CONFRONTING ADVERSE CHILDHOOD EXPERIENCES: A RATIONAL POLICY ANALYSIS OF CALIFORNIA HOME VISITING MODELS

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EXECUTIVE SUMMARY

Too many Californians experience Adverse Childhood Experiences (ACEs)—abuse, neglect, and household challenges—the repercussions of which transcend generations and reverberate across society. While the biological response to stress is tolerable and even beneficial in small doses, without the buffering effects of a supportive family and safe environment, toxic stress such as that caused by numerous ACEs can be harmful to one's health and well-being. In the words of Governor Gavin Newsom, "cumulative adversity, particularly when experienced early in life, is a root cause of some of the most detrimental, longest lasting and costly health challenges facing our state and nation" (Bhushan et al., 2020 pg. ii). Additionally, ACEs are associated with many of society's most enduring ailments, including substance abuse, unemployment, poverty, crime, incarceration, and homelessness. As such, there are a variety of moral, ideological, and political objectives for reducing the prevalence of ACEs.

In 2019, then California Surgeon General Dr. Nadine Burke Harris announced the ambitious goal to reduce "the burden of ACEs and toxic stress in half in a generation" (Bhushan et al., 2020 pg. xxix). The California Department of Public Health (CDPH, 2023) estimates that two-thirds of Californians have experienced at least one ACE, and nearly one-fourth have experienced four or more ACEs. Fortunately, psychological resilience, one's ability to bounce back or process and adapt to stress and trauma, is a powerful antidote with the ability to attenuate the harmful repercussions of ACEs (Zheng et al., 2022; Morgan et al., 2021; Kelifa et al., 2020; Vieira et al., 2020; Poole et al., 2017; Ding et al., 2017; Shi et al., 2016; Sinclair et al., 2016; Dale et al., 2015; & Wingo et al., 2010). According to the Center on the Developing Child at Harvard University (2020), "the single most common factor for children who develop resilience is at least one stable and committed relationship with a supportive parent, caregiver, or other

adult." Home visiting programs, which help new parents and children form lasting healthy relationships, are uniquely suited to reduce ACEs and, by boosting resilience, lessen their ramifications.

In this paper, I conduct a rational policy analysis of the three home visiting models: Nurse-Family Partnership (NFP), Healthy Families America, and Parents as Teachers (PAT). After evaluating each home visiting model's cost, scalability, and equity, I find that while the NFP model is the most equitable, the PAT model is cheaper and more scalable. I offer recommendations for policy leaders and program administrators based on my findings.

As this policy paper highlights, there are trade-offs between home visiting models. Additionally, information gaps limited this analysis. For these reasons, I recommend the Little Hoover Commission conduct a more thorough evaluation of home visiting models and their outcomes in California. Moreover, to maximize resources and efficacy, I propose the following. First, the CDPH should make its Statewide Home Visiting Needs Assessment accessible online and actively engage stakeholders to make better-informed programming decisions. Additionally, the state should require greater collaboration between the California Home Visiting Program under the CDPH and the California Work Opportunity and Responsibility to Kids (CalWORKs) Home Visiting Program (HVP) under the California Department of Social Services. Lastly, the Legislature and Governor Newsom should support Senate Bill 1396, ensuring families can participate in the CalWORKs HVP for the recommended duration of the home visiting model. These recommendations intend to maximize the usefulness of home visiting at the least cost to the state, thereby ensuring the greatest number of children have a safe and nurturing start to life.

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"Although the world is full of suffering, it is also full of overcoming it."

– Helen Keller

INTRODUCTION

Too many Californians experience Adverse Childhood Experiences (ACEs)—abuse, neglect, and household challenges—the repercussions of which transcend generations and reverberate across society. While the biological response to stress is tolerable and even beneficial in small doses, without the buffering effects of a supportive family and safe environment, toxic stress such as that caused by numerous ACEs can be harmful to one's health and well-being. In the words of Governor Gavin Newsom, "cumulative adversity, particularly when experienced early in life, is a root cause of some of the most detrimental, longest lasting and costly health challenges facing our state and nation" (Bhushan et al., 2020 pg. ii). Additionally, ACEs are associated with many of society's most enduring ailments, including substance abuse, unemployment, poverty, crime, incarceration, and homelessness. As such, there are a variety of moral, ideological, and political objectives for reducing the prevalence of ACEs.

The California Department of Public Health (CDPH, 2023) estimates that two-thirds of Californians have experienced at least one ACE, and nearly one-fourth have experienced four or more ACEs. In 2019, leading ACEs researcher and then California Surgeon General Dr. Nadine Burke Harris announced the ambitious goal to reduce "the burden of ACEs and toxic stress in half in a generation" (Bhushan et al., 2020 pg. xxix). Fortunately, psychological resilience, one's ability to bounce back or process and adapt to stress and trauma, is a powerful antidote with the ability to attenuate the harmful repercussions of ACEs. According to the Center on the

Developing Child at Harvard University (2020), "the single most common factor for children who develop resilience is at least one stable and committed relationship with a supportive parent, caregiver, or other adult." Therefore, voluntary home visiting programs, which help new parents and young children form lasting, healthy relationships, are uniquely suited to reduce the incidence of ACEs and, by boosting resilience, lessen their ramifications.

In this paper, I conduct a rational policy analysis of the three home visiting models: Nurse-Family Partnership (NFP), Healthy Families America (HFA), and Parents as Teachers (PAT). The NFP model connects registered nurses with pregnant people expecting their first child to improve health and pregnancy outcomes (The California Evidence-Based Clearinghouse for Child Welfare (CBEC, 2020). The HFA model provides support for families with children under the age of five whose parents or caregivers have a history of interpersonal violence, poor mental health, substance abuse, or other stressors (CEBC, 2021). Lastly, the PAT model promotes school readiness for families with children from birth to Kindergarten (CEBC, 2024). After evaluating the cost, scalability, and equity of each home visiting model, I find that while the NFP model is the most equitable, the PAT model is cheaper and more scalable. While further examination is necessary, the results of this preliminary analysis highlight trade-offs between home visiting models–nuances worthy of consideration as policy makers determine how best to expend limited resources.

