Policy Considerations for Routine Screening for Adverse Childhood Events (ACEs)

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In October of 2021, California enacted SB 428, the ACEs Equity Act, which mandates commercial insurance coverage of adverse childhood experiences (ACEs) screening in addition to ACEs screening already covered for the state's Medicaid enrollees. California is the first state to expand ACEs screening coverage, but it is possible other states may follow similar paths given the increasing interest in policy action to address ACEs. Increase in stress and trauma among Americans and evidence of the disproportionate impact ACEs have on historically marginalized and disadvantaged communities has increased the urgency with which policy makers, clinicians and researchers have sought to address ACEs and encourage trauma-informed care delivery to better meet the needs of patients. Family practice and other primary care providers are at the core of prevention and are arguably the largest group of stakeholders at the forefront of movements toward increasing ACEs screenings. However, debate persists among policy makers, clinicians, and researchers on whether the ACEs screening approach improves outcomes and avoids harms. In this health policy article, we describe key issues under debate with regards to ACEs screening and estimate potential change in screening utilization and expenditures due to the new ACEs legislation in California. The lessons being learned in California are applicable to other states and the US as a whole. (J Am Board Fam Med 2022;35:862–866.)

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In late 2021, California enacted SB 428, the ACEs Equity Act, which mandates commercial insurance coverage of adverse childhood experiences (ACEs) screening. California has covered ACEs screening for Medicaid enrollees since January 2020.¹ California is the first state to expand ACEs screening coverage; more than 35 states introduced similar legislation in 2020.² Even without legislation, ACEs screening may increase across the country given advocacy for action to address ACEs. The COVID-19 pandemic, which has brought families profound changes and stressors, has likely further increased ACEs and catalyzed the recognition of ACEs as a problem.³ This has important implications for primary care providers across the country given their roles at the forefront of preventive care, screening, and referrals to interventions and services. We conducted an independent, evidence-based analysis of the ACEs Equity Act at the request of the California Legislature.⁴ Here we summarize our findings regarding key issues in ACEs screening and potential impact of California's law on screening utilization and expenditures.

Purpose of ACEs Screening

ACEs – potentially traumatic events that occur in childhood – are associated with chronic health

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conditions including obesity, asthma, diabetes, mental illness, and substance use disorders that may arise before or during adulthood.⁵ Examples of ACEs include abuse (physical, sexual or emotional), neglect (physical or emotional), and household dysfunction (including parental substance abuse⁶). According to the National Survey of Children's Health, about 30% of children report having experienced 1 ACE, and about 14% experienced 2 or more ACEs. An estimated 61% of adults have at least 1 ACE and 16% have had 4 or more ACEs.⁷

ACEs screening is increasingly seen as a critical component of trauma-informed care to identify patients who may be experiencing toxic stress due to ACEs. Various technical assistance tools^{8,9} recommend establishing a solid foundation for trauma-informed care before incorporating ACEs screening into practices, by (1) Training providers and staff involved in screening so it is completed in a sensitive manner; (2) Establishing a workflow, including deciding which screening tool to use (likely determined by payor reimbursement) and who, how, and when it will be conducted; (3) Avoiding rescreening of adults to reduce potential retraumatization, but screening children and adolescents periodically to capture new ACEs that may occur after initial screening; and (4) Having an established referral network, recommended interventions, patient education, and other follow-up actions in place to support patients after screening. A trauma-informed care system prepares providers for a variety of patient emotional responses to screening and potential vicarious trauma for the provider.¹⁰ These reactions may require immediate intervention or follow-up mental health care.

The ability of ACEs screening to improve health outcomes hinges on its capacity to detect specific childhood adversities and toxic stressors as well as providers' capability to connect patients to appropriate services. While population-level data point to a dose-response relationship where higher ACE scores were more strongly associated with worse health outcomes,¹¹ there is limited evidence that ACEs screening increases referrals to interventions and insufficient evidence to determine if ACEs screening impacts subsequent health care service utilization or improves health outcomes.¹² Recently published research further finds most primary care practices struggle to obtain behavioral health services for children in need.¹³

ACEs Screening Tools

There are several questionnaire-based tools used to measure ACEs in children (eg, PEARLS,¹⁴ TESI,^{15,16} WCA¹⁷) and adults (eg, ACE Study,¹⁸ ACEs Questionnaire,^{19,20} BRFSS ACE Module,²¹ PHL ACEs Survey,²² CES²³). Each tool uses a raw sum of the number of ACEs experienced (regardless of frequency, severity, or number of possible ACEs available in the tool) to determine whether a person may be at higher risk for negative health outcomes. Recent work identifies additional possible key ACEs that are not currently measured by the typical screening tools.²² These include: peer victimization, isolation from peers, peer rejection, property victimization, racial discrimination, exposure to community violence, death or serious illness of a close relative, low socioeconomic status and experience with the foster care system.

