



**IMPROVING HEALTH OUTSIDE THE HOSPITAL WALLS: Mini-Medical School Series. Feb 27, 2020**

# Adverse Childhood Experiences (ACEs)

**Mohsen Malekinejad, MD, DrPH (moderator)**

Director, GRACE Initiative and Assistant Professor, Philip R. Lee Institute for Health Policy Studies and Institute for Global Health Sciences

**Joyce Dorado, PhD (panelist)**

Director, UCSF Healthy Environments and Response to Trauma in Schools and Clinical Professor, Department of Psychiatry

**William Martinez, PhD (panelist)**

Director, Child and Adolescent Services and Assistant Professor, Department of Psychiatry

**Melanie Thomas, MD, MS (panelist)**

Director, Solid Start, Zuckerberg San Francisco General Hospital and Associate Professor, Department of Psychiatry

# Panel Overview

- 1) Background on ACEs: Definition, Impacts, and how UCSF is responding to this major public health challenge (Malekinejad)
- 2) UCSF HEARTS: Creating Safe, Supportive, & Equitable Schools (Dorado)
- 3) ACES in Immigrant Youth: Prevention, Policy and Action (Martinez)
- 4) Maternal mental health as a window of opportunity to disrupt the inter-generational transmission of health disparities and negative impact of ACEs (Thomas)
- 5) Q&A

# Overview and Definitions

## Adverse Childhood Experiences



potentially traumatic events that can have negative, lasting effects on health and well-being.



These experiences range from physical, emotional, or sexual abuse to parental divorce or the incarceration of a parent or guardian.



Can be connected with negative behavioral and health outcomes, such as obesity, alcoholism, and depression, later in life.

Adversities included in the  
Landmark ACE study –  
BUT, this is not all of them

### The three types of ACEs include

#### ABUSE



Physical



Emotional



Sexual

#### NEGLECT



Physical

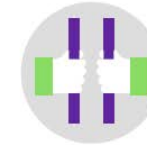


Emotional

#### HOUSEHOLD DYSFUNCTION



Mental Illness



Incarcerated Relative



Mother treated violently



Substance Abuse

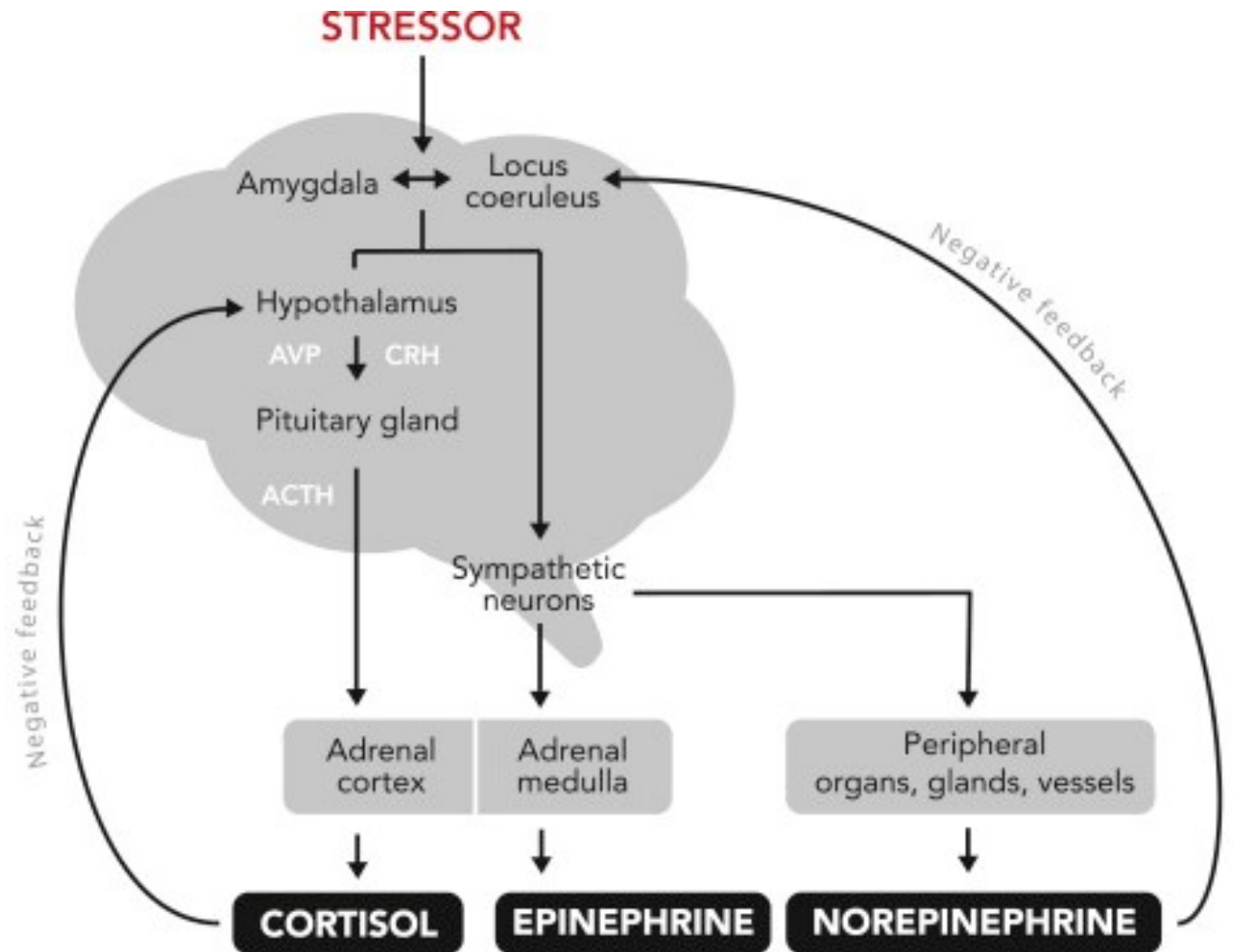


Divorce

Types of Adverse Childhood Experiences

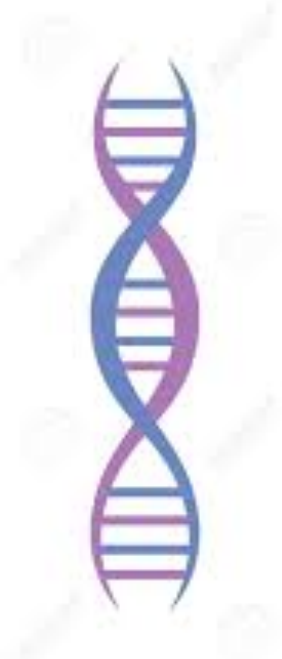
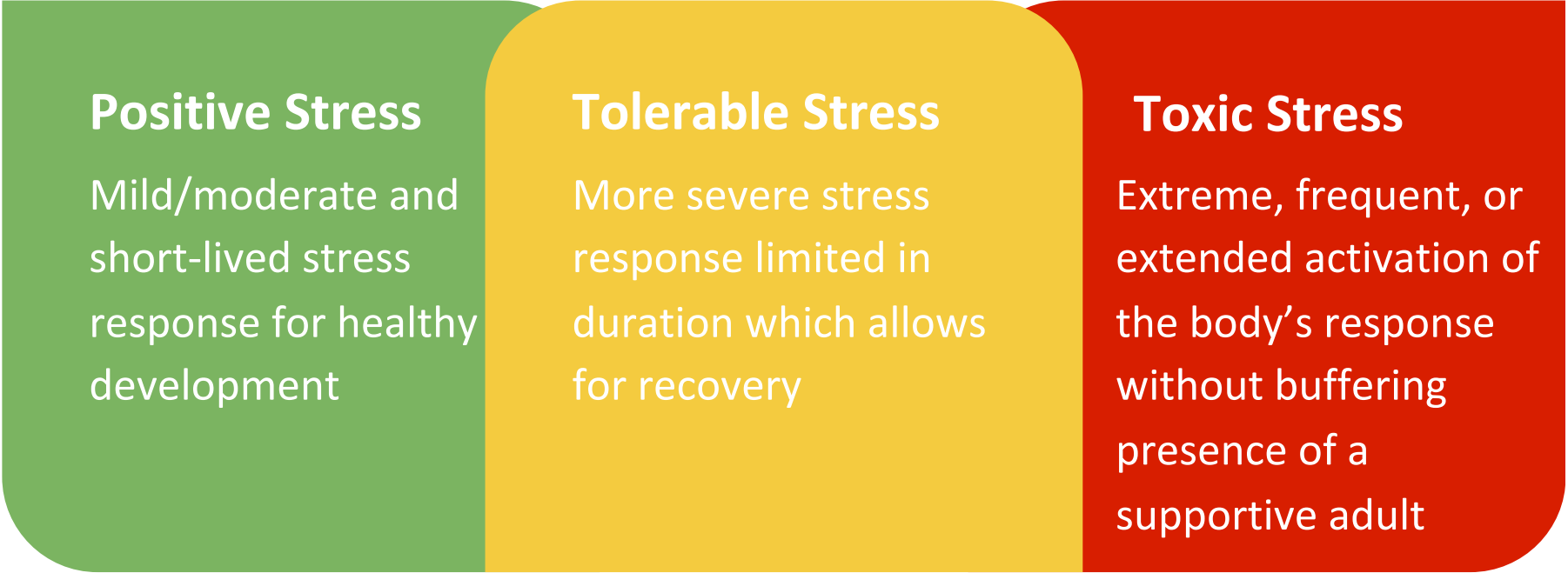
Image courtesy of the Robert Wood Johnson Foundation

# Mechanism for effect of ACEs on endocrine system



Source: Advances in Pediatrics

# Toxic Stress vs. Protective Factors



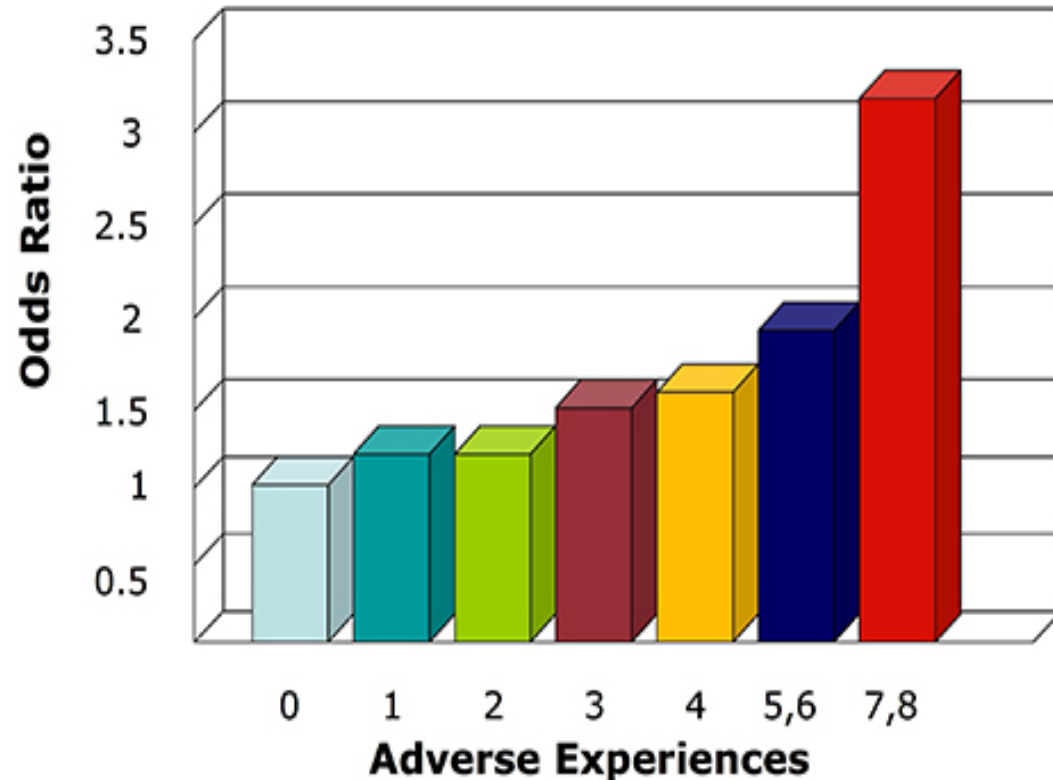
Intense, prolonged, repeated and unaddressed

Social-emotional buffering, parental resilience, early detection, and/or effective intervention

