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## **MCH Innovations Database** Practice Summary & Implementation Guidance

# Resilient Kern

Resilient Kern represents a system change model that evolved from serving only CYSHCN to a community wide health equity initiative. As a broad-based coalition, RK relies on a flat organizational approach that emphasizes care coordination principles and practices among equal partners, thus encouraging solution focused, collaborative approaches to problem solving to achieve lifelong health outcomes.



Location

California



Topic Area

Health Equity; Health Screening and Promotion; Service Coordination/Integration



Setting

Clinical



Population Focus

Cross-Cutting/Systems Building



NPM

NPM 6: Developmental Screening; NPM 11: Medical Home; NPM 12: Transition



Date Added

June 2022

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# Section 1: Practice Summary

## PRACTICE DESCRIPTION

	<p>The Resilient Kern (RK) Network of Care model addresses the complex needs and root causes of inter-generational medical and mental health conditions experienced by many Kern County residents. Resilient Kern, by creating a Trauma-Informed Kern County (TIKC), is focused on identifying and working closely with the public and private provider community to mitigate toxic stress, reduce Adverse Childhood Experiences (ACEs), and address underlying social determinants of such health conditions as premature birth, diabetes, asthma, cancer, etc., while acknowledging the strengths and resilience of its residents.</p>
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[For more background on ACEs, see Appendix 1 - [Research behind Childhood Adversity, Trauma and Toxic Stress](#)]

**Background:** Resilient Kern is the outcome of over 10 years of provider driven care coordination leadership and collaborative practices originally focused in 2008 on elevated levels (13.8%) of premature birth in our county, helping to reduce it to 9% as a result of intense problem-solving efforts. Work needed to be done to address the root causes and lifelong consequences of premature birth. With annual funding from Kaiser Permanente Kern County, we built Promising Practice infrastructure of learning and service integration, based on the concept a Trauma-Informed Kern County (TIKC) in which the entire community understands the prevalence and impact that trauma plays in people’s lives, and the complex and varied paths for healing and recovery. Beginning in 2016, after learning about Adverse Childhood Experiences, we began to concentrate on operationalizing a training and system change model building on the incredible resiliency of residents to overcome the negative effects of trauma on health and well being. This work has now been renamed Resilient Kern and acknowledged in 2022 a Best Practice by AMCHP’s Innovation Hub.

### Organizational Support:

	<p>Resilient Kern functions under the long-term fiduciary responsibility and administrative guidance of the Kern County Children and Families Commission also known as First 5 Kern, a Proposition 10 initiative approved by the voters of California in 1998 to support early childhood services and innovative initiatives in all 58 counties.</p>
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Next, Resilient Kern’s work was acknowledged in 2020 – 2021 by the first-in-the-nation ACEs Aware (California) statewide initiative with the awarding of a \$293,000 grant to help build Resilient Kern into a fully functional, Level 5 Trauma-Informed Network of Care, with shared governance, collaborative clinical and community partners, and a bi-directional online referral system to coordinate physical and mental health treatment and address health equity and Social Determinants of Health impacting wellness.

**About ACEs Aware:** The ACEs Aware research based initiative is led by the Office of the California Surgeon General and the California Department of Health Care Services to screen children and adults for Adverse Childhood Experiences (ACEs) in primary care, and to treat the impacts of toxic stress with trauma-informed



care. The bold goal of this initiative is to reduce ACEs and toxic stress by half in one generation, and to launch a national movement to ensure everyone is ACEs Aware. For more information, visit [www.ACEsAware.org](http://www.ACEsAware.org)

The Resilient Kern structure has served to highlight the resiliency and strengths of Kern County residents facing health equity challenges from medical access to economic adversity, societal racism, and cultural isolation – better known as Social Determinants of Health (SDOH). Resilient Kern’s Network of Care works to serve all residents of the county by:

- operating under the guidance of a Leadership Committee of 16 major public and private agencies
- continuing to expand interdisciplinary care coordination among 100+ Kern County partner organizations
- hosting Adverse Childhood Experiences (ACEs) provider training sessions and an annual training conference
- promoting a new vital sign – one’s ACE score - through regular ACE screening services at local health clinics and managed care entities to greatly reduce levels of intergenerational Adverse Childhood Experiences (ACEs) <https://www.cdc.gov/vitalsigns/aces/index.html> that epigenetically can lead to poor lifelong health and wellness outcomes across whole families
- leveraging state of the art closed loop referral technology resources (see our key partner at <https://www.kernfoundation.org/what-we-do/kern-connected-community-network/>)
- coordinating a public information and community outreach campaign using traditional website and social media tools (see [www.resilientkern.org](http://www.resilientkern.org) )
- advocating with government, business and community leaders to jointly address high toxic stress causes and consequences across diverse public and private practices