ACEs screening tools weigh all ACEs equally without evidence that each ACE has the same impact on each person's health outcomes. In addition, evidence of the predictive validity of the tools themselves is lacking.²⁴ Screeners are unable to predict that a person with a high ACE score will actually go on to develop a specific negative health outcome, despite the body of literature documenting population-level associations between early adversity and adult health outcomes.²⁵ As such, a number of recently published commentaries in the peer reviewed literature call for caution with regards to ACEs screening.^{26–29}

California's ACEs Screening Program

California's legislature considers utilization and costs when assessing health legislation. Thus, our analysis calculated the impact of SB 428 on ACEs screening utilization and subsequent state expenditures. This calculation demonstrates both potential uptake of screening if covered by commercial insurance based on prior screening behavior and the potential fiscal impact to the payors and patients. Through its current ACEs Aware Program, California trains providers to conduct ACE screenings then reimburses them \$29/screen for Medicaid (Medi-Cal in California) enrollees on an annual basis for children and 1-time for adults. Enactment of the ACEs Equity Act began in 2022, requiring commercial plans and policies regulated by California to cover ACEs screenings. In our analysis of projected impacts of SB 428 on utilization and

costs, we first estimated programmatic impact of ACEs Aware Program on Medi-Cal enrollees and projected these to commercial plans. Approximately 264,000 unique Medi-Cal beneficiaries were screened during the first 9 months of 2020,³⁰ which translates to 7% of Medi-Cal enrollees under 18 years and 2% of adults screened. During this time period, more than 17,100 individuals (including 9700 Medi-Cal providers) completed the ACEs screening training.³⁰ We assumed a robust first year uptake in patient screening for commercial enrollees such that 15% of commercial enrollees under 18 years and 5% of adults under 65 years will be screened in year 1, or about 1.04 million enrollees. Assuming a \$29 reimbursement per ACEs screening for commercial plans/policies, total net annual expenditures in the state for payer and enrollee premiums would increase by \$36,060,000 in the first year, translating to an 0.03% increase in overall in expenditures.

Potential Harms of ACEs Screening

A trauma-informed system to conduct screenings includes properly training providers to conduct and discuss screening, sufficient time to conduct the screening and discuss the health risks of these past (or current, for children) traumas, knowledge about services available to address ACEs, and the ability to refer patients to proper follow-up care if needed.^{31,32} Without these elements, screening risks offering no benefit to the patients.

One potential harm of screening is the possibility of "labeling" patients as at-risk who might not otherwise experience any related health problems despite their ACEs.²⁷ This may increase feelings of stigmatization, discrimination, or other negative effects. Retraumatization is also a potential harm when patients are asked to think about and potentially describe past traumas. This is of particular concern if adequate services are not available to address those traumas.³³ Concerns have also been raised that patients might face legal repercussions as a result of ACEs screening, such as increasing unnecessary Child Protective Services (CPS) reports,³⁴ although limited evidence shows no relationship.³⁵

Overburdening a busy outpatient visit could be another harm. However, in a feasibility study, ACEs screening was found to add 5 or fewer minutes for 75% of visits, and no more than 15 minutes, to a family medicine outpatient visit.³⁶

ACEs Screening and Health Equity

For ACEs screening to impart equitable health benefits, access to effective interventions is needed for all who have high ACE scores on screening. All providers and their communities need access to appropriate interventions and services to address ACEs, which may include home visiting programs, familychild therapy, and social workers. This level of support is often lowest in rural³⁷ and socioeconomically disadvantaged areas³⁸ and in race/ethnic groups³⁹ that have been historically marginalized. Patients also need adequate funding, time off work, and transportation to access the available services. Some have voiced concerns that using a screening strategy to identify those who need services may continue to support a system that has historically failed lowincome families of color by requiring a referral from a provider before a person can access services.⁴⁰

Future Directions

Primary care providers are at the core of prevention and are at the forefront of movements toward increasing ACEs screenings. Awareness of the issues described here regarding ACEs screening may be an important first step for providers as debate persists among policy makers, clinicians, and researchers on whether ACEs screening approach improves outcomes and avoids harms. However, the increase in stress among Americans⁴¹ and evidence of the disproportionate impact ACEs have on historically marginalized and disadvantaged communities⁴² has increased the urgency with which policy makers, clinicians, and researchers seek to address ACEs and encourage trauma-informed care delivery to better meet patient needs. We may see states across the US enact ACEs screening mandates regardless of the uncertainties and potential risks.² Further research regarding the impact of ACEs screening on health care utilization and health and well-being outcomes, the risk of retraumatization, and challenges of screening implementation via telehealth will be important to better understand the potential benefits of ACEs screening on populations.