# How ACEs influence well-being throughout the lifespan



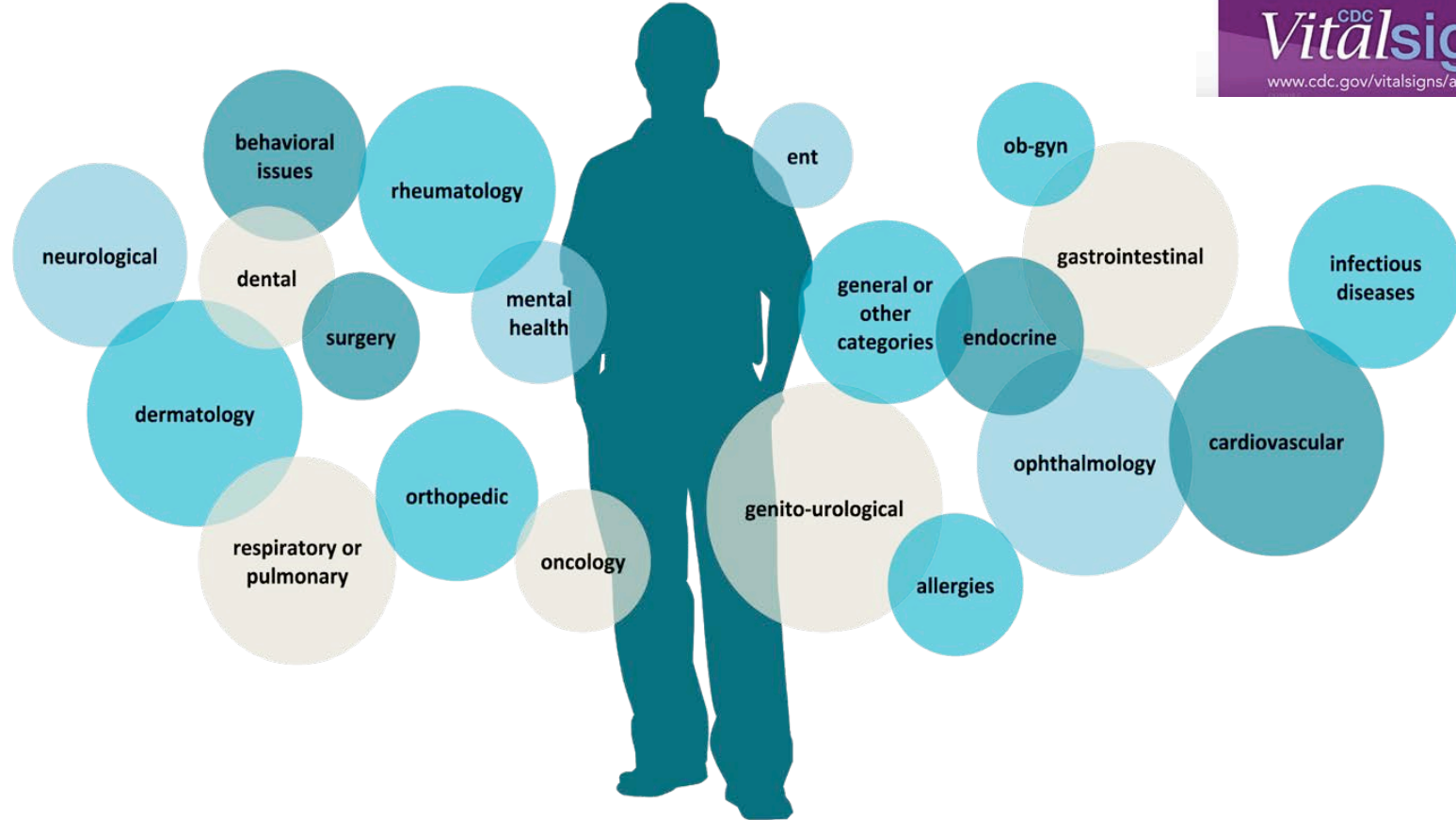
## Risk Factors for Adult Heart Disease are Embedded in Adverse Childhood Experiences



- The more adversity you experience as a child the higher the risk factors.
- Here we use Adult Heart Disease as an example.



# Consequences of lifetime exposure to violence and abuse.



Preventing ACEs could reduce a large number of health conditions.



UP TO  
**21 MILLION**  
CASES OF  
DEPRESSION

UP TO  
**1.9 MILLION**  
CASES OF  
HEART DISEASE

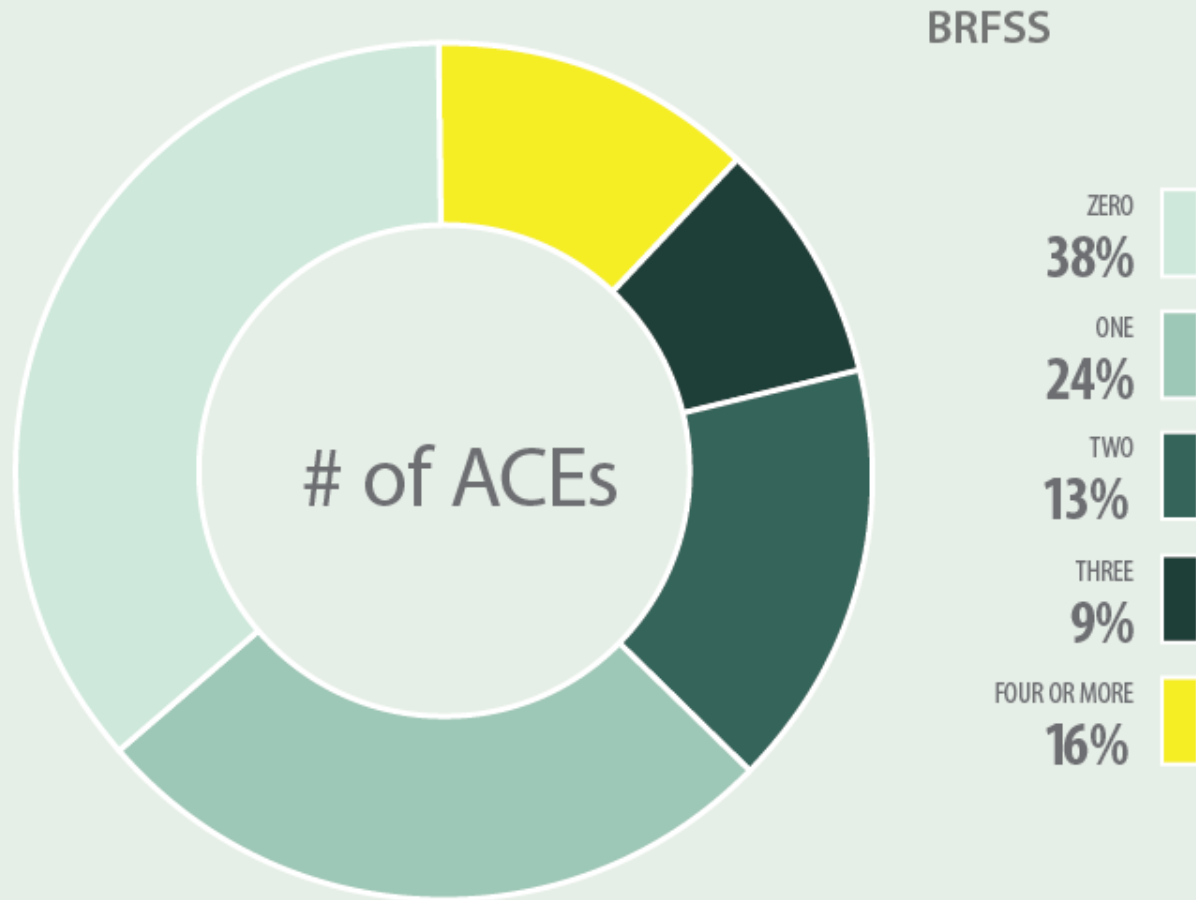
UP TO  
**2.5 MILLION**  
CASES OF  
OVERWEIGHT/OBESITY

SOURCE: National Estimates based on 2017 BRFSS; Vital Signs, MMWR November 2019.

**VitalSigns<sup>TM</sup>**  
www.cdc.gov/vitalsigns/aces

# How Common are ACEs?

ACE Score Prevalence for Participants  
Completing the ACE Module from the 2011-2014 BRFSS



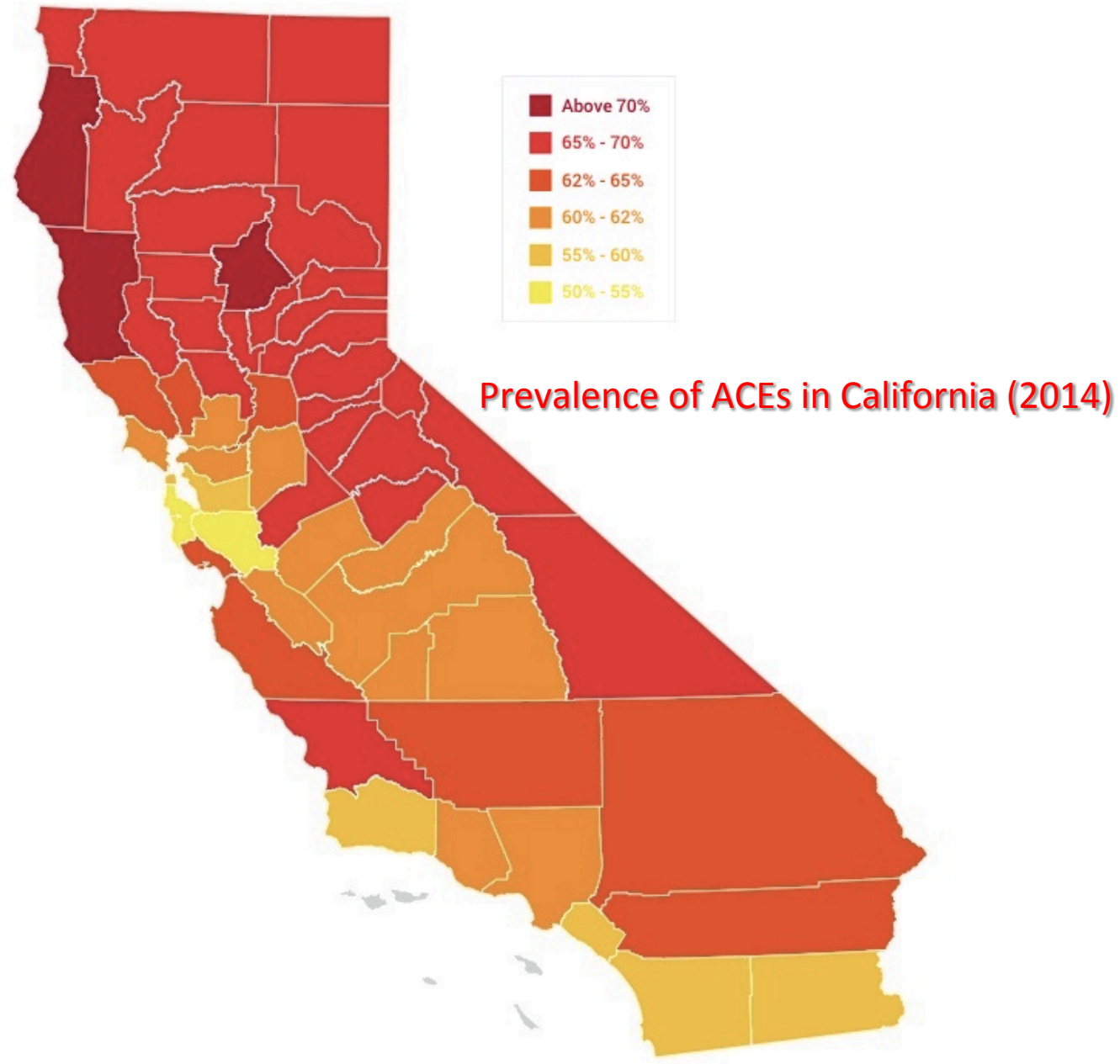
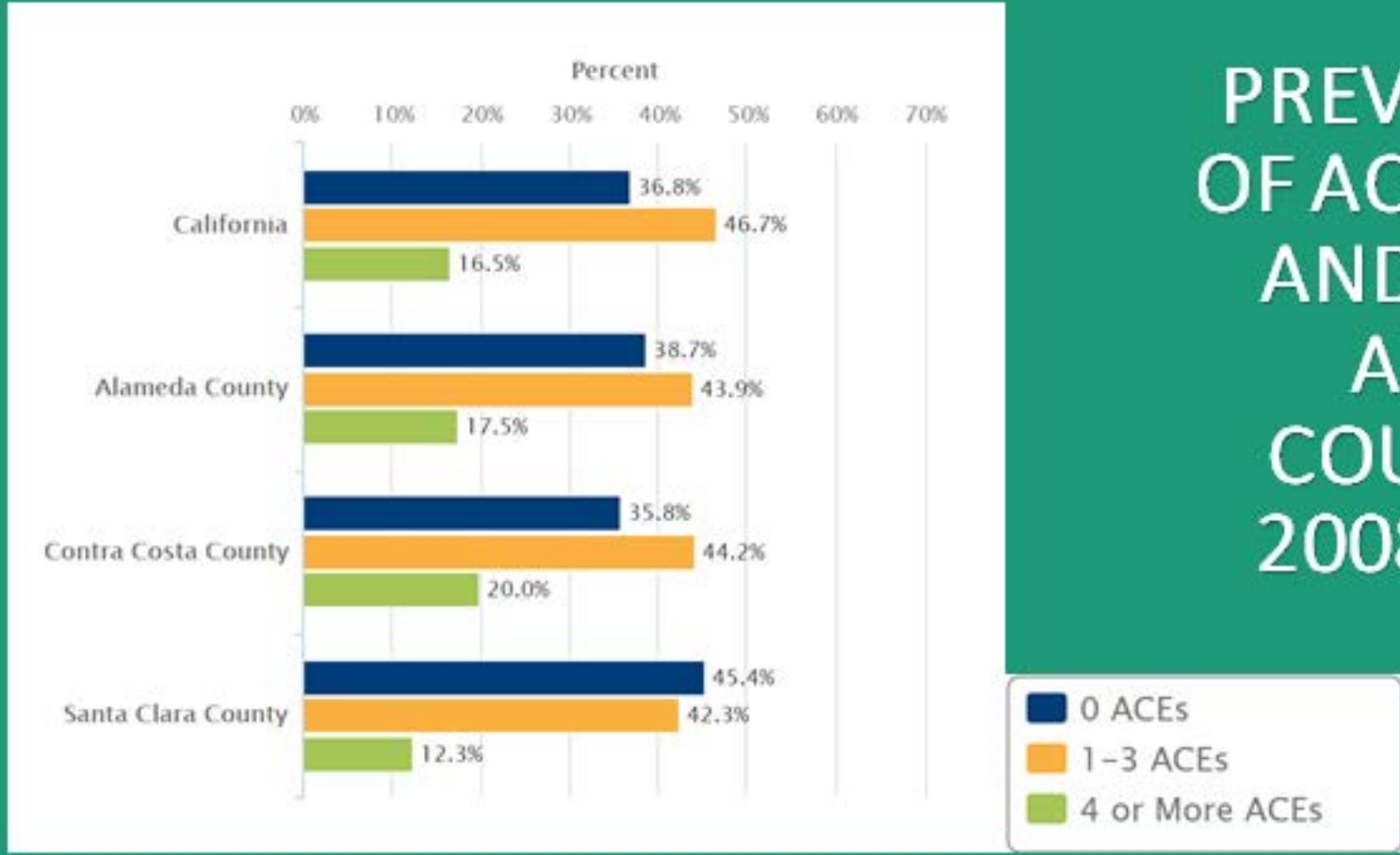