ACEs and Resiliency - Fortunately, ACEs only speaks to risk factors. What is understandable is preventable and there are several protective factors that can build resilience and guard against the negative effects of ACEs. These include a connection with a caring adult, parental warmth and monitoring, social connections, parental resilience, concrete support in times of need, nurturing and supportive environments with peers, opportunities for personal development and empowerment, and the supportive context of affirming faith or cultural traditions. With this knowledge in mind, it is important to not only understand the impact of ACEs, but to take concrete steps to address them in the community, while honoring an individual’s inherent resilience and building on existing strengths.

The concept of “trauma-informed care” has been proposed as the solution to addressing ACEs within individuals and broader communities. Trauma-informed care (TIC) was originally proposed by the Substance Abuse and Mental Health Services Administration (SAMHSA) [For more background information, see Appendix 2 An Overview of Trauma-Informed Care]

Creating a Trauma-Informed Kern County (TIKC) Building on the science and increased understanding of the risks and impacts of ACEs, Kaiser Permanente Kern County funded First 5 Kern to convene the TIKC training curriculum initiative in 2018 – 2020, working with 15 -18 local organizational leaders to intensively train 75 - 100 individuals each year using a TIC Train-the-Trainer model. Individuals trained included parents, pediatricians, family practitioners, nurses, social workers, and other case managers serving children and families experiencing toxic stress. The training was designed to cover all aspects of trauma, from childhood, in families and across generations, using the ACE study as foundational information for assessing and acknowledging the potential lifelong epigenetic impact of trauma on individuals.



Fast forward, with 2020 - 2021 state funding through the ACEs Aware grant initiative led by the Surgeon General Dr. Nadine Burke Harris' office, the now renamed Resilient Kern trained over 600 participants in 2021 alone. When adding the other Core Components of the Resilient Kern coalition, including an extensive outreach and education campaign, and partnering with the **Kern Connected Community Network**, using a state-of-the-art technology solution from **Unite Us** for secure closed loop referrals among over 100 partners, the Resilient Kern Trauma-Informed Kern County initiative has become the acknowledged Network of Care for the county and a leader in California for integrated trauma-informed care services.

## CORE COMPONENTS & PRACTICE ACTIVITIES

Core Components & Practice Activities		
Core Component	Activities	Operational Details
Engaging community leaders to guide Resilient Kern's work	Since 2018, convening a Leadership Committee (LC) of 16 public and private agency leaders	The Leadership Committee guided the development of a Trauma-Informed Kern County (TIKC) effort to train 300 provider representatives between 2018 and 2020 in the principles of ACEs and trauma-informed care.
Providing Trauma-Informed Care (TIC) training Note: All of our recorded training sessions and forums are available on our website: <a href="http://www.resilientkern.org">www.resilientkern.org</a>	Hosting regular in person and virtual training sessions	Cohorts were trained in the principles of ACEs and trauma-informed care as well as methods for embedding system changes in their organizations that would improve the human and procedural dynamics of service provision to achieve better outcomes.
Incorporating state of the art, closed loop referral technology  	Leveraging state of the art technology through Unite Us and the Kern Community Foundation to coordinate referrals for critical medical and non-medical services through the Kern Connected Community Network.	Since 2021, over 100 Kern County organizations have helped grow the Kern Connected Community Network in a robust, confidential, closed loop ecosystem advancing social care referrals that can quickly promote the health and well-being of all Kern County residents. The interconnectedness of the secure Unite Us platform also allows patient/client approved protocols to enable providers to continue to coordinate referrals as clients migrate to other participating counties in California.



Hosting community outreach through Resilient Kern website and public forums see [www.resilientkern.org](http://www.resilientkern.org)

Galvanizing understanding and support for strength based, trauma-informed services through public meetings, workshops, conferences and social media, and a community website

In 2021, under the auspices of the ACEs Aware grant, we hosted a total of several ACEs Forum Discussions with to help our Network of Partners better understand ACEs, how to become ACE screening certified, and joint learning sessions with ACEs Network partners to share how to implement clinical workflows for our Network of Care as they looked to operationalize this work.

