

**Moving from Theory to Practice: Life Course,
Social Determinants, and Health Equity Framework**

The Maternal and Child Health Life Course Model

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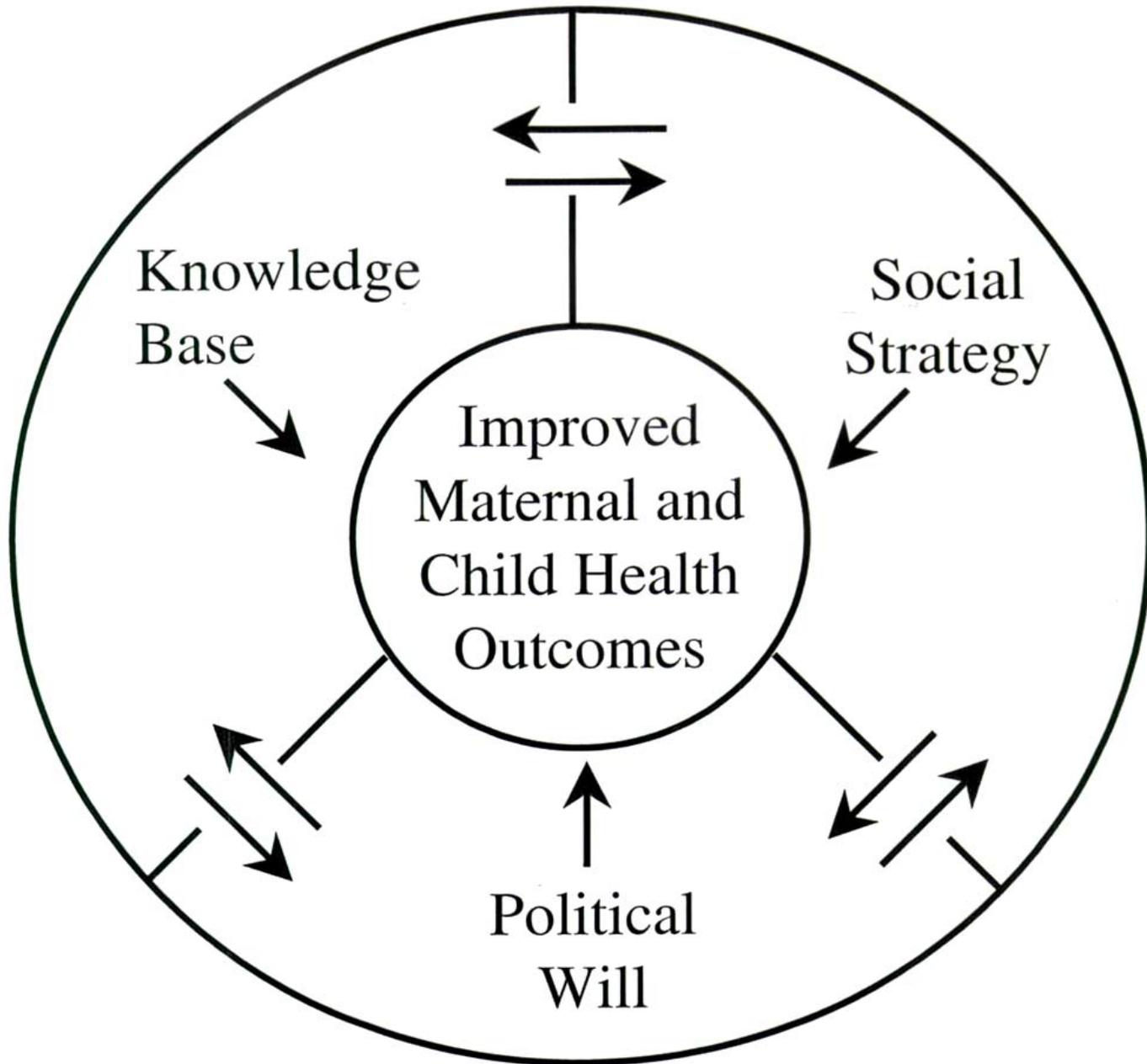
**Title V 75th Anniversary Conference
October 20, 2010**

Goal of Presentation

- Link the new emphasis on life course and social determinant models to MCH history
- Introduce the MCH Life Course paradigm
- Briefly note its scientific and philosophic underpinnings
- Review its theoretical principles
- Provide examples of MCH Life Course practice and policies
- End on a call to collaborative action

