

# Identifying Patients Exposed to Adverse Childhood Events (ACEs) and Increasing Access to Community Health Resources by Implementing Standardized Screening in the Clinic Setting

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## Background

- Adverse Childhood Events (ACEs) are traumatic experiences that can have a profound impact on a child's development and may have lasting impact on health outcomes during childhood and into adulthood.
- Data from Kaiser Permanente has shown a dose dependent response – with each ACE, there is an increase in the likelihood of negative health outcomes such as depression, cancer, obesity, and mortality.
- The American Academy of Pediatrics suggests that pediatric providers address the social and emotional health of children and families, such as through an ACEs evaluation, but currently only 4% of pediatric providers screen for adverse events in childhood.

## Objectives

- Identify parents of patients who have faced ACEs by implementing routine screening at the 4-month health maintenance visit, then provide appropriate resources and referrals for those with a positive screen.
- Identify the percentage of patients currently being screened for ACEs at 4-month health maintenance visits.
- Increase the percentage of ACEs screening that is done at 4-month health maintenance visits by 50%.

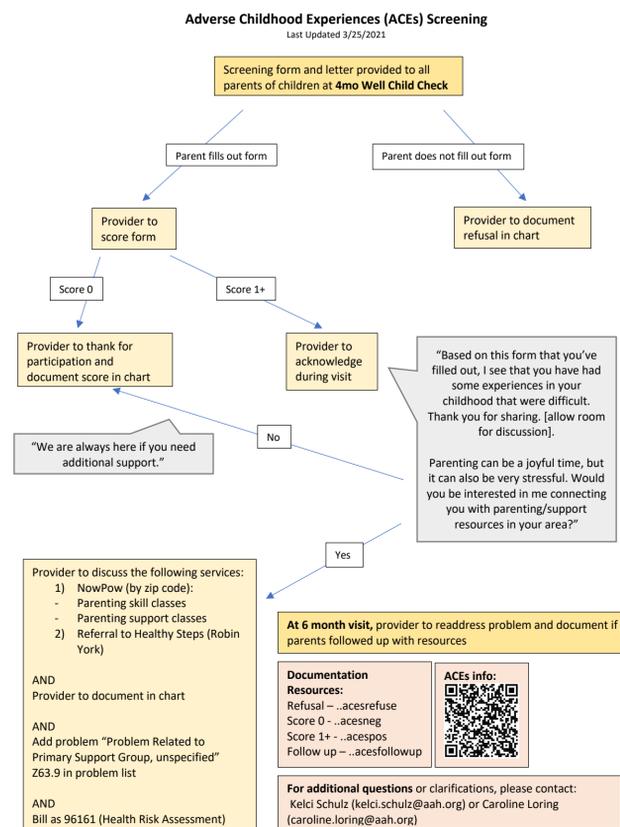


Figure 1. Process map posted in clinic

## Methods

### Sample & Setting

- Parents of patients who attended 4-month health maintenance visits at the outpatient Advocate Pediatrics clinic were screened for ACEs. Previously, our clinic did no formal screening.
- Pediatric providers were trained in screening and documentation of ACEs screens, and a process map was posted in the clinic (Figure 1).

### Intervention

- A 10-question screening tool developed by Dr. Robert Anda and Dr. Vincent Felitti, adapted from the original CDC-Kaiser Permanente Adverse Childhood Experiences study, was given to parents, asking if parents have had exposure to childhood trauma (Figure 2).

### Methods of Evaluation

- A retrospective chart review was conducted before (September 1 – November 30, 2020) and after (December 1, 2020 – February 28, 2021) implementation of standardized screening.
- Outcomes include: (1) percent of families screened; (2) percent of families with a positive ACEs screen; (3) number of positive screens with resources provided

### Analysis

- Data was collected in Excel and visualized via a run chart and pie chart.

**Adverse Childhood Experience (ACE) Questionnaire**  
Finding your ACE Score on the 10-24-06

While you were growing up, during your first 18 years of life:

- Did a parent or other adult in the household often ... Swear at you, insult you, put you down, or humiliate you?   
or  
Act in a way that made you afraid that you might be physically hurt?   
Yes No If yes enter 1 \_\_\_\_\_
- Did a parent or other adult in the household often ... Push, grab, slap, or throw something at you?   
or  
Ever hit you so hard that you had marks or were injured?   
Yes No If yes enter 1 \_\_\_\_\_
- Did an adult or person at least 5 years older than you ever... Touch or fondle you or have you touch their body in a sexual way?   
or  
Try to or actually have oral, anal, or vaginal sex with you?   
Yes No If yes enter 1 \_\_\_\_\_
- Did you often feel that ... No one in your family loved you or thought you were important or special?   
or  
Your family didn't look out for each other, feel close to each other, or support each other?   
Yes No If yes enter 1 \_\_\_\_\_
- Did you often feel that ... You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?   
or  
Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?   
Yes No If yes enter 1 \_\_\_\_\_
- Were your parents ever separated or divorced?   
Yes No If yes enter 1 \_\_\_\_\_
- Was your mother or stepmother: Often pushed, grabbed, slapped, or had something thrown at her?   
or  
Sometimes or often kicked, bitten, hit with a fist, or hit with something hard?   
or  
Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?   
Yes No If yes enter 1 \_\_\_\_\_
- Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?   
Yes No If yes enter 1 \_\_\_\_\_
- Was a household member depressed or mentally ill or did a household member attempt suicide?   
Yes No If yes enter 1 \_\_\_\_\_
- Did a household member go to prison?   
Yes No If yes enter 1 \_\_\_\_\_

