

Adverse Childhood Experiences (ACEs) and their Long-Term Impact into Adulthood



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#FMREVOLUTION #FMRISING

Who is this dude?



- ▶ Medical Director @  INTEGRATED HEALTH PARTNERS of Southern California
- ▶ #FamilyPhysician @ 
- ▶ Director @  AMERICAN ACADEMY OF FAMILY PHYSICIANS STRONG MEDICINE FOR AMERICA
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- ▶ Father • Husband • Co-Leader #TheIncredibLEEs
- ▶ #KoreanAmerican



Learning Objectives

- ▶ Recognize how ACEs may negatively impact pediatric growth and development
- ▶ Increase confidence in screening for ACEs
- ▶ Diversify ways to treat adults with history of ACEs



What is my role as
a family physician?

**BECOME THE PHYSICIAN
THAT YOU WROTE ABOUT IN
YOUR PERSONAL STATEMENT.**

**JOIN
THE
#FMREVOLUTION**

whims.me/familydocwonk

WHIMS 

FAMILY MEDICINE REVOLUTION

- ▶ Family physicians are heroes.
- ▶ Every hero has an origin story.

ANNALS OF MEDICINE JANUARY 23, 2017 ISSUE

THE HEROISM OF INCREMENTAL CARE

We devote vast resources to intensive, one-off procedures, while starving the kind of steady, intimate care that often helps people more.



By Atul Gawande



What is Primary Care?



First-contact



Continuous over
time



Comprehensive
and concerned
for the whole
patient



Coordinated
across the system

Dr. G. Gayle Stephens Family Medicine Revolution OG



"Be there"

"Give a damn"

The Job vs The Work

What does this mean for us?

We are practicing at a pivotal time

We have a responsibility to be change agents for systems that will deliver better care

Our patients will look to us as a guide



What are Adverse
Childhood
Experiences (ACEs)?

Adverse Childhood Experiences

Adverse childhood experiences (ACEs) are traumatic events or chronic stressors that can negatively impact a child's health and are outside of their control. It is estimated that 64% of Americans have experienced at least one ACE and 13% have experienced four or more. ACEs incorporate a variety of events and stressors including, but not limited to child abuse and neglect, sexual abuse, domestic violence, substance abuse, mental illness, crime, extreme economic adversity, bullying and school or community violence, sudden loss of a loved one, sudden and frequent relocation, serious accidents or life-threatening childhood illness, natural disasters, kidnapping, and war.

Experiencing ACEs without supportive adults can lead to toxic stress, or an extensive activation of the stress response system. This can lead to an increased allostatic load, or "wear and tear" on the body and brain. ACEs have been linked with maladaptive health behaviors including, but not limited to physical inactivity, alcohol, substance and tobacco misuse and negative health outcomes, including but not limited to heart disease, cancer, chronic lung disease, skeletal fractures, liver disease, suicide, depression, obesity and poor self-rated health throughout the lifespan.

Due to the dramatic impact ACEs have on behavior and health outcomes, the American Academy of Family Physicians (AAFP) encourages physicians to learn about ACEs and to recognize the impact ACEs may have on their patients' health. In addition, the AAFP supports programs that aim to: (1) prevent the occurrence of ACEs; (2) reduce the severity of the acute consequences of ACEs; and (3) treat long-term consequences of ACEs. Examples of these types of programs include but are not limited to (1) parental education, (2) parent-child interaction and psychotherapy, (3) dual substance abuse treatment and parenting interventions, and (4) trauma-informed care. Additionally, the AAFP supports research on the effectiveness of ACEs screening and mitigation strategies to improve health outcomes, and advocates for public policies and legislation to support these initiatives.

Acknowledging the nature of ACEs as outside of a child's control and the potential for negative impact on a child's health, the AAFP affirms that ACEs, when used as a screening tool, not be diagnostic of the implied risk and that collection of information from ACEs screening be subject to pre-existing conditions protections for health insurance. (2019 COD) (October 2023 COD)

Adverse Childhood Experiences (ACEs)

- ▶ Definition: “Potentially traumatic events that occur in childhood (0-17yrs)”
 - ▶ Examples include but are not limited to:
 - ▶ Experiencing violence, abuse, or neglect
 - ▶ Experiencing discrimination
 - ▶ Witnessing violence in the home or community
 - ▶ Having a family member attempt or die by suicide
 - ▶ Housing instability
 - ▶ Not having enough food to eat
 - ▶ Growing up in a household with:
 - ▶ Substance use problems
 - ▶ Mental health problems
 - ▶ Instability due to parental separation
 - ▶ Instability due to household members being in jail or prison

10 Categories of Adverse Childhood Experiences (ACEs)

ABUSE



Physical



Emotional



Sexual

NEGLECT



Physical



Emotional

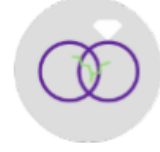
HOUSEHOLD DYSFUNCTION



Mental Illness



Mother treated
violently



Divorce



Incarcerated Relative



Substance Abuse

How common are ACEs?

- ▶ ~64% of adults in the United States reported they had experienced at least one ACE before age 18
 - ▶ ~17% reported experiencing four or more ACEs
- ▶ Preventing ACEs could reduce disease burden
 - ▶ Up to 1.9 million cases of heart disease and 21 million are estimated to be attributable to ACEs

Are all children at risk for ACEs?

- ▶ The short answer is 'yes'
- ▶ However, some children are at greater risk of experiencing ACEs than others
 - ▶ Inequalities are linked to historical, social, and economic environments in which families live
 - ▶ Highest rates among:
 - ▶ Females
 - ▶ Non-Hispanic American Indian or Alaska Native adults
 - ▶ Adults who are unemployed or unable to work

A close-up photograph of a board game board with a green background and a pattern of colorful circles in shades of grey, white, yellow, orange, and purple. Several wooden pieces are scattered across the board: a green pawn on the left, a yellow pawn in the center, a black pawn in the foreground, and a black pawn in the background. A red die with white pips is positioned on the right side of the board. The text "Why do ACEs matter?" is overlaid in white, sans-serif font on the left side of the image.

Why do ACEs
matter?



How might ACEs negatively impact a child's growth and development?

- ▶ Health and well-being
 - ▶ Risk of injury
 - ▶ Risk of chronic disease
- ▶ Life opportunities
 - ▶ Education
 - ▶ Job potential



Toxic stress

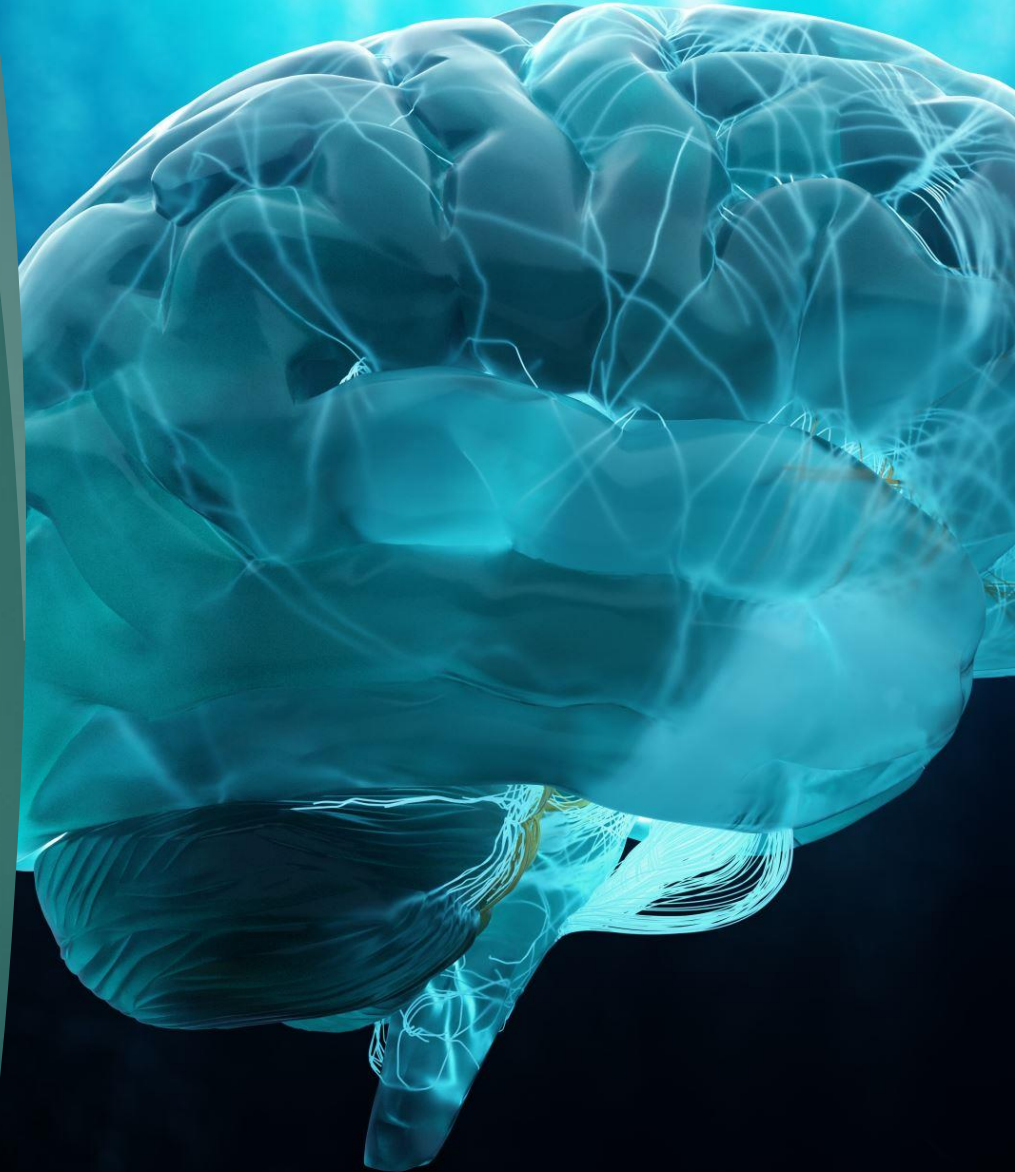
Not all stress is bad...