Leveraging funding to sustain Resilient Kern's mission and goals

Leveraging existing funding initiatives to include local community based and public agencies in support of a Trauma-Informed Kern County.

Besides receiving annual support from First 5 Kern, Resilient Kern will be applying for continuing *ACEs Aware* funds for 2022 – 2023 and beyond.

## HEALTH EQUITY

Health Equity and the Evolution into Resilient Kern: First 5 Kern is committed to supporting ACEs training, screenings and coordinated referrals as a strategic priority and will continue to advance this work as part of its broader Equity and Trauma-Informed Care work.

By creating a Trauma-Informed Kern County (TIKC), Resilient Kern is focused on identifying and working closely with the broad provider community to mitigate toxic stress, Adverse Childhood Experiences (ACEs), and, working with our Leadership Committee of public agencies and community leaders, addressing the causes and health consequences of the Social Determinants of Health (SDOH) that have a major impact on people's health, well-being, and quality of life, including:

- Health equity in the access and distribution of health care services
  - Affordable housing and safe neighborhoods, with accessible transportation
  - Racism, discrimination, cultural isolation, and violence
  - Quality education and job opportunities, and income equality
  - Access to nutritious, affordable food,
  - Recreational activities and spaces including parks, pools, and other community services
  - Polluted air and water
  - Language and literacy skills
- 
- We needed a different mindset among everyone to better understand people's life experiences that impacted their health and wellness and ability to thrive. We needed to create a different lens through intensive training, dialog and organizational change among our partners, that worked to recognize and eliminate inherent bias, prejudice, racism, sexism and other perceptions that negatively impact patients/clients/members.
  - Since 2017 Kern County agencies have brought together over 70 organizations and trained more than 3,000 health and social service providers, teachers and others to advance trauma-informed principles across our community. This work will continue to leverage the backbone infrastructure created



through Resilient Kern and the Kern Connected Community Network to strengthen relationships that will help further normalize the work.

## EVIDENCE OF EFFECTIVENESS

The Resilient Kern Network of Care, using a closed loop online client/patient referral system, represents the culmination of years of organizational and technological development that provide an unprecedented opportunity for any interested jurisdiction to collaboratively and efficiently provide coordinated health and community services. Such a model requires partners to work together to build trust, joint understanding of each other's offerings, client/patient consent for referrals to be initiated, and the technological solution to manage the interactions.

The reports listed in Appendix 3 demonstrate the early-stage success of the RK model in real time. They provide a very solid growth pattern in referrals even during the severe lockdowns during the pandemic. They indicate what works: a collaboration and referral model that combines early identification and problem resolution, especially of daily living challenges, as a strong indicator that trust can be built through active engagement with patients/clients that can lead to even better health and even stronger resilience for children and families.

Sample Pilot Program Results: Outcome tracking data from the Omni Health Care pilot reveals that the top five network needs for Omni clients include: 1) income support, 2) food assistance, 3) individual and family supports, 4) utility support, and 5) housing and shelter supports. Our team continues to work with Dr. Anu Rao, a Pediatrician at Omni Family Health FQHC, and Unite Us to capture additional data around social care needs and ACEs as we expand the pilot in 2022-2023 and beyond.



# Section 2: Implementation Guidance

## COLLABORATORS AND PARTNERS

To secure a stable infrastructure, Kern County continues to convene monthly the Resilient Kern Leadership Committee (formed in 2018) to further strengthen Kern's ACEs Aware Network of Care implementation strategies. The Leadership Committee members represent the critical public and private agencies and organizations in the County providing physical and mental health services, social services, education, and community services to Medi-Cal insured residents.