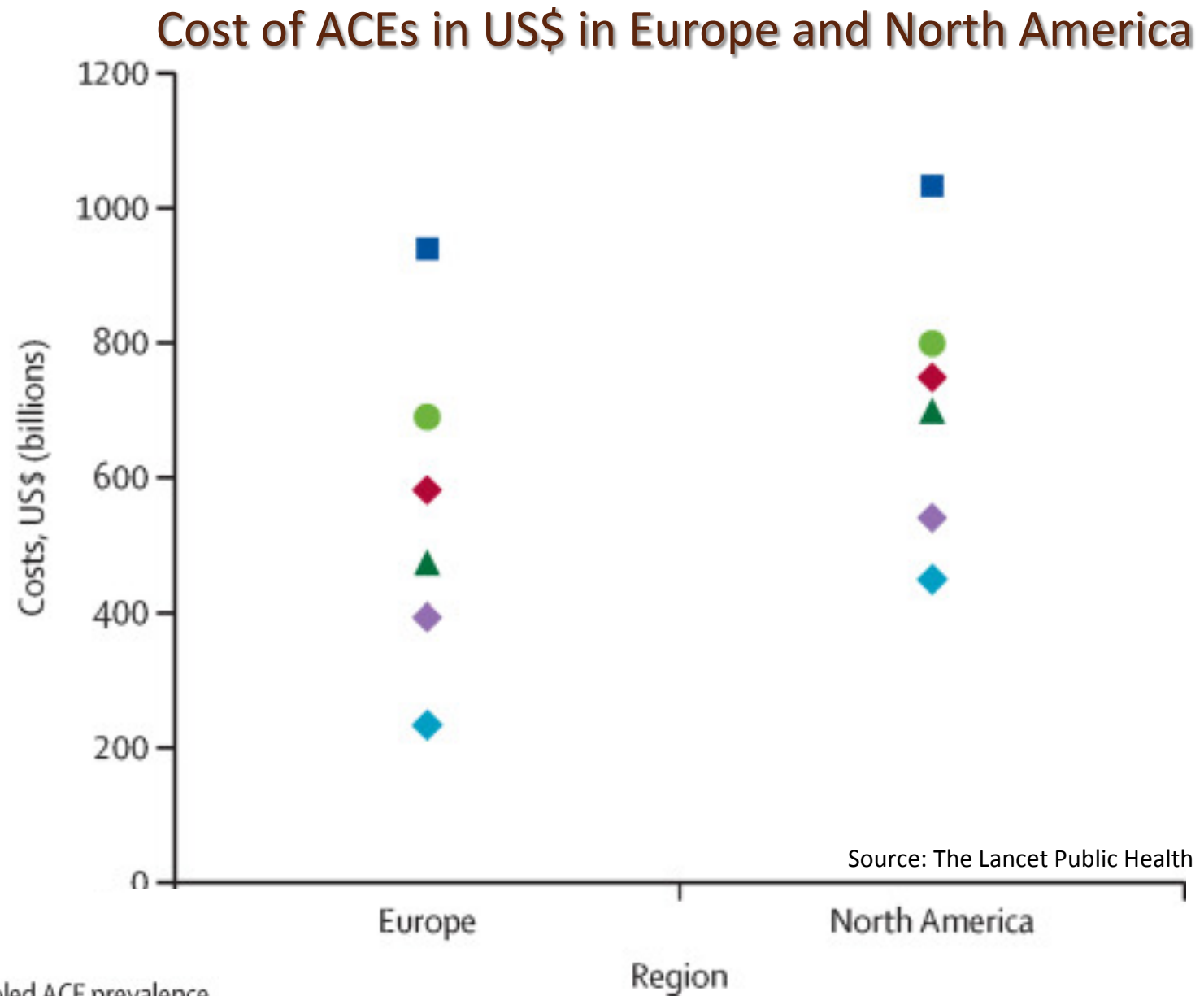
Figure 8: Percent of residents with at least one ACE across California counties

# PREVALENCE OF ACES IN CA AND 3 BAY AREA COUNTIES 2008-2013



Source: Kidsdata.org

The economic impacts of ACEs in the U.S are immense: costing \$150 - \$500 billion annually



Source: The Lancet Public Health

- Based on PAFs generated with upper CIs for pooled relative risks
- Based on PAFs generated with upper CIs for pooled prevalence of ACEs
- ◆ Best estimate: people aged 15 years and older, pooled relative risks, pooled ACE prevalence
- ▲ Based on PAFs generated using lower CIs for pooled prevalence of ACEs
- ◆ Limited to DALYs for people aged 15-69 years
- ◆ Based on PAFs generated with lower CIs for pooled relative risks





# Preventing ACEs

Strategy	Approach
<b>Strengthen economic supports to families</b>	<ul style="list-style-type: none"><li>• Strengthening household financial security</li><li>• Family-friendly work policies</li></ul>
<b>Promote social norms that protect against violence and adversity</b>	<ul style="list-style-type: none"><li>• Public education campaigns</li><li>• Legislative approaches to reduce corporal punishment</li><li>• Bystander approaches</li><li>• Men and boys as allies in prevention</li></ul>
<b>Ensure a strong start for children</b>	<ul style="list-style-type: none"><li>• Early childhood home visitation</li><li>• High-quality child care</li><li>• Preschool enrichment with family engagement</li></ul>
<b>Teach skills</b>	<ul style="list-style-type: none"><li>• Social-emotional learning</li><li>• Safe dating and healthy relationship skill programs</li><li>• Parenting skills and family relationship approaches</li></ul>
<b>Connect youth to caring adults and activities</b>	<ul style="list-style-type: none"><li>• Mentoring programs</li><li>• After-school programs</li></ul>
<b>Intervene to lessen immediate and long-term harms</b>	<ul style="list-style-type: none"><li>• Enhanced primary care</li><li>• Victim-centered services</li><li>• Treatment to lessen the harms of ACEs</li><li>• Treatment to prevent problem behavior and future involvement in violence</li><li>• Family-centered treatment for substance use disorders</li></ul>

# California ACEs Aware Initiative

## California's Approach

- Establish primary prevention by addressing systemic and structural factors and deploying a coordinated public education campaign.
- **Systematically deploy broad scale screening to enable early detection and early intervention of ACEs and toxic stress.**
- **Interrupt vertical transmission of ACEs by advancing screening and children in adults – with special focus on the prenatal and early parenting years.**
- Coordinate and strengthen the network of referral and treatment systems to make them more effective, accountable and easy to navigate for children, adults and providers.
- Advance the science of toxic stress, identify potential therapeutic targets and improve efficacy of interventions.



Center / Program Name	Mission
<b>Psychiatry</b>	
Child Trauma Research Center	Developing family-centered effective interventions for children and parents who experience traumatic events.
Solid Start Initiative	Promoting health and health equity through innovative models of integrated care to support pregnant woman and families with children ages 0-3
Healthy Environments and Response to Trauma in Schools (HEARTS)	Building trauma-informed schools through shifting school personnel's practices, procedure, and policies
Program of Research on Mental Health Integration among Underserved and Minority Population (PREMIUM)	Improving mental health integration and general health care of marginalized communities and vulnerable populations
Center for Health and Community	Enabling a comprehensive understanding of social, behavioral, and policy aspect of health and health equity across the lifespan through cross-disciplinary research and education
Trauma Recovery Center	Providing evidence-based trauma-focused care for adult survivors of interpersonal violence
Fuerte Program	Providing school-based secondary prevention program at SF school district for newcomer Latinx immigrant youth at risk for behavioral health concerns
<b>Medicine</b>	
Center for Health Equity	Utilizing innovative approached to study and monitor social disparities in health and health care
Center for Vulnerable Populations	Developing effective strategies to prevent and treat chronic diseases in disadvantaged communities, with a recent focus on homelessness
Social Interventions Research and Evaluation Network (SIREN)	Improving health and health equity by advancing high quality research on health care sector strategies to improve social conditions
Center to Advance Trauma-Informed Health Care	Preventing children abuse and neglect, reducing infant mortality, and more effectively solving country's most pressing health issues though effective address of trauma
Refugee and Asylum Seeker Health Initiative (RAHI)	Improving health outcomes for refugees and asylum seekers around the work through incorporation of evidence-based medical research, cultural competency, social determinants of health, and international collaborations
Program in Medical Education for the Urban Underserved	Supporting and equipping medical students to provide healthcare to urban underserved communities and promote health equity
<b>Pediatrics / Benioff Children Hospital Oakland*</b>	
Division of Developmental Medicine	Addressing specific needs of families and children with complex developmental and behavioral issues / conducting research on stress biomarkers to understand intergenerational effects of trauma.
National Adolescent and Young Adult Health Information Center	Promoting adolescent and young adult health by focusing on the intersection of public health, systems of care and clinical practice, through research and synthesis, and dissemination, networking and partnering
Center for Vulnerable Child*	Providing individual and family therapy, clinical and medical case management, developmental screening, and parental education to the most vulnerable children in the community
Center for Child Protection*	Offering an interdisciplinary approach for early detection and prevention of child abuse and violence
Center for Nature and Health*	Developing nature-based behavioral interventions for psychologically traumatized children
The Family Information and Navigation Desk (FIND)*	Provide medical care and help connect families to community resources that provide for basic needs

# UCSF ACEs Scientific Community



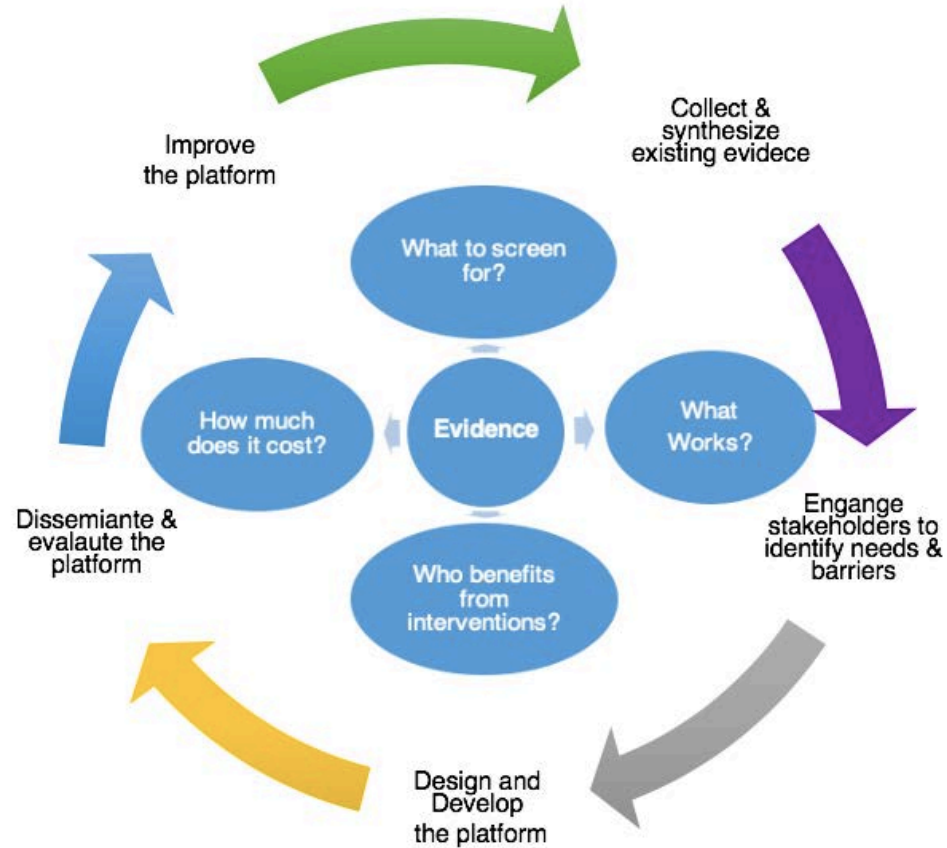


# Globally Reduce Adverse Childhood Experiences (GRACE) Initiative

Mission: To advance and translate the science of adverse childhood experiences (ACEs) to improve the lives of children and families worldwide.



