem Solving* (ProS) domains. These domains also included relatively low rate below 80%. In contrast, ranges of the domain passing rate were 12.5 in *Personal-Social* (PerS) and 17.9 in *Gross Motor* (GM) domains, much smaller than the ranges for COM, FM, and ProS. The results indicated that young children started developing these skills at different paces. Hence, it is important to design age-appropriate program features to close learning gaps at the early stage.

Table 30: Percent of Children with Performance Level above ASQ-3 Threshold

Focus Area	Program*	COM	GM	FM	PerS	ProS
II	AFRC	99.1	93.6	90.8	96.3	96.3
	BCRC	100	94.1	84.7	98.8	98.8
	EKFRC	92.2	93.8	79.7	90.6	96.9
	GSR	91.4	87.6	74.3	92.4	96.2
	HMG	87.5	81.9	72.5	86.3	88.8
	IWVFRC	96.8	96.8	93.5	96.8	93.5
	KRVFRC	91.4	86.3	85.9	89.7	94.4
	LVSRP	97.5	94.9	94.9	96.2	97.4
	MCFRC	94.3	83.0	86.8	96.2	100
	MFRC	94.4	85.2	66.7	92.6	100
	SENP	94.7	87.9	93.7	96.1	97.6
	SHS	93.9	87.8	61.0	93.9	89.0
	WSN	91.3	91.3	100	91.3	91.3
III	BCDC	87.2	80.9	91.5	87.2	89.4
	DSR	75.9	82.8	69.0	89.7	79.3
	LHFRC	98.8	98.8	94.2	98.8	100
	NPCLC	97.7	93.0	72.7	93.0	96.9

*Program acronyms are listed in Appendix A.

Based on the assessment data, statistical testing has been conducted to examine whether the level of child development is significantly above the corresponding ASQ-3 threshold. The test statistic from single sample t tests is listed in Table 31. All t values are significant at α=.005. Effect sizes are larger than 0.80, indicating a strong program impact on all five ASQ-3 outcome measures across 17 programs.

Table 31: Test Statistic (t) for Significant Results in 17 Programs

Focus Area	Program	COM	GM	FM	PerS	ProS	Effect Size
II	AFRC	23.25	16.61	20.15	23.10	26.33	>3.52
	BCRC	15.02	13.79	6.85	7.76	12.07	>4.25
	EKFRC	4.91	9.62	9.25	5.36	11.94	>1.79
	GSR	15.40	18.96	16.03	15.54	20.14	>3.68
	KRVFRC	18.79	24.65	17.15	17.92	16.71	>3.00
	LVSRP	23.82	28.09	21.18	20.06	21.92	>4.83
	MCFRC	12.94	11.10	13.11	16.26	14.64	>3.14

Focus Area	Program	COM	GM	FM	PerS	ProS	Effect Size
	MFRC	11.68	14.07	9.93	10.40	8.57	>2.64
	SENP	20.30	27.63	29.16	28.23	29.49	>4.01
	SHS	8.55	14.31	8.19	13.19	9.75	>2.36
	WSN	7.31	6.16	6.39	6.35	6.56	>2.90
III	BCDC	13.46	12.59	6.85	7.76	12.07	>2.28
	DSR	10.33	10.18	5.47	6.27	5.21	>2.04
	LHFRC	15.92	18.76	13.52	17.18	14.35	>3.02
	NPCLC	20.89	17.98	13.97	17.48	15.64	>3.27
	SSCDC	7.72	20.41	13.50	8.90	15.20	>3.03
	WSOLC	17.28	11.20	7.31	14.08	13.95	>2.47

*Program acronyms are listed in Appendix A.

In summary, child developments in *Communication, Gross Motor, Fine Motor, Personal-Social*, and *Problem Solving* categories are important outcomes from ASQ-3 assessments. In *Focus Areas II* and *III*, data sizes vary from 19 in WSN to 125 in KRVFRC (see Table 28), which may have impacted the result of statistical significance. According to the American Psychological Association (2001), "For the reader to fully understand the importance of your findings, it is almost always necessary to include some index of effect size or strength of relationship in your Results section" (p. 25). Effect sizes are reported in Table 30 to confirm the strong practical program impact.

The quantitative findings are backed by in-depth stories of program effort in eliminating service barriers. For example, two children at ages 2 and 4 have been confirmed to have a development delay in all ASQ-3 domains. However, specialized services cannot be offered due to parental resistance. Because CASA staff utilized the ASQ-3 results to communicate the service needs, a court order is obtained to ensure parent cooperation. As a result, the program support has led to referrals of the children to speech services and physical therapy. Both children are successfully progressing toward the appropriate development level for their respective ages (Ibid. 6).

2. Desired Results Developmental Profile-Infant/Toddler Indicators

In FY 2020-2021, the *Desired Results Developmental Profile: Infant/Toddler* (DRDP-IT) *View* is used as a formative assessment instrument to gather child development data from BCDC and SSCDC. The BCDC data contain 20 cases from initial assessment and 16 from follow-up assessment. The corresponding counts in SSCDC are 7 and 2. The instrument is expected to generate variables on the acquisition of knowledge, skills, or behaviors in eight DRDP domains.

BCDC is designed to assist parenting teens in childcare and education. SSCDC works with victims of domestic violence to support early childhood development. Two of the DRDP-IT domains, History-Social Science (HSS) and Visual and Performing Arts (VPA), are not involved in the assessment because the ecological and artistic expressions are not a focus of these programs. In addition, none of the children are in bilingual education, and thus, the domain of English-Language Development (ELD) is excluded from the data gathering. The final instrumentation includes 29 items from five DRDP-IT domains:

- Approaches to Learning–Self-Regulation – Five items (ATL-REG1, … ATL-REG5)

- Social and Emotional Development – Five items (SED1, … SED5)
- Language and Literacy Development – Five items (LLD1, … LLD5)
- Cognition, Including Math and Science – Six items (COG1, 2, 3, 8, 9, 11)
- Physical Development–Health – Eight items (PD-HLTH1, … PD-HLTH8)

When a tracking mechanism is incorporated for the case matching between initial and follow-up assessments, two and four cases are left in the BCDC and SSCDC data, respectively. One of the SSCDC cases has no responses on the COG and PD-HLTH constructs. The BCDC data only contain COG, LLD, and SED variables. When the DRDT-IT data are combined for both programs, the total sample size is no larger than six. Despite the data shortage, results from the combined sample indicate significant improvement of ATL-REG, LLD, COG, and PD-HLTH constructs between initial and follow-up assessments at α=.05 (Table 32). All effect size values are larger than 0.80 to confirm strong practical impacts from the program interventions.

Table 32: Results of DRDP-IT Case Tracking Across Five Scales

Domain	N	t	p	Effect Size
ALT-REG	4	12.25	.0012	14.15
COG	5	3.05	.0382	3.05
LLD	6	2.65	.0455	2.37
PDHLTH	3	5.00	.0377	7.07
SED	6	1.97	.1057	1.76

Although small samples tend to make it difficult to detect significant differences due to the lack of statistical power, the data rarity is beyond anyone's control during the pandemic. More importantly, if significant results is detected from a small sample, one may expect to obtain more unambiguous findings when a larger sample becomes available. In addition, the large effect sizes in Table 32 support positive findings in the DRDP-IT outcomes.

3. Indicators of DRDP-IT Modified Essential View

HLP uses indicators of DRDP-IT Modified Essential (DRDP-IT/ME) View to assess improvement of child performance in daily environments. The instrument includes 13 items to measure three constructs (Table 33). Due to COVID-19, the data quality was hampered by missing values and only four records were gathered by HLP – three from initial assessment and one from follow-up assessment. Consequently, one pair of matched records is retained from the data tracking, which leaves no information to configure the data distribution for statistical testing.

Table 33: Items of DRDP-IT/ME

Construct	Name	Item
Social and Emotional Development	SED1	Identity of Self in Relation to Others
	SED2	Social and Emotional Understanding
	SED3	Relationships and Social Interactions with Familiar Adults
	SED5	Symbolic and Sociodramatic Play
Language and Literacy Development	LLD1	Understanding of Language (Receptive)
	LLD2	Responsiveness to Language
	LLD3	Communication and Use of Language (Expressive)
	LLD4	Reciprocal Communication and Conversation

Construct	Name	Item
	LLD5	Interest in Literacy
Cognition, Including Math and Science	COG1	Spatial Relationships
	COG2	Classifications
	COG3	Number Sense of Quality
	COG8	Cause and Effect

Per design of DRDP-IT/ME, child development status is characterized at hierarchical levels. For instance, the *Exploring* stage is demonstrated by active explorations that include purposeful movement, manipulation, communication, and cooperation. The *Building* stage represents a higher level for growing understanding of how people and objects relate to one another, how to investigate ideas, and how things work. Except for indicator SED1, this single case seems to progress sequentially from *Exploring* to *Building* levels on all indicators of Table 33.

For the SED1 data from HLP, this child seems to have retrogressed from a *Building* stage in the initial assessment to an *Exploring* stage in the follow-up assessment on a construct of *Identity of Self in Relation to Others*. Normally, a child is expected to grow during the time between initial and follow-up assessments. Thus, the observed pattern on SED1 appears to be abnormal. When large data are gathered by HLP, the assessment outcomes can be examined by Cronbach's α to disentangle inconsistency of the DRDP-IT/ME measure.

4. Desired Results Developmental Profile-Preschool (PS) Summary

For preschool children, the DRDP instrument contains two versions: Fundamental View and Comprehensive View. The indicator structure for Comprehensive View is listed in Table 34. Fundamental View is a simplified version to exclude HSS, VPA, and Indicators 8-11 for Cognition (COG). The number of levels for each indicator depends on the competencies that are appropriate for the developmental continuum. Categories are set to differentiate early, medium, and later phases of the four stages, *Responding, Exploring, Building*, and *Integrating*, in the result rating.

Table 34: Domain Coverage of DRDP-PS Assessment

Domain	Knowledge and Skill Indicators
ALT-REG	(1) Attention Maintenance, (2) Self-Controlling, (3) Initiation, (4) Curiosity and Initiative in Learning, (5) Self-Control of Feelings and Behavior, (6) Engagement and Persistence, (7) Shared Use of Space and Materials.
COG	(1) Spatial Relationships, (2) Classification, (3) Number Sense of Quantity, (4) Number Sense of Math Operations, (5) Measurement, (6) Patterning, (7) Shapes, (8) Cause and Effect (9) Inquiry Through Observation and Investigation, (10) Documentation and Communication of Inquiry, (11) Knowledge of the Natural World.
LLD	(1) Understanding of Language, (2) Responsiveness to Language, (3) Communication and Use of Language, (4) Reciprocal Communication and Conversation, (5) Interest in Literacy, (6) Comprehension of Age-Appropriate Text, (7) Concepts about Print, (8) Phonological Awareness, (9) Letter and Word Knowledge, (10) Emergent Writing.

Domain	Knowledge and Skill Indicators
PDHLTH	(1) Perceptual-Motor Skills and Movement Concept, (2) Gross Locomotor Movement Skills, (3) Gross Motor Manipulative Skills, (4) Fine Motor Manipulative Skills, (5) Safety, (6) Personal Care Routines: Hygiene, (7) Personal Care Routines: Feeding, (8) Personal Care Routines: Dressing, (9) Active Physical Play, (10) Nutrition.
SED	(1) Identity of Self in Relation to others, (2) Social and Emotional Understanding, (3) Relationships and Social Interactions with Familiar Adults, (4) Relationships and Social Interactions with Peers, (5) Symbolic and Sociodramatic Play.
HSS	(1) Sense of Time, (2) Sense of Place, (3) Ecology, (4) Conflict Negotiation, (5) Responsible Conduct as a Group Member.
VPA	(1) Visual Art, (2) Music, (3) Drama, (4) Dance.

In comparison, preschoolers are more mature than infants/toddlers in language development. DRDP includes four indicators of English language development (ELD), *Comprehension of English, Self-Expression in English, Understanding and Response to English Literacy Activities,* and *Symbol, Letter*, and *Print Knowledge in English*. The ratings are scaled on six points, (1) Discovering Language, (2) Discovering English, (3) Exploring English, (4) Developing English, (5) Building English, and (6) Integrating English.[36]

In FY 2020-2021, SFP did not collect DRDP-PS data from its online classes. Consequently, this section is delimited to analyses of WWP data from 14 records in the initial assessment and 29 cases in the follow-up assessment. With *Client ID* as a linking variable for the data merge, 10 observations are retained from the WWP data to examine the progress of preschoolers in the *DRDP-PS Fundamental* domains. Table 35 shows significant program impacts on child development in COG and PDHLTH at α=.05. Although no statistical significance is detected in other domains, the effect sizes suggest strong practical impacts from WWP on all DRDP indicators except ELD.

Table 35: Test of the Result Change in the DRDP-PS Fundamental Assessment

Domain	N	t	P	Effect Size
ALT-REG	10	2.14	.0614	1.43
COG	10	2.63	.0274	1.75
ELD	10	1.00	.3434	0.67
LLD	10	1.88	.0924	1.25
PDHLTH	10	2.52	.0329	1.68
SED	10	1.96	.0811	1.31

The ELD scale indicates moderate effects for English language learners. Closing the early childhood gap is stipulated by Proposition 10, i.e., "There is a further compelling need in California to ensure that early childhood development programs and services are universally and continuously available for children until the beginning of kindergarten" (p. 1).

Among the four programs participated in DRDP data collection using the Preschool Comprehensive View scale, SSCDC and SSEC did not collect pretest data (Table 36).

[36] https://www.desiredresults.us/sites/default/files/docs/forms/DRDP2015_PSC_Combined-20200123RatingRecorg.pdf

DDCCC had nine observations from pretest and three observations from follow-up assessment, but the information was not matched as pairs to track development of the same children. Hence, three out of the four programs have to be excluded from the report of child growth between pretest and follow-up assessments.

Table 36: Data Sizes of the DRDP PS Comprehensive Assessment

Session	DDCCC	DSR	SSCDC	SSEC
Pretest	9	16	0	0
Follow-up	3	14	16	11

With DSR as the only program in the data tracking, the information did not cover all DRDT-PS constructs. For instance, no indicator was gathered on ALT-REG, PDHLTH, and PDH. For the remaining scales in Table 37, the sample size varied from nine to 13. Despite the small data, statistical testing indicates significant child development in COG, ELD, LLD, and SED domains. All effect sizes are larger than 0.80 to confirm strong practical impacts from DSR on these DRDP indicators.

Table 37: Paired Pretest/Posttest Results of DRDP PS Comprehensive View

Domain	N	t	p	Effect Size
COG	13	2.65	.0212	1.53
ELD	9	2.36	.0462	1.67
LLD	12	6.90	<.0001	4.16
SED	12	3.08	.0105	1.86

In summary, different impacts occurred from COVID-19 to hammer collection of complete data in DRDP assessments across service providers. Despite the missing data issue in DDCCC, HLP, SSCDC, SSEC, and SFP, results in Tables 35 and 37 show strong practical impacts from WWP and DSR programs.

5. Child Assessment-Summer Bridge Results

In preparing for school readiness, First 5 California (2015b) indicated the need for funding "Programs of all types (e.g., classes, home visits, summer bridge programs) that are designed to support the kindergarten transition for children and families" (p. 58). In FY 2020-2021, First 5 Kern funded Summer-Bridge programs to enrich early learning experiences of preschoolers prior to their kindergarten entry. Service outcomes are assessed by Child Assessment-Summer Bridge (CASB) data from five programs in Table 38.

Table 38: CASB Data Sizes from Five Programs

Source	EKFRC	GSR	MFRC	OFRC	SHS
Pretest	0	28	5	6	9
Posttest	8	28	4	4	9
Matched Pair	0	26	4	4	8

Because EKFRC has no observation from pretest, no analyses can be conducted on improvement of child performance during the Summer Bridge intervention. The data tracking in MFRC, OFRC, and SHS results in four, four, and eight pairs of observations between pretest and posttest, respectively. It is unfeasible to conduct statistical testing at the program level due to the small samples. Nonetheless, description of the average performance between pretest and posttest is represented by average assessment scores of Motor Skills (MS), Social Emotional Skills (SES), Communication Skills (ComS), Self-Help Skills (SS), Scientific Inquiry (SI), and Cognitive Skills (CS) in Table 39.

Table 39: CASB Indicator Comparison Between Pretest and Posttest

Program	Assessment	MS	SES	ComS	SS	SI	CS
GSR	Pretest	4.00	2.77	4.57	4.00	6.31	36.35
	Posttest	4.38	2.54	4.65	4.08	7.81	49.81
MFRC	Pretest	4.00	4.75	5.00	3.75	7.00	31.75
	Posttest	4.75	5.00	5.00	4.25	7.50	44.00
OFRC	Pretest	4.50	4.25	5.00	4.00	7.75	68.50
	Posttest	4.75	4.75	500	4.00	8.00	79.25
SHS	Pretest	3.25	3.63	4.13	4.38	6.25	30.75
	Posttest	3.63	4.50	4.00	3.75	6.50	31.88

*Program acronyms are listed in Appendix A.

Inspection of Table 39 indicates that child performance fluctuate between pretest and posttest on *Social Emotional, Communication*, and *Self-Help* skills across the four programs. However, consistent patterns of better posttest scores are evident on *Motor, Scientific Inquiry*, and *Cognitive* skills. Table 40 contains the statistical testing results from the combined CASB sample to show significant improvement of MS, SI, and CS skills in these Summer Bridge programs at α=.001. The effect sizes are larger than 0.80 to confirm strong practical impact on child skill improvement in these school readiness domains.

Table 40: Improvement of MS, SI, and CS Skills in Summer Bridge Programs

Skills	df	t	p	Effect Size
MS	41	3.95	.0003	1.23
SI	41	3.87	.0005	1.21
CS	41	5.48	.0001	1.71

First 5 Kern (2021) has strategically designated a clear goal in the focus area of *Child Development*, i.e., "Early childcare and education services will be accessible" (p. 6). As First 5 Association of California (2009) suggested, "To fully appreciate the effect that First 5 has had, it is necessary to understand the many roles that are served by First 5 – roles that were not being addressed or not fulfilled sufficiently before First 5 was created" (p. 7). Prior to the passage of Proposition 10, no Strategic Plan was developed for early childhood services in Kern County, nor did the service integration become a focus area to enhance sustainability of local programs for children ages 0-5 and their families.

The systematic data tracking in this chapter conforms to the Statewide Evaluation

Framework (First 5 California, 2005). In this chapter, descriptive data are summarized to indicate the extent of early childhood service delivery in each focus area. Value-added assessments are conducted to monitor improvement of program outcomes under a pretest and posttest setting. Altogether, this chapter not only elaborate the scope of services in each focus area, but also incorporates extensive analyses of positive changes resulted from First 5 Kern-funded programs using AAPI-2.1, ARA, ASQ-3, ASQ:SE-2, BCBH, CASB, DANCE, DRDP, FCP, and NCFAS-G instruments.

In addition to improvement of program effectiveness, most service providers used Proposition 10 investment as the seed money to strengthen program sustainability through external partnership building. In FY 2020-2021, service providers leveraged funds from 26 external sources totaling $3,832,947 (see Table 2). Built on the network expansion, more results are aggregated in Chapter 3 to report the outcomes of service integration at the Commission level.

Chapter 3: Effectiveness of Service Integration

"In the childcare industry, there are two main populations involved — the children and the providers" (Morgan, 2019, p. 1). The program impact on child wellbeing has been evaluated in Chapter 2. This chapter focuses on providers' effort in service integration. An Integration Service Questionnaire (ISQ) is employed to collect partnership information. A computer software package, *NetDraw*, is adopted to examine network links *within* and *across* focus areas of *Child Health, Family Functioning*, and *Child Development*.

