

# Defining a Pathway for Health

*Everychild Foundation*

*State of Our Children: LA 2013 Symposium*

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# Los Angeles County: Background

- 4,060 square miles
- 88 incorporated cities
- 2 islands
- 9.8 million residents (more than 41 States)
- 100+ languages spoken by significant size populations\*
- 16% of entire population living in poverty
  - 23% of children in poverty\*\*



# Children, Adolescents & Young Adults in LA County, 2011

Age	Total Population	MALE % of Total Population	FEMALE % of Total Population
<b>LA County</b>	<b>9,889,056</b>	<b>4,877,989</b>	<b>5,011,067</b>
0-4	6.6%	6.8%	6.3%
5-9	6.3%	6.6%	6.0%
10-14	6.8%	7.0%	6.6%
15-19	7.4%	7.7%	7.1%
<b>Total</b>	<b>27.1%</b>	<b>28.1%</b>	<b>26.0%</b>

**MORE THAN A QUARTER OF THE COUNTY'S POPULATION**

**2.6 Million+**



# Leading Causes of Death

## Ages 0-24, 2008

<u>Age group</u> # of deaths Age-specific death rate	<u>#1 cause</u> #of deaths Age-specific death rate	<u>#2 cause</u> # of deaths Age-specific death rate	<u>#3 cause</u> # of deaths Age-specific death rate	<u>#4 cause</u> # of deaths Age-specific death rate	<u>#5 cause</u> # of deaths Age-specific death rate
<b>&lt;1 year old</b> 741 488 per 100,000	<b>Low BW/ prematurity</b> 116 76 per 100,000	<b>SIDS*</b>	<b>Heart defect</b> 10	<b>Pregnancy complication</b> 29 18 per 100,000	<b>Other birth defects</b> 27 18 per 100,000
<b>1-4 years old</b> 111 18 per 100,000	<b>Stroke</b> 1	<b>Stroke</b> 1	<b>Stroke</b> 1	<b>Stroke</b> 1	<b>Septicemia**</b> <5
<b>5-14</b> 208 14 per 100,000	<b>Stroke</b> 2 2 per 100,000	<b>Stroke</b> 1	<b>Stroke</b> 1	<b>CNS cancer**</b> 18	<b>Leukemia**</b> 13
<b>15-24</b> 932 60 per 100,000	<b>Homicide</b> 322 21 per 100,000	<b>MV crash</b> 196 13 per 100,000	<b>Suicide</b> 90 6 per 100,000	<b>Drug OD</b> 41 3 per 100,000	<b>Leukemia</b> 24 2 per 100,000

MANY CAUSES  
ARE  
PREVENTABLE!



Source: Mortality in Los Angeles County 2008 Leading Causes of Death and Premature Death With Trends for 1999-2008. Accessed at <http://publichealth.lacounty.gov/docs/mortality2008-dec2011.pdf>

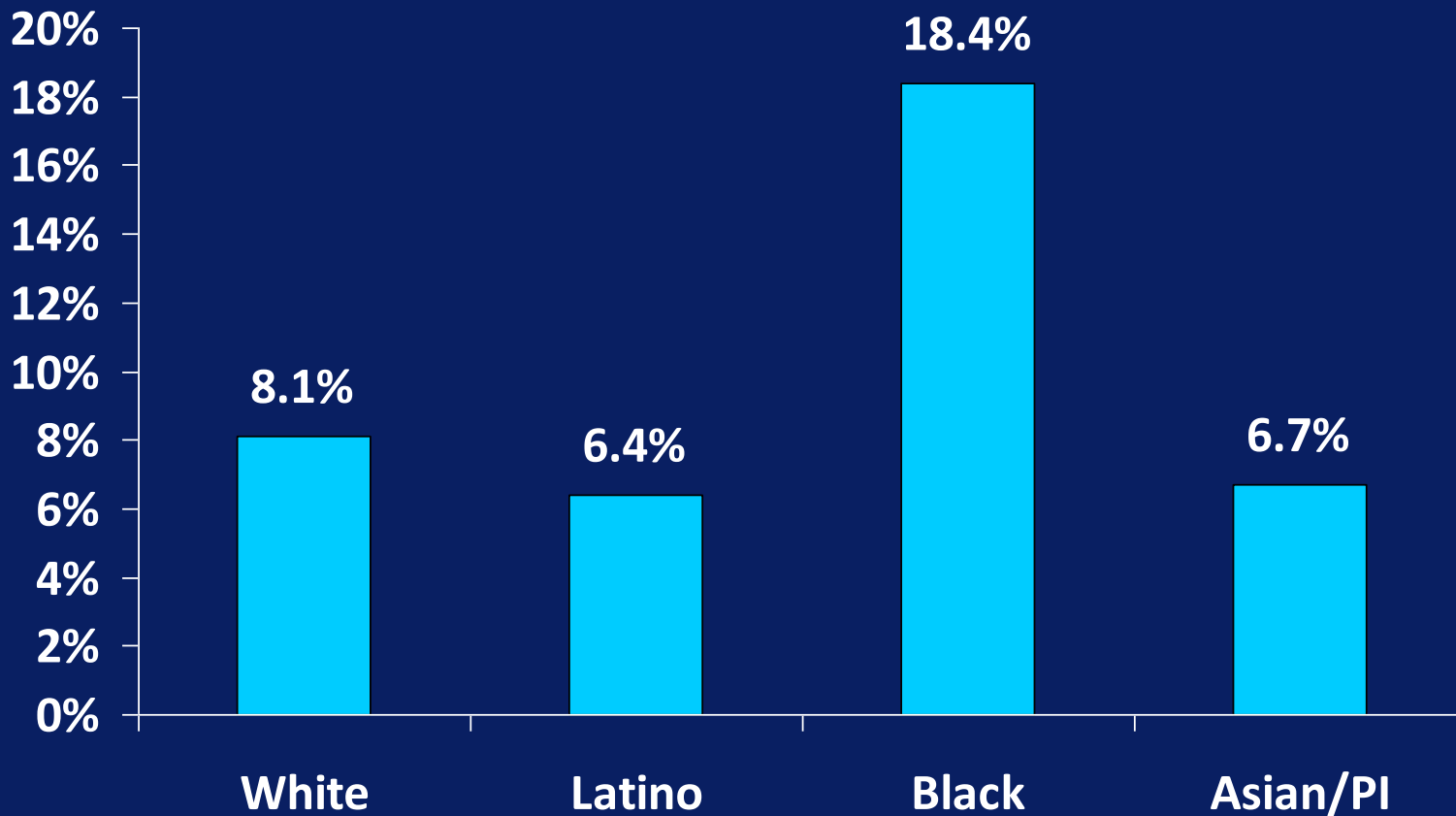
\* Sudden Infant Death Syndrome.  
\*\* # of deaths too small to calculate a reliable rate.

