

# Primary, Secondary, and Tertiary Prevention Strategies in Early Childhood Supports

Scientific advances in the late 20<sup>th</sup> century led to dramatic progress in public understanding of how experiences and environments shape brain health and impact developmental trajectories.<sup>23,1216</sup> In 2000, a groundbreaking report from the National Academies Press, *From Neurons to Neighborhoods: The Science of Early Childhood Development*, summarized the emerging evidence.<sup>1217</sup> The report began by highlighting that

“...an explosion of research in the neurobiological, behavioral, and social sciences has led to major advances in understanding the conditions that influence whether children get off to a promising or a worrisome start in life. These scientific gains have generated a much deeper appreciation of: (1) the importance of early life experiences, as well as the inseparable and highly interactive influences of genetics and environment, on the development of the brain and the unfolding of human behavior; (2) the central role of early relationships as a source of either support and adaptation or risk and dysfunction; (3) the powerful capabilities, complex emotions, and essential social skills that develop during the earliest years of life, and (4) the capacity to increase the odds of favorable developmental outcomes through planned interventions.”

The report went on to highlight the role of chronic stress in shaping neurobiology, noting: “*Environmental factors that play a significant role in modulating prenatal and early postnatal brain development include substances and circumstances that are necessary for normal brain development, as well as exposures to chemicals, diseases, and **stressors that are toxic or disruptive** (emphasis added).*”<sup>1217</sup> Since the recent turn of the century, further research has highlighted the importance of early exposures in shaping not only neurodevelopmental trajectories, but also immunologic, endocrine, metabolic and genetic regulatory responses to stress.<sup>12,39,299,1218-1220</sup> Thus, the early childhood period represents a crucial time when primary, secondary, and tertiary prevention of Adverse Childhood Experiences (ACEs) and toxic stress are of outsized importance due to the increased malleability of developing systems, for both negative and positive outcomes.

## PRIMARY PREVENTION STRATEGIES

Primary prevention of ACEs and toxic stress in the early childhood sector centers on preventing adverse experiences from occurring and strengthening buffering influences, typically through policies and programs that promote safe, stable, nurturing early relationships and environments.<sup>23,1198</sup> Universal programs may encourage positive parenting, amplify access to quality support services, and provide parent education and supports for healthy child development and relationships (for example, see **FIRST 5 CALIFORNIA**).<sup>1221,1222</sup> While vulnerable communities experience greater stressors and are therefore at higher risk, it is important to recognize that ACEs happen in every sociodemographic group, and that they are often under-recognized in upper-income and non-minority groups; therefore, universal approaches are necessary. Key stakeholders in primary prevention of ACEs and toxic stress for young children include child care professionals, community-based organizations, home visitors, healthcare providers, employers, preschool teachers and staff, social workers, policymakers, and, of course, caregivers and families themselves. Prevention strategies should align with the National Academies of Sciences, Engineering, and Medicine’s (NASEM) 2019 framework on the contextual