According to Proposition 10, "No county strategic plan shall be deemed adequate or complete until and unless the plan describes how programs, services, and projects relating to early childhood development within the county will be integrated into a consumer-oriented and easily accessible system" (p. 10). This requirement is addressed by First 5 Kern's (2021) result indicators in the fourth focus area, *Integration of Services*, of its strategic plan. As resources, such as the state tobacco tax, dwindle down, program networking may help sustain service delivery from multiple partners (Purcal, Muir, Patulny, Thomson, & Flaxman, 2011).

The emphasis on network connection fit a long-standing policy agenda of First 5 Association of California (2017), i.e., "Invest in and improve coordination across systems of care to efficiently connect young children to early intervention" (p. 5). The state report glossary has designated two result domains, *Policy and Public Advocacy* and *Programs and Systems Improvement Efforts*, to document county commission efforts in system building (First 5 Association of California, 2013). While *Policy and Public Advocacy* depends on coordinated endeavors across the state, *Programs and Systems Improvement Efforts* hinge on partnership development among service providers. To evaluate effectiveness of service integration, this chapter is devoted to assessment of partnership capacity among First 5 Kern-funded programs. In addition, the IMPACT (Improve and Maximize Programs so All Children Thrive) project of the state commission also responded to the ISQ data collection.

Enhancement of Early Childhood Supports through Service Integration

The overall goal of service integration is to establish a "well-integrated system of services for children and families" (First 5 Kern, 2021, p. 6). Following the commission strategic plan, FCP held four workshops to disseminate information about its health and wellness services to parents/guardians (RI 4.1.2). First 5 Kern (2021) also designated result indicators on service provider training to support community improvement efforts in *Child Health* (RI 4.1.3) and *Child Development* (RI 4.3.1). In FY 2020-2021, FCP, MVCCP, and MVIP trained 176 parents to address RI 4.1.3. Two programs (CASA and SSEC) in *Child Health* and six programs (BCDC, DDCCC, HLP, SSCDC, SFP, and WWP) in *Family Functioning* offered training for 70 service providers to improve early childcare and education (RI 4.3.1). Altogether, 19 service providers attended collaborative meetings of CMIP and HMG (RI 4.2.2). In addition, staff of 16 programs attended 105 collaborative meetings (RI 4.2.1) and 12 service providers attended HMG-led educational events on early childhood topics (RI 4.4.1). The effort on service integration has guided organization of 22 articulation meetings (RI 4.3.3) with 79 participants (RI 4.3.2) to develop transition plans for incoming kindergartners in eight programs.

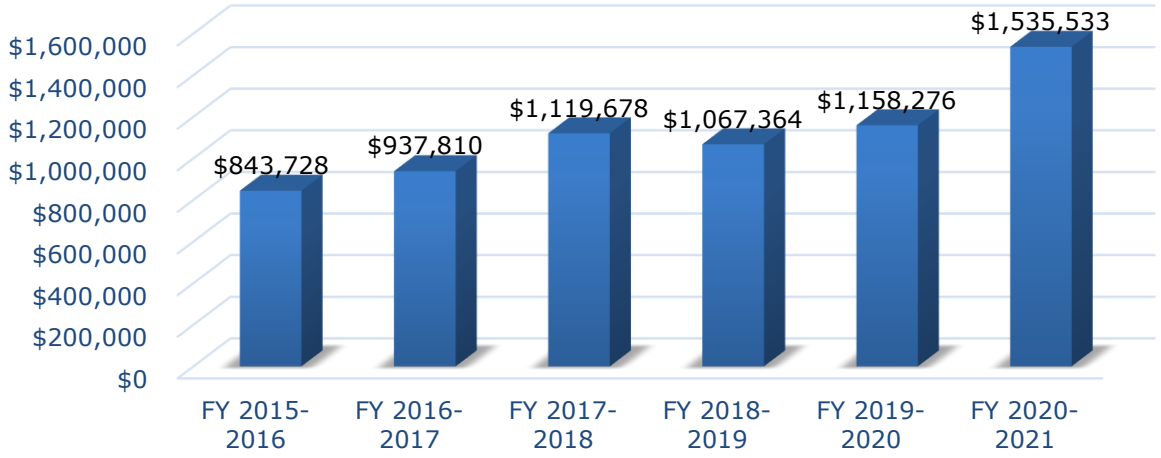
Besides the grant administration, county commissions are expected to "facilitate the creation and implementation of an integrated, comprehensive, and collaborative system of information and services to enhance optimal early childhood development" [Proposition 10, Section 5(a)]. Among 39 programs funded by First 5 Kern, 21 service providers share the responsibility of child or infant services, 14 programs offer parental supports, 20 programs feature services with case management, nine program cover early learning, and three programs carry pivotal functions in service referral system (Ibid. 1).

As part of its emergency and disaster relief effort during COVID-19, First 5 Kern spent $43,883 this year to buy material supplies for service providers. The following items were distributed across the county to help sustain program operation (see Ibid. 3):

- 3,064 bottles of liquid hand soap (395 gallons)
- 216 gallons of bleach
- 3,546 bottles of all-purpose cleaner (596 gallons)
- 158,000 pairs of gloves
- 22,350 child masks
- 72,900 adult masks
- 6,322 bottles of hand sanitizer (365 gallons)
- 3,425 packs of baby wipes
- 4,650 cases of diapers
- 1,032 boxes of tissues
- 8,320 rolls of toilet paper
- 540 rolls of paper towel
- 625 lbs of laundry detergent

Eventually, many of the supplies were passed on to young children and their families through FRCs and home-visiting programs across the county.

Figure 13: First 5 Kern Funding in Service Integration



As a result, Figure 13 shows more First 5 Kern funding in service integration this year. The need for service integration has been vividly demonstrated by an impact story from a local community where a child struggled with cavities and medical problems. After x-ray examinations by a contracted pediatric dentist, clearance was requested from the child's medical doctor for dental treatment. With First 5 Kern funding, KCCDHN adopted

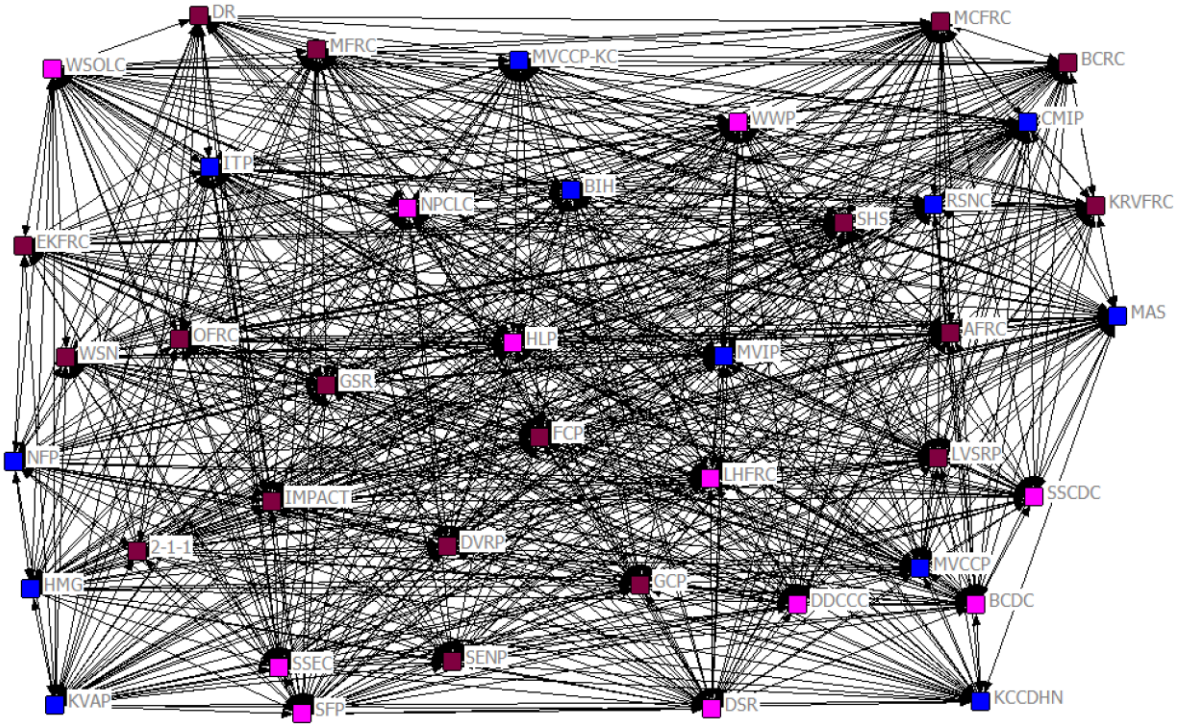
a systematic approach to first remove tonsil tissues through a surgery and then fill cavities per nurse referral. The collaboration offered seamless supports from physicians, surgical doctors, dentists, and nurses to reach an effective solution to the entangled health and dental problems (Ibid. 6). The partnership support echoes what is known about service integration, i.e., "families generally report higher satisfaction with services given comprehensive systems of care" (Doll et al, 2000, p.4), such as articulating direct treatments with referral support in this case.

In summary, First 5 California (2015a) confirmed, "One result area, Improved Systems of Care, differs from the others; it consists of programs and initiatives that support program providers in the other three result areas" (p. 10). Within the local setting, service provider training has been offered across focus areas and the learning community is established with collaborative responsibilities to sustain early childhood service, parental support, case management, school-readiness preparation, and program referral across Kern County (Ibid. 1).

Strengthening of Partnership Network among Service Providers

In the ISQ data collection, MVCCP and MVCCP-KC are differentiated for offering *case identification* and *service coordination* to medically vulnerable children (Ibid. 7). Each service provider is asked to identify partners from a list of First 5 Kern-funded programs. This process follows a *saturation sampling technique* (see Carolan, 2014) for collecting whole-network data (Borgatti, Everett, & Johnson, 2018). The saturated/whole-network approach is intended to offer a more complete picture of the network structure than other approaches (Wasserman & Faust, 1994).

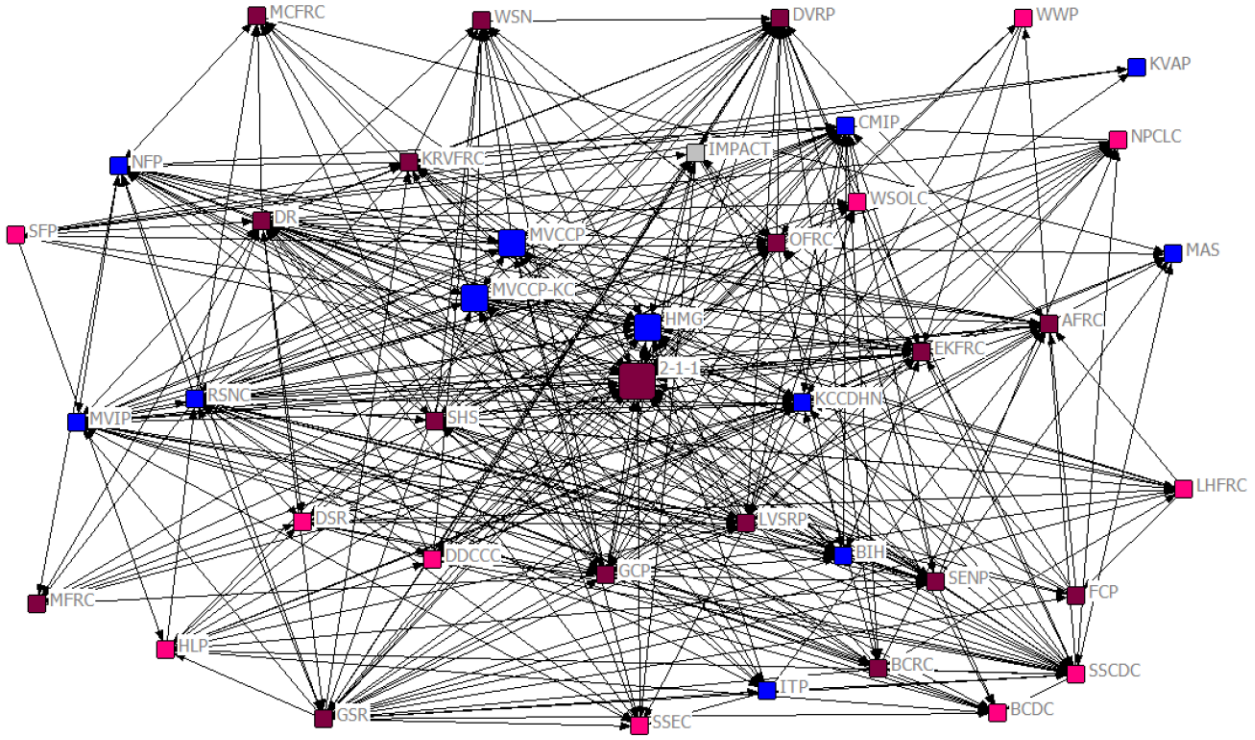
Figure 14: Density of Program Networking at the *Co-Existing* Level



With the addition of IMPACT and differentiation between MVCCP and MVCCP-KC, ISQ data are gathered from a total of 41 service providers. Because the rest 40 programs are treated as potential partners for each of the 41 service providers, the total number of partnership links is 1,640 (i.e., 41X40). At the baseline level, program connections can be characterized at a *Co-Existing* level without outreach efforts. The network analysis indicates 1,187 links at the *Co-Existing* level (Figure 14), accounting for 72.38% (or 1187/1640) of all possible links in the ISQ database.

In Figure 14, programs in *Child Health*, *Family Functioning*, and *Child Development* are differentiated by blue, brown, and pink nodes, respectively. The network of *Co-Existence* is evenly spread with an approximate 29.95 links per program across the focus areas. In contrast, active links are plotted in Figure 15 for 343 connections involving program outreach. The network density is 29.29% with an average 11.13 links per node. Sparsity of the active links reflects the fact that partnership building takes time. Due to COVID-19, program staff interactions are yet to emerge from regular collaborative meetings (RI 4.3.4, 4.3.5, 4.4.4, 4.4.5, 4.5.3, and 4.5.4) this year.

Figure 15: Density of Active Program Links above the *Co-Existing* Level



A further inspection of Figure 15 reveals that much more links have been established for countywide programs, such as MVCCP, 2-1-1, and their close partners (i.e., MVCCP-KC and HMG), than local service providers in remote communities (e.g., WWP and KVAP). *Co-Existence* is often featured by community-based programs in a self-contained setting. The IMPACT project was funded by First 5 California for several years, and its outreach efforts are extended through connections to around one third of the programs. Because active links above the *Co-Existing* level often involve initiators, mutual partnership connections need to be further examined in the next section.

Reciprocal Partnership Connection beyond Co-Existence

Partnership building can be reciprocal when a network connection is concurrently confirmed by both parties. In general, "reciprocation rate is inversely related to the barrier level in these networks" (Singhal et al., 2013, p. 1). Hence, improvement of service integration is accompanied by elimination of partnership barriers and expansion of reciprocal connections (Borgatti, Everett, & Johnson, 2018). In this section, reciprocal relations are examined in focus areas of *Child Health*, *Family Functioning*, and *Child Development*.

In Kern County, services in *Child Health* are intended to meet a wide range of special needs, such as immunizations, health insurance coverage, medically vulnerable infant support, nurse-family partnership, and water safety education. These programs offer joint supports from dedicated nurses, hospital employees, and mental health professionals in different organizations. Based on Proposition 10, partnership building is aimed at reducing program redundancy and strengthening service integration for well-rounded care provision. Therefore, active partnerships are needed to enhance the complementary supports. In this context, it is desired to increase the number of reciprocal links across different service providers beyond the isolated *Co-Existing* level.

In comparison, programs of *Child Development* are rooted in specific communities. Outreach efforts may facilitate exchanges of service experiences from different program settings. Service providers in *Family Functioning* consist of both local FRCs and countywide child protection services, such as DR, DVRP, and GCP. It also includes referral services from 2-1-1 to facilitate program networking.

Following First 5 Kern's (2021) strategic plan, service integration is expected for all programs. Table 41 shows more links in *Family Functioning* because it contains more service providers. With the program classification for annual reporting (Ibid. 1), 58 active links are mutually acknowledged by service partners within each focus area. In addition, 48 active links are identified for reciprocating connections across focus areas (Table 41).

Table 41: Number of Active Reciprocal Links Beyond the Co-Existing Level

Link Nature	Focus Area	Link Count
Within a focus area	Child Health	20
	Family Functioning	33
	Child Development	5
Between focus areas	Child Health <-> Family Functioning	28
	Child Health <-> Child Development	9
	Child Development <-> Family Functioning	11

These links reflect establishment of joint partnerships among programs in *Child Health, Family Functioning,* and *Child Development*. For illustration, several programs offer multiple services in parent education, early care, child protection, and school readiness preparation (Ibid. 1). Meanwhile, countywide programs often network with local service providers to identify and address child needs in family settings. Table 41 indicates more active reciprocal links *within* a focus area than *between* focus areas, an indication of coherent service provider classification in First 5 Kern's (2021) strategic plan.

In summary, the reciprocal network among First 5 Kern-funded programs includes 106 pairs of mutually-confirmed partnerships above the *Co-Existing* level. Although the results are based on network counts, it should be noted that "not everything that counts can be counted".[37] To analyze the capacity of service integration, strength of the partnership connections is assessed by a *Co-Existing, Collaboration, Coordination*, and *Creation* (4C) model in the next section.

Justification of Model Selection for Partnership Evaluation

Depending on local conditions, program features may vary across Kern County's valley, mountain, and desert communities, so does the strength of network connection. Sometimes programs could have legitimate reasons to reciprocate their relationship at the *Co-Existing* level. For instance, Kern Valley Aquatics Program (KVAP) offers water safety and injury prevention education in Kern River Valley. Programs in Lost Hills, such as LHFRC, are not expected to transport children 100 miles away to access KVAP services. Hence, program *Co-Existence* could be grounded on the scope of work pertinent to fulfillment of service delivery under First 5 Kern's (2021) strategic plan.

In examining network characteristics, Cross, Dickman, Newman-Gonchar, and Fagen (2009) argued, "Evaluating interagency collaboration is notoriously challenging because of the complexity of collaborative efforts and the inadequacy of existing methods" (p. 310). To simplify the undertaking, Project Safety Net of Palo Alto (2011) suggested a five-level model for network categorization that featured "formal communication" as a characteristic for *cooperation*. Because communications could be described as *frequent, prioritized,* and/or *trustworthy*, this model did not resolve the entanglement of cooperation features.

Besides the consideration on mutual exclusiveness, partnership categorization needs to comprehensively cover different strength levels. In this regard, First 5 Fresno (2013) treated coordination and collaboration as the highest levels of program interaction, which could have inadvertently left no room for partnership improvement. Therefore, the Fresno approach inherited two problems: (1) It did not conform to Bloom's taxonomy that labeled creation as another level above integration (Airasian & Krathwohl, 2000), and (2) It downplayed the adequacy of *Co-Existing* partnerships for program referrals.

To amend these issues, service integration is conceived in this report from the context of institutional learning. The model itself is grounded on a well-established SOLO [Structure of the Observed Learning Outcome] taxonomy (Atherton, 2013; Biggs & Collis, 1982) that defines four levels of learning outcomes above the pre-structure baseline (see Smith, Gorden, Colby, & Wang, 2005). Each level has been clearly delineated with specific benchmarks to support the measure of ongoing improvement. The SOLO taxonomy was employed in several profound studies before, including a validity study of the national board certification (see Smith et al., 2005). The alignment in Table 42 illustrates a one-to-one match between the SOLO taxonomy and the 4C model for service integration.