*Ideas and Slides Freely Adapted
From my Colleagues*

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MCH History and MCH Life Course

- Title V/MCHB itself has a programmatic life course; it is at a critical transformative moment
- MCH life course reflects new, and renewed, ideas about how to move us forward to improve MCH population health and reduce disparities

Life Course is not new to MCH

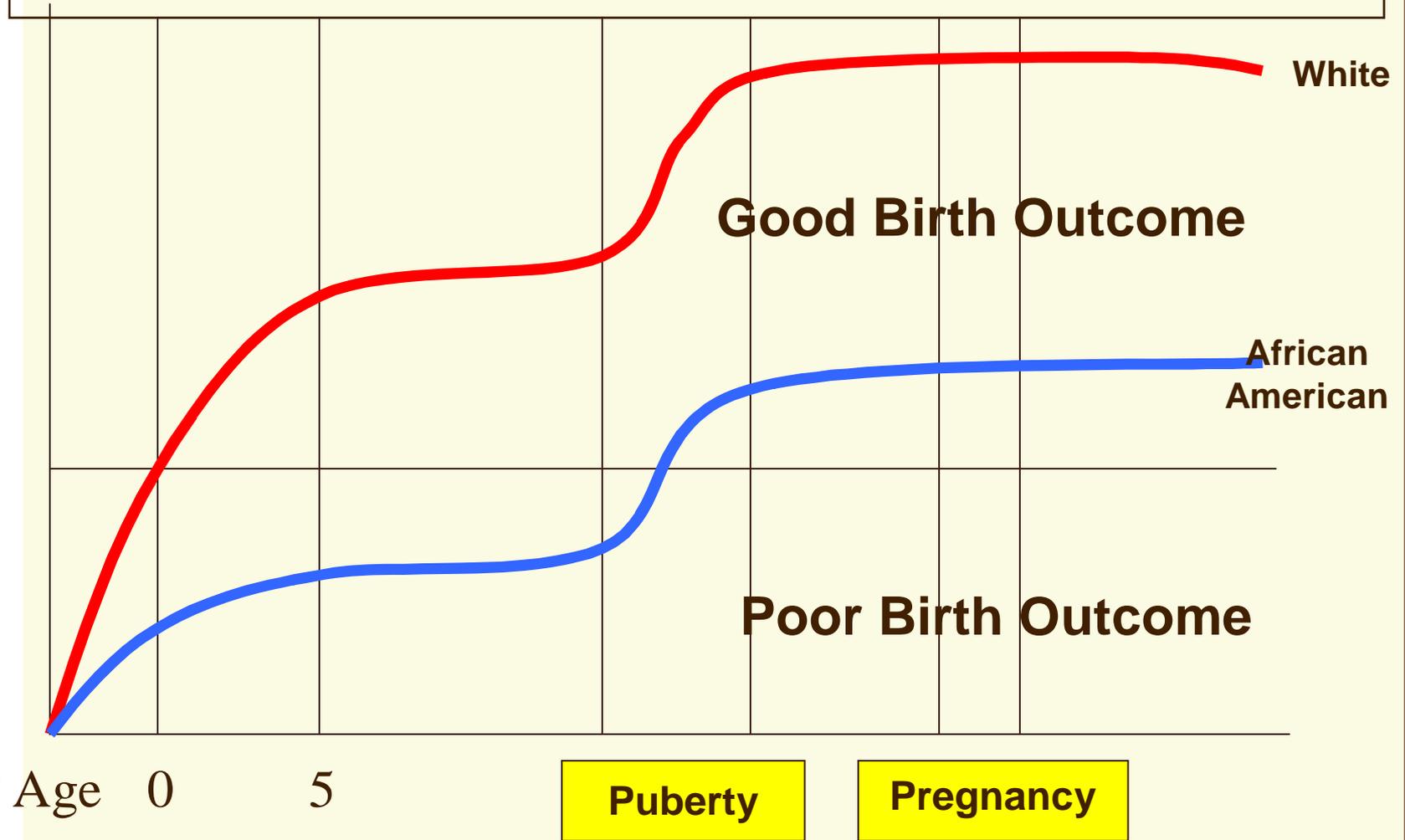
“MCH does not raise children, it raises adults. All of tomorrow's productive, mature citizens are located someplace along the MCH continuum. They are at some point in their creation either being conceived or born or nurtured for the years to come. There is very little genuine perception that mature people come from small beginnings, that they've had a perilous passage every moment of the way. All the population, everybody of every age were all at one time children. And they bring to their maturity and old age the strength and scars of an entire lifetime.”