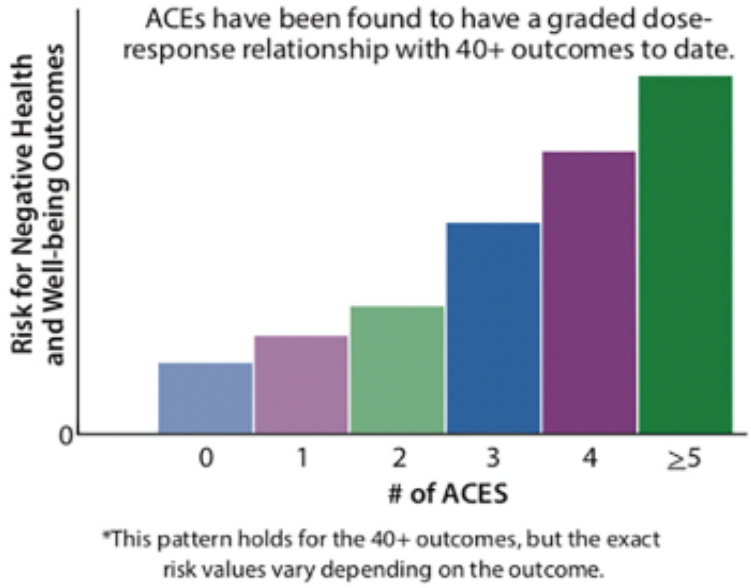
The rest of this paper unfolds as follows. I will first describe the prevalence and public health impact of ACEs nationwide and in California and justify public intervention. Then, I define and justify the rational policy analysis framework as an approach to evaluate the cost, scalability, and equity of the home visiting models. Finally, I make recommendations for policy leaders and program administrators.

BACKGROUND

Adverse Childhood Experiences and Toxic Stress

The term "Adverse Childhood Experience" was coined in the mid-1990s in a groundbreaking study by the Centers for Disease Control (CDC) and Kaiser Permanente on the effects of specified traumatic events experienced as a child on health and well-being later in life (CDC, 2021). ACEs refer to 11 particular adverse experiences (See Appendix 1), including abuse (physical, sexual, and emotional), neglect (physical and emotional), and household challenges (intimate partner violence, substance abuse, mental illness, parental divorce or separation, incarceration). The study revealed that ACEs are prevalent and impair health and well-being in a graded dose-response; Figure 1 below demonstrates that as the number of ACEs one experiences increases, so too does their risk of harm. (CDCl, 2021).

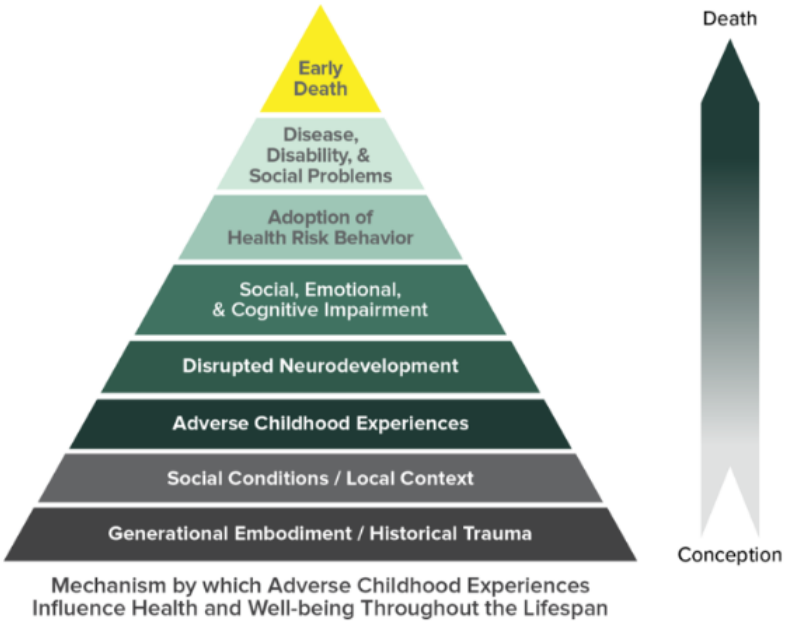
Figure 1: Graded Dose-Response Relationship between the Number of ACEs and Risk of Poor Health and Well-Being



Source: (Bhushan et al., 2020, p. 8)

The ACE Pyramid depicted in Figure 2 below illustrates how ACEs affect health and well-being. Morgan et al. (2022) assert that the negative association between ACEs and poor health "is attributable to the constant activation of alarmingly high stress hormone levels in children, contributing to physical and mental maldevelopment." Bushan et al. (2020) explain that toxic stress hinders growth and development and impairs the functioning of the immune, metabolic, and endocrine systems. Additionally, they explain that changes to the brain modify learning and memory and reduce impulse control, judgment, and executive functioning. Moreover, the body's toxic stress response can also alter DNA, resulting in "intergenerational transmission of toxic stress physiology can also perpetuate and exacerbate socially rooted inequities in health, achievement, socioeconomic mobility, and mortality" (Bhushan et al., 2020, pg. xxviii).

Figure 2: ACE Pyramid



Source: (CDC, 2021)

As indicated in Table 1 below, there is a strong association between ACEs and the leading causes of death in the United States. Compared to individuals with no ACEs, individuals who experience four or more ACEs are 2.1 times more likely to have heart disease, 2.3 times more likely to have cancer, and 2.6 times more likely to experience unintentional injuries—the three leading causes of death in the United States in 2017. Moreover, individuals who have experienced four or more ACEs are 11.2 times more likely to be diagnosed with Alzheimer's disease or dementia and 37.5 times more likely to attempt suicide compared to individuals who have never experienced an ACE.

Table 1: Association between ACEs and the Leading Causes of Death in the United States

Leading causes of death in the US, 2017	Odds ratios for > 4 ACEs (relative to no ACEs)
1. Heart disease	2.1
2. Cancer	2.3
3. Accidents (unintentional injuries)	2.6
4. Chronic lower respiratory disease	3.1
5. Stroke	2.0
6. Alzheimer's disease or dementia	11.2
7. Diabetes	1.4
8. Influenza and pneumonia	unknown
9. Kidney disease	1.7
10. Suicide (attempts)	37.5

Source: (Bhushan et al. 2020, p. xxvii)

Moreover, numerous studies indicate that experiencing ACEs increases the likelihood of engaging in health-compromising behaviors such as smoking, binge drinking, and risky sexual conduct (Center for Youth Wellness, 2014 & Giovanelli et al., 2016). ACEs also decrease the likelihood of graduating from high school (Giovanelli et al., 2016 & Metzler et al., 2017) and increase the likelihood of being unemployed (Center for Youth Wellness, 2014 & Metzler et al., 2017), having no health insurance (Center for Youth Wellness, 2014 & Metzler et al., 2017), living in poverty (Center for Youth Wellness, 2014 & Metzler et al., 2017), experiencing

homelessness (Roos et al., 2013), being involved in the justice system (Giovanelli et al., 2016 & Bhushan et al., 2020), and experiencing sexual violence as an adult (Center for Youth Wellness, 2014).

