

## Project Echo for Pediatric Care 2018-2020

### Early Experiences Elevate Everything

June 18, 2020

Dipesh Navsaria, MD and Jasmine Zapata, MD, MPH

Provided by the University of Wisconsin–Madison Interprofessional Continuing Education Partnership (ICEP)

#### Intended Audience:

Pediatric emergency care professionals

#### Objectives:

As a result of this educational regularly scheduled series, learners will be able to:

1. Utilize new skills and guidelines determined to be safe for children when accessing pediatric trauma.
2. Identify proper tools and standardized practices in order to improve the diagnosis and treatment of pediatric patients.
3. Define roles and responsibilities of team members who triage pediatric emergencies in order to identify communication strategies that result in effective patient care.

#### Policy on Disclosure

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Veronica Watson Coordinator	No relevant financial relationships to disclose	No
Randi Cartmill, Coordinator	No relevant financial relationships to disclose	No
Benjamin Eithun, MSN, RN, Coordinator	No relevant financial relationships to disclose	No
Kim Sprecker, OCPD Staff	No relevant financial relationships to disclose	No
Dipesh Navsaria, MD, Presenter	No relevant financial relationships to disclose	No
Jasmine Zapata, MD, MPH, Presenter	No relevant financial relationships to disclose	No

#### Accreditation Statement

In support of improving patient care, the University of Wisconsin–Madison ICEP is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

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Follow the instructions below, and contact us at [projectecho@surgery.wisc.edu](mailto:projectecho@surgery.wisc.edu) with any questions.

1. Create account with the UW Interprofessional Continuing Education Partnership  
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2. During the live presentation, and in the follow-up email, you will be provided a code. Text that code to a number we provide you, using a cell phone associated with your account.

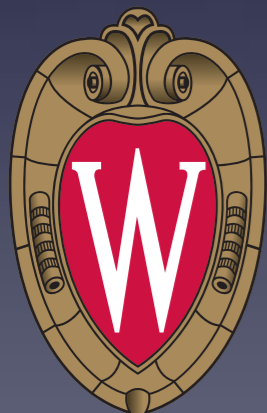
**Text GAZSER**  
**to 608-260-7097**

(save this number as **ECHO Credit**, it will never change)

3. All done!! Log onto ICEP to view or print your credit letter.

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E L E V A T E  
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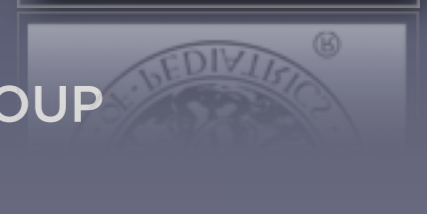
**DIPESH NAVSARIA, MPH, MSLIS, MD**



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EARLY BRAIN & CHILD DEVELOPMENT LEADERSHIP WORKGROUP  
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Live-tweeting encouraged!

