

# Social Drivers of Health: Gaps & OPPORTUNITIES in Orange County

Geeta Grover, M.D.  
Clinical Professor of Pediatrics  
University of California, Irvine  
Developmental & Behavioral Pediatrician  
The Center for Autism and Neurodevelopmental Disorders at UCI &  
CHOC Children's, Orange, CA  
[ggrover@hs.uci.edu](mailto:ggrover@hs.uci.edu)

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# Disclosure

I do not have relevant financial relationship(s) to disclose with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients

I do not intend to discuss an unapproved/investigative use of a commercial product/device

## Remembering & Honoring Dr. Benard Dreyer

Fierce advocate for children, especially  
those in greatest need

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In his own words . . .

“What a privilege it is to be a  
pediatrician!”

“I want to urge us to lead needed change  
for children. We need to act and  
advocate for children NOW. Together we  
can accomplish many great things.  
Together, WE CAN CREATE A BETTER  
WORLD FOR CHILDREN AND FAMILIES”

Dreyer BP. The 2024 Joseph W. St. Geme, Jr Leadership  
Award Address: To Create a Better World for Children  
and Families. Pediatrics. 2024; 154(5):e2024068085



# Gratitude

I begin with tremendous gratitude for all of you for taking the time to be here today so that we may learn, collaborate and discuss how to increase **opportunities** for **ALL** children to thrive and flourish

I encourage all of us to take a moment & reflect on the **opportunities** we have been given

I hope that over the several hours, we will together

- Learn about critical gaps in children's access to food, housing, healthcare and education
- Resources available in our communities to mitigate and address those gaps
- And most importantly, dialogue together to improve **opportunities for all children to thrive and flourish**





# AAP Mission & the Pediatrician's Imperative

“To attain optimal physical, mental, & social health & well-being for all children.”

Thus, the pediatrician's imperative is the relentless pursuit of equity for all children

Flores, G. The pediatrician's imperative: the relentless pursuit of equity. *Pediatrics* 2024.



## Inequity Begins at Birth

The zip code a child is born in may be more important than their genetic code, & contribute to inequities in access to food, housing health care & knowledge .

..

Neighborhoods matter to children's health & well-being



# Zip Codes Drive Health & Opportunity

Talent is equally distributed but opportunity is not.  
Leila Janah, Social Entrepreneur

AAP Addressing Poverty Through Community Transformation ECHO (9/2024-2/2025)



# Closing the opportunity gap for young children

National academy of Sciences, 2023

Conclusion 1: Differential experiences and access to resources in early childhood result in opportunity gaps, which can lead to long-term gaps in outcomes in education, physical health, and social-emotional development that are harmful to individuals, communities, and society

National Academies of Sciences, Engineering, and Medicine. 2023. Closing the Opportunity Gap for Young Children. Washington, DC: The National Academies Press. <https://doi.org/10.17226/26743>.



# Closing the opportunity gap for young children

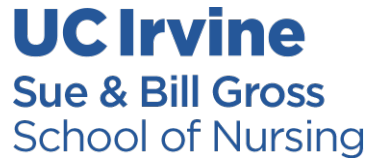
National academy of Sciences, 2023

Conclusion 2: There is substantial evidence describing effective policies and practices that can increase opportunity across multiple domains:

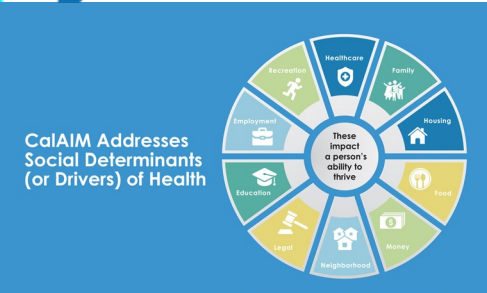
- Increasing maternal access to prenatal care
- Increasing access to early education
- Anti Poverty programs

However, barriers to accessing opportunities persist, leaving the most vulnerable populations underserved

National Academies of Sciences, Engineering, and Medicine. 2023. Closing the Opportunity Gap for Young Children. Washington, DC: The National Academies Press. <https://doi.org/10.17226/26743>.



Creating OPPORTUNITIES in  
our Communities . . .



# Opportunities:

Circumstances that make it possible for us to flourish & thrive

We are suffering from an invisible epidemic in the form of unequal opportunities for the early brain development that all children need to achieve their potential

Science teaches that early stress & deprivations leave lasting imprints on the mind & body

But science also tells us that adversity isn't destiny & Positive Childhood Experiences can mitigate the effects of adversity & promote children flourishing

If zip codes drive health & opportunity . . .

Let's get into the **zip code improvement** business—creating **opportunities**

Jutte DP, Badruzzaman RA, Thomas-Squance R. Neighborhood Poverty and Child Health: Investing in Communities to Improve Childhood Opportunity and Well-Being. Acad Pediatr. 2021 Nov-Dec;21(8S):S184-S193. doi: 10.1016/j.acap.2021.04.027. PMID: 34740427.

