



ADVANCING HEALTH EDUCATION & RESEARCH

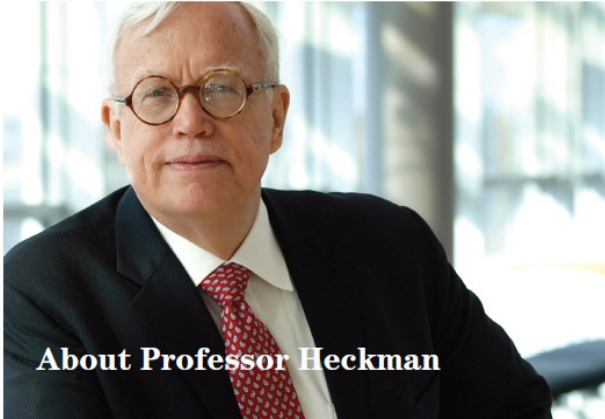


Everyone Was Once a Child: Beyond ACEs

Robert W. Block, MD, FAAP

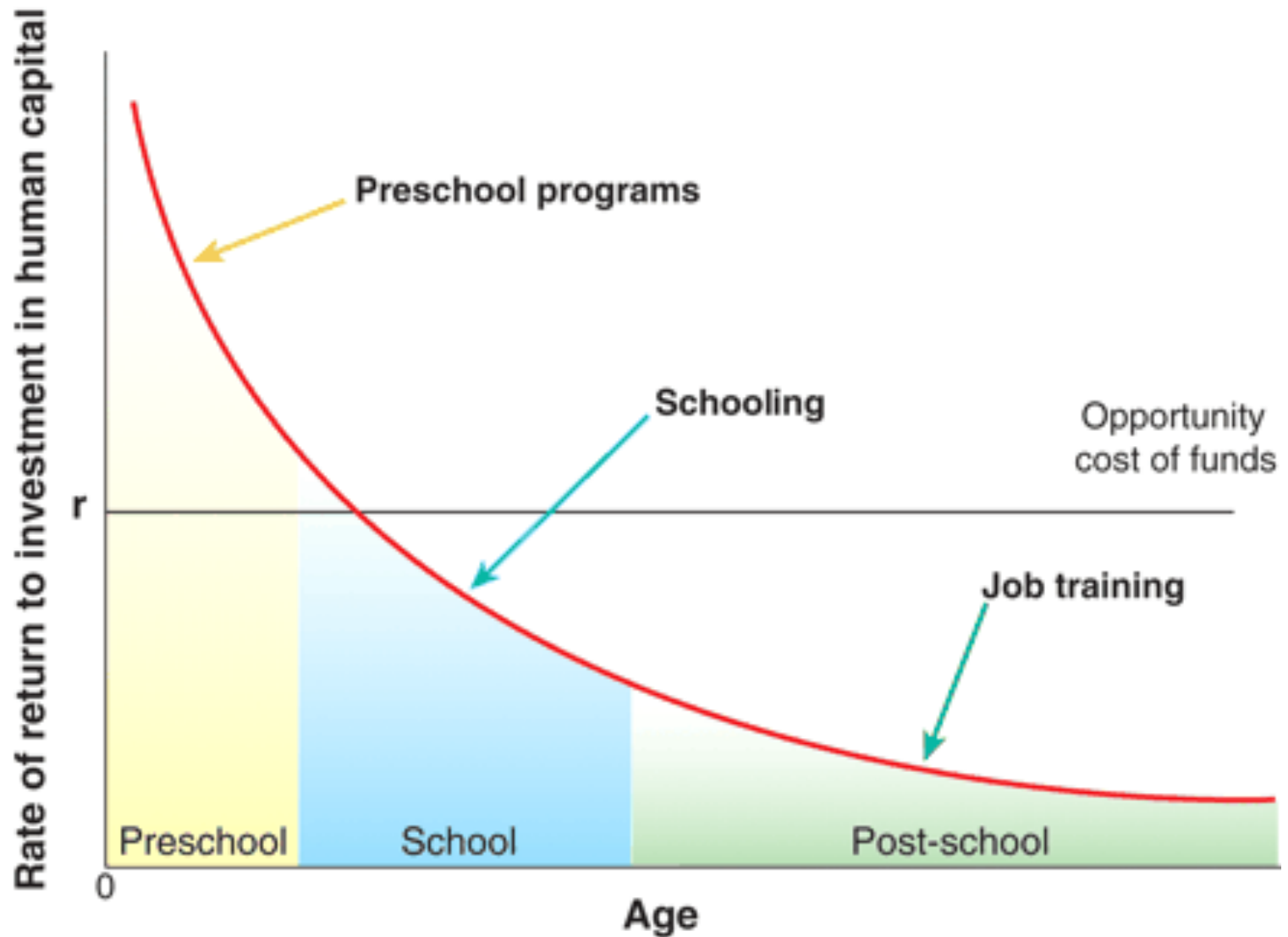
AVA Regional Academy, Tulsa, OK

James J. Heckman



- Nobel Memorial Prize Winner
- Professor of Economics, University of Chicago
- Equation on Human Capital Development is a Solution for Securing America's Economic Future.