Like the SOLO taxonomy, the 4C paradigm incorporates levels of classification that are both comprehensive and mutually exclusive. The literature-based 4C model was presented at the 2013 annual meeting of the National Association for the Education of

[37] www.quotationspage.com/quote/26950.html

Young Children (NAEYC) in Washington, DC (Wang, Ortiz, & Schreiner, 2013) and the 2015 annual meeting of the American Educational Research Association in Chicago (Wang, Ortiz, Maier, & Navarro, 2015). Subsequently, the 4C model was employed to disseminate research findings in a nationally refereed journal (Wang et al., 2016).

Table 42: Alignment between SOLO Taxonomy and the 4C Model

SOLO	The 4C Model
Uni-Structural: Limited to one relevant aspect	Co-Existing: Confined in a simple awareness of Co-Existence
Multi-Structural: Added more aspects independently	Collaboration: Added mutual links for partnership support
Relational: United multiple parts as a whole	Coordination: United multiple links with structural leadership
Extended Abstract: Generalized the whole to new areas	Creation: Expanded capacity beyond existing partnership

Tom Angelo (1999), former director of the National Assessment Forum, maintained, "Though accountability matters, learning still matters most" (¶. 1). In the following section, the 4C model is adopted to assess strength of service integration for enhancing partnership building. Structure of service integration is illustrated by *NetDraw* plots through social network analysis.

Evaluation of Network Strength According to the 4C Model

Results in Table 43 demonstrated a hierarchical feature of the 4C model – The reciprocal partnership count dropped as the network strength increased across the *Co-Existing*, *Collaboration, Coordination*, and *Creation* hierarchy, ending with the smallest number at the top level of new partnership creation. Built on the network classification, partnership strength can be assessed to support enhancement of service integration.

Table 43: Distribution of Mutual Partnership Counts of Different Strengths

Scope	Strength	Partnership Count	Subtotal
Partnership within the same strength level	Creation Coordination Collaboration Co-Existing	7 17 25 447	496
Partnership across different strength levels	Involving Co-Existence Above Co-Existence	228 50	278

Above the level of program *Co-Existence*, a total of 49 pairs of active connections are reciprocated by partners in the *Collaboration, Coordination,* and *Creation* categories. In reality, far more links are non-reciprocal to feature asymmetric connections (Hansen, 2009). Table 43 shows that the mutual connections are rated at different strength levels above *Co-Existence* in 50 pairs of active partnerships. In contrast, 228 pairs of asymmetric connections involve *Co-Existence*. Hence, *Co-Existing* links can be reciprocated by active connections at other C levels.

It should be noted that an effective program partnership does not have to attain the top level of network connection. In *Child Health*, MVCCP partners with MVCCP-KC for

case identification and referral. The referral service belongs to the *Collaboration* category of the 4C model because it does not stipulate new service creation, nor does the one-to-one phone call involve a third-party intervention at the *Coordination* level. In another example, First 5 Kern funds KVAP in *Child Health*, KRVFRC in *Family Functioning*, and SFP in *Child Development* to support multiple service deliveries in the same region. The multilateral supports are at the *Coordination* level to integrate different services across focus areas. In combination, the network examination reveals different partnership structures to meet the local needs. As Provan, Veazie, Staten, and Teufel-Shone (2005) observed, "In the academic literature, network analysis has been used to analyze and understand the structure of the relationships that make up multiorganizational partnerships" (p. 603).

In FY 2020-2021, 12 pairs of the primary links reciprocate with same strength in Table 44, and none of them are mutually connected at the lowest *Co-Existing* level for inactive relations. This result is substantially different from a large number of reciprocal links at the *Co-Existing* level in Table 43. In addition, similar to the findings from last year (Wang, 2021), the majority of primary links are reciprocated at the *Coordination* level (Table 44). Distribution of the network strength is skewed positively toward having more links at the strongest *Creation* level than *Collaboration* and *Co-Existing* levels.

Table 44: Counts of Reciprocal Primary Partnerships

Scope	Strength	Partnership Count	Subtotal
Primary partnership within the same strength level	Creation	4	12
	Coordination	7	
	Collaboration	1	
	Co-Existing	0	
Primary partnership across different strength levels	Involving Co-Existence	2	13
	Above Co-Existence	11	

Although "reciprocity is a common property of many network" (Garlaschelli, & Loffredo, 2004, p. 4), primary program partners often report different strengths about their network connections (e.g. Antonucci & Israel, 1986; Shulman, 1976). In Table 44, 11 out of the 13 mutual links are reported at different C levels above *Co-Existence*. The remaining two pairs of links are assessed with unequal strengths by mutual partners involving *Co-Existence*. This finding reconfirms a result of Table 43, i.e., a *Co-Existing* link from one program could be reciprocated by an active outreach connection from its partner. The asymmetry of primary partnership, as represented by the strength difference, needs to be further examined in the next section because unilateral connections often lead to the relation adjustments for network improvement (Kuhnt & Brust, 2014).

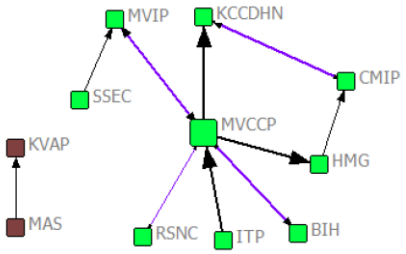
Examination of Primary Partnerships for Service Integration

In the field of network analysis, "Existing research has demonstrated that two primary features of networks, *network structure* and *the strength of ties*, have distinct effects on outcomes of interest" (Cross et al., 2009, p. 311). In this section, primary partnership structure, including both reciprocal and unilateral links, is analyzed to construct network plots across programs of *Child Health, Family Functioning*, and *Child Development*.

Network Structure within Each Focus Area

Figure 16 shows primary partnerships within *Child Health*. Reciprocal links are represented by purple lines. Thickness of the lines indicates strength of the connections at different C levels. Providers of indispensable services, such as dental and immunization programs, demonstrate strong mutual connections (KCCDHN<-->CMIP). Partners of infant care (see MVIP<-->MVCCP) are also reciprocally linked to articulate medical treatment and care coordination.

Figure 16: Network Structure among Primary Partners in *Child Health*



Albrectsen (2017) maintained that an impactful service network should be built on program features. Thus, program specialty plays an important role in the network composition. For example, water safety education forms a foundation for the partnership outreach from MAS to KVAP. HMG administers a referral system (see Ibid. 1) that identifies immunization service provider (CMIP) as a primary partner in Figure 16. MVIP is a primary partner of SSEC that offers services in non-traditional hours for medically fragile infants and toddlers. In the first year of First 5 Kern's new funding cycle, asymmetry of the primary partnerships seems to suggest different paces of network development among service providers.

The centrality of Figure 16 is located at MVCCP that extends connections to programs of dental care (KCCDHN) and child developmental screening (HMG). As a program of care coordination, MVCCP is reciprocally connected to RSNC for *special needs* support and BIH for healthy pregnancy and infant care in the African-American community. MVCCP's partnership is also sought by Infant and Toddler Program (ITP, a.k.a. CASA) to help offer the biggest training classes.[38] As a result, MVCCP connects with all programs of *Child Health*, except for the dyads of KVAP and MAS in water safety education. According to Ramanadhan et al. (2012), "Networks that are highly centralized can spread information and resources effectively from the influential members" (p. 3).

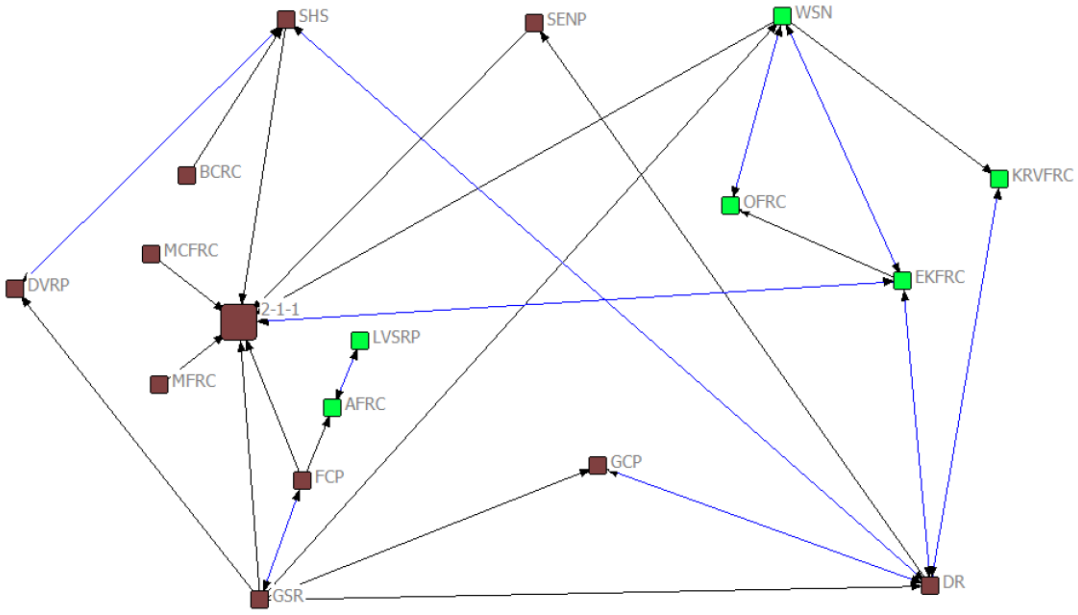
Figure 16 contains 14 links and 11 nodes, which shows an average of 1.27 link per node. KVAP is positioned as a leaf node for not extending primary partnerships to other programs. This pattern will be reconfirmed in Figure 18. But in Figure 19, KVAP actively maintains a reciprocal connection with KRVFRC in *Family Functioning*. The pattern difference *within* and *between* focus areas is called *Simpson's Paradox* (Kock & Gaskins, 2016) that supports disentanglement of the network data on multiple aspects.

In *Family Functioning*, 2-1-1 exhibits more links than any other programs because of its referral services (Figure 17). Network members are highlighted in green color for the *reciprocal link of AFRC with LVSRP* and another group of programs in the Eastern Kern

[38] https://www.givebigkern.org/organizations/casa-of-kern-county

(EKFRC, KRVFRC, OFRC, WSN). The nearby program setting has made it easy to network and establish primary partners in the surrounding regions.

Figure 17: Network Structure among Primary Partners in *Family Functioning*



For child protection, WSN offers group therapy and education to mothers and children at a homeless shelter. GSR identifies WSN as a primary partner to strengthen family support. DR demonstrates six connections, including four reciprocal ties, to reconfirm its pivotal role in safeguarding young children against abuse and/or neglect. Other child-protection programs are connected to DR directly (see GCP) or indirectly through SHS (see DVRP) with reciprocal links. In comparison, DR has more connections because of its general function to reduce service burden for CPS (Bedell, 2019).

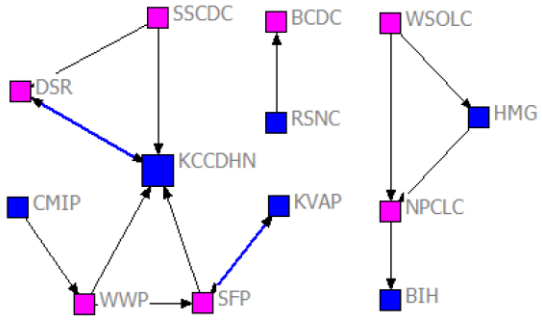
The network in Figure 17 contains 17 nodes and 36 links. All nodes show outreach connections, which leaves no leaf node. The average link per node is 2.12, larger than 1.27 for the *Child Health* network in Figure 16. While health programs are separated by specialties, most service providers in *Family Functioning* are family resource centers to address comparable result indicators in First 5 Kern's (2021) strategic plan. Primary links are shown in Figure 17 to address the need of active service outreach and collaboration.

By design, programs in *Child Development* are community-based with local children and families as the major service recipients. In Figure 18, seven programs in *Child Development* (see pink nodes) are included in a network to configure their connections with six service providers in *Child Health* (see blue nodes). Connections among pink nodes form three pairs of dyads (SSCDC→DSR, WSOLC→NPCLC, WWP→SFP). Hence, the average link per node is 0.5 in this focus area. The network sparsity is also illustrated by DSR, NPCLC, and SFP as leaf nodes with no outreach connections to pink nodes in other communities.

To address local needs, programs denoted by pink nodes have primary partnerships with countrywide programs to support dental (KCCDHN), immunization (CMIP), developmental screening (HMG), and mental health (RSNC) services in *Child Health*.

NPCLC and BIH are also linked to improve parent knowledge of developmental milestones and norms (Ibid. 1). Although the linkage is not reciprocal, Provan et al. (2005) noted that "when links among organizations are not confirmed, this does not necessarily reflect the absence of a link" (p. 607). Both BIH and NPCLC offer educational workshops for parents/guardians to address RI 2.2.3 in First 5 Kern's (2021) strategic plan. The service has benefited 158 parents or guardians this year.

Figure 18: Primary Partners of *Child Development* Program in *Child Health*



As Krebs (2011) pointed out, "What really matters is where those connections lead to – and how they connect the otherwise unconnected!" (¶. 4). In Kern River Valley, KVAP and SFP the only programs to extend mutual partnership support in *Child Health* and *Child Development*. Likewise, multiple network connections are found with DSR, WSOLC, and WWP for sponsor center-based education activities in their respective communities (RI 3.1.1). Altogether, these programs extend education opportunities to 67 children this year. The partnership building fits a general trend of early childhood support across focus areas. As Nichols and Jurvansuu (2008) noted, "There is currently movement internationally towards the integration of services for young children and their families, incorporating childcare, education, health and family support" (p. 117).

Figure 19: Network Structure in *Family Functioning* and *Child Health*

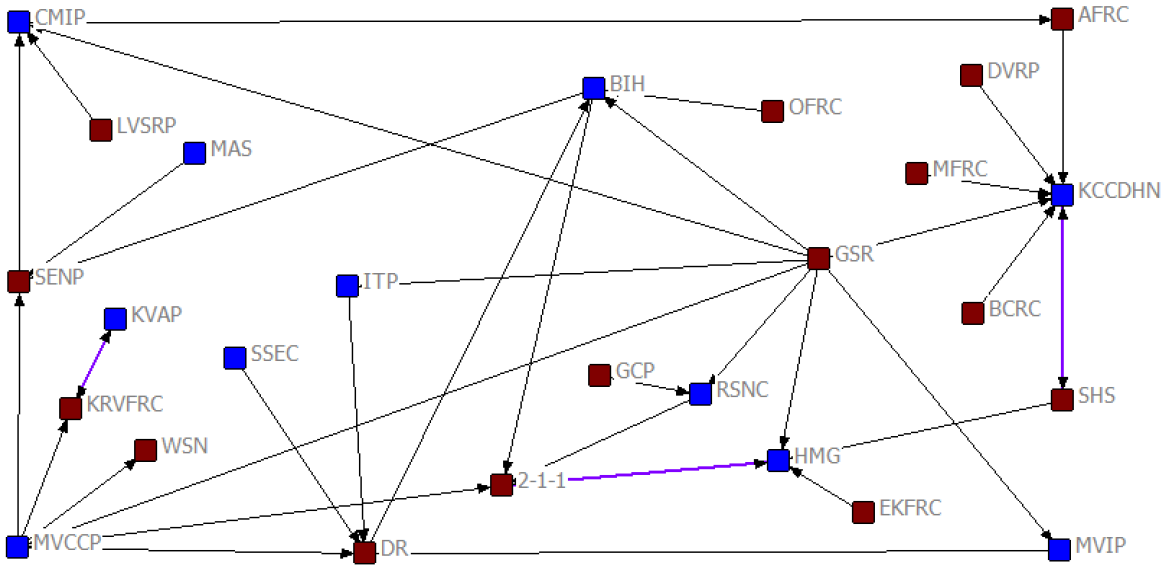
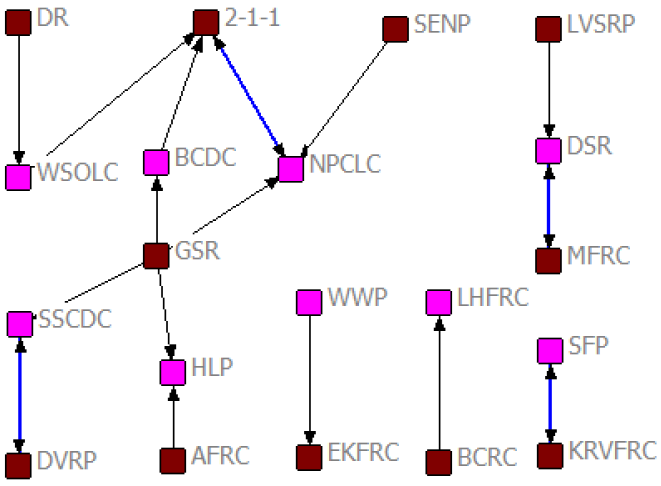


Figure 19 displays a network between *Family Functioning* and *Child Health*. The results show 38 links among 26 nodes, which yields an average 1.46 link per node. WSN is the only leaf node for not having primary partners in *Child Health*. Besides its remote location, WSN ameliorates consequences of family violence, rather than special medical issues. Although a medical care coordination program has reached WSN to address child needs, no primary partnership is initiated by WSN to actively engage a particular service provider in the area of *Health and Wellness*.

In comparison, the referral function of 2-1-1 has made it a primary partner for four programs in *Child Health*. Both 2-1-1 and HMG are hosted by Community Action Partnership of Kern (CAPK), and their reciprocal partnership leads to creation of innovative developmental screening through phone calls. KRVFRC and KVAP are mutually linked to offer general and water-safety parent education (RI 1.6.3 and 2.2.3) in Kern River Valley. GSR serves as a family resource center to network eight partners in *Child Health*. Other well-linked programs are KCCDHN for dental support, DR for child protection, HMG for developmental screening, and MVCCP for medical care coordination. KCCDHN and SHS are reciprocally connected to strengthen general case management (RI 2.1.7). Their services have benefited 323 children this year.

Figure 20 shows a network that bridges nine programs in *Child Development* with 11 programs in *Family Functioning*. SFP and KRVFRC are mutual partners in Kern River Valley. Other dyads of primary partnership, such as WWP and EKFRC, offer early childhood education and family support in adjacent communities. NPCLC maintains it reciprocal partnership with 2-1-1 to gain service referrals for court-mandated parent education and preschool support. Likewise, GSR is at "the central location for services in the Greenfield area" (Ibid. 1), and demonstrates active outreach connections with four partners in Figure 20. SSCDC and DVRP recognize each other as primary partners to extend mutual support for victims of domestic violence.

Figure 20: Partners of *Child Development* Programs in *Family Functioning*



Common result indicators are gathered in Table 45 from the primary partnership connections between *Focus Area II: Family Functioning* and *Focus Area III: Child Development*. With 20 nodes and 20 links in Figure 20, the result shows an average one link per node in the network. In addition, Table 45 shows broad impacts of these primary partners on eight result indicators (RI) across focus areas. This finding confirms the

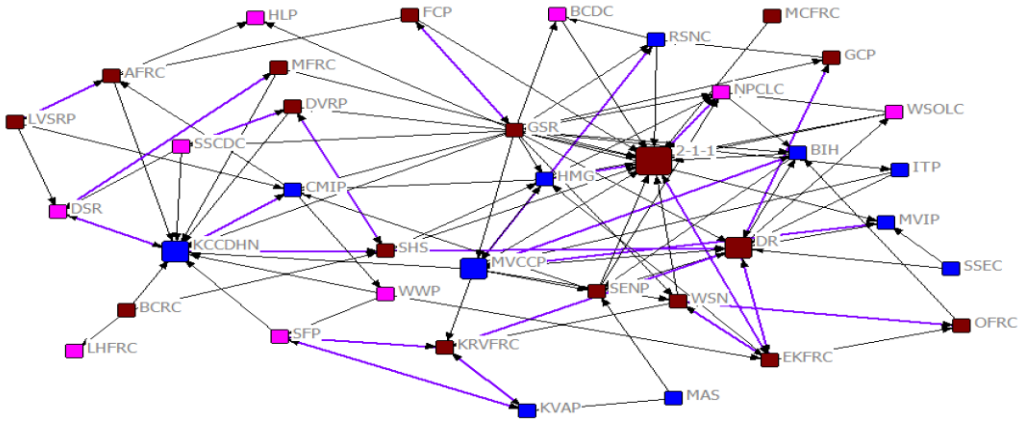
foundation of network construction on program commitment to well-rounded service deliveries in Kern County.