# In the United States Today

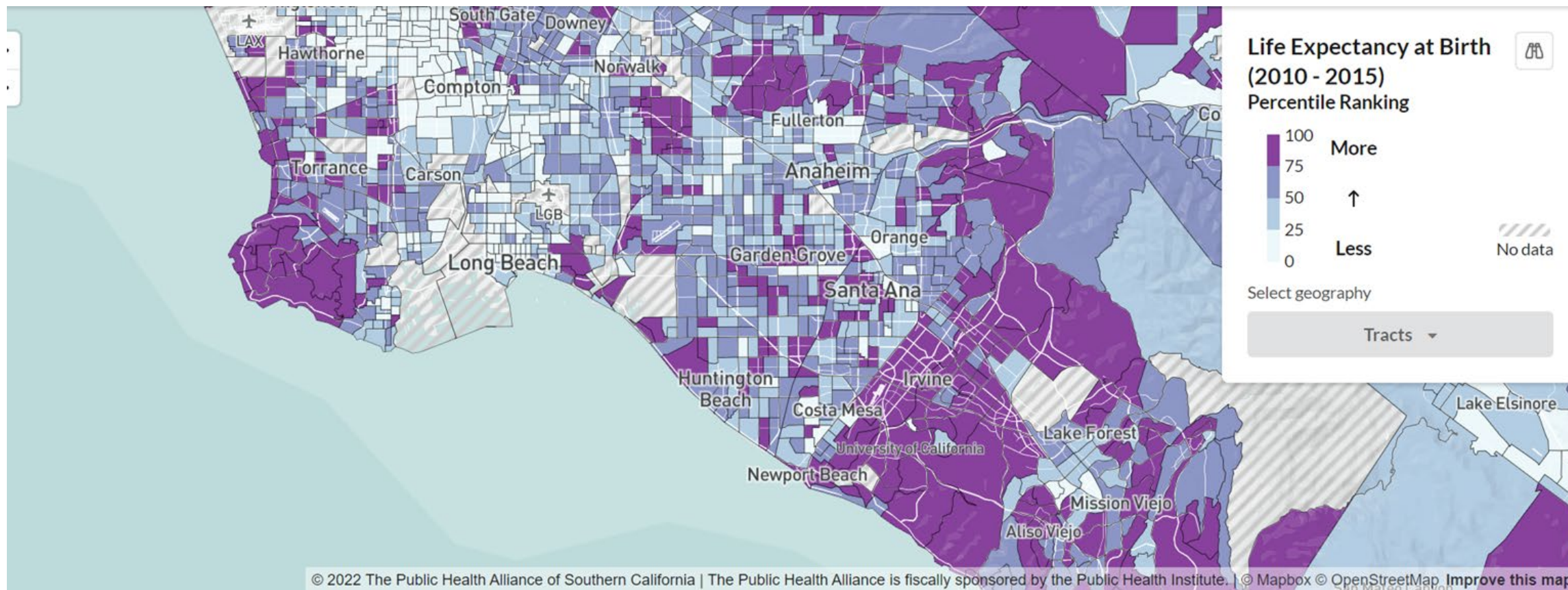
Dramatic Life Expectancy Gaps based on zip code: a child born in one neighborhood may have a life expectancy that is 20 to 30 years shorter than a child born a few miles away in another neighborhood

Large life-expectancy gaps occur most frequently in cities with higher levels of racial & ethnic segregation

- A child born in East Harlem (86% racial & ethnic minority) has a mean life expectancy of 71 years
- A child born few blocks away in the Upper East Side (75% white) has a life expectancy of 90 years

Flores G. The Pediatrician's Imperative: The Relentless Pursuit of Equity. Pediatrics. 2024; 154(5):e2024068033





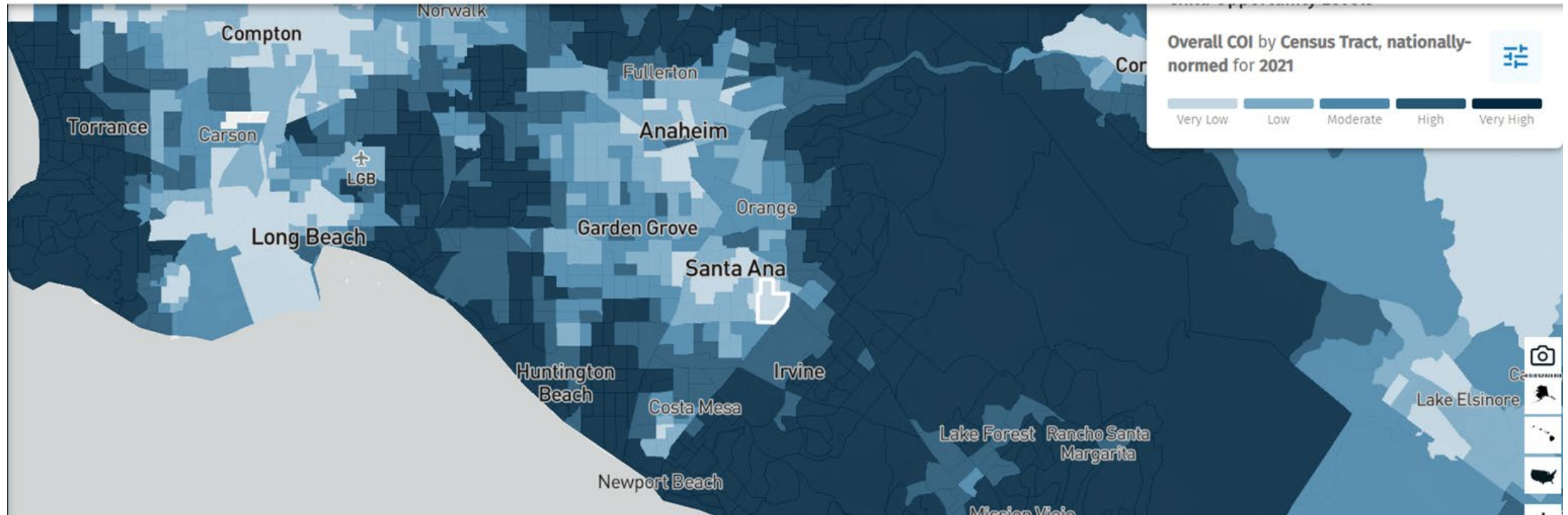
## Community Mapping

### California Healthy Places Index

### Average Life expectancy at Birth (2010–2015)

- California: 80 years
- Orange County: 82 years
  - Irvine 85 years
- Costa Mesa: 75 years