Consequently, aspirations to reduce the occurrence of ACEs are morally, ideologically, and politically motivated. There is a higher concentration of ACEs and toxic stress in marginalized communities due to systemic inequities (Bushan et al., 2020). As a consequence, the negative externalities stemming from ACEs and toxic stress are more significant there also (Bushan et al., 2020). Therefore, it is only just to ensure equitable access to preventative measures, ACE screening, and intervention/treatment. Moreover, from an ideological perspective, preventing ACEs and their ramifications is critical for self-sufficiency as well as cohesion and stability within families and the general population. Finally, the political objectives, which one could argue are both moral and ideological, include fostering a healthy, well-educated, productive society with low rates of poverty, crime, and homelessness.

According to Dr. Burke Harris, "Implementing the type of evidence-based, cross-sector responses necessary to decrease the burden of ACEs are not only an ethical and moral imperative, but critical to our economic vitality" (Bhushan et al., 2020 pg. ii). The Office of the California Surgeon General (CA-OSG) estimates that ACEs cost the state more than $102 billion annually due to direct healthcare costs resulting from ACE-related adverse health conditions ($10.5 billion) and loss of productive life due to poor health, disability, and early death ($102 billion) (Bhushan et al., 2020 pg. ii). Notably, the CA-OSG reasons that this estimate may not reflect the actual cost of ACEs as it only reflects expenditures related to asthma, arthritis, chronic obstructive pulmonary disorder, depression, cardiovascular disease, smoking, heavy drinking, and obesity (Bhushan et al., 2020 pg. ii). Left unaddressed, the CA-OSG estimates that ACEs

will cost more than $1.2 trillion over the next decade (Bhushan et al., 2020, pg. ii). Yet, these estimates do not account for the significant costs of addressing substance abuse, unemployment, poverty, crime, incarceration, and homelessness, which are chronic and resource-intensive.

The CDPH (2023) estimates that two-thirds of Californians have experienced at least one ACE, and nearly one-fourth have experienced four or more ACEs. In 2019, Dr. Burke Harris announced the ambitious goal to cut by half the effects of ACEs and toxic stress in one generation (Bhushan et al., 2020, p. 64). In collaboration with the Department of Health Care Services (DHCS), the CA-OSG developed a blueprint for achieving that goal, which calls for "coordinated efforts for public awareness and prevention, testing for early detection, and effective treatment" (Bhushan et al. 2020, p. 29). In 2021, Governor Newsom signed into law the ACEs Equity Act, which, beginning January 1, 2022, required all health insurance plans that cover pediatric services and preventative care to also cover ACE screenings (AB 428 (Committee on Health), Chapter 641, Statutes of 2021). Since then, more than 1.5 million Medi-Cal patients have been screened for ACEs (DHCS, 2024), and nearly $100 million have been or are intended to be invested in grant funds to support ACE screening (DHCS & CA-OSG, n.d.), research (Bhushan et al., 2020), and public awareness (CA-OSG, n.d.).

Resilience and the Role of Home Visiting

Morgan et al. (2021) identify resilience as a "key characteristic of youths who are successful in combating ACEs." Several studies have demonstrated the mediating (Zheng et al., 2022; Morgan et al., 2021; Kelifa et al., 2020; Vieira et al., 2020; & Ding et al.,2017) and moderating (Poole et al., 2017; Ding et al., 2017; Shi et al., 2016; Sinclair et al., 2016; Dale et al., 2015; & Wingo et al., 2010) effects of resilience. In other words, resilience buffers the harm of ACEs and toxic stress (Zetino et al., 2020; Young-Wolff et al., 2019; Beutel et al., 2017; & Youseff et al., 2016).

Numerous researchers have emphasized the importance of resilience-boosting interventions as a means of limiting the damaging effects of ACEs and toxic stress (Morgan et al., 2021; Park et al., 2023; Kelifa et al., 2020; Zheng et al., 2022; Ding et al. 2017; Dale et al., 2015; Shi et al., 2016; Wingo et al., 2010, & Sinclair et al. 2016).

According to the Center on the Developing Child at Harvard University (2020, para. 3), "the single most common factor for children who develop resilience is at least one stable and committed relationship with a supportive parent, caregiver, or other adult." Secure relationships with parents or caregivers are essential for cognitive, social, emotional, physical, behavioral, and moral development (National Scientific Council on the Developing Child, 2004). Moreover, studies indicate that "the presence of caregivers who are warm and responsive begins to buffer or prevent elevations in stress hormones" (National Research Council and Institute of Medicine Committee on Integrating the Science of Early Childhood Development, 2000, para. 34), thus helping to prevent toxic stress. These relationships also help establish other protective factors by ensuring children are nourished, safe, and have predictability in their lives (National Scientific Council on the Developing Child, 2004).

Voluntary home visiting programs both reduce the incidence of ACEs and promote resilience by connecting expectant or new parents and caregivers of young children (ages 0-5) with trained home visitors who support early child development, teach and model positive parenting practices, and educate parents about nutrition, child development, and safety (CDPH, 2024b). According to the CDPH (2024b), decades of research demonstrate their effectiveness in improving the health and welfare of vulnerable children and families. Home visitors connect families to additional services and resources and help parents and caregivers pursue education and employment (CDPH, 2024b). According to the CDPH (2024b), decades of research

demonstrate their effectiveness in improving the health and welfare of vulnerable children and families.

According to the California Budget and Policy Center, "Early childhood interventions can reduce or prevent adverse life experiences and improve outcomes for at-risk families" (Hutchful, 2018, para. 3). Moreover, researchers of one study on the proportion of adult health problems that are attributable to ACEs concluded that "by creating the conditions for healthy communities and focusing on primary prevention, it is possible to reduce risk for adverse childhood experiences while also mitigating consequences for those already affected by these experiences" (Merrick et al., 2019, para. 7). Indeed, the home visiting model uniquely provides "primary," "secondary," and "tertiary prevention" for young, at-risk children (Bhushan et al., 2020, p. 211). Evidence-based home visiting programs have demonstrated success in preventing the maltreatment of children. Home visiting programs also serve as a second line of defense by facilitating early detection and supporting the development of protective factors that serve to buffer the adverse effects of toxic stress; research indicates that home visiting programs improve health outcomes for pregnant people and babies, parent-child relationships, readiness for school, and economic stability (Traube et al., 2022). In severe cases, home visitors use evidence-based intervention strategies (Bhushan et al., 2020).

The availability of, model, and funding mechanism for home visiting varies across California. Home visiting is available in most counties, but service gaps exist. The California Home Visiting Program (CHVP) is supported by the federal Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program and operates in 34 counties (CDPH, 2022a). Administered by CDPH (2024b), there are three approved home visiting models under the CHVP: NFP, HFA, and PAT. In 2022, the CHVP provided 22,191 home visits across 4,324

households (United States Health Resources and Services Administration, n.d.). In addition to the CHVP, the California Department of Social Services (CDSS, n.d.) administers the California Work Opportunity and Responsibility to Kids (CalWORKs) Home Visiting Program (HVP), which currently operates in 42 counties and supports CalWORKs beneficiaries for 24 months or until their child turns two years old, whichever is later. The CalWORKs HVP has approved five home visiting models: NFP, HFA, and PAT, as well as the Early Head Start – Home Based Option and Home Instruction for Parents of Preschool Youngsters (CDSS, n.d.).