Table 45: Common RI Attained by Partners in Focus Areas II and III

Primary Partners	Result Indicators
AFRC-HLP	1.3.1. Seventy-two children received developmental screenings
BCRC-LHFRC	2.1.4. Forty-one parents/guardians received general case management services, including home visits 2.1.7. Forty-four children received general case management services, including home visits 3.1.2. Thirty-three children participated in educational home-based activities
LVSRP-DSR-MFRC	2.1.4. Seventy-three parents/guardians received general case management services, including home visits 2.1.7. Ninety-six children received general case management services, including home visits 2.4.3. Twenty-two hundred, ninety-seven parents/guardians received support services
SENP-NPCLC	2.2.1. Seventy-one parents/guardians received court-mandated parent education
KRVFRC-SFP	2.2.3. Sixty parents/guardians participated in educational workshops
GSR-BCDC -HLP -NPCLC -SSCDC	3.1.1. Two hundred, seventy-six children participated in educational center-based activities
WWP-EKFRC	3.1.1. Forty-four children participated in educational center-based activities

Following Proposition 10, First 5 Kern funding is guided by its strategic plan that is subject to an annual review and update. In FY 2020-2021, HMG is changed from *Family Functioning* to *Child Health* and HLP is moved from *Child Health* to *Child Development*. However, the program reclassification does not alter the entire scope of work for each service provider. Although primary partners in Table 45 are delimited to Focus Areas II and III, the change of HLP affiliation has resulted in the partnership impact on RI 1.3.1 in *Focus Area I: Child Health*.

Figure 21: The Overall Primary Partnerships across Focus Areas



Due to the flexibility of program affiliation, Figure 21 shows establishment of 123 primary partnerships among 37 service providers across focus areas of *Child Health* (blue nodes), *Family Functioning* (brown nodes), and *Child Development* (pink nodes). Countywide programs, such as 2-1-1 for referral services, KCCDHN for dental care, DR for child protection, and MVCCP for care coordination, demonstrate more partnership links. Leaf nodes are identified for community-based service providers in *Child Development*, such as HLP and LHFRC, with no outreach connections. On balance, the average number of links per program is 3.32, above the corresponding index for the sub-networks in Figures 16-20.

It should be noted that most connections in Figure 21 are not reciprocal. According to Kuhnt and Brust (2014), lack of reciprocal partnerships "is only found in relations of exploitation maintained through asymmetries of power" (p. 1). The asymmetry is obvious in the network connections to 2-1-1 that outnumber the links to other nodes. To quantify the network development, Laramore (2020) recommended *network density* as a summary index to measure node connectivity.

By definition, network density is configured as *a ratio between the number of links and the maximum number of possible links*. It is used to measure the connectivity of nodes within the network. For instance, three links are found to exclusively connect seven pink-colored nodes in Figure 18. Because each pink node may connect to the remaining six pink nodes in *Child Development*, the maximum number of possible links within the subset is 42 (i.e., 7X6). Thus, the network density among programs in *Child Development* is 0.071 (or 3/42). Built on the same computing procedure, Table 46 contains density indices of primary partnership connection under different network settings.

Table 46: Network Density for Primary Partnership Connections

Network	Density
Focus Area I: Child Health	0.127
Focus Area II: Family Functioning	0.132
Focus Area III: Child Development	0.071
Focus Area I – Focus Area III	0.096
Focus Area II – Focus Area III	0.077
Focus Area I – Focus Area II	0.058
Focus Areas I, II, and III	0.092

Although not all programs are identified as primary partners of others, density of links in Focus Areas I and II is much higher than the density of network for community-based programs in Focus Area III. Furthermore, the density pattern within a focus area has no bearing on the network connections between focus areas. For instance, the networks involving Focus Area III (see *Focus Area I – Focus Area III*, *Focus Area II – Focus Area III*) do not show a lower density than the network without *Focus Area III*. The overall network complication, as suggested by Simpson's Paradox, demands the result tracking on multiple aspects.

Based on an axiom that the whole could be larger than the sum of its part, partnership building can help strengthen the service capacity for young children and their families in Kern County. While it is believed that "reciprocal links play a more important role in maintaining the connectivity of directed networks than non-reciprocal links" (Zhu

et al., 2014, p. 5), most primary links in Figures 16-21 are unilateral. Carmichael and MacLeod (1997) noted that asymmetric links are more likely to break the equilibrium and create stronger networks during the process of service system building.

In summary, ISQ data analyses are extended in this chapter on several dimensions, including active versus co-existing links, reciprocal versus unilateral partners, as well as leaf node, dyad, and centrality of the connection structures. Network strengths have been further classified at *Co-Existing, Collaboration, Coordination*, and *Creation* levels to conform to the 4C model. Built on the summary of partnership building, First 5 Kern (2021) is expected to "facilitate turning the curve on result indicators" (p. 2). The examination of network structure is intended to monitor the overall progress of service integration throughout this funding cycle. In response to the *whole-child* and *whole-family* agenda from First 5 Association of California (Ibid. 9), aggregated findings of child wellbeing and family conditions are presented in Chapter 4 to delineate additional improvement of service outcomes on the time dimension.

Chapter 4: Turning the Curve

According to First 5 Kern's (2021) strategic plan, "a results-based accountability framework was employed to facilitate turning the curve on those result indicators that most accurately represent the developmental needs of Kern County's children ages prenatal through five and their families" (p. 3). Annual service outcomes are examined in this chapter against baseline indicators to address program needs in improving family functioning and child wellbeing. In FY 2020-2021, the Core Data Elements (CDE) survey and birth survey are conducted to gather information on child wellbeing across 28 programs. In addition, the Family Stability Rubric (FSR) is employed to collect indicators on enhancement of family functioning across 15 programs. The data tracking supports justification of a *turning the curve process* for sustaining the momentum of progress on time dimension.

To support the result indicator documentation, a research protocol is maintained with IRB of CSUB, which ensures compliance of the data collection to federal, state, and local regulations. As a general guidance, consent forms are administered prior to data collection. Confidentiality trainings are offered multiple times throughout the year to meet the protocol requirement. Evaluation site visits are conducted regularly to monitor adverse effects across programs. Effectiveness of the data protection is tracked by quarterly IRB reports per requirement of the evaluation protocol. Exercises of the due diligence are critical because "The Children and Families Act of 1998 mandates the collection of data for the purpose of demonstrating result" (First 5 Kern, 2021, p. 2).

Mark Friedman (2011), developer of the Results-Based Accountability model, defines *Turning the Curve* as "What success looks like if we do better than the baseline" (p. 3). In this chapter, the FSR data are analyzed to show the strengthening of family functioning through the *turning the curve* process. In addition, indicators of program effectiveness from last year are treated as a baseline in the CDE and birth data analyses to assess improvement of child wellbeing. The dual foci on child and family wellbeing are pertinent to First 5 Kern's status as *Kern County Children and Families Commission*.

Strengthening of Family Functioning in FY 2020-2021

Although family stability is primarily related to programs in *Parent Education and Support Services*, the *whole-family* support also demands well-rounded services from programs in *Health and Wellness* and *Early Childcare and Education*. In this section, household conditions, including the shortage of *food, childcare,* and *living space*, are tracked by multiple indicators in the FSR database. Based on Maslow's hierarchy, Cherry (2013) asserted that "Once these lower-level needs have been met, people can move on to the next level of needs, which are for safety and security" (¶. 2). Therefore, additional indicators of *job security* and *transportation* are analyzed within the first six months of First 5 Kern support. The period setting is intended to avoid widespread ceiling effects in the trend examination.

The annual FSR data collection starts from the baseline quarter of Fall, 2020 to monitor improvement of the home supporting environment in 918 families. OFRC is a new program to offer family support through case management and parent education services. Because of its late start, the FRC data contain only one observation from OFRC. Table 47 shows the FSR data size for each program.

Table 47: Scope of FSR Data Collection

Focus Area	Program	Data Size
Health and Wellness	RSNC	73
Parent Education and Support Services	AFRC	63
	BCRC	45
	EKFRC	44
	GSR	63
	KRVFRC	105
	LVSRP	70
	MCFRC	46
	MFRC	81
	OFRC	1
	SHS	65
	SENP	117
Early Childcare and Education	DSR	43
	LHFRC	87
	WSOLC	15

Food Needs

The U.S. Department of Agriculture (USDA) classified home food spending at four levels, *thrifty plan, low-cost plan, moderate-cost plan*, and *liberal plan*. For children ages 0-5, a thrifty plan cost around half of the liberal plan[39]. First 5 Kern monitored financial burden on food spending with a question, "Do you have to plan food spending carefully to save money for other needs?" At the program entry, the FSR data indicated the stress on food spending with 132 families in 9 programs. The data tracking shows reduction of the family count to 90 and 53 in months 3 and 6, respectively. One program does not display the financial burden with any families since end of the second quarter (Table 48). The improvement is critical to child health on multiple aspects because "Children who are food insecure may go to bed hungry. Food insecurity is paradoxically related to both hunger and obesity" (Children Now, 2018, p. 43).

Table 48: Number of Families with Stress on Food Spending

Program*	Initial	3rd Month	6th Month
AFRC	23	8	6
DSR	13	11	7
EKFRC	14	6	2
KRVFRC	8	6	6
LHFRC	3	2	2
MCFRC	15	8	5
OFRC	1	0	0
RSNC	27	25	10
SENP	28	24	15

*Program acronyms are listed in Appendix A. This applies to all tables in this chapter.

[39] https://www.cnpp.usda.gov/sites/default/files/CostofFoodFeb2015.pdf.

Nutrition Considerations

Golden (2016) argued that "addressing health and nutrition needs in the early years of life has important effects on children's long-term development" (p. 3). At the beginning of this year, 19 families in 11 programs indicated unmet nutrition needs. The family count decreases to 15 and 6 in the third and sixth month, respectively. Seven programs, including two since the beginning, show elimination of the nutrition concern within half a year (Table 49). It is important to meet the nutrition demand for young children since "The first three years of life are a period of dynamic and unparalleled brain development" (Liu, 2014, p. 3).

Table 49: Number of Families with Unmet Nutrition Needs

Program	Initial	3rd Month	6th Month
AFRC	2	0	0
EKFRC	3	1	1
GSR	1	0	0
KRVFRC	2	1	1
LHFRC	1	10	2
LVSRP	5	2	2
MCFRC	3	0	0
OFRC	0	0	0
RSNC	1	1	0
SHS	1	0	0
WSOLC	0	0	0

Free/Reduced Lunches

Researchers adopted the count of free or reduced lunches as an indicator of family poverty (Brown, Kirby, & Botsko, 1997). In FY 2020-2021, nine programs tracked the number of families that qualified for free/reduced lunch services in 10 programs. At the initial stage of program access, 132 families reported needs for free or reduced lunches for children in the households. The family count drops to 92 and 43 in months 3 and 6, respectively. Two program show no family need for free/reduced lunches within a half-year period. The data pattern in Table 50 portrays a positive trend of family support for child wellbeing because "poverty adversely affects structural brain development in children" (p. 1).

Table 50: Number of Families Needing Free/Reduced Lunches

Program	Initial	3rd Month	6th Month
AFRC	28	12	5
DSR	14	11	7
EKFRC	12	5	2
GSR	16	16	0
KRVFRC	7	4	4
LHFRC	4	3	3
MCFRC	9	5	3
OFRC	1	0	0
RSNC	22	20	10
SENP	19	16	9

Unmet Housing Needs

Dockery, Kendall, Li, and Strazdins (2010) found strong links between housing conditions and child development. Table 51 contains the number of families living in temporary facilities across nine programs. Initially, 19 families reported unmet housing needs. The number subsequently drops to four in third month and zero in sixth month. Within half a year, all of the programs, including four since the beginning, show no families living in temporary facilities.

Table 51: Number of Families Living in Temporary Facilities

Program	Initial	3rd Month	6th Month
BCRC	4	0	0
EKFRC	2	2	0
LHFRC	0	0	0
LVSRP	0	0	0
MCFRC	0	0	0
OFRC	1	0	0
RSNC	2	2	0
SHS	10	0	0
WSOLC	0	0	0

Burden on Housing Expenditure

Schumacher (2016) reported, "Parents with low- and moderate-incomes often struggle to stay afloat, balancing the soaring cost of child care against the high price of housing and other expenses" (p. 1). Although house prices in Kern County are not as high as most coastal regions of California, the local income is also much lower than the average income across the state. Consequently, "unaffordable housing affects children most during early childhood via its adverse impact on the family's ability to access basic necessities" (Dockery, Kendall, Li, & Strazdins, 2010, p. 2).

Table 52: Number of Families Cutting Spending Due to Housing Cost

Program	Initial	3rd Month	6th Month
AFRC	24	8	4
BCRC	17	7	3
DSR	10	7	5
EKFRC	15	3	2
GSR	11	9	0
LHFRC	4	3	3
MCFRC	12	7	4
OFRC	0	0	0
RSNC	19	16	8
SHS	16	0	0
SENP	16	14	6

In FY 2020-2021, family economic conditions are tracked in Table 52 for 11 programs. Upon the program entry, the results indicated a total of 144 families facing spending cut due to housing cost. At the end of month 3, the number decreased to 74. By the midyear, the number is reduced to 35. Three programs, including one throughout

the period, show a zero count at end of the sixth month. Although First 5 Kern does not directly pay the housing cost, it funds programs to reduce financial burden from childcare. Prior to COVID-19, it was reported that childcare cost as much as rent (Basch, 2018).

Unmet Medical Insurance Needs

The American Institutes for Research (2012) reported that "Children without health insurance are less likely to get the medical care they need" (p. 15). To evaluate program support for child wellness, First 5 Kern gathered health insurance information in FSR data. At the program entry, the issue of *unmet insurance needs* were reported by 42 families in 11 programs. In months 3 and 6, the total family count drops to 28 and 8, respectively. The number of families with unmet insurance support becomes zero in seven programs, including two since program entry, within half a year (Table 53).

Table 53: Number of Families without Medical Insurance

Program	Initial	3rd Month	6th Month
AFRC	4	0	0
BCRC	8	8	4
DSR	1	0	0
EKFRC	4	2	1
GSR	7	4	0
KRVFRC	1	1	0
MCFRC	4	3	1
OFRC	0	0	0
RSNC	5	4	2
SENP	8	6	0
WSOLC	0	0	0

Stress on Medical Premium/Copay

Medical premium is designed to make people more sensitive to the service costs (McKinnon, 2016). However, copayment burden could add stress to families in poverty. Based on the FSR data, the number of families feeling the stress from medical premium was 173 upon the entry to nine programs. In months 3 and 6, the number drops to 112 and 53, respectively. Despite the ongoing premium hike with the Affordable Care Act (Morse, 2019), two programs indicate no copayment stress at end of the first six months (Table 54).

Table 54: Number of Families with Stress on Medical Premium/Copay

Program	Initial	3rd Month	6th Month
AFRC	37	14	7
BCRC	8	8	6
DSR	13	9	6
EKFRC	20	8	2
GSR	17	13	0
MCFRC	15	9	4
OFRC	1	0	0
RSNC	27	26	12
SENP	35	25	16

Job Security

Low family income is often related to unstable employment. Consequently, "Children who experience poverty during their preschool and early school years have lower rates of school completion than children and adolescents who experience poverty only in later years" (Brooks-Gunn & Duncan, 1997, p. 55). The unemployment issue is tracked by FSR data with a question, "Does at least one adult in your household have full-time or part-time employment?" The issue was reported by 84 families upon the entry to 11 programs. The family count has been reduced to 29 at end of the first quarter and 12 by the midyear. In particular, the responses from three programs, including one since the program entry, indicate no issue of unemployment at the end of the sixth month (Table 55).

Table 55: Number of Families with Unemployment Issue

Program	Initial	3rd Month	6th Month
AFRC	20	4	1
BCRC	3	1	1
DSR	11	7	3
EKFRC	14	4	0
KRVFRC	5	5	2
LHFRC	0	0	0
LVSRP	4	1	1
MCFRC	8	4	2
OFRC	1	0	0
SENP	13	3	2
WSOLC	5	0	0

Unmet Childcare Needs

While center-based programs delivered childcare services for a group of families, "For many working parents, hiring a caregiver to work in their home is the best solution for their child care and household needs" (Child Care Inc., 2012, p. 1). Thus, program effectiveness is reflected by a decreasing number of households with unmet childcare needs. Results in Table 56 are derived from the FSR data in 11 programs. At the program entry, 25 families indicated unmet childcare needs. The result declines to 9 and 4 in months 3 and 6, respectively. Ten programs, including three since the beginning, report no unmet childcare needs by midyear. Meeting childcare needs has a broad implication. Holmes (2019) reported from a national survey that "childcare expenses were among the most uncomfortable financial topics identified by respondents" (p. 2).

Table 56: Number of Families with Unmet Childcare Needs

Program	Initial	3rd Month	6th Month
AFRC	3	0	0
BCRC	0	0	0
EKFRC	2	0	0
GSR	3	1	0
KRVFRC	3	1	0
LHFRC	1	1	0
MCFRC	3	0	0
MFRC	0	0	0

Program	Initial	3rd Month	6th Month
OFRC	0	0	0
RSNC	6	6	4
SHS	2	0	0
WSOLC	2	0	0

Availability of Convenient Childcare

Based on responses from 11 programs, FSR data indicated 131 families with no convenient childcare provider at the beginning. The family count has been reduced to 70 in the first quarter and 26 in the second quarter of FY 2020-2021. Five programs report no shortage of convenient childcare in the sixth month (Table 57). In addition to the cost factor, it is important to "offer convenient childcare resources to those who need to attend job trainings, interviews, school meetings" (United Way, 2016, p. 27). Without effective program support, Stipek (2018) noted that "Child care is prohibitively expensive for many families and does not meet the needs of nonstandard work schedules" (p. 3).

Table 57: Number of Families without Convenient Childcare Providers

Program	Initial	3rd Month	6th Month
AFRC	21	8	3
BCRC	4	2	0
DSR	17	10	6
EKFRC	20	8	3
GSR	20	15	0
LHFRC	2	1	0
LVSRP	8	3	3
MCFRC	11	7	2
OFRC	1	0	0
RSNC	18	16	9
WSOLC	9	0	0

Missing Work/School Due to Childcare

It was reported that "most early childhood interventions focus on outcomes for the participating child and do not attempt to assess effects on their parent(s)" (Karoly, 2012, p. 13). Consequently, parents or other family members might have to miss work or school due to lack of childcare, which could reduce job security and cause family instability. In FY 2020-2021, 11 programs showed improvement on the issue of *missing work or school due to childcare*. At the beginning, the issue was acknowledged by 41 families in the FSR survey. At end of the first and second quarters, the number has been reduced to 16 and 9, respectively. Seven programs, including two since the beginning, show elimination of this issue within six months (Table 58).