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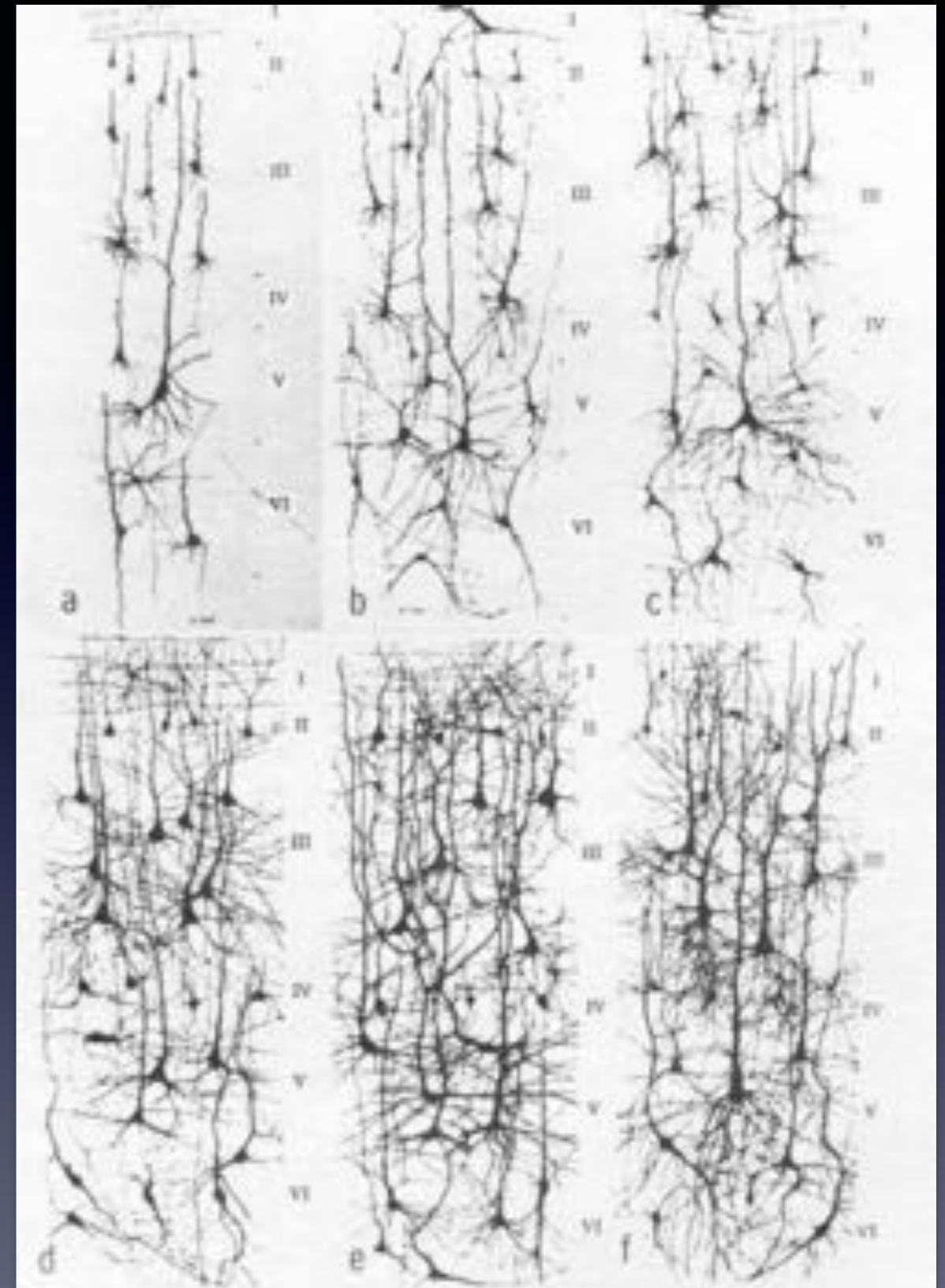
# EARLY BRAIN AND CHILD DEVELOPMENT

from *The Science of Early Childhood Development*  
National Scientific Council on the Developing Child, 2007

...the mind is its own place  
...of Hell; a #  
~ John Milton: "Para

1

# 700 New Neural Connections per Second



Postnatal development of human cerebral cortex around Broca's Area (FCBm); camera lucida drawings from Golgi-Cox preparations. a: newborn; b: 1 month; c: 3 months; d: 6 months; e: 15 months; f: 24 months.

(from Conel, 1939-1959)

(FROM CONEL, 1939-1959)