RATIONAL POLICY ANALYSIS

Overview

According to Meltzer and Schwartz (2019), rational policy analysis is used to systematically evaluate policy alternatives to address a particular problem. It is a means of problem-solving using logic and evidence to guide policy recommendations. The authors claim that in the absence of rational policy analysis, unsubstantiated policies may prevail—at significant cost, financially and in regard to moving the needle to solve a particular problem. Rational policy analysis is the process of defining a problem, identifying possible solutions (i.e., policy alternatives), and evaluating them based on specific objectives and transparent criteria. The goal, they assert, is to produce logical policy recommendations backed by evidence. Rational policy analysis demands thoughtful consideration of problems, justification of government intervention, and methodical deliberation of at least a few policy alternatives.

In this policy paper, I use Meltzer and Schwartz's (2019) five-step rational policy framework, which attempts to confront several criticisms of rational policy analysis. For example, while most rational policy models are sequential, Meltzer and Schwartz's approach is intended to be used iteratively as analysts learn new information. Their model also differs by not

assuming that rationality is based solely on maximizing an individual's economic well-being. The authors note that while analysts must evaluate policy alternatives based on selected criteria, economic efficiency is not required. By extension, Meltzer and Schwartz's (2019) approach also addresses the critique that rational policy analysis does not consider the political nature of policy making. Indeed, policy analysts may select political feasibility as a criterion for evaluation. Finally, they acknowledge the critique that rational policy analysis fails to recognize policy analysts' cognitive, time, and resource limitations but fundamentally disagree that perfect information and evaluation of a comprehensive set of alternatives are necessary for rational policy analysis. Instead, they argue that despite bounded rationality, "analysts can apply a well-reasoned, evidence-based rationale for a recommended course of action" (Meltzer & Schwartz, 2019, p. 24).

The Five-Step Approach to Rational Policy Analysis

The first step in Meltzer and Schwartz's (2019) five-step approach is to define the problem in a clear, concise, and focused problem statement that does not prescribe a solution. One way to understand and define problems is by considering the role of market failure resulting from externalities, overuse of public goods, imperfect information, high transaction costs, nonexistent or unpredictable markets, or monopolies and oligopolies. The authors advocate that policy analysts should know who their audience is, be self-aware and recognize their own biases, and understand the broader context of the problem. They stress the importance of distinguishing between the central problem, which must be the focus of the analysis, and related and underlying problems. Related problems may be a side effect of or occur alongside the central problem, and underlying problems may be too significant to address in the analysis.

Second, analysts must identify alternative policy options, which may, according to Meltzer and Schwarz (2019), include making incremental changes to the status quo, client suggestions, considering policies in other places, reviewing previous policies, considering how policies for an unrelated problem may be transferable to the problem at hand, or modifying some dimension of an existing policy. Additionally, they suggest considering standard modes of government intervention such as taxes, grants and subsidies, criminalization and decriminalization, regulation, and public services. Behavioral economics and design thinking also support the development of policy alternatives.

Next, analysts identify objectives and criteria. According to Meltzer and Schwartz (2019), objectives speak to the policy alternative's broader policy goals. They are moral, ideological, and political. Analysts use criteria to evaluate the benefits and drawbacks of each policy alternative under consideration. The authors encourage policy analysts to consult with their clients and other stakeholders to identify specific criteria but offer the following suggestions: effectiveness, equity, feasibility (political, administrative, and technical), cost, and efficiency. Finally, analysts must apply categorical and quantifiable measures to each criterion so they can be ranked.

Subsequently, analysts consider the pros and cons of each alternative using predetermined criteria, which, according to Meltzer and Schwartz (2019), reflect the interests and values of the policy analyst and their client. They instruct policy analysts to weigh each criterion's importance and note that failing specific criteria may automatically disqualify that policy alternative from further consideration.

The final step is to make one or more policy recommendations. Meltzer and Schwartz (2019) assert that policy analysts should recommend the policy alternative or alternatives that

best meet the established criteria but admit that there is rarely a single alternative that is wholly superior to the other policy alternatives. "It is the job of the policy analyst," according to Meltzer and Schwartz (2019, p. 189), "to evaluate these trade-offs, and recommend the alternative that, on balance, is superior to the others." If an analyst proposes multiple alternatives, they should consider the order in which the policy alternatives ought to be implemented based on the time and available resources. The recommended policy alternatives must be evaluated in the analysis using the established criteria. The authors also provide that instead of recommending a policy alternative or alternatives, a policy analyst may present several options for a client to select.

Policy Alternatives

As previously discussed, resilience buffers the effects of ACEs and toxic stress. Home visiting, which boosts resilience by strengthening parent-child bonds, offers an evidence-based tool for reducing ACEs and weakening their ramifications. A patchwork of home visiting models is in use throughout California. The NFP, HFA, and PAT home visiting models are authorized by both the CHVP and the CalWORKs HVP and are, therefore, the subject of this analysis.

Nurse-Family Partnership

The NFP model is a voluntary home-visiting program for low-income, first-time pregnant people, who according to the CEBC (2020), may have a high-risk pregnancy; experience housing instability; be involved in the justice or child welfare system; have a substance use disorder, severe developmental disabilities, or behavioral or mental health needs; experience intimate partner violence; or be at-risk of any of the challenges listed above. Participants receive regular one-on-one home visits from a registered nurse from pregnancy until their child's second birthday (CEBC, 2024). The NFP model aims to improve pregnancy outcomes (NFP, 2023). As such, participants must enroll within the first 28 weeks of pregnancy (CDPH, 2024b). Nurses

promote preventative health care, including prenatal care and family planning, and seek to further improve maternal health by encouraging participants to eat healthier and reduce their substance use, including tobacco, alcohol, and other illicit drugs (CEBC, 2020). Additional goals include improving child health, safety, and development and the family's economic self-sufficiency by helping parents pursue education and employment (CEBC, 2020).

According to the CEBC (2020), home visits are provided according to the following standardized home visiting schedule, though scheduling changes are permitted to meet patients' individual needs. During the first month of participation, nurses visit participants weekly. After the first month, nurses provide home visits biweekly until the baby is born, after which weekly visits resume for the first six weeks of the baby's life. Nurses provide biweekly visits between the ages of six weeks and 20 months and monthly home visits during the last four months of participation when babies are between 20 months and two years old. Though referred to as "home" visits, nurses may meet with participants in a variety of settings, including hospitals and clinics, schools (e.g., daycare and day treatment programs), community-based organizations (e.g., NFP sites), foster care and group homes, or online (CEBC, 2020). According to the CEBC (2020), the NFP model does not require parents to complete homework, and program materials are available in English and Spanish.