- ▶ Positive stress
 - ▶ Brief elevation in stress hormones, heart rate, and blood pressure in response to a routine stressor
- ▶ Tolerable stress
 - ▶ Time-limited activation of stress response that if buffered by relationships with adults who help the child adapt, the brain and other organs recover
- ▶ Toxic stress
 - ▶ High doses of adversity experienced during critical and sensitive periods of early development, without adequate buffering protections, can become 'biologically embedded' leading to toxic stress response



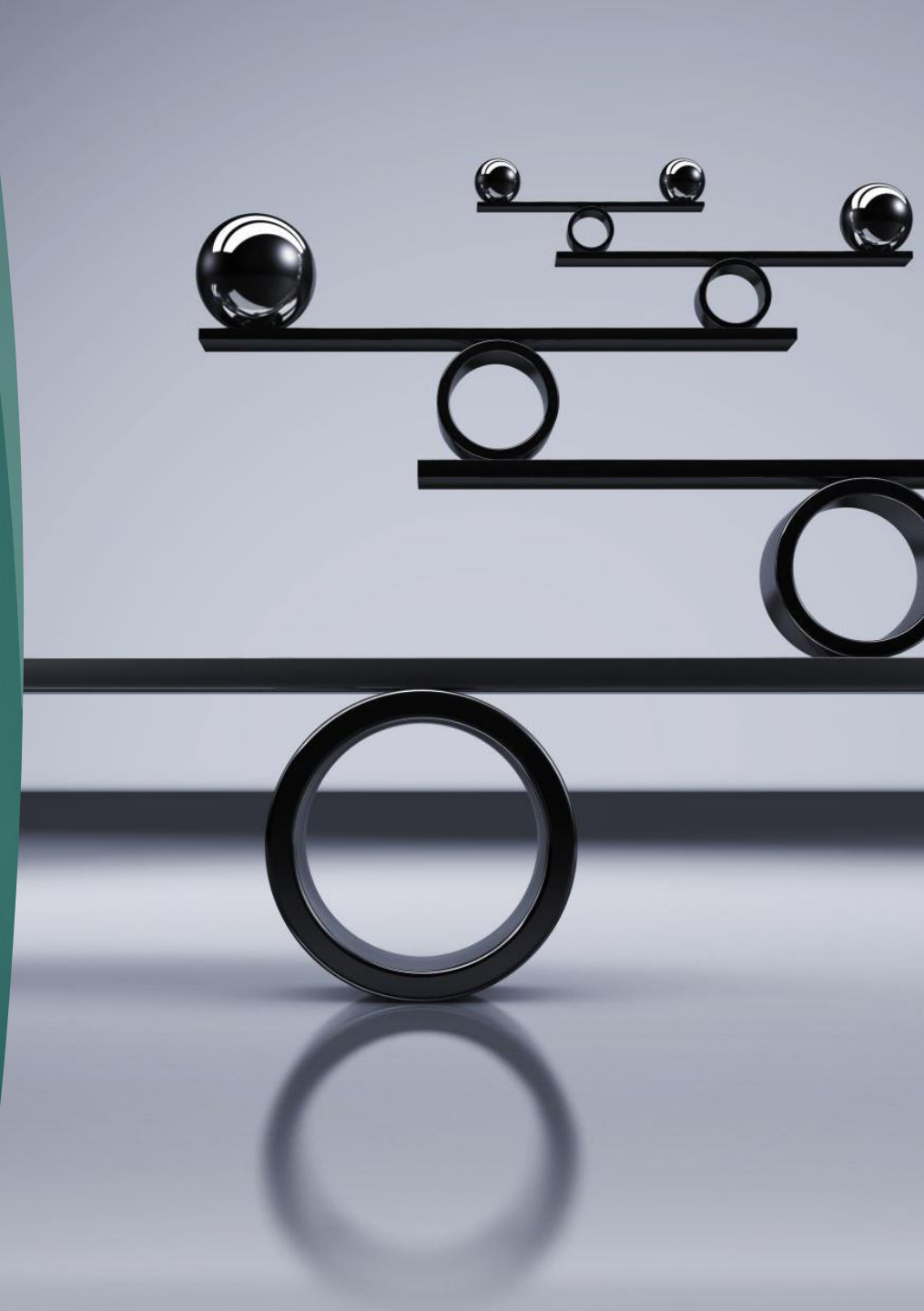
Toxic stress

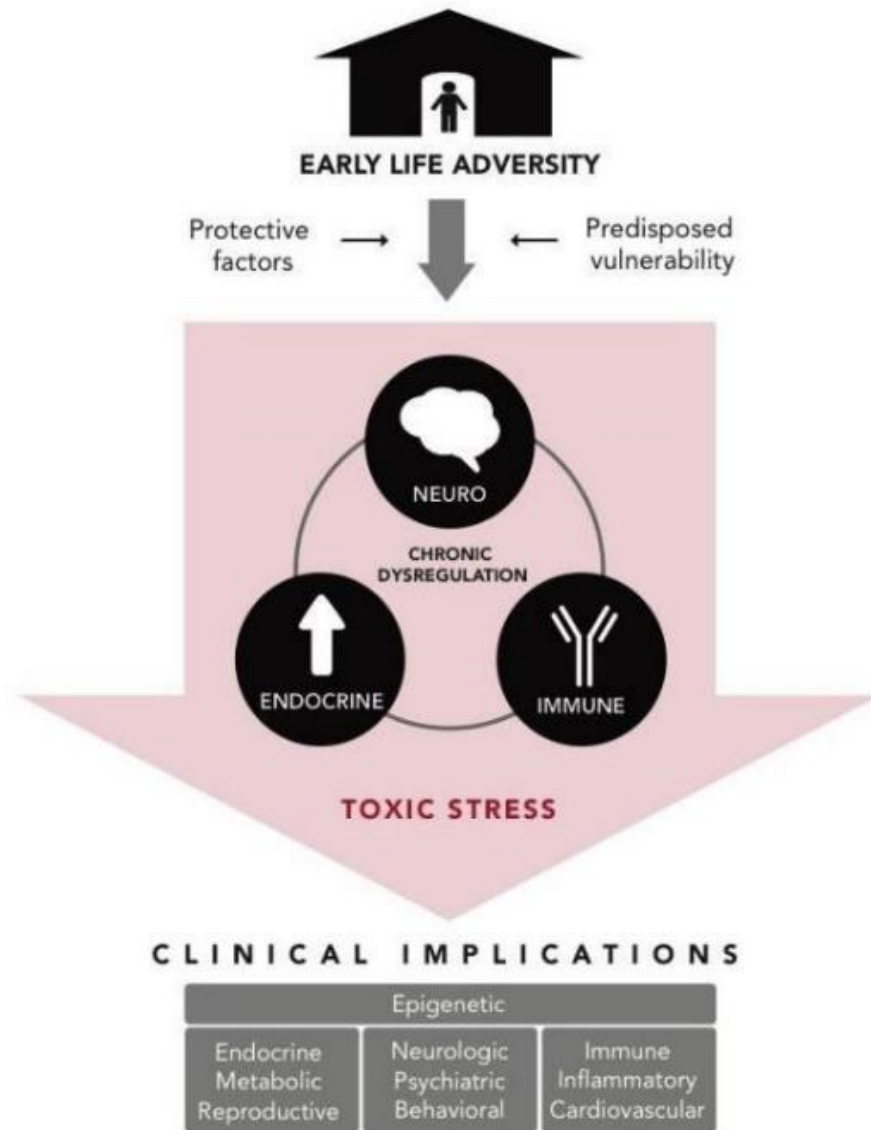
- ▶ Allostatic load:
 - ▶ Impacts...
 - ▶ Brain development
 - ▶ Immune system
 - ▶ Stress-response systems
 - ▶ Affecting...
 - ▶ Attention
 - ▶ Decision-making
 - ▶ Learning



Toxic stress

- ▶ Allostatic load:
 - ▶ May cause...
 - ▶ Difficulty forming healthy and stable relationships
 - ▶ Unstable work histories as adults
 - ▶ Struggle with finances, jobs, and depression through life
 - ▶ Generational trauma
 - ▶ Can be passed onto future generations and continue the cycle via negative feedback





Adapted from Bucci et al, 2016

How might ACEs present in your office?