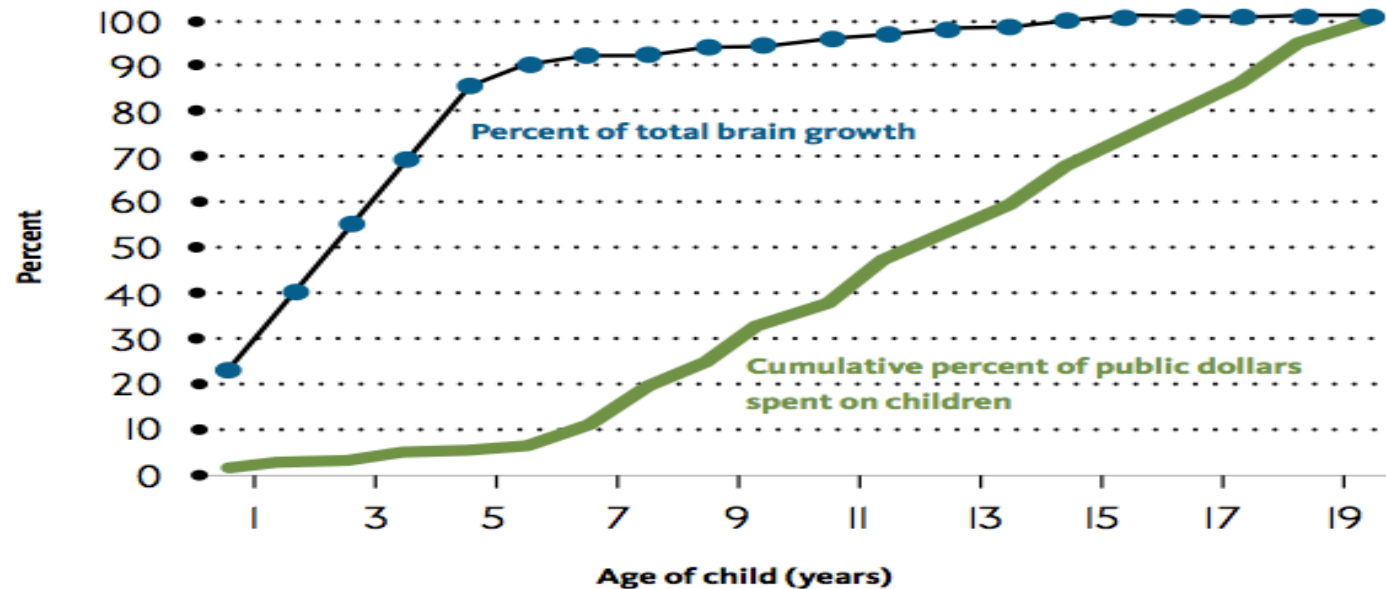
Rates of return to human capital investment