### FIRST 5 CALIFORNIA

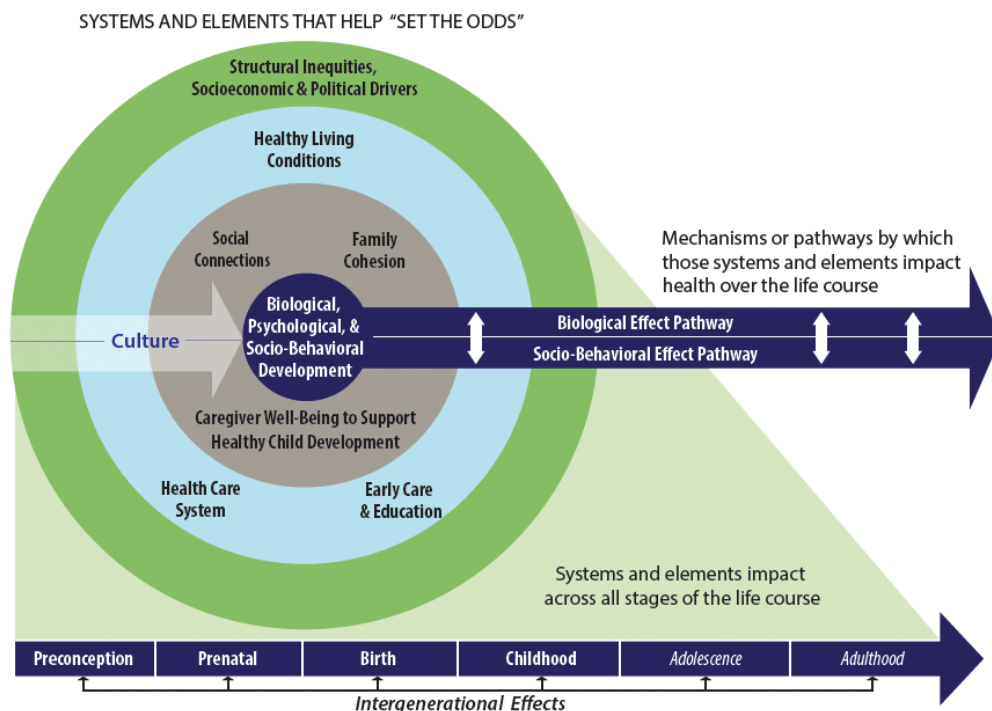
Advances in scientific understanding of the role of early experiences and environments in shaping neurobiology have been applied to policies for the development of broad-scale interventions to support children and families. In 1998, Californians passed Proposition 10, a ballot initiative increasing the tax on cigarettes and other tobacco products to fund early childhood services. Proponents of Prop 10 cited the scientific research on early childhood development as a rationale to target early investment. The measure established the California Children and Families First Program (First 5), which created both state and local entities to promote and implement early childhood development priorities, partnerships,

and initiatives.<sup>1321</sup>

First 5 California and the 58 local First 5 Commissions invested \$345 million in fiscal year 2019–20<sup>1322</sup> toward programs and services that improve outcomes in early education, child care, child health and development, research, and community awareness. Over 60% of counties in the state currently offer home visiting programs through First 5, which provide nearly 100,000 services each year.<sup>1323</sup> To promote thriving parent–baby relationships, the Talk. Read. Sing. social marketing campaign was launched in 2014 to encourage positive, age-appropriate interactions that stimulate healthy brain development and build resilience against the harmful effects of stress.<sup>785,1324</sup>

influences on life course health (Figure 18).<sup>23</sup>

Long-term outcomes of ACEs and toxic stress often put substantial pressures on state and national budgets.<sup>1223</sup> The pervasive, high prevalence of ACEs and the enormous costs of health, economic, criminal justice, and other downstream effects suggest a need for greater emphasis on preventive measures, especially during the earliest years of life, when impacts are most consequential and produce the highest return on public investment.<sup>63,1224-1227</sup> Shoring up supports for families is among the most effective strategies for preventing ACEs.<sup>1225</sup> Governor Gavin Newsom’s inaugural Budget Act for 2019-20 put forth a robust parents’ agenda that included over \$2 billion in early childhood investments, among them strategic funding for California’s child care and early learning systems, paid family leave, home visiting, developmental and trauma screenings, cash assistance to families with children, and child savings accounts.<sup>1132</sup> These strengthened channels of support build on California’s existing framework, composed of evidence-based programs that lead to greater family financial stability, high-quality environments for young children, early detection of challenges, and timely responsiveness to families’ and children’s unique needs.<sup>23,1102</sup>



**Figure 18.** Multi-layered structural and contextual factors that influence life course health. Reproduced with permission from the National Academies of Sciences, Engineering, and Medicine (2019), courtesy of the National Academies Press, Washington, D.C.<sup>23</sup>