Table 58: Number of Families Missed Work/School for Childcare

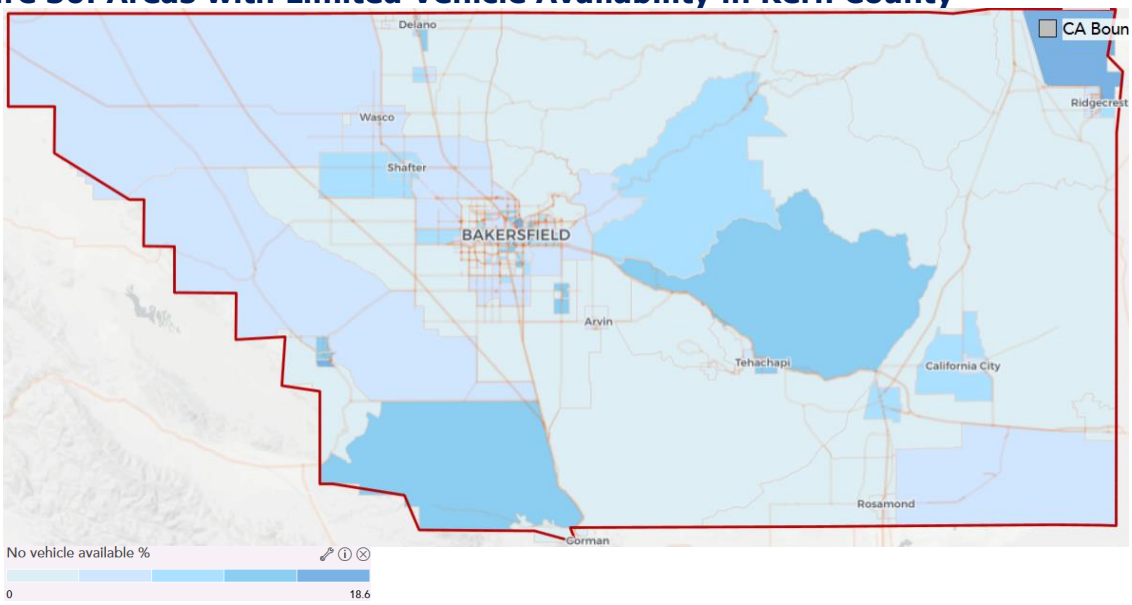
Program	Initial	3rd Month	6th Month
AFRC	0	0	0
BCRC	0	0	0
DSR	3	1	1
EKFRC	5	1	0
GSR	2	0	0

Program	Initial	3rd Month	6th Month
KRVFRC	1	1	0
MCFRC	3	2	2
RSNC	10	10	5
SHS	10	0	0
SENP	5	1	1
WSOLC	2	0	0

Unmet Transportation Needs

As shown in the dark-colored areas of Figure 30, transportation is an issue in rural Kern communities with limited vehicle availability and public transportation. Families with young children encounter difficulties in service access due to the need of "Broader and more frequent transportation services for medical appointments, dental appointments, and other services are needed".[40]

Figure 30: Areas with Limited Vehicle Availability in Kern County



It was confirmed by FSR data that 39 families indicated *unmet transportation needs* prior to their service access to 12 programs. Improvement of this issue occurred by end of the first quarter when the family count dropped more than half to 19. At midyear, 8 families reported *unmet transportation needs*. The FSR data show that nine programs, including three since the program entry, have eliminated transportation issues at end of sixth month (Table 59).

Table 59: Number of Families with Unmet Transportation Needs

Program	Initial	3rd Month	6th Month
BCRC	0	0	0
EKFRC	5	3	2
GSR	2	1	0

[40] http://www.first5kern.org/wp-content/uploads/2018/01/Ridgecrest-Area-6-Town-Hall-Recap-071317.pdf

Program	Initial	3rd Month	6th Month
LHFRC	0	0	0
LVSRP	2	0	0
MCFRC	3	1	0
MFRC	3	1	0
OFRC	0	0	0
RSNC	8	7	3
SHS	4	0	0
SENP	10	6	3
WSOLC	2	0	0

Missing Work/School Due to Transportation

"In rural areas, public transportation options are scarce and have limited hours of service" (Waller, 2005, p. 2). Table 60 contains the number of families with members *missing work or school due to transportation* in 11 programs. The FRS results showed that 33 families reported transportation needs upon receiving First 5 Kern-funded services. The family count decreases to 15 in month 3 and 3 at midyear. Nine programs, including three since the beginning, report no families *missing work or school for transportation reasons in month 6*.

Table 60: Number of Families Missed Work/School for Transportation

Program	Initial	3rd Month	6th Month
AFRC	3	0	0
BCRC	0	0	0
DSR	0	0	0
EKFRC	4	3	0
GSR	1	1	0
MCFRC	2	1	0
OFRC	0	0	0
RSNC	9	7	2
SHS	2	0	0
SENP	10	3	1
WSOLC	2	0	0

Burden of Transportation Expenditure

To track the burden of transportation expenditure, First 5 Kern used a question, "Do you receive financial support from other sources to support your transportation needs?" In FY 2020-2021, FSR data are gathered to track the number of families with financial burden for transportation. The initial figure showed 13 families with the financial burden before service access in 11 programs. The family number drops to 2 and 1 in months 3 and 6, respectively. Ten of the programs, including five since the initial program access, show zero family count by midyear (Table 61).

Table 61: Number of Families with Financial Burden for Transportation

Program	Initial	3rd Month	6th Month
AFRC	2	0	0
BCRC	1	0	0
DSR	0	0	0

Program	Initial	3rd Month	6th Month
EKFRC	2	1	0
LHFRC	0	0	0
LVSRP	2	0	0
MCFRC	4	1	1
MFRC	0	0	0
OFRC	0	0	0
SHS	2	0	0
SENP	0	0	0

In summary, local programs make extensive contributions to improvement of early childhood support on time dimension. By saving family expenditures on childcare, the entangled issues of adequate *food supply, childcare, job security, housing*, and *transportation* have been alleviated within the first six months of program service. The FSR findings in Tables 48-61 demonstrate improvement of family functioning on 14 indicators in FY 2020-2021. The support is particularly important for narrowing the equity gap because childcare costs have exceeded federal subsidy payments to low-income parents (Murrin, 2019). The financial burden also becomes unbearable for many families during the pandemic (Burns, 2020).

Improvement of Child Wellbeing between Adjacent Years

It is important to note that Proposition 10 delimits the service population to ages 0-5. "During this period, the brain shapes key abilities for long-term wellness, such as forming trusting relationships, being open to learning, and regulating emotions" (Briscoe, 2019, p. 1). To remain in the age boundary, the service population must refresh annually. Five-year-olds from last year have reached age 6 this year, and newborns within the past 12 months are added to the service population. Although the baseline characteristics, such as birth weight and ethnicity, are invariant at any two points in time, result tracking is needed to reflect the ongoing change of service recipients each year.

First 5 California (2016) noted, "First 5 Child Health services are far-ranging and include prenatal care, oral health, nutrition and fitness, tobacco cessation support, and intervention for children with special needs" (p. 15). Under these broad domains, indicators of child health and development include *breastfeeding, home reading*, and *preschool attendance*. In addition, child protection is illustrated by program support for *dental care, immunization*, and *smoke prevention* during the CDE data collection. In this section, the CDE and birth data are analyzed across programs to document the impact of First 5 Kern on improvements of child wellbeing in Kern County.

Table 62: Percent of Children with Annual Well-Child Checkup

Program	FY 2019-2020		FY 2020-2021	
	N	Percent	N	Percent
AFRC	85	87.06	64	89.06
BIH	15	60.00	22	90.91
BCDC	43	100.00	32	100.00
BCRC	65	98.46	32	100.00
DDCCC	54	88.89	16	93.75
GSR	160	90.63	67	91.04

Program	FY 2019-2020		FY 2020-2021	
	N	Percent	N	Percent
AFRC	85	87.06	64	89.06
HLP	124	96.77	50	100.00
KRVFRC	151	86.75	91	94.51
MVIP	60	93.33	57	96.49
NFP	121	95.04	68	97.06
SENP	121	95.04	107	95.33
SSEC	58	94.83	46	95.65
WWP	37	97.30	44	97.73

Well-Child Checkup

In FY 2020-2021, 13 programs indicated an increase in the percent of children with an *annual well-child checkup visit*. On average, Table 62 showed that the rate of well-child visit increased from 91.08% to 95.50% between the adjacent years. The service outcome is demonstrated by CDE data from 696 children this year. In particular, BCDC, BCRC, and HLP achieve a rate of 100% completion on well-child checkup in FY 2020-2021.

Well-child checkups normally start a few days after birth. However, "Too few California kids are receiving the health screenings they need" (Children Now, 2018, p. 29). First 5 Kern's support on this indicator not only ensures healthy child growth during ages 0-5, but also provides opportunities to foster communication between parents and doctors on a variety of health care topics.

Immunization

In preparation for kindergarten entry, First 5 Kern funded CMIP to provide immunizations across the county. Since its purchase of a service mobile unit in 2012, CMIP continues its services to raise immunization completion rate in Kern County. The support from immunization clinics has been treated as an important result indicator in First 5 Kern's (2021) strategic plan. Table 63 lists the percent of children who completed *all immunizations* across 12 programs. The average percent increased from 91.82% last year to 96.39% this year. This improvement is demonstrated in CDE data from 553 children. BCDC, DDCCC, HLP and SFP show a rate of 100% completion in Table 63.

Table 63: Completion of All the Recommended Immunizations

Program	FY 2019-2020		FY 2020-2021	
	N	Percent of Children	N	Percent of Children
BCDC	43	100.00	32	100.00
DDCCC	54	92.59	16	100.00
GSR	160	92.50	67	98.51
HLP	124	97.58	50	100.00
MVIP	60	78.33	57	87.72
NFP	121	94.21	68	97.06
RSNC	68	94.12	43	95.35
SHS	90	93.33	77	94.81
SSCDC	34	88.24	34	94.12
SFP	22	90.91	19	100.00

Program	FY 2019-2020		FY 2020-2021	
	N	Percent of Children	N	Percent of Children
SSEC	58	82.76	46	89.13
WWP	37	97.30	44	100.00

Insurance Coverage

It is well-known that "Quality affordable health insurance helps kids access timely, comprehensive health care, and supports their overall well-being" (Children Now, 2018, p. 33). To meet this important need, First 5 Kern (2021) identified seven result indicators in its strategic plan:

- Number of families assisted with health insurance applications
- Number of children successfully enrolled into a new health insurance program
- Number of children who were successfully enrolled into a health insurance program and received well-child check-ups
- Number of children successfully renewed into a health insurance program
- Number of children with an established medical home
- Number of children with an established dental home
- Number of families referred to a local enrollment agency for health insurance (p. 4)

The CDE data showed an increase in the percent of insurance coverage across 18 programs (Table 64). More specifically, the average percent of children *with insurance coverage* increased from 96.80% last year to 99.40% this year according to the CDE data from 1,006 children in FY 2020-2021. Thirteen programs achieved a rate of 100% insurance coverage this year.

Table 64: Percent of Insurance Coverage

Program	FY 2019-2020		FY 2020-2021	
	N	Percent of Covered Children	N	Percent of Covered Children
AFRC	85	94.12	64	96.88
BCDC	43	100.00	32	100.00
DSR	116	98.28	76	98.68
DDCCC	54	100.00	16	100.00
EKFRC	71	94.37	56	100.00
GSR	160	93.13	67	97.01
HLP	124	96.77	50	100.00
LHFRC	86	96.51	77	100.00
LVSRP	71	98.59	54	100.00
MFRC	70	97.14	47	100.00
MVIP	60	96.67	57	100.00
NPCLC	134	97.15	68	98.53
NFP	121	99.17	68	100.00
RSNC	68	95.59	43	100.00
SENP	121	96.69	107	98.13
SSCDC	34	97.06	34	100.00
SSEC	58	96.55	46	100.00
WWP	37	94.59	44	100.00

Table 65: Percent of Children with Annual Dental Checkups

Program	FY 2020-2021		FY 2019-2020	
	N	Percent of Children	N	Percent of Children
DDCCC	54	37.04	16	50.00
EKFRC	71	57.75	56	58.93
GSR	160	75.63	67	77.61
HLP	124	89.52	50	94.00
MFRC	70	77.14	47	87.23
MVIP	60	5.00	57	15.79
SENP	121	46.28	107	54.21
SSEC	58	55.17	46	65.22
WWP	37	94.59	44	100.00

Dental Care

Table 65 lists the percent of children *with annual dental checkups* across nine programs. On average, the percent across these programs increased from 59.79% last year to 67.00% this year. Because "children with poor dental health are almost three times as likely to miss school as their peers" (American Institutes of Research, 2012, p. 14), dental care is directly related to school readiness. First 5 Kern (2018) designated Result Indicator 1.1.6, "Number of children with an established dental home", to tackle this issue, and infants are recommended to have the first dental visit by the first birthday.[41] Given the relevancy of dental care to most children ages 0-5, the results in Table 65 are supported by CDE data from 490 children this year.

Preschool Attendance

"Decades of evidence show that children who attend preschool are more prepared for kindergarten than children who do not" (Weiland, Unterman, Shapiro, & Yoshikawa, 2019, p. 1). In Table 66, program information is gathered to track the percent of children *participating in preschool activities* on a regular basis. On average, the rate increased from 42.18% last year to 53.49% this year. The positive change is demonstrated by CDE data from 596 children in FY 2020-2021 across 11 programs. This indicator also supports Biden administration's attempt to include preschool in the U.S. compulsory education (see Loiaconi, 2021). According to First 5 California (2013), "Preschool attendance is correlated with improved kindergarten readiness and kindergarten readiness is associated with long-term achievement" (p. 17).

Table 66: Regular Attendance of Preschool Since the Third Birthday

Program	FY 2020-2021		FY 2019-2020	
	N	Percent of Children	N	Percent of Children
DDCCC	54	18.52	16	31.25
HLP	124	67.74	50	92.00
KRVFRC	151	29.80	91	31.87
MCFRC	41	29.27	39	35.90
NPCLC	134	26.12	68	30.88
RSNC	68	80.88	43	95.35
SHS	90	15.56	77	15.58

[41] http://www.aapd.org/assets/2/7/GetItDoneInYearOne.pdf

Program	FY 2020-2021		FY 2019-2020	
	N	Percent of Children	N	Percent of Children
SENP	121	15.70	107	26.17
SSEC	58	41.38	46	56.52
WWP	37	70.27	44	79.55
WSN	32	68.75	15	93.33

Home Reading

Barrett (2019) pointed out, "When a child reads alongside an adult, there are plenty of opportunities for that adult to model and support self-control (such as sustaining attention) and problem-solving" (p. 2). Table 67 contains information about home reading activities between adjacent years. Sixteen programs demonstrated increases in the percent of children who had *two or more home-reading activities* per week. On average, the percent across these programs increased from 80.24% last year to 87.97% this year. This outcome is illustrated by CDE data from 769 children this year (Table 67). In particular, BCRC also offered reading strategies for 20 parents (RI 2.3.1). This result on home reading support has a long-term implication because "Babies who are talked to and read to from the time they're born are better prepared by the time they start school" (First 5 California, 2018, p. 1).

Table 67: Children Being Read to Once or More Times in Last Week

Program	FY 2019-2020		FY 2020-2021	
	N	Percent of Children	N	Percent of Children
AFRC	85	90.59	64	93.75
BIH	15	26.67	22	45.45
BCDC	43	88.37	32	96.88
BCRC	65	76.92	32	90.63
DDCCC	54	85.19	16	93.75
KRVFRC	151	94.70	91	100.00
LHFRC	86	89.53	77	93.51
MFRC	70	57.14	47	68.09
MVIP	60	71.67	57	77.19
NFP	121	80.17	68	82.35
RSNC	68	89.71	43	93.02
SHS	90	82.22	77	88.31
SSCDC	34	79.41	34	94.12
SFP	22	86.36	19	94.74
SSEC	58	87.93	46	95.65
WWP	37	97.30	44	100.00

Prenatal Smoking

According to Proposition 10, the public should be educated "on the dangers caused by smoking and other tobacco use by pregnant women to themselves and to infants and young children" (p. 3). In particular, "Secondhand smoke puts young children at risk for respiratory illnesses, including Sudden Infant Death Syndrome (SIDS), middle ear infections, impaired lung function, and asthma" (American Institutes for Research, 2012, p. 14). For child protection, First 5 Kern actively supports the local smoking cessation campaign. The CDE data indicated decline in the proportion of *mothers smoking during*

pregnancy from 15.55% last year to 1.86% this year. These 11 programs in Table 68 provided services for 268 newborns this year, and seven of the programs reported no smoking issues in FY 2020-2021.

Table 68: Percent of Mothers Smoking During Pregnancy

Program	FY 2019-2020		FY 2020-2021	
	N	Percent	N	Percent
BCDC	15	0.00	20	0.00
DSR	61	8.20	43	4.65
GSR	97	4.12	34	0.00
LHFRC	20	0.00	15	0.00
LVSRP	48	43.75	13	0.00
MCFRC	22	0.00	28	0.00
MFRC	41	73.17	25	4.00
MVIP	58	6.90	39	5.13
SSCDC	16	3.13	13	0.00
WWP	22	13.64	23	0.00
WSN	33	18.18	15	6.67

Full-Term Pregnancy

Early and regular prenatal care is important for the health of a mom and baby. The demand is also propelled by the rise of teen pregnancy among inexperienced mothers. The social cost is high because "infants are born preterm, making them susceptible to health and learning difficulties throughout childhood" (Children Now, 2018, p. 31). It has been revealed that "The average first-year medical costs are about 10 times greater for preterm infants than full-term infants" (Wasson & Goon, 2013, p. 28). Hence, full-term pregnancy should be pursued to save resources for other areas of early childhood support. Table 69 showed that the rate of *full-term pregnancy per program* increased from 77.27% last year to 87.54% this year across 12 service providers. Altogether, these programs served 279 children in FY 2020-2021, and five programs showed attainment of full-term pregnancy for all families.

Table 69: Increase of Full-Term Pregnancy Between Two Adjacent Years

Program	FY 2019-2020		FY 2020-2021	
	N	Percent	N	Percent
BCRC	19	78.95	11	100.00
DSR	61	86.89	43	97.67
DDCCC	44	79.55	14	85.71
GSR	97	88.66	34	94.12
LHFRC	20	80.00	15	86.67
LVSRP	48	95.83	13	100.00
MCFRC	22	81.82	28	85.71
MFRC	41	87.80	25	100.00
MVIP	58	15.52	39	28.21
RSNC	32	68.75	29	72.41
SSCDC	16	93.75	13	100.00
WSN	33	69.70	15	100.00

Low Birth Weight

Although prenatal care could help increase full-term pregnancies, low birthweight (LBW) has been identified as another related cause for medical complications (Ponzio, Palomino, Puccini, Strufaldi, & Franco, 2013). LBW refers to baby weight less than 2,500 grams (5 pounds, 8 ounces) at birth. Medical research has linked LBW to low educational attainment and high prevalence of socio-emotional and behavioral problems in later years (Chen, 2012). Thus, "Information about births and related factors are vital to understanding maternal and child health as well as planning and assessing healthcare services" (Constantine & Jonah, 2017, p. 11).

To address these issues, First 5 Kern supports *Systems of Care* that offers a combination of education, prevention, and intervention services in prenatal care. Table 70 shows reduction of the average LBW rate from 19.08% last year to 10.35% this year in 19 programs. These programs serve a total of 489 children this year. Five programs show no LBW issue in FY 2020-2021.

When LBW occurred in poor families, scientists indicated that "nutritionally deprived newborns are 'programmed' to eat more because they develop less neurons in the region of the brain that controls food intake".[42] Although this issue is not confined within the local communities, Kern County is ranked at sixth and eighth positions across the state for LBW and obesity.[43] Because "More babies were born at low birth weight" in Kern County (Golich, 2013, p. i), the trend needs to be reversed by effective programs, such as the ones funded by First 5 Kern.

