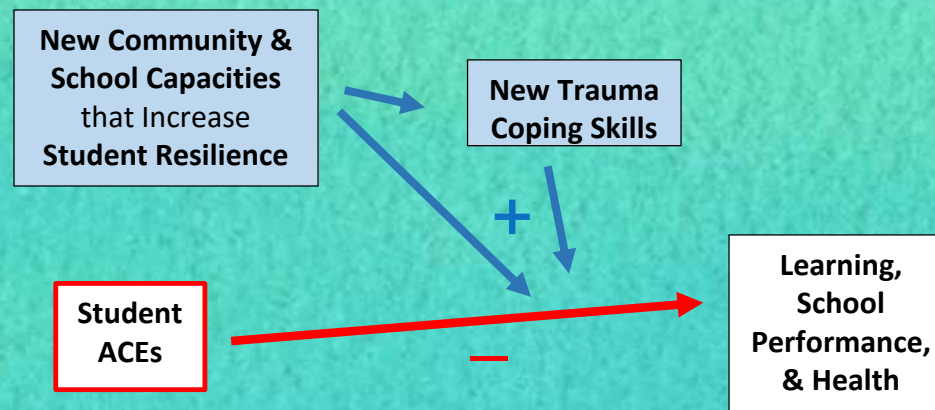# The Impact of Adverse Childhood Experiences (ACES) and Resilience on Disparities in School Performance and Health

Preliminary Research Results from Washington State

**Higher Student Resilience and Trauma Coping Skills,
Due to Changes in School, Caregiver, and Community Capacities
to Collaboratively Implement Trauma Sensitive Practices,
Can Moderate the Impact of ACEs on School Performance/Health**


CHE Webinar, February 5, 2016

**Dario Longhi PhD and Marsha Brown EdD
In collaboration with Theresa Barila MS**

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This presentation covers three topics

1. The impact of Adverse Childhood Experiences (ACEs) on education and health inequality
   - What are ACEs?
   - How do they affect education and health inequality?

2. The role of resilience in buffering the negative impact of ACEs and poverty on education and health inequality

3. How we can increase resilience?

# Types of Adverse Childhood Experiences (ACEs)
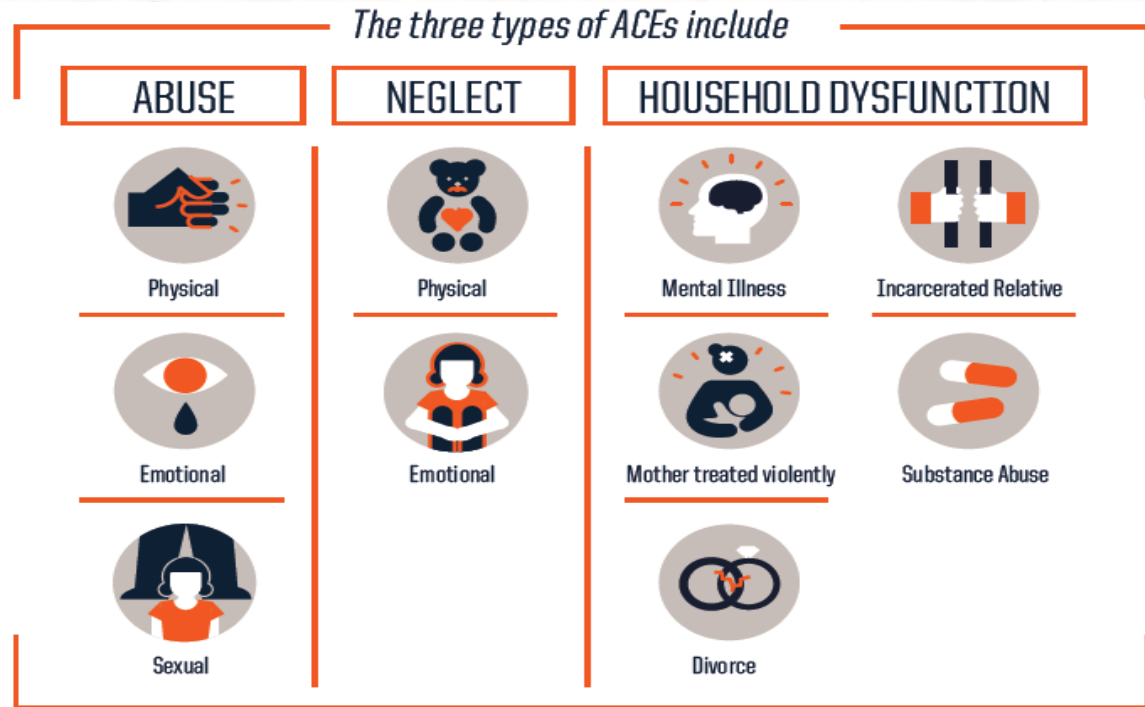
Source: Robert Wood Johnson Foundation (2013), *The Truth About ACEs: Infographic*