The CEBC (2020) categorizes the NFP model as both a "Home Visiting Program for Child Well-Being" and a "Home Visiting Program for Prevention of Child Abuse and Neglect" and finds that it is "well-supported by research evidence." The federal Title IV-E Prevention Services Clearinghouse also deems the NFP model "well-supported" by evidence (U.S. Department of Health and Human Services, n.d.-a).

Currently, 30 NFP affiliates serve more than 5,000 participants across 22 California counties (NFP, n.d.). Demographic data published by the NFP organization indicate that among California participants, the median age is 24, 80% are unmarried, 87% are enrolled in Medicaid, and the annual median household income is less than or equal to $6,000 (NFP, 2023). Moreover, 51 percent identify as white, 12% identify as Black or African American, 1% identify as Asian, 1% identify as American Indian or Alaska Native, 1% identify as Native Hawaiian or Pacific Islander, and 1% identify as multiracial (NFP, 2023). Of the participants, 65% identify as Hispanic and 31% identify as non-Hispanic (NFP, 2023).

Healthy Families America

HFA is a voluntary home visiting model for families with children under the age of five whose parents or caregivers have a history of interpersonal violence, poor mental health, substance abuse, or other stressors (CEBC, 2021). Participants receive regular one-on-one home visits from a family support specialist, beginning during pregnancy or within three months of birth (CEBC, 2021). According to the CEBC (2021), HFA serves to benefit both children and their parents or caregivers by improving parent/child relationships; promoting positive parenting; increasing child health, safety, development, and school readiness; reducing child maltreatment and family violence; enhancing maternal health and well-being; bolstering economic stability; and strengthening family resilience. Home visitors assess parent-child relationships and provide information and activities based on the child and parent or child's needs (CEBC, 2021). Additionally, home visitors provide routine child-development screenings, monitor potential delays, and refer children for services as needed (CEBC, 2021). Home visitors also connect each participating family to a medical provider and additional services such as housing assistance, job

training, substance use or mental health treatment, nutrition or financial assistance, and domestic violence resources (CEBC, 2021).

Families initially receive hourly home visits every week, and as they meet specific benchmarks, the frequency of home visits decreases to biweekly, monthly, and quarterly until graduation from the program (CEBC, 2021). Under the signature HFA model, home visits are provided for three to five years (HFA, n.d.-a). However, to accommodate a broader spectrum of families, an accelerated protocol allows low-risk families to go through the program at their own pace and graduate sooner (HFA, n.d.-a). Additionally, under the HFA child welfare protocol, families with children under the age of two, may, if referred by Child Protective Services, enroll in the HFA program (HFA, n.d.-a). According to the CEBC (2021), home visits are conducted in the family home or virtually, families are not required to complete homework, and materials are available in English and Spanish.

The CEBC (2021) classifies the HFA model as a "Home Visiting Program for Child Well-Being" and finds that the HFA model is "well-supported by research evidence." The federal Title IV-E Prevention Services Clearinghouse also deems the HFA model "well-supported" by evidence (U.S. Department of Health and Human Services, n.d.-b). Interestingly, despite its primary mission to prevent child maltreatment, the HFA model has not been classified by the CEBC as a "Home Visiting Program for the Prevention of Child Abuse and Neglect," though it is currently being reviewed for such designation (CEBC, 2021).

There are 45 HFA sites across 29 counties in California (HFA, n.d.b). No demographic data were immediately available for inclusion.

Parents as Teachers

PAT is a third voluntary home visiting program for expecting parents as well as parents and caregivers of at least one child between the ages of zero and five years old (CEBC, 2024), though PAT affiliates may choose to limit eligibility to pregnant people and families with children under the age of 3 (U.S. Department of Health and Human Services, 2019). According to the CEBC (2024), the goals of PAT are to strengthen parent/child bonds, improve health and well-being for the entire family, prevent child abuse and neglect, and promote self-sufficiency. However, the PAT model particularly emphasizes early learning and school success. The CEBC (2024) reports that participants may be teen parents, have low income and/or limited education, have a history of drug abuse in the family, experience chronic health conditions, have "custody disruptions," or come from tribal, military, immigrant, or refugee families.

Home visitors, called parent educators, promote positive parenting and follow specific curricula to promote early childhood development (CEBC, 2024). Additionally, parent educators conduct health and developmental screenings of children and track "developmental milestones" (CEBC, 2024). Parent educators also help families identify their needs and goals and connect them with resources (CEBC, 2024). Some affiliates screen parents for depression, substance abuse, and intimate partner violence (CEBC, 2024).

A family's demonstrated need determines the frequency of home visits. Unless otherwise indicated, the average PAT family receives one 60-minute home visit per month (CEBC, 2024). However, those considered to be higher-need receive biweekly visits (CEBC, 2024). In addition to personal home visits, PAT participants attend monthly group meetings (CEBC, 2024). The recommended duration of participation is at least two years (CEBC, 2024). The PAT model permits "home" visits to be held in a variety of settings, including hospitals and clinics, schools

(e.g., daycare and day treatment programs), community-based organizations (e.g., PAT sites), foster care, and group homes, as well as online (CEBC, 2024).

The PAT model requires parents to complete homework such as "follow-up activities in the curriculum for the parent educators to choose from based on parenting behaviors or child development they want to encourage" (CEBC, 2024, para. 11). According to the CEBC (2024), PAT materials are available in English as well as Arabic, Burmese, Chinese, French, German, Greek, Kinyarwandan, Korean, Lingala, Mandarin, Nepali, Portuguese, Somali, Spanish, Turkish, and Ukrainian.

As with the NFP model, the CEBC categorizes the PAT model as both a "Home Visiting Program for Child Well-Being" and a "Home Visiting Program for Prevention of Child Abuse and Neglect" (CEBC, 2024). However, unlike the NFP and HFA models, the CEBC only considers there to be "*promising* research evidence" (emphasis added) to support the efficacy of the PAT model (CEBC, 2024). However, dissimilarly, the federal Title IV-E Prevention Services Clearinghouse deems the PAT model "well-supported" by evidence (U.S. Department of Health and Human Services, n.d.c).

There are 57 PAT affiliates in California across 26 counties (PAT, n.d.). No demographic data were immediately available for inclusion.

Evaluation

In this rational policy analysis, I will evaluate each home visiting model based on three criteria: cost, scalability, and equity. I use a three-point Likert scale to rate each criterion, with 1, 2, and 3 corresponding respectively with low, medium, and high cost, scalability, and equity.