2

# 18 Months:

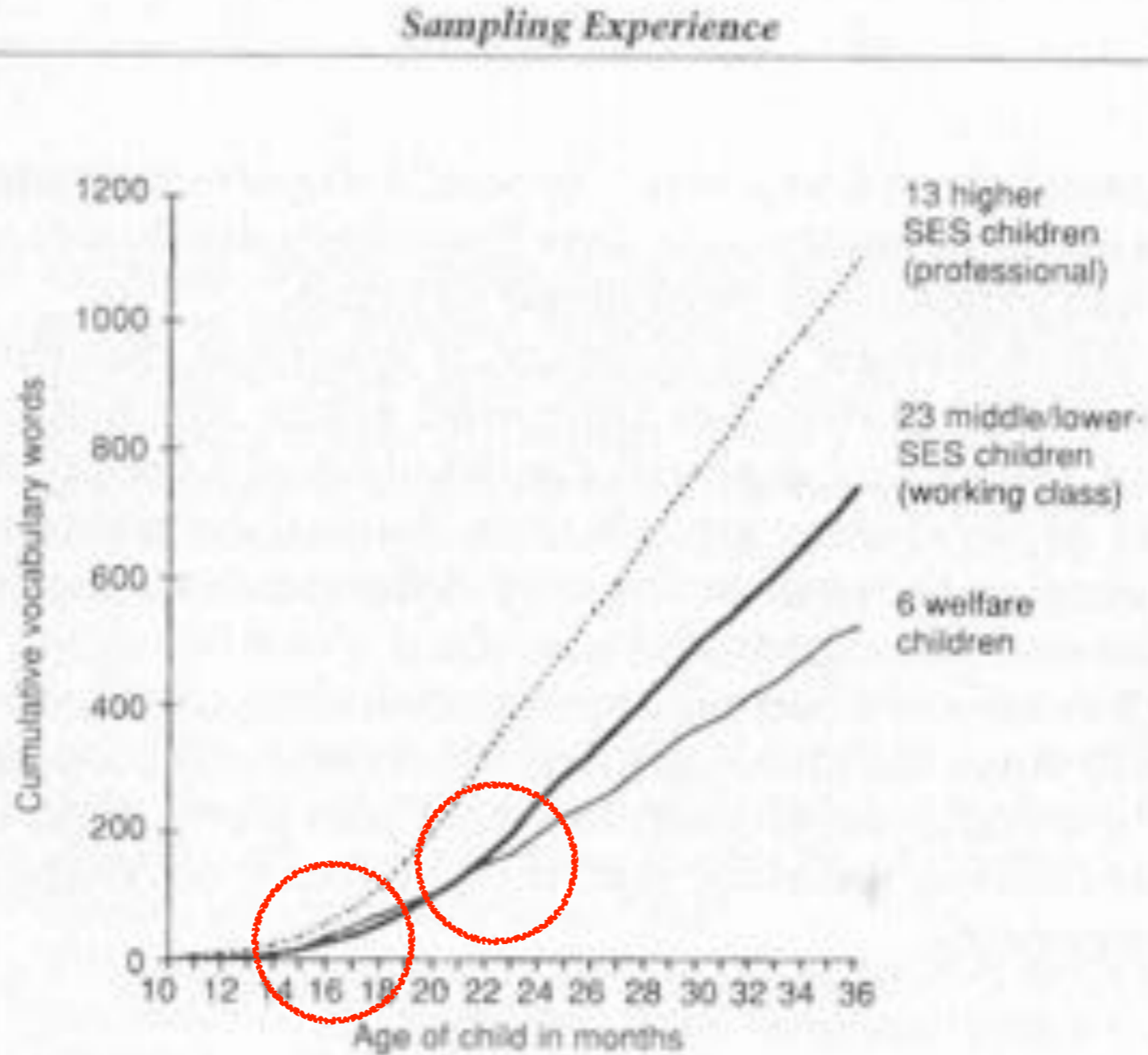
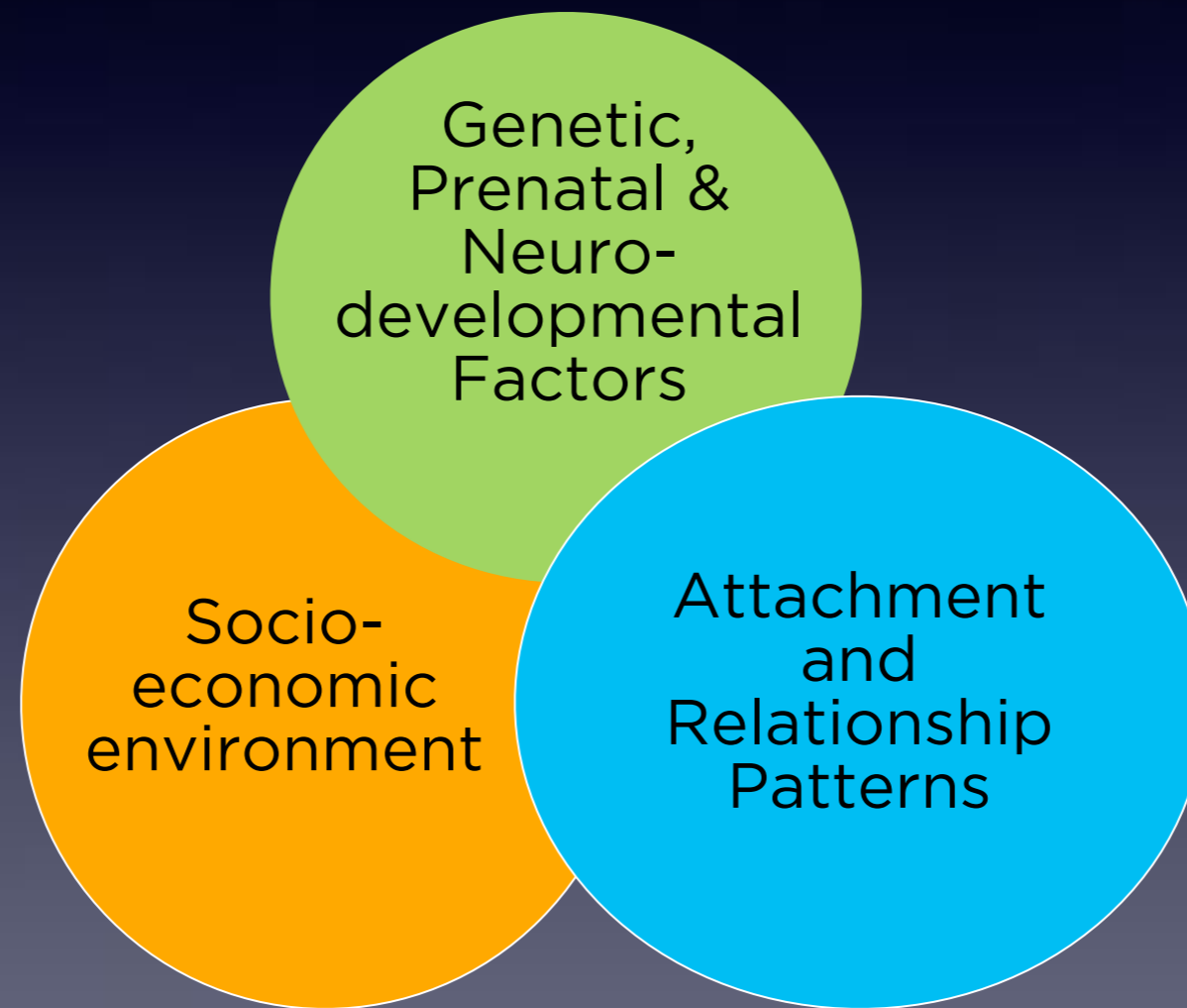