# Objectives



1) Promote coordinated and evidence-based ACEs policies and programs in health care and other sectors.

2) To develop resilience-enhancing interventions via play to reduce the burden of ACEs among forcibly displaced children

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The Family Information and Navigation Desk (FIND)*	Provide medical care and help connect families to community resources that provide for basic needs

3) To expand and cultivate the network of ACEs community

# THANK YOU GRACE TEAM & Partners at ACEsConnections

## Volunteers & Staff



Sonia Ghandi M.S



Teresa Moeller B.S.



Erin Barker M.A



Rafael Maravilla B.S.

## Leadership & Advisors



George W. Rutherford, MD, AM



Claire D. Brindis, DrPH



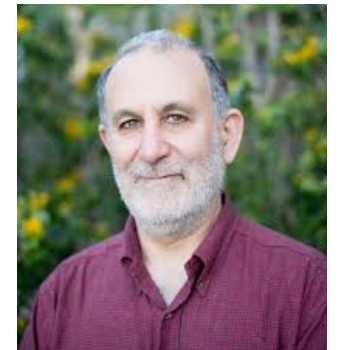
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Bennett Leventhal, MD



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# Thank You!

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<https://tiny.ucsf.edu/GRACE>

Twitter: @Dr\_Malekinejad

grace  
initiative

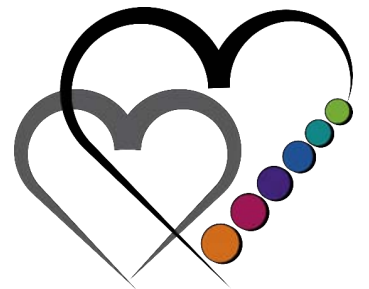


# UCSF HEARTS: Promoting Resilience & Healing in Schools

UCSF Healthy Environments and Response to Trauma in Schools  
(HEARTS)

Joyce Dorado, PhD  
Director and Co-Founder, UCSF HEARTS  
Clinical Professor, Psychiatry Dept.

Division of Infant, Child, & Adolescent Psychiatry  
UCSF-Zuckerberg San Francisco General Hospital



# UCSF HEARTS

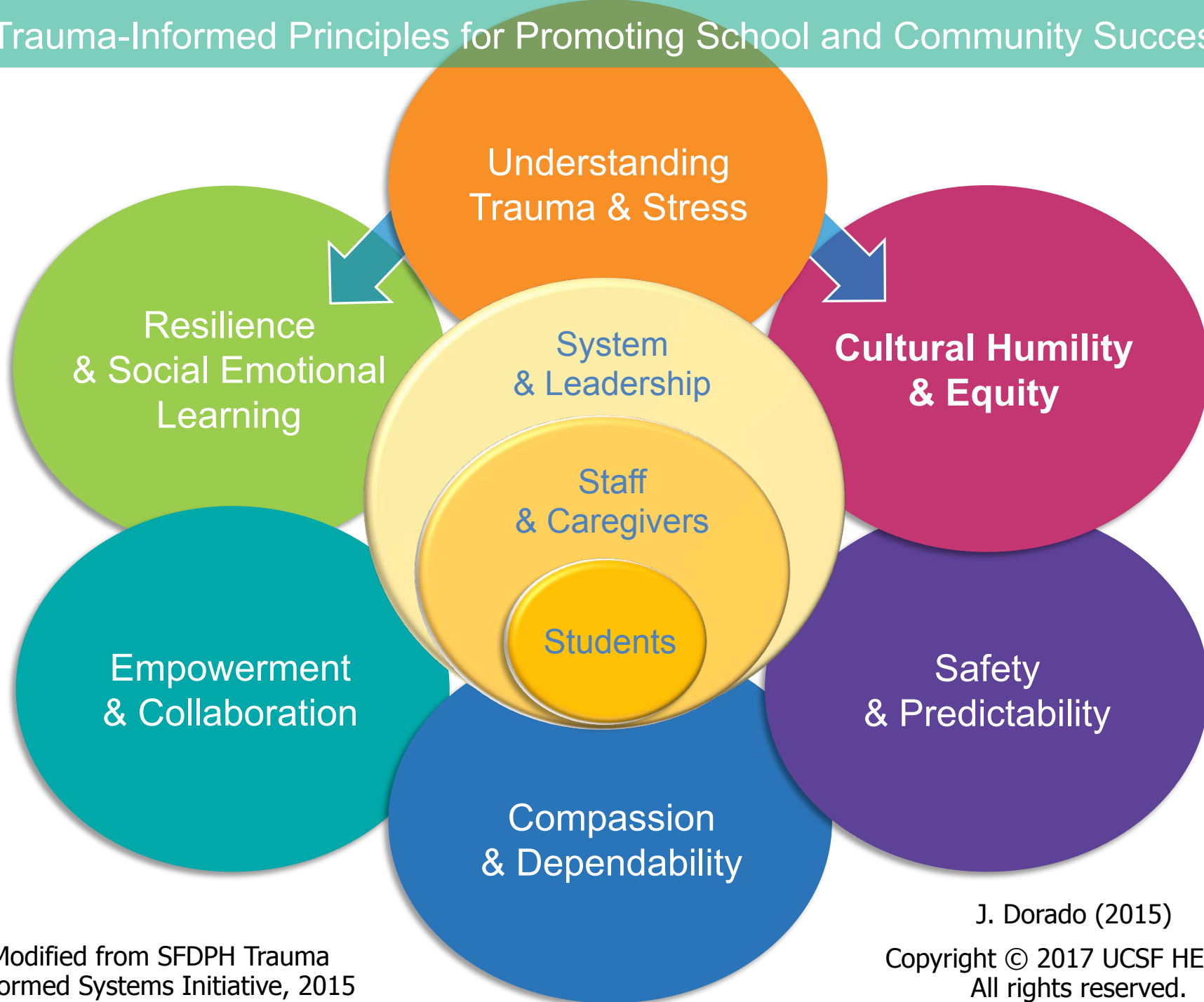
## (Healthy Environments and Response to Trauma in Schools)

**Mission:** To promote school success for trauma-impacted students by collaborating with school systems to create more trauma-informed, safe, supportive, and equitable school cultures and climates that foster resilience and wellness for everyone in the school community.



[HEARTS.ucsf.edu](https://hearts.ucsf.edu)

# Trauma-Informed Principles for Promoting School and Community Success



Modified from SFDPH Trauma Informed Systems Initiative, 2015

J. Dorado (2015)  
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# Understanding Trauma & Stress

# Trauma = Event, Experience, & Effect

Event

Danger or extreme threat of harm

Experience

“Fight, flight or freeze”

+

Helpless to escape

Overwhelms brain and body

Effect

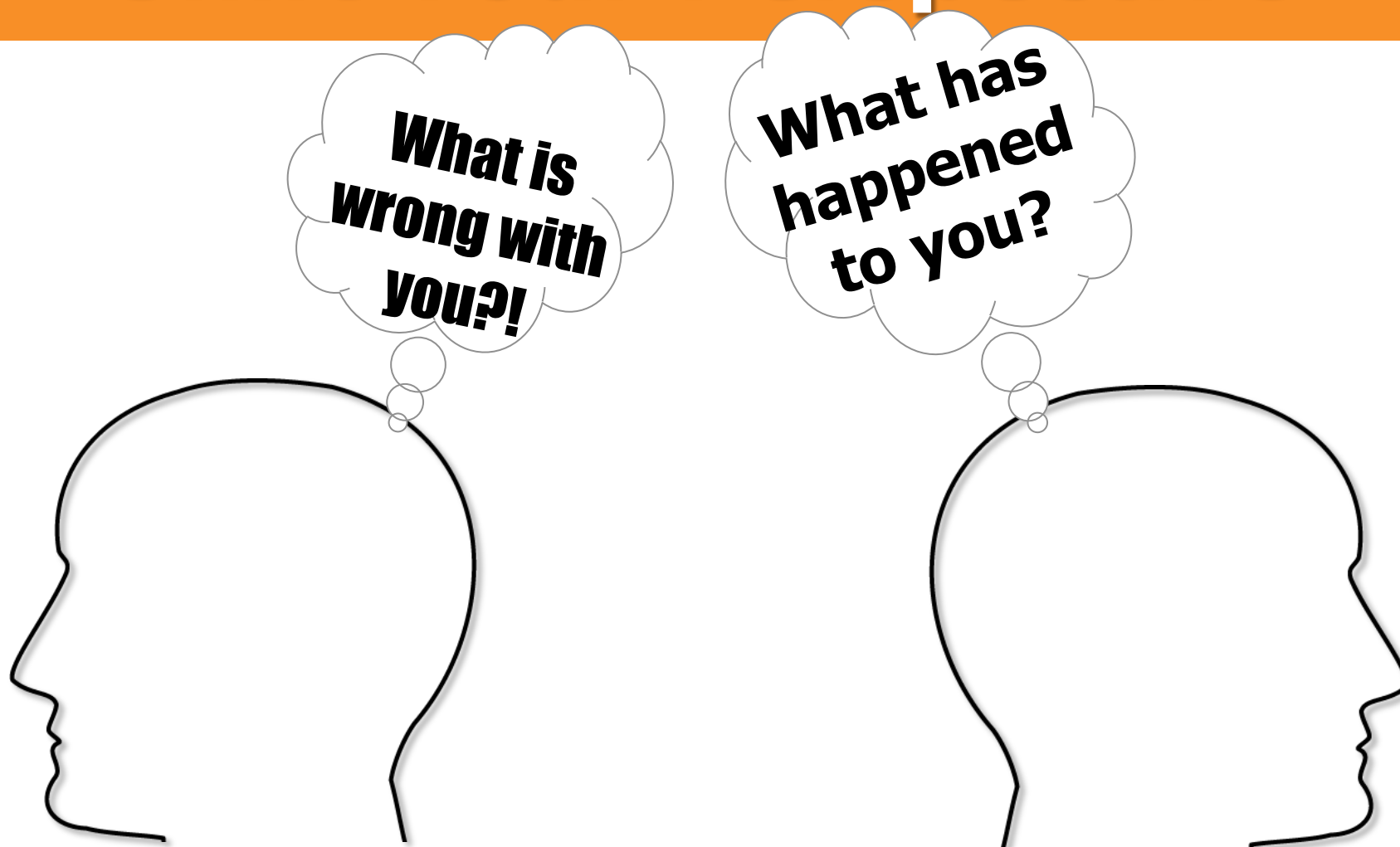
Dis-integration

Dysregulation

Lasting adverse effects

(Herman, 1997; Van der Kolk, 2005; DSM-IV-TR; SAMHSA; Siegel, 2012; Bloom, 2013)

# Shift Your Perspective



Provides **context**, fosters **compassion**,  
helps us to see **strengths** in face of adversity

# Trauma “Wears a Groove” in the Brain



## “The Fear Song”

# “Flipping One’s Lid”



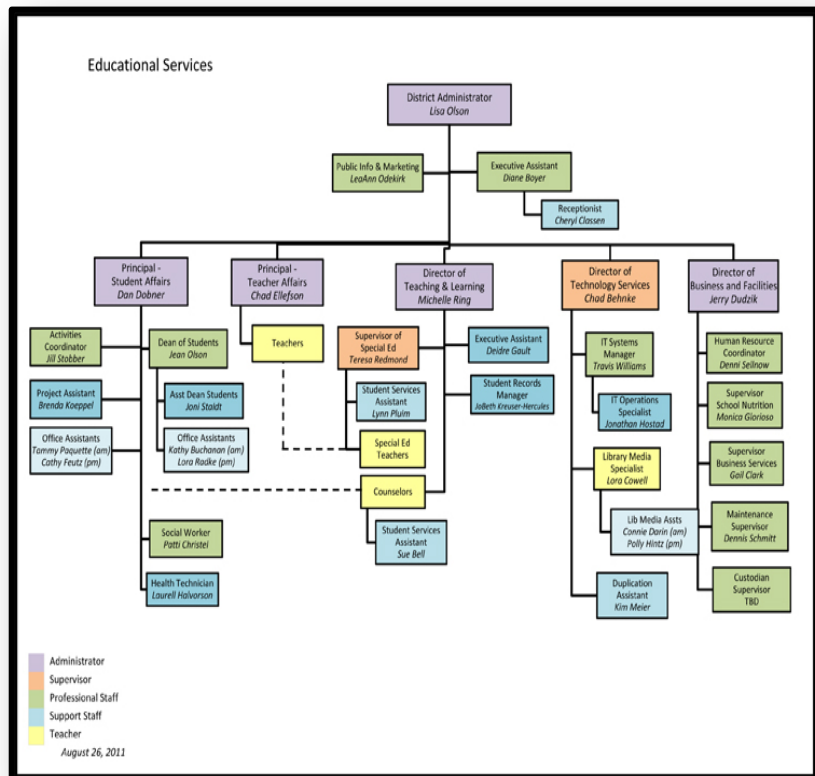
→ Prefrontal cortex  
P.F.C.  
“THE WISE LEADER”