Practice Collaborators and Partners		
Partner/Collaborator	How are they involved in decision-making throughout practice processes?	Does this stakeholder have lived experience/come from a community impacted by the practice?
Resilient Kern Leadership Committee members	Since 2018, RK has convened a Leadership Committee (LC) of 16 public and private agency leaders representing Managed Care Organizations, hospitals, FQHCs, county behavioral health, human service, and public health departments, public education, and local philanthropic organizations to guide the planning and implementation of a Trauma-Informed Kern County Network of Care serving all residents.	<p>All RK Leadership Committee members have deep community experience and standing.</p> <ol style="list-style-type: none"> <li>1. Bakersfield American Indian Health Project</li> <li>2. Dignity Health hospitals</li> <li>3. First 5 Kern</li> <li>4. Kaiser Permanente Kern County (MCO)</li> <li>5. Kern Family Health Care (MCO)</li> <li>6. Health Net (MCO)</li> <li>7. Clinica Sierra Vista FQHC</li> <li>8. Omni Family Health Care FQHC</li> <li>9. Community Action Partnership of Kern (CAPK)</li> <li>10. Kern County Network for Children</li> <li>11. Kern Behavioral Health and Recovery Services</li> <li>12. Kern County Department of Human Services</li> <li>13. Kern County Public Health Services Department</li> <li>14. Kern County Superintendent of Schools</li> <li>15. Kern County Superior Court</li> <li>16. Kern Regional Center</li> </ol>



<p>Kern Community Foundation</p>	<p>Managing organization of the 100+ provider Kern Connected Community Network (KCCN) community service referral system</p>	<p>Kern Community Foundation is a nonprofit enterprise that serves as a charitable resource for local Kern County donors and corporations to generate capital that provides philanthropic solutions to help make Kern County a better place to live, to work and to visit.</p>
<p>Unite Us Technology Solutions</p>	<p>Developers and system administrators for Kern Connected Community Network</p>	<p>Unite Us standardizes how health and social care providers communicate and track outcomes together, aligning all stakeholders from healthcare, government, and the community around a shared goal to improve health. KCCN provides both a person-centered care coordination platform and a hands-on community engagement process with communities to ensure services are seamlessly delivered to the people who need them most</p>
<p>Omni Family Health Care FQHC</p>	<p>Developed pediatric clinical screening and referral protocol for ACEs Aware screening pilot</p>	<p>Pediatric clinic for Children and Youth with Special Health Care Needs and their families</p>
<p>First 5 Kern - Early Childhood Initiative</p>	<p>Provides fiduciary and administrative staff support to manage Resilient Kern activities.  Annually funds 41 community based and public agency programs focused on children 0 – 5 years of age and their families in the areas of health care, parent education, childcare, and integration of services</p>	<p>Kern County Children and Families Commission created with the passage of California Proposition 10 in 1998. Since its inception, First 5 Kern has disbursed over \$200 million locally in creating, supporting and evaluating outcomes of its innovative local programs serving all of Kern County.</p>

## REPLICATION

Resilient Kern is committed to building lasting and strategic partnerships to replicate, expand and sustain this work. As far back as 2012, MVCCP trained 3 additional California counties (Orange, Contra Costa and Monterey) in the principles and protocols for coordinating care for medically vulnerable children. These training efforts helped build the development of a statewide 5 C's - California Community Care Coordination Collaborative under the leadership of the Lucile Packard Foundation for Children's Health.

In replicating the work of Resilient Kern, the majority of the Kern County network partners have begun to distribute resources to ensure their teams are knowledgeable and understand ACEs' science and the



health impacts of toxic stress. The Network of Care partners have prioritized disseminating the ACEs engagement sessions to build knowledge across Kern County. Across the board, county partners, clinical providers, and community-based organizations in Kern County are advancing trauma-informed principles to support the community and address long-term social determinants of health.

Our engagement has led many RK Network of Care partners to take the certified ACEs Aware Core training and read the *Roadmap for Resilience* (see [www.ACEsAware.org](http://www.ACEsAware.org)). More than 100 providers have trained in Trauma-Informed Care principles, and 72 have completed the Becoming ACEs Aware training. In addition, the landing page on the Resilient Kern website has been redesigned to be a valuable resource and hub for our Network of Care partners.

Partners have been intentionally identified to help integrate this work with other initiatives with the intent to support connecting families to early childhood systems. These partners include the Kern County Public Health Department, Dignity Health, Kern County Behavioral Health and Recovery Services, and community health workers who could serve as liaisons in support of the ACEs work.