MISSOURI BUSINESS LEADERS SUMMIT • NOV. 16, 2009 • FEDERAL RESERVE BANK OF ST. LOUIS

Brain Growth Compared to Public Expenditures on Young Children

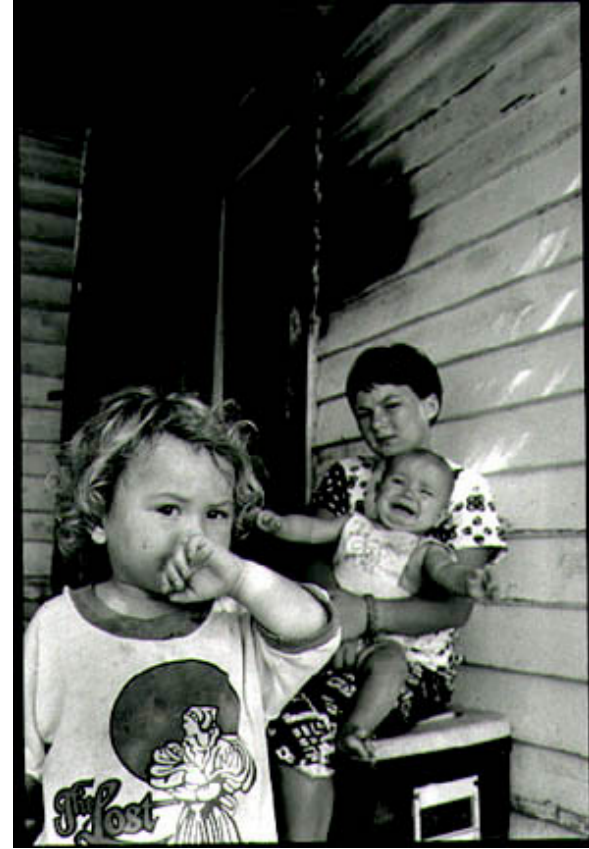


SOURCES: Public expenditures: RAND analysis of Table 1 in R. Haveman and B. Wolfe, "The Determinants of Children's Attainments: A Review of Methods and Findings," *Journal of Economic Literature*, Vol. 33, December 1995. Brain growth: Figure 2-0 in Purves, *Body and Brain*, Harvard University Press 1998, adopted from Thompson, *On Growth and Form*.

Professor Heckman's Discovery

1

Intelligence and social skills are developed at an early age — and both are essential for success.



Many major economic and social problems in America — crime, teenage pregnancy, high school dropout rate, adverse health conditions — can be traced to low levels of skill and social ability such as attentiveness, persistence and impulse control.

ECOLOGY

- Home
- Family (parents and extended family)
- Neighborhood
- School (early childhood education?)
- Community
- Supports (Faith, Relatives, Play opportunities, etc.)

Michael

- Several ER visits for asthma in his very thick paper chart.
- Several more visits for asthma during my first year as a pediatric resident.
- Life-threatening attack, moved from ER to “intensive care bed.”
- My naïve, but effective question at 3 am.

What in the hell is going on?

- Interpersonal Violence (IPV), and “Housing Disarray” cause (or, are associated with) an increase in incidence of childhood asthma.
- Cumulative or Multiple Stressors are most important.

- J Epidemiology Community Health, 2010



Stress: Neurobiology

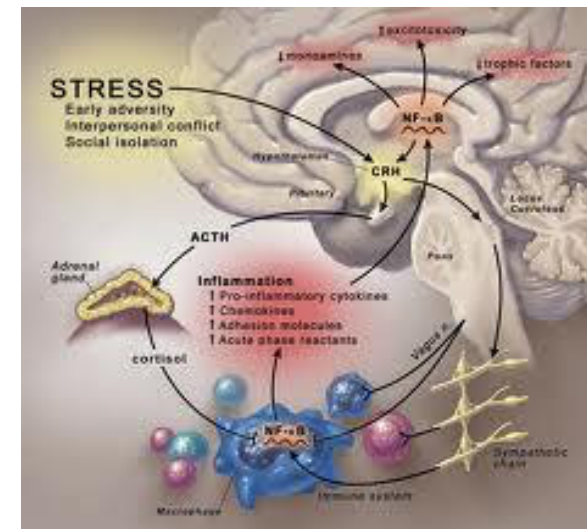
- HPA Axis
 - Hypothalamic-pituitary-adrenal axis
 - Cortisol (hormone and receptor interactions)
- Adrenergic Nervous System