← “Flipped Your Lid”  
← The big emotions, anger, fear,  
anxiety etc...  
The AMYGDALA - The alarm center  
Acts on instinct  
fight, flight or freeze

Credit: Daniel Siegel, V.D. is the creator of this metaphor and expression “Flipped Lid”. Copyright © 2014 www.sharonelby.com

# At Systemic Level: Chronic Stress and Trauma Can Lead to Dis-organization



Address stress & secondary trauma  
on organizational level



Cultural Humility  
& Equity

# Sociocultural Trauma

Historical

Institutional



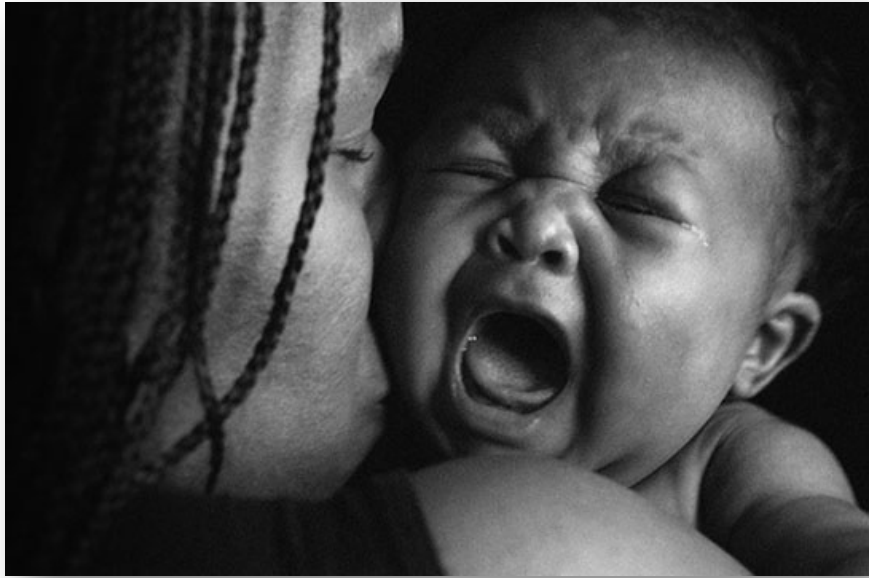
Individual

Interpersonal



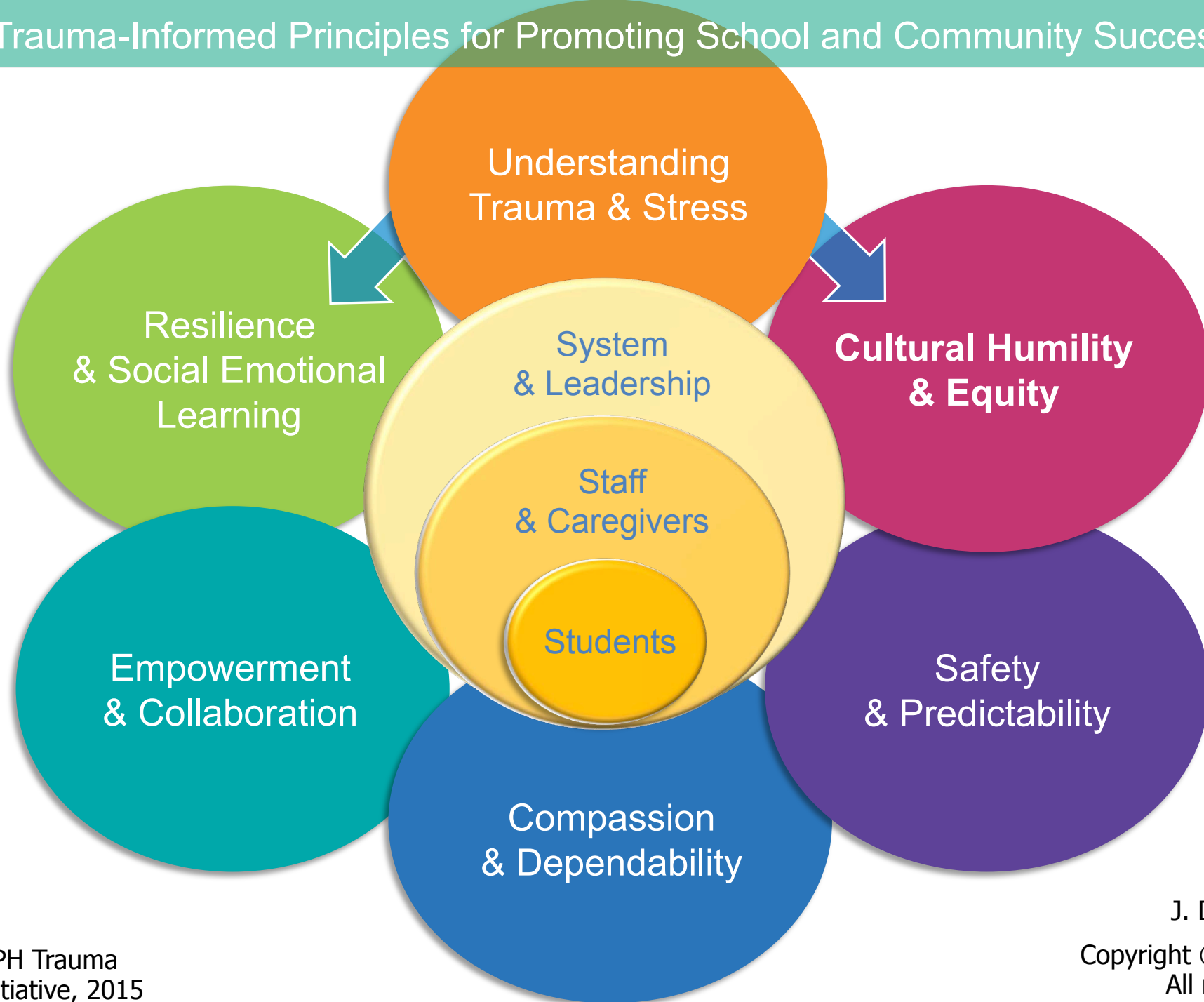
# Trauma-Informed Principles for Promoting School and Community Success





J. Dorado (2014)

# Trauma-Informed Principles for Promoting School and Community Success



# Program Evaluation Highlights

(end-of-year surveys across schools where HEARTS implemented for at least two years)

## HEARTS schools' staff report

- 68% increase in knowledge about trauma-informed practices
- 49% increase in use of trauma-informed practices
- 28% increase in students' ability to learn
- 35% increase in students' time spent in the classroom (vs. out of class due to behavioral issues)

# Program Evaluation Highlights

(in school where HEARTS implemented for longest time)

(pre-post design without control group)

- Decrease in disciplinary office referrals
  - 32% after Year 1
  - 87% after Year 5
- Decrease in student aggression incidents
  - 43% after Year 1
  - 86% after Year 5
- Decrease in suspensions
  - 95% after Year 5



# HEARTS in the Community



**SFUSD**  
SAN FRANCISCO  
PUBLIC SCHOOLS



**OAKLAND UNIFIED  
SCHOOL DISTRICT**  
*Community Schools, Thriving Students*



SAN FRANCISCO  
DEPARTMENT OF PUBLIC HEALTH  
**TRAUMA  
INFORMED  
SYSTEMS**



# Changing the World



# Acknowledgements

- Miriam Martinez, PhD, Co-Founder, UCSF HEARTS
- Lynn Dolce, MFT, collaborated on UCSF HEARTS Training of Trainers Curriculum
- San Francisco Unified School District
- Oakland Unified School District
- Massachusetts Advocates for Children: Trauma and Learning Policy Initiative
- UCSF Center of Excellence in Women's Health
- UCSF HEARTS made possible through generous funding from **Metta Fund**, as well from the John and Lisa Pritzker Family Fund; the SF Dept. of Children, Youth, and Their Families (Mayor's Wellness Fund); Lieff, Cabraser, Heimann & Bernstein, LLP; The Tipping Point Foundation; SFUSD School Improvement Grant (SIG) funds; and the SoMa Fund (Mayor's Office of Housing and Community Development)



A map of Central America and the Caribbean region, showing countries like Mexico, Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, and various Caribbean islands. Major cities and bodies of water are labeled. The map is overlaid with a semi-transparent dark grey box containing text.

# *ACES in Immigrant Youth: Prevention, Policy and Action*

William Martinez, Ph.D.

Assistant Professor

Director of Child and Adolescent Services

Zuckerberg San Francisco General Hospital

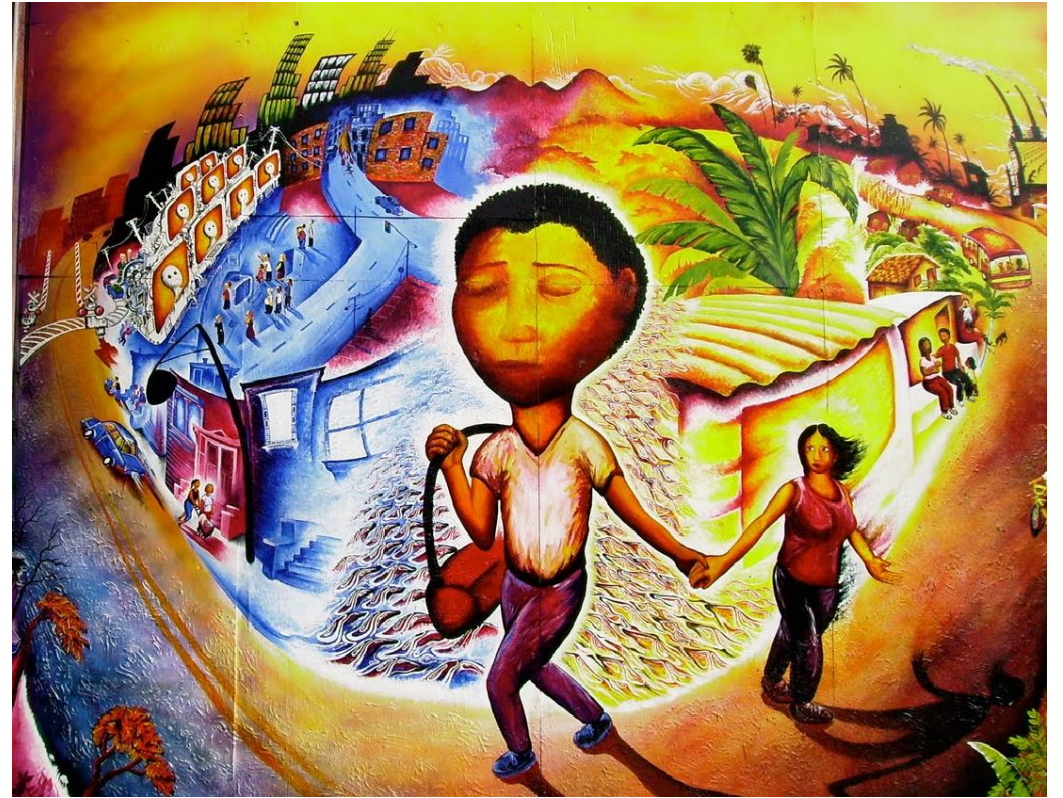
Division of Infant, Child, and Adolescent Psychiatry

Department of Psychiatry

University of California, San Francisco

# Overview

- Background
- *Fuerte* Program
- Current Study



*El Inmigrante*. Street mural located at Shotwell St. and 23<sup>rd</sup> Street, La Mision, San Francisco, CA.  
© Joel Bergner (2005).





*Background*

# Behavioral Health Concerns

- ACES
  - Pre-migration, en route, post-migration<sup>1</sup>
  - 58%+ eligible for international protection<sup>2</sup>
- ACES associated with:
  - PTSD
  - Depression
  - Anxiety
  - Risk-taking behaviors



United Nations High Commissioner for Refugees Report (2014)

<sup>1</sup>Foster (2011). <sup>2</sup>United Nations High Commissioner for Refugees (2014). <sup>3</sup>Suarez-Orozco et al. (2015).

# Treatment Access and Use

- Disparities in treatment access and use<sup>1,2</sup>
- Confluence of causes
  - Poverty/SES
  - Language
  - Undocumented status
  - Low mental health literacy
  - Isolation
- Strengths
  - Family
  - Community
  - Cultural



*Enrique's Journey*. Street mural located in Balmy Alley, La Mision, San Francisco, CA.  
© Josue Rojas (2014).

<sup>1</sup>Alegria et al. (2017). <sup>2</sup>Suarez-Orozco et al. (2015).