## INTERNAL CAPACITY

**A Word About Geography:** Kern County is located in the most southern portion of California's 300 mile long Central Valley, a major food producing area of the United States. Incorporated in 1866, Kern County is California's 3<sup>rd</sup> largest county in land area, covering 8,170 square miles with three distinct physical environments: valley, mountain, and desert. Its 11 incorporated cities and 41 unincorporated communities are home to an estimated 912,316 residents in 2020. Bakersfield, (pop 390,233) is the county seat. See 2020 US Census information at <https://www.census.gov/quickfacts/kerncountycalifornia>

### Our Assets

Kern has a long history of corporate and civic involvement and results-driven philanthropy. For example, since 1998, Kern's First 5 Children and Families Commission has distributed over \$200 million to 40+ local public and private agencies providing prenatal to 5-year-olds with health care, child care, parenting and service integration programs.

First 5 Kern has been the fiduciary and administrative lead for Resilient Kern. According to its mission, it works with the entire community to advance early childhood priorities. As such, its staff are extremely knowledgeable of community needs, diverse resources and ongoing collaboratives that help advance health, education, parenting and system change outcomes that benefit all of Kern County. This capacity has been indispensable in bringing county leadership together in meeting the long-term objectives for a Resilient and Trauma-Informed Kern County. Staff have organized and hosted ACE training sessions, engaged consultants, worked closely with all partners, and used its media expertise to make all available recorded training sessions and print resources known and accessible to the public in English and Spanish.

### Kern's Challenges

Kern County's southern location in the Central Valley desert, with mountains on three sides, has created many challenges from geographical isolation to poor air quality. Adult and childhood asthma and other chronic respiratory conditions are high. Summer temperatures can normally exceed 100 degrees making outdoor activities difficult. When our work began in 2008, the national economic recession was quickly taking hold, very negatively impacting families, health care and other providers, safety net agencies and their community partners. The economic impact on families, especially those already living at the margins



imposed even greater uncertainty and stress. In 2019, the pandemic created an even bigger challenge when people, systems and services were most challenged.

High poverty levels in Kern create severe economic hardships for families, especially those with CYSHCN who require more specialty care resources and frequent interactions with providers.

- 18.3% overall population
- 28% of county children live in poverty.
- 39% of households headed by women live in poverty, according to the Kern Community Foundation 2020 report <https://www.kernfoundation.org/wp-content/uploads/2020/10/Executive-Summary-of-2020-Report-on-the-Status-of-Women-and-Girls-in-Kern-County.pdf#:~:text=The%20poverty%20rate%20of%20Kern%E2%80%99s%20children%20under%20the,of%20households%20headed%20by%20women%20live%20in%20poverty.>

**The Transformative Role of County Wide Care Coordination** - Our partners did not back away during the lengthy economic recession, providing a “new normal” of focusing on case management through collaboration within the critical context of care coordination, system enhancement and system change. In illustration of this message, as many as 25 of the 165 conference participants in 2012 were recently hired staff in the Departments of Human Services, Public Health, and other local agencies. This was a reflection of the turnover that occurred in county safety net agencies. It was especially important that these new staff could learn then and continue to learn, early on in their careers, through our conferences and regular meetings, the importance of improving health outcomes using collaboration and communication. **This is the transformative role of a county care coordination model.**

## PRACTICE TIMELINE

Phase: Planning/Pre-Implementation		
Activity Description	Time Needed	Responsible Party
Recruit Leadership Committee	6 – 12 months	First 5 Kern
Develop goals and objectives	1 – 2 months	Leadership Team
Identify and recruit key partners in clinical and community resource centers	3 – 6 months	Leadership Team



## Phase: Implementation

Activity Description	Time Needed	Responsible Party
Develop governance structure	1 – 2 months	All partners
Develop and implement Trauma Informed Care training curriculum	6 - 9 months	Leadership Committee, key partners and training consultant
Recruit referral network partners and launch referral process	9 – 12 months	All partners in concert with funders

## Phase: Sustainability

Activity Description	Time Needed	Responsible Party
Identify successes and challenges during implementation	6 – 12 months	Leadership Team in concert with funding sources
Summarize results	1 – 2 months	Leadership Team with evaluation specialist
Create go forward strategy and operational budget	1 – 2 months	Leadership Team with approval from Leadership Committee