**Community Mapping**  
Child Opportunity Index  
(COI) | [diversitydatakids.org](https://diversitydatakids.org)

## Child Opportunity Index

- Santa Ana: Very Low
- Irvine: Very High

# **Children remain the poorest age group in America**

## **Child Poverty rate increased to 16% in 2023**

End of pandemic relief, especially the child tax credit expansion which ended in 2022 a key factor in child poverty

**Opportunity:** Dispel Misinformation with Facts.

Majority of children living in poverty lived with at least one working family member  
One-third lived with a family member working full-time, year round



## Nearly 150,000 children experienced homelessness on a single night in 2024

2024 AHAR Report to Congress (January 2024 PIT data)

18% increase in homelessness across the nation: number of people experiencing homelessness on a single night in 2024 was the highest ever recorded

Family homelessness rose by 39%: the largest single year increase in homelessness for families with children

Between 2023 and 2024, children < 18 experienced the largest increase in homelessness of any age group

# Literacy Matters

More than 80% of a child's brains is developed during the first 3 years of life before they have access to traditional K-12 education—**Parents are children's first and most important teachers**

Mother's reading skill correlates with their children's future academic success, outweighing other factors such as neighborhood & family income

Children of parents with limited reading and writing skills have a 72% chance of being at the lowest level of literacy themselves in adulthood

**Opportunity:** Investment in programs to improve maternal literacy skills to help overcome disparities in academic achievement

Sastry N, Pebley AR. Family & neighborhood sources of socioeconomic inequality in children's achievement. *Demography* 2010.

Barbara Bush Foundation for Family Literacy. National action plan for adult literacy, 2021.

# Adult Literacy in the US

Functional literacy: practical skills needed to read, write & do math for real-life purposes in order to function effectively in the community

- Level 3: considered minimum necessary to function in today's society
- Economic mobility that comes with higher levels of literacy & numeracy skills can be life-changing

More than half of US adults read at level 2 or below & more than 1 in 4 read at the lowest levels, limiting their reading comprehension to simple, short sentences

- Greater percentage of US adults (28%) have literacy skills at the lowest level as compared to 7 years ago (19%)
- Adults with proficiency at these lowest levels do not have the same opportunities for full participation in society as those with higher proficiency

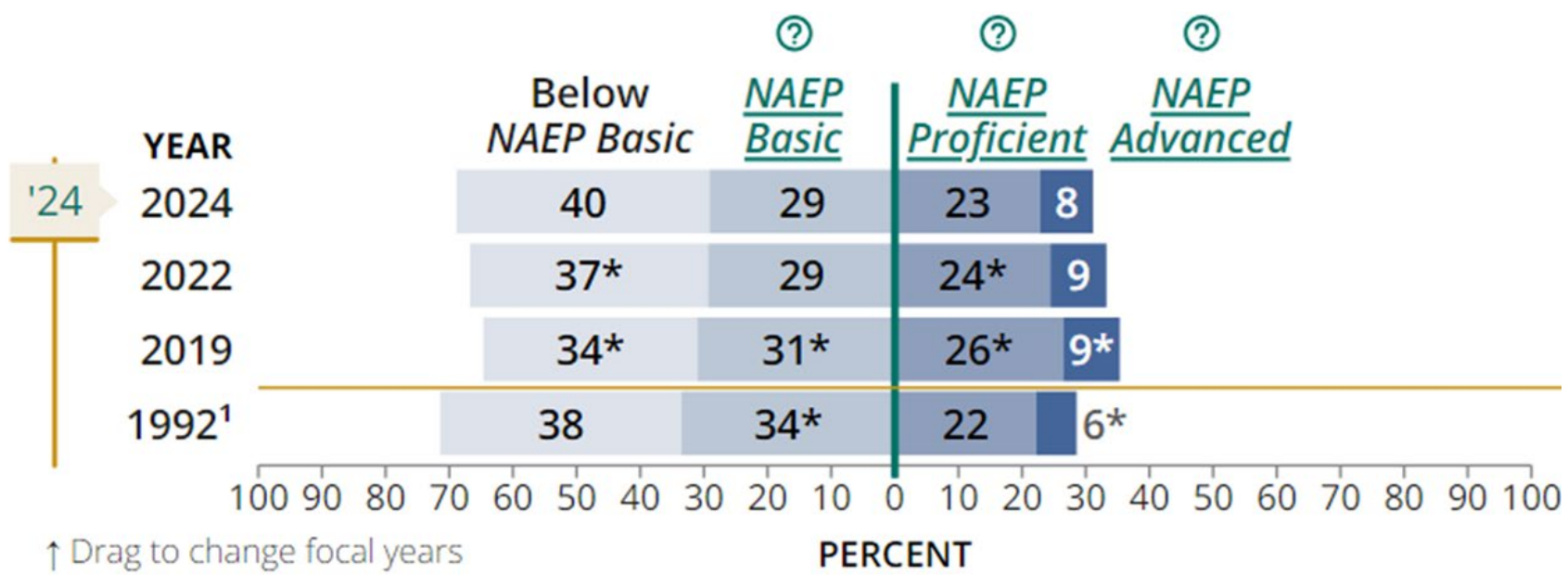
**Opportunity:** <10% of adults needing literacy support are receiving it

2022/23 Survey of Adult Skills, Program for the International Assessment of Adult Competencies (PIAAC). (literacy, numeracy & adaptive problem-solving skills of adults 16-65)



