



# Babies Brains Matter

Child Health, Wellbeing and Early Learning:  
Understanding and Promoting Symbiosis Between  
Systems

Yasmin Tyler-Hill, MD  
Chair, Department of Pediatrics  
Morehouse School of Medicine  
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# 2012 there were approx. 2.3 M young black men, ages 18-24, living in the United States

52% AA males high school graduation rate (2012)

Schott Foundation Report

In 2012 there were 24,725,000 (35% US Population) single parent households; est. 70% AA live in single parent households

36% college enrollment rate for AA males (2012)

National college graduation rates for black males is 33.1%

1,320 black males med school applicants (2859 –MCAT-46%)

500 black males med school matriculants (37.8%); 276 AA

Prison Incarceration Rate for AA males 3,074 for every 100,000 residents

**Prison Incarceration Rate**  
Hispanic: 1, 258 per 100,000  
White: 459 per 100,000

**College Enrollment**  
Hispanic: 37%  
White: 42%

**Medical School Applicants**  
Hispanic: 1,387; (3920-MCAT-35%)  
White: 13,289 ; (18,086-MCAT-73%)

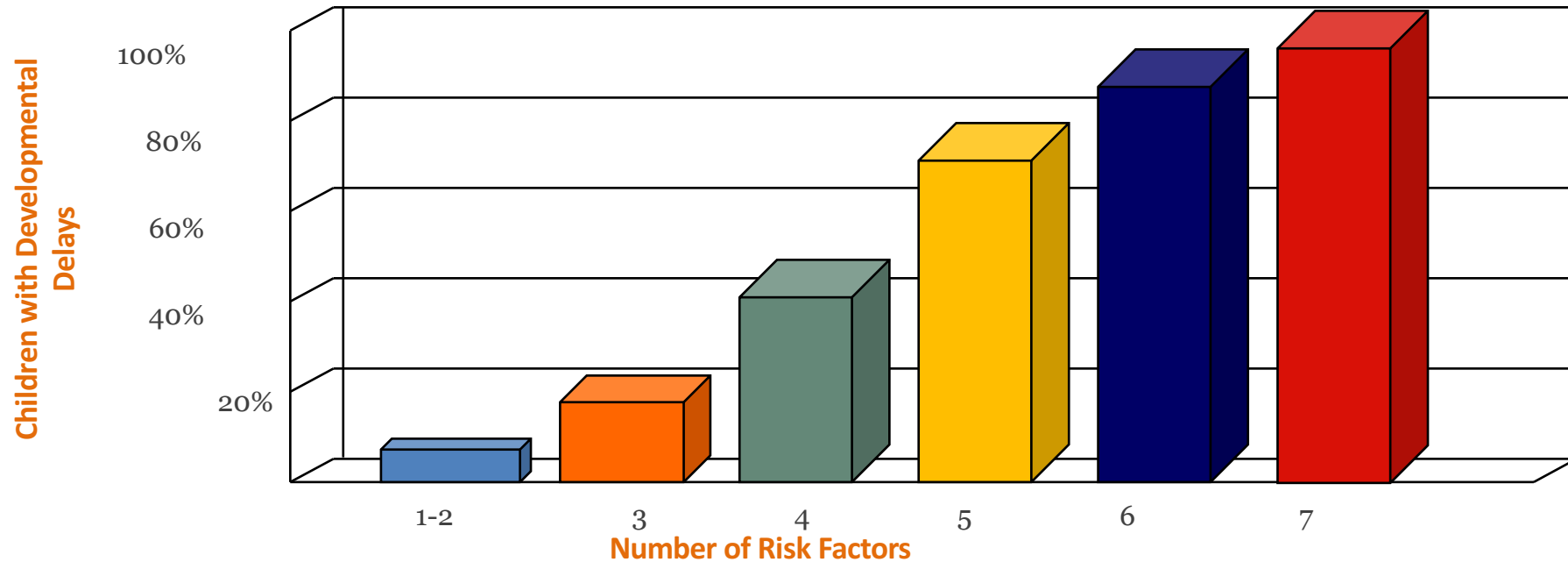
**Medical School Matriculants**  
Hispanic: 667 (48% of applicants)  
White: 5,729 (43% of applicants)

While 1 in 8 Americans are African American; 1 in 15 doctors are; 1 in 6 Americans identify as Hispanic/Latino compared to 1 in 20 doctors #s based on 2010 US Census and AMMC Diversity in the Physician Workforce Data Report