Table 2: Quantitative Criteria Matrix of Policy Alternatives

	Criterion 1: Cost	***Criterion 3: Scalability***	***Criterion 3: Equity***	***Total Score***
Alternative I: Healthy Families America	Rating: 2 Weight: .5 Total: 1	Rating: 2 Weight: .3 Total: .6	Rating: 2 Weight: .2 Total: .4	2
Alternative II: Nurse-Family Partnership	Rating: 1 Weight: .5 Total: .5	Rating: 1 Weight: .3 Total: .3	Rating: 3 Weight: .2 Total: .6	1.4
Alternative III: Parents as Teachers	Rating: 3 Weight: .5 Total: 1.5	Rating: 2 Weight: .3 Total: .6	Rating: 2 Weight: .2 Total: .4	2.5

Criterion 1 - Cost

Because each home visiting model is considered evidence-based, I evaluate the cost of administering each home visiting model. Cost refers to the fixed, variable, explicit, and implicit expenses incurred to implement a policy alternative (Meltzer & Schwartz, 2019). I give this criterion the most significant weight (50%) because policy alternatives may not be worth pursuing if they are not financially feasible.

A national evaluation of the HFA, NFP, and PAT home visiting models in 2022 revealed that the NFP model was the most expensive per family, followed by the HFA and PAT models, in that order: the average cost per family during the first year of home visits was $5,351, $3,238, and $2,568, respectively (Corso et al., 2022). Corso and colleagues (2022) found significant similarities in the types of costs incurred by each home visiting model. In particular, personnel accounted for nearly 80% of expenditures for each home visiting model. Home visitors, in particular, accounted for two-thirds of personnel employed by each home visiting model and, by extension, two-thirds or more of personnel-related expenses.

Of the three home visiting models, Corso et al. (2022) found that the NFP model spent a more significant share of its personnel costs on compensation for home visitors. The evaluation revealed that NFP home visitors make double what HFA and PAT home visitors do. The difference in compensation is consistent with the qualifications to be a home visitor for each home visiting model. Whereas NFP home visitors are required to be registered nurses, HFA and PAT home visitors must only have a high school diploma or GED. The researchers additionally attributed the differences in cost to findings that, on average, families participated in the NFP program longer than the others. While the results are specific to the first few years of implementation for each of the home visiting models and not ongoing costs, for purposes of this analysis, I assume that the cost discrepancies are persistent, given that the biggest difference in cost is tied to the qualifications of the home visitor.

Criterion 2 - Scalability

Administrative feasibility refers to the ease of implementing each policy alternative, considering institutional barriers such as inadequate infrastructure, knowledge (e.g., data), or personnel and how quickly the state could implement each policy alternative (Meltzer & Schwartz, 2019). Considering that the NFP, HFA, and PAT home visiting models have already been implemented in California, this analysis focuses on their scalability. Scalability refers to a program's ability to grow or expand (Cambridge University, n.d.) and, in this context, the ability to provide home visits to every family that is eligible. In 2019, the California Budget & Policy Center reported that roughly 20% of children who would likely benefit from home visits received them (Hutchful, 2019). The NFP program also estimates that current capacity is limited to just one-fifth of families eligible for home visits through the NFP model (NFP, n.d.). Given the unmet need for home visiting, I give this criterion the second most weight (30%).

Scaling the NFP program in California is impractical for two reasons. First, implementing the NFP model is significantly more expensive due to home visitors being registered nurses (Corso et al., 2022). At a time when the state is tightening its purse strings in response to a $73 billion budget deficit (Legislative Analyst's Office, 2024), NFP affiliates are unlikely to receive increased state funding. Second, scaling the NFP model is impractical considering the state's shortage of nurses. A 2022 workforce study conducted by UC San Francisco indicated that the state needs 18,952 more nurses, a shortage that the authors anticipate will continue until at least 2029 (Spetz et al., 2022). Moreover, NFP nurses must complete nine months of training, meaning that even without a shortage of nurses, it would take nearly one year to expand current NFP offerings (CEBC, 2020). Additionally, the NFP program is rigorous in the level of service it provides families. In roughly 2.5 years, families receive at least 53 private, 60- to 75-minute home visits (CEBC, 2020). For these reasons, the NFP model ranks low regarding scalability, as indicated by a score of one in Table 2.

The NFA model is cheaper, and there are fewer workforce barriers, given the minimal qualifications to become a family support specialist. However, scaling the HFA program would still require significant resources to serve more families. The frequency of home visits for HFA participants is intense. Hour-long home visits begin during pregnancy or shortly after that and continue regularly for three to five years (CEBC, 2021). Hourly home visits are provided weekly to start and become less frequent as families achieve specific benchmarks. Additionally, scaling the program may be difficult while maintaining programmatic intensity to prevent participant attrition. For these reasons, the HFA model is moderately scalable and receives a corresponding score of two in Table 2.

The PAT model is the least expensive of the three home visiting models (Corso et al., 2022), and like HFA family support specialists, very little education or training is required to become a PAT parent educator, thus limiting barriers to entry for the workforce (CEBC, 2021). Families receive biweekly or monthly hour-long visits based on the family's need/risk for at least two years, in addition to monthly group activities (CEBC, 2021). The PAT model offers less frequent home visits in conjunction with regular group activities, thereby reducing the logistical burden on administrators. Nonetheless, if families participate until their child turns five, the number of resources expended on one family drastically increases. Whereas a family who participates for two years, the minimum duration recommended by the PAT model, will receive 24-48 home visits, families who participate for five years could conceivably receive as many as 120 home visits. For these reasons, the PAT model is moderately feasible, as shown in Table 2, by a score of two.

Criterion 3 - Equity

Equity is about fairness—who benefits and who loses (Meltzer & Schwartz, 2019). In this case, I measure equity by the degree of targeted service delivery. Though ideally home visiting would be available for every family who wishes to participate, given constraints, prioritizing those with the greatest need is paramount. Home visiting is a powerful tool for leveling the playing field for families without resources. For example, "91% of eligible children received at least one developmental screening while participating in a CalWORKs Home Visiting Program compared to 23% of 0-3 children in Medi-Cal" (Children Now, 2023, pp. 10-11). I also measure equity by provider type and the qualifications of home visitors. Given the necessity of the other two criteria, I give this criterion the least weight (20%). I also acknowledge that each model can restrict participation to reserve services for those most in need.

Participation in each home visiting model is free and voluntary (CEBC, 2020; CEBC, 2021; and CEBC, 2024). Moreover, each model allows families to receive "virtual" home visits, which may enable participation for Californians in rural communities and be preferential for families who live in crowded environments or are otherwise uncomfortable having a home visitor come to their residence (CEBC, 2020; CEBC, 2021; and CEBC, 2024). These policies promote equity by making home visiting generally more accessible. All else being equal, this analysis evaluates the populations each model intends to serve and the qualifications of home visitors.