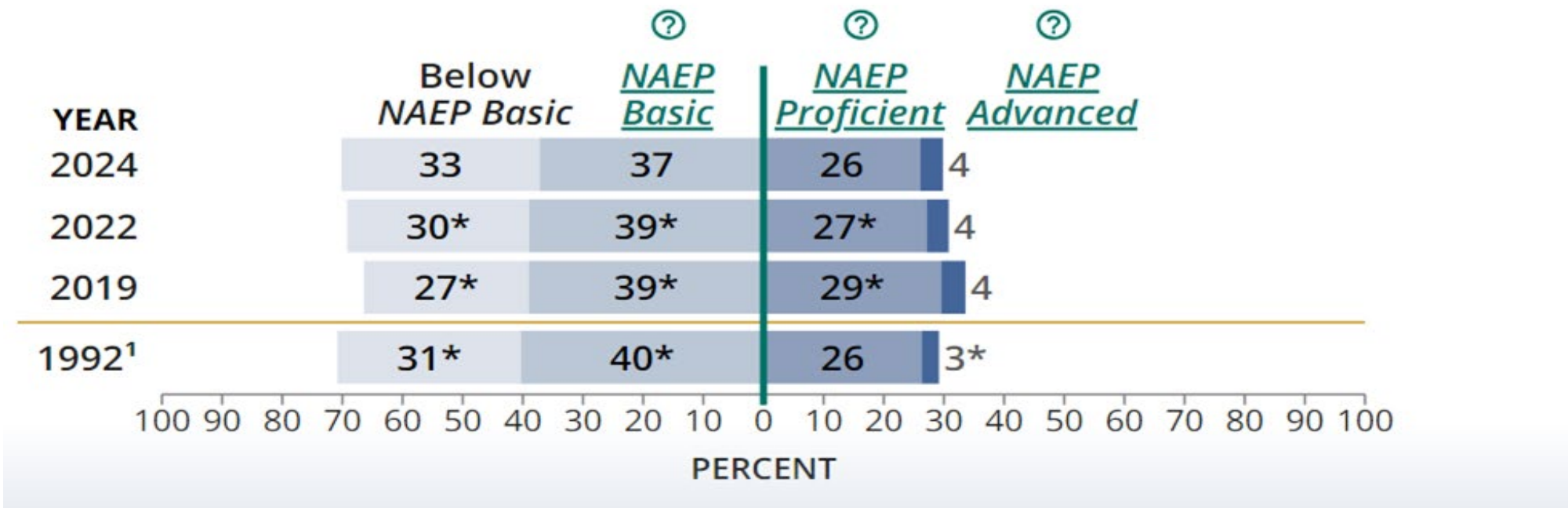
# 2024 National Reading Data:

## 31% of 4<sup>th</sup> Graders Proficient in Reading



[NAEP Reading: Reading Results](#): National Assessment of Educational Progress 2024 Results; accessed 1-19-2025

# 2024 National Reading Data: 30% of 8<sup>th</sup> graders Proficient in Reading



NAEP Reading: Reading Results: National Assessment of Educational Progress 2024 Results; accessed 1-19-2025

# Snapshot of Children in OC

## 30<sup>th</sup> Annual Report on the Conditions of Children in OC, 2024

Healthcare: improvement in health insurance coverage rates, immunization rates and access to early prenatal care but increases in infant mortality rates, low birth weights and preterm births. Of concern: persistent racial and ethnic disparities for all 3 of these measures

Poverty: Both the number of housing insecure children & the number of children eligible for free lunches – a longtime indicator of poverty – have gone up again

Educational Achievement: Slight improvement in percent of 3<sup>rd</sup> grade students meeting or exceeding achievement standards for ELA but wide racial, ethnic, & economic disparities. Students from marginalized communities experienced lower academic achievement, higher rates of chronic absenteeism & lower graduation rates




## Snapshot of Children in OC: Child Poverty

Percent of students eligible for Free &  
Reduced-Price lunch program  
increased for 2<sup>nd</sup> year in a row

11% of students living in poverty  
(2022)

When cost of living, range of family  
needs, family resources & social  
safety net benefits factored in,  
poverty among OC children increased  
to 15% surpassing California at 14%





## Snapshot of Children in OC: Food Insecurity

1 in 10 children in Orange  
County don't get enough to eat  
(2022)

**Opportunity:** In 2023, ~70% of  
people in OC eligible for either  
CalFresh or WIC were receiving  
these benefits



## Snapshot of Children in OC: Access to Healthcare

Highest Rates of Uninsured  
Children by Community of Residence:

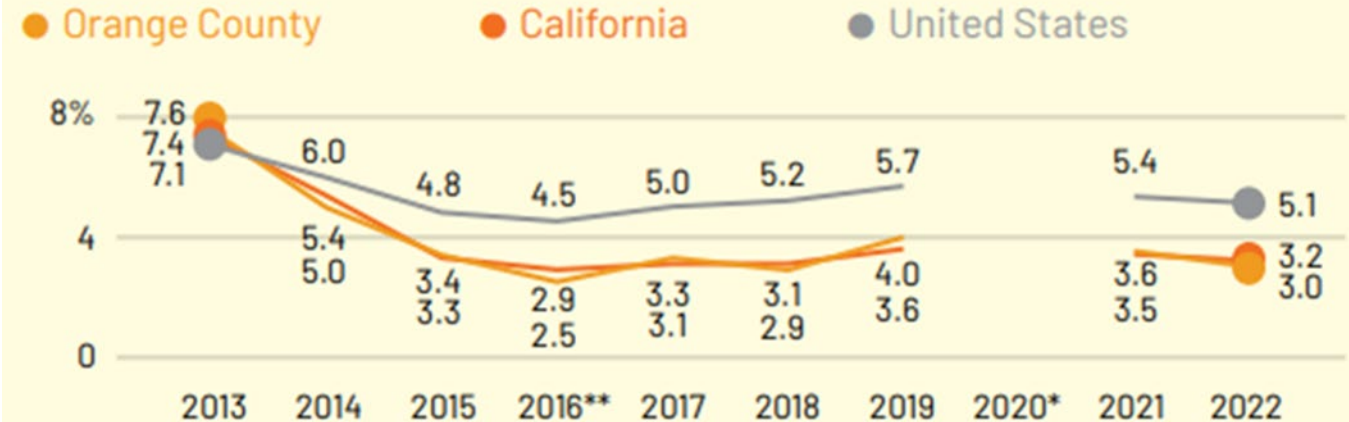
Los Alamitos: 9%

Cypress: 6%

Fullerton 6%

Santa Ana 6%

### Percent of Children Uninsured, 2013 to 2022



\*Due to disruptions in data collection caused by COVID-19, 1-year population estimates for this topic are not available from the American Community Survey in 2020. For more on the limitations of 1-year 2020 estimates, see <https://www.census.gov/newsroom/press-releases/2021/changes-2020-ac-s-1-year.html>

\*\*The age categories changed from 6 to 17 years in 2016 and prior, to 6 to 18 years in 2017. See footnote 1 on the previous page for additional information.

Source: American Community Survey, 1-year estimates, Table S2701



# Housing Insecurity

1 in 17 school-age children in OC is housing insecure

Along with the elderly, families with children are the fastest growing segments of people experiencing homelessness

3 out of every 10 people experiencing homelessness in the US does so as part of a family

A minimum wage earner would have to work >100 hours/week to afford a 1-bedroom apartment in OC

**This challenging ratio of income to living expenses leaves so many families living on the cusp of & vulnerable to slip into homelessness**





## Snapshot of Children in OC: Housing Insecurity increased

In 2022/23 6% of students in OC were housing insecure

Wide disparities by school district:

- Magnolia (29%)
- Santa Ana (15%)
- Fountain Valley, Irvine, Brea Los Alamitos (<1%)

Primary nighttime residence of these students:

- 90% double-up out of economic necessity
- 5% in hotels and motels
- 4% housed in shelters
- 2% were unsheltered (436 children)

## Snapshot of Children in OC Educational Achievement

Overall averages for educational achievement  
mask wide & persistent disparities

53% of children ready for kindergarten in 2022

Kg readiness by race:

- Asian 66%
- White 62%
- African American 47%
- Hispanic/Latino 42%

## Snapshot of Children in OC Educational Achievement

Percent of 3<sup>rd</sup> grade students who met or exceeded state standards (2022/23):

- ELA: 53%
- Math: 56%

ELA: met or exceeded standards:

- Not economically disadvantaged: 71%
- Economically disadvantaged: 38%

Significant disparities by race:

- Asian: 77%
- White 68%
- Black or African American: 41%
- Hispanic or Latino: 35%





## Snapshot of Children in OC Educational Achievement

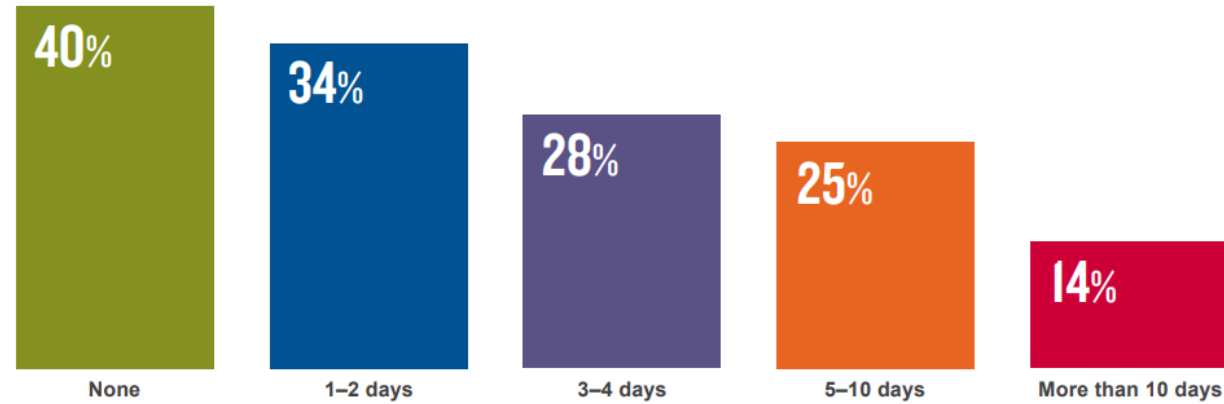
After years of decline, high school dropout rates increased in 2022/23 to 5%

Persistent disparities by race

Dropout rates by program:

- Foster youth 17%
- Migrant Education 15%
- Homeless Youth 11%
- Students with Disabilities 8%
- Socioeconomic disadvantaged 6%

### Percentage of Fourth Grade Students Scoring at or Above Proficient in Reading, by Days Absent From School in the Last Month (2022)



Source: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, 2022.