Pauline Stitt, MCHB 1960

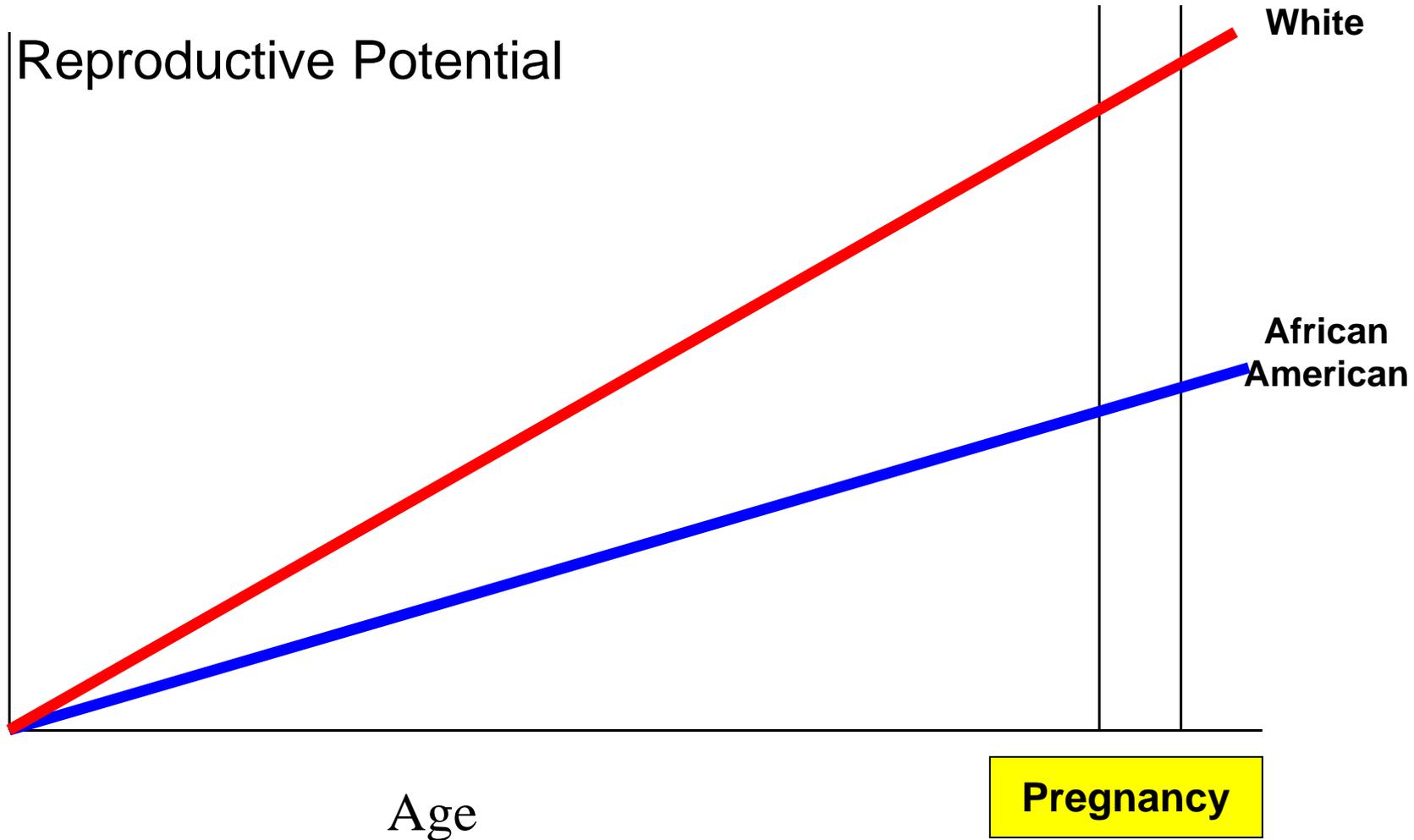
Reproductive Health: Confronting disparities in birth outcomes

- In late 20th Century, increased prenatal care usage, more comprehensive prenatal care, and better/accessible neonatal care were seen as the solutions to the poor birth outcomes rates and disparities in the US
- Through extensive government and private actions, prenatal care rates improved and prenatal care disparities declined, but poor birth outcomes rates worsened and disparities increased
- Some new approach was needed