ACEs as Roots of Health Disparities:
Epidemiological and Biological/Brain Evidence – Prevention Logic
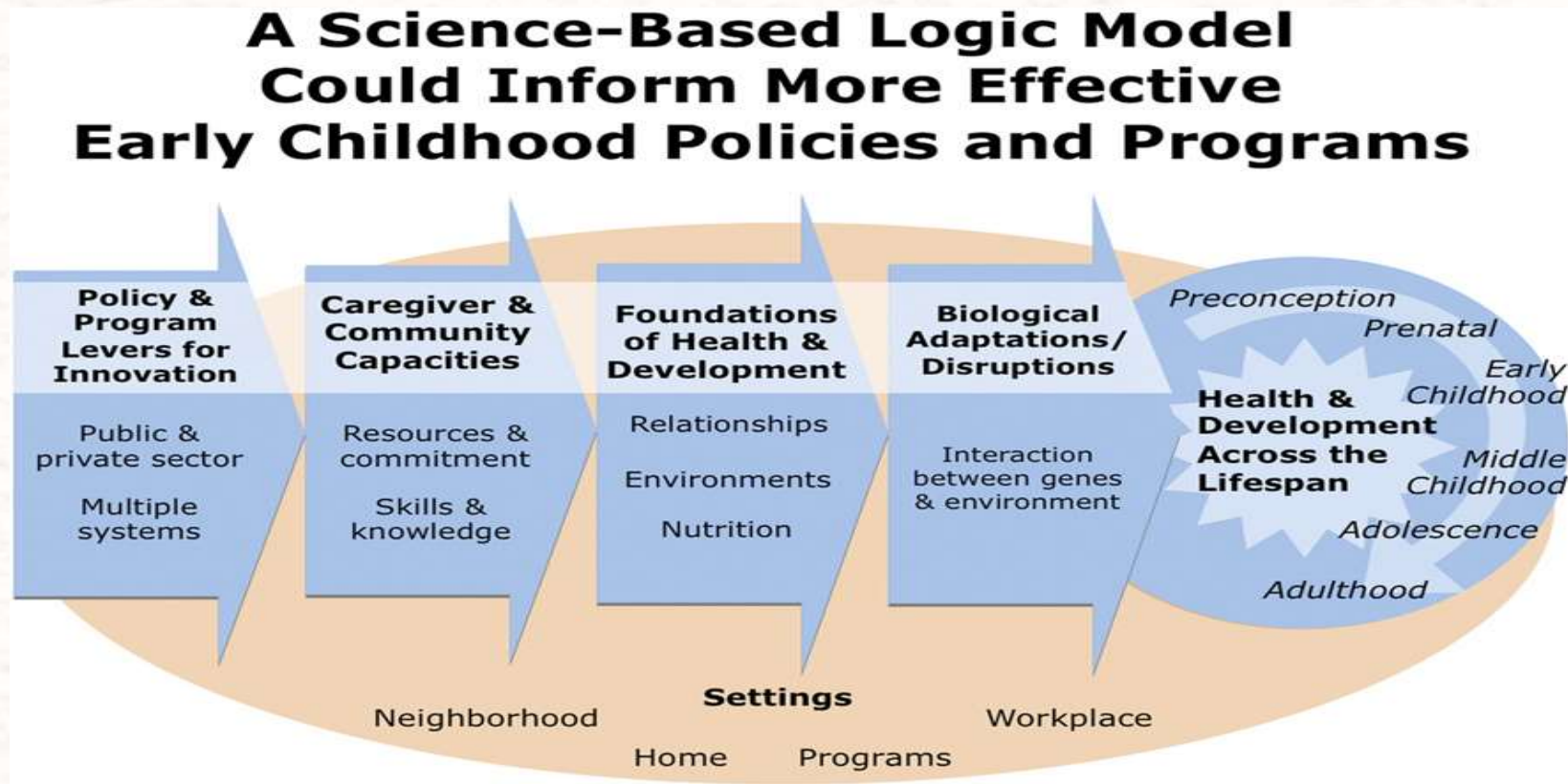
Source: Shonkoff, J (2012), *Leveraging the biology of adversity to address the roots of disparities in health and development*

Systemic Relationships (Loops) between Economic Inequality ACEs and Resilience, Health, Education and Work
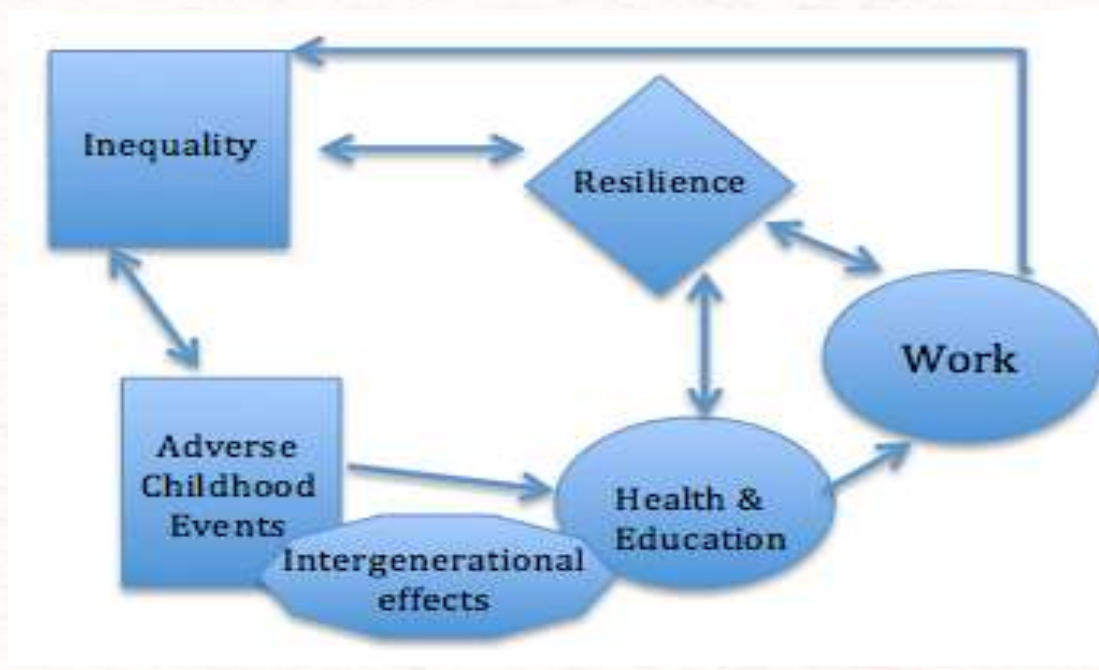
Washington State findings provide preliminary evidence of:

- Relationship between degree of inequality and prevalence of ACEs

- The increasing prevalence of ACEs among younger age cohorts, as inequality has increased overall

Differences in Community Levels of School Performance and Health Explained by Poverty/Race-Ethnicity and by ACEs

Explained separately by

Poverty & Race/Ethnicity

Unexplained

Explained separately by

Unexplained   **ACEs**
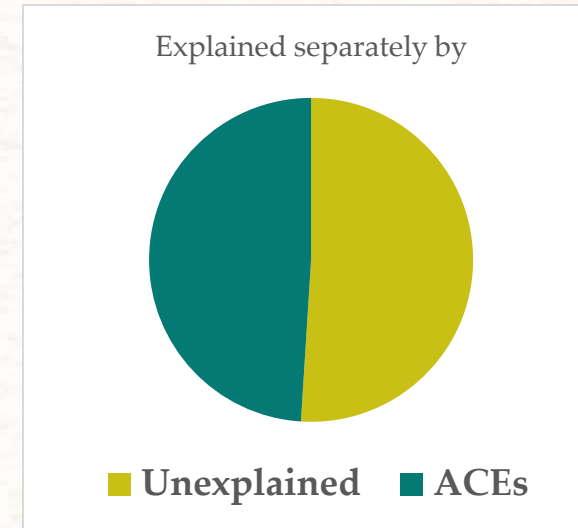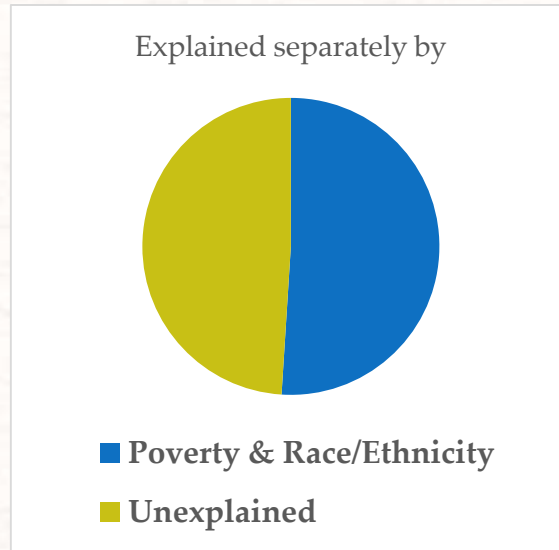
Poverty/Race-Ethnicity alone and ACEs alone <u>each explain about half</u> of the variance across Washington State communities

WHAT IS RESILIENCE?

The natural human capacity to navigate life well.

(HeavyRunner & Marshall, 2003)

The capacity to absorb disturbance and re-organize while undergoing change, yet still retain essentially the same function, structure, identity, feedbacks.

(Walker et al., 2002)

The ability of an individual, system or organization to meet challenges, survive, and do well despite adversity.

(Kirmayer, 2009)

RESILIENCE OCCURS AT ALL LEVELS:

Individual

Family

Community

National, Global, Ecosystem
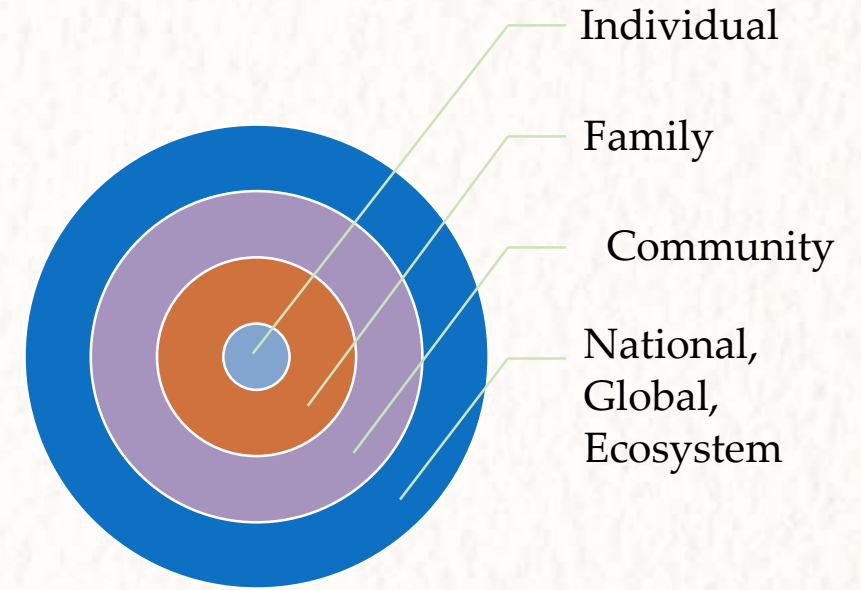
KEY COMPONENTS OF RESILIENCE

COMMUNITY, CULTURE, SPIRITUALITY

- Faith, hope, sense of meaning
- Engagement with effective orgs – schools, work, pro-social groups
- Network of supports/services & opportunity to help others
- Cultures providing positive standards, expectations, rituals, relationships & supports