According to the CEBC (2020, 2021, & 2024), all three home visiting models are "designed, or [are] commonly used, to serve children, youth, young adults, and/or families who are similar to child welfare populations (i.e., in history, demographics, or presenting problems) and likely to include current and former child welfare services recipients." Home visits for this vulnerable population aid in ensuring all children have a quality start to life, regardless of their family background. Thus, all the NFP, HFA, and PAT models promote equity in this way.

The NFP model serves low-income individuals (often young) expecting their first child (NFP, 2023). By limiting participation to impoverished patients, based on eligibility criteria alone, the NFP model ranks high in regard to equity; low-income Californians are among the most likely to be uninsured (Danielson et al., 2023) and to delay or forgo care due to cost (Hamel et al., 2019). Therefore, home visiting levels the playing field by ensuring this vulnerable population can access critically important health services that more affluent Californians likely receive via health insurance.

Additionally, there are notable differences between the qualifications of NFP nurses, HFA family support specialists, and PAT parent educators. NFP home visitors must be registered

nurses with a bachelor's degree in nursing. NFP nurses must also complete a nine-month training program (CEBC, 2020). Supervisors must also be registered nurses with a bachelor's degree in nursing, although a master's degree is preferred, and complete additional training. Nurse supervisors meet with nurse home visitors one-on-one weekly and attend home visits with each family thrice yearly. Based on the high rigor of qualifications and involvement of supervisors, the NFP ranks high in terms of equity. Cumulatively, the NFP model receives an overall "high" score, as indicated in Table 2, by a score of three.

Though the HFA model allows both new and expectant parents to enroll and is, in that manner, less targeted or restrictive, the model is explicitly designed to support families with a history of "trauma, intimate partner violence, mental health issues, substance use disorder and other life stressors" (CEBC, 2021). However, each HFA affiliate may determine its eligibility criteria (U.S. Department of Health and Human Services, n.d.-b). The HFA model also allows families with children under two whom Child Protective Services refer to participate (HFA, n.d.a). Considering the HFA model's high degree of targeted program delivery to a particular, high-risk population, based on program eligibility alone, the model ranks high concerning equity.

Moreover, according to CEBC (2021), HFA family support specialists must have a high school diploma or GED, complete a four-day training, and have experience providing services to parents or children. Supervisors must have a bachelor's degree and three years of experience, or a master's degree, and complete additional training. Program managers must have a bachelor's or master's degree or commensurate experience (CBEC, 2021). Considering the minimum qualifications for family support specialists, the HFA model ranks low in equity. Because the HFA model has very targeted service delivery, but the education and training of home visitors is

minimal, the HFA model ranks moderately overall regarding equity, as indicated in Table 2 by a score of two.

The PAT model is "to be used in any community and with any family during early childhood. However, many PAT affiliates prioritize families with high-risk characteristics such as teen pregnancy, limited income, low educational attainment, history of substance abuse in the family, and chronic health conditions" (U.S. Department of Health and Human Services, n.d.c). Therefore, the PAT model is moderate in terms of equity because its eligibility criteria are the least restrictive, thus doing the least to ensure that limited home visiting resources support the neediest Californians.

Like HFA family support specialists, PAT parent educators must have a high school diploma or equivalent, although a bachelor's degree or at least 60 hours in childhood education or a related field is preferred. Parent educators must also have two years of experience working with parents and children and complete a three-day foundational training course and a two-day model-implementation course. When PAT affiliates provide home visits for families with children over three, parent educators must take a second foundational training. Additional training is available for parent educators working with special populations. Parent educators must also complete 20 hours and 15 hours of professional development in their first and second year of practice, respectively, and 10 hours annually after that. Based on provider qualifications, the PAT model is moderate in regards to equity; while the entry qualifications are minimal, the PAT model requires continual professional development. Overall, the PAT model is moderate, and therefore, receives an overall score of 2 regarding equity.

Trade-Offs

In summary, the NFP model is expensive due to the high cost of compensating nurses for home

visits. The NFP model is, by contrast, very highly equitable. The model restricts participation to poor, first-time pregnant people, the majority of whom are young and unwed. Additionally, nurse home visitors are well-educated and complete far more rigorous training than HFA family support specialists and PAT parent educators. However, the NFP model lacks scalability. The NFP model would be nearly impossible to expand due to the state's dismal budget situation and shortage of nurses. Moreover, due to the length of training required of nurse home visitors, even if the state had unlimited funds and an adequate supply of nurses, it would still take nearly a year minimum to scale up the NFP program.

The cost, scalability, and equitableness of the HFA model are all moderate. The cost of implementing the HFA model is less than the NFP model but more than that of the PAT model. The HFA model supports vulnerable, high-risk families with a history of trauma, yet family support specialists are required to have very little education and training. There are minimal barriers to entry for the workforce needed to scale the HFA program in California, but the model requires considerable staff resources to provide frequent home visits over a minimum of three years. Funding remains a significant obstacle.

Lastly, the PAT model is the cheapest and is also scalable. Its offerings for families are less individualized thereby reducing the administrative burden on staff, and there are minimal workforce barriers, as parent educators are not required to have completed any higher education, and the training they are required to complete is minimal. However, funding remains a considerable barrier. Notably, the PAT program has the least targeted service delivery and therefore has the lowest equity score. The program is designed to serve all families, though participation is often restricted to those with higher needs.

Recommendations

Based on my preliminary rational policy analysis of the HFA, NFP, and PAT home visiting models, I offer the following recommendations:

1. State legislators and the Governor should encourage the Little Hoover Commission to conduct an in-depth evaluation of California's home visiting programs.

This rational policy analysis serves as a starting point for further evaluation by highlighting differences between each home visiting model. Information gaps and a lack of data limit this analysis. For example, while demographic data of NFP participants was readily available, that information was not immediately accessible for participants of the other two home visiting models. Additionally, this analysis does not contemplate the administrative resources (e.g., technology, staff, office space) required to facilitate home visits, attrition rates among staff and participants, nor the effectiveness of each home visiting model at reducing ACEs, specifically. Moreover, beginning in Fiscal Year 2024-25, the CHVP will begin administering funds for two additional evidence-based home visiting models: Home Instruction for Parents of Preschool Youngsters, which is currently authorized by the CalWORKs HVP administered by CDSS, and Family Connects (CDPH, 2024a).

The Little Hoover Commission (Commission) "has broad and independent authority to evaluate the structure, organization, operation and function of every department, agency and executive branch of state government, along with the policies and methods for appropriating and administering funds. [...] They instead explore how programs can and should function today and in the future" (Little Hoover Commission, n.d., para. 2-3). As such, the Administration and Legislature may wish to encourage the Commission to conduct a formal evaluation of state-approved home visiting models.