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References

- State of California. SB 428: Health care coverage: adverse childhood experiences screenings. Available at:https://leginfo.legislature.ca.gov/faces/billNavClient. xhtml?bill_id=202120220SB428. 2021.
- PACEs Connection. NCSL provides database of 2020 ACEs legislation. Available at: https://www. pacesconnection.com/g/california-aces-action/blog/ ncsl-provides-database-of-2020-aces-legislation. 2020.
- National Academy for State Health Policy. States' efforts to address adverse childhood experiences are critical during COVID-19. Available at: https://www. nashp.org/states-efforts-to-address-adverse-childhoodexperiences-is-critical-during-covid-19/. 2020.
- California Health Benefits Review Program. Analysis of California Senate Bill 428 Adverse Childhood Experiences Screenings. A report to the 2021–2022 California State Legislature. Available at: http://analyses.chbrp.com/document/view.php? id=1561.2021.
- Centers for Disease Control and Prevention. Fast Facts: What are adverse childhood experiences? Available at: https://www.cdc.gov/violenceprevention/ aces/fastfact.html?CDC_AA_refVal=https%3A%2F% 2Fwww.cdc.gov%2Fviolenceprevention%2Facestudy% 2Ffastfact.html. 2020.
- Lange BCL, Callinan LS, Smith MV. adverse childhood experiences and their relation to parenting stress and parenting practices. Community Ment Health J 2019;55:651–652.
- Centers for Disease Control and Prevention. Vital Signs. Adverse childhood experiences: preventing early trauma to improve health. Available at: https:// www.cdc.gov/vitalsigns/aces/. 2020.
- Schulman M, Maul A. Screening for adverse childhood experiences and trauma. Center for Health Care Strategies Inc. Available at: https://www. chcs.org/media/TA-Tool-Screening-for-ACEs-and-Trauma_020619-1.pdf. 2019.
- 9. ACEs Aware Program. Provider Toolkit: Screening and responding to the impact of ACEs and toxic stress. Available at: https://www.acesaware.org/wpcontent/uploads/2020/05/ACEs-Aware-Provider-Toolkit-5.21.20.pdf. 2020.
- Abarca NE, Garro AC, Pearlman DN. Relationship between breastfeeding and asthma prevalence in young children exposed to adverse childhood experiences. J Asthma 2019;56:142–51.
- Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. Am J Prev Med May 1998;14:245–58.
- 12. Barnett ML, Sheldrick RC, Liu SR, Kia-Keating M, Negriff S. Implications of adverse childhood experiences screening on behavioral health services: A

scoping review and systems modeling analysis. Am Psychol 2021;76:364-78.

- 13. Chien AT, Leyenaar J, Tomaino M, et al. Difficulty obtaining behavioral health services for children: A national survey of multiphysician practices. Ann Fam Med 2022;20:42–50.
- 14. Pediatric ACEs and Related Life Events Screener (PEARLS). Available at: https://www.acesaware.org/ wp-content/uploads/2019/12/PEARLS-Tool-Child-Parent-Caregiver-Report-De-Identified-English. pdf.
- Traumatic Events Screening Inventory Parent Report Revised (TESI-PRR). Available at: https:// www.ptsd.va.gov/professional/assessment/documents/ tesi-parent.pdf.
- 16. Traumatic Events Screening Inventory Child (TESI-C). Available at: https://www.ptsd.va. gov/professional/assessment/documents/TESI-C. pdf.
- 17. Whole Child Assessment (WCA). Available at: https://lluch.org/health-professionals/whole-child-assessment-wca.
- Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. American Journal of Preventive Medicine. 1998;14:245–58.
- Adverse Childhood Experience Questionnaire for Adults (identified). Available at: https://www. acesaware.org/wp-content/uploads/2020/02/ACE-Questionnaire-for-Adults-Identified-English.pdf.
- (de-identified) ACEQfA. Available at: https://www. acesaware.org/wp-content/uploads/2020/02/ACE-Questionnaire-for-Adults-De-identified-English.pdf.
- 21. Behavioral Risk Factor Surveillance System (BRFSS) Adverse Childhood Experience Module. Available at: https://www.cdc.gov/violenceprevention/acestudy/ pdf/brfss_adverse_module.pdf.
- 22. Cronholm PF, Forke CM, Wade R, et al. Adverse childhood experiences: expanding the concept of adversity. Am J Prev Med 2015;49:354–61.
- Choi C, Mersky JP, Janczewski CE, Plummer Lee C-T, Davies WH, Lang AC. Validity of an expanded assessment of adverse childhood experiences: A replication study. *Children & Youth Services Review*. 2020;117:N.PAG-N.PAG.
- Baldwin JR, Caspi A, Meehan AJ, et al. Population vs individual prediction of poor health from results of adverse childhood experiences screening. JAMA Pediatr 2021;175:385–93.
- 25. Nelson CA, Scott RD, Bhutta ZA, Harris NB, Danese A, Samara M. Adversity in childhood is linked to mental and physical health throughout life. BMJ 2020;371:m3048.
- 26. Anda RF, Porter LE, Brown DW. Inside the Adverse Childhood Experience Score: Strengths,