Figure 2. The widening gap we saw in the vocabulary growth of children from professional, working-class, and welfare families across their first 3 years of life. (See Appendix B for a detailed explanation of this figure.)

3

# The **3-legged stool** for developmental and health trajectories



4

The interactive influences of **genes** and **experience** literally shape the architecture of the developing brain and the active ingredient is the “**serve and return**” nature of children’s engagement in **relationships** with their parents and other caregivers in their family or community.

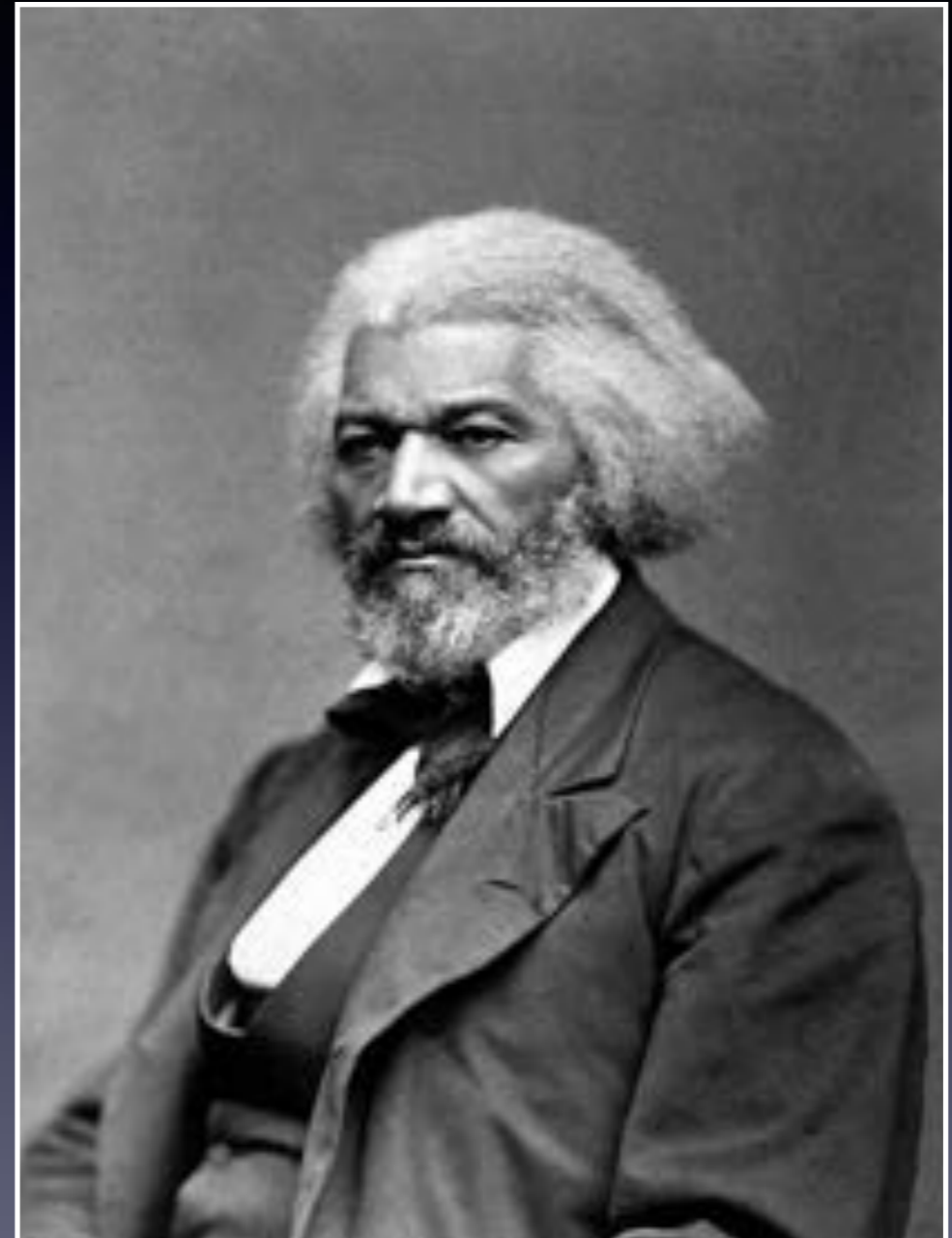




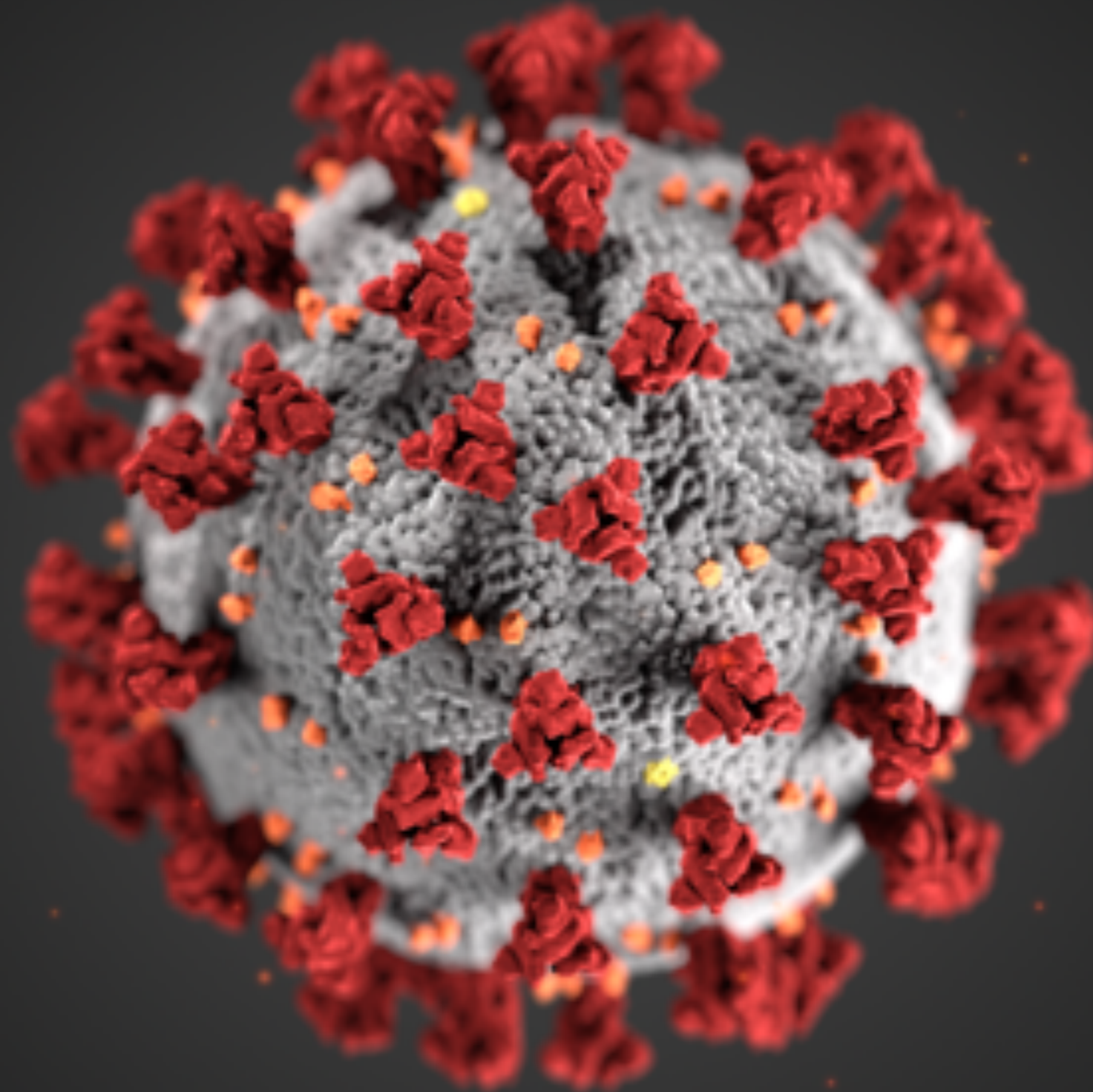
5

**“It is easier to build strong children than to repair broken men.”**

**— Frederick Douglass  
(1817–1895)**



# The Reality of **Now**



# Families Face Challenges





World Map



NEW



U.S. Map



Critical Trends



# COVID-19 Dashboard by the Center for Systems Science and Engineering (...)



Total Confirmed

**3,247,648**

Confirmed Cases by Country/Region/Sovereignty