I. Adrenergic Nervous System: Overview

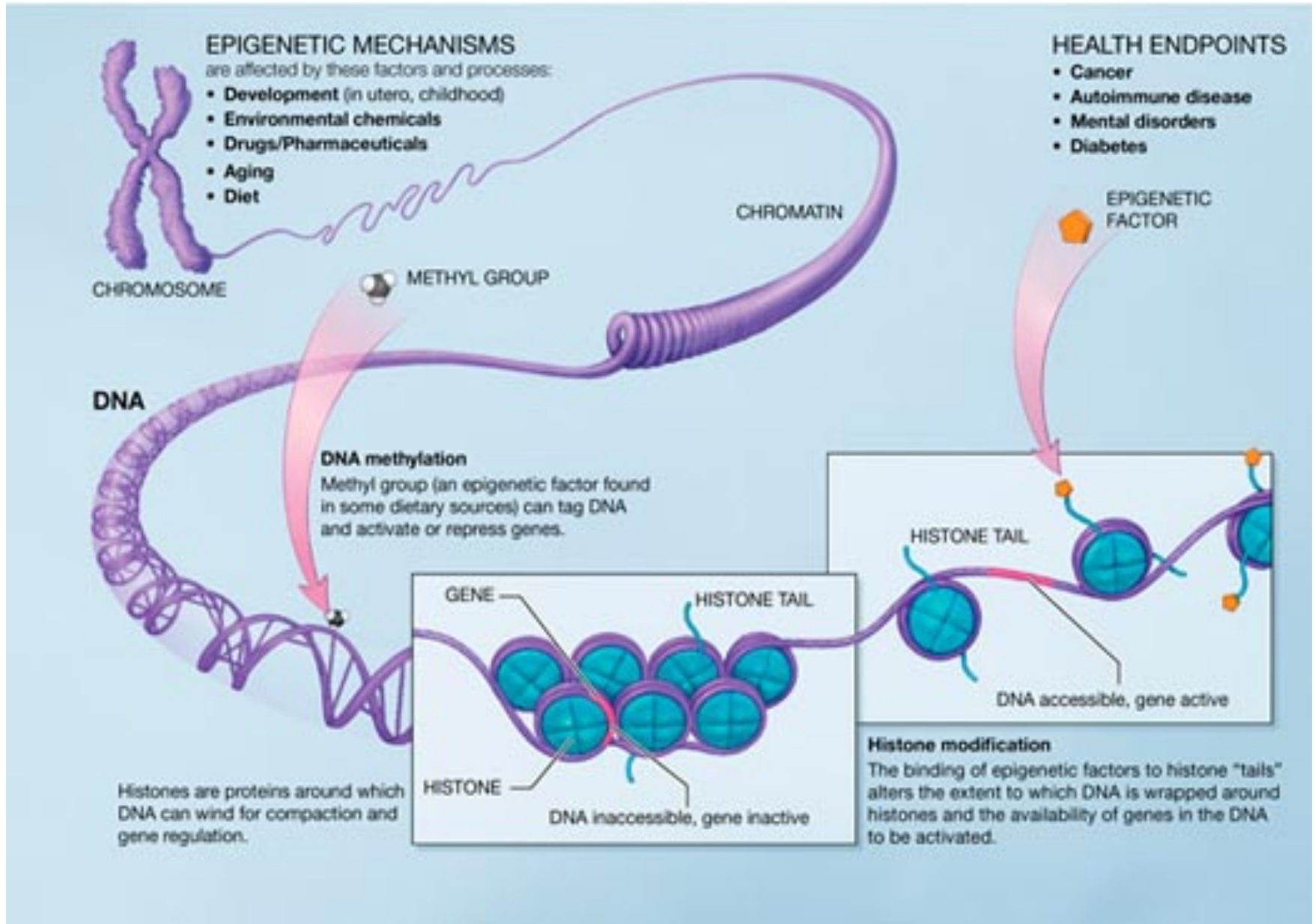
Uses adrenaline (epinephrine) and noradrenaline (norepinephrine) as neurotransmitters