Now add up your "Yes" answers: \_\_\_\_\_ This is your ACE Score

Figure 2. ACEs questionnaire provided to parents

## Results

- Prior to the implementation of formal screening, 0% of families at 4-month health maintenance visits in a three month period were screened for ACEs. After implementation, 128 out of 163 (78.5%) of families were screened (Figure 3).
- Of the families that were not screened, 5 out of 35 were not screened due to language barriers, 2 out of 35 were not screened due to parental refusal, 1 out of 35 was because the parent was not present, and 27 out of 35 the reason was unknown.
- Of parents who were provided with a screening test, 24 out of 104 were positive (23%). Seventeen out of 104 had a score of 1 (16%), five out of 104 had a score of 2 (5%), one out of 104 had a score of 4 (1%), and one out of 104 had a score of 10 (1%) (Figure 4).
- Of parents who screened positive (24/104), 17 were provided with resources including social work referral, referral to a Healthy Steps Specialist, or community resources via NowPow such as parenting classes. Four of these 17 parents accepted these resources.

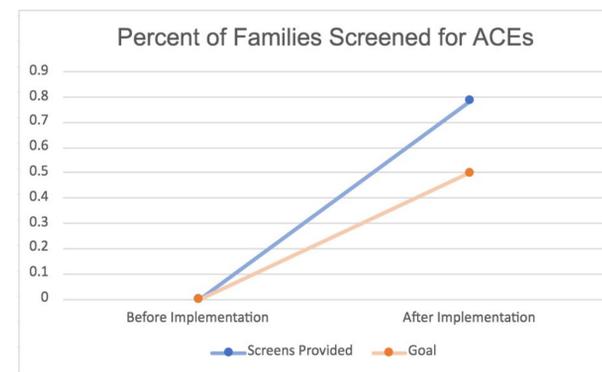


Figure 3. Percent of families screened for ACEs

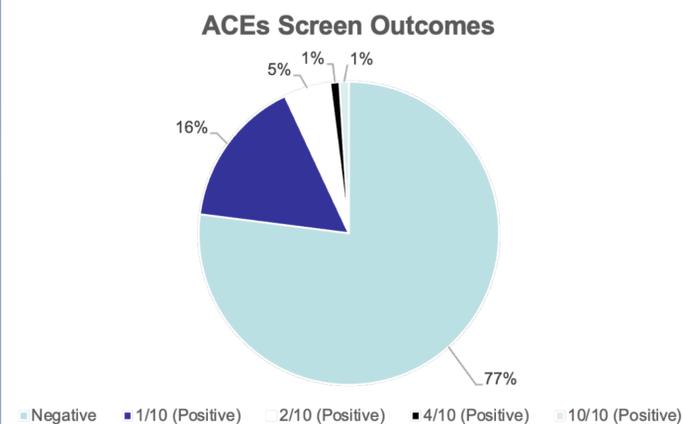


Figure 4. Results of initial ACEs screens from December 2020 through February 2021

## Discussion / Conclusions

- Overall, there was a significant increase in screening for ACEs in the parents of patients at the Advocate Pediatrics clinic. There were also several families identified who were exposed to ACEs.
- Identifying parents with positive screens and providing them with appropriate resources and referrals is important for promoting resilience to become stable and supportive caregivers, and ultimately to minimize the long-term negative health outcomes that ACEs can have on themselves and their families.
- This study was limited by only having the screen available in English and Spanish. It was also limited by the results being documented appropriately in the charts of patients at their 4-month health maintenance visits.

## Implications for Practice

- Parents who have experienced ACEs might not otherwise disclose challenges they have faced if not for a formal screen.
- Addressing the social and emotional health of children and families is important to their overall health and well being.
- Kaiser Permanente categorizes ACEs into three categories: abuse, household challenges, and neglect. In the future, it might be beneficial to note which type of ACEs parents are facing and personalize any resources to their specific experience. This may increase parents' willingness to accept resources.
- Given the diverse patient population at the Advocate Pediatrics clinic, it would be beneficial to have ACEs screens available in more languages to reach more of our patients.
- Future work on this project may also involve broadening our screening practices and ensuring that providers communicate via documentation for future visits (6-month health maintenance visit and beyond) when families screen positive so that they can tailor anticipatory guidance appropriately.

## Acknowledgements

Thank you to the office staff at the Advocate Pediatrics clinic for providing screens to the parents of 4-month old patients at their health maintenance visit. Thank you to all of the residents and attendings for implementing formal ACEs screening in their practice and for documenting the results and outcomes of the screens.

## References

<https://www.cdc.gov/violenceprevention/aces/about.html>