**1,046,022** US

**239,639** Spain

**205,463** Italy

**166,628** France

**166,443** United Kingdom

**162,123** Germany

**120,204** Turkey

**106,498** Russia

**94,640** Iran

Admin

Last Updated at (M/D/YYYY)  
4/30/2020, 12:32:33 PM



Total Deaths  
**229,447**

27,967 deaths Italy

26,097 deaths United Kingdom

24,543 deaths Spain

24,087 deaths France

18,076 deaths New York

Deaths

Total Test Results in US  
**6,065,570**

872,481 tested New York US

603,139 tested California US

373,488 tested Florida US

314,790 tested Texas US

265,618 tested Massachusetts US

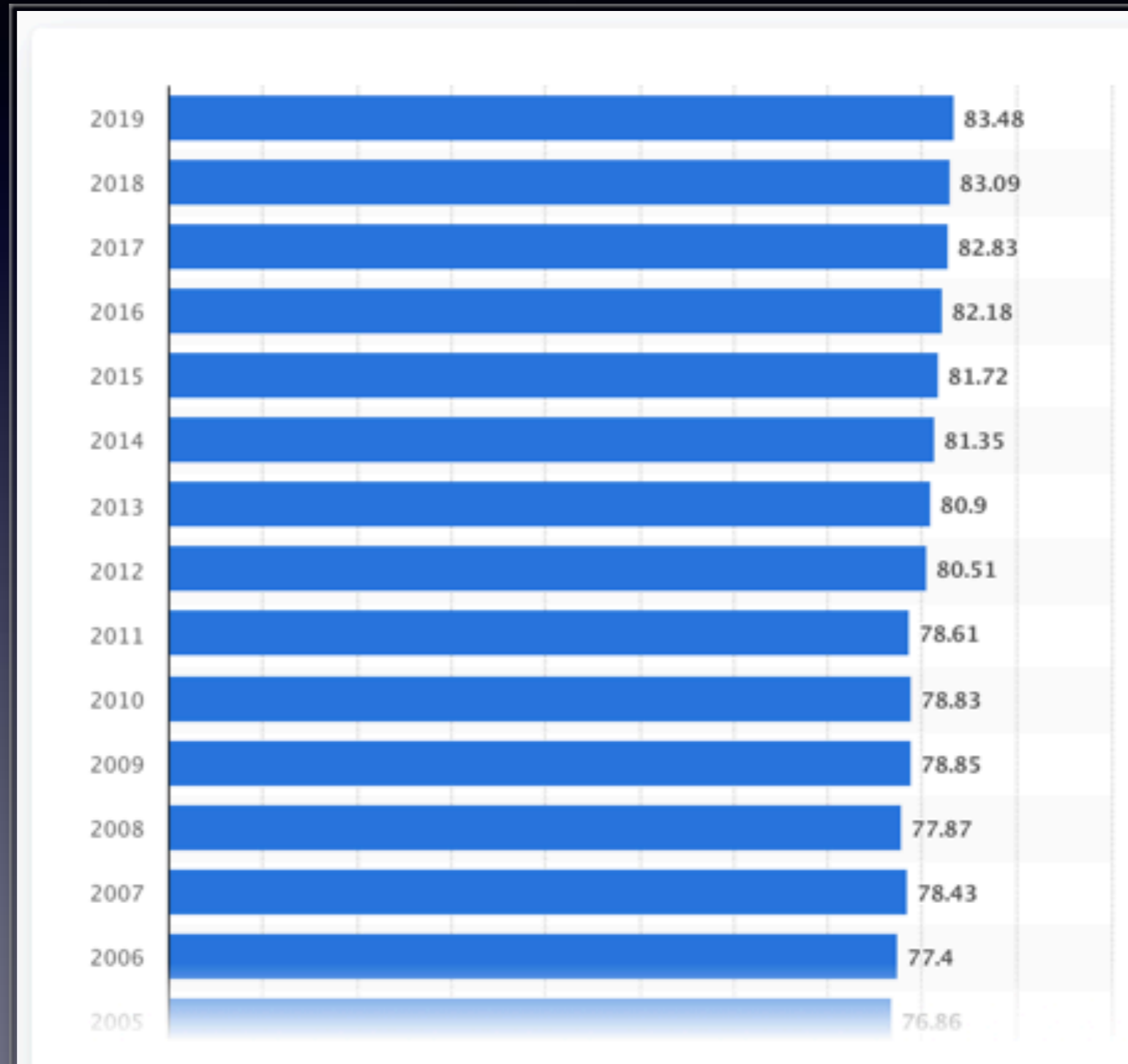
US L...