Table 70: Proportion of Children with Low Birth Weight

Program	FY 2019-2020		FY 2020-2021	
	N	Percent	N	Percent
BIH	15	20.00	22	18.18
BCRC	19	21.05	11	18.18
DSR	61	16.39	43	13.95
DDCCC	44	13.64	14	7.14
GSR	97	10.31	34	5.89
HLP	43	20.93	5	0.00
KRVFRC	61	11.48	20	10.00
LHFRC	20	20.00	15	6.67
MCFRC	22	18.18	28	10.71
MFRC	41	9.76	25	0.00
MVIP	58	82.76	39	66.67
RSNC	32	18.75	29	13.79
SHS	88	11.36	79	3.79
SSCDC	16	12.50	13	0.00
SFP	22	4.55	19	0.00
SENP	74	5.41	53	1.89
SSEC	13	23.08	2	0.00
WWP	22	18.18	23	13.04
WSN	33	24.24	15	6.67

[42] http://www.sciencedaily.com/releases/2011/03/110310070311.htm
[43] http://www.kidsdata.org

Table 71: Increase in Breastfeeding Rate Between Two Adjacent Years

Program	FY 2019-2020		FY 2020-2021	
	N	Percent	N	Percent
AFRC	65	72.31	52	73.08
BCRC	19	57.89	11	72.73
EKFRC	53	75.47	40	77.50
HLP	43	83.72	5	100.00
LHFRC	20	85.00	15	86.67
MCFRC	22	63.64	28	82.14
MFRC	41	63.41	25	80.00
MVIP	58	81.03	39	82.05
NPCLC	92	76.09	36	77.78
SHS	88	68.18	79	78.48
SFP	22	68.18	19	78.95
WWP	22	81.82	23	82.61

Breastfeeding

According to the World Health Organization (2020), breastfeeding is the cornerstone of infant survival and development. As indicated by CDE results in Table 71, the average breastfeeding rate across 12 programs increased from 73.06% last year to 81.00% this year. This change supported healthy growth of 372 children in Kern County this year. As an optimal source of infant nutrition, breast milk is especially beneficial under premature birth conditions (Zimlich, 2019). Vinopal (2019) reported that "Breastfeeding babies for at least two months cuts their risk of Sudden Infant Death Syndrome almost in half" (p. 1). Furthermore, the improvement has enhanced the nurturing parenting process as "Babies benefits from the closeness [with mothers] during breastfeeding" (Robison-Frankhouser, 2003, p. 28).

Prenatal Care

In First 5 Kern's (2021) Strategic Plan, "Number of pregnant women referred to prenatal care services" is listed as RI 1.2.2. Programs received Proposition 10 funding to provide education and service access to pregnant mothers. As a result, the average rate of *monthly prenatal care* increased from 92.95% in the last year to 97.04% this year across 14 programs that served 339 families (Table 72). Eight of the programs reached 100% this year. According to Constantine and Jonah (2017), "Early prenatal care promotes better health for both mother and child, allowing early intervention where needed" (p. 11).

Table 72: Percent of Mothers Receiving Prenatal Care

Program	FY 2019-2020		FY 2020-2021	
	N	Percent of Mothers	N	Percent of Mothers
AFRC	65	95.38	52	98.08
BCDC	15	93.33	20	100.00
DSR	61	95.08	43	100.00
DDCCC	44	86.36	14	100.00
GSR	97	93.81	34	97.06
HLP	43	79.07	5	80.00
LHFRC	20	90.00	15	93.33

Program	FY 2019-2020		FY 2020-2021	
	N	Percent of Mothers	N	Percent of Mothers
MCFRC	22	95.45	28	100.00
MFRC	41	95.12	25	100.00
NPCLC	92	91.30	36	94.44
NFP	35	100.00	16	100.00
SSCDC	16	100.00	13	100.00
WWP	22	86.36	23	95.65
WSN	33	100.00	15	100.00

In summary, the CDE data analyses reveal improvement of child wellbeing since the last fiscal year. Besides alleviation of healthcare issues pertaining to *preterm pregnancy, low birth weight, prenatal care*, and *prenatal smoking* at the child level, enhancement of family functioning supports *breastfeeding, well-child checkup, up-to-date immunizations*, and *insurance coverage*. Progress in early childhood education has also been demonstrated by expansion of *home reading activities* and *preschool learning opportunities*. Based on the findings in Tables 62-72, value-added assessments have shown better service outcomes this year to support an assertion in First 5 Kern's (2021) Strategic Plan, i.e., "Working in partnership with its service providers in communities throughout Kern County, it [the Commission] has been able to positively impact the lives of thousands of children and their families" (p. 8).

As a key concept of the RBA model, *Turning the Curve* is for "Defining success as doing better than the current trend or trajectory for a measure" (Lee, 2013, p. 10). In this chapter, data analyses are focused on time dimension to demonstrate ongoing improvement of child wellbeing and family support on multiple aspects and across different program sites (see Tables 48-72). The result triangulation reconfirms the positive impact of First 5 Kern-funded services on sustaining the *Turning the Curve* process this year.

Chapter 5: Conclusions and Future Directions

The State Commission stipulated, "Evaluation should be conducted in such a way that it provides direct feedback to the County Commission and to the community as a whole" (First 5 California, 2010, p. 17). To gain the whole picture, this report starts with an introduction in Chapter 1 before result aggregation in Chapters 2 and 3 to address result-based accountability in focus areas of *Health and Wellness, Parent Education and Support Services, Early Childcare and Education*, and *Integration of Services*. Altogether, 55 result indicators (RI) are chosen from First 5 Kern's (2021) strategic plan to justify effectiveness of Proposition 10 funding in *Child Health* (RI 1.1.1 – 1.6.4), *Family Functioning* (RI 2.1.1-2.4.3), *Child Development* (RI 3.1.1-3.2.3) and *Systems of Care* (RI 4.1.2-4.6.3). The compelling evidence has led to a well-grounded conclusion, i.e., First 5 Kern abided by the state statute to ensure quality service deliveries for young children and their families in each focus area.

To sustain the ongoing progress, improvement of child wellbeing and family functioning is summarized on 26 quantitative indicators (see Tables 47-72) in Chapter 4 to document a *turning the curve* process. In addition, First 5 Kern posted 38 impact stories (Ibid. 6) to illustrate real-life differences made by First 5 Kern and its service providers across Kern County. In this chapter, the impact stories are first described to illustrate local program accomplishments and broad policy implications. Text analytics are conducted through extraction of qualitative outcomes to highlight the overall differences made by First 5 Kern and its service providers. The entire report ends with a review of the past recommendations and an introduction to new recommendations for next fiscal year.

Real-Life Impact of First 5 Kern-Funded Programs

In FY 2020-2021, authentic stories are gathered from First 5 Kern-funded programs to reflect profound impact of Proposition 10 funding across Kern County. Table 73 contains a list of programs from which the impact stories are accumulated on improvement of child wellbeing and family support according to the local strategic plan (First 5 Kern, 2021).

While Proposition 10 funding has been available to support children ages 0-5 for more than two decades, it has been reported that children of color faced more barriers in service access (Keierleber, 2019). First 5 Kern funded programs to close service gaps. In *Child Health*, BIH offered prenatal and postpartum educational intervention to improve healthy pregnancy and infant care in African-American communities. An expectant mother started the service access at 16 weeks gestational age this year. Due to her anxiety, trauma, and medical issues, a doctor anticipated preterm pregnancy in around 34-36 weeks. The weekly group sessions at BIH helped her reduce stress and anxiety. With encouragement and support from program staff on the lifestyle choice, she was able to deliver a healthy baby in 40 weeks.

COVID-19 has drained medical resources and caused shortage of support for families with medically fragile children (Wellbank, 2021). First 5 Kern funded SSEC to offer *special-needs* services for medically fragile children. A 5-year-old boy in the program was diagnosed with several medical conditions, including developmental delay and cerebral palsy. Built on a *whole-child* approach, SSES helped the boy establish an Individualized Education Plan (IEP). He also received orthopedic therapy services with

Terrio Kids. The timely access to individualized care has supported the boy to achieve a goal of walking independently without any aids from a walker or gait trainer.

Table 73: Sources of Success Stories across Programs and Focus Areas

Focus Area	Program
Child Health	Black Infant Health Program
	CASA Infant/Toddler Program
	Children's Mobile Immunization Program
	Help Me Grow Kern County
	Kern County Children's Dental Health Network
	Kern Valley Aquatics Program
	Medically Vulnerable Care Coordination Project
	Medically Vulnerable Infant Program
	Nurse Family Partnership Program
	Richardson Special Needs Collaborative
	Special Start for Exceptional Children
Family Functioning	2-1-1 Kern County
	Arvin Family Resource Center
	Buttonwillow Community Resource Center
	Differential Response Services
	Domestic Violence Reduction Project
	East Kern Family Resource Center
	Family Caregivers Project
	Greenfield School Readiness
	Guardianship Caregiver Project
	Kern River Valley Family Resource Center
	Lamont/Vineland School Readiness Program
	McFarland Family Resource Center
	Mountain Communities Family Resource Center
	Shafter Healthy Start
	Southeast Neighborhood Partnership Family Resource Center
	Women's Shelter Network
Child Development	Blanton Child Development Center
	Delano School Readiness
	Discovery Depot Child Care Center
	Health Literacy Program
	Lost Hills Family Resource Center
	Neighborhood Place Community Learning Center
	Small Steps Child Development Center

Focus Area	Program
	South Fork Preschool
	West Side Outreach and Learning Center
	Wind in the Willows Preschool
First 5 California	Improve and Maximize Programs so All Children Thrive

First 5 Kern also embraced the *whole-family* concept for service integration. For example, NFP is a program of *Child Health* that extends nursing support in *Family Functioning*. As a mother acknowledged,

> My nurse Nellie and other NFP staff have genuinely helped me become a better parent. Nurse Nellie felt like a friend always checking up on me when I needed her. Joining this program was one of the best things I've ever done. (Ibid. 6)

In another example, severe tooth decays have been diagnosed with two siblings. Consequently, service deliveries from KCCDHN depend on approval of grandparents as the guardians in a community served by SHS. The support network further includes Kern County Department of Human Services and a court to document signatures of the biological parents. For several months, KCCDHN in *Child Health* partners with SHS in *Family Functioning* to pursue the barrier elimination on multiple fronts. Eventually, permissions are given to treat both children. The siblings are now cavity-free and have a dental home to address future needs. Both examples show that First 5 Kern funding has been employed to build a well-rounded system of care. The impact on amending service gaps is unlikely to be achieved by other agencies without the strategic investment in the system of care.

Besides sustaining the existing services, First 5 Kern funded programs to support a seamless transfer of early childhood services from other parts of the state. In September 2020, a boy needed to continue medical treatments after his family relocation from Los Angeles to Kern County. But he had to travel to Los Angeles to see a doctor according to the original plan. After receiving a referral request, AFRC completed an arrangement to switch the family Medi-Cal services to Kern County within a week. AFRC is a program of *Family Functioning*, but the focus area affiliation did not block its support for service access in *Child Health*. As a result, an AFRC staff reported, "we are elated that with the support of First 5, the Arvin Family Resource Center able to ensure the family's medical needs were met. Thank you First 5" (Ibid. 6).

In this story, the commission earned the appreciation of "Thank you First 5" while fulfilling its mission of "empowering our providers through the integration of services" (First 5 Kern, 2021, p. 2). Delivery of local services has further strengthened program capacity building. During COVID-19, First 5 Kern funded a 6-week parenting workshop that brought opportunities of employment for community health workers. Finally, FCP hired two participants of the workshop this year. The new employees are motivated by the learning experiences and committed to helping promote safety measures and schedule vaccine appointments.

Besides the stories of service integration in *Child Health* and *Family Functioning*,

HLP in *Child Development* also reciprocated program support in *Child Health*. The program created BCBH lessons that were not available from other channels (Ibid. 6). In FY 2020-2021, the program documented the following feedback:

> Several families have expressed to the teaching staff how much it means to them and their children that we are continuing to engage and educate them during this difficult time. One of the parents mentioned that she is very grateful for the staff's support and all the activities being provided. She thanked the teacher for sending the Choosy activities because she is getting new ideas on nutritious meals and how to keep her daughter physically active. The parent said adjusting to her children being at home all the time has been difficult, but the activities provided makes it easier to keep her children busy. She said her daughter also tried peas for the first time because the Choosy puppet motivated her to try something new. (Ibid. 6)

In summary, First 5 Kern collaborated with local service providers to meet the needs of child health, early learning, and parent education. Although COVID-19 has caused unprecedented stress for children and families, First 5 Kern funded service providers to expand the local support capacity, including designating 26 programs in parental care, 21 programs for child and/or infant services, 20 programs on case management, nine programs in early learning, and three programs for service referrals (Ibid. 1). The systematic program support has not only advanced the policy agenda of First 5 Association of California to fill service gaps for all young children to thrive (Ibid. 9), but also demonstrated a strategy of using the *whole-community* resources to ensure the *whole-child, whole-family wellbeing* in Kern County.

Extraction of Qualitative Outcomes from Text Analytics

While individual stories provide authentic and in-depth descriptions of the profound program impact, text analytics are applied to further aggregate the results for justification of the overall funding accountability at the commission level. Repeated listing of individual stories, albeit its genuine details with grounded theories to support subjective interpretation, does not achieve the goal of result summary. In this section, natural language processing (NLP) is applied to transform unstructured text from impact stories into normalized data suitable for analysis by machine learning algorithms. It is well-known that "Today's natural language processing systems can analyze unlimited amounts of text-based data without fatigue and in a consistent, unbiased manner."[44] The methodology advancement has overcome an insurmountable issue of qualitative inquiry and inductive reasoning that undermines replicability of information extraction (Sarkar, 2019). The NLP-based story synthesis is spearheaded by an R package, Quantitative Analysis of Text Data (quanteda). According to Benoit et al. (2018),

> quanteda is an R package providing a comprehensive workflow and toolkit for natural language processing tasks ... Using C++ and multithreading extensively, quanteda is also considerably faster and more efficient than other R and Python packages in processing large textual data. (p. 774)

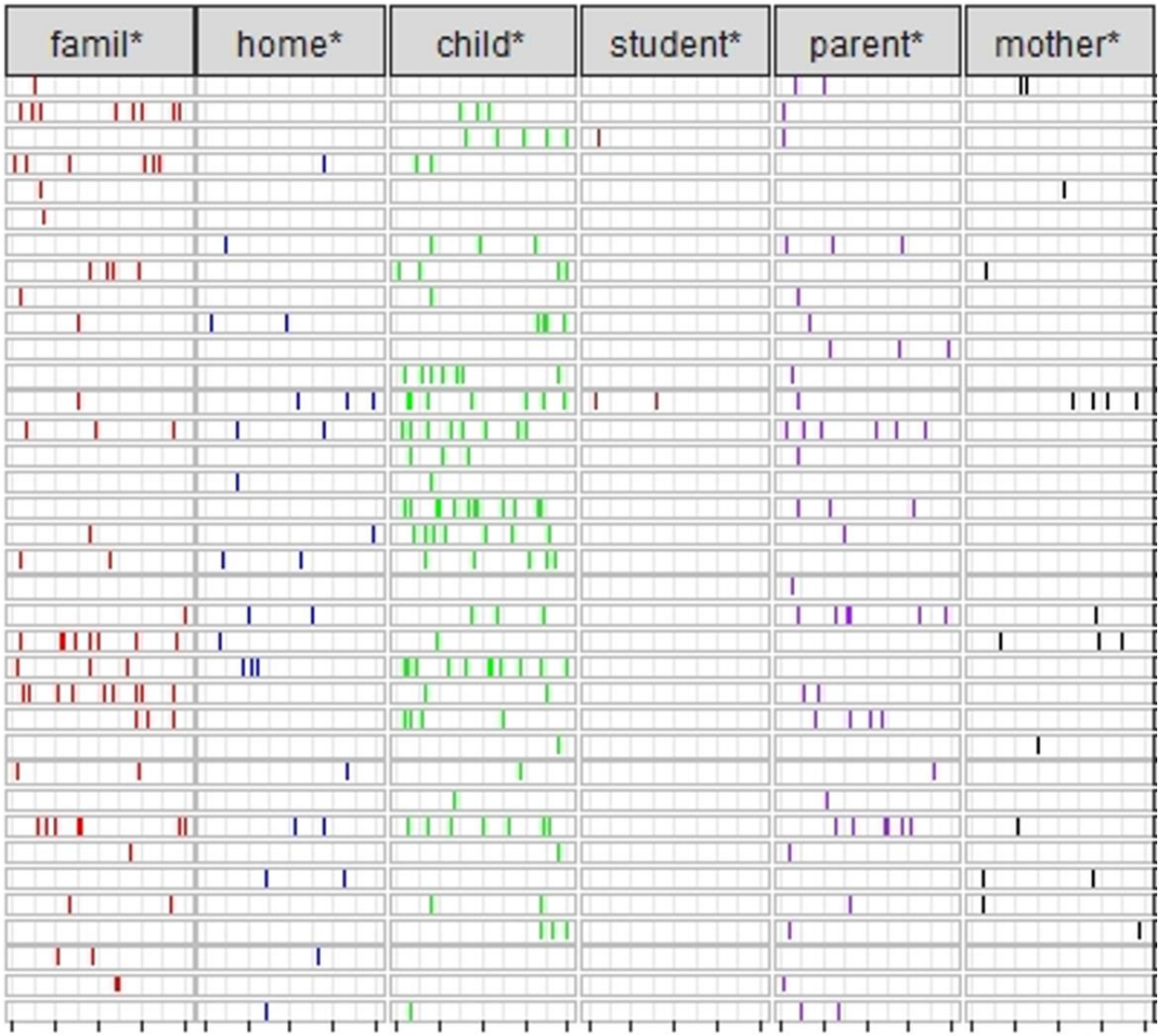
To data, the R package application has been widely adopted by large-scale assessment projects of the federal government (Caro & Biecek, 2017; Matta, Rutkowski, Rutkowski,

[44] https://www.linguamatics.com/what-text-mining-text-analytics-and-natural-language-processing

& Liaw, 2018).

Built on the quanteda platform, R scripts are developed to highlight overall features of the impact stories. After NLP's *tokenization, stopping-word/punctuation cleaning*, and *dictionary stemming*, a Lexical Dispersion Plot has been drawn from the text data to compare frequently-mentioned words across individual stories. In Figure 31, keywords stemmed from "family", "home", "child", "parent", and "mother" were reported more frequently than other words, which confirmed alignment of the service emphases on children and parents within a family/home setting. In comparison, "student" was mentioned rarely because center-based Summer Bridge programs were hit hard by COVID-19, causing inadequate data collection from nearly all service providers. The stories of BCDC and GSR were two exceptions due to their involvement in school readiness activities.

Figure 31: Frequently-Mentioned Words in Impact Stories at the Program Level



Beyond information highlights for individual programs, top-impact words were stemmed to plot Figure 32 across these impact stories. For instance, the NLP function has truncated "families" as "famili" and "providers" as "provid" for common token aggregation. As a result, Figure 32 showed that *family* and *parent* as the top impact words with 115 appearances in the impact stories. *Child* and *children* also appeared over 90 times. With no exception, the remaining top-impact words conveyed service actions, such as *assist, help, learn*, and *provide*, to echo the commission commitment to supporting key stakeholders of children and families based on First 5 Kern (2021) strategic plan.