# School-based Prevention Programs

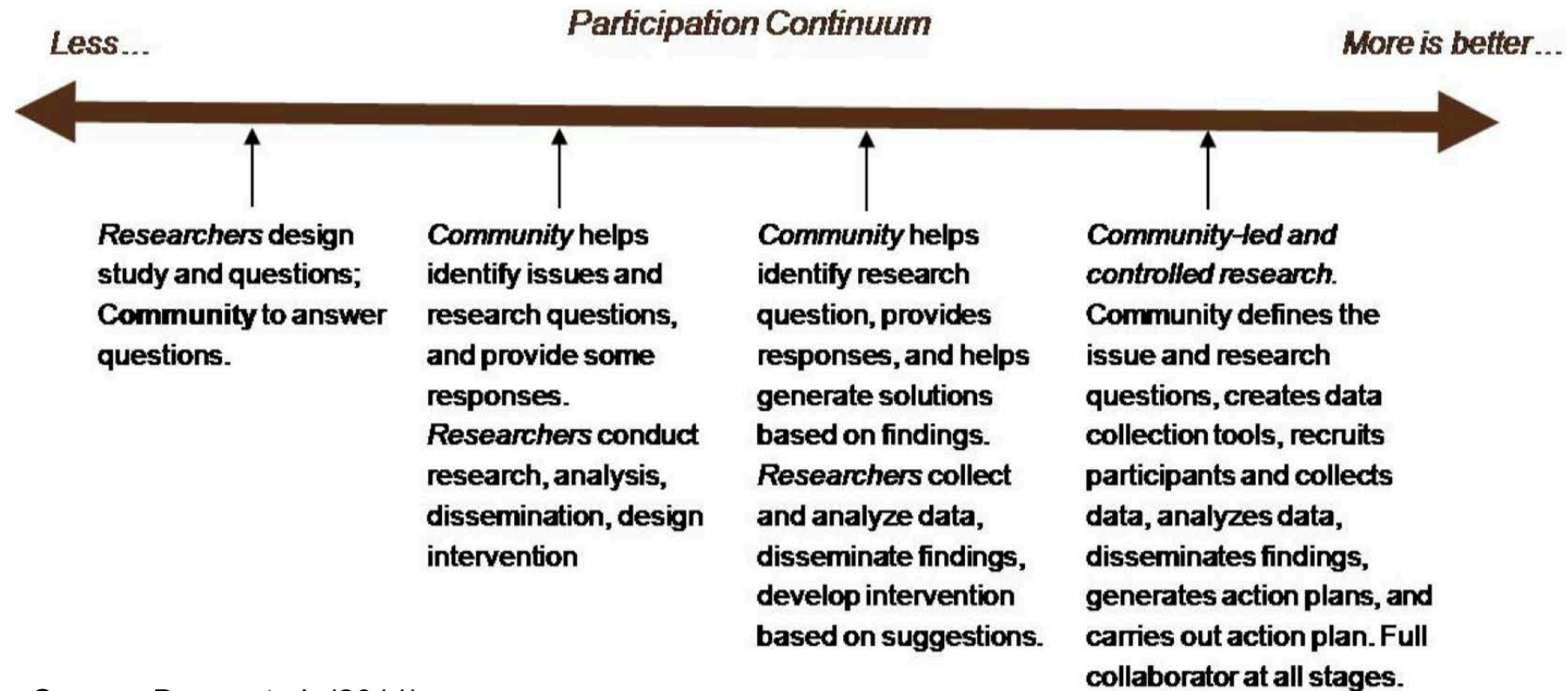
- Frontline for addressing behavioral health concerns among this population<sup>1,2</sup>
  - Early identification
  - Facilitate linkages/initiation
  - School participation = resilience<sup>3</sup>
  - Local development/smaller scale





# Community-based Participatory Research

- “Democratized” Research



Source: Burns et al. (2011)

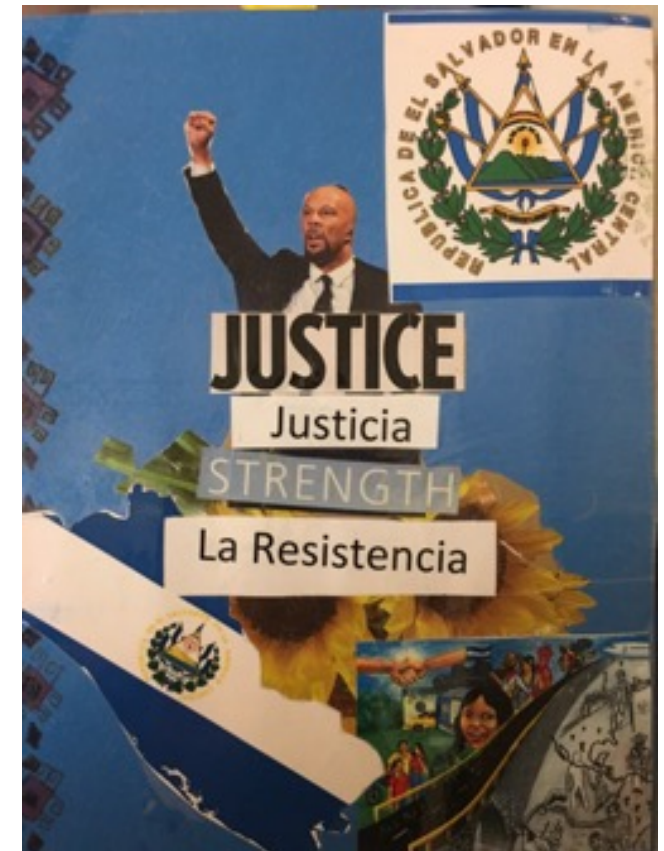


*Fuerte*

\_\_\_\_\_

# School-Based Groups

- Grassroots efforts
- Since 2014:
  - 9 SFUSD middle/high schools
  - Over 150 youth served
- Pilot data
  - Early evidence of feasibility and positive outcomes
  - Youth report increased social connectedness
- No systematic program evaluation has taken place



# Components



- Collaborative Initiative
- Innovative Service Delivery Model
- Led by Trained Mental Health Providers & School Staff
- Target Youth Ages 12-18
- Evidence-based & Trauma-Informed

## Modules

- Module 1 – Introduction and Goals
- Module 2 – Routines, Rituals, and Traditions
- Module 3 – Affect Identification
- Module 4 – Affect Management
- Module 5 – Stress of Immigration
- Module 6 – Attunement and Communication Skills
- Module 7 – Conclusion

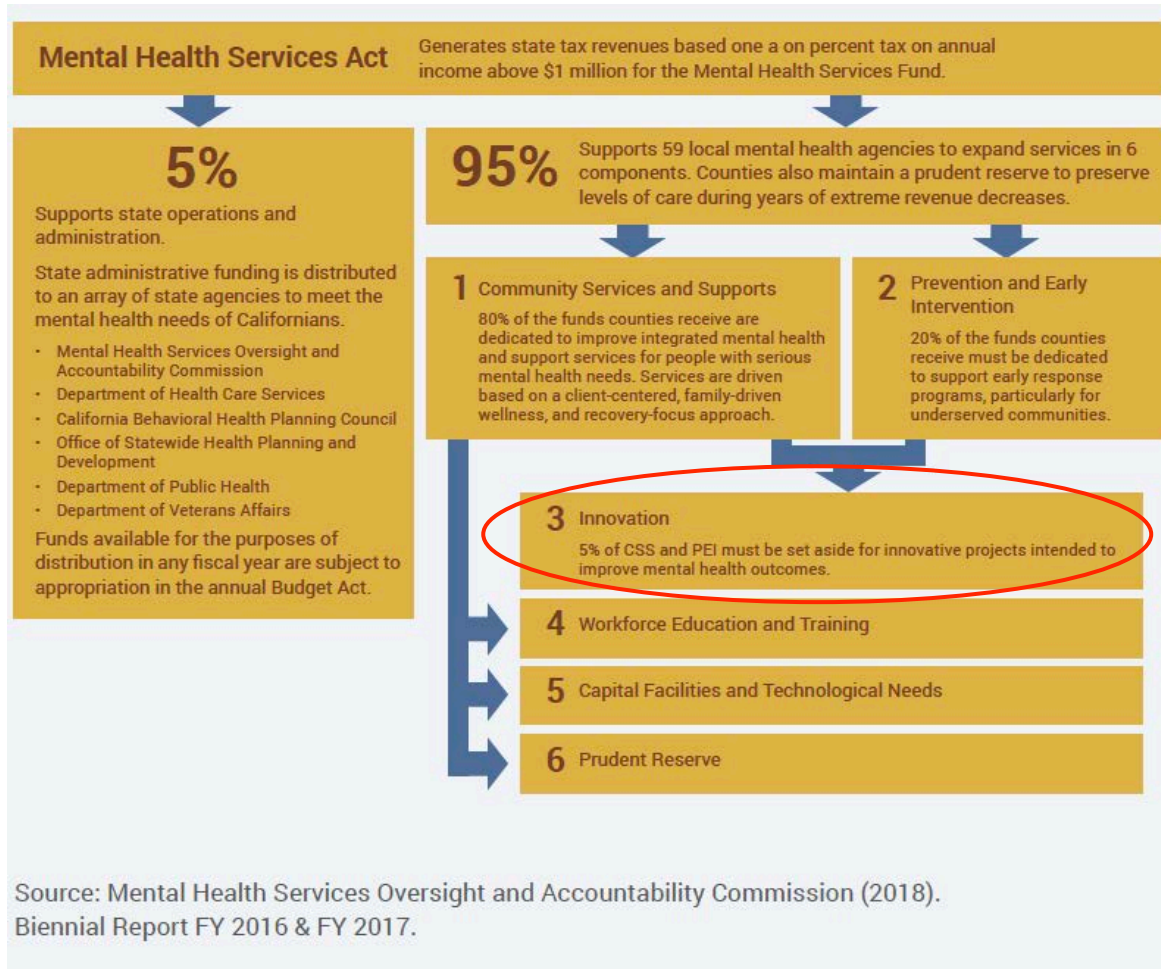




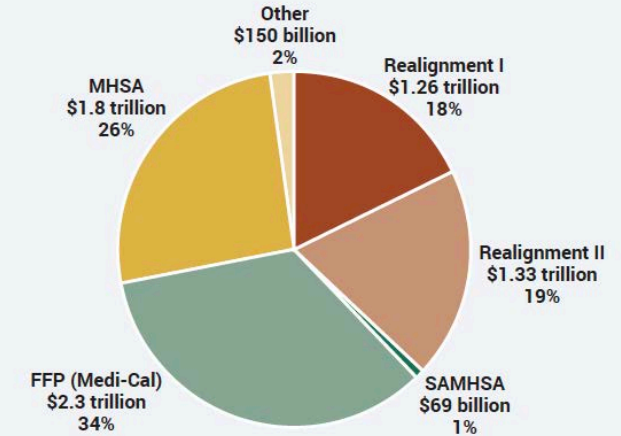
## Collaborators



# CA Mental Health Services Act Funded Program



Local Mental Health Funding in Fiscal Year 2016/17



Source: Mental Health Services Oversight and Accountability Commission (2018). Biennial Report FY 2016 & FY 2017.





# *Fuerte* Study Aims



I.

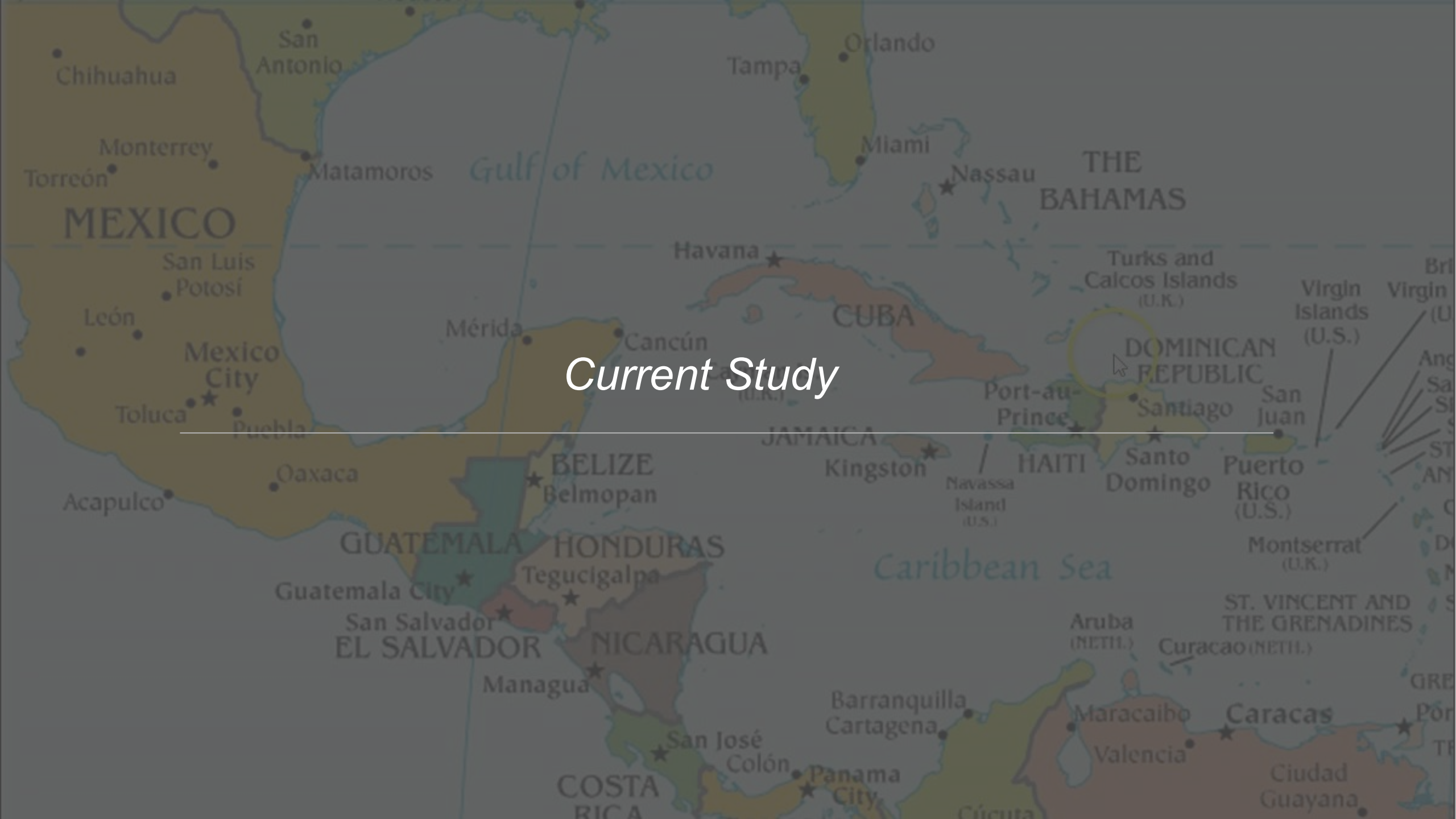
Conduct RCT within at least 8 SFUSD middle and high schools and include 400 youth.