187

Lancet Inf Dis Article: [Here](#). Mobile Version: [Here](#).  
Lead by JHU CSSE. Automation Support: [Esri Living Atlas team](#) and JHU APL. [Contact US](#). [FAQ](#).

# Number of Families in the United States (in millions)



**POLICY STATEMENT** Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

American Academy  
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™

# The Impact of Racism on Child and Adolescent Health

Maria Trent, MD, MPH, FAAP, FSAHM,<sup>a</sup> Danielle G. Dooley, MD, MPhil, FAAP,<sup>b</sup> Jacqueline Dougé, MD, MPH, FAAP,<sup>c</sup> SECTION ON ADOLESCENT HEALTH, COUNCIL ON COMMUNITY PEDIATRICS, COMMITTEE ON ADOLESCENCE

The American Academy of Pediatrics is committed to addressing the factors that affect child and adolescent health with a focus on issues that may leave some children more vulnerable than others. Racism is a social determinant of health that has a profound impact on the health status of children, adolescents, emerging adults, and their families. Although progress has been made toward racial equality and equity, the evidence to support the continued negative impact of racism on health and well-being through implicit and explicit biases, institutional structures, and interpersonal relationships is clear. The objective of this policy statement is to provide an evidence-based document focused on the role of racism in child and

## abstract

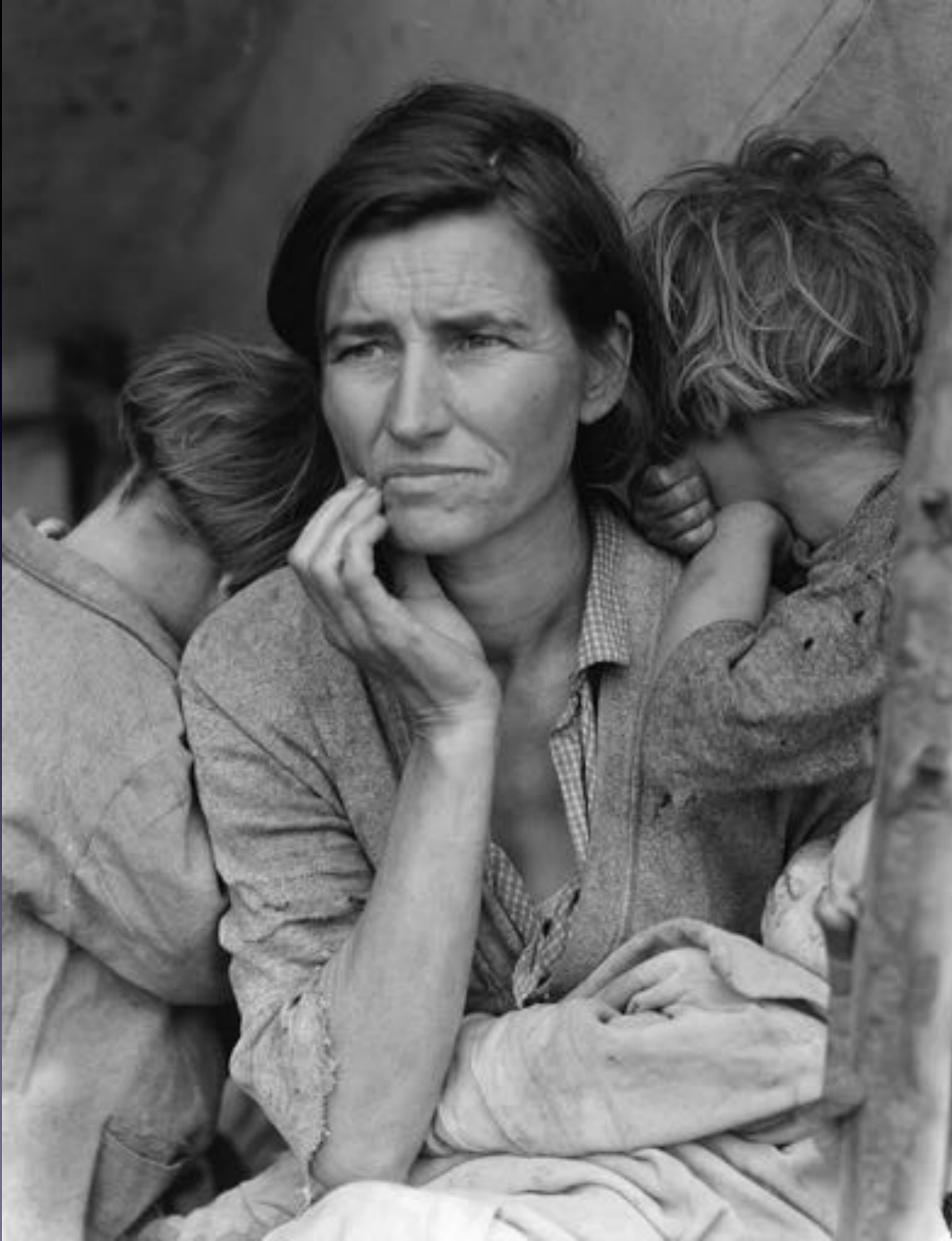
<sup>a</sup>Division of Adolescent and Young Adult Medicine, Department of Pediatrics, School of Medicine, Johns Hopkins University, Baltimore, Maryland; <sup>b</sup>Division of General Pediatrics and Community Health and Child Health Advocacy Institute, Children's National Health System, Washington, District of Columbia; and <sup>c</sup>Medical Director, Howard County Health Department, Columbia, Maryland