ATTACHMENT & BELONGING

- Bonds with parents and/or caregivers
- Positive relationships with competent and nurturing adults
- Friends or romantic partners who provide a sense of security & belonging
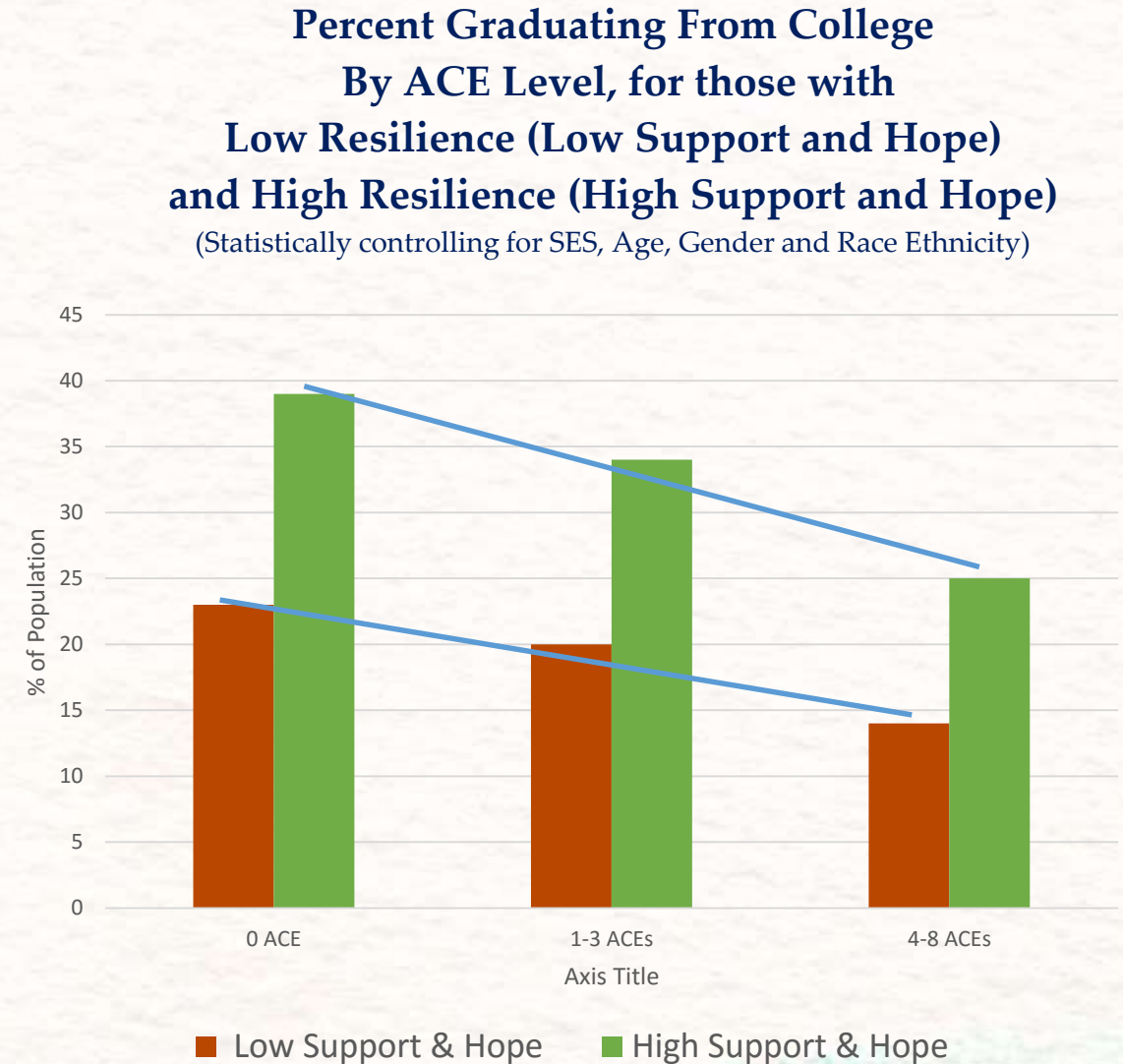
CAPABILITY

- Intellectual & employable skills
- Self regulation – self control, executive function, flexible thinking
- Ability to direct & control attention, emotion, behavior
- Positive self view, efficacy

Research Results from Washington State:
Higher resilience leads to higher levels of education, moderating the impact of ACEs

Education Outcomes

- Higher resilience is associated with statistically significant higher college graduation rates (Note: green bars higher than red bars)

- For all people, but particularly for those with higher ACEs
  - among adults age 18-64
  - statistically controlling for age and gender
  - and for poverty (SES) and race/ethnicity

Source: BRFSS 2009-11, N= about 27,000
Unpublished research results based on collaboration between Foundation for Healthy Generations, Participatory Research Consulting and the UW, 2014

Percent Graduating From College
By ACE Level, for those with
Low Resilience (Low Support and Hope)
and High Resilience (High Support and Hope)
(Statistically controlling for SES, Age, Gender and Race Ethnicity)

Legend: ■ Low Support & Hope   ■ High Support & Hope

Research Results from Washington State:
Higher resilience improves health outcomes, moderating ACE's impact on health

Mental and Physical Health Outcomes
- Resilience is associated with better health
- Resilience significantly reduces the effects of ACEs on health, among adults of different ages