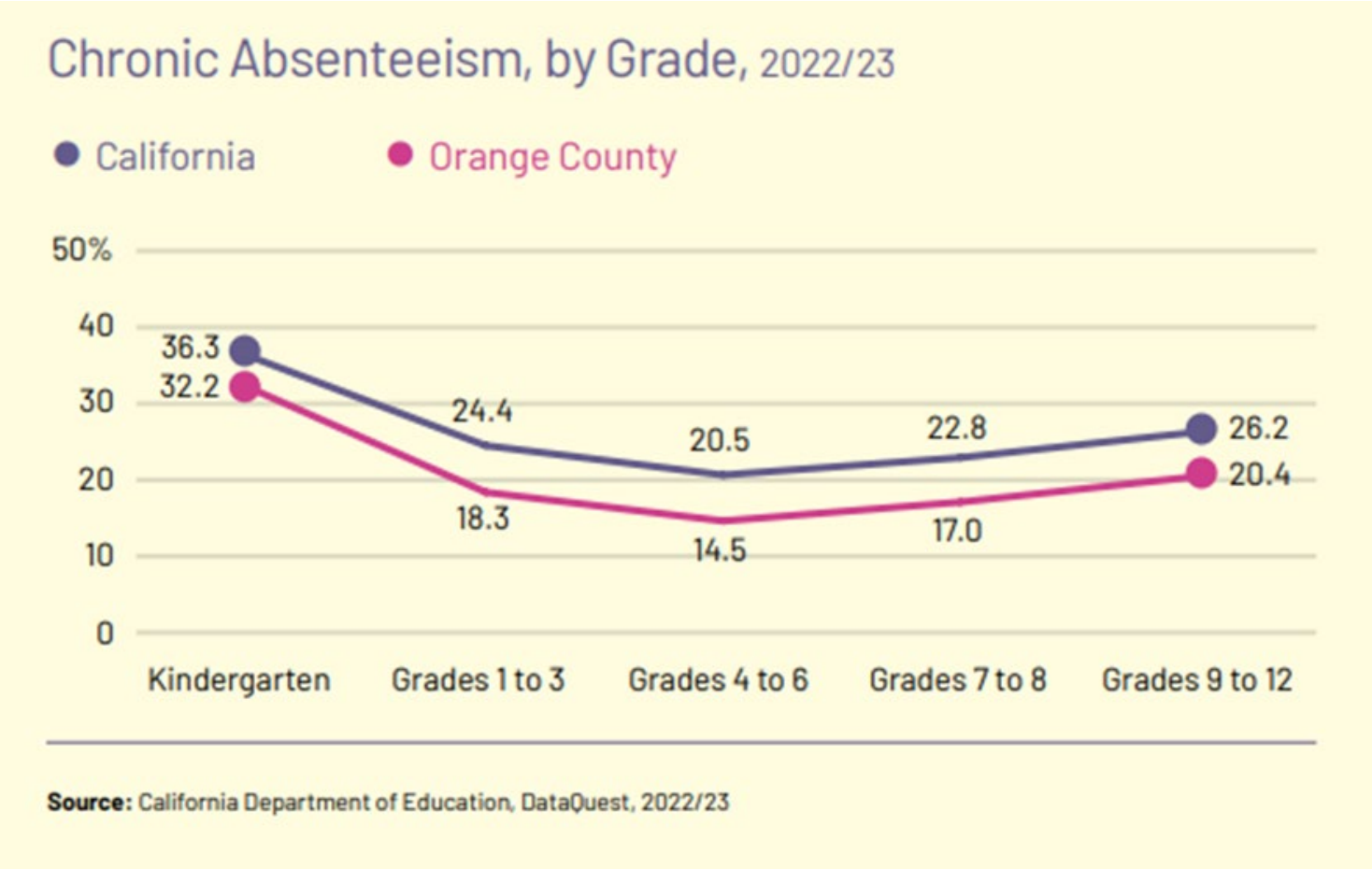
## Snapshot of Children in OC: Educational Achievement— chronic absenteeism

Children can't learn if they are not in school

Chronic absenteeism: missing  $\geq 10\%$  of days in a school year

19% of students chronically absent from school in 2022/23 school year vs 8% in 2016/17

# Snapshot of Children in OC Chronic Absenteeism



# Education is a Critical Social Driver of Health for Children

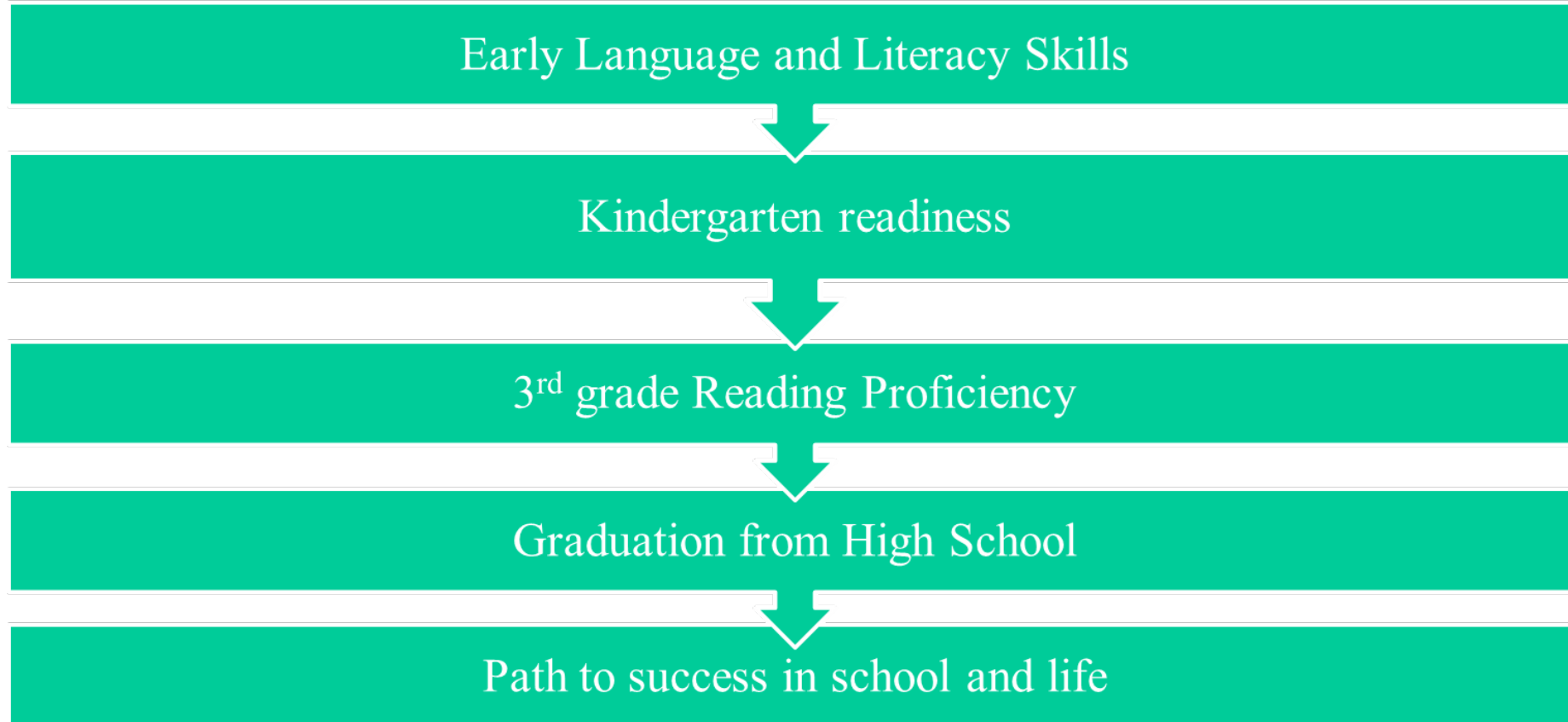
**Educational attainment is the single, greatest protective factor against a lifetime in poverty & impacts long-term health**