# The Education Difference

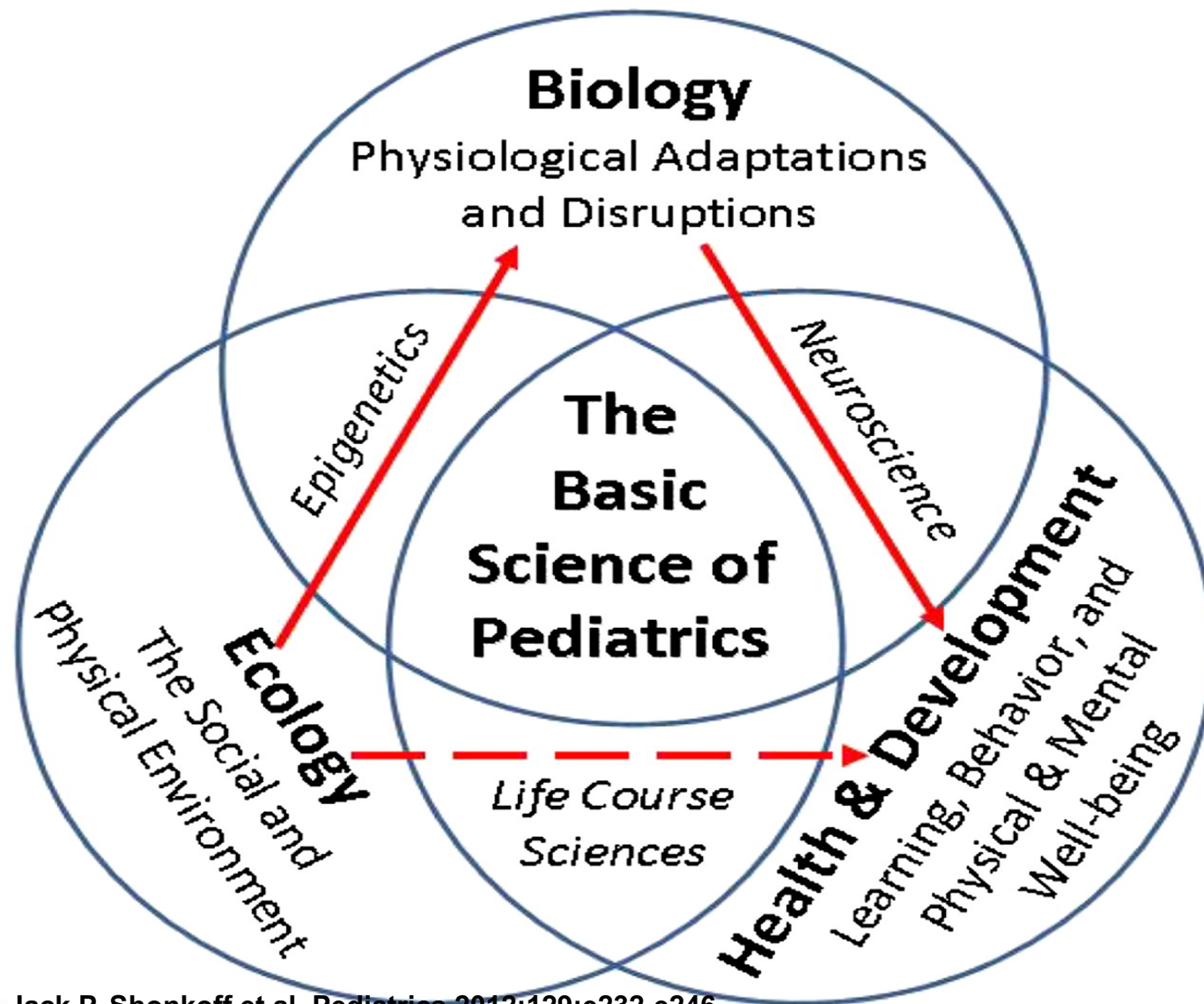
- Better educated people have lower morbidity rates from the most common acute and chronic diseases, independent of basic demographic and labor market factors.
- Life expectancy is increasing for everyone in the United States, yet differences in life expectancy have grown over time between those with and without a college education.
- Health behaviors alone cannot account for health status differences between those who are less educated and those who have more years of education.
- The mechanisms by which education influences health are complex and are likely to include (but are not limited to) interrelationships between demographic and family background indicators, effects of poor health in childhood, greater resources associated with higher levels of education, a learned appreciation for the importance of good health behaviors, and one's social networks.