The Commission would be able to dedicate more time and resources to the endeavor and have a greater ability to obtain additional data to overcome the limitations of this analysis. For example, the Commission should collect cost information to determine if the results of the national-level analysis cited in this analysis hold in California. The Commission could identify cost challenges and potential savings with such data. Additionally, a study of attrition rates and workforce challenges would contribute greatly to evaluating scalability. Moreover, demographic data for participants and home visitors, as well as more detailed information about program offerings around language access, for example, would strengthen the evaluation of the equitableness of each home visiting model. Lastly, further analysis of program outcomes is warranted to determine if one program is superior at reducing ACEs, specifically. Future analysis should also include an evaluation of additional home visiting models.

2. The CDPH should make its federally mandated Statewide Home Visiting Needs Assessment public and directly engage stakeholders to improve programming decisions.

Federal Title V Maternal and Child Health Block Grant funding for the CHVP is contingent upon the CDPH conducting a statewide needs assessment (CDPH, 2022b). The assessment intends to "identify high-risk communities and understand the needs of families in those communities; inform decision-making to expand home visiting services to more high-need families; identify collaborations to strengthen home visiting services and referrals to needing services for participating families; and strengthen technical assistance for local home visiting programs" (CDPH, 2022b, para. 3). Moreover, the assessment is required to "assess the quality and capacity of existing home visiting programs in California" as well as "California's capacity to provide substance abuse treatment and counseling services" (CDPH, 2022b, para. 5). The CDPH (2022b) completed a statewide needs assessment in 2010 and was due to complete a

second assessment in 2020. Assessments are submitted to the Federal Maternal and Child Health Bureau of the Health Resources and Service Administration but are not accessible on the CDPH's website, thus undermining the use of such critical data. The CDPH should make the assessment publicly available and engage with stakeholders directly to ensure that such data inform local programmatic decisions.

3. The Administration should require greater collaboration between the CHVP and CalWORKs HVP to streamline requirements for home visiting administrators.

The NFP, HFA, and PAT programs receive funding from both the CDPH and the CDSS through their respective home visiting programs. The CHVP administered by the CDPH is funded by federal MIECHV grant funds and augmented by the state General Fund (Gaither, 2023), whereas the CalWORKs HVP is financially supported by federal Temporary Assistance for Needy Families block grant funds (Senate Committee on Budget and Fiscal Review, 2019). After interviewing more than 50 individuals involved in the implementation of California home visiting programs, Children Now (2023, p. 15), a nonprofit children's advocacy organization, reported that "The wide array of programmatic policies or guidelines coming from the two state departments also create barriers, confusion, and duplicative efforts, which are further exacerbated by the lack of consistent terminology and definitions across programs." The CDPH and CDSS should identify opportunities to improve coordination and collaboration between the CHVP and CalWORKs HVP and determine whether additional federal funds may be leveraged and efficiencies created by doing so.

4. The California State Legislature should pass and the Governor should sign Senate Bill 1396, introduced by Senator Marie Alvarado-Gil.

Existing law requires the CalWORKs HVP under CDSS to provide home visits for two years or until the child turns two, whichever is later (California Welfare and Institutions Code § 11330.6(a)(2)). However, the HFA model provides home visits for three to five years, and two years is the minimum recommended participation length for families in the PAT program. In contrast, the CHVP under the CDPH funds home visiting for families with children from birth through age five. According to Children Now (2023, p. 12), this discrepancy "leaves home visiting providers scrambling once they are approaching the end of one funding stream by requiring them to place a family under a different funding stream, risk losing the family completely, or offer locally available resources that may not be as robust, has long waitlists or is not responsive."

Senate Bill 1396 of 2024 would improve the continuity of service delivery by requiring the CalWORKs HVP to allow families to participate for the recommended duration of the applicable home visiting model (Hopkins, 2024). The Assembly Health Committee bill analysis noted, "By not allowing participants to receive the full benefit of the home visiting program design, the state loses the opportunity to gain the full benefit of the investment" (Hopkins, 2024, para. 12). To maximize the usefulness of CalWORKS HVP, the Legislature and Governor should support Senate Bill 1396.

CONCLUSION

ACEs, as a source of toxic stress, have pernicious effects on the health and welfare of hundreds of thousands of Californians and are, therefore, the cause of many of society's ailments. However, there is hope. Researchers have determined that resilience buffers the effects of toxic stress, thus thwarting its deleterious consequences. As such, tools such as home visiting, which reduce ACEs and foster resilience, offer promising solutions. However, as this policy paper

highlights, there are trade-offs between home visiting models that warrant due consideration. This preliminary rational policy analysis is a starting point for further evaluation. The state's investment in home visiting programs dates back to 2019, just five years ago. A more deliberative rational policy analysis would help in fleshing out the nuances of each home visiting model and guide further decisions related to the investment and availability of home visiting in California.

Appendix. ACEs Definitions

All ACE questions refer to the respondent's first 18 years of life.

- Abuse
    - **Emotional abuse:** A parent, stepparent, or adult living in your home swore at you, insulted you, put you down, or acted in a way that made you afraid that you might be physically hurt.
    - **Physical abuse:** A parent, stepparent, or adult living in your home pushed, grabbed, slapped, threw something at you, or hit you so hard that you had marks or were injured.
    - **Sexual abuse:** An adult, relative, family friend, or stranger who was at least 5 years older than you ever touched or fondled your body in a sexual way, made you touch his/her body in a sexual way, attempted to have any type of sexual intercourse with you.
- Household Challenges
    - **Mother treated violently:** Your mother or stepmother was pushed, grabbed, slapped, had something thrown at her, kicked, bitten, hit with a fist, hit with something hard, repeatedly hit for over at least a few minutes, or ever threatened or hurt by a knife or gun by your father (or stepfather) or mother's boyfriend.
    - **Substance abuse in the household:** A household member was a problem drinker or alcoholic or a household member used street drugs.
    - **Mental illness in the household:** A household member was depressed or mentally ill or a household member attempted suicide.
    - **Parental separation or divorce:** Your parents were ever separated or divorced.

    - **Incarcerated household member:** A household member went to prison.
- Neglect
    - **Emotional neglect:** Someone in your family never or rarely helped you feel important or special, you never or rarely felt loved, people in your family never or rarely looked out for each other and felt close to each other, or your family was never or rarely a source of strength and support.[2]
    - **Physical neglect:** There was never or rarely someone to take care of you, protect you, or take you to the doctor if you needed it[2], you didn't have enough to eat, your parents were too drunk or too high to take care of you, or you had to wear dirty clothes.

Source: (CDC, 2021)

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