- Brain Structure and Function
- Epigenetics and Genomics



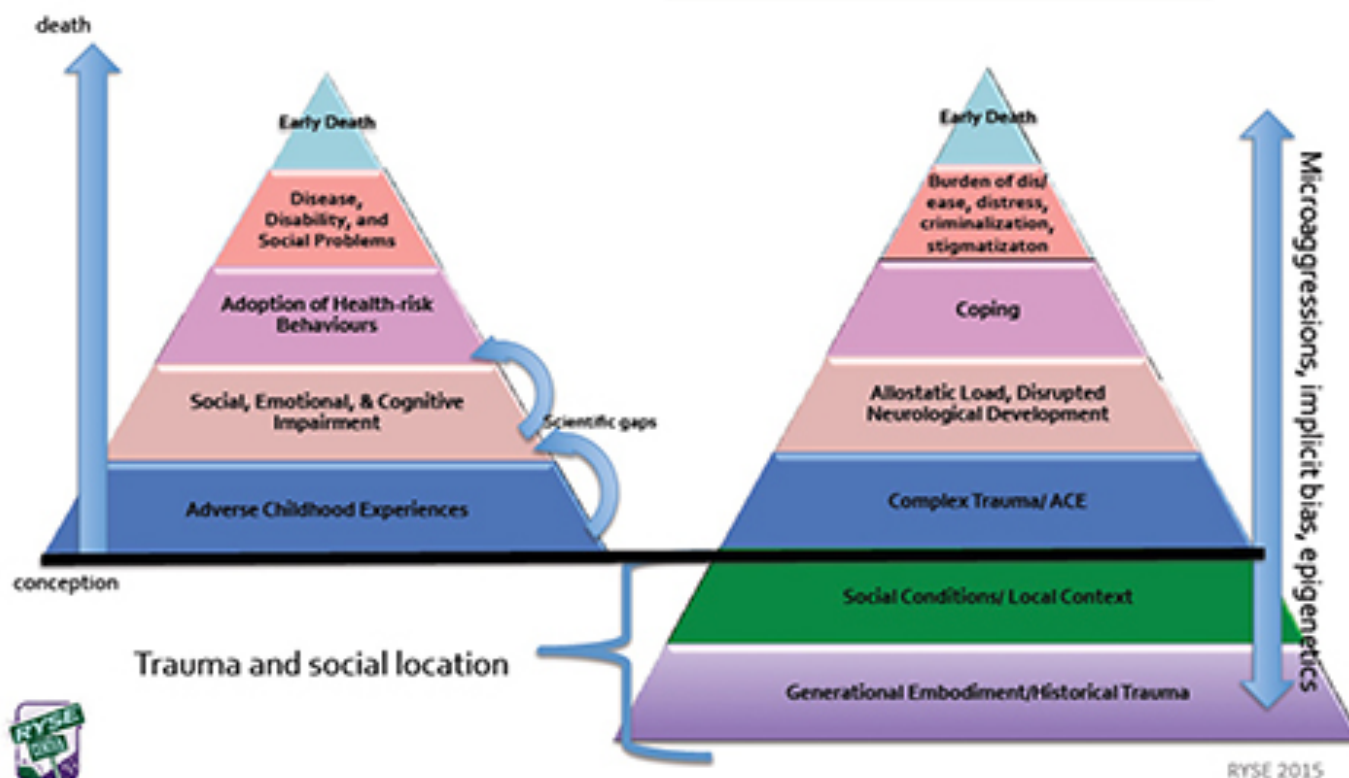
Epigenetics



Trauma and Social Location

Adverse Childhood Experiences

Historical Trauma/Embodiment

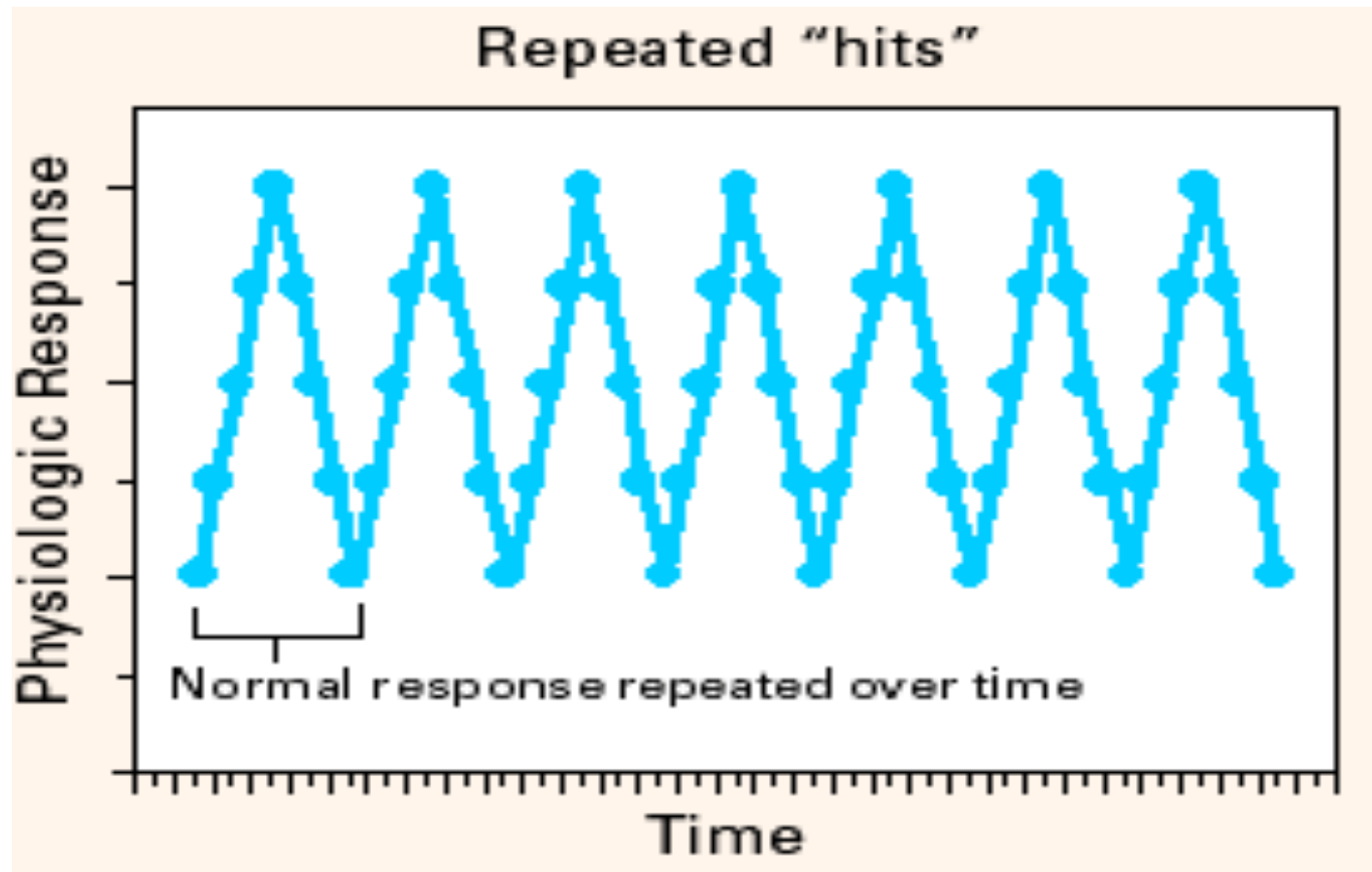