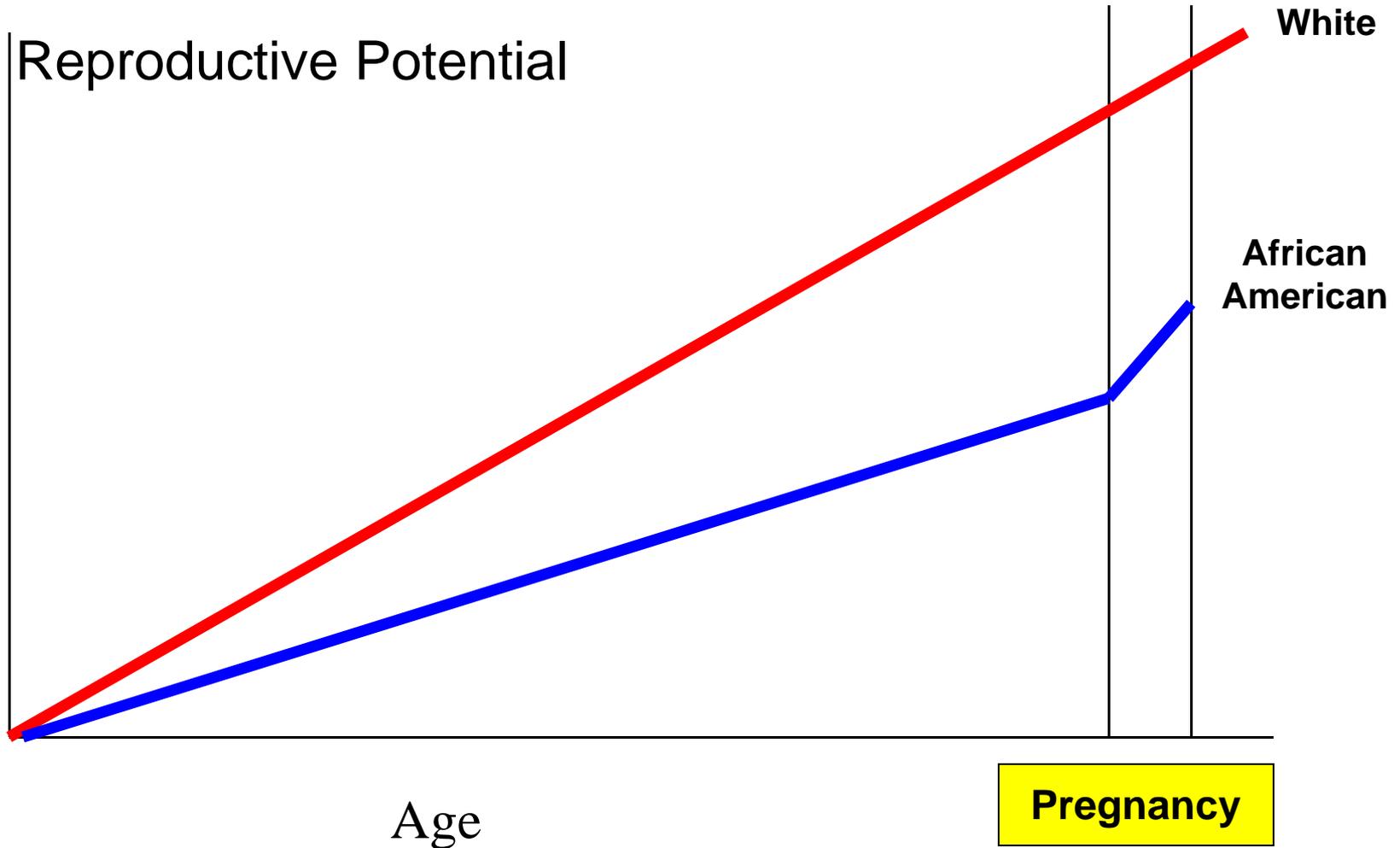
Life Course Perspective



Life Course and Birth Outcomes



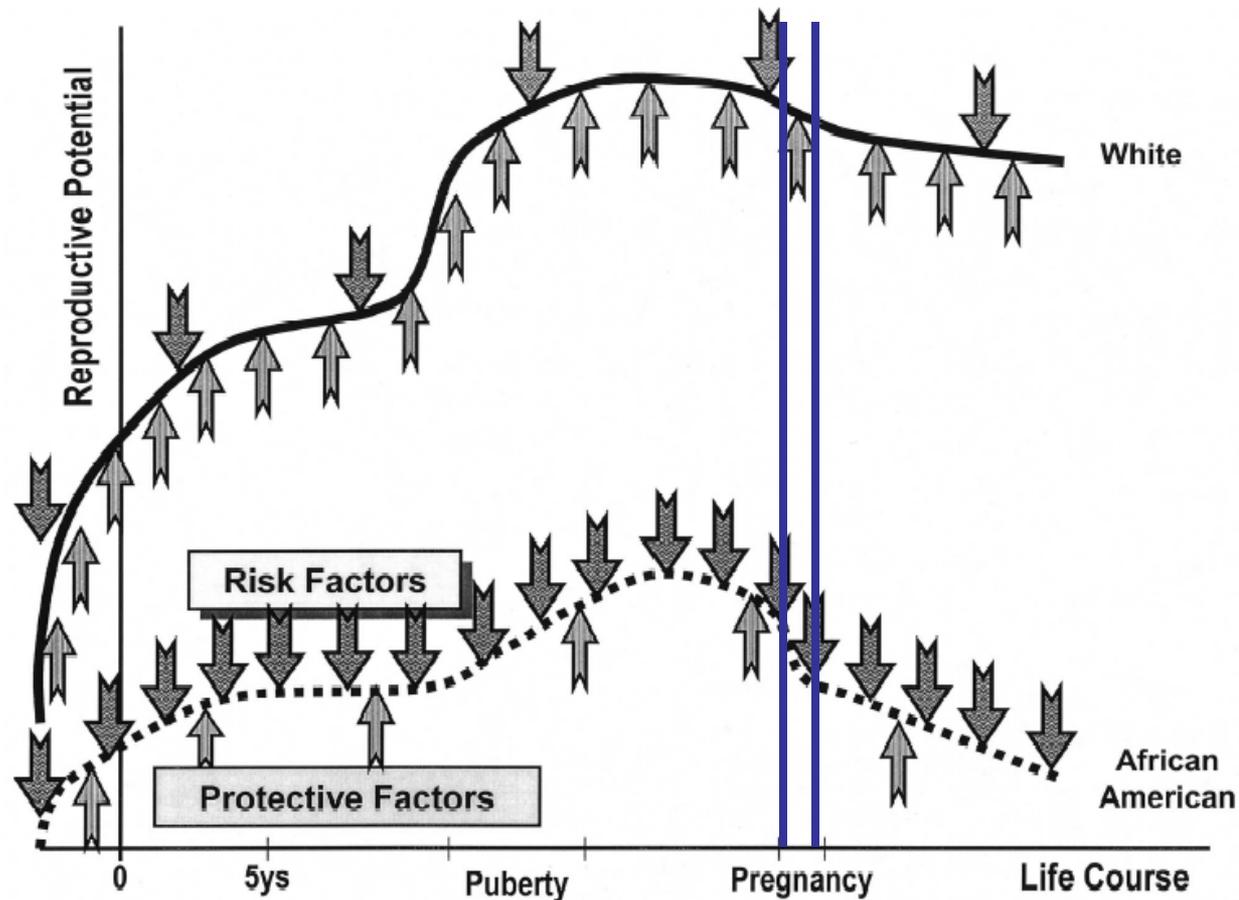
Life Course and Birth Outcomes



MCH Life Course and Birth Outcomes

- “You can’t cure a life time of ills in nine months of a pregnancy”
- The late 20th Century movement to reduce Infant Mortality and its disparities through increased access to comprehensive prenatal care was not successful
- This led to a renewed search for understanding of disparities, using new scientific knowledge
- A new focus on women’s health and preconception and interconception health care arose
- Paradigm shift in MCH – to MCH Life Course

Life Course Perspective



Lu MC, Halfon N. Racial and ethnic disparities in birth outcomes: a life-course perspective. *Matern Child Health J.* 2003; 7: 13-30.

Social Determinants

- The social determinants of health are those factors which are outside of the individual; they are beyond genetic endowment and beyond individual behaviors. They are the context in which individual behaviors arise and in which individual behaviors convey risk. The social determinants of health include individual resources, neighborhood (place-based) or community (group-based) resources, hazards and toxic exposures, and opportunity structures.