Source: BRFSS 2009-2010, N= 19,333
Logan-Green *etal.*, 2014
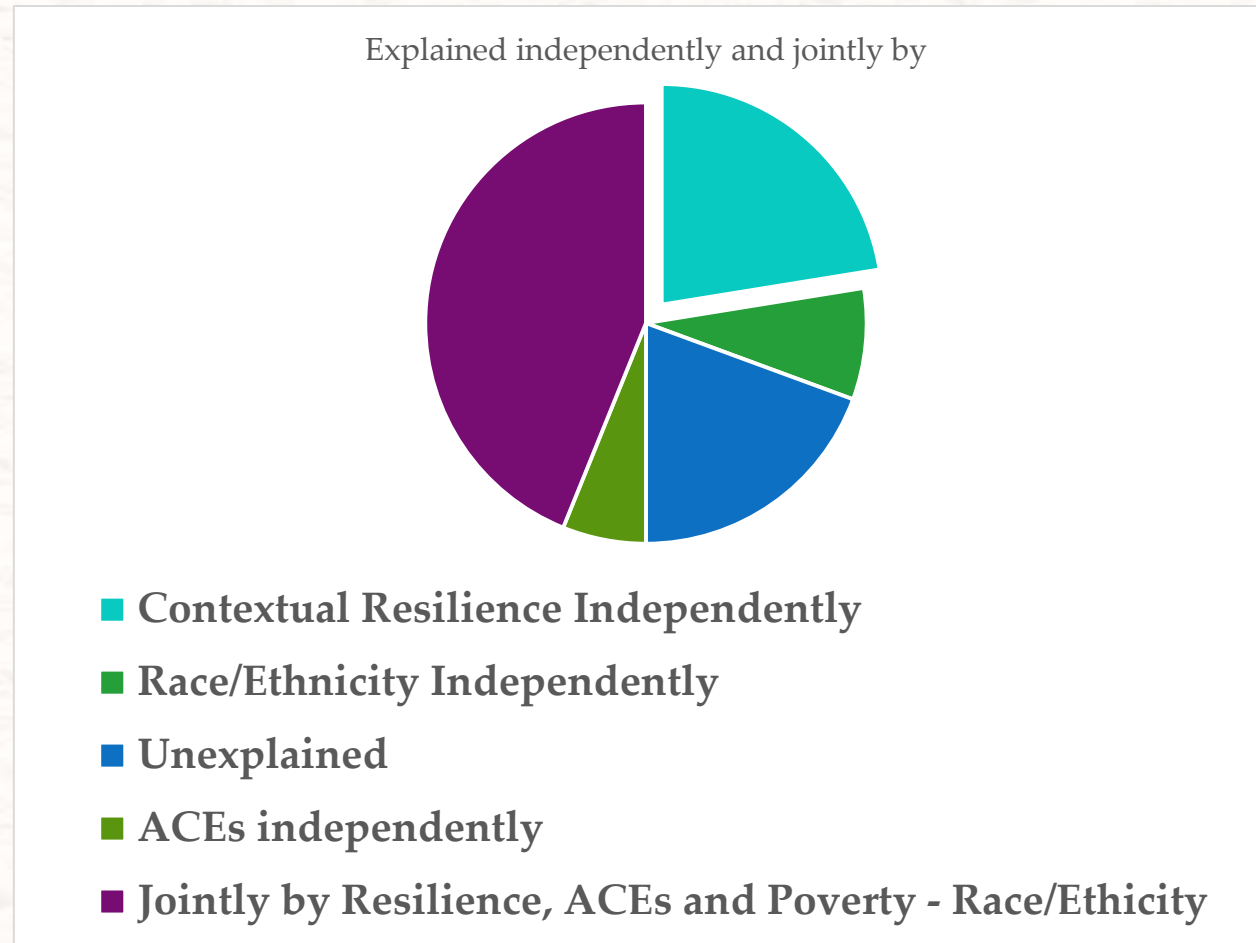
Chronic Illness Outcomes
- Resilience is associated with fewer chronic illnesses
- Resilience reduces the effects of ACEs on the prevalence of chronic illnesses
  among both low income and high income adults of various ages

Source: BRFSS 2009, N= 7,470
Nurius *etal.*, forthcoming 2016

Poor Physical Health Days – Effect of ACEs on health among people with low and high resilience
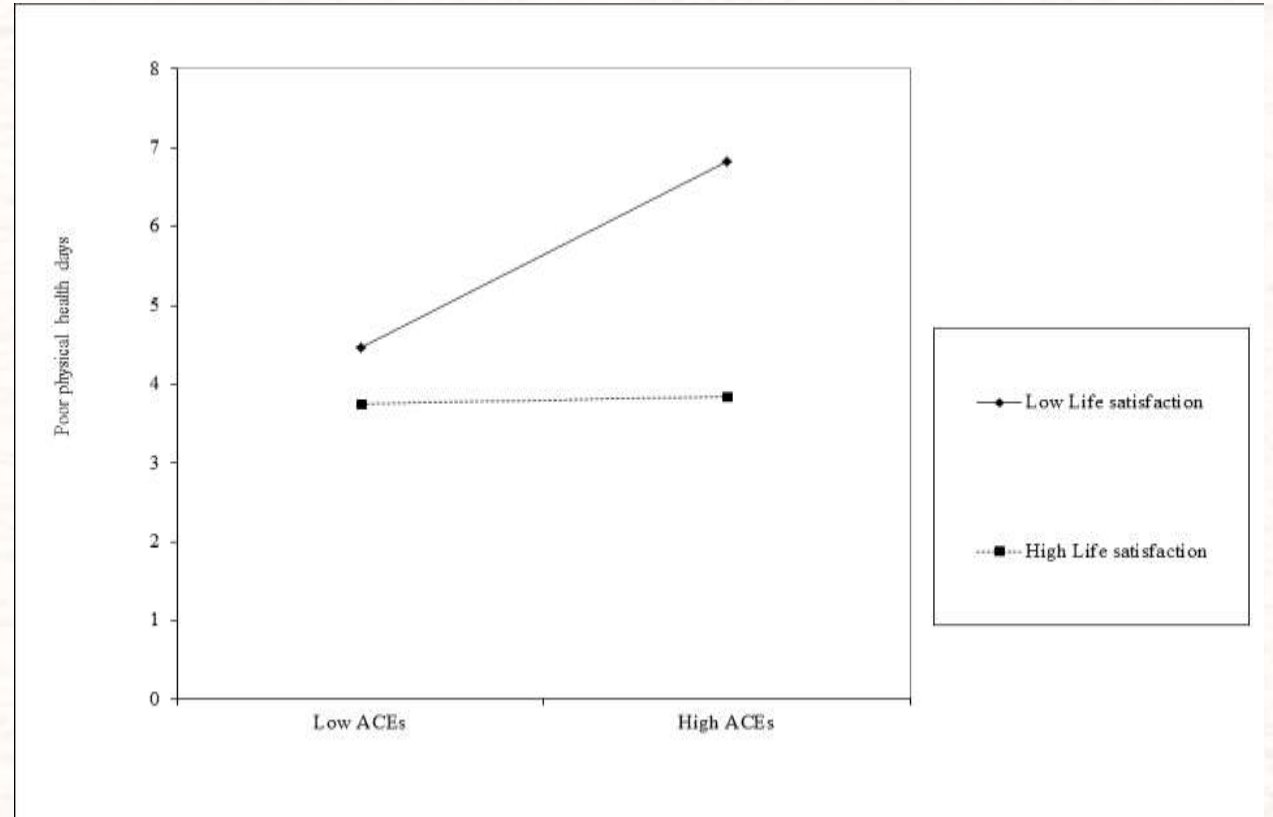
Research Results from Washington State:
Community wide differences in levels of resilience independently explain more than
a fourth of differences in school performance across Washington State communities –
after accounting for ACEs and race-ethnicity