Who Has NOT Been Stressed This Week?

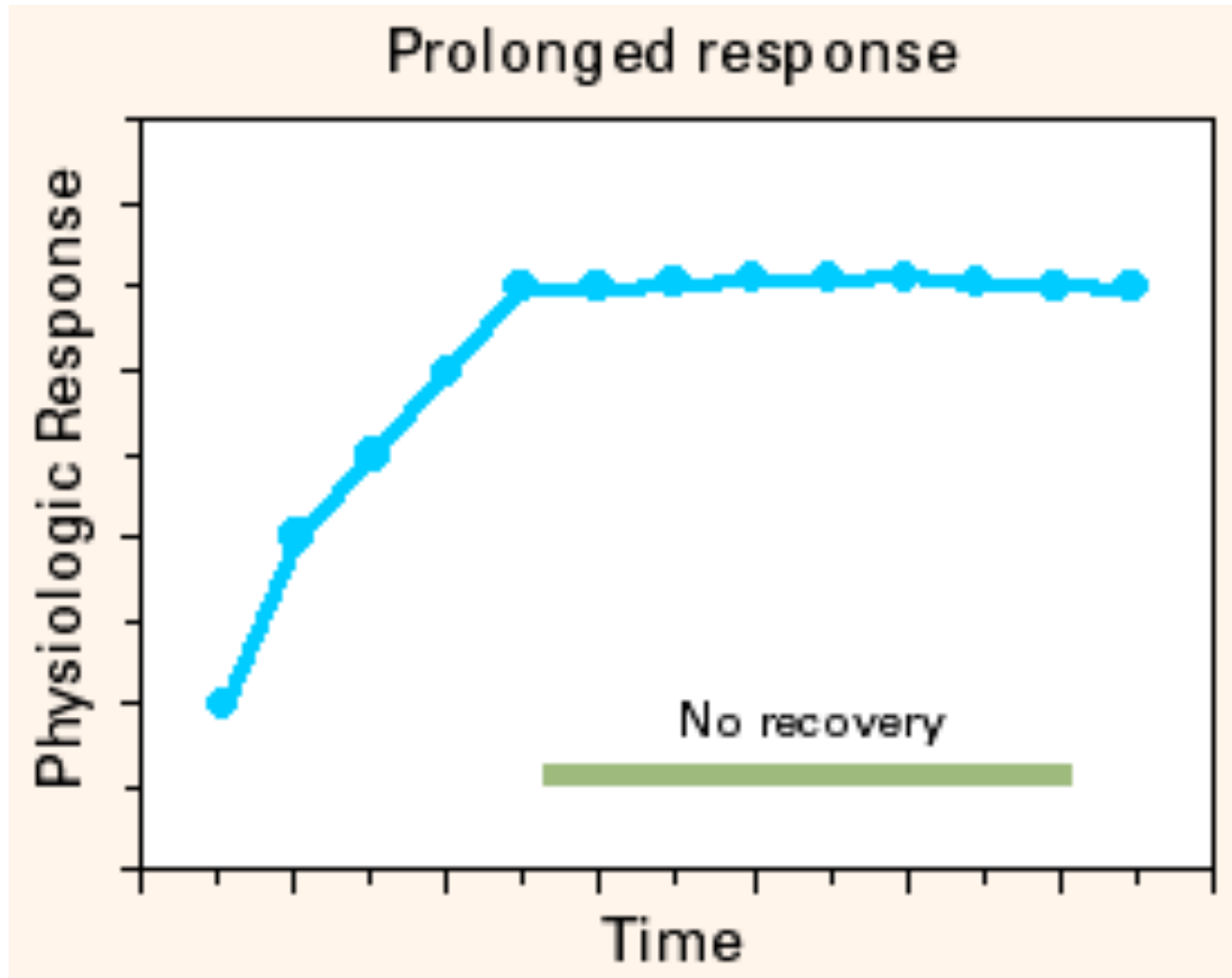
- Inclement weather?
- Misplaced an important paper
- Worried about something at home
- Lost your keys



(Objective #2): Types of Stress. Normal and Tolerable.