Camara Jones, 2010

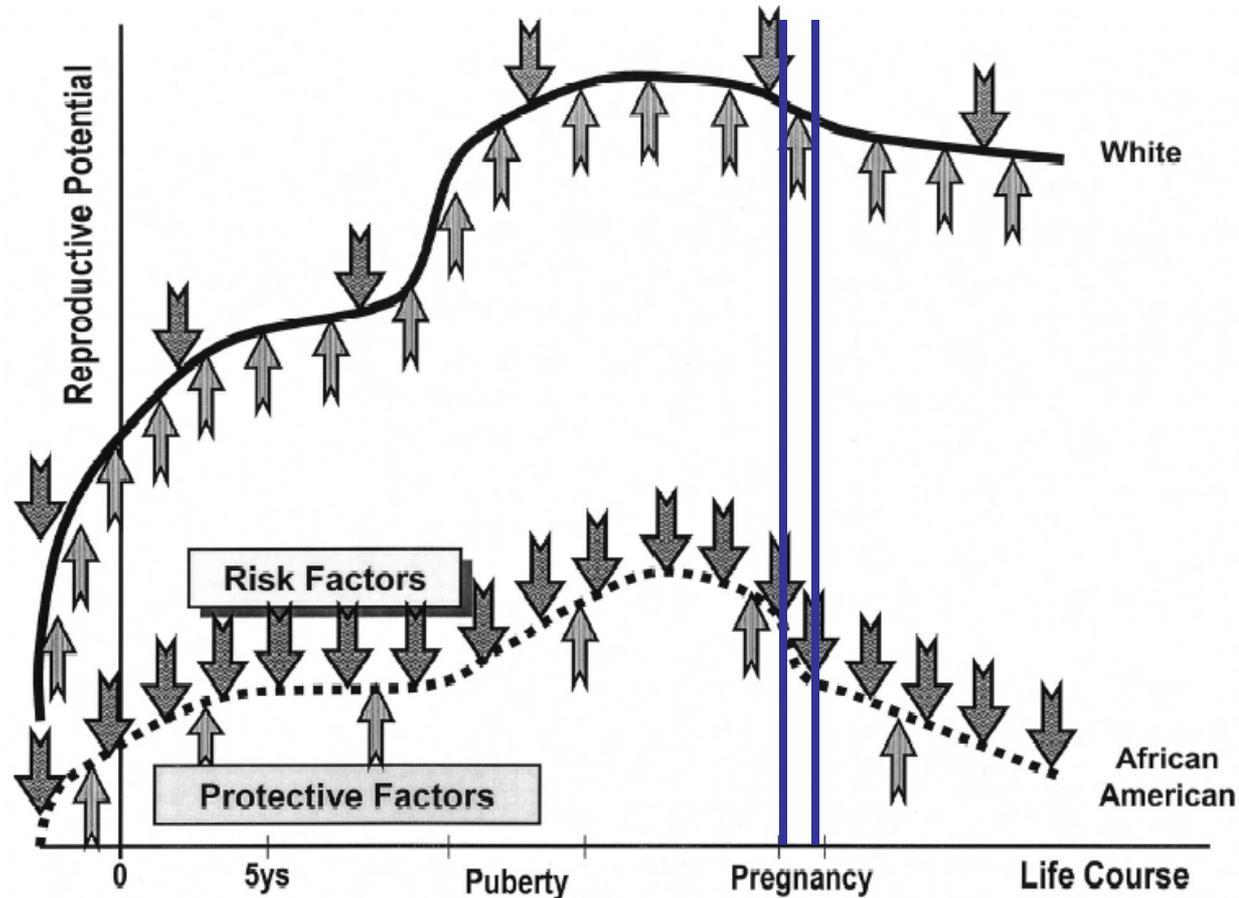
Health Equity

Where systematic differences in health are judged to be avoidable by reasonable action they are, quite simply, unfair. It is this that we label health inequity.

Putting right these inequities – the huge and remediable differences in health between and within countries – is a matter of social justice.

**World Health Organization
Commission on Social Determinants of Health**

Life Course Perspective



Lu MC, Halfon N. Racial and ethnic disparities in birth outcomes: a life-course perspective. *Matern Child Health J.* 2003; 7: 13-30.