## A System that Supports All Children and Families

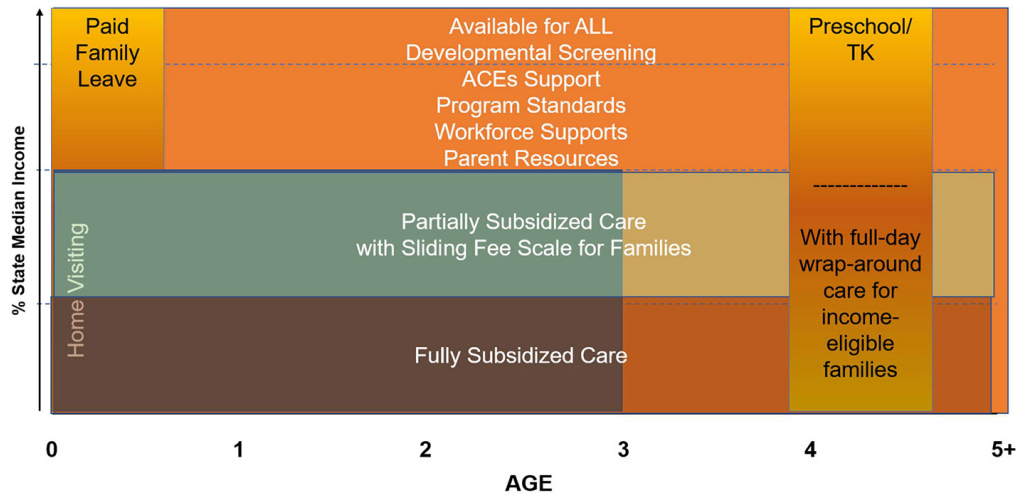


Figure 19. The spectrum of services available to enhance early childhood development from ages 0-5 years.

The Governor's budget reaffirmed a long-term commitment to children's well-being by establishing key infrastructure to ensure a comprehensive, sequenced policy approach. It included (Figure 19):

- Investment in a Master Plan for Early Learning and Care, a comprehensive roadmap to universal preschool and improved access to high-quality child care;<sup>1228</sup>
- Establishment of an Early Childhood Policy Council, composed of more than 20 cross-sector experts, practitioners, and parents and charged with advising the state on issues of early learning, child care, and child development;<sup>1229</sup> and
- Formation of a Paid Family Leave Task Force, composed of representatives from business, policy, research, and early learning communities and responsible for developing options for the state to expand the Paid Family Leave Program.<sup>1230</sup>

### Child care

Improving the access of parents and caregivers to high-quality child care, and giving children opportunities to form relationships with nurturing child care providers and engage in a variety of socially and emotionally enriching activities, can help prevent ACEs and toxic stress.<sup>7,1130,1231-1233</sup> High-quality child care also benefits

children's development, as measured by improvements in executive functioning, verbal skills, task persistence, school readiness, and general knowledge while also decreasing hostile behavior.<sup>1234-1244</sup> For example, the Study of Early Child Care by the National Institute of Child Health and Human Development assessed child care providers and children's behavioral and cognitive outcomes and found that for every additional recommended standard met by a child care provider, three-year-old children scored an average of 4.4% higher on school readiness and 2.4% higher on language comprehension evaluations.<sup>1236</sup> Long-term, high-quality child care is also associated with numerous other benefits, including higher rates of high school completion and lower risk of adult poverty.<sup>1245,1246</sup>

High-quality child care occurs in a range of settings, largely categorized as center- or home/family-based, and provides consistency, developmental enrichment, and emotional support.<sup>1238</sup> Voluntary accreditation from leading organizations offers detailed guidance for improving child care quality, accounting for safety, cleanliness, nutritional support, health consultation, staff-to-child ratios, and other parameters that extend beyond the minimum requirements for state licensing.<sup>1247,1248</sup> Staff training and retention are critical factors in child care, as forging relationships with nurturing adults beyond the immediate family is a strong protective buffer that can prevent and mitigate toxic stress.<sup>7,78</sup> When high-quality child care is available in a local community, subsidies may enhance families' access, leading to opportunities for children to learn and grow in safe and stable environments.<sup>1249</sup> Studies have tracked subsidy usage and found that subsidy recipients are 28% more likely to choose center-based care,<sup>1250</sup> 3% more likely to benefit from uninterrupted care, and 3% less likely to be cared for by more than one provider in a given month.<sup>1251</sup> Subsidies can also lower risk for ACEs by enhancing family economic stability, relieving parental stress, and suppressing rates of parental depression.<sup>1217,1226,1252-1258</sup> Researchers found that subsidies can lower the likelihood of child-care-related work challenges by 14-75%, including missing days of work, arriving late or leaving early from a job, or being unable to fulfill the requirements of a position.<sup>1251,1259,1260</sup> In addition, ratings of parental satisfaction with child care increase, on average, by 7%, compared to parents who do not receive subsidies.<sup>1251</sup>