II.

Develop provider “playbook” that will inform adaptation of Fuerte to other newcomer immigrant groups.

III.

Create framework for interagency and partner collaborations to prepare for large-scale implementation across other counties in California.



*Current Study*



## RESEARCH TEAM



William Martinez,  
PhD  
Principal  
Investigator



Tatiana Baquero-  
Devis, MS  
Senior Clinical  
Research  
Coordinator



Alex Quintanilla,  
LCSW  
Training Coordinator



Daman Pannu, BS  
Clinical Research  
Coordinator



Nouf Al-Rashid,  
PsyD  
Postdoctoral Fellow



# Clinical Trial Outcomes

- Screening and linkage to specialty mental health
- Mental health literacy
- Social connectedness

# Adaptation to MENA



- Middle Eastern North African focus groups
- 40 youth
- 30 community providers



THANKS!

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*To Immigrants with Love.* Digital street mural commissioned by La Galeria de La Raza, San Francisco, CA previously on display from September 2017 – January 2018.  
© Jess X. Snow & Roger Peet (2017).



# **Maternal mental health as a window of opportunity to disrupt the inter-generational transmission of health disparities and negative impact of ACEs**

**Melanie Thomas, MD, MS**

**February 27, 2020**

**University of California, San Francisco**

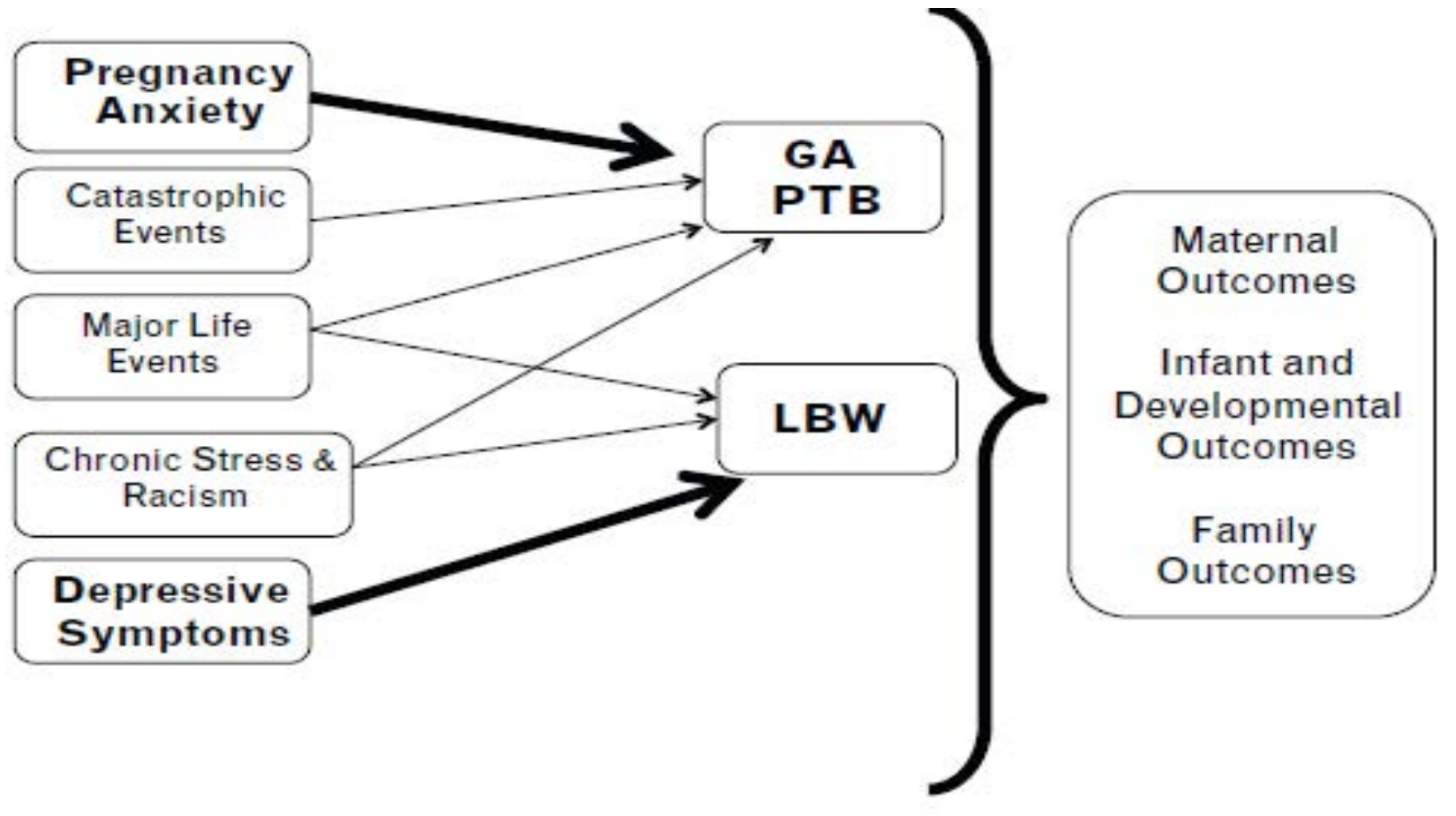
**[melanie.thomas@ucsf.edu](mailto:melanie.thomas@ucsf.edu)**

# Scope of the problem

- **50% of pregnant women in the U.S. are on Medicaid**
- **1 out of 8 U.S. babies born here in California**
- **In California, of pregnant women living at <100% of poverty level...**
  - **24.3% experience prenatal depressive symptoms**
  - **41.5% had a mis-timed or unwanted pregnancy**
  - **33.2% experience food insecurity**
  - **13.1% experience physical or psychological IPV**



# Transgenerational Impact of Maternal Stress and Mental Health



Dunkel Schetter C and Tanner L. (2012) Anxiety, Stress, and Depression in Pregnancy: Implications for Mothers, Children, Research, and Practice. *Curr Opin Psychiatry*

# Intergenerational ACEs at ZSFG

## Comorbid PTSD and Depression

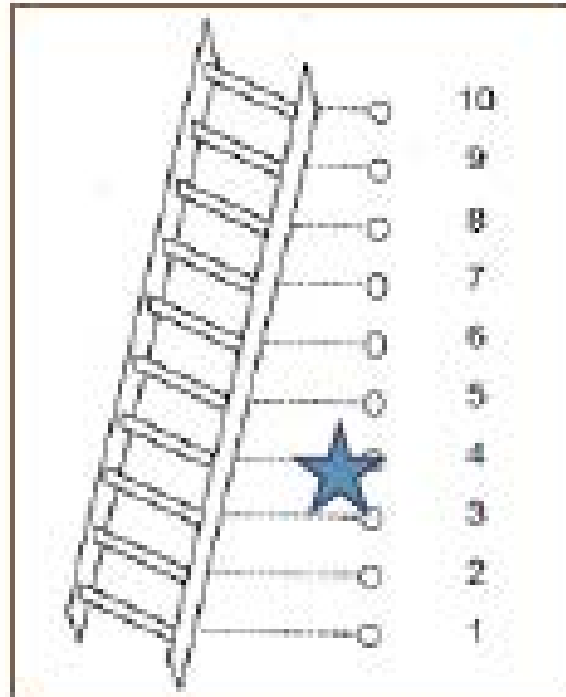
Twenty-four participants (24% of the total sample) met clinical criteria for both depression and PTSD. Of this subsample, two thirds (67%;  $n = 16$ ) of participants were not receiving mental health services of any kind. Of these 16 women, 63% ( $n = 10$ ) went on to request services at the end of the interview, but the remaining 37% ( $n = 6$ ) declined the offer of referrals despite high co-occurring levels of PTSD and depression.

ACEs*	% of Sample
1. Emotional abuse	47%
2. Physical abuse	36%
3. Sexual abuse	35%
4. Emotional neglect	43%
5. Physical neglect	27%
6. Parental separation/divorce	63%
7. Parental domestic violence	42%
8. Parental substance use	52%
9. Parental mental illness	31%
10. Parental incarceration	27%

Narayan A, Rivera L, Bernstein R, Castro G, Gantt T, Nau M, **Thomas M**, Harris W, Lieberman A. “Between Pregnancy and Motherhood: Identifying Unmet Mental Health Needs in Pregnant Women with Lifetime Adversity” *Zero to Three*, March 2017.

# Hope in the ACEs

*Where would you place yourself on this ladder right now right now, compared to everyone else in the U.S.?*



*Where do you imagine your new baby will be on this ladder when he or she is your age, compared to everyone else in the U.S.?*



*I'd put myself at a 3. I hope my baby is at a ten but to be realistic, I'll put them at a 8.*

*I'm worried about the future of my baby boy. It's hard for black men in this society to not get into trouble and have a good future.*

# ZSFG and Solid Start

1,200 births

5,000 families with children aged 0-3 years

Steering committee across 4 departments

Numerous clinics and providers

Hospital and SFDPH leadership support

Community-based programs and partners

UCSF Affiliation





# Solid Start Partners...

## Safety Net Hospital- ZSFG

Women's Health Center  
Children's Health Center  
Family Health Center  
Centering Pregnancy  
OB Psych  
Medical Legal Partnership  
Multi-Disciplinary Assessment Center  
Health Advocates

## Department of Public Health- SF County

San Francisco Health Network  
Primary Care  
Community Behavioral Health Services  
Maternal Child and Adolescent Health  
- Black Infant Health  
- Nurse Family Partnership  
- Public Health Nursing  
- WIC

## Community Collaborators

First Five of San Francisco  
Homeless Prenatal Program  
Good Samaritan Family Resource Center  
Our Children Our Families Council  
The Primary School  
2020 Mom (Statewide Advocacy Group)  
Coleman Advocates

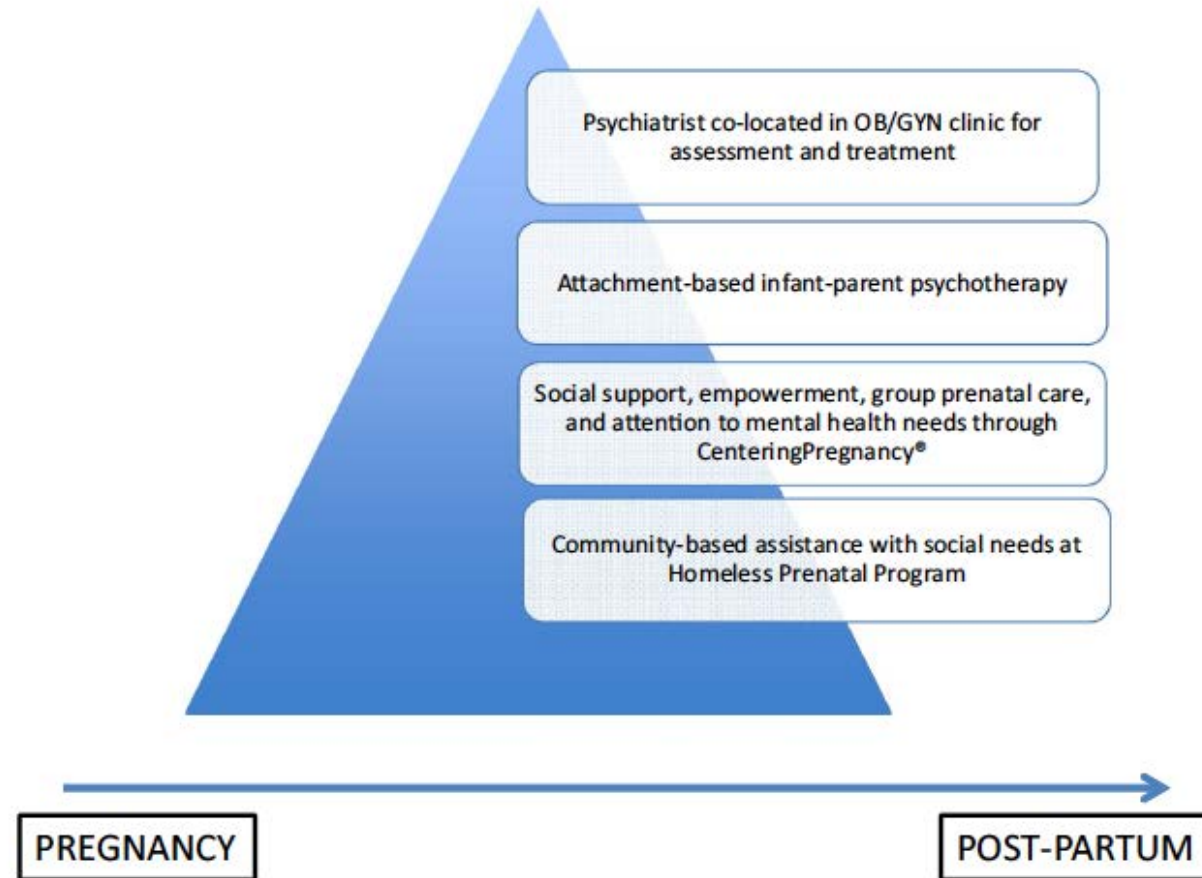
## Academic Partner- UCSF

Infant Child and Adolescent Psychiatry  
- Family and Community Psychiatry  
- Infant Parent Program  
Child Health Equity Institute  
Child Trauma Research Program  
Children's Hospital Mission Bay  
- Developmental Pediatrics  
Children's Hospital Oakland  
Pre-Term Birth Initiative