- ▶ Babies
 - ▶ Failure to thrive
 - ▶ Growth delay
 - ▶ Sleep disruption
 - ▶ Developmental delay
- ▶ School-Age Children
 - ▶ Frequent viral infections
 - ▶ Pneumonia
 - ▶ Asthma and other atopic diseases
 - ▶ Difficulties with learning and behavior

How might ACEs present in your office?

- ▶ Adolescents
 - ▶ Somatic complaints, including headache and abdominal pain
 - ▶ High-risk behaviors
 - ▶ Teen pregnancy/paternity
 - ▶ Sexually transmitted infections
 - ▶ Mental health disorders
 - ▶ Substance use
- ▶ Adults
 - ▶ Diabetes
 - ▶ Chronic obstructive pulmonary disease
 - ▶ Cardiovascular disease
 - ▶ Cancer
 - ▶ Depression/anxiety
 - ▶ Substance use
 - ▶ Chronic pain
 - ▶ Post-traumatic stress disorder

A bicycle with a basket is parked on a paved path that leads into the distance. The scene is set at sunset or sunrise, with a warm, golden light illuminating the sky and the path. The background features some dry, brushy vegetation and a low horizon line. The overall mood is contemplative and serene.

How to break the
cycle?

Preventing ACEs

- ▶ No child or individual is at fault for the ACEs they experience



"It's not your fault... It's not your fault."



Risk factors for ACEs

Individual and family

- ▶ Lack of closeness/communication
- ▶ Youth who start dating early or engage in early coitarche
- ▶ Social isolation/aggression
- ▶ Low education
- ▶ Low income
- ▶ History of abuse/neglect
- ▶ Young or single parents
- ▶ High parenting and/or economic stress
- ▶ Inconsistent discipline and low levels of parental monitoring/supervision
- ▶ High conflict households
- ▶ Caregiving challenges related to children with special needs

Community

- ▶ High rates of violence and crime
- ▶ High rates of poverty and limited educational/economic opportunities
- ▶ High unemployment
- ▶ Easy access to drugs and alcohol
- ▶ Low social cohesion/community involvement
- ▶ Few community activities for young people
- ▶ Unstable housing where residents move frequently
- ▶ High rates of food insecurity
- ▶ High levels of social and environmental disorder

Protective factors for ACEs

Individual and family

- ▶ Safe, stable, and nurturing relationships
- ▶ Positive friendships and peer networks
- ▶ Doing well in school
- ▶ Caring adults outside the family
- ▶ Basic needs of food, shelter, and health services for children are met
- ▶ College degrees or higher
- ▶ Steady employment
- ▶ Strong social support networks and positive relationships with people around them
- ▶ Consistent parental monitoring, supervision, and enforcement of rules
- ▶ Caregivers/adults work through conflicts peacefully
- ▶ Caregivers/adults help children work through problems
- ▶ Families that engage in fun, positive activities together
- ▶ Families that encourage the importance of school for children

Community

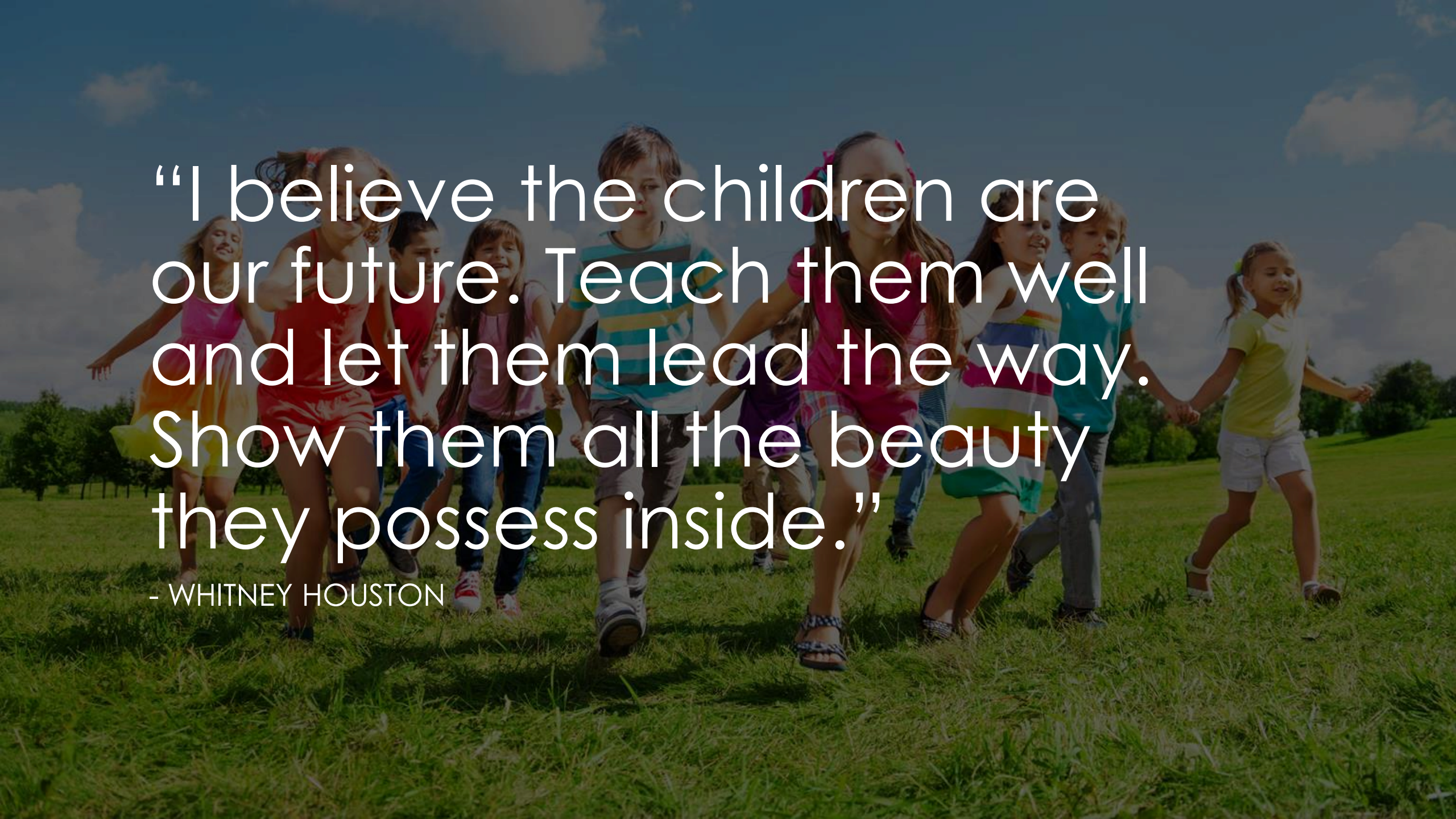
- ▶ Access to economic and financial help
- ▶ Access to medical care and mental health services
- ▶ Access to safe, stable housing
- ▶ Access to nurturing and safe childcare
- ▶ Access to safe, engaging after school programs
- ▶ Access to high-quality preschool
- ▶ Work opportunities with family-friendly policies
- ▶ Strong partnerships between the community and business, health care, government and other sectors
- ▶ Residents feel connected to each other and are involved in the community
- ▶ Violence is not tolerated or accepted

Preventing ACEs

- ▶ Strengthen economic supports to families
 - ▶ Strengthening household financial security
 - ▶ Family-friendly work policies
- ▶ Promote social norms that protect against violence and adversity
 - ▶ Public education campaigns
 - ▶ Legislative approaches to reduce corporal punishment
 - ▶ Bystander approaches
 - ▶ Men and boys as allies in prevention
- ▶ Ensure a strong start for children
 - ▶ Early childhood home visitation
 - ▶ High-quality childcare
 - ▶ Preschool enrichment with family engagement

Preventing ACEs

- ▶ Teach skills
 - ▶ Social-emotional learning
 - ▶ Safe dating and healthy relationship skill programs
 - ▶ Parenting skills and family relationship approaches
- ▶ Connect youth to caring adults and activities
 - ▶ Mentoring programs
 - ▶ After-school programs
- ▶ Intervene to lessen immediate and long-term harms
 - ▶ Enhanced primary care
 - ▶ Victim-centered services
 - ▶ Treatment to lessen the harm of ACEs
 - ▶ Treatment to prevent problem behavior and future involvement in violence
 - ▶ Family-centered treatment for substance use disorders

A group of diverse children, including boys and girls of various ethnicities, are holding hands and running joyfully across a lush green field. They are dressed in colorful, casual summer clothing. The background shows a clear blue sky with scattered white clouds and a line of trees in the distance. The overall mood is bright, happy, and hopeful.