limitations, and misapplications. Am J Prev Med 2020;59:293-95.

- 27. Campbell TL. Screening for adverse childhood experiences (ACEs) in primary care: A cautionary note. JAMA 2020;323(23):2379–2380.
- Finkelhor D. Screening for adverse childhood experiences (ACEs): Cautions and suggestions. Article. Child Abuse Negl 2018;85:174–9.
- Racine N, Killam T, Madigan S. Trauma-informed care as a universal precaution: Beyond the Adverse Childhood Experiences Questionnaire. JAMA Pediatr 2020;174:5–6.
- ACEs Aware Program. New Data Report: 264,000 Medi-Cal Beneficiaries Screened for ACEs. Available at: https://www.acesaware.org/blog/newdata-report-264000-medi-cal-beneficiaries-screenedfor-aces/. 2021.
- Oral R, Ramirez M, Coohey C, et al. Adverse childhood experiences and trauma informed care: the future of health care. Pediatr Res 2016;79:227–33.
- Piotrowski CC. Chapter 15—ACEs and traumainformed care. In: Asmundson GJG, Afifi TO, eds. *Adverse Childhood Experiences*. Academic Press; 2020: 307–28.
- Goddard A. Adverse childhood experiences and trauma-informed care. J Pediatr Health Care 2021 Mar-Apr;35:145–55.
- Underwood E. California has begun screening for early childhood trauma, but critics urge caution. Available at: https://www.science.org/content/article/ california-has-begun-screening-early-childhoodtrauma-critics-urge-caution. 2020
- Thakur N, Hessler D, Koita K, et al. Pediatrics adverse childhood experiences and related life events screener (PEARLS) and health in a safety-net practice. Child Abuse Negl 2020;10/01/2020108:104685.

- Glowa PT, Olson AL, Johnson DJ. Screening for adverse childhood experiences in a family medicine setting: A feasibility study. J Am Board Fam Med 2016;29:303–7.
- National Advisory Committee on Rural Health and Human Services. Exploring the rural context for adverse childhood experiences (ACEs). Available at: https://www.hrsa.gov/sites/default/files/hrsa/advisorycommittees/rural/publications/Rural-Context-for-ACEs-August2018.pdf. 2018.
- Turner MA, Gourevitch R. How neighborhoods affect the social and economic mobility of their residents. Urban Institute. Available at: https:// www.mobilitypartnership.org/sites/default/files/ publications/566/how-neighborhoods-affect-thesocial-and-economic-mobility-of-their-residents. pdf. 2017.
- Liu SR, Kia-Keating M, Nylund-Gibson K, Barnett ML. Co-occurring youth profiles of adverse childhood experiences and protective factors: Associations with health, resilience, and racial disparities. Am J Community Psychol 2020;65:173–86.
- 40. Loudenback J. California wants to expand access to mental health care for children. The Imprint. Available at: https://imprintnews.org/childrensmental-health/california-wants-to-expand-access-tomental-health-care-for-children/57339. 2021.
- American Psychological Association. Stress in America 2020: A National Mental Health Crisis. Available at: https://www.apa.org/news/press/releases/ stress/2020/report-october. 2020.
- Merrick MT, Ford DC, Ports KA, Guinn AS. Prevalence of adverse childhood experiences from the 2011–2014 Behavioral Risk Factor Surveillance System in 23 states. JAMA Pediatr 2018;172:1038– 44.