Toxic Stress



Toxic Stress can impact children in the following ways:

- Causes children to live in **fight, flight** or **fright** (freeze) mode.
- Short attention span
- Struggle learning; fall behind in school
- Respond to world as constant danger
- Distrustful of adults
- Unable to develop healthy peer relationships
- Feel failure, despair, shame and frustration



Core Concepts for Understanding Traumatic Stress Responses in Children and Families

- Christopher M. Layne , Virginia Strand , Marciana Popescu , Julie B. Kaplow , Robert Abramovitz , Margaret Stuber , Lisa Amaya-Jackson , Leslie Ross & Robert S. Pynoos (2014) Using the Core Curriculum on Childhood Trauma to Strengthen Clinical Knowledge in Evidence-Based Practitioners,
- Journal of Clinical Child & Adolescent Psychology, 43:2, 286-300, DOI: 10.1080/15374416.2013.865192
- **To link to this article:**
<http://dx.doi.org/10.1080/15374416.2013.865192>

- 1. Traumatic experiences are inherently complex.
- 2. Trauma occurs within a broad context that includes children's personal characteristics, life experiences and current circumstances.
- 3. Traumatic events often generate secondary adversities, life changes, and distressing reminders in children's daily lives.
- 4. Children can exhibit a wide range of reactions to trauma and loss.

Core concepts 2

- 5. Danger and safety are core concerns in the lives of traumatized children.
- 6. Trauma experiences affect the family and broader caregiving systems.
- 7. Protective and promotive factors can reduce the adverse impact of trauma.
- 8. Trauma and posttrauma adversities can strongly influence development.

Core Concepts 3

- 9. Developmental neurobiology underlies children's reactions to traumatic experiences.
- 10. Culture is closely interwoven with traumatic experiences, response and recovery.
- 11. Challenges to the social contract, including legal and ethical issues, affect trauma response and recovery.
- 12. Working with trauma-exposed children can evoke distress in providers that makes it more difficult for them to provide good care.
- From: NCTSN

JFK, 1963

- “The needs of children should not be made to wait. We can say with some assurance that, although children may be the victims of fate, they will not be the victims of our neglect.”



USA TODAY
TUESDAY, APRIL 28, 2015

BALTIMORE UNREST

'Destroyed by thugs'

BALTIMORE MAYOR Stephanie Rawlings-Blake blamed "thugs who only want to incite violence and destroy our city" for rioting Monday that left 15 police officers injured, stores looted and police vehicles torched.