The New 21st Century Scientific Basis for the MCH Life Course

- Provides an understanding of how the social environment gets built into or embodied into our physical bodies
- Bridges our intuitive understanding of the social causes of ill health (poverty, malnutrition, stress) with our understanding of its clinical manifestations and treatment
- Incorporates our growing scientific understanding of the biology of human development into our health trajectories
- Focuses on root causes of illness and disparities

MCH Life Course Scientific Support

- There is a convergence of similar life course frameworks in related health fields
 - Reproductive life course models
 - Child development models
 - Chronic Illness models
- The knowledge base for the MCH Life Course perspective is strong and getting stronger

New Science Underlying MCH Life Course

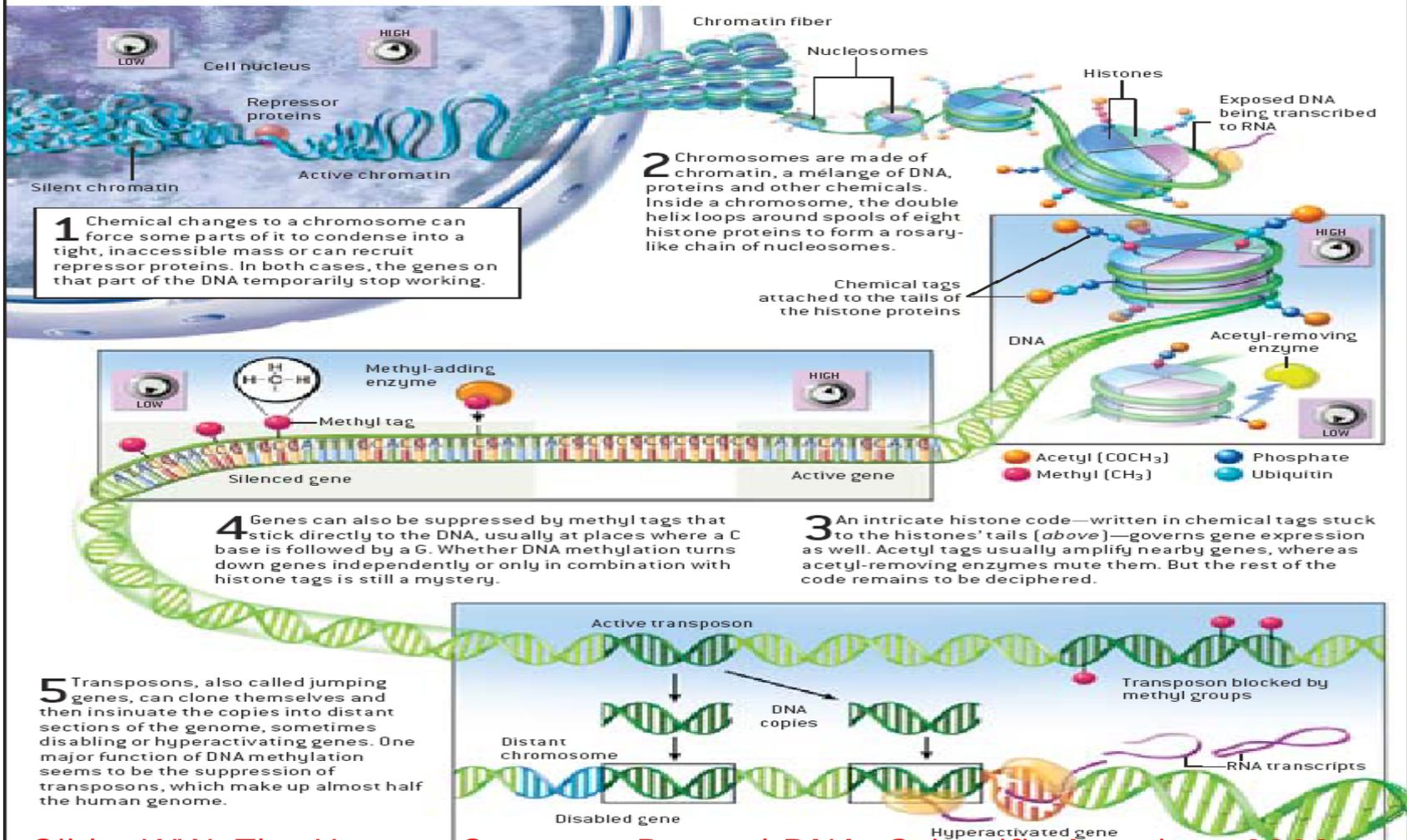
- Cumulative Impact
 - Cumulative multiple stresses over time can have a profound direct impact on health and development, and an indirect impact through associated behavioral or health service seeking change (Weathering)
- Early Programming
 - Early experiences can “program” an individual’s future health and development, either directly in a disease or condition or in a vulnerability to a disease in the future

Epigenetics

VOLUME CONTROLS FOR GENES

THE DNA SEQUENCE is not the only code stored in the chromosomes. So-called epigenetic phenomena of several kinds can act like volume knobs to amplify or mute the effect of genes. Epigenetic information is encoded as chemical attachments to

the DNA or to the histone proteins that control its shape within the chromosomes. Among their many functions, the epigenetic volume controls muffle parasitic genetic elements, called transposons, that riddle the genome.