# A Tiered Approach to Care...

**Fig. 1** Conceptual model of stepped-care to address the psychosocial needs and provide enhanced treatment for at-risk pregnant and post-partum women

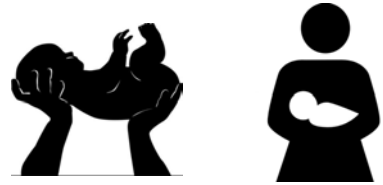


**Thomas, M.,** Hutchison, M., Castro, G., Nau, M., Shumway, M., Stotland, N., & Spielvogel, A. (2017). Meeting Women Where They Are: Integration of Care As the Foundation of Treatment for At-Risk Pregnant and Postpartum Women. *Maternal and Child Health Journal, 21*(3), 452–457.

# Across the Perinatal Journey...



PREGNANCY



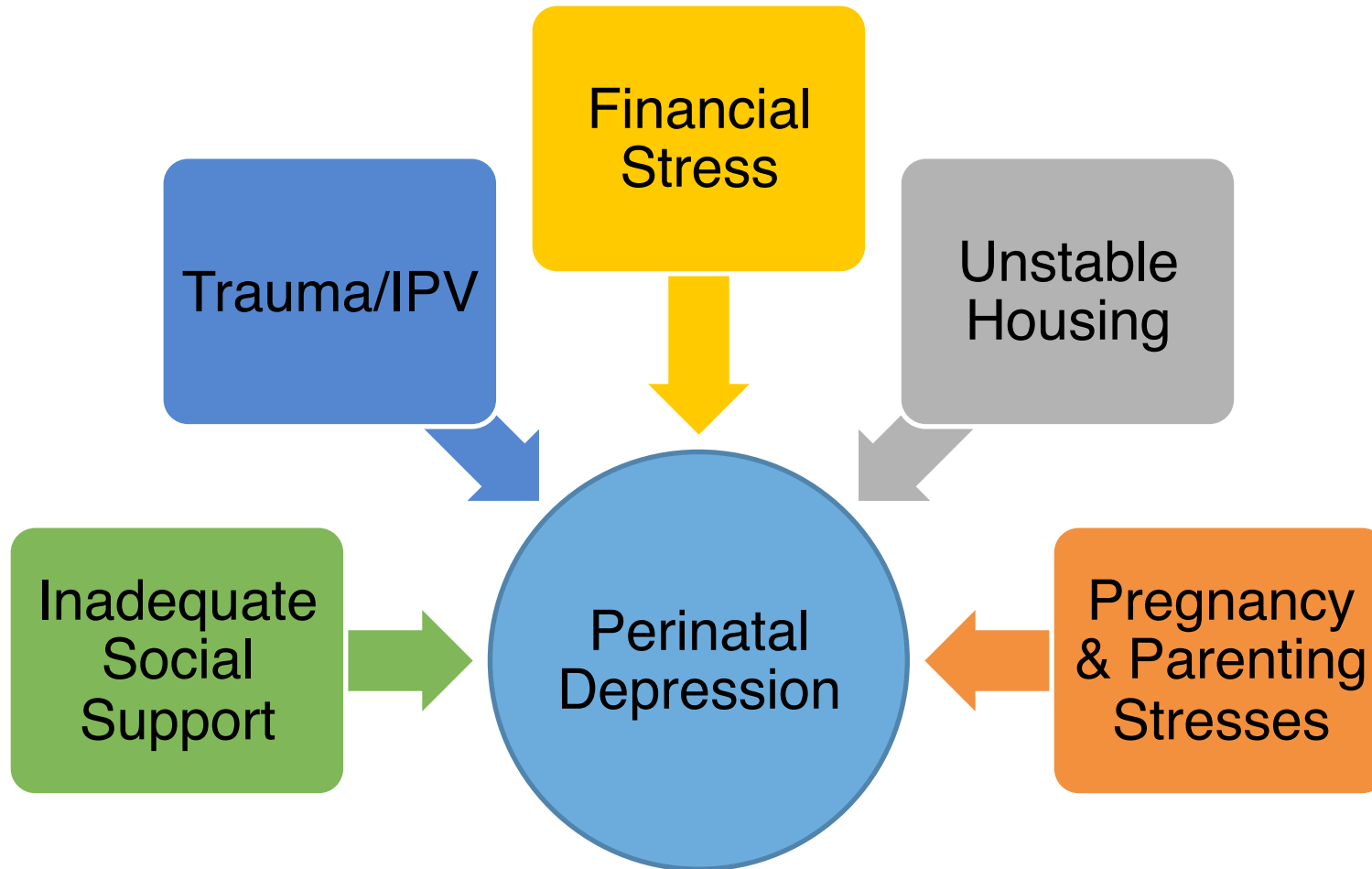
POSTNATAL/INFANCY



EARLY CHILDHOOD



# To address multi-factorial needs...



# Why Community Health Workers...

- CHWs have been shown to be more effective than clinical providers at eliciting psychosocial needs of low-income pregnant women, including self-report of depressive symptoms
- In a randomized controlled trial among Medicaid-eligible women in Michigan, Nurse-CHW home visitation teams more effectively improved depressive symptoms for postpartum women on Medicaid when compared with nurses alone

Godecker, A. L., Harrison, P. A., & Sidebottom, A. C. (2013). Nurse versus Community Health Worker Identification of Psychosocial Risks in Pregnancy through a Structured Interview. *Journal of Health Care for the Poor and Underserved, 24*(4), 1574–1585

Roman, L. A., Gardiner, J. C., Lindsay, J. K., Moore, J. S., Luo, Z., Baer, L. J., ... Paneth, N. (2009). Alleviating perinatal depressive symptoms and stress: a nurse-community health worker randomized trial. *Archives of Women's Mental Health, 12*(6), 379–391.

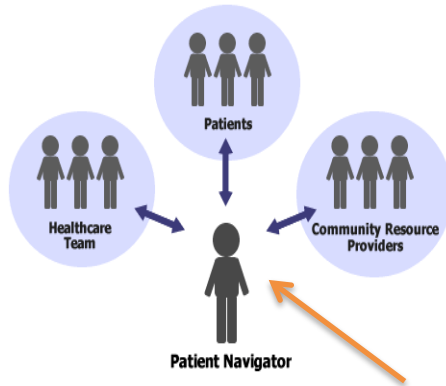
# Our pilot program



**Perinatal Health Navigator (CHW) engages with pregnant person**

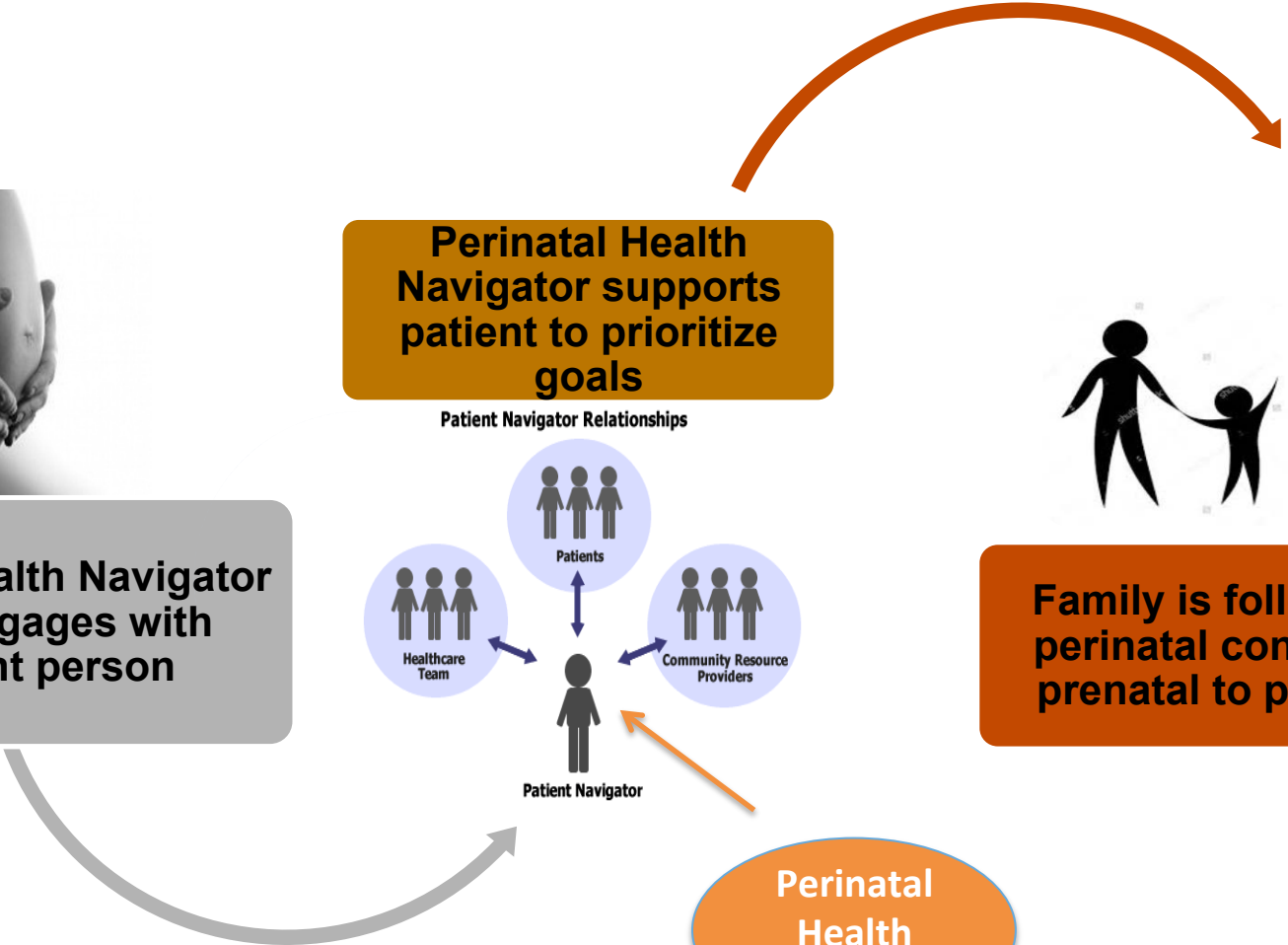
**Perinatal Health Navigator supports patient to prioritize goals**

Patient Navigator Relationships



**Family is followed across perinatal continuum from prenatal to pediatric care**

**Perinatal Health Navigator**





# Preliminary Results


- More than 40 women have attended Wellness Orientation
- CHWs have worked with >25 individual patients in OB psychiatry clinic
- Clinicians and Clients come looking for the CHWs
- Tracking across institutions in place
- Gaby has gone back to school, Maisha is making plans...

"Having community health workers embedded in (our clinic) has made a huge difference in the lives of our patients- increased sense of connectedness in the community, stabilizing sometimes chaotic lives with connection to much needed resources... Gaby has really helped me in connecting to Spanish speaking patients"



# Future Possibilities...

We improve population health, especially for the most vulnerable, through:

- Radical collaborations to meet priority health needs and achieve health equity in our increasingly diverse communities
  - Preeminent education that challenges convention and develops diverse leaders who transform the health of our communities
  - Transformational research on the major public health threats and opportunities of today and tomorrow
- 



## Immense thanks to Partners and Collaborators:



SAN FRANCISCO  
GENERAL HOSPITAL  
FOUNDATION

Supporting the Heart of Our City



National Institute  
of Mental Health

**UCSF** Preterm Birth Initiative  
California



CTSI  
at UCSF

Accelerating Research to Improve Health

HELLMAN FOUNDATION