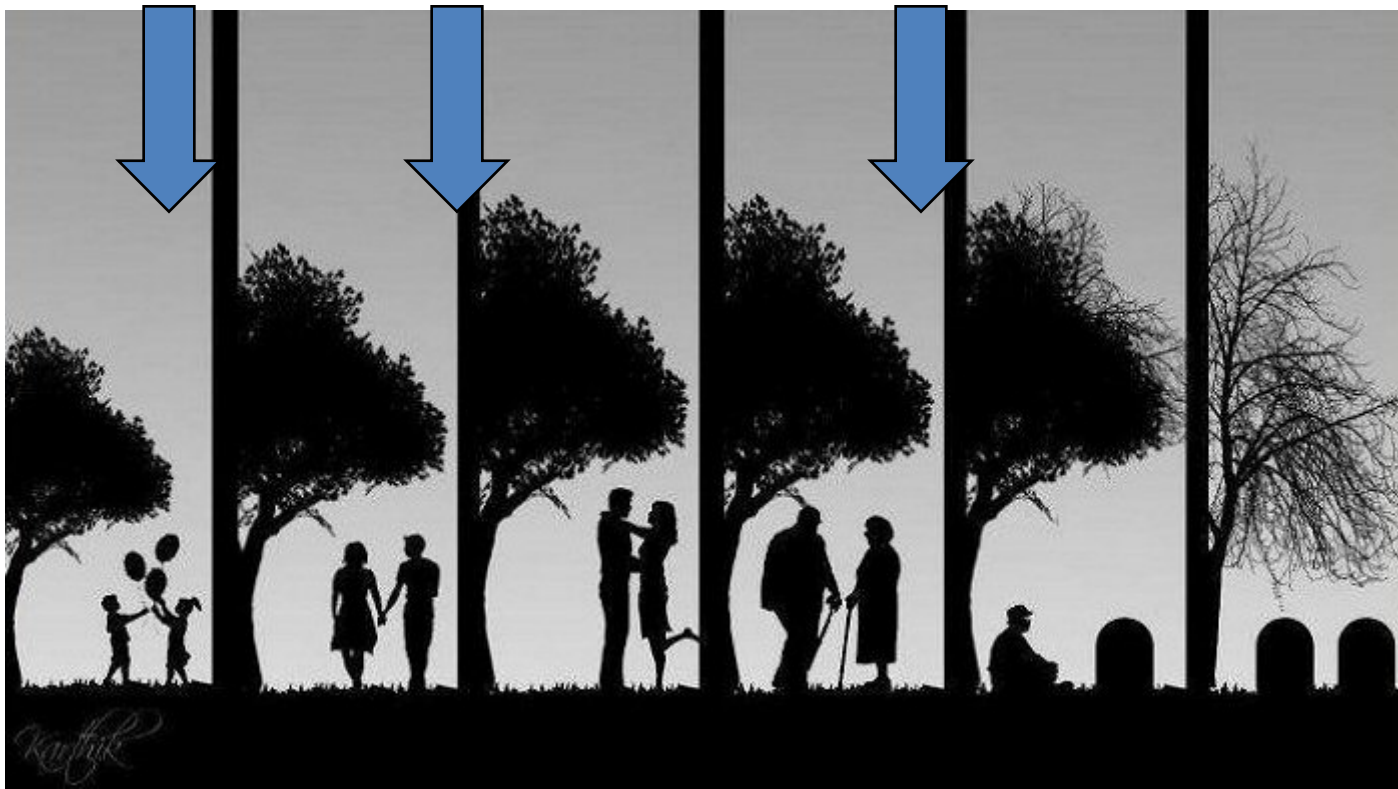
She announced that the city was imposing a week-long curfew, from 10 p.m. to 5 a.m., beginning Tuesday.

She drew a distinction between rioters and those participating in the peaceful protests that have taken place the past week after the death of an unarmed black man in police custody. Freddie Gray,



“The needs of children should not be made to wait” – Why Not?

- Simply stated, because All Adults Once Were Children!

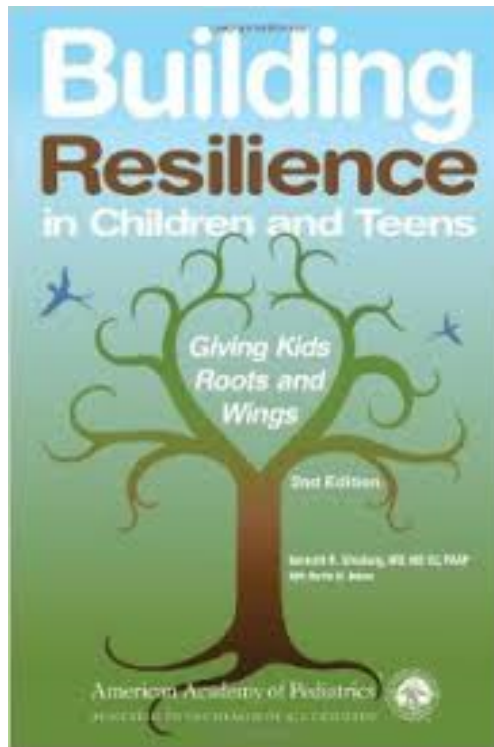


What Is Resiliency?

- The CAPACITY to WITHSTAND Stress and Adversity.
 - So, a point to ponder:
 - What is “Capacity?”
- Properly Adapt to Stress and Adversity.
 - Who gets to define “Properly?”
 - Can a brain that developed in an ecology of stress and adversity “properly adapt” to anything?

Definitional Help From An Expert

- Kenneth Ginsburg, MD, MSEd, FAAP



The Seven C's

- Competence
- Confidence
- Connection
- Character
- Contribution
- Coping
- Control
- These all sound like “capacities” to me!



Capacities

- Capacity to “handle” a situation
 - Competence
- To believe in one’s abilities
 - Confidence
- To have family ties
 - Connection
- To have morals and values
 - Character

Capacities

- Serve others/teamwork
 - Contribution
- Deal with stress/avoid shame
 - Coping
- Focus on decisions
 - Control

Tough to do when you are two!



- Remember ECOLOGY – assess family and child for adversities and strengths.

A Story About Resiliency