Figure 32: Top-Impact Words across Impact Stories

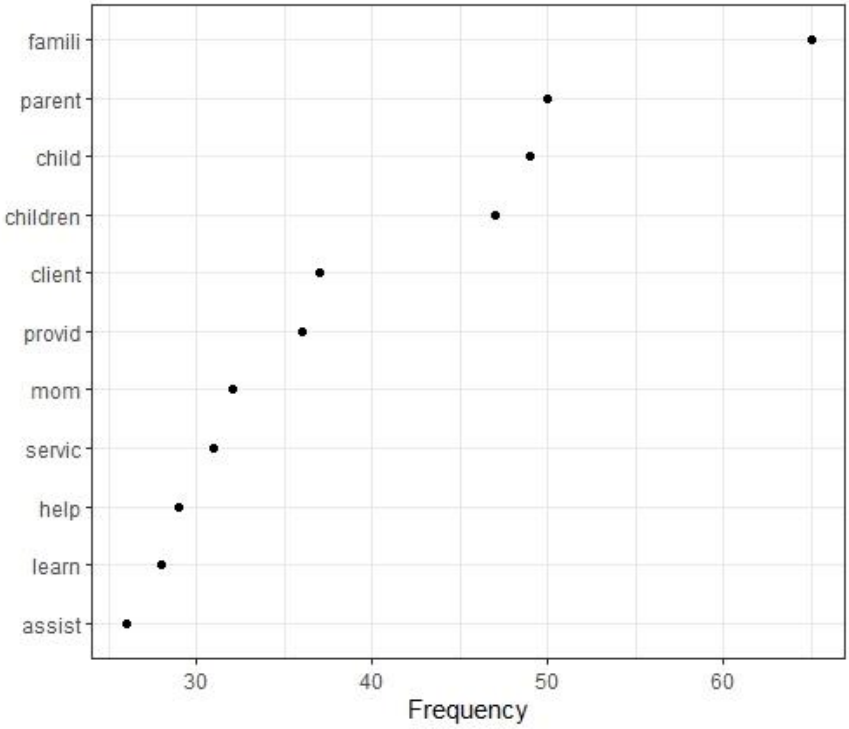
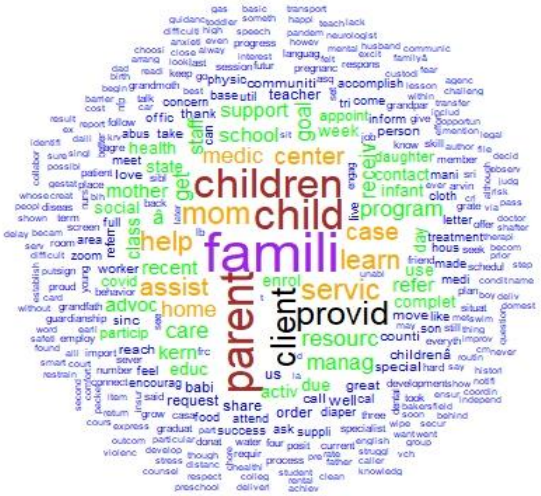


Figure 33: Word Cloud Plot of Tokenized Keywords



When all tokenized terms are included in consideration, a word cloud plot in Figure 33 captured the overall features across impact stories. Similar to Figure 32, top-impact words are highlighted in the word cloud plot with relatively larger fonts. Meanwhile, positive tokens are visible in the Figure 33 to indicate "thank(ful)", "love", "accomplish(ing)", "well", "great", "success" feeling expressions in the impact stories.

To track emphases of the impact stories on time dimension, a keyness plot is generated in Figure 34. In FY 2019-2020, the token extraction only showed attention on homeless shelter and mother/child-support environments. In FY 2020-2021, tokens like *need, covid, zoom, cloth*, and *diaper* are featured frequently in impact stories. Clearly, the token identification reflects more COVID-19 impact this year

Figure 34: Featured Tokens in Impact Stories Between Adjacent Years

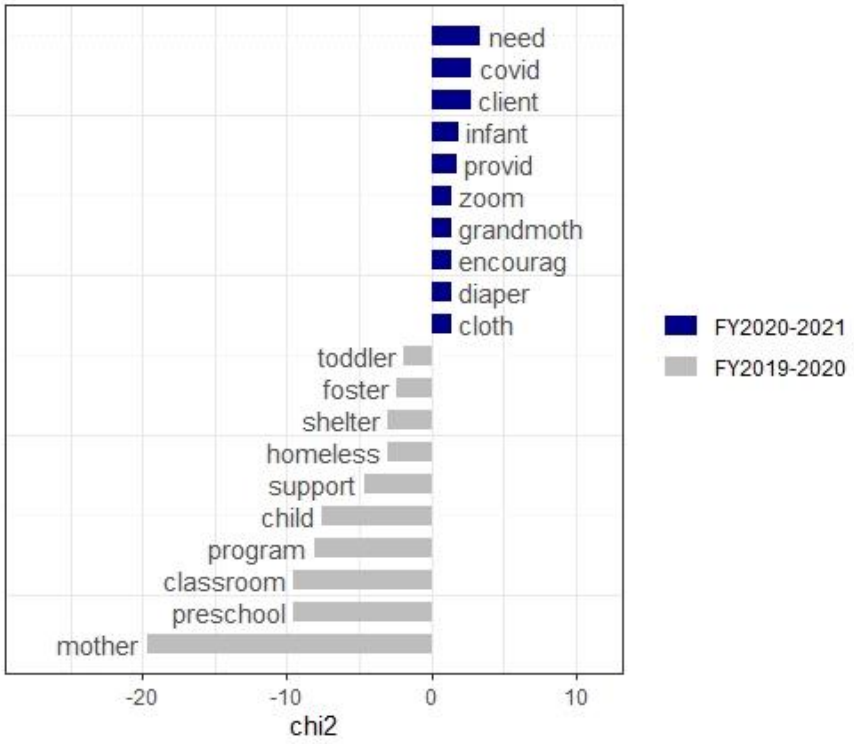
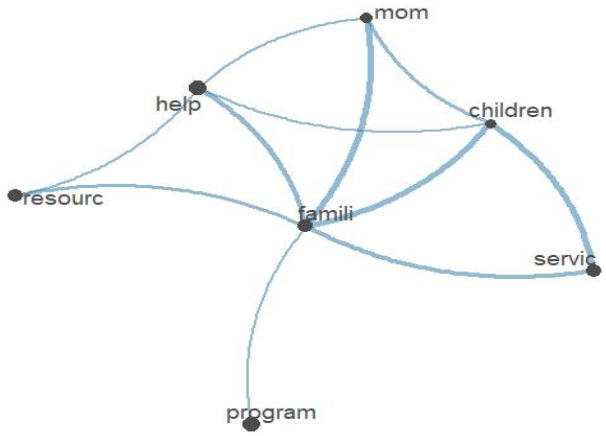


Figure 35: Token-Indicator Relations Behind the Impact Stories



Based on the information extraction, a plot of the token-indicator relations revealed conceptual connections across the impact stories (Figure 35). The network contains seven nodes and 12 links. *Program* is positioned as a leaf node because it is expected to serve families, instead of the other way around. More importantly, *program* alone is not enough to support key stakeholders in the *mom-family-children* triangle, and First 5 Kern's grant administration plays a critical role to address the *resource* demand in Figure 35. The tokenized terms have an average 1.71 link per node to confirm a fairly tight support network behind the impact stories. Built on the connection of resource help to *family, mom*, and *children*, services are directly linked to the targets of Proposition 10 support for families and children.

In summary, text analytics not only offered a summary description of service emphasis at the program level (Figure 31), but also illustrated the overall features of First 5 Kern support across the impact stories (Figures 32-34). The qualitative data mining has depicted a token-indicator relation plot (Figure 35) to clarify indispensable components in the system of care. Based on the story highlighting and text parsing, First 5 Kern has sustained success in grant administration to fit its strategic plan.

Past Recommendations Revisited

In the last annual report, three recommendations were made for First 5 Kern to:

1. Continue optimizing the "glue money" function of Proposition 10 in new partnership development;
2. Adjust result indicators to reflect service deliveries of the currently-funded programs;
3. Review result indicators based on the new program funding structure in next funding cycle.

When California voters passed Proposition 10 in 1998, the state funding was intended as the "glue money" to support early childhood services with various partners (Bodenhorn & Kelch, 2001). In FY 2020-2021, the commission led 21 organizations in a Resilient Kern Initiative to address adverse childhood experiences (ACEs). In addition, First 5 Kern recruited a nearly $300,000 ACE planning grant through a stiff competition across the state to strengthen Trauma-Informed Networks of Care. Thus, First 5 Kern has addressed the first recommendation.

Excluding five result indicators for the *Improve and Maximize Programs so All Children Thrive* grant from First 5 California, First 5 Kern's (2021) strategic plan contains 80 result indicators. In this annual report, descriptive data are delimited to 55 result indicators. On March 15, 2021, the commission held a special meeting to review its strategic plan that included the result indicator designation.[45] Although the pandemic impact has expanded the gap between indicator planning and result achievement, it seems premature to assume an endless period of COVID-19 throughout the five-year funding cycle. Thus, the commission has taken a prudent position to reserve the indicator adjustment opportunity in the future.

First 5 Kern added three programs (CASA, FCP, and OFC) in the first year of the

[45] https://www.first5kern.org/wp-content/uploads/2021/03/TAC-Agenda-031521.pdf

new funding cycle. The Scope of Work and Evaluation Plan has also been updated for other programs, including switching HLP and HMG across focus areas. The new structure of program funding has been incorporated in First 5 Kern's review of result indicators. Therefore, the commission has adopted the third recommendation.

In summary, actions have been taken by the commission to address all three recommendations from last year. Implementation of the first recommendation has strengthened First 5 Kern collaboration with local partners. The second recommendation has generated the commission discussion on the long-term design of result indicators. The third recommendation enhanced alignment of result indicator setting with the current structure of program funding.

New Recommendations

It was acknowledged that "The California Children and Families Act of 1998 mandates the collection of data to demonstrate results" (First 5 Kern, 2021, p. 2). Since the beginning of 2020, the pandemic has hampered result demonstration with missing data presence. When the issue was less extensive last year, data imputation techniques were implemented in the annual report construction (see Wang, 2021). Unfortunately, the scope of missing information has been substantially expanded this year, yielding inadequate result reporting in Tables 32, 33, 35, 36, and 38 of Chapter 2. To address the result-based accountability of Proposition 10 funding, the first recommendation is for First 5 Kern to **carefully monitor the progress of data gathering according to the Scope of Work-Evaluation Plan for each program**. As Allen (2004) pointed out, "Value-added assessment generally involves comparing two measurements that establish baseline and final performance" (p. 9). Justification of service improvement depends on sufficient data tracking for value-added assessment.

While COVID-19 could be the primary cause of missing information, some programs have figured out effective approaches to overcome the difficulty in data collection. Among the result indicators (RIs) with an issue of missing program, a number of service providers managed to complete data gathering. The exemplary effort is indicated by adequate information from (1) four programs on RI 1.3.1, (2) 15 programs on RI 2.1.4, (3) 17 programs on RI 2.1.7, (4) four programs on RI 2.2.2, and (5) four programs on RI 3.1.2. The second recommendation is to **encourage development of a learning community to share the successful experiences in minimizing the COVID-19 impact across First 5 Kern-funded programs**. The information exchange may help promote program capacity building.

Program improvement also depends on professional training. Unlike isolated service providers without grant support, programs sponsored by First 5 Kern are grouped into focus areas with result indicators specified in a Scope of Work and Evaluation Plan. Besides supporting children ages 0-5 and their families, "empowering our providers" is included in the commission mission statement. Hence, the third recommendation is on **offering professional training for the commission staff and program employees to enhance career development**. In the past, First 5 Kern offered staff training on several fronts, including IRB training on consent form administration and ACEs training to support Resilient Kern Initiative. Without draining too much resources from direct services, persistent support for professional development will not only help staff retention, but also impact the quality of service delivery in Kern County.

References

Abramson, A. (2020). *How COVID-19 may increase domestic violence and child abuse*. Retrieved from https://www.apa.org/topics/covid-19/domestic-violence-child-abuse

Aguilera, E. (2020). *The virus and the vulnerable: Latino children suffer higher rates of COVID-19*. Retrieved from https://calmatters.org/children-and-youth/2020/07/the-virus-and-the-vulnerable-latino-children-suffer-higher-rates-of-COVID-19/

Airasian, P., & Krathwohl, D. (2000). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Boston, MA: Allyn and Bacon.

Albrectsen, A. (2017). *Why collaboration will be key to achieving the sustainable development goals*. Retrieved from https://www.weforum.org/agenda/2017/01/realising-the-potential-of-cross-sector-partnerships/

Allen, M. (2004). *Assessing academic programs in higher education*. Bolton, MA: Anker.

American Institutes for Research (2012). *Condition of children birth to age five and status of early childhood services in California: Synthesis of recent research*. Washington, DC: Author. Retrieved from http://www.cde.ca.gov/sp/cd/ce/documents/airmetanalysis.pdf

American Psychological Association (2001). *Publication manual of the American Psychological Association* (5th ed.). Washington, DC: Author.

Angelo, T. (1999, May). Doing assessment as if learning matters most. *American Association for Higher Education Bulletin*, pp. 1-2.

Antonucci, T. C. & Israel, B. A. (1986). Veridicality of social support: A comparison of principal and network members' responses. *Journal of Consulting and Clinical Psychology, 54*, 432–437.

Atherton, J. S. (2013). *Learning and teaching: SOLO taxonomy*. Retrieved from http://www.learningandteaching.info/learning/solo.htm

Barlow, J., Kirkpatrick, S., Wood, D., Ball, M., & Stewart-Brown, S. (2007). *Family and parenting support in Sure Start Local Programmes*. London: University of London.

Barrett, L. (2019). *Reading books with an adult is a great way to build empathy and other social-emotional skills in kids*. Retrieved from https://www.the74million.org/article/barrett-reading-books-with-an-adult-is-a-great-way-to-build-empathy-and-other-social-emotional-skills-in-kids/

Basch, M. (2018). *Cost of child care nearly as much as rent*. Retrieved from https://www.jaxdailyrecord.com/article/cost-of-child-care-nearly-as-much-as-rent

Bavolek, S. (2000). *Nurturing Parenting Programs (NCJ 172848)*. Rockville, MD: NCJRS Photocopy Services.

Bedell, C. (2019). *Tom Corson has "a heart for kids that is made of gold"*. Retrieved from https://www.csub.edu/alumni/alumninews/alumniarchivednews/2019/20190128-CorsonProfile.html

Benoit, K., Watanabe, K., Wang, H., Nulty, P., Obeng, A., Müller, S., & Matsuo, A. (2018). quanteda: An R package for the quantitative analysis of textual data. *Journal of Open Source Software, 3*(30), 774.

Bera, S. (2020). *Grandparent caregivers face more challenges*. Retrieved from https://abcnews.go.com/Health/grandparent-caregivers-face-challenges/story?id=72148423

Berg, J. (2011). *Critical review of literature: Children of incarcerated parents*. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.389.6536&rep=rep1&type=pdf

Biggs, J., & Collis, K. (1982). *Evaluating the quality of learning: The SOLO taxonomy*. New York: Academic Press.

Bocanegra, R. (2014). *Assembly concurrent resolution No. 155*. Retrieved from http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140ACR155

Bodenhorn, K. & Kelch, D. (2001). Implementation of California's Children and Families First Act of 1998. *The Future of Children, 11*(1), 150-157.

Bonello, C. (2019). *I'm a small business owner, and this is what it costs to offer childcare to my workers*. Retrieved from https://www.fastcompany.com/90381254/im-a-small-business-owner-and-this-is-what-it-costs-to-offer-childcare-to-my-workers

Borgatti, S. P., Everett, M. G., & Johnson, J. C. (2018). *Analyzing social networks* (2nd ed.). Los Angeles, CA: SAGE Publications.

Bowman, S., Pratt, C., Rennekamp, D., & Sektnan, M. (2010). *Should we invest in parenting education?* Retrieved from http://www.oregoncf.org/Templates/media/files/grants/Early%20Childhood/should_we_invest_ped.pdf

Bragg, H. (2003). *Child protection in families experiencing domestic violence*. Retrieved from https://www.childwelfare.gov/pubpdfs/domesticviolence.pdf

Briscoe, A. (2019). *Why we need a new system of care for California's youngest children and their families*. Retrieved from https://chronicleofsocialchange.org/childrens-mental-health/why-we-need-a-new-system-of-care-for-californias-youngest-children-and-their-families/37843

Brooks-Gunn, J., & Duncan, G. (1997). The effects of poverty on children. *The Future of Children, 7*(2), 55-71.

Brown Armstrong Accountancy Corporation (2020). *Kern County Children and Families Commission: Financial statements with independent auditor's report*. Bakersfield, CA: Author.

Brown, B., Kirby, G., & Botsko, C. (1997). *Social indicators of child and family well-being: A profile of six state systems*. Retrieved from https://www.irp.wisc.edu/publications/sr/pdfs/sr72.pdf

Bui, A., Dieleman, J., Hamavid, H., Birger, M., Chapin, A., Duber, H., Horst, C., Reynolds, A., Squires, E., Chung, P., & Murray, C. (2017). Spending on children's personal health care in the United States, 1996–2013. *JAMA Pediatrics, 171*,181–189.

Bullock, L., Ghazarian, S., Nimer, M., Signing, L., Herbell, K., Farje, D., Campbell, J., & Sharps, P. (2021). Children exposed to IPV: Impact of multiple father figures. *Maternal and Child Health Journal, 25*(9), 1447. DOI: 10.1007/s10995-021-03184-6

Burns, J. (2020). *Childcare is essential work, and it's in crisis*. Retrieved from https://www.mercurynews.com/2020/12/08/opinion-child-care-is-essential-work-and-its-in-crisis/

California Evidence-Based Clearinghouse for Child Welfare (2014). *Information and resources for child welfare professionals*. Retrieved from http://www.first5sacramento.net/Meetings/Documents/HVC/NurturingParentingProgramCEBCRating_201404281314.pdf

Carmichael, H., & MacLeod, W. (1997). *Gift giving and the evolution of cooperation (Boston College Working Papers in Economics)*. Retrieved from http://ideas.repec.org/p/boc/bocoec/338.html

Caro, D., & Biecek, P. (2017). intsvy: An R package for analyzing international large-scale assessment data. *Journal of Statistical Software, 81*, 1-44.

Carolan, B. V. (2014). *Social network analysis and education: Theory, methods & applications*. Los Angeles, CA: SAGE Publications,

Chen, J. (2012). *Early childhood health and inequalities in children's academic and behavioral outcomes*. Chicago, IL: The University of Chicago (UMI Dissertations Publishing, ProQuest No. 3499715).

Cherry, K. (2013). *The five levels of Maslow's hierarchy of needs*. Retrieved from http://psychology.about.com/od/theoriesofpersonality/a/hierarchyneeds.htm

Child Care Inc. (2012). *Finding a child care professional to work in your home*. NY: Author (ERIC Reproduction Service No. ED532629).

Children Now (2018). *2018-19 California county scorecard of children's well-being*.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Corson, T. (2017). *We're making progress on child abuse*. Retrieved from https://www.bakersfield.com/opinion/community-voices-we-re-making-progress-on-child-abuse/article_072eb96e-79ac-5c64-a05b-31618c182c00.html

Cross, J., Dickman, E., Newman-Gonchar R., & Fagen, J. M. (2009). Using mixed method design and network analysis to measure development of interagency collaboration. *American Journal of Evaluation, 30*(3), 310–329.