Explained independently and jointly by

■ **Contextual Resilience Independently**

■ **Race/Ethnicity Independently**

■ **Unexplained**

■ **ACEs independently**

■ **Jointly by Resilience, ACEs and Poverty - Race/Ethicity**

How to Increase Resilience: A Systems View
Graphic System Display of Factors – Including Resilience - Linked to Reducing the Effects of ACEs and their Prevalence

Source: Chris Soderquist, CDC dynamic system presentation
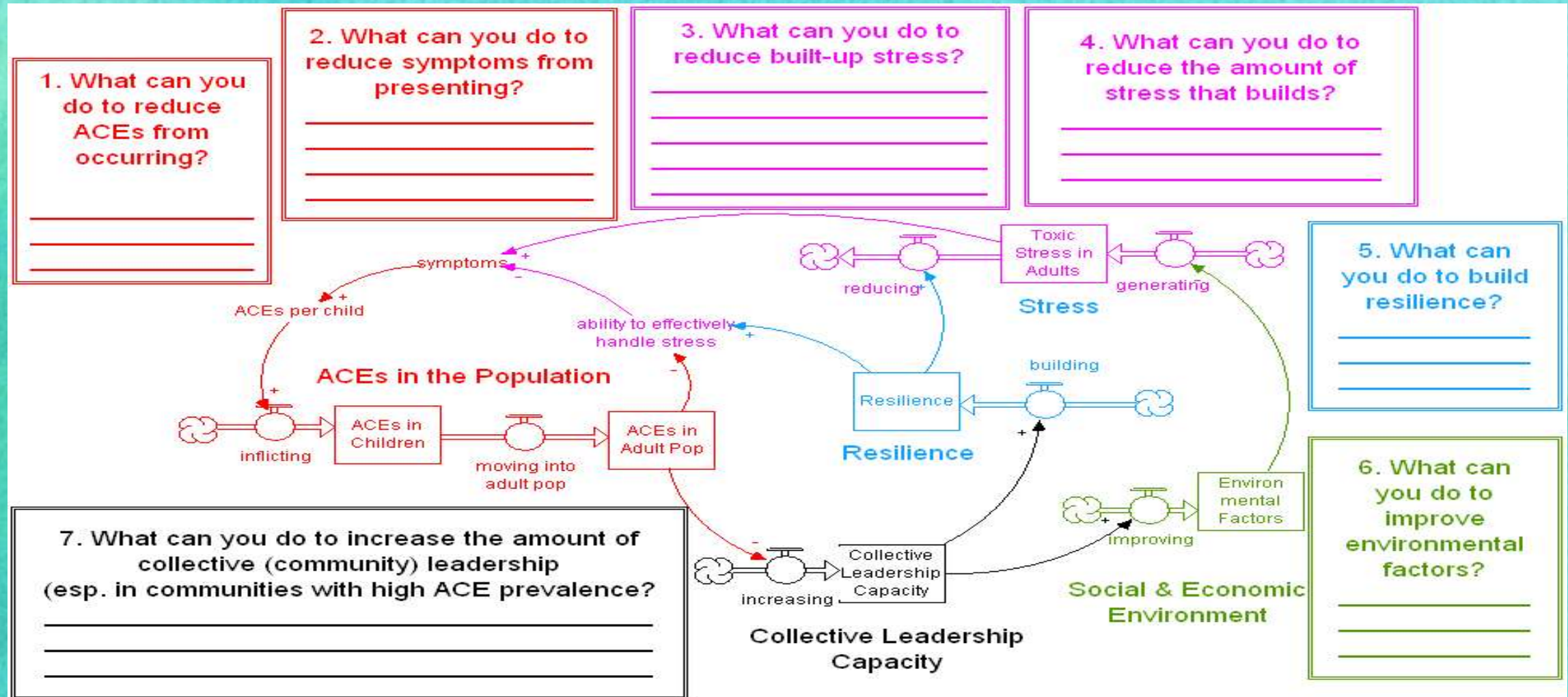
How to Increase Resilience: A Logic Model View