# 90-100% Chance of Developmental Delays When Children Experience 6-7 Risk Factors



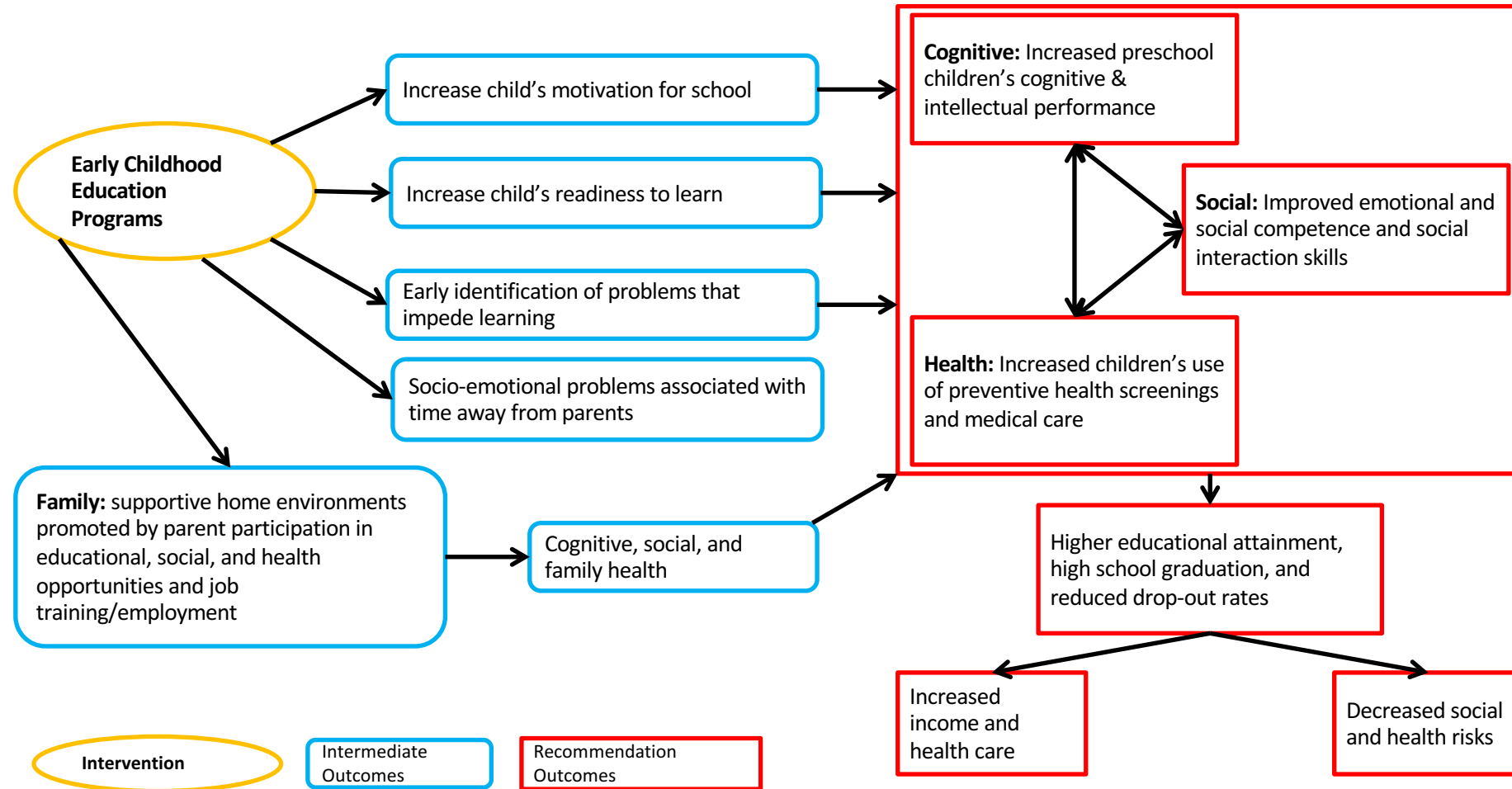
Data Source: Barth, et al. (2008)  
Graphic adapted from 2011, Center on the Developing Child at Harvard University

The basic science of pediatrics.



Jack P. Shonkoff et al. Pediatrics 2012;129:e232-e246

# Analytic Framework: Early Childhood Education Programs



# Risk Factors for School Readiness



- Poverty
- Developmental Concerns
- Unmet Physical & Behavioral Health Needs
- Access to Quality Health Care
- Access to Quality Early Learning Programs
- Social Determinants of Health

# The Role of the Primary Care Medical Home

- Longitudinal relationship with the family is the “primary care advantage”
- Monitoring for healthy development in well-child care
- Support for the dyad/parent-child relationship
- Promoting family protective factors to prevent the occurrence of adverse childhood experiences
- Prevention of adoption of health risk behaviors
- Amelioration of the disease burden among adults whose health problems most likely stem from consequences of adverse childhood experiences