## PRACTICE COST

Budget			
Activity/Item	Brief Description	Quantity	Total
PERSONNEL SERVICES (All part time positions)	Project Director	1	\$16,632
	Training Consultant	1	\$48,000
	Partner Outreach Spec	1	\$10,920
	Evaluation Specialist	1	\$7,043
	Media Outreach Specialist	1	\$8,097
	Total Personnel Costs		<hr/>
Services and Supplies	Survey Monkey	1 Subscription	\$3,600
	Slido App	1 Subscription	\$2,388
	Meeting Expenses	Multiple trainings	\$6,500
	Planning Meetings	Quarterly	\$7,500
	Zoom Subscription	1 Subscription	\$10,000
	Graphic Recorder	Contract	\$15,000
	Tableau Reporting	1 Subscription	\$680
	GIS Platform	Service Contract	\$5,500
	Chrome Books	10	\$10,500
	Referral Network Development	Contract costs	\$65,000
	Communications	Printing costs	\$11,000
	Website	Customization	\$4,000
	Conference	Rental and Food costs	\$20,000
	Community Engagement	Training and network costs	\$5,000
		Total S&S	<hr/>
	10% Indirect Costs		\$25,736
<b>Total Amount:</b>			<b>\$283,096.00</b>



## LESSONS LEARNED

The Kern Connected Community Network expansion has been showcased in multiple statewide and Central Valley meetings to great effect. It has allowed Kern County to expedite its work to create an expansive network of community partners looking to operationalize ACE screenings. More than 100 partners are using Unite Us in Kern County alone to coordinate, communicate, and implement processes to provide referrals to address health issues and track outcomes. We look forward to examining the growing results data and making actionable recommendations to our County Board of Supervisors to support this work in Kern further and help increase resources where they are needed.

### Key Lessons Learned:

- This work requires cultural humility and stepping into the unknown. Don't be afraid to test new clinical workflows as you integrate ACEs; change and adaptability are part of the process to help and support communities in need.
- Do not be afraid to think differently and help innovate; COVID-19 has only heightened the inequities that were present; be bold and help shift mental models for naysayers.
- This work requires trust, vulnerability, and commitment to work differently to not cause harm to the communities we are trying to support and serve.
- Care coordination is difficult but not impossible; system integration is key to moving work forward; partners need to take a leap and be willing to try new iterations of this work; and not be complacent.
- ACEs can be traumatizing for communities experiencing trauma; identify practices that can help minimize impact and create the support necessary for the community and your staff to do this work.
- Be bold, brave, and share power to help move this work; be the champion this work deserves

## NEXT STEPS

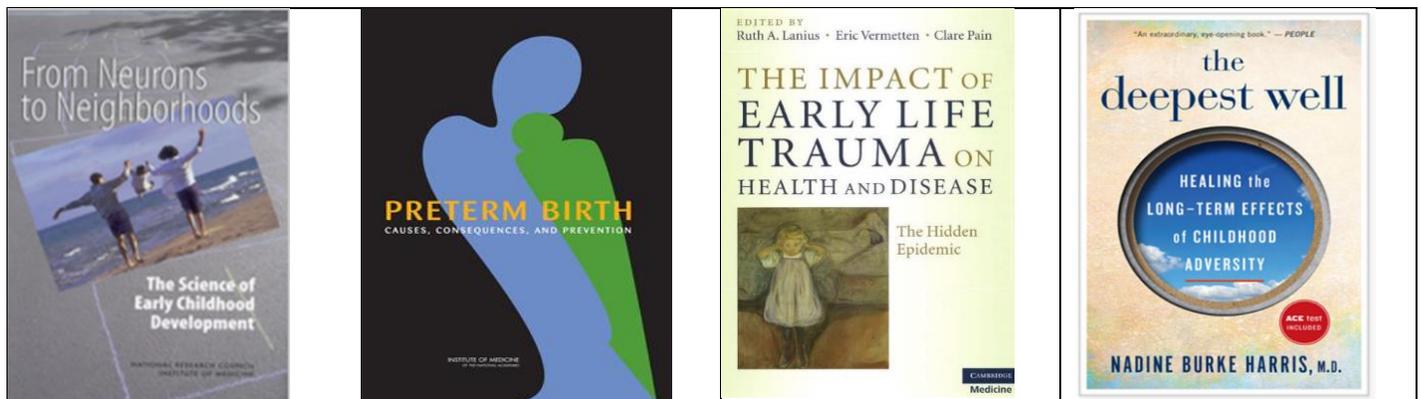
First 5 Kern and its partners are committed to promoting Trauma-Informed Care principles and processes. More than 56 community-based organizations and county systems have been actively engaged in 2021 RK trainings during the implementation of the ACEs Network of Care planning grant to support resiliency and address trauma individuals have experienced. First 5 Kern will work to include ACEs science in all future Resilient Kern capacity building training that ground its work in trauma-informed care (TIC)/Equity principles as the next cohort of County leaders are prepared to support this practice across our network.

Our project team will continue advancing a four-phased approach to maintain and expand the working network with our managed care, clinical, and community partners. The areas of development that we focus on will be: 1) understanding clinical protocols and processes that our partners are leveraging to support ACEs implementation; 2) gauging interest in additional countywide pilots to leverage the Unite Us platform to make social care referrals through the Kern Connected Network; 3) creating opportunities for shared learning among Kern and Central Valley ACEs partners looking to continue this work; and 4) creating opportunities for learning, reflection, reorientation, and systems coordination to advance ACEs as part of Kern County's equity work. We understand that this work is bidirectional and requires buy-in at multiple levels, including clinical, community, and system levels. As a beginning invitation to how we view this work, we want to offer partners outside of Kern the learnings we gained from our ACEs Learning Symposium and Summit.



## RESOURCES PROVIDED

These four resource volumes are just a few of the key reference documents that provide Resilient Kern an arc of critical early childhood monographs that have impacted, guided and championed the work of First 5 Kern since its early days to now. They focus on the critical stages from preconception and prenatal stages to 5 years of age and beyond, capturing early brain development, the impact of trauma, the epigenetics of ACEs, and the proven intervention strategies of Dr. Nadine Burke Harris, a groundbreaking pediatrician and child advocate and the first Surgeon General of California - \*see Dr. Burke Harris' amazing TED Talk - [https://www.ted.com/talks/nadine\\_burke\\_harris\\_how\\_childhood\\_trauma\\_affects\\_health\\_across\\_a\\_lifetime](https://www.ted.com/talks/nadine_burke_harris_how_childhood_trauma_affects_health_across_a_lifetime).



## APPENDIX

**Appendix 1 - Research behind Childhood Adversity, Trauma and Toxic Stress:** In 1998, Vincent Felitti from Kaiser Permanente and Robert Anda from the Centers for Disease Control published the first of many papers outlining the Adverse Childhood Experiences study\*\* (Felitti et al, 1998). In this groundbreaking work, the authors found a dose response correlation between an individual's exposure to trauma (e.g., sexual abuse, physical abuse, neglect, etc.) and household dysfunction (e.g., divorce, parental incarceration, parental mental illness, etc.), collectively referred to as ACEs, and his/her long-term vulnerability to a host of negative health behaviors such as smoking, poor eating habits, and substance abuse. In turn, these negative health behaviors are linked to poor health outcomes, including heart disease, obesity, sexually transmitted diseases, and early death. As the number of ACEs increases, so does the risk for these outcomes. More recent conceptualizations of the role ACEs play in health outcomes has introduced the variables of historical trauma, health inequity, racism and other Social Determinants of Health as precursors to the original ACEs, which then leave an individual vulnerable to multiple health and social problems. Subsequent studies using the ACEs framework have proposed that the exposure to adversity in childhood is linked to the development of toxic stress that leads to the prolonged activation of stress hormones, which then lead to negative health outcomes for both individuals and communities. The ACE study has far-reaching implications for how we understand an individual's exposure to adversity and its long-term impact across a lifetime. \*\* (Source: Felitti, V. J., Anda, et al (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) study. American Journal of Preventive Medicine, 14, 245-258.)

**Appendix 2 An Overview of Trauma-Informed Care:** A key component of creating a trauma-informed system is providing knowledge related to trauma and its effects to the para-professionals who work with children and families at risk -- equipping them with both the tools to support the early identification of trauma and the resources to sustain change efforts over time. According to the National Council for Behavioral Health (2013), there are multiple benefits of a trauma-informed approach:



- Creating a proactive approach to physical and emotional safety for clients, families, and staff
- Creating and sustaining opportunities for choice, power and control through increased therapeutic interactions
- Decreasing the stigma related to trauma and mental health concerns
- Reducing the possibility of re-traumatization
- Improving the social environment in a way that improves all relationships
- Creating environments that care for and support staff
- Increasing the quality of services, reducing unnecessary interventions, reducing costs
- Reducing the number and types of negative encounters and events (e.g., seclusion and restraint)
- Creating a resiliency and strengths-based focus
- Increasing client and family satisfaction and increasing success and job satisfaction among staff