Increasing Resilience through Community Strategies that increase Community Capacity and Trauma Informed Practices
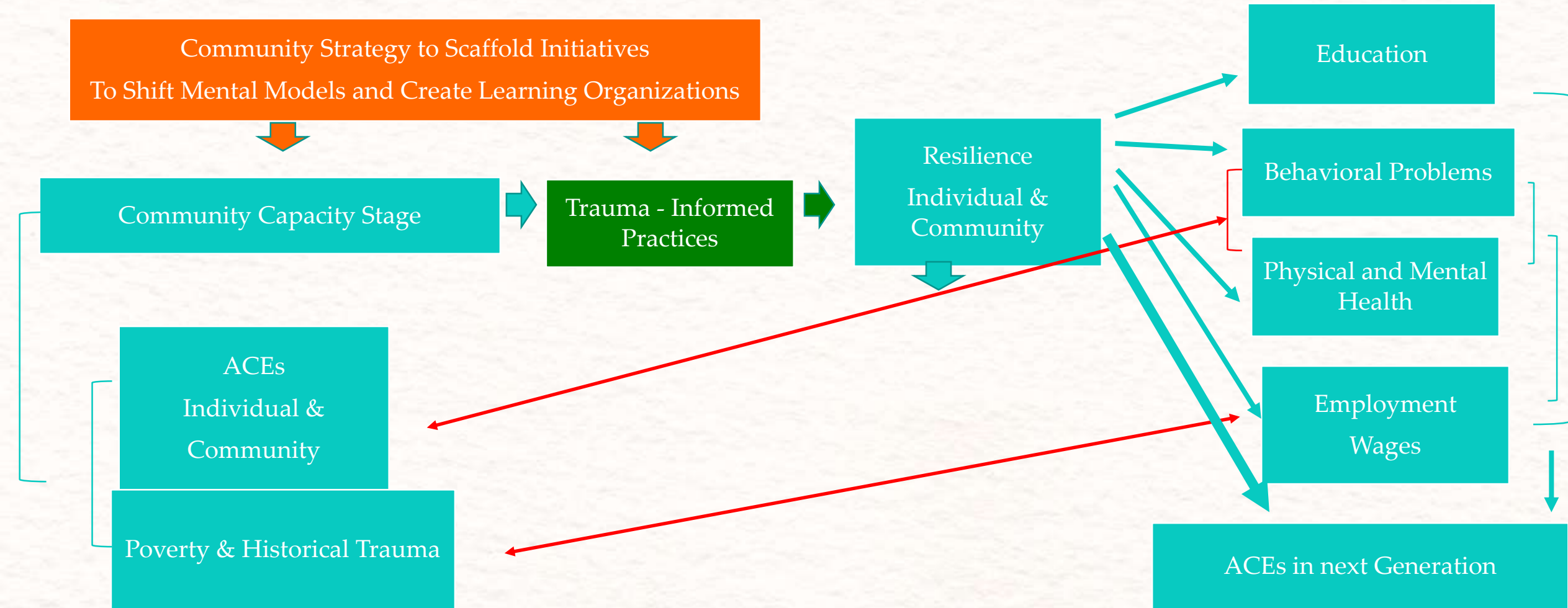
Source: research evidence from BFRSS 2009-13 merged with HYS 2010 and archival state agency data - Foundation for Healthy Generations with PRC and UW consulting and Gates Foundation funding

Two Models of how to Build Resilience: Traditional and Community Engagement
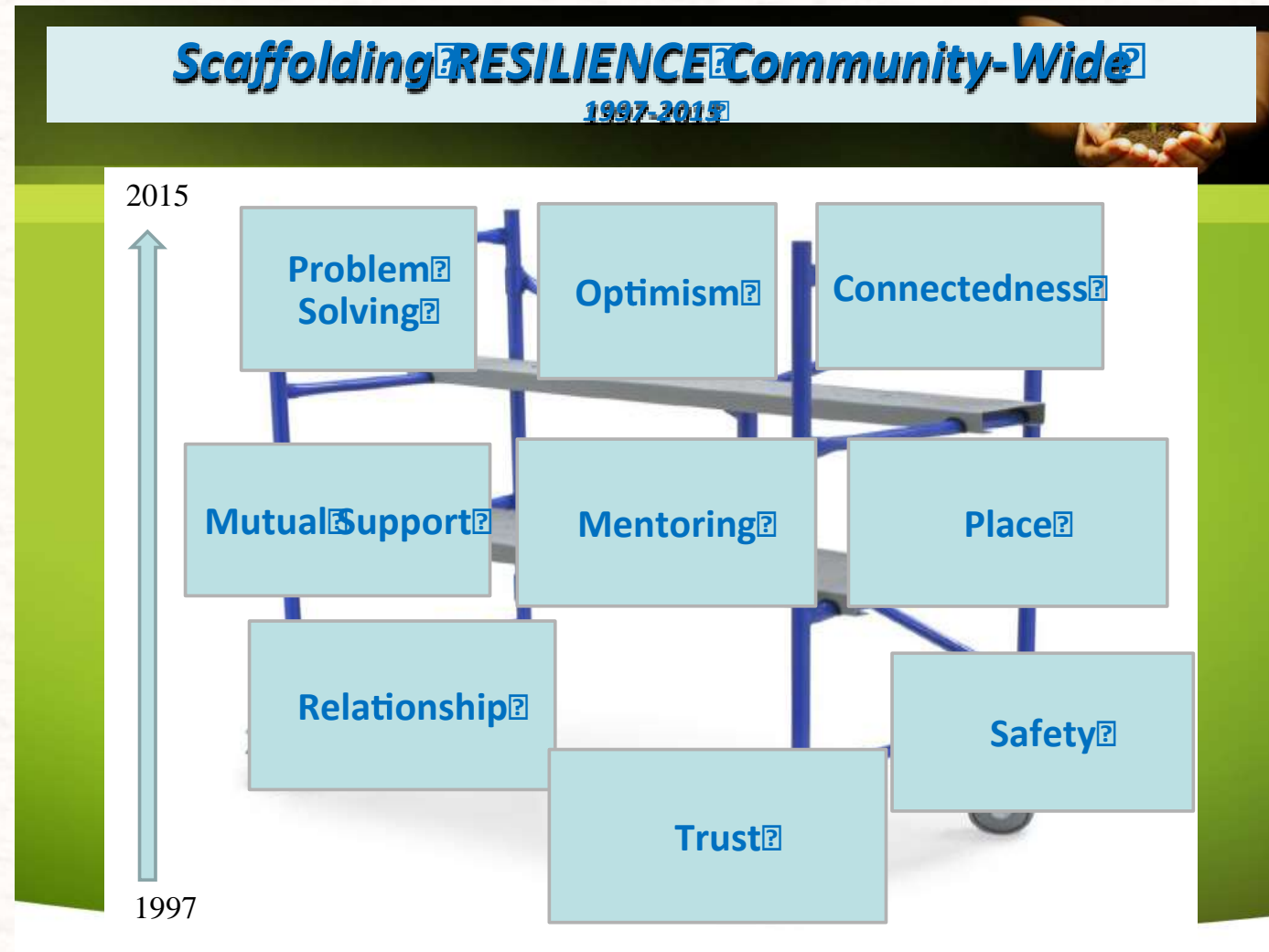
Traditional