“I believe the children are
our future. Teach them well
and let them lead the way.
Show them all the beauty
they possess inside.”

- WHITNEY HOUSTON



How do I screen for
ACEs?

Select the appropriate screening tool

- ▶ *De-identified screening
 - ▶ Respondents count the number of ACE categories on the screening tool and indicate only the total score – without identifying which ACE(s) they or their child experienced
- ▶ Identified screening
 - ▶ Respondents count the number of ACE categories on the screening tool and indicate which ACE(s) they or their child have experienced
- ▶ Available in 17 languages

* De-identified may facilitate higher rates of disclosure and greater patient comfort with the screening experience





For children and adolescents

- ▶ Pediatric ACEs and Related Life-events Screener (PEARLS)
 - ▶ PEARLS child tool, for ages 0-11, to be completed by a parent/caregiver
 - ▶ PEARLS adolescent tool, for ages 12-19, to be completed by a parent/caregiver
 - ▶ PEARLS for adolescent self-report tool, for ages 12-19, to be completed by the adolescent

Pediatric ACEs and Related Life Events Screener (PEARLS)

CHILD - To be completed by: **Caregiver**

At any point in time since your child was born, has your child seen or been present when the following experiences happened? Please include past and present experiences.

Please note, some questions have more than one part separated by "OR." If any part of the question is answered "Yes," then the answer to the entire question is "Yes."

PART 1:

1. Has your child ever lived with a parent/caregiver who went to jail/prison?
2. Do you think your child ever felt unsupported, unloved and/or unprotected?
3. Has your child ever lived with a parent/caregiver who had mental health issues?
(for example, depression, schizophrenia, bipolar disorder, PTSD, or an anxiety disorder)
4. Has a parent/caregiver ever insulted, humiliated, or put down your child?
5. Has the child's biological parent or any caregiver ever had, or currently has a problem with too much alcohol, street drugs or prescription medications use?
6. Has your child ever lacked appropriate care by any caregiver?
(for example, not being protected from unsafe situations, or not cared for when sick or injured even when the resources were available)
7. Has your child ever seen or heard a parent/caregiver being screamed at, sworn at, insulted or humiliated by another adult?
OR has your child ever seen or heard a parent/caregiver being slapped, kicked, punched, beaten up or hurt with a weapon?
8. Has any adult in the household often or very often pushed, grabbed, slapped or thrown something at your child?
OR has any adult in the household ever hit your child so hard that your child had marks or was injured?
OR has any adult in the household ever threatened your child or acted in a way that made your child afraid that they might be hurt?
9. Has your child ever experienced sexual abuse?
(for example, anyone touched your child or asked your child to touch that person in a way that was unwanted, or made your child feel uncomfortable, or anyone ever attempted or actually had oral, anal, or vaginal sex with your child)
10. Have there ever been significant changes in the relationship status of the child's caregiver(s)?
(for example, a parent/caregiver got a divorce or separated, or a romantic partner moved in or out)

Add up the "yes" answers for this first section:

Please continue to the other side for the rest of questionnaire →



This tool was created in partnership with UCSF School of Medicine.

Child (Parent/Caregiver Report) – Deidentified

PART 2:

1. Has your child ever seen, heard, or been a victim of violence in your neighborhood, community or school?
(for example, targeted bullying, assault or other violent actions, war or terrorism)
2. Has your child experienced discrimination?
(for example, being hassled or made to feel inferior or excluded because of their race, ethnicity, gender identity, sexual orientation, religion, learning differences, or disabilities)
3. Has your child ever had problems with housing?
(for example, being homeless, not having a stable place to live, moved more than two times in a six-month period, faced eviction or foreclosure, or had to live with multiple families or family members)
4. Have you ever worried that your child did not have enough food to eat or that the food for your child would run out before you could buy more?
5. Has your child ever been separated from their parent or caregiver due to foster care, or immigration?
6. Has your child ever lived with a parent/caregiver who had a serious physical illness or disability?
7. Has your child ever lived with a parent or caregiver who died?

Add up the "yes" answers for the second section:



This tool was created in partnership with UCSF School of Medicine.

Child (Parent/Caregiver Report) – Deidentified

Pediatric ACEs and Related Life-events Screener (PEARLS)

Adverse Childhood Experience Questionnaire for Adults
California Surgeon General's Clinical Advisory Committee



Our relationships and experiences—even those in childhood—can affect our health and well-being. Difficult childhood experiences are very common. Please tell us whether you have had any of the experiences listed below, as they may be affecting your health today or may affect your health in the future. This information will help you and your provider better understand how to work together to support your health and well-being.

Instructions: Below is a list of 10 categories of Adverse Childhood Experiences (ACEs). From the list below, please add up the number of categories of ACEs you experienced prior to your 18th birthday and put the total number at the bottom. (You do not need to indicate which categories apply to you, only the total number of categories that apply.)	
1. Did you feel that you didn't have enough to eat, had to wear dirty clothes, or had no one to protect or take care of you?	
2. Did you lose a parent through divorce, abandonment, death, or other reason?	
3. Did you live with anyone who was depressed, mentally ill, or attempted suicide?	
4. Did you live with anyone who had a problem with drinking or using drugs, including prescription drugs?	
5. Did your parents or adults in your home ever hit, punch, beat, or threaten to harm each other?	
6. Did you live with anyone who went to jail or prison?	
7. Did a parent or adult in your home ever swear at you, insult you, or put you down?	
8. Did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way?	
9. Did you feel that no one in your family loved you or thought you were special?	
10. Did you experience unwanted sexual contact (such as fondling or oral/anal/vaginal intercourse/penetration)?	
Your ACE score is the total number of yes responses.	

Do you believe that these experiences have affected your health? Not Much Some A Lot

Experiences in childhood are just one part of a person's life story.
There are many ways to heal throughout one's life.

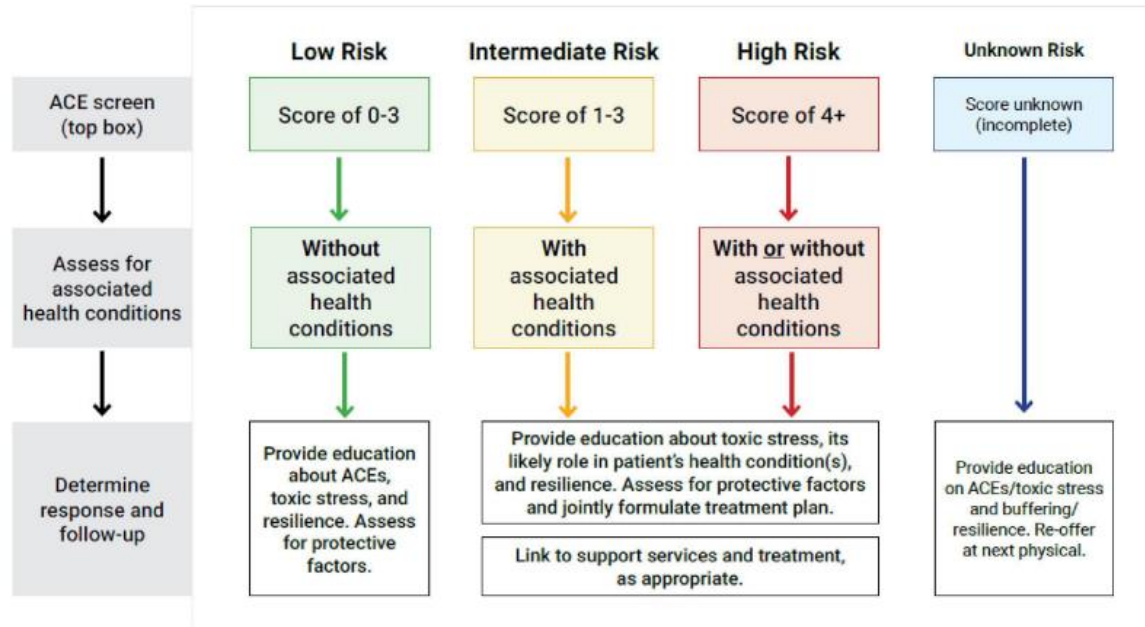
Please let us know if you have questions about privacy or confidentiality.