Today's children will become our mid-21<sup>st</sup> century workforce—many of today's fastest-growing occupations require reading, math & digital problem-solving skills that currently we are not ensuring children possess

Poverty rate of 26% if head of household didn't graduate high school vs. 4% if has Bachelor's degree or higher

Adults with a college degree live longer & have lower rates of chronic disease than those without a college degree

# Why Early Literacy Matters







## Opportunity: “Talk-Read-Sing” Early & Often

Many research studies show that early reading aloud has an important effect on verbal language development

Preschool language ability is one of the most important predictors of later reading success—research suggests that **expressive language vocabulary at age 3 predicts language and reading achievement up to 3<sup>rd</sup> grade, or 8–9 years of age**

Reading proficiency by 3<sup>rd</sup> grade affects high school graduation rates—a **child who is not reading at grade level by 3<sup>rd</sup> grade is 4 times less likely to graduate by age 19 than one who is**

**BUT** about 2/3rds of children each year in the US and 80% of those living below the poverty threshold fail to develop reading proficiency by the end of 3<sup>rd</sup> grade

Hernandez DJ. Double Jeopardy;Annie E. Casey Foundation 2012. NAEP National Reading Report Card 2022

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## Repeating cycles of underachievement, poverty & homelessness

Strong connection between low literacy skills & incarceration

**85% of juveniles who interface with the juvenile court system are functionally illiterate or low literate**

High school dropouts are 3.5 times more likely than high school graduates to be arrested in their lifetime and 63% more likely to be incarcerated than their peers with four-year college degrees

**70% of incarcerated adults cannot read at a 4<sup>th</sup> grade level,** “meaning they lack the reading skills to navigate many everyday tasks or hold down anything but lower paying jobs.”

**Opportunity:** Dyslexia in Incarcerated Men & Women: 47% classified as dyslexia; mean years of school completed 9.6; 59% failed to receive a high school diploma or GED. (L Cassidy et al, 2021)

National Adult Literacy Survey. Prison Literacy. 2003

A series of yellow brushstrokes in the bottom right corner, arranged in a curved, upward-pointing shape.

# School-to-Prison Pipeline:

## Link between exclusionary punishments & involvement in the criminal justice system

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By age 9, ~40% of Black boys and 15% of Black girls living in urban areas have already been suspended or expelled at least once

Black toddlers receive nearly 1/3 of all PS suspensions & ¼ of all PS expulsions despite representing ~17 % of PS enrollment (2020/21)

Students with disabilities, especially those with ED, ID or OHI (ADHD) also more likely to be suspended or expelled repeatedly

Exclusionary school discipline increases likelihood of juvenile justice system involvement

40% of children with history of juvenile incarceration, incarcerated as an adult by age 25

Students disproportionately affected by exclusionary punishments often belong to populations with a high prevalence of childhood trauma . . .

When we fail to recognize that their behaviors may be based in the stressful or dangerous conditions in their homes or neighborhood—sent home to their stressors