# Disparities Persist

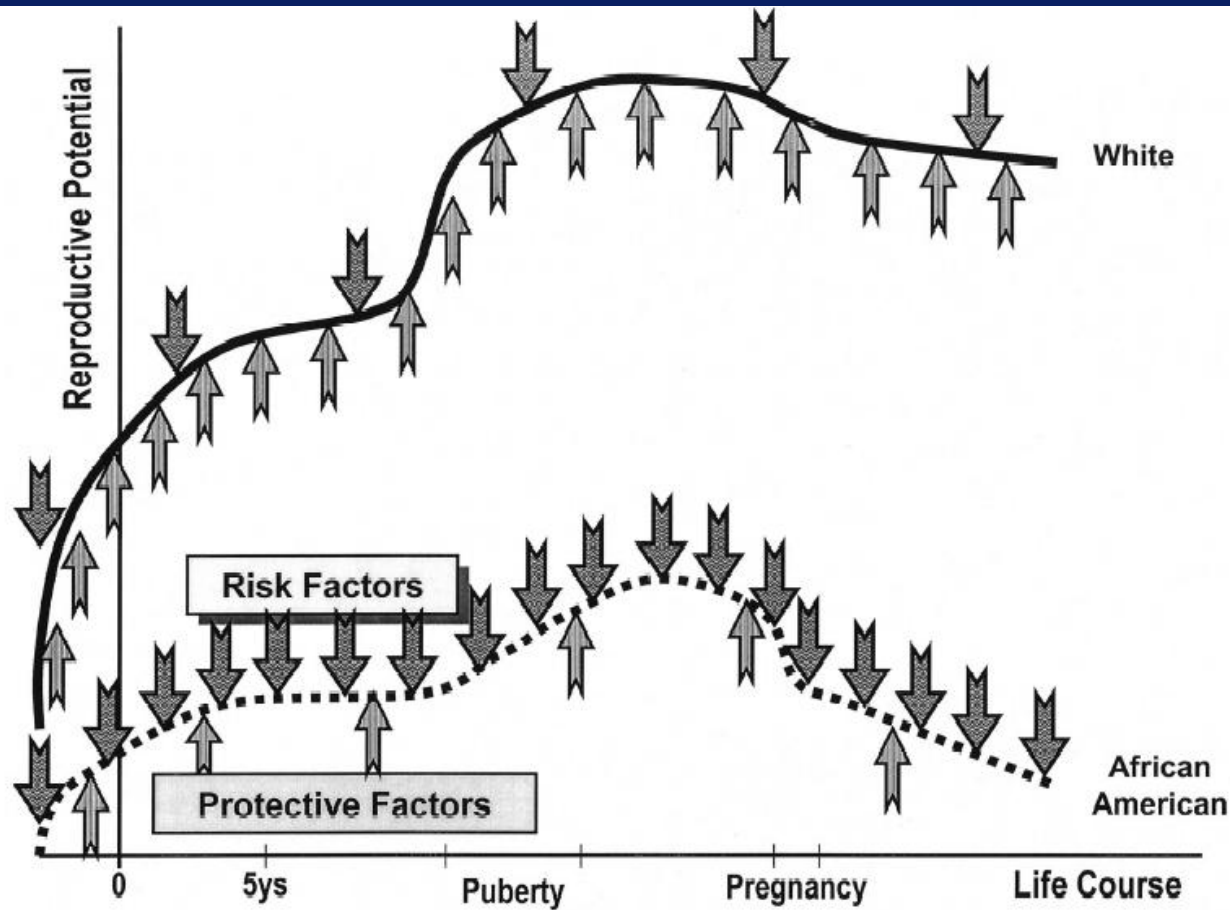
- In LA County, life expectancy for an African American male at birth (69.4 yrs) is nearly **18 years** shorter than that of an Asian/Pacific Islander female (86.9yrs)



# Asthma: Lifetime Prevalence in Children by Race/Ethnicity, LA County, 2007



# Disparities from the Life Course Perspective



## Protective & Risk Factors

- Socioeconomic status
- Race and racism
- Health care
- Disease status
- Stress
- Nutrition
- Weight status
- Birth weight
- Various health behaviors

# Intergenerational Health Effects

- Intergenerational impact of pregnancies on major chronic diseases
  - Mother's body composition and diet at conception and during gestation have important effects on health of offspring
  - The lower the weight at birth and during infancy the higher the risk for coronary heart disease later in life
  - Low birth weight also associated with increased risk of hypertension, stroke and type 2 diabetes

