



MEDIA ALERT
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NEW RESEARCH SHOWS IMPACT OF ADVERSE CHILDHOOD EXPERIENCES AND TOXIC STRESS COSTS \$112.5 BILLION PER YEAR TO CALIFORNIA

SACRAMENTO (Jan. 28, 2020) – The California Surgeon General today shares new research from the Pacific Institute for Research & Evaluation (PIRE) that identifies the health-related costs of Adverse Childhood Experiences and toxic stress to California cost \$112.5 billion annually. This estimate includes direct ACEs-related health care expenditures totaling \$10.5 billion annually, with an additional \$102 billion in the cost of disease burden, including premature death and years of productive life lost to disability.

Additional key findings on the cost to California include:

- The annual direct healthcare expenditures due to ACEs is \$10.5 billion, and the cost in disability and years of productive life lost to ACEs equals \$102 billion, for a total annual cost of \$112.5 billion.
- Researchers analyzed five ACEs-linked conditions (asthma, arthritis, COPD, depression, and cardiovascular disease) and three health risk factors (lifetime smoking, heavy drinking, and obesity).
- The study controlled for the effect of health risk factors, and the strong relationship between ACEs and negative health outcomes persisted net of health risk factors.
- The researchers found that any exposure to ACEs, which include abuse and neglect, was linked to an increase in risky behaviors and life-threatening diseases.
- A higher number of ACEs translates to higher costs. Only 16% of the population have 4+ ACEs, but they account for 36% of total ACEs-related healthcare costs.
- 15% of the state’s healthcare spending related to ACEs is for ACE-related health risk factors (smoking, heavy drinking and obesity).

Updated data from the California Department of Public Health indicates that the prevalence of ACEs in California has increased since 2013. The 2017 Behavioral Risk Factor Surveillance System (BRFSS, 2017) reports that 63.5 percent of Californians have experienced at least one of the ACEs as compared to 61 percent in 2013, and 17.6 percent of Californians have experienced four or more.

“California is leading the way on addressing ACEs and toxic stress as a public health crisis because we recognize it as a key preventive measure to improve health and societal outcomes for our state’s residents for generations to come,” said Governor Gavin Newsom. “California is



stepping up like never before to cut ACEs and toxic stress and we are fortunate to have a leader like Surgeon General Dr. Nadine Burke Harris leading the charge.”

Previous research from the Office of the California Surgeon General also shows that individuals who experienced ACEs are at greater risk of numerous [ACE-Associated Health Conditions](#), including nine of the 10 leading causes of death in the United States, and that early detection, evidence-based intervention, and trauma-informed care can improve outcomes.

"Adverse Childhood Experiences and toxic stress will cost California over a trillion dollars in the next 10 years. While implementing the type of evidence-based, cross-sector responses necessary to decrease the burden of ACEs is never easy and takes time, we simply can't afford not to do it," said California Surgeon General Dr. Nadine Burke Harris. "This research demonstrates that our imperative is not only ethical and moral, we have a strong economic imperative as well."

The Office of the California Surgeon General and the state Department of Health Care Services (DHCS), recently announced phase one of the [ACEs Aware](#) initiative, a first-of-its-kind statewide effort to train and reimburse for California health care providers to screen patients for Adverse Childhood Experiences (ACEs) that increase the likelihood of ACE-Associated Health Conditions due to toxic stress; a \$160.8 million initiative over three years.

The Governor's Office of Planning and Research announced a [\\$9 million request for proposals](#) to address health impacts of ACEs through a collaborative Precision Medicine approach.

In his Administration's 2020-21 State Budget proposal, Governor Gavin Newsom included a \$10 million one-time General Fund expenditure for the development of an Adverse Childhood Experiences (ACEs) public awareness campaign and cross-sector training, led by the Office of the California Surgeon General to raise awareness and strengthen response networks.

The study published today in PLOS ONE "[Adult Health Burden and Costs in California During 2013 Associated with Prior Adverse Childhood Experiences](#)" was conducted by the Pacific Institute for Research & Evaluation (PIRE) with assistance from Center for Youth Wellness (CYW) and funded by JPB Foundation.

To study ACEs-related health outcomes, the researchers looked at associations between ACEs and 7 health outcomes from California and 13 other states, using four years of federal health data from the Behavioral Risk Factor Surveillance System. After identifying asthma, arthritis, depression, cardiovascular disease, and COPD as independently associated with ACEs, the researchers estimated healthcare costs using other well-established data algorithms.



The study was led by research scientists Ted R. Miller, PhD and Geetha M. Waehrer, PhD, of PIRE and the team involved in the study included Deborah L. Oh, MSc, PhD, Sukhdip Purewal Boparai, MPH, Sheila Ohlsson Walker, PhD, Sara C. Silverio Marques, MPH, DrPH, and Nadine Burke Harris, MD, MPH.

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ABOUT THE OFFICE OF THE CALIFORNIA SURGEON GENERAL

The role of California Surgeon General was created in 2019 by Governor Gavin Newsom to advise the Governor, serve as a leading spokesperson on matters of public health, and drive solutions to our most pressing public health challenges. As California's first Surgeon General, Dr. Nadine Burke Harris has established early childhood, health equity, and ACEs and toxic stress as key priorities. Dr. Burke Harris has set a bold goal to reduce ACEs and toxic stress by half in one generation.

ABOUT ACES AWARE

As of January 1, 2020, Medi-Cal providers can be paid for ACEs screenings for Medi-Cal patients. California is offering a free provider training on and payment for screening pediatric and adult patients for ten categories of ACEs, which include abuse, neglect, and household dysfunction. The [two-hour online curriculum](#) is easy to access for a wide range of health care professionals and provides continuing medical education (CME) and maintenance of certification (MOC) credits. Through the ACEs Aware initiative, Medi-Cal providers can receive training, clinical protocols, additional resources, and payment for screening children and adults for ACEs. By screening for ACEs, providers can better determine the likelihood a patient is at increased health risk due to a toxic stress response, which can inform patient treatment. Trauma-informed care recognizes and responds to the signs, symptoms, and risks of trauma to better support the health needs of patients who have experienced ACEs and toxic stress. Additional details about the healthcare provider training and ACEs Aware initiative are available at www.ACEsAware.org.