The CalWORKs Child Care program is jointly administered by the California Department of Social Services (CDSS) and the California Department of Education (CDE). In fiscal year 2018-19, California allocated over \$4.6 billion for child care programs.<sup>1261</sup> The purpose of the CalWORKs Child Care Program is to help a family transition from immediate, short-term child care needs when a parent starts working to more stable, long-term child care that allows the family to exit the program and remain off aid.<sup>1262</sup> Stage 1 is administered by CDSS through county welfare departments and provides child care subsidies until the family no longer needs them.<sup>1261</sup> Child care facilities include license-exempt child care centers,

and family child care homes. In fiscal year 2017-18, over 38,000 children were served; 67% of the children were five or younger, and 54% were in full-time care programs.<sup>1263</sup> Stages 2 and 3 are administered by CDE. Child care programs are supported by federal funds: the Temporary Assistance for Needy Families Block Grant (administered by CDSS) and the Child Care and Development Block Grant (administered by CDE). The latter also supports expenditures for provider training, workforce development, and child care licensing.<sup>1264</sup>

## Early education

Until a child attends kindergarten, learning takes place in the home, child care facilities, community, and preschool programs, collectively classified as early childhood education (ECE). Often, ECE programs are a prominent channel through which families often engage with the broader community, as services and supports are commonly provided by organizations or the government. Multigenerational ECE programs in particular, such as Early Head Start, Head Start, and other preschool enrichment programs with family engagement, can generate lifelong benefits

**Fewer than half of the children living below the poverty line in the United States have the skills needed to do well when they enter kindergarten.**

by strengthening caring relationships and helping children meet developmental milestones.<sup>1265-1273</sup> Emerging evidence is beginning to shed light on the long-term health impacts of high-quality ECE, including modest but statistically significant reductions in rates of

adolescent obesity and childhood chronic health problems that require specialized equipment, such as a brace, wheelchair, or breathing mask.<sup>1274</sup> ECE may also serve a vital role in providing a network of support and belonging for the whole family, which has been shown to be particularly impactful for immigrant, economically disadvantaged, and marginalized groups.<sup>1130,1275</sup> Beyond relational benefits, ECE advances children's learning and behavioral competencies, thereby reducing social risk factors of ACEs and other poor outcomes.<sup>794,1241,1276</sup> The evidence is clear that educational experiences cannot wait until kindergarten, as brain development is most rapid and consequential during the first few years, when the fundamentals of one's neural architecture are laid down to facilitate all future learning and development.<sup>1277</sup> Research on this topic has matured over the last century and, with modern data collection and analysis methods, continues to reveal and support long-term benefits from high-quality ECE.<sup>60,1227,1245,1278-1282</sup>

A seminal study, the Carolina Abecedarian Early Intervention project, provides



a detailed look at how an ECE intervention can elevate academic and social achievement across the life course. In the 1970s, the project recruited four-month-old infants for the intensive intervention, which included on-site pediatricians and had four key components: language, conversational reading, enriched caregiving, and learning games.<sup>1283</sup> After only five years of the intervention during early childhood, former participants continued to log significant long-term benefits well into adulthood. At age 21, the experimental group demonstrated better reading skills (1.8 grade levels), better math skills (1.3 grade levels), and higher IQ scores (4.4 points), compared to the control group which received standard services during early childhood.<sup>1227,1277,1284</sup> Social outcomes were equally impressive: participants were 2.5 times as likely to be attending a four-year college and 1.7 times less likely to have become teenage parents. Benefits continued through age 30, as well. Recipients of the intervention exhibited a lower prevalence of risk factors for metabolic and cardiovascular diseases, were four times as likely to have a four-year college degree, six times less likely to have recently received public assistance, more than twice as likely to be consistently employed, and had delayed parenthood by almost two years, on average, compared to the control group.<sup>1227,1285</sup>