For adults

ACE QUESTIONNAIRE FOR ADULTS

Adverse Childhood Experiences (ACEs) and Toxic Stress Risk Assessment Algorithm

Adults



Partial completion may indicate discomfort or lack of understanding. If partial response indicates patient is at intermediate or high risk, follow the guidelines for that category.

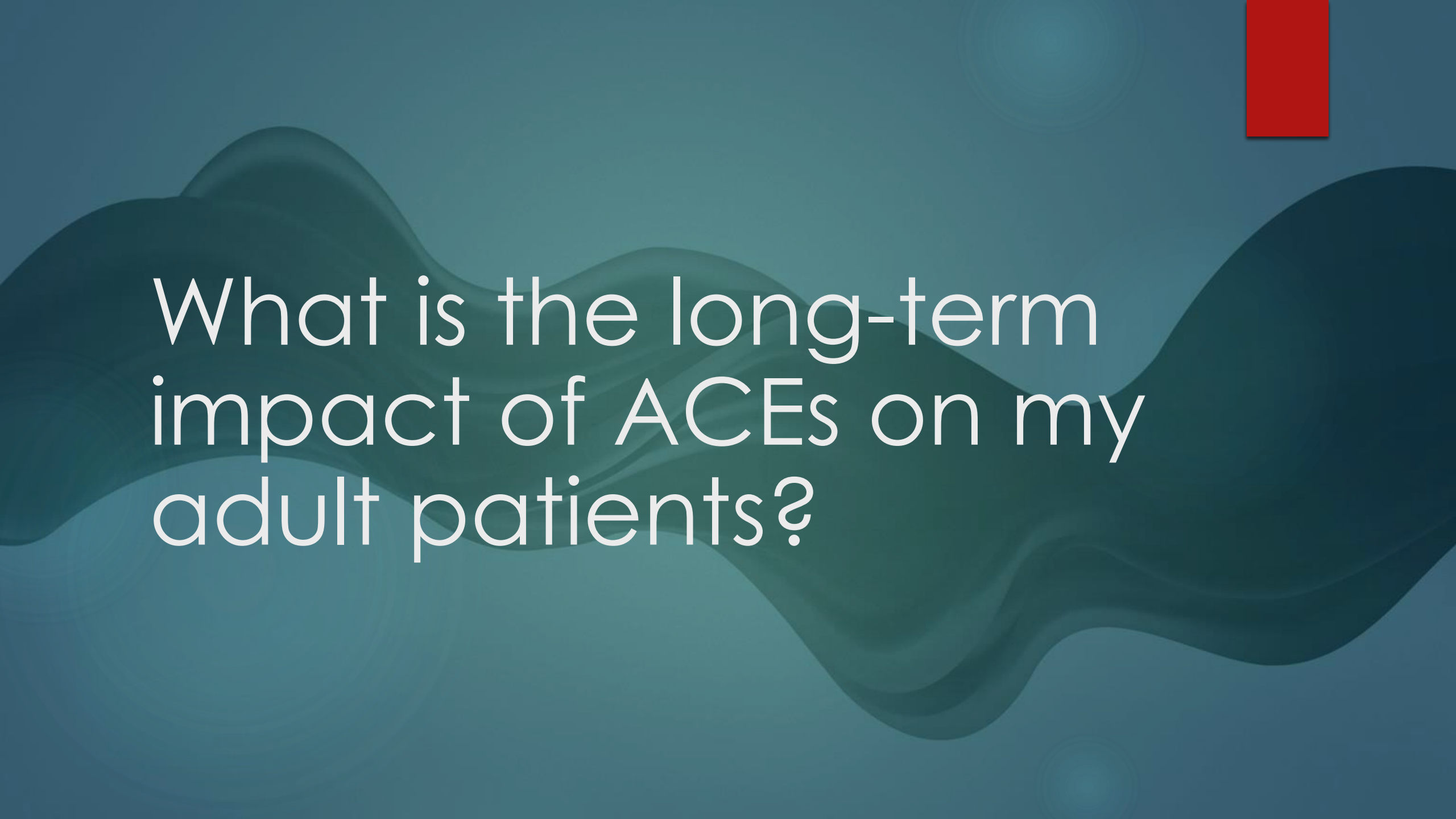
If the ACE score is 0-3 without ACE-associated health conditions, the patient is at "low risk" for toxic stress physiology. The provider should offer education on the impact of ACEs and other adversities on health (including reviewing patient's self-assessment of ACEs' impact on health), buffering/protective factors, and interventions that can mitigate health risks. If the ACE score is 1-3 with ACE-associated health conditions, the patient is at "intermediate risk." If the score is 4 or higher, even without ACE-associated health conditions, the patient is at "high risk" for toxic stress physiology. In both cases, the provider should offer education on how ACEs may lead to a toxic stress response and associated health conditions, as well as practices and interventions demonstrated to buffer the toxic stress response, such as sleep, exercise, nutrition, mindfulness, mental health, and healthy relationships. The provider should also assess for protective factors, jointly formulate a treatment plan and link to supportive services and interventions, as appropriate.

How to score the screening tool?

Billing codes YMMV

- ▶ HCPCS: G9919
 - ▶ High risk for toxic stress (ACE >4)
- ▶ HCPCS: G9920
 - ▶ Low risk for toxic stress (ACE <4)





What is the long-term
impact of ACEs on my
adult patients?

By Thomas M. Selden, Didem M. Bernard, Sandra L. Decker, and Zhengyi Fang

Adverse Childhood Experiences: Health Care Utilization And Expenditures In Adulthood

ABSTRACT Adverse childhood experiences (ACEs) have been shown to be strong predictors of socioeconomic status, risky health behaviors, chronic health conditions, and adverse outcomes. However, less is known about their association with adult health care utilization and expenditures. We used new data from the 2021 Medical Expenditure Panel Survey–Household Component (MEPS-HC) to provide the first nationally representative estimates of ACEs-related health care utilization and expenditure differences based on direct observation, rather than model-based extrapolation. Compared to demographically similar adults without ACEs, those with ACEs had substantially higher utilization and 26.3 percent higher expenditures. The aggregate spending difference across the 157.6 million US adults with ACEs was \$292 billion in 2021. Moreover, we observed large, graded relationships between ACEs and health status, health behaviors, and some dimensions of socioeconomic status. We also found associations between ACEs and a range of adverse adult circumstances, also newly measured in the 2021 MEPS, including financial and housing problems, social network problems, little or no life satisfaction, stress, food insecurity, verbal abuse, physical harm, and discrimination.

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ACEs prevalence

- ▶ 62.6% (157.6M) reported any ACEs
 - ▶ 41.7% (104.9M) reported 1-3 ACEs
 - ▶ 21.0% (52.7M) reported 4+ ACEs
- ▶ Trend younger
 - ▶ 28% more likely to be 25-34yo and half as likely to be 75-84yo
- ▶ Other trends:
 - ▶ More likely to be female
 - ▶ Less likely to be Hispanic or non-Hispanic Asian
 - ▶ More likely to live in the West

ACEs and Adverse Adult Circumstances

- ▶ Adults with 4+ ACEs more likely to report adverse adult circumstances and relationships were strong and graded
 - ▶ More than 2x likely to report little or no life satisfaction
 - ▶ 5x as likely to report being physical harmed or threatened
 - ▶ Other similarly strong relationships: verbal abuse, financial problems, housing problems, food insecurity, feeling stressed, social network problems, crime, and discrimination