From Neurons to Neighborhoods



The Science of Early Childhood Development

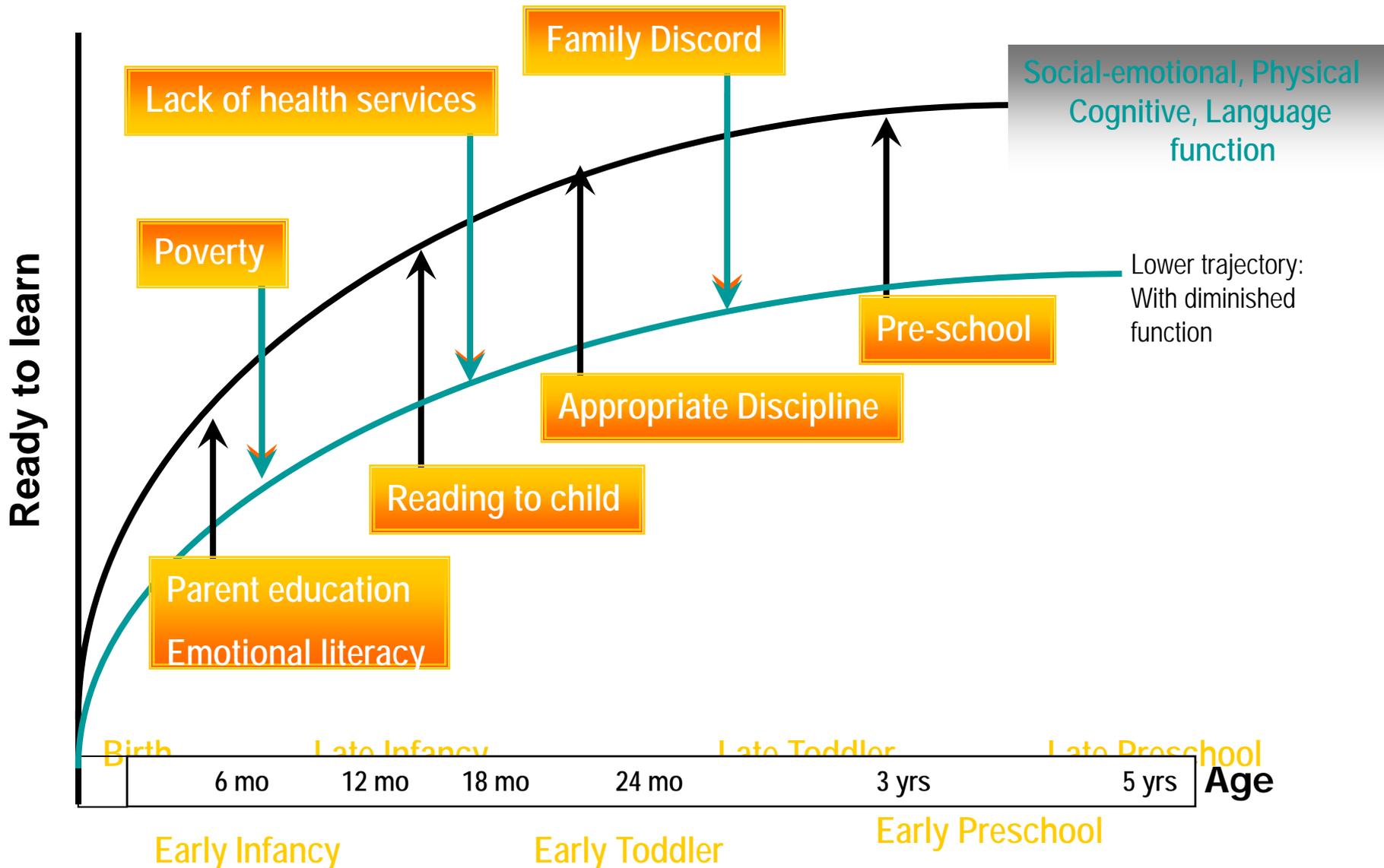
NATIONAL RESEARCH COUNCIL
INSTITUTE OF MEDICINE

Neurons to Neighborhoods