Fewer than half of the children living below the poverty line in the United States (US) have the skills needed to do well when they enter kindergarten. This sets the foundations for poorer educational outcomes and entrenched health and social disparities further along in life.<sup>1286</sup> As trusted professionals, pediatric, medicine-pediatric, and family practitioners can be effective partners in supporting ECE.<sup>1287</sup> Reach Out and Read is a national program that provides developmentally appropriate books to families when they visit their primary care practitioner and introduces caregivers to the concept of early reading and its benefits.<sup>1288,1289</sup> Data show that such efforts improve kindergarten readiness, as in one study that tracked improvements in high-quality home literacy environments and additionally found that kindergarten teachers rated 67% of program participants as above or far above average by the end of the year, compared to their grade-level peers.<sup>1290</sup> The program seems to improve health appointment adherence, as well. One study found that children who received books were twice as likely to attend the full panel of well-child visits recommended as a baseline standard by the American Academy of Pediatrics.<sup>1291</sup> Reading frequency at home improved as a result of program participation, between a half and a full day per week.<sup>1292,1293</sup> Participating children score 6.8-8.6 points higher in receptive language and up to 4.3 points higher in expressive language evaluations.<sup>1293,1294</sup> One study went further and suggested a dose-response effect to these impacts, linked to the number of exposures to the program.<sup>1293</sup>

## SECONDARY PREVENTION STRATEGIES

Beyond the universal supports and services provided by primary prevention strategies, secondary prevention focuses on providing additional supports to those at risk for ACEs, in order to strengthen buffering influences that would prevent ACEs from leading to toxic stress.<sup>1198</sup> For example, children of parents with high ACE scores are themselves at greater risk of experiencing ACEs and toxic stress.<sup>1150,1295,1296</sup> Factors such as poverty and young parental age can also contribute to additional risk, though it should be recognized that all populations can experience ACEs and toxic stress.<sup>42,1198</sup> Secondary prevention in the early childhood sector for at-risk populations includes home visitation programs, economic supports, and educational opportunities for parents and early childhood professionals about ACEs and toxic stress, long-term health and developmental impacts, and strategies relating to parental self-care and positive, buffering interventions focused on preventing the transmission of adversity.

While screening for ACEs should be performed in the primary care setting, early childhood professionals should understand how to recognize the signs and symptoms of toxic stress and how to connect parents and families to the appropriate resources for support. Home visitors and other early childhood professionals can locate ACEs Aware health providers to whom they can connect families in need through the [ACEs Aware provider directory](#).<sup>1153</sup>

### Home visiting

Among the best-supported interventions for improving child and family outcomes are high-quality, voluntary home visiting programs for new parents to ensure they have the community support and services they need during a significant time of transition. Home visiting spans all levels of ACEs and toxic stress prevention, with some supports universally available to all pregnant and newly parenting individuals (primary prevention), most programs specialized for early detection and provision of buffering protective factors for at-risk children and families (secondary prevention), and additional services equipped to facilitate interventions and mitigation strategies for adversities that have already occurred (tertiary prevention). Trained professionals including teachers, nurses, public health professionals, and child development specialists conduct home visits during pregnancy and early childhood to provide a wide array of services, including pregnancy consultations, parenting skill-building, newborn health visits, and services for children.

To emphasize the value of home-based support, compared to other modalities of care, one study of 20 evidence-based interventions in pediatric healthcare for the prevention of toxic stress from ACEs and found that 95% incorporated home visiting



plus parenting education and/or mental health counseling.<sup>794</sup> Many established programs have known benefits in preventing the incidence and intergenerational transmission of ACEs.<sup>87,1297-1303</sup> Projections of the Nurse-Family Partnership (NFP) on a national level anticipate that by 2031, services it provided from 1996 to 2013 will prevent 500 infant deaths, 42,000 child maltreatment incidents, 36,000 intimate partner violence incidents, 90,000 violent crimes by youth, 41,000 person-years of youth substance abuse, and 594,000 property and public-order crimes by youth.<sup>1303</sup> NFP has shown an overall 48% reduction in child abuse and neglect, improved parenting practices, lower rates of substance use in mothers and children, and reduced exposure to intimate partner violence, which are all ACEs.<sup>690,691,693-</sup>

<sup>695</sup> A systematic review of 21 RCTs on home visiting concluded that prenatal

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initiation of home visiting most successfully prevented child abuse, especially when mothers enrolled at or before a gestational age of 24 weeks.<sup>1304,1305</sup> Another common risk factor for ACEs is untreated parental mental illness, which can also be alleviated to a certain extent by home visiting programs. One study found that depressed mothers experienced improved symptoms by 8.8%, were 12.7% more likely to be screened for depression, and had 23.9% higher usage of evidence-based services following a positive screen.<sup>1297</sup>