ACEs, Health, and Health Behaviors

- ▶ Except for cancer, adults with 4+ ACEs more likely to have been told by a doctor they have a chronic disease
 - ▶ 18.5% with heart disease (RR: 1.54)
 - ▶ 17% with 4+ chronic conditions (RR: 1.47)
- ▶ Perceived physical and mental health status
 - ▶ 2x more likely to report 'fair' health status
 - ▶ >3x more likely to report 'poor' health status
- ▶ Depression/psychological distress
 - ▶ 3.73x as likely to have depression
 - ▶ 2.57x as likely to have psychological distress
 - ▶ 6.37x as likely to have serious psychological distress
- ▶ Risky behaviors
 - ▶ More likely to: smoke, vape, use alcohol excessively, not exercise regularly, have problems sleeping, and have high BMI



Health Care Utilization and Expenditures



29.7% MORE
PRESCRIPTION
FILLS



34.5% MORE
SUBSPECIALIST
VISITS



41.1% MORE
EMERGENCY
DEPT VISITS



21.5% MORE
HOSPITAL ADMITS



20.6% MORE
PRIMARY CARE
VISITS



26.3% higher expenditures

Health Care Utilization and Expenditures

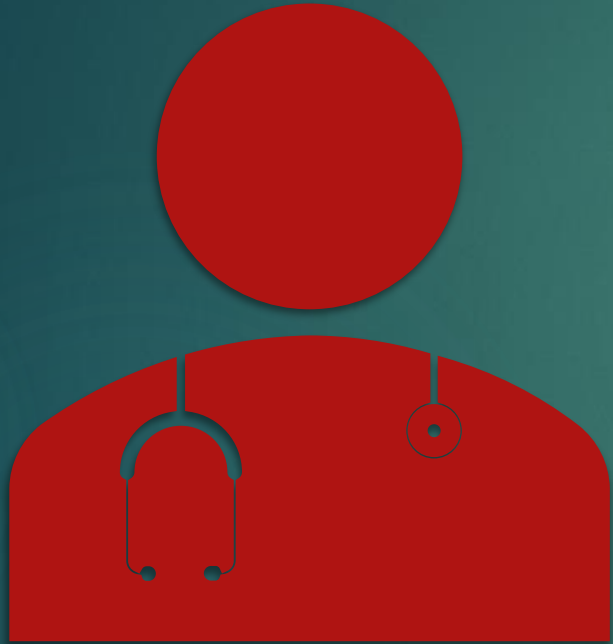
- ▶ 26.3% higher expenditures on average
 - ▶ 1-3 ACEs: 20.8% more
 - ▶ 4+ ACEs: 37.1% more
- ▶ Aggregate difference in spending? \$292B
 - ▶ 14% of all adult expenditures in Medical Expenditure Panel Survey (MEPS)
 - ▶ 28.6% of total Medicaid spend
 - ▶ 13.7% out-of-pocket spend
 - ▶ 12.8% of private insurance spend
 - ▶ 9.9% of Medicare spend



How to
change
the world?



HOW TO CHANGE THE WORLD



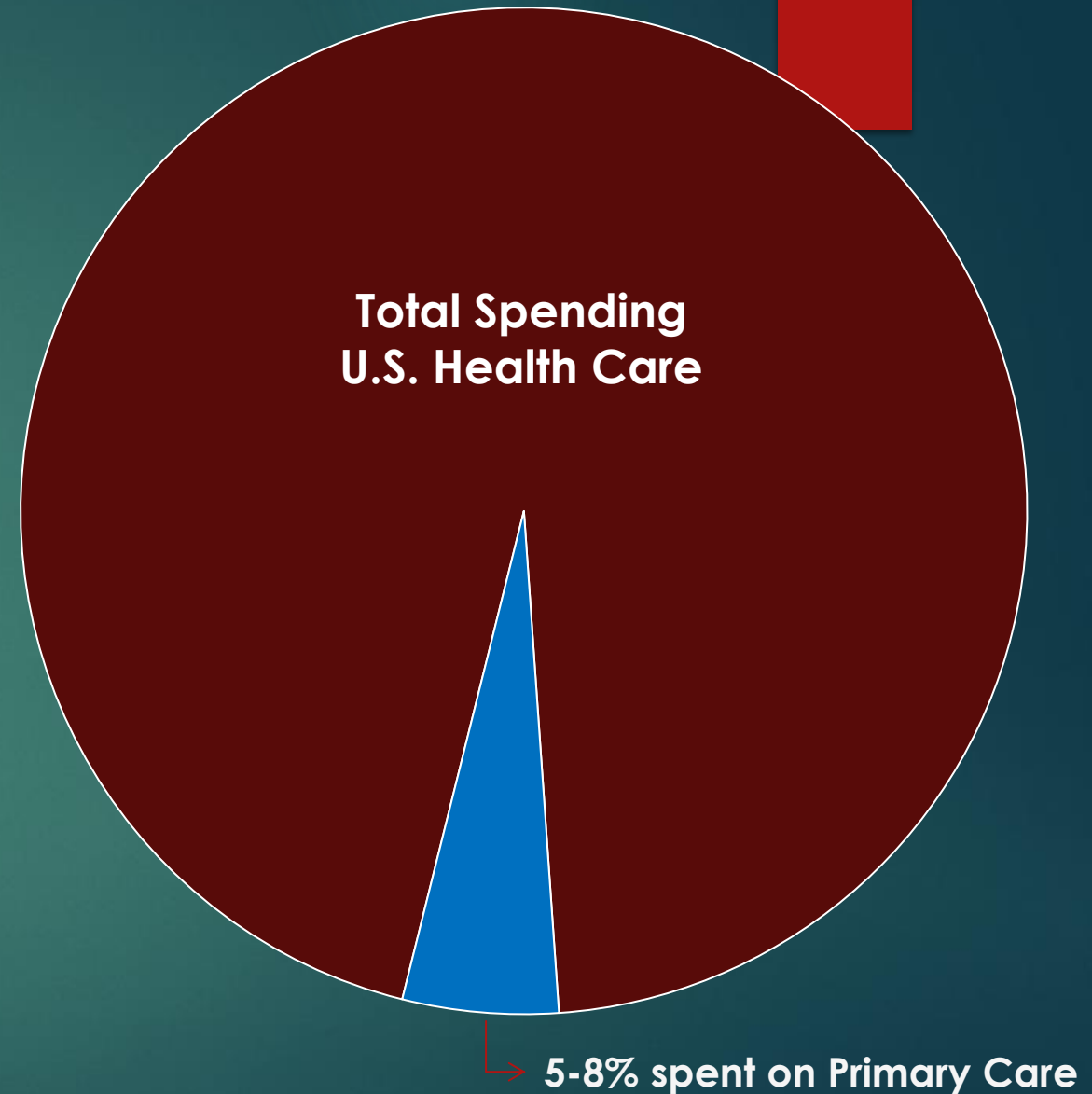
1. Realize yourself
2. Show up
3. Occupy the ground
4. Change the world

“Become the physician leaders our patients and communities need us to be.”

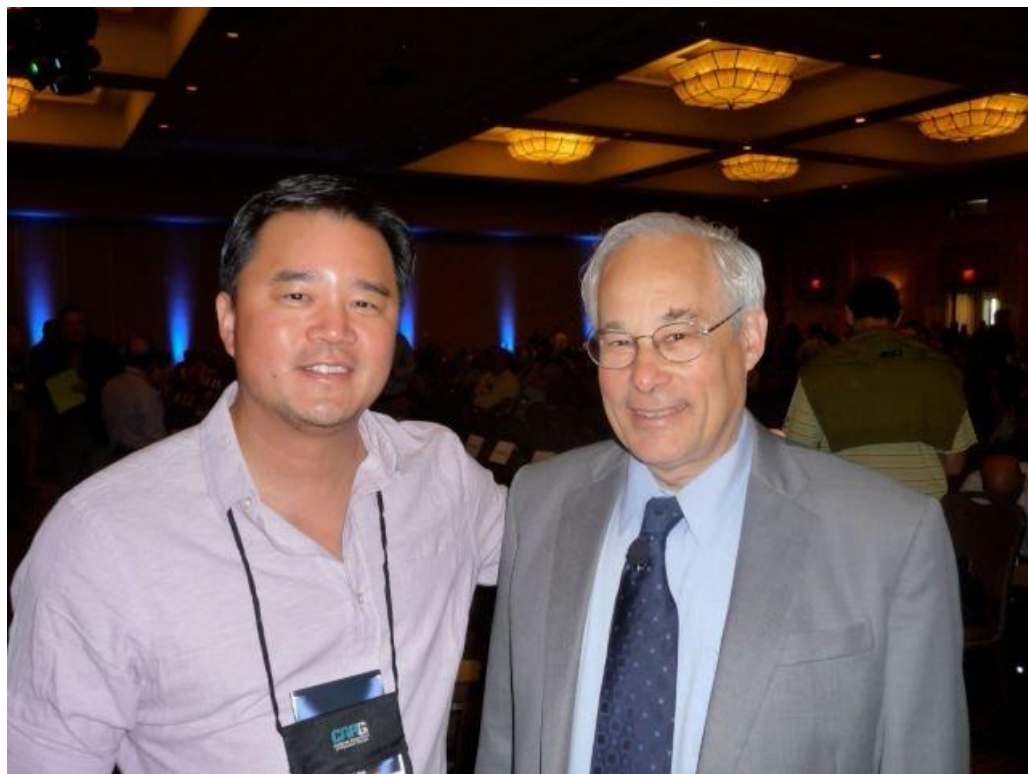
\$13 in savings for every
\$1 spent in Primary Care



Only 5-8% of
total health
care spending
in
the U.S. is on
primary care



The Triple Aim + 1



Value
(quality/cost)



Patient
experience



Population
health



Joy in
Practice



Joy?