- The community is defined by its history

- We solve problems identified by others

- The goals, plans, measures and consequences are set by others

- Cost and efficiency dominate

- We seeks answers and a defined destination

- Express dissent as a stance in reaction to others, a demand how they should change, and the beginning of negotiation.

- Prefer safety and security, choose a predictable future

- Negotiation, force and control of resources create a better future

Source: Peter Block (2007) *Civic Engagement and the Restoration of Community*

Community Engagement

- The community is defined by its connectedness and its possibility

- We define and solve problems ourselves

- The goals, plans, measures and consequences are set by us

- Purpose and relatedness dominate We trust questions and an emergent path

- Express dissent as a stance, a choice that defines us. This kind of dissent is the beginning of a conversation.

- Prefer adventure, choose freedom, anxiety and a vague future

- Relatedness, accountability and diverse engagement create a better future

Community Engagement Strategy:
Case Study of Scaffolding Initiatives in Walla Walla, Washington

Scaffolding RESILIENCE Community-Wide
1997-2015

2015

Problem Solving | Optimism | Connectedness

Mutual Support | Mentoring | Place

Relationship | Safety

Trust

1997

Trauma Informed Practices Implemented by Local Organizations in Walla Walla

Qualitative Research based on Thirteen Focus Groups found:
Common Trauma Informed Practices to Create Specific Conditions and Develop Specific Skills

Practices that help create conditions for resilience among persons with ACEs

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Practices that develop personal skills to increase resilience across social contexts

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Practices that develop caregiver skills to increase resilience

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Specific Social Conditions – Mindfulness, Relationships/Connections
- Safe, non-judgmental social environments
- Calm psychological/ emotional 'green zones'
- Respectful, understanding
- Warm personal attention
- Trusting relationships
- Mutual supports

Specific Personal Skills – Mastery, Hope
- Knowledge of ACEs and Resilience
- Socio-emotional regulation
- Planning, problem-solving, self-sufficiency
- Hope, positive self-image and future
- Becoming accountable

Specific Caregiver Skills--Mindfulness, Values
- Becoming more self-aware by increasing understanding of ACEs and Resilience
- Shifting mental models, values and automatic reactions
- Developing self-care by sharing challenges and barriers
- Reflecting in a learning organizations
- Partnering and collaborating with others

Research across Washington State Communities: Communities with Higher Community Capacity have Higher Resilience

Resilience Outcomes

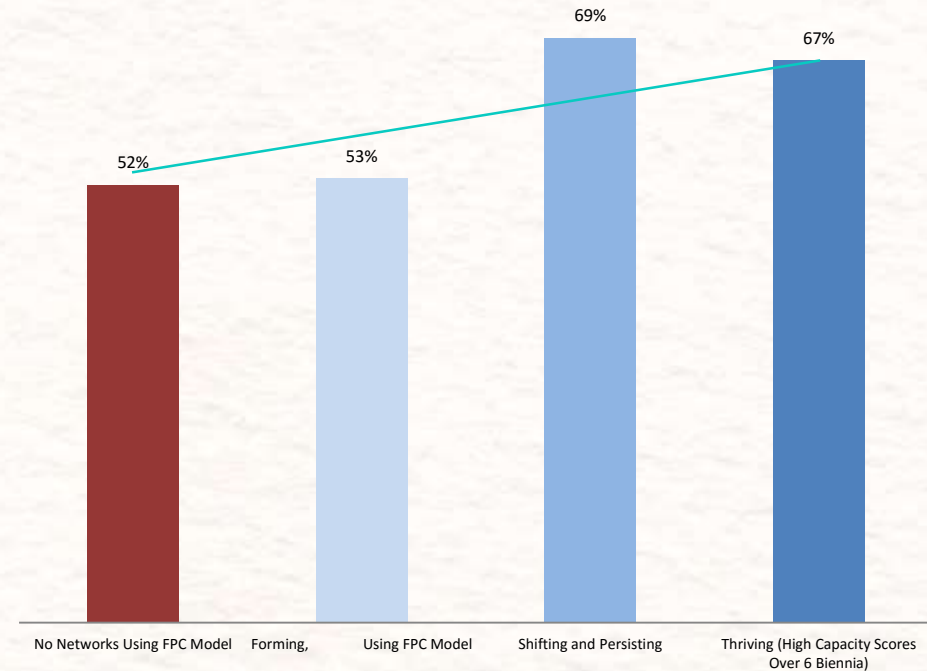**The higher the stage of community capacity the higher the level of resilience**

Statistically significant
among younger adults (age 18-34), affected by Public Health and Safety Community Network practices,
in the period 1997-2011,
controlling for SES and race/ethnicity

Source: BRFSS 2009-10 Washington State survey data

Flaspohler *etal.* (2012)

Higher Resilience in Communities at more Advanced Stages of Community Capacity

% with High Resilience among 18-34 Year Olds Excluding City of Seattle

No Networks Using FPC Model	Forming, Using FPC Model	Shifting and Persisting	Thriving (High Capacity Scores Over 6 Biennia)
52%	53%	69%	67%

Selected Source Documents

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