Home visitation programs are inherently multi-generational and seek to address parental stress and readiness, identify needs and care directly for young children (typically up to two to five years old), and facilitate social support networks. In alignment with the Centers for Disease Control and Prevention's (CDC) Social-Ecological Model for violence prevention, home visiting professionals strengthen the parent-child relationship with specific tools and resources to secure a strong start in life.<sup>1089</sup> As they interact with children, professionals also model appropriate and constructive responses for the parents' benefit.<sup>1306</sup>

In addition to preventing ACEs, home visiting programs can also be effective

at reducing manifestations of toxic stress physiology, such as poor health and behavioral outcomes and dysregulation of immune, endocrine, metabolic, and neurological systems.<sup>87,1306</sup> The NFP program has shown, in five randomized controlled trials (RCTs), improved maternal employment, maternal/child attachment, child cognitive and language development, gains in academic achievement, fewer behavioral problems, lower rates of substance use, fewer arrests, convictions, and parole violations by age 19, lower use of public assistance and food stamps, and reductions in subsequent family births.<sup>31,690,692,1307,1308</sup> In a systematic review of 21 RCTs, home visiting was associated with improved cognition and developmental outcomes, especially language skills, improved externalizing and internalizing behaviors, reduced incidence of low birth weight, increased appropriate weight gain for children, increased routine immunizations, and reduced incidence of illness, injuries, and feeding problems, many of which are ACE-Associated Health Conditions (AAHCs).<sup>1304</sup>

In one year, from 2018 to 2019, over 50,000 families had received home visiting services in California, and Governor Newsom's 2019–20 budget increased funding to further increase that number.<sup>1309</sup> The federal [Maternal, Infant, and Early Childhood Home Visiting \(MIECHV\) Program](#) is administered through the California Department of Public Health (CDPH) and a wide range of local First 5 Commissions. All of California's home visitation programs are held to high evidence-backed standards, build local capacity, and implement ongoing quality improvement measures that amplify trauma-informed policies and practices.

The California Home Visiting Program (CHVP) administers funds from the federal MIECHV grant.<sup>1310,1311</sup> During the 2018–19 federal fiscal year, CHVP funded 23 local home visiting programs implementing one of two approved evidence-based home visiting models—Healthy Families America (HFA) or NFP. The CHVP is designed for overburdened families who have a history of or are at risk of further ACEs, including any of the following factors: intimate partner violence, insufficient income, unstable housing, less than 12 years of education, substance abuse, and mental illness. The program is a voluntary preventive intervention that pairs trained home visitors (i.e., nurses or paraprofessionals) with pregnant and newly parenting women to promote positive parenting and improve child health and development by providing parents the tools and know-how to independently raise their children. HVPs can be augmented to specifically address intimate partner violence.<sup>1312,1313</sup>

When the CHVP began in 2010, CDPH conducted the California Statewide Home Visiting Needs Assessment to understand where resources would have the greatest impact across the state for optimal and fair allocation of resources.<sup>1314</sup> Following the collection of a swathe of county-level indicators of health, birth outcomes,

economic activity, unemployment, public safety, child welfare, and other aspects of community well-being, the department was able to map out statewide needs and expand home visiting services into the regions that demonstrated the highest concentrations of risk factors.<sup>1315</sup> Federal funding for home visitation programs is contingent on a regular assessment schedule. An update is anticipated by the end of 2020 and will also include an analysis of the CHVP's impact thus far.

Another statewide home visiting initiative, called the CalWORKS Home Visiting Program, is supervised by CDSS and administered by California counties.<sup>1316</sup> New parents are provided guidance, services, and supports in prenatal, infant, and toddler care; infant and child nutrition; child developmental screening and assessments; parent education, parent and child interaction, child development, and child care; and job readiness and barrier removal. With over \$150 million in funding, the long-term mission of this voluntary program is to expand future educational and economic opportunities to ultimately improve the likelihood that participants will rise out of poverty.<sup>1317</sup> All state-funded home visiting programs are evidence-based, as determined by an evaluation using criteria from the US Department of Health and Human Services or CDSS and listed in the California Evidence-Based Clearinghouse for Child Welfare.<sup>977,1318</sup> Nurses and other home visiting professionals provide guidance, coaching, and access to health and social services and have been trained on intercultural competence, trauma-informed care, and disproportionality.<sup>1319,1320</sup> Services were modified as appropriate during the coronavirus disease 2019 (COVID-19) pandemic (see [ADAPTATIONS TO THE COVID-19 PANDEMIC](#)).