How to Better Measure Our Value?

A New Comprehensive Measure of High-Value Aspects of Primary Care

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ABSTRACT

PURPOSE To develop and evaluate a concise measure of primary care that is grounded in the experience of patients, clinicians, and health care payers.

METHODS We asked crowd-sourced samples of 412 patients, 525 primary care clinicians, and 85 health care payers to describe what provides value in primary care, then asked 70 primary care and health services experts in a 2½ day international conference to provide additional insights. A multidisciplinary team conducted a qualitative analysis of the combined data to develop a parsimonious set of patient-reported items. We evaluated items using factor analysis, Rasch modeling, and association analyses among 2 online samples and 4 clinical samples from diverse patient populations.

RESULTS The resulting person-centered primary care measure parsimoniously represents the broad scope of primary care, with 11 domains each represented by a single item: accessibility, advocacy, community context, comprehensiveness, continuity, coordination, family context, goal-oriented care, health promotion, integration, and relationship. Principal axes factor analysis identified a single factor. Factor loadings and corrected item-total correlations were >0.6 in online samples (n = 2,229) and >0.5 in clinical samples (n = 323). Factor scores were fairly normally distributed in online patient samples, and skewed toward higher ratings in point-of-care patient samples. Rasch models showed a broad spread of person and item scores, acceptable item-fit statistics, and little item redundancy. Preliminary concurrent validity analyses supported hypothesized associations.

CONCLUSIONS The person-centered primary care measure reliably, comprehensively, and parsimoniously assesses the aspects of care thought to represent high-value primary care by patients, clinicians, and payers. The measure is ready for further validation and outcome analyses, and for use in focusing attention on what matters about primary care, while reducing measurement burden.

Ann Fam Med 2019;17:221-230. <https://doi.org/10.1370/afm.2393>.

Table 2. Items and Statistics for Cross-validation Online and Combined Clinical Samples

Item	Cross-Validation Online Sample (n = 1,089)			Combined Clinical Sample (n = 323)		
	Mean (SD)	Factor Loading	Item-Total Correlation	Mean (SD)	Factor Loading	Item-Total Correlation
My practice makes it easy for me to get care.	3.1 (0.9)	0.74	0.71	3.7 (0.6)	0.64	0.55
My practice is able to provide most of my care.	3.1 (0.9)	0.74	0.71	3.8 (0.5)	0.70	0.63
In caring for me, my doctor considers all of the factors that affect my health.	3.2 (0.9)	0.85	0.83	3.8 (0.5)	0.70	0.57
My practice coordinates the care I get from multiple places.	2.9 (1.1)	0.76	0.73	3.6 (0.7)	0.50	0.46
My doctor or practice knows me as a person.	2.8 (1.1)	0.84	0.82	3.5 (0.8)	0.55	0.55
My doctor and I have been through a lot together.	2.2 (1.1)	0.67	0.66	2.8 (1.2)	0.48	0.49
My doctor or practice stands up for me.	2.8 (1.0)	0.86	0.83	3.5 (0.8)	0.76	0.72
The care I get takes into account knowledge of my family.	2.7 (1.1)	0.79	0.77	3.2 (0.8)	0.67	0.61
The care I get in this practice is informed by knowledge of my community.	2.4 (1.1)	0.70	0.69	3.2 (0.9)	0.61	0.55
Over time, this practice helps me to meet my goals.	3.0 (1.0)	0.87	0.84	3.7 (0.6)	0.78	0.70
Over time, my practice helps me stay healthy.	2.8 (1.0)	0.85	0.82	3.6 (0.6)	0.74	0.65



Welcome

THE FUTURE OF HEALTH
CARE IS IN YOUR
HANDS

“Do or do not, there is no try.”