Darling-Hammond, L., & Johnson, K. (2020). *New Master Plan for Early Learning and Care points way to California for all*. Retrieved from https://edsource.org/2020/new-master-plan-for-early-learning-points-way-to-california-for-all/644745

Deliso, M. (2020). *New moms face challenge of breastfeeding during coronavirus pandemic*. Retrieved from https://abcnews.go.com/US/moms-face-challenge-breastfeeding-coronavirus-pandemic/story?id=70902237

DeTrempe, K. (2020). *The dangers of skipping routine vaccinations during COVID-19*. Retrieved from https://sanfrancisco.cbslocal.com/2020/07/07/the-dangers-of-skipping-routine-vaccinations-during-COVID-19/

Dockery, A., Kendall, G., Li, J., & Strazdins, L. (2010). *Housing and children's development and wellbeing: A scoping study*. Retrieved from https://www.researchgate.net/profile/Alfred_Dockery/publication/238745893_Housing_and_children%27s_development_and_wellbeing_A_scoping_study/links/0c960529eb0f2afb4b000000/Housing-and-childrens-development-and-wellbeing-A-scoping-study.pdf

Doll, B., Acker, P., Goalstone, J., McLain, J., Zubia, V., Chavez, M. & Hickman, A. (2000). Cohesion and dissension in a multi-agency family service team: A qualitative examination of service integration. *Children's Services: Social Policy, Research, and Practice, 3*(1), 1-21.

Doocy, S., Kim, Y., & Montoya, E. (2020). *California child care in crisis: The escalating impacts of COVID-19 as California reopens*. Retrieved from https://cscce.berkeley.edu/california-child-care-in-crisis-COVID-

19/?utm_source=rss&utm_medium=rss&utm_campaign=california-child-care-in-crisis-COVID-19

Dube, R., & Magalhaes, L. (2021). *Covid's hidden toll: One million children who lost parents*. Retrieved from https://www.wsj.com/articles/covid-children-orphans-parent-deaths-million-11632675021

Edelhart, C. (2016). *Tobacco-tax money shrinking -- as intended*. Retrieved from https://www.bakersfield.com/news/tobacco-tax-money-shrinking----as-intended/article_73293ed4-b71e-5aae-93ed-5608a489f060.html

Family Development Resources (2015). *Nurturing Parenting programs and over 30 years of evidence*. Retrieved from http://nurturingparenting.com/nppsevidence.html

First 5 Association of California (2009). *Healthy children ready for school*. Sacramento, CA: Author.

First 5 Association of California (2013). *FIRST 5 annual report glossary definitions*. Retrieved from http://first5association.org/wp-content/uploads/2013/08/AR-Glossary-Definitions-080913.pdf

First 5 Association of California (2017). *2017 Advocacy Day talking points*. Sacramento, CA: Author.

First 5 California (2005). *Statewide evaluation framework*. Sacramento, CA: Author.

First 5 California (2010). *Guidelines for implementing the California Children and Families Act*. Sacramento, CA: Author.

First 5 California (2013). *First 5 California 2011-2012 annual report*. Sacramento, CA: Author.

First 5 California (2014). *First 5 California strategic plan*. Sacramento, CA: Author. Retrieved from https://www.ccfc.ca.gov/about/pdf/commission/resources/F5CA_Strategic_Plan.pdf

First 5 California (2015a). *First 5 California 2013-14 annual report*. Retrieved from http://www.ccfc.ca.gov/pdf/annual_report_pdfs/Annual_Report_13-14.pdf

First 5 California (2015b). *2015 Children's State Policy Agenda*. Retrieved from http://www.ccfc.ca.gov/pdf/about/leg/2015%20Children's%20State%20Policy%20Agenda.pdf

First 5 California (2016). *Investing in a quality system for California's children*. Retrieved from http://www.ccfc.ca.gov/pdf/annual_report_pdfs/Annual_Report_15-16.pdf

First 5 California (2018). *Talk. Read. Sing: It changes everything*. Retrieved from http://first5california.com/pdf//First5_Take%20Away%20Card_Brain%20Development%20ENGLISH.pdf

First 5 California (2019). *Strategic Plan 2019-2024*. Retrieved from https://www.ccfc.ca.gov/pdf/about/budget_perf/F5CA_StrategicPlan_2019-24.pdf

First 5 California (2021). *2019-2020 Annual Report*. Retrieved from https://ccfc.ca.gov/pdf/commission/meetings/handouts/Commission-Handouts-2021-01-28/Item-5-Attachment-A-Annual-Report.pdf

First 5 Fresno (2013). *State annual report: Fiscal Year 2012-2013*. Retrieved from http://first5fresno.org/wp-content/uploads/2014/05/FY-2012-2013-State-Annual-Report.pdf

First 5 Kern (2021). *First 5 Kern strategic plan*. Bakersfield, CA: Author.

Friedman, M. (2005). *Trying hard is not good enough: How to produce measurable improvements for customers and communities*. Victoria, B.C.: Trafford.

Friedman, M. (2009). *Results-Based Accountability producing measurable improvements for customers and communities*. Retrieved from http://www.oecd.org/site/progresskorea/44120813.pdf

Friedman, M. (2011). *Turning the curve*. Retrieved from http://www.fiscalpolicystudies.com/PDF%20files/Outcomes%20UK%20TurningTheCurveNewsletter1%5B2%5D.pdf

Garlaschelli, D., & Loffredo, M. (2004). *Patterns of link reciprocity in directed networks*. Retrieved from http://arxiv.org/pdf/cond-mat/0404521.pdf

Gearhart, R. (2016). A note on Kern County healthcare. *Kern Economic Journal, 18*, 13.

Golich, L. (2013). *Welcome*. Retrieved from http://kerncares.org/wp-files/kerncares-org/2013/04/2013ReportCard_pv.pdf

Hager, E. (2020). *Is child abuse really rising during the pandemic?* Retrieved from https://www.themarshallproject.org/2020/06/15/is-child-abuse-really-rising-during-the-pandemic

Hansen, T. (2009). Applying social network theory and analysis in the struggle for social justice. *Peace Research, 41*(1), 5-43. https://www.jstor.org/stable/23607964

Heckman, J. (2012). *Invest in early childhood development: Reduce deficits, strengthen the economy*. Retrieved from https://heckmanequation.org/resource/invest-in-early-childhood-development-reduce-deficits-strengthen-the-economy/

Heckman, J. (2014). *A reanalysis of the Nurse Family Partnership Program: The Memphis randomized control trial*. Chicago, IL: The University of Chicago.

Heckman, J. (2017). *The case for investing in disadvantaged young children*. Retrieved from https://www.researchgate.net/publication/227349437_The_Case_for_Investing_in_Disadvantaged_Young_Children

Jacobson, L. (2018). *As revenue declines from one 'sin tax,' California considers tapping another for children's programs*. Retrieved from https://www.educationdive.com/news/as-revenue-declines-from-one-sin-tax-california-considers-tapping-anothe/532702/

Jacobson, L. (2020a). *First-ever report spotlights California, New Jersey, D.C. as best in nation for creating prenatal-to-3 policies that set children up to excel in early education*. Retrieved from https://www.the74million.org/article/california-new-jersey-district-of-columbia-come-out-ahead-in-new-roadmap-of-policies-supporting-young-children/

Jacobson, L. (2020b). *Home visiting continues — at a distance*. Retrieved from https://www.k12dive.com/news/home-visiting-continues-at-a-distance/576037/

Jacobson, L. (2021). *California aims to come from behind in making sure children learn to read, but some see new push as political*. Retrieved from http://laschoolreport.com/california-aims-to-come-from-behind-in-making-sure-children-learn-to-read-but-some-see-new-push-as-political/

Jolie, A. (2020). *Child abuse in a pandemic*. Retrieved from https://enewspaper.latimes.com/infinity/article_share.aspx?guid=4fe9561a-42ca-44ca-8894-66cfeaf37952

Jones, C. (2017). *Latino students face large inequities in educational achievement compared to white peers*. Retrieved from https://edsource.org/2017/latino-students-in-california-face-steep-inequities-compared-to-white-peers/590066

Keierleber, M. (2019). *Few Black and Latino children are served by high-quality state preschool programs*. Retrieved from https://www.the74million.org/report-few-black-and-latino-children-are-served-by-high-quality-state-preschool-programs/

Kern County Network for Children (2017). *Our children, our community*. Bakersfield, CA: Author.

Kock, N., & Gaskins, L. (2016). Simpson's paradox, moderation and the emergence of quadratic relationships in path models: An information systems illustration. *International Journal of Applied Nonlinear Science, 2*(3), 200-234.

Krebs, V. (2011). *Social network analysis: A brief introduction*. Retrieved from http://www.orgnet.com/sna.html

Kuhnt, M., & Brust, O. (2014). *Low reciprocity rates in acquaintance networks of young adults – Fact or artifact?* Retrieved from https://tu-dresden.de/die_tu_dresden/fakultaeten/philosophische_fakultaet/is/methoden/prof/mitarbeit/dateien_kuhnt/reciprocity

Laramore, J. (2020). *Network analysis and network optimization in SAS® Viya®*. Cary, NC: SAS.

Lee, A. (2013). *Results-based public policy in action*. Washington, DC: Center for the Study of Social Policy.

Loiaconi, S. (2021). *Biden eyes universal pre-K plan, but potential challenges loom*. Retrieved from https://fox11online.com/news/nation-world/biden-eyes-universal-pre-k-plan-but-potential-challenges-loom

Lopez, M., Wong, S., & Raphael, J. (2020). Health policies to address adverse childhood experiences: Taking a whole child approach. *Pediatric Research, 88*, 8–10. https://doi.org/10.1038/s41390-020-0905-7

Manship, K., Jacobson, L., & Fuller, B. (2018). *Achieving fair access to early education*. Berkeley, CA: Berkeley Early Childhood Think Tank.

Matta, T. H., Rutkowski, L., Rutkowski, D., & Liaw, Y. L. (2018). lsasim: An R package for simulating large-scale assessment data. *Large-scale Assessments in Education, 6*, 15.

Mauskopf, C. (2019). *The child care paradox: How to help build a better system*. Retrieved from https://www.forbes.com/sites/forbesbusinesscouncil/2019/10/15/the-child-care-paradox-how-to-help-build-a-better-system/#7e207a484527

McKinnon, I. (2016). Medical premium system can backfire. *Summerland Review*, 09 March. Copyright (c) 2016 Torstar Syndication Services.

Miller, C. (2019). *Why the U.S. has long resisted universal child care*. Retrieved from https://www.nytimes.com/2019/08/15/upshot/why-americans-resist-child-care.html

Moore, A. R., & Clement, M. J. (1998). Effects of parenting training for incarcerated mothers. *Journal of Offender Rehabilitation, 27*, 57-72.

Morgan, M. (2019). *Who cares for the caretakers?* Retrieved from http://www.dailyuw.com/wellness/article_96fb5f0c-ae6d-11e9-99b4-a70dc5764f15.html

Morse, S. (2019). *Affordable Care Act premium rates projected to increase by 10 percent*. Retrieved from https://www.healthcarefinancenews.com/news/affordable-care-act-premium-rates-projected-increase-10-percent

Murrin, S. (2019). *States' payment rates under the Child Care and Development Fund Program could limit access to child care providers*. Retrieved from https://oig.hhs.gov/oei/reports/oei-03-15-00170.pdf

Nichols, S., & Jurvansuu, S. (2008). Partnership in integrated early childhood services: An analysis of policy framings in education and human services. *Contemporary Issues in Early Childhood, 9*, 117-130.

Ponzio, C., Palomino, Z., Puccini, R., Strufaldi, M., & Franco. M. (2013). Does low birth weight affect the presence of cardiometabolic risk factors in overweight and obese children? *European Journal of Pediatrics, 172*(12), 1678-1692. (doi: 10.1007/s00431-013-2113-5).

Project Safety Net of Palo Alto (2011). *Levels of collaboration scale*. Retrieved from http://www.psnpaloalto.com/wp/wp-content/uploads/2011/04/PSN_Levels-of-Collaboration-Scale_survey.pdf

Proposition 10. Retrieved from http://wwwstatic.kern.org/gems/first5kern/ccfcact.pdf.

Provan, K., Veazie, M., Staten, L., & Teufel-Shone, N. (2005). The use of network analysis to strengthen community partnerships. *Public Administration Review, 65*, 603-613.

Purcal, C., Muir, K., Patulny, R., Thomson, C., & Flaxman, S. (2011). Does partnership funding improve coordination and collaboration among early childhood services? *Child & Family Social Work, 16*, 474–484. http://dx.doi.org/10.1111/j.1365-2206.2011.00766.x

Rabouin, D., & Pandey, E.(2020). *Child care crisis is denting the labor market*. https://www.axios.com/child-care-jobs-labor-market-women-c99a0d92-8605-46ef-a780-e57c4718ec4b.html

Ramanadhan, S., Salhi, C., Achille, E., Baril, N., D'Entremont, K., Grullon, M., Judge, C., Oppenheimer, S., Reeves, C., Savage, C., & Viswanath, K. (2012). Addressing cancer disparities via community network mobilization and intersectoral partnerships: A social network analysis. *PLoS ONE, 7*, 1-9.

Robison-Frankhouser, Z. (2003). *An evaluation of parent education programs: Early brain development information that promotes literacy development in pre-school children*. Long Beach, CA: CSU Long Beach (UMI No. 1419315).

Ronayne, K. (2021). *California bill aims to reduce deaths among Black mothers*. Retrieved from https://www.latimes.com/california/story/2021-09-27/california-bill-aims-to-reduce-deaths-among-black-mothers

Samuelson, A. (2010). *Best practices for parent education and support programs: What works*. Retrieved from http://whatworks.uwex.edu/attachment/whatworks_10.pdf

Sarkar, D. (2019). *Text analytics with Python: A practitioner's guide to natural language processing*. New York: Springer.

Schramm, R. (2015). *Nurturing Parenting program for parents and their infants, toddlers, and preschoolers*. Retrieved from http://www.cebc4cw.org/program/nurturing-parenting-program-for-parents-and-their-infants-toddlers-and-preschoolers/detailed

Schumacher, K. (2016). *Over 1.2 million California children eligible for subsidized child care did not receive services from state programs in 2015*. Retrieved from http://calbudgetcenter.org/wp-content/uploads/Fact-Sheet_Unmet-Need-for-Subsidized-Child-Care_12.15.16.pdf

Shulman, N. (1976). Network analysis: A new addition to an old bag of tricks. *Acta Sociologica, 19*, 307–323.

Silard, T., & Gaskins, S. (2019). *Investing in California's children is a moral imperative. But it's also essential to our future*. Retrieved from https://www.sacbee.com/opinion/california-forum/article234702567.html

Singhal, A., Subbian, K., Srivastava, J., Kolda, T., & Pinar, A. (2013). *Dynamics of trust reciprocation in heterogeneous MMOG networks*. Retrieved from http://arxiv.org/pdf/1303.6385.pdf

Sitaraman, G. (2019). *Why early childhood development matters*. Retrieved from https://cornellsun.com/2019/11/25/why-early-childhood-development-matters/

Smith, P. (2021). *Exposure to polluted air contributed to six million preterm births around the world in 2019*. Retrieved from https://www.natureworldnews.com/articles/47648/20210929/exposure-to-polluted-air-contributed-to-six-million-preterm-births-around-the-world-in-2019.htm

Smith, T., Gorden, B., Colby, S., & Wang, J. (2005). *An examination of the relationship between depth of student learning and National Board certification status*. Boone, NC: Appalachian State University.

Stavely, Z. (2020). *California child care providers losing money, risking health during pandemic*. Retrieved from https://edsource.org/2020/california-child-care-providers-losing-money-risking-health-during-pandemic/637458

Stipek, D. (2018). *Early childhood education in California*. Stanford, CA: Stanford University.

Thibault, M. (2017). *MVCCP presentation to First 5 Kern Commission*. Bakersfield, CA: First 5 Kern.

Thompson, L., & Uyeda, K. (2004). *Family support: Fostering leadership and partnership to improve access and quality*. Retrieved from http://www.healthychild.ucla.edu/Publications/Documents/Family%20Support%20Report%20for%20publication.pdf

Van As, N. (1999). *Family functioning and child behavior problems*. Retrieved from http://www.cursuspratenmetkinderen.nl/downloads/Family%20functioning%20and%20child%20behavior%20problems.pdf

Vinopal, L. (2019). *Massive study suggests breastfeeding reduces risk of SIDS*. Retrieved from https://www.yahoo.com/lifestyle/massive-study-suggests-breastfeeding-reduces-191127942.html

Waller, M. (2005). *High cost or high opportunity cost? Transportation and family economic success*. Washington, DC: Brookings Institute.

Wang, J. (2021). *First 5 Kern Annual Report, Fiscal Year 2019-20*. Retrieved from https://files.eric.ed.gov/fulltext/ED610410.pdf

Wang, J., Ortiz, T., Maier, R., & Navarro, D. (2015, April). *A multilevel study of partnership building to support early childhood development across different education contexts*. Paper presented at the 2015 annual meeting of American Educational Research Association, Chicago, IL.

Wang, J., Ortiz, T., Maier, R., Navarro, D., Wang, S., Wang, L., & Wang, L. (2016). An empirical study of early childhood support through partnership building. *Evaluation and Program Planning, 59*, 74-80.

Wang, J., Ortiz, T., & Schreiner, H. (2013). *An examination of partnership building in early childhood education*. Paper presented at the 2013 annual meeting of National Association for the Education of Young Children, Washington, DC.

Wasserman, S., & Faust, K. (1994). *Social Network Analysis: Methods and Applications* (Structural Analysis in the Social Sciences). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511815478

Wasson, L., & Goon, J. (2013). Nurse-Family Partnership yields Kern benefits. *Kern Business Journal, 2*, 28.

Weiland, C., Unterman, R., Shapiro, A., & Yoshikawa, H. (2019). *What happens after preschool matters for sustaining the preschool boost*. Retrieved from https://www.brookings.edu/blog/brown-center-chalkboard/2019/11/01/what-happens-after-preschool-matters-for-sustaining-the-preschool-boost/

Wellbank, L. (2021). *COVID has major costs for medically fragile kids*. Retrieved from https://www.parents.com/parenting/money/covid-has-major-costs-for-medically-fragile-kids-but-there-may-be-an-inexpensive-solution/

World Health Organization (2020). *Breastfeeding and COVID-19*. Retrieved from https://www.who.int/news-room/commentaries/detail/breastfeeding-and-covid-19

Zhu, Y., Zhang, X., Sun, G., Tang, M., Zhou, T., & Zhang, Z. (2014). *Influence of reciprocal links in social networks*. Retrieved from http://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0103007&type=printable

Zimlich, R. (2019). *Preterm infants lose out on breastfeeding*. Retrieved from https://www.contemporarypediatrics.com/pediatrics/preterm-infants-lose-out-breastfeeding.

Zimlich, R. (2021). *Why providing care informed by trauma is important*. Retrieved from https://www.contemporarypediatrics.com/view/why-providing-care-informed-by-trauma-is-important.

Appendix A – Index of Program Acronyms

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Appendix B – Technical Advisory Committee

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Behavioral Health Unit Supervisor, Kern Behavioral Health and Recovery Services

Commissioner Russell Judd
CEO, Kern Medical Center

Ami Moser
Manager, Early Learning Services, Kern County Superintendent of Schools

Dr. Ana Mena
Behavioral Health Unit Supervisor, Kern Behavioral Health and Recovery Services

Hilda Nieblas-Valenzuela
Dreamers Resource Center & MAGEC Coordinator, Cal State University of Bakersfield

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Retired Kern County Administrative Officer

Dr. Tiffany Pierce
Family Physician, Kaiser Permanente Stockdale Offices

Pritika Ram
Director of Administration, Community Action Partnership of Kern

Commissioner Kelly Richers
Wasco Elementary School District, Superintendent

Isabel C. Silva
Manager of Health Education and Disease Management, Kern Health Systems

Alexis Shaw
Prevention Services Facilitator, Kern County Network for Children

Christina Staricka
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Kevin Truelson
Children and Families Coordinator, Kern County Network for Children

Commissioner Debbie Wood
Retired - Bakersfield City School District

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Coordinator, South Valley Neighborhood Partnership