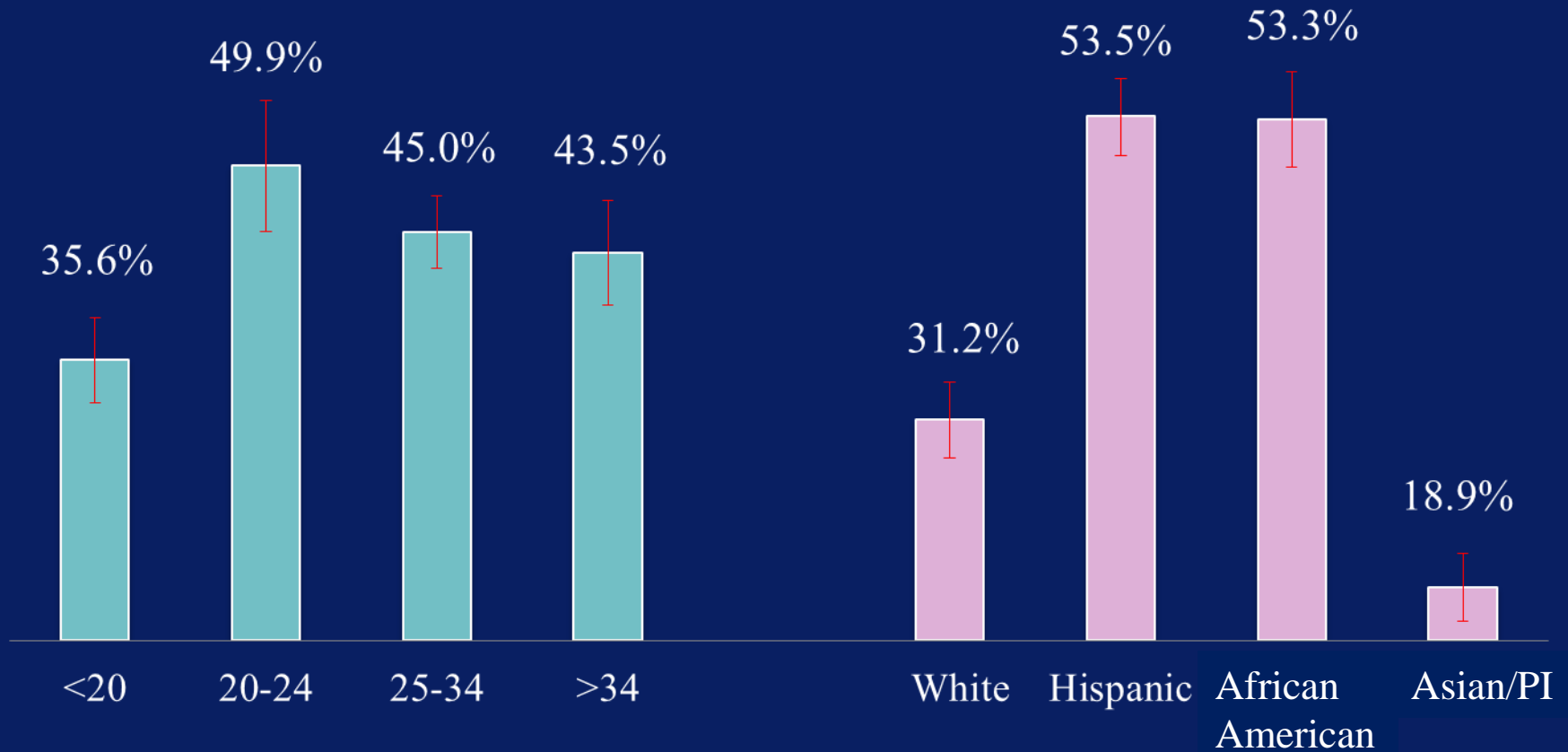


# Prevention Before Day One

- Preconception
  - Maintain healthy weight
  - Folic acid supplementation
- Prenatal
  - Early care
  - Healthy weight gain
  - Disease screening (e.g. Diabetes)
- Maternal obesity in early pregnancy more than doubles risk of obesity in child 2-4 years old<sup>1</sup>



# Prevalence of Pre-Pregnancy Obesity or Overweight Among Women Who Recently Had a Live Birth, by Age and Race/Ethnicity, LA County, 2010



# Breastfeeding = Optimal Infant Nutrition

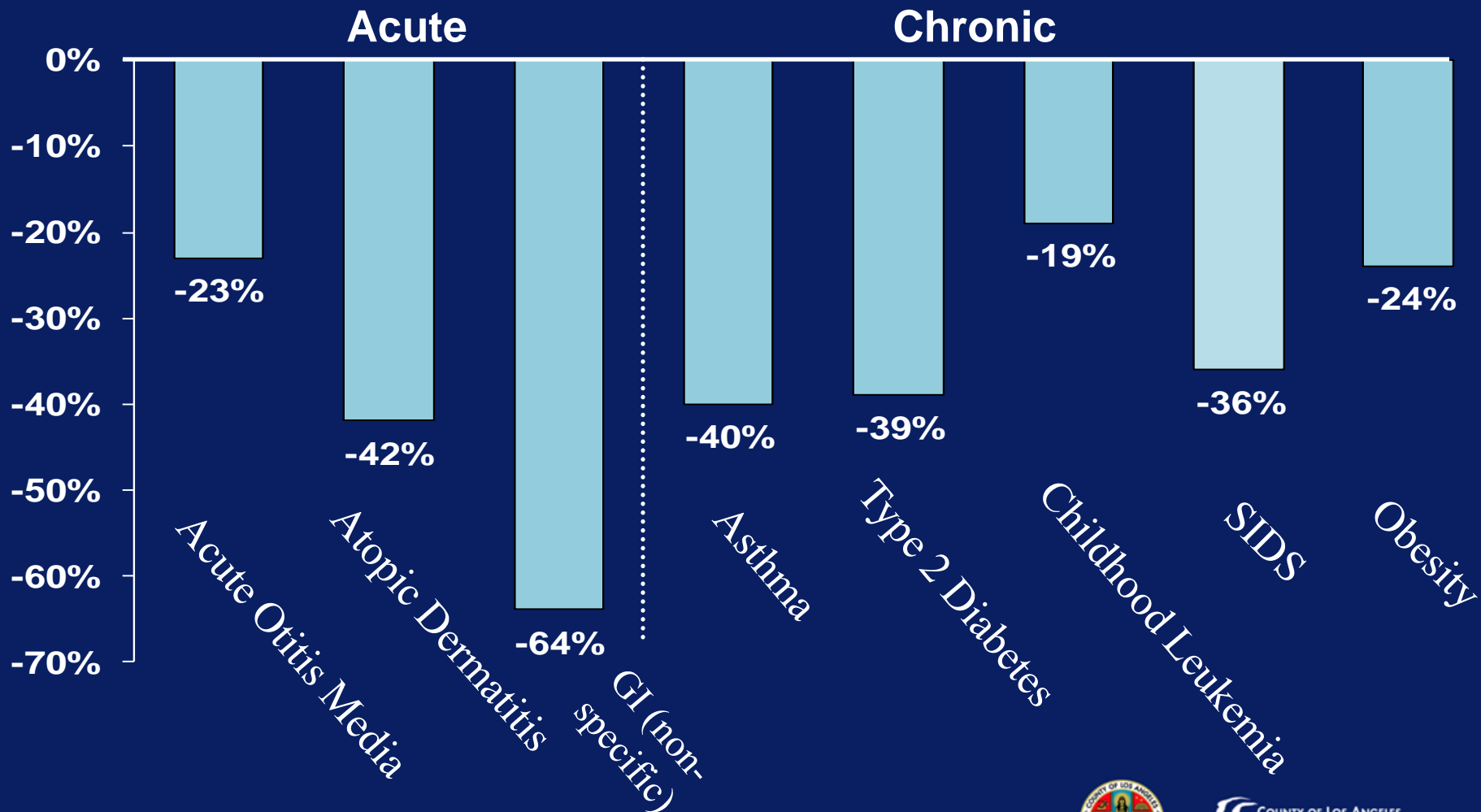
Best health outcomes are associated with:

- exclusive breastfeeding
- sustained breastfeeding



# Breastfeeding – Prevention for Babies

## *Risk Differences for Various Diseases*

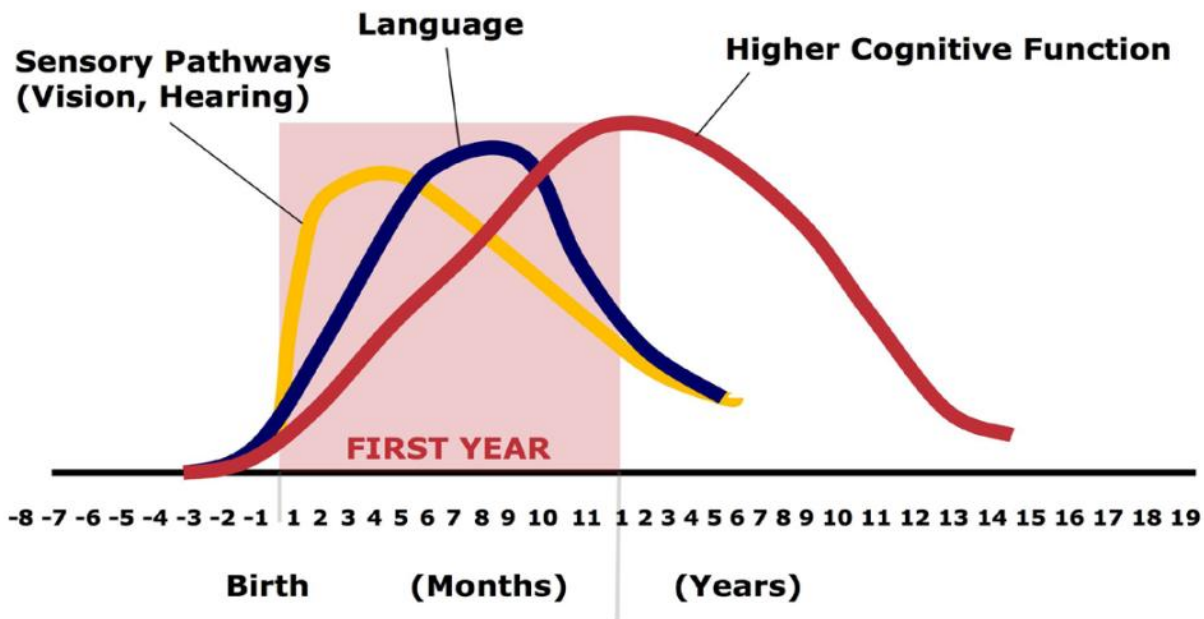


# A Critical Time for Brain Development



Center on the Developing Child  
HARVARD UNIVERSITY

## Human Brain Development Neural Connections for Different Functions Develop Sequentially



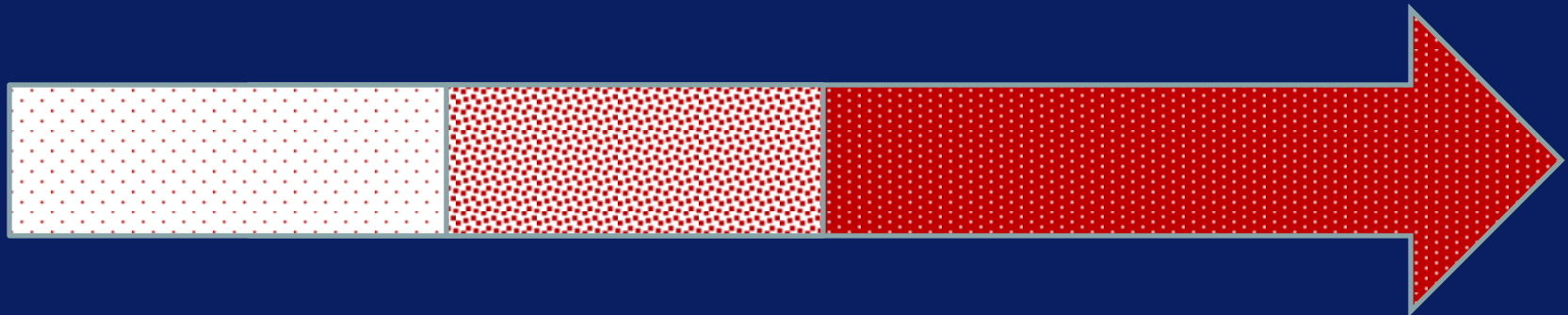
Source: C.A. Nelson (2000)

# Healthy People 2020: Developmental Periods

**Early  
Childhood  
(Birth – 8 Yrs)**

**Middle  
Childhood  
(6 – 12 Yrs)**

**Adolescent  
(10 – 19 Yrs)**



Tremendous physical, cognitive and socio-emotional development

Develop skills for building healthy social relationships and learn roles that lay groundwork for a lifetime

Establish behavioral patterns that help determine current health status and risk for developing chronic diseases in adulthood



# Adverse Childhood Experiences (ACE) Study<sup>1</sup>

- Surveyed over 9,500 adults
- 7 categories of adverse childhood experiences:
  - Psychological, physical or sexual abuse; violence against mother; or living with household members who were substance abusers, mentally ill, suicidal or ever imprisoned.
- Strong graded relationship between ACEs and multiple risk factors for several leading causes of death including cancer, chronic lung disease, and liver disease.
- Later ACE study<sup>2</sup> (n=17,000+ adults) associated ACEs with increased risk of premature death.
  - People with 6+ ACEs died nearly 20 years earlier, and had 3x times greater years life lost per death, than those without ACEs.