# Bright Futures in Infancy & Early Childhood

- Elicit and address patient/family concerns
- Perform developmental and autism screening and follow-up
- Elicit and discuss patient/family strengths
- Perform age-appropriate risk assessment and medical screening
- Measure and plot weight for length at 9 months and body mass index (BMI) at 24 months
- Perform maternal depression screening and follow-up
- Perform oral health risk assessment
- Provide anticipatory guidance

## Priorities for the 12 Month Visit

*The first priority is to attend to the concerns of the parents.*

**In addition, the Bright Futures Early Childhood Expert Panel has given priority to the following topics for discussion in this visit:**

- ▶ Social determinants of health<sup>a</sup> (risks [living situation and food security; tobacco, alcohol, and drugs], strengths and protective factors [social connections with family, friends, child care and home visitation program staff, and others])
- ▶ Establishing routines (adjustment to the child's developmental changes and behavior; family time; bedtime, naptime, and teeth brushing; media)
- ▶ Feeding and appetite changes (self-feeding, continued breastfeeding and transition to family meals, nutritious foods)
- ▶ Establishing a dental home (first dental checkup and dental hygiene)
- ▶ Safety (car safety seats, falls, drowning prevention and water safety, sun protection, pets, safe home environment: poisoning)

<sup>a</sup> Social determinants of health is a new priority in the fourth edition of the *Bright Futures Guidelines*. For more information, see the *Promoting Lifelong Health for Families and Communities* theme.



## Screening

Universal Screening		Action
<b>Anemia</b>		Hematocrit or hemoglobin
<b>Lead</b> (high prevalence area or Insured by Medicaid)		Lead blood test
<b>Oral Health</b> (In the absence of a dental home)		Apply fluoride varnish after first tooth eruption and every 6 months.
Selective Screening	Risk Assessment <sup>a</sup>	Action if Risk Assessment Positive (+)
<b>Blood Pressure</b>	Children with specific risk conditions or change in risk	Blood pressure measurement
<b>Hearing</b>	+ on risk screening questions	Referral for diagnostic audiological assessment
<b>Lead</b> (low prevalence area and not insured by Medicaid)	+ on risk screening questions	Lead blood test
<b>Oral Health</b>	Does not have a dental home	Referral to dental home or, if not available, oral health risk assessment
	Primary water source is deficient in fluoride.	Oral fluoride supplementation
<b>Tuberculosis</b>	+ on risk screening questions	Tuberculin skin test
<b>Vision</b>	+ on risk screening questions	Ophthalmology referral

<sup>a</sup> See the *Evidence and Rationale* chapter for the criteria on which risk screening questions are based.



# Five Protective Factors



- **Parental Resilience** – Managing stress and functioning well when faced with challenges, adversity and trauma
- **Social connections** – inclusive environments, supportive relationships, parents feel respected and appreciated
- **Knowledge of parenting & child dev't** -Understanding child development and parenting strategies that support physical, cognitive, language, social and emotional development
- **Concrete support in times of need** - Access to concrete support and services that address a family's needs and help minimize stress caused by challenges
- **Social & emotional competence of children** - Family and child interactions that help children develop the ability to communicate clearly, recognize and regulate their emotions and establish and maintain relationships

# Bright Futures & Health Care Strategies for Healthy Children & Communities

- <https://www.youtube.com/watch?v=UvzL6C23ppc>



# Collaborating to Improve Child Health

- Healthy children live in families, environments, and communities that provide them multiple opportunities to reach their full developmental potential.
- By contrast, exposure to chronic, long-term adversity in the form of poverty, domestic violence, mental illness, and substance abuse undermines healthy brain architecture and puts some children at risk for poor health, education and behavioral outcomes.
- As we look to improve our society's prospects by enhancing children's health, it is critical to include strategies that address the full range of determinants of health, and health equity

# Next Steps



Immediate



Developmental



Aspirational



# Immediate



- Incorporate ELC into the Medical Home by working with AAP
- Target the primary care pediatricians in the TCCN to adopt Bright Futures
- Target major pediatric providers to families the APS to adopt Bright Futures
- Develop a data sharing agreement between CHOA/TCCN for students in APS
- Advocate for CMS to add school readiness assessment as a quality measure
- Develop a universal school health form for the 0-3 yo
- Establish Healthy Beginnings model as the school health program in ELC



# Developmental

- Secure funding to support an Office of Child Health and Education
- Develop a clearing house for data collection and research
- Develop grant writing competency to support research and development in Child Well-Being
- Develop a Workforce Development Treatise



# Aspirational

- Office of Child Health and Education charged with:
  - Advocacy and Policy development
  - Initiatives to improve school readiness
  - Initiatives to help pediatric providers with P4P
  - Data collection and research



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