**Opportunity:** Multi-disciplinary & trauma-informed approach is crucial

# Perspectives from my Practice

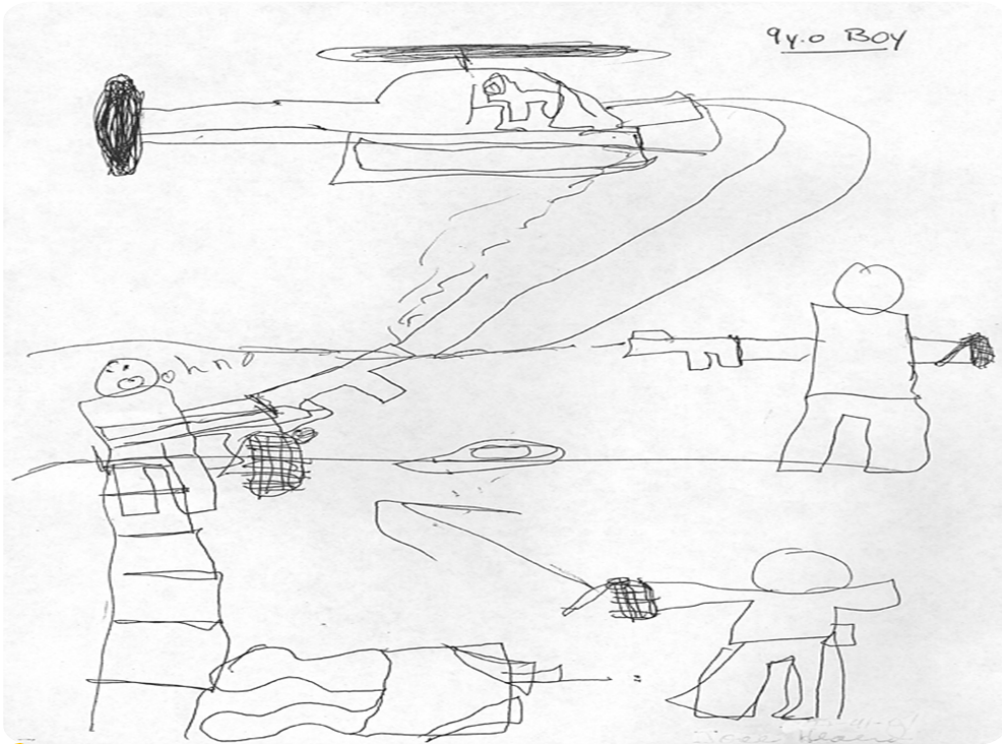
9 year old boy referred for evaluation of ADHD after suspension from school for fighting, increasing oppositional behavior both at home & at school, & at risk for retention due to academic concerns

Teacher comments: “lacks initiative; apathetic; distracted; effort poor; angers easily--aggressive”

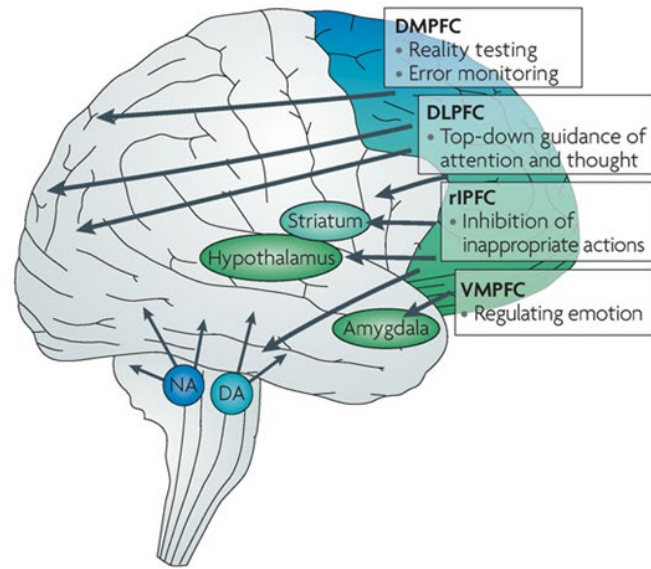
Trauma Lens: “What happened to you?” *NOT:* “What’s wrong with you?”

Two-generation Social History:

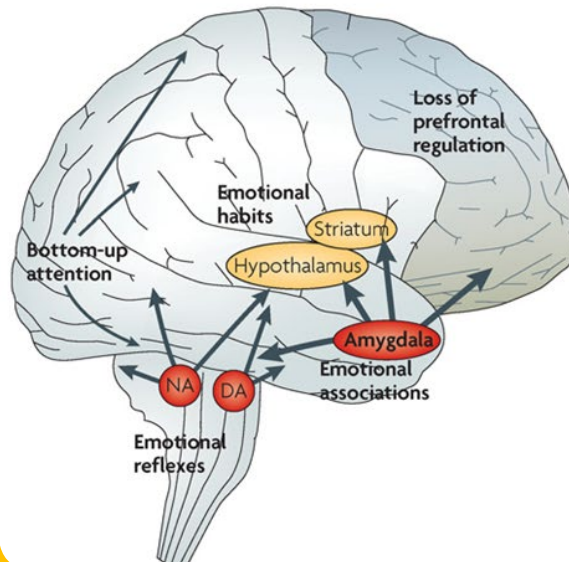
- Child ACE score: 4
- Mother’s ACE score: 5



a Prefrontal regulation during alert, non-stress conditions



b Amygdala control during stress conditions



# School-to-Prison Pipeline: Impact of stress on learning & behavior

## Toxic Stress impacts Brain Connectivity

Brain adapts to “live in the environment it is in”

Under conditions of extreme stress:

- Amygdala grows: involved in inhibiting fear & regulation of attention (brain’s alarm system)
- Hippocampus & prefrontal cortex atrophy: creating & retrieving factual memories, self-regulation
- Reticular activating system over-active and leads to not sleeping



# Perspectives from my Practice

## What I'm learning


Trauma Lens: triggers & responses

**Triggers**—has child's internal alarm system (danger) gone off?

- Is the child feeling rejected, perceiving loss of control, feeling vulnerable, or reacting to sensory overload or unpredictability


**Response**: is the intensity of the child's response out of proportion to the stressor? (quicker & stronger—telling me that the amygdala may be in charge)

- Hippocampus & PFC offline: self-regulation & WM impacted (**poor school performance, risk for retention**)
- Fight (**angers easily, aggressive, hyperactive, oppositional**)
- Flight (**distracted, elopes, avoidance, withdrawal**)
- Freeze (**apathetic, poor effort**)

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Education is  
a Critical  
Social  
Driver of  
Health for  
Children

If we are to close the achievement gap & break cycles of poverty & homelessness, we must make sure that all our children learn to read proficiently

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**Choices Given vs Choices Made:  
Opportunity Gap leads to Achievement Gap**

The background is a solid blue color. In the top right and bottom left corners, there are decorative wavy lines. These lines are composed of multiple overlapping strokes in shades of blue, yellow, and red, creating a dynamic, flowing effect.

THANK YOU