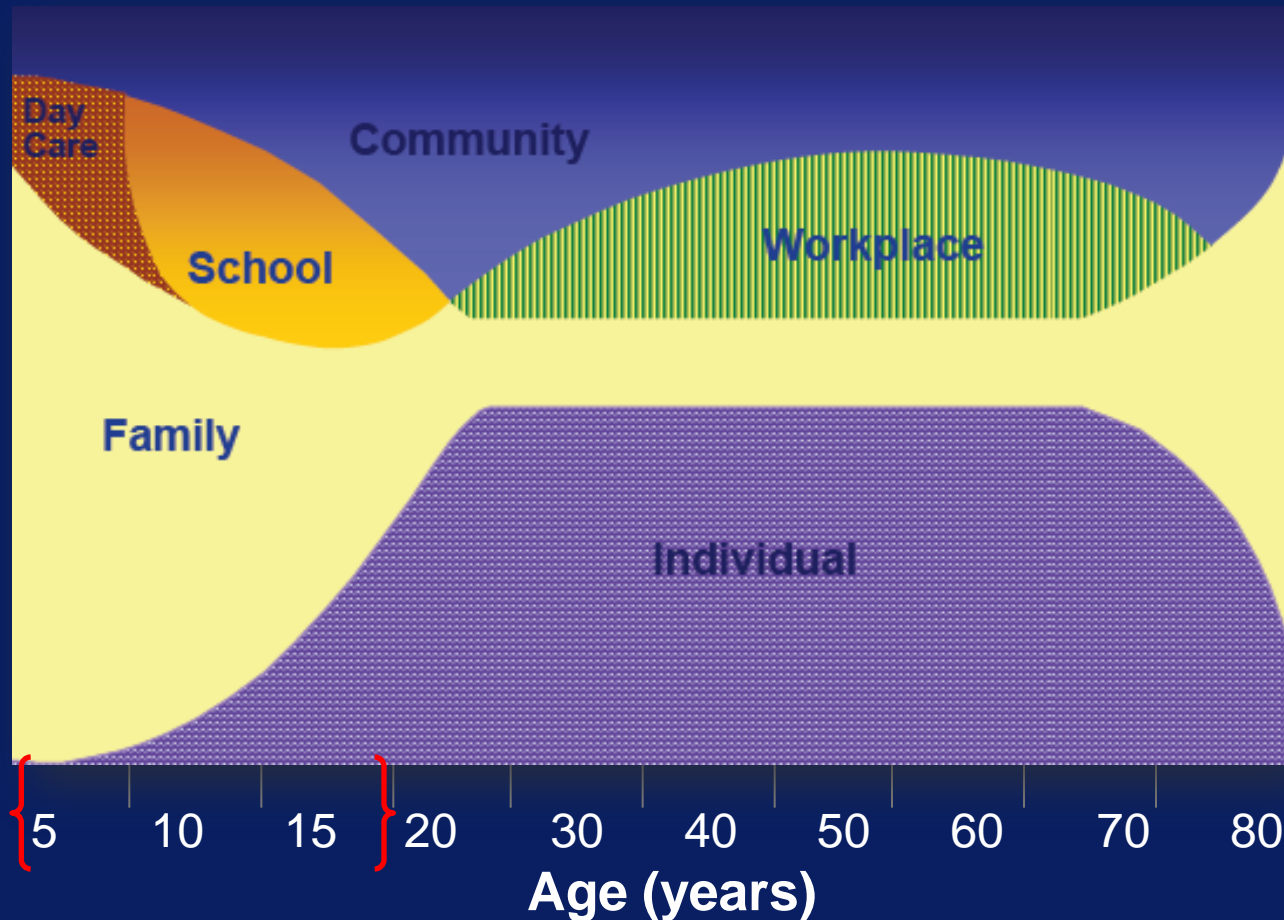


1) Felitti VJ, et al. *Relationship of childhood abuse and household dysfunction to the many of the leading causes of death in adults: the Adverse Childhood Experiences (ACE) Study.* Am J Prev Med 1998 May; 14(4):245-58.;

2) Brown DW, et al. *Adverse childhood experiences and the risk of premature mortality.* Am J Prev Med 2009 Nov; 37(5):389-96.