### Network of care

Early childhood professionals represent a critical part of the network of care for responding to ACEs and toxic stress. One primary avenue of reducing children's risk factors for poor outcomes is the support of parents. Successful interventions include support groups that focus on parents' everyday needs and responsibilities, expanded opportunities for parents to develop relationships with early childhood professionals, respite care for caretakers of children with developmental disabilities, informational and social events for parents, and Family Resource Centers that provide education and holistic, strengths-based services to families with young children.<sup>1325,1326</sup>

While providing resources to caregivers, early childhood professionals are well positioned to develop trusting relationships as a warm and attentive adult and deliver regular doses of nurturing care that, cumulatively, can help to directly buffer the toxic stress response in children. Positive or protective childhood experiences, like a close connection with a caring adult, can generate significant protective factors against toxic stress. For those who have experienced ACEs or

risk factors for toxic stress, buffering care can elevate short- and long-term health by fostering secure attachments and emotional self-regulation, and regulating the stress response.<sup>1327-1329</sup> Early childhood professionals benefit from training in trauma-informed practices and supports for self-care as well.<sup>1330-1333</sup> Provider well-being is a fundamental component of sustainable systems of care.<sup>1334-1338</sup>

## Parenting supports

When parents struggle to meet basic needs, negative outcomes can cascade.<sup>37</sup> Research has shown that children of low socioeconomic status experience higher rates of neglect (seven times as high), maltreatment (five times), and physical or sexual abuse (three times) than their peers in higher-income families.<sup>1173</sup> Similarly, the odds of an ACE score of three or more are doubled for children in families with incomes below 150% of the Official Poverty Measure (\$34,575 for a family of four in 2012), compared to those in higher income brackets.<sup>1102</sup> Psychological stress arising from economic hardship can lead to parental distress and inter-partner conflict, which are associated with detached and abusive parenting and hindered cognitive and socioemotional development in children.<sup>1339-1342</sup>

Numerous public programs are administered by the California state government.

- Family-oriented economic supports include tax benefits like the Earned

### ADAPTATIONS TO THE COVID-19 PANDEMIC

On March 17, 2020, at the beginning of the coronavirus disease 2019 (COVID-19) pandemic, the federal Health Resources and Services Administration approved the use of virtual home visits during the crisis.<sup>1348,1349</sup> Home visiting has truly been a lifeline to many families during the pandemic.<sup>1350</sup> Barely one month into the pandemic, approximately 44% of home visits were being conducted via video conferencing, 44% by phone, and 8% by text message; prior to that, all home visits had been in person.<sup>1351</sup> Home visiting programs are individually designed to be adaptable to the family's unique needs and have always included elements that are critical to

strong responses to the pandemic, including nurse engagement, hygiene training, and resource access.

High-quality and affordable child care is likewise essential in this era.<sup>1352</sup> By law, the California State Emergency Plan includes a statewide child care disaster plan, which demonstrates how the agency will address the needs of children, such as safe child care, before, during, and after a state of emergency.<sup>1353</sup> It assists local officials in training early learning and child care providers on disaster preparedness, recovery, and connecting people to local Office of Emergency Services local personnel and procedures.

Income Tax Credit; safety net programs like CalWORKS, the Supplemental Nutrition Assistance Program, the Women, Infants and Children Supplemental Food Program, the Housing Choice Voucher Program, and the Supplemental Security Income Program; child care subsidies; minimum wage; affordable health insurance; and paid family and medical leave.<sup>1102</sup>