Drs Trent, Dooley, and Dougé worked together as a writing team to develop the manuscript outline, conduct the literature search, develop the stated policies, incorporate perspectives and feedback from American Academy of Pediatrics leadership, and draft the final version

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American Academy of Pediatrics leadership, and draft the final version the stated policies, incorporate perspectives and feedback from develop the manuscript outline, conduct the literature search, develop Drs Trent, Dooley, and Dougé worked together as a writing team to

It is beyond question that racism is a health issue. It is a public health concern, and it is an individual health concern. Science — ranging from psychology and sociology to neurology, endocrinology, and epigenetics — has shown us clearly that the toxic stress experienced by individuals has a profound deleterious effect on their health. Entities that we have long attributed solely to genetic predispositions or an inability to be “compliant” with treatment are now being questioned as pathophysiological routes pointing back to individual and generational trauma as a root cause. It is clear that we have attributed far too much to race — a questionable categorization strategy in most circumstances to begin with, and unchangeable even so — when the answer has been racism, which is a creation of human beings, and can be eliminated by human beings.



**Struggles have  
always been  
present.**

**But now  
they're laid  
bare.**



My ideal doctor would be my Virgil, leading me through my purgatory or inferno, pointing out the sights as we go. He would resemble Oliver Sacks, the neurologist who wrote "Awakenings" and "The Man Who Mistook His Wife for a Hat." I can imagine Dr. Sacks entering my condition, looking around at it from the inside like a benevolent landlord with a tenant, trying to see how he could make the premises more livable for me. He would see the genius of my illness. He would mingle his daemon with mine; we would wrestle with my fate together.

— Anatole Broyard



*Dante and Virgil in the Second Circle of Hell* by Joseph Anton Koch (1823)



*Dante and Virgil in Hell* by Eugène Delacroix (1798-1863)

# Principles of ~~The~~ Solutions

We **need** solutions which...

Build capabilities

Build capacities

Are based in homes  
& communities

Address root causes

Have long-term effects

Address prevention

Leverage the  
first 1000 days

Are evidence-guided

Are scalable

Productive, happy adults



Educationally successful



Brain circuitry primed for school success



Early experiences molding brain for learning



Nurturing, responsive interactions with children



Adults with the ability to put these skills into action



Adults with capability and capacity  
to interact well with children



Programs, policies, and advice

Intensive, small  
programs

Scalable, large-scale  
programs

A Solution for **Now**

# Families Need Support





# Supporting Relational Health



# Shared Reading as a Scaffold



# Practices to Dismantle Structural Racism & Improve Health and Well-Being

from Hardeman RR, Medina EM, Boyd RW. *Stolen Breaths*. NEJM, 10 June 2020.  
DOI: 10.1056/NEJMp2021072

1. Divest from racial health inequities — a byproduct of the tiered and sometimes racially segregated health care delivery structure that provides different quality of care to different populations;
2. Desegregate the health care workforce — racial exclusion is rife at essentially every level of health care;
3. Make “mastering the health effects of structural racism” a professional medical competency — which would include our licensing, accreditation, and qualifying entities and processes including that;
4. Mandate and measure equitable outcomes — it is far easier for us to find out how many central line infections are in our ICUs than it is to discern racial and ethnic health disparities in outcomes;
5. Protect and serve — we must play a role in advocating for our patients. Advocacy is not merely a hobby or a sideline, but a critically-important skill that needs to be well-taught, well-supported, well-funded, and well-executed, the same as any other medical skill.



*Virgil and Dante meeting Homer, Horace, Ovid, and Lucan* by Nicola Consoni (1814–1884)



*Dante and Virgil in the Ninth Circle of Hell* by Gustave Doré (1832–1883)

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**THE  
END**

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