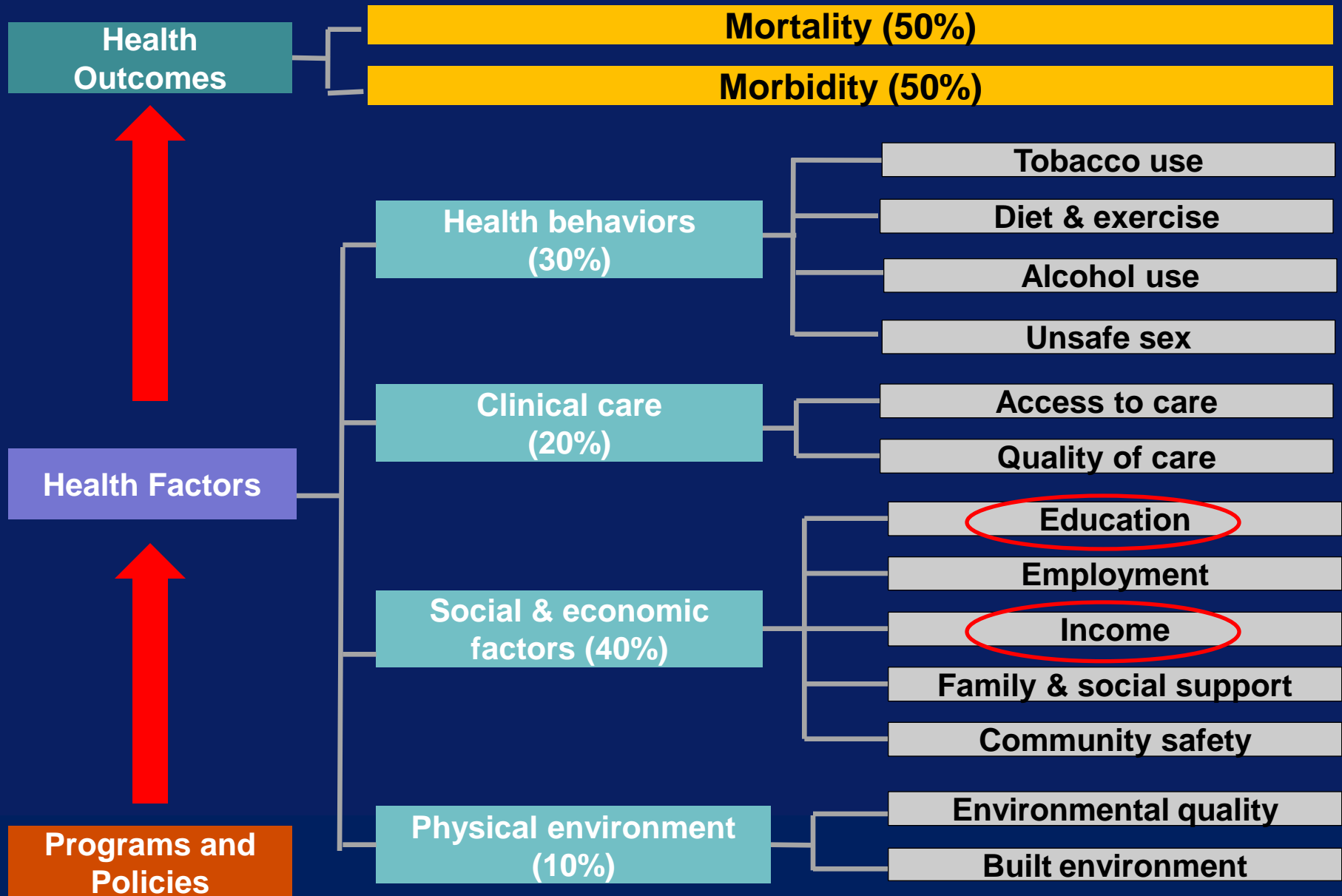
# Health Influences Over the Lifetime

Relative magnitude of influence





# One Model of Population Health



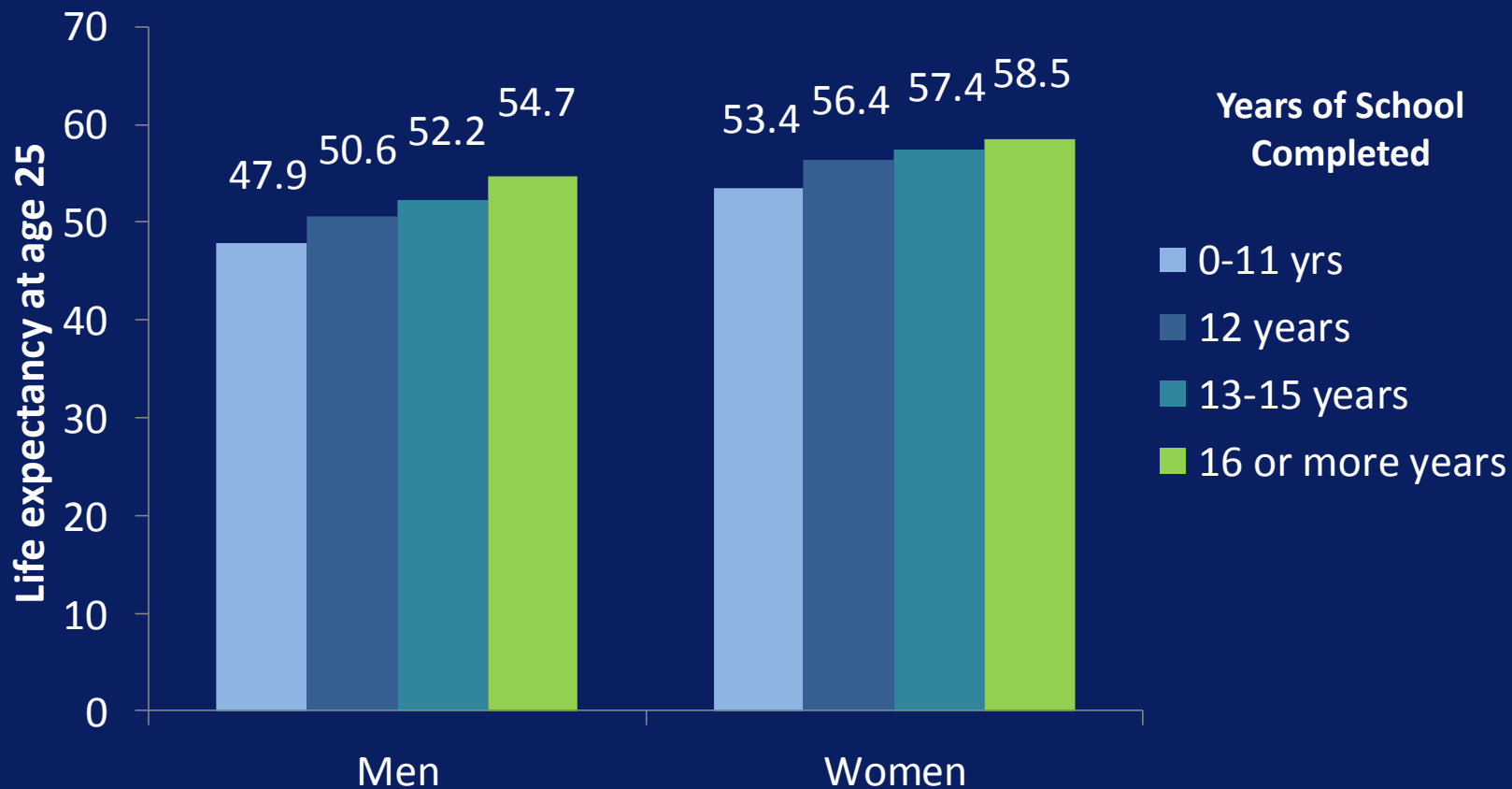
# Improving Educational Outcomes



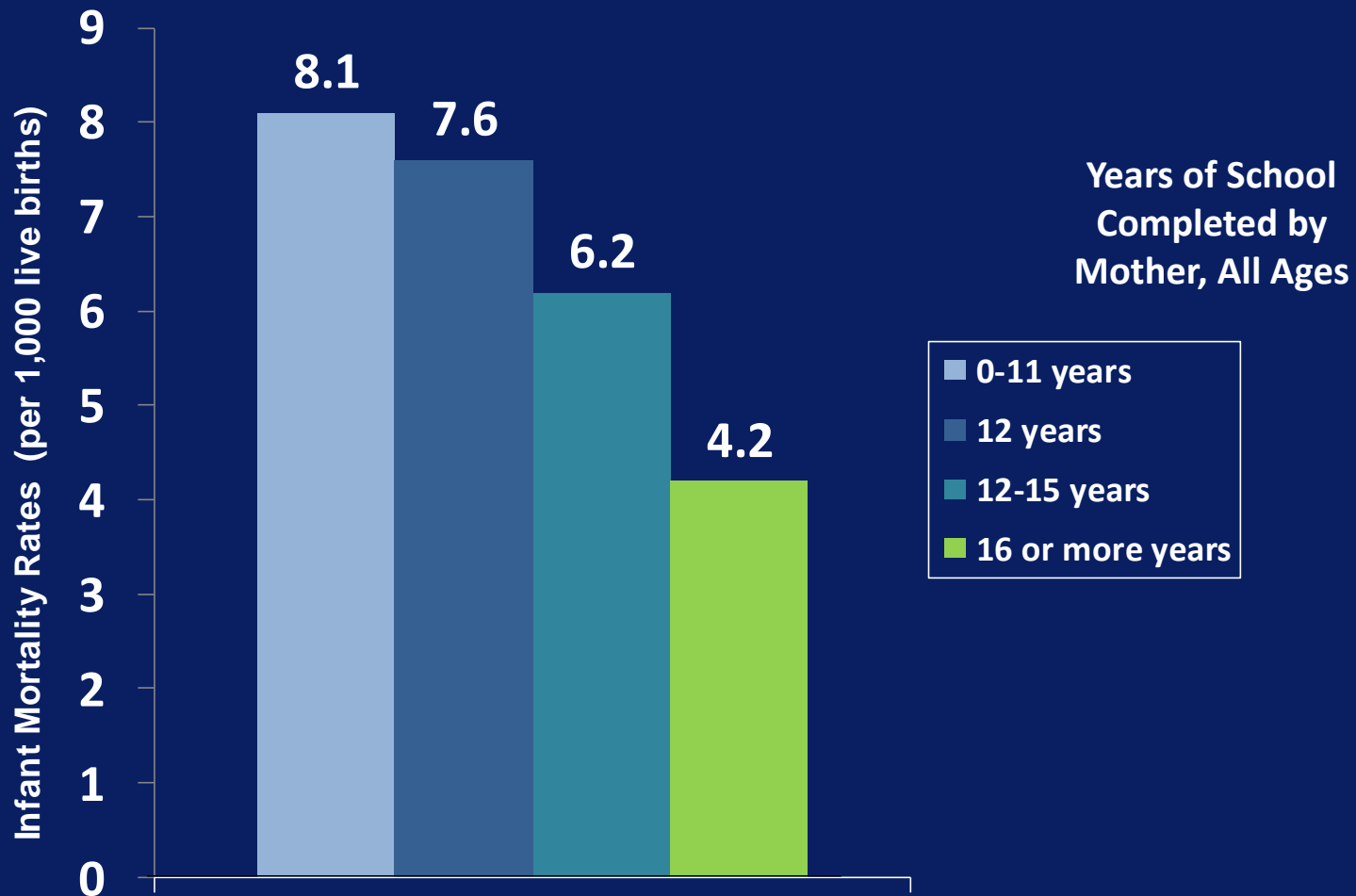
Improves  
Health Outcomes



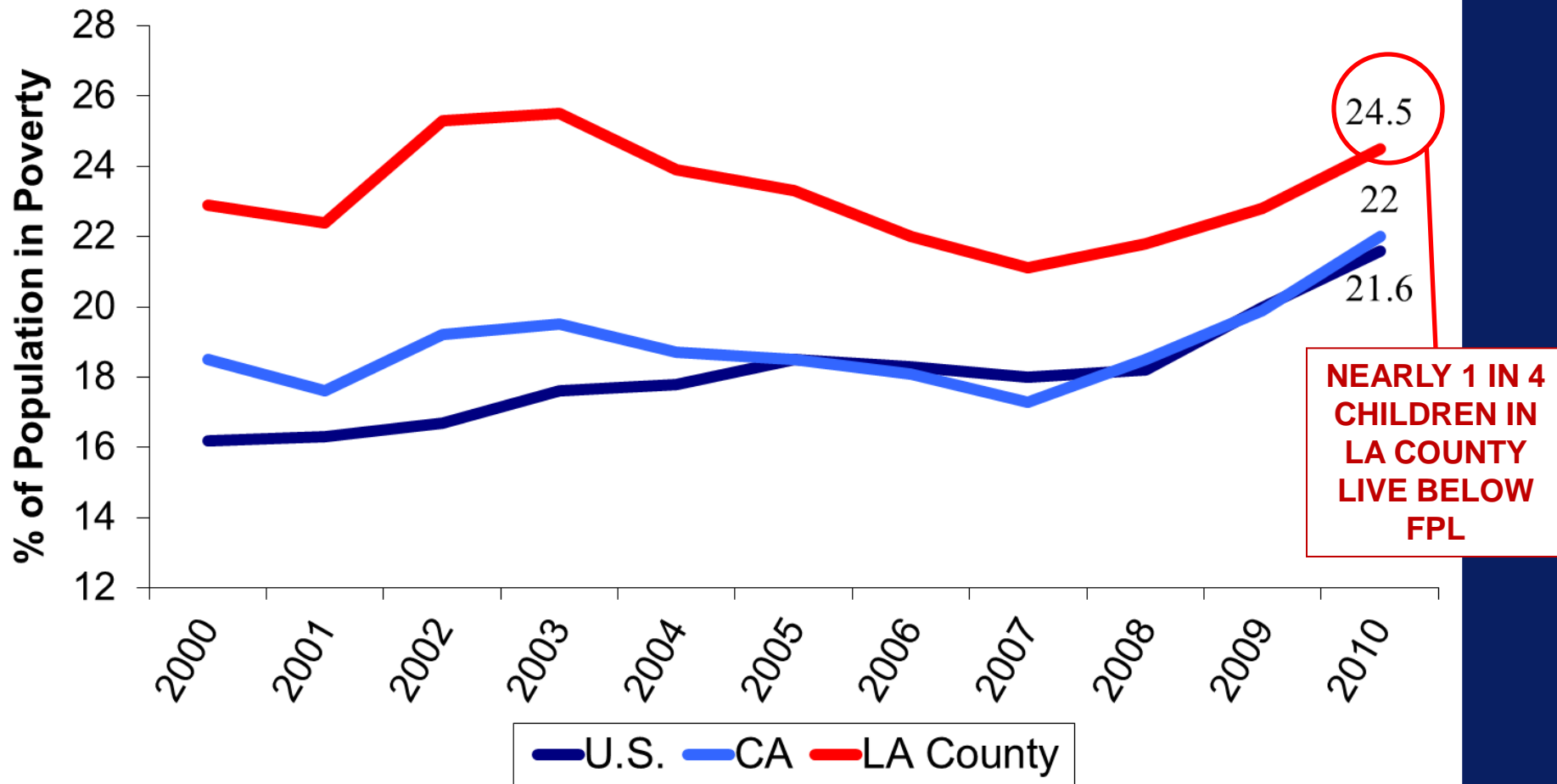
# Education Matters: *More Formal Education = Longer Life Expectancy*



# And It Matters to the Next Generation: *Mother's Education Related to Infant Mortality*

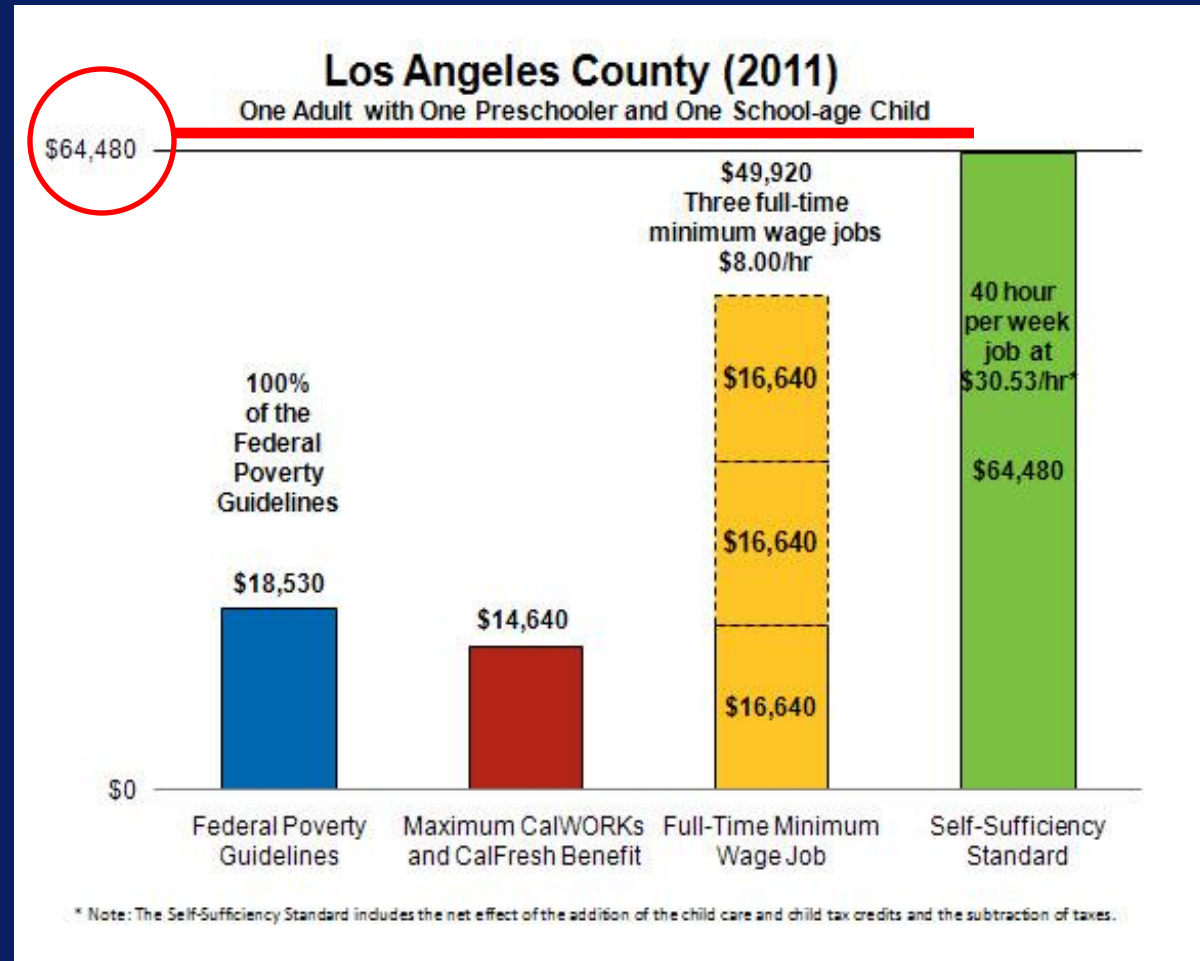


# Poverty US, CA, LA County: Under Age 18



# Family Economic Self-Sufficiency Standard: LA County, 2011

- How much income does a family need to meet basic needs without public or private aid in LA County?
- Self-sufficiency standard is based on the costs families face daily
  - Housing, food, child care, out-of-pocket medical expenses, transportation, and other necessary spending



# Some Effects of Poverty

- Children born poor are 3x more likely not to complete HS than those not born poor.<sup>1</sup>
- By age 50, children who grew up in poverty are more likely to have asthma, hypertension, diabetes, stroke, heart attack and heart disease than children who did not.<sup>2</sup>
- Studies have shown lower-income children experience higher rates of asthma, heart conditions, hearing problems, digestive disorders, elevated blood lead levels and are more likely to be obese.<sup>3, 4, 5</sup>



# Cities/Communities with Lowest and Highest Childhood Obesity Prevalence, 2008

## Bottom 10\*

City/Community Name	Obesity Prevalence (%)	Rank of Economic Hardship (1 - 128)
West Athens	30.6	94
South Gate	30.7	110
Florence-Graham	31.0	128
West Whittier-Los Nietos	31.1	81
West Carson	31.4	56
Vincent	32.2	69
East Los Angeles	32.9	117
Hawaiian Gardens	33.4	107
South El Monte	34.5	111
Walnut Park	38.7	113

Average 10 highest 32.7%

Ave Median Household Income

**\$37,747**

## Top 10\*

City/Community Name	Obesity Prevalence (%)	Rank of Economic Hardship (1 - 128)
Manhattan Beach	3.4	2
Calabasas	5.0	8
Hermosa Beach	5.1	1
Agoura Hills	5.3	10
Beverly Hills	5.4	19
Malibu	5.9	4
Palos Verdes Estates	7.3	5
San Marino	7.8	15
Rolling Hills Estate	8.4	9
La Canada Flintridge	8.5	18

Average 10 lowest 6.2%

Ave Median Household Income

**\$99,555**

\*Table excludes cities/communities where number of students with BMI data < 500.

Source: CA Physical Fitness Testing Program, CA Department of Education. Includes 5th, 7th, and 9th graders enrolled in LAC public schools; 2000 Census



# A Successful Society's Foundation is Built in Early Childhood



*“Healthy development in the early years provides the building blocks for educational achievement, economic productivity, responsible citizenship, lifelong health, strong communities and successful parenting of the next generation.”*

*- Dr. Jack P. Shonkoff*  
Director, Center on the Developing Child  
Harvard University



# Call to Action

- Children and adolescent health, safety and well-being are affected by an interplay of factors
  - e.g. between the individual and their parents, peers, schools, health care systems, media and policies and laws in many sectors
- Improving health requires government agencies, community organizations, schools, businesses and other stakeholders to work together with an eye toward creating healthy communities and environments for our youngest residents



# Policies As Levers of Change

Policies can improve physical and social environments

- Create safe places for physical activity
  - Joint use agreements
  - Walkable/bikable community design
  - Pocket park development
- Improve access to early childhood development programs, particularly for low-income children



# Policies As Levers of Change

(continued)

- Fund youth apprenticeship programs and vocational training for at-risk youth
- Expand tenant based rental assistance programs
- Find permanent housing solutions for homeless individuals and families
- Strengthen programs that effectively teach parenting skills
- Ensure all eligible families receive economic supportive services
  - Supplemental Nutrition Assistance Program
  - Earned Income Tax Credit



# Policies As Levers of Change

(continued)

## Policies can increase protective factors

- Support community efforts to build social connectedness (e.g. community gardens)
- Address potentially harmful environmental exposures (e.g. siting schools away from freeways to reduce asthma burden)
- Create environments geared toward prevention (e.g. baby-friendly hospitals)



# Thank You!



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