- Jedi Master Yoda



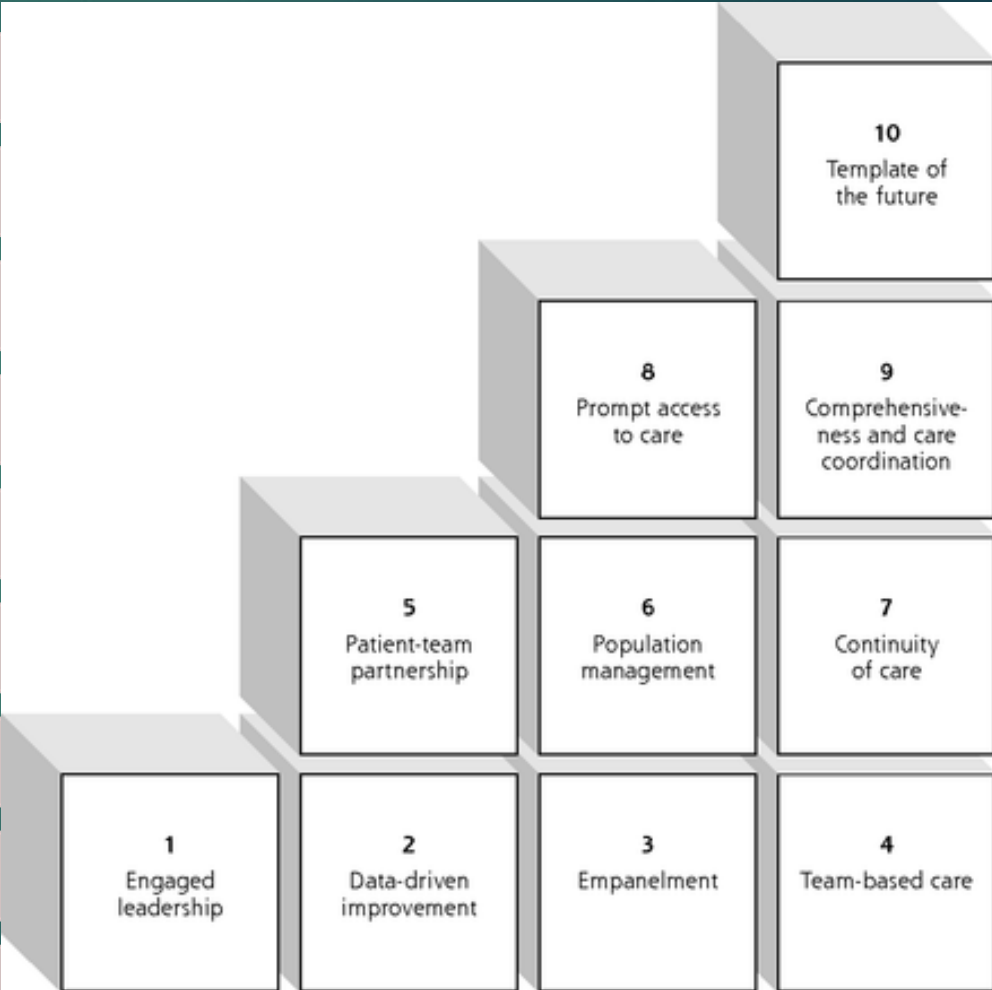
Patient-Centered Medical Home



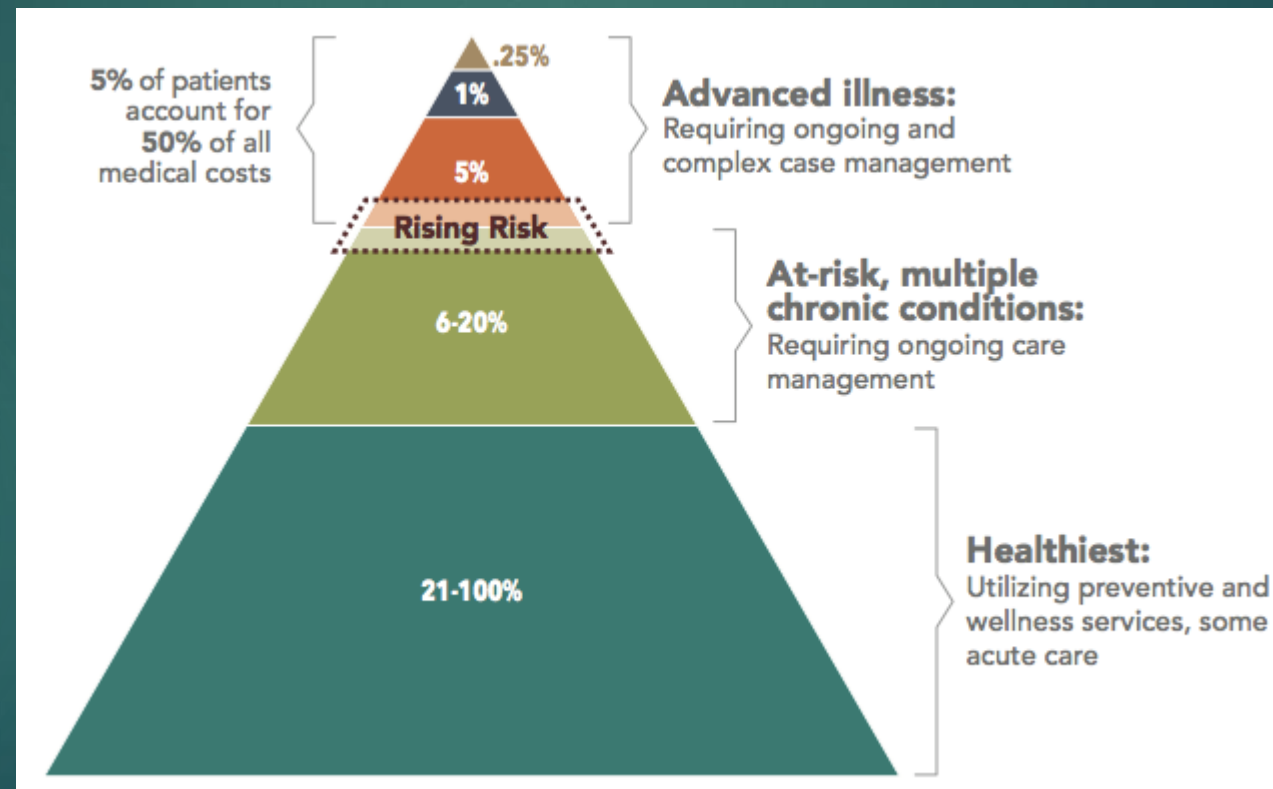
Patient-centered | Physician-directed

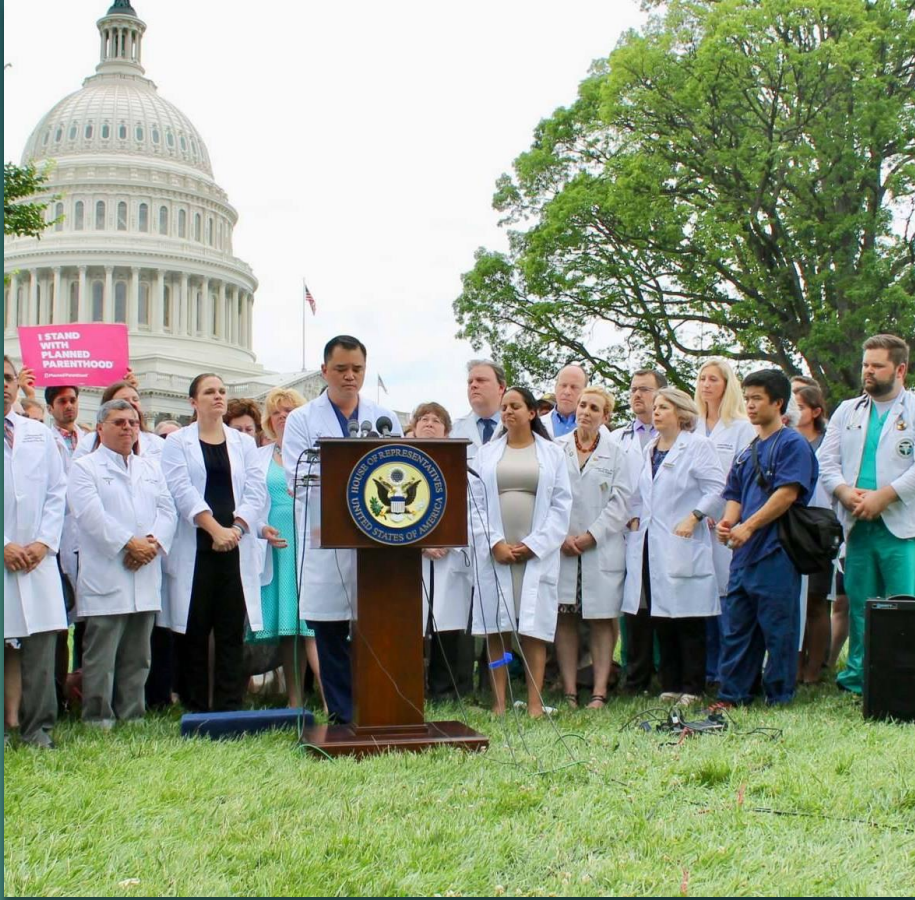
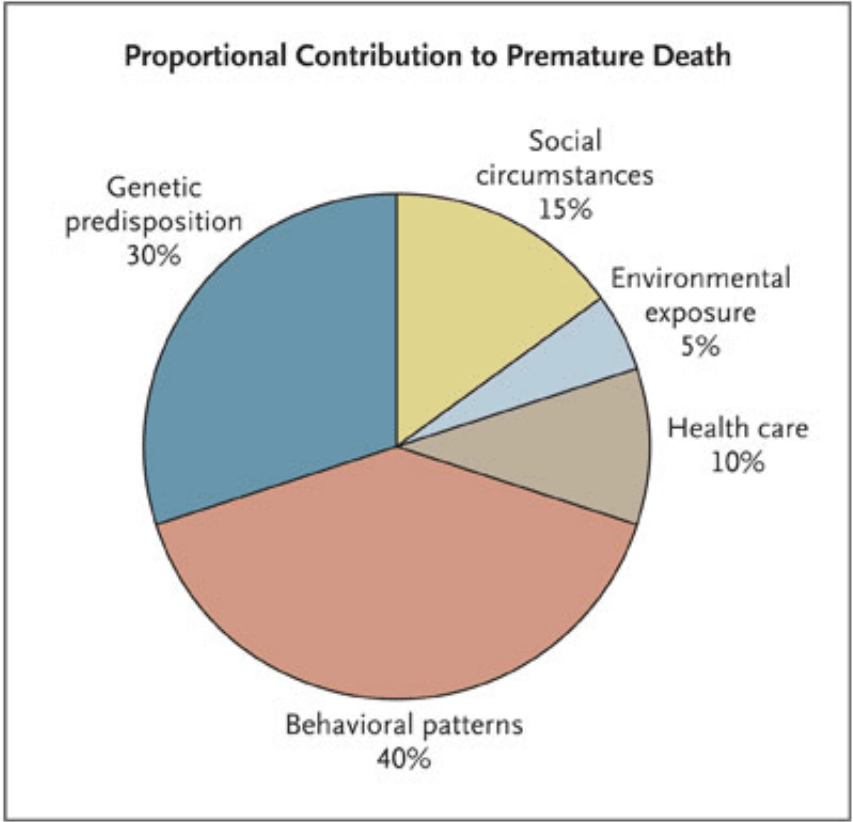
Foundational Building Blocks

Engaged leadership	<ul style="list-style-type: none"> • Is it in our values/mission/strategy?
Data-driven improvement	<ul style="list-style-type: none"> • Cascading reports • Standard leader work
Empanelment	<ul style="list-style-type: none"> • Accountability for managing individual patients
Team-based care	<ul style="list-style-type: none"> • Share-the-care to top of licensure
Patient-team partnership	<ul style="list-style-type: none"> • Engagement > Satisfaction
Population management	<ul style="list-style-type: none"> • Accountability for managing population of patients
Continuity of care	<ul style="list-style-type: none"> • End medical homelessness
Prompt access to care	<ul style="list-style-type: none"> • Right care, right place, right time
Comprehensiveness and care coordination	<ul style="list-style-type: none"> • Do all that you can every time • Team members who enhance the care between face-to-face visits



Population Health Pyramid





HEALTH IN ALL POLICIES

“A goal is not always meant to be reached. It often serves simply as something to aim at.”

- Bruce Lee



Value of membership: Finding community



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THANK YOU!

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#MakeHealthPrimary
#FMRevolution
#FMRising