Further, the NCTSN defined a service system with a trauma-informed perspective is one in which agencies, programs and service providers:

- 1) Routinely screen for trauma exposure and related symptoms;
- 2) Use evidence-based, culturally responsive assessment and treatment for traumatic stress and associated mental health symptoms;
- 3) Make resources available to children, families, and providers on trauma exposure, its impact, and treatment;
- 4) Engage in efforts to strengthen the resilience and protective factors of children and families impacted by and vulnerable to trauma;
- 5) Address parent and caregiver trauma and its impact on the family system;
- 6) Emphasize continuity of care and collaboration across child-service systems; and
- 7) Maintain an environment of care for staff that addresses, minimizes, and treats secondary traumatic stress, and that increases staff wellness.



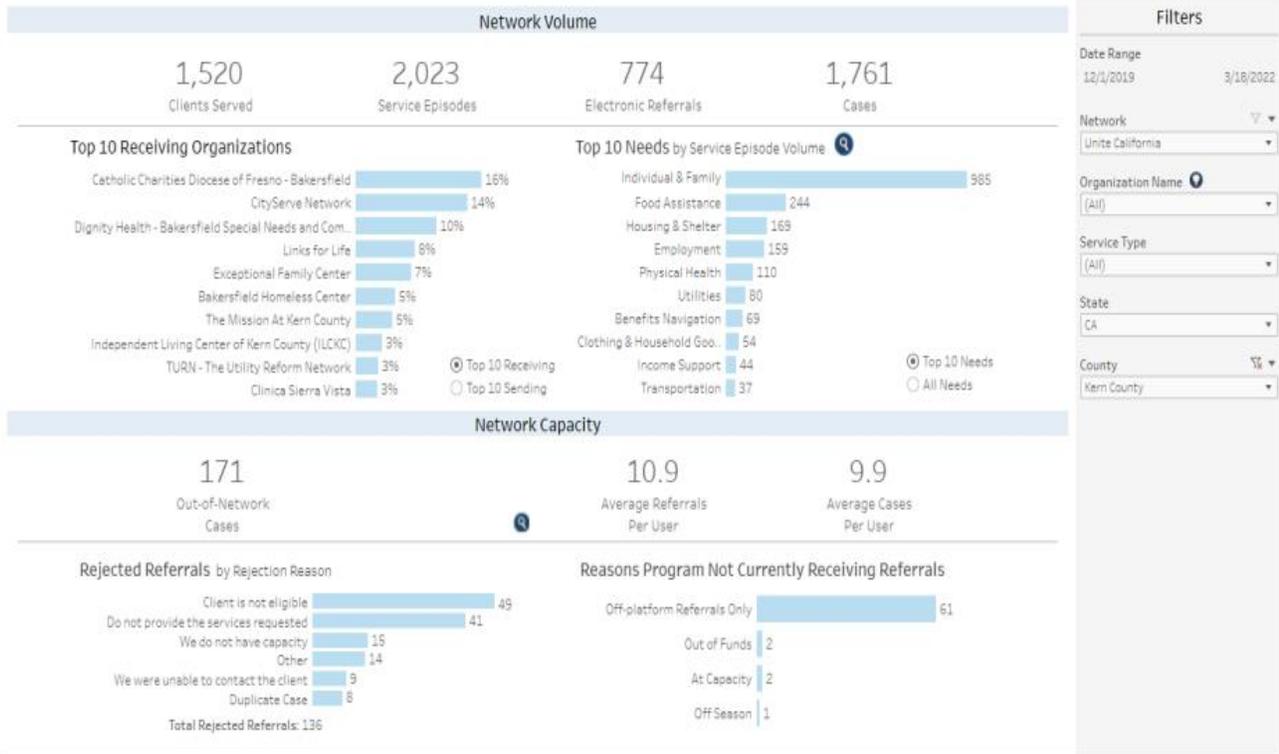
# Appendix 3 – Network of Care Summary Reports

## Network Health



### Network Activity Overview

Monitor critical network activity metrics over time



## Network Health



### Network Service Events

Monitor service episodes, referrals, and cases over time and assess event outcomes