- The CDPH's Comprehensive Perinatal Services Program serves pregnant women on Medi-Cal, from conception through 60 days postpartum; in addition to standard obstetric services, women receive enhanced clinical services in nutrition and psychosocial and health education, funded by a Title V Maternal and Child Health Block Grant.<sup>1343</sup>
- Starting Early is a primary-care-based and family-centered program that focuses on preventing child obesity and enhancing nutrition, starting in the third trimester. Studies show increases in exclusive breastfeeding and reduction in complementary foods for three-month-old infants.<sup>1344</sup> Funds are provided by the US Department of Agriculture.
- Cal-Learn is administered by CDSS for pregnant and parenting teens in CalWORKS-supported families. The program provides resources to help teens graduate from school, become independent, and form healthy families. Services include child care, coverage of educational expenses, and transportation support. In fiscal year 2017-18, over 3,000 teens participated.<sup>1263</sup>

## TERTIARY PREVENTION STRATEGIES

Many children receiving early care and education are experiencing ACEs, and supports are needed for children and families to help prevent or mitigate the toxic stress response.<sup>1345</sup> Tertiary prevention targets families where ACEs or other risk factors for toxic stress are already present, such as untreated parental mental health or substance use concerns, homelessness, domestic violence, or child maltreatment—along with evidence of toxic stress symptoms. The central aim of tertiary prevention activities is to reduce the magnitude of negative downstream consequences and halt any chance of recurrence.<sup>1346</sup>

In the healthcare sector, there is an important role for providers who are able to recognize and respond to the presence of symptoms of toxic stress, such as AAHCs—to treat these conditions in part by putting into place strategies to regulate the stress response and ameliorate related neuro-endocrine-immune-metabolic disruption. Evidence-based strategies in this vein include enhancing healthy relationships, sleep, exercise, nutrition, access to nature, mindfulness practices, and when needed, mental and behavioral healthcare (see the section **Tertiary Prevention Strategies in Healthcare** for more details).

In the early childhood sector, many programs provide services that braid primary, secondary, and tertiary prevention. For example, Family Resource Centers typically provide:<sup>1347</sup>

- Parent skill training
- Drop-in centers
- Home visiting
- Job training
- Substance abuse prevention
- Violence prevention
- Services for children with special needs
- Mental health or family counseling
- Child care
- Literacy
- Respite and crisis care services
- Assistance with basic economic needs
- Housing

Tertiary prevention programs may engage trained mental health counselors for intensive family preservation services (typically for up to two months), coordinate parent support groups to share best practices on positive parenting behaviors and attitudes, recruit parent mentors from stable, non-abusive families to serve as role models to families in crisis, and deploy mental health services to bolster effective communication and family cohesion.<sup>1325</sup> Especially when working with very young children, whose stress response systems are still developing, there is an enormous opportunity to mitigate long-term negative impacts. Promoting positive caretaking practices before individuals begin to develop significant toxic stress physiology and downstream consequences can slow or halt the progression of health sequelae while also educating parents to further diminish future incidents, addressing the root of the exposure and physiology, and bolstering opportunities for positive childhood experiences.<sup>41</sup>

CDSS administers the Family Stabilization Program, which is designed to provide a basic level of stability for families in crisis; it includes family crisis counseling, anger management services, and parenting classes. As of June 2018, nearly 3,500 cases were open. Family-oriented treatment programs for substance use that include parenting skill-building have also been shown to be effective. CDSS's CalWORKS Home Visiting Program also provides intimate partner violence and sexual assault, mental health, and substance abuse treatment, as needed.<sup>1316</sup>

## RECOMMENDATIONS

- Networks for referral and treatment systems should be strengthened toward greater effectiveness, accountability, and ease of navigation for children, adults, and providers.
- Cross-departmental collaboration should be enhanced, including setting



mutual goals and outlining clear accountability for maintaining such partnerships.

- Data integration across programs and agencies should be facilitated to better serve the needs of the family and child.
- Universal messaging on the prevention of ACEs and toxic stress should be produced and disseminated, and systems should be aligned to support these needs.
- The early childhood sector workforce should receive regular training in trauma-informed approaches, and competence may be reinforced through the licensing and accreditation process.
- Emphasis should be placed on equity by tailoring services and supports to local contexts and cultures, promoting meaningful parent engagement.
- Further research to better individualize prevention and intervention options for optimal outcomes and cost-effective approaches is necessary.

All segments of society have a role in supporting families as they raise healthy children. Assuring the well-being of all families is the cornerstone of a healthy society and healthy future generations, and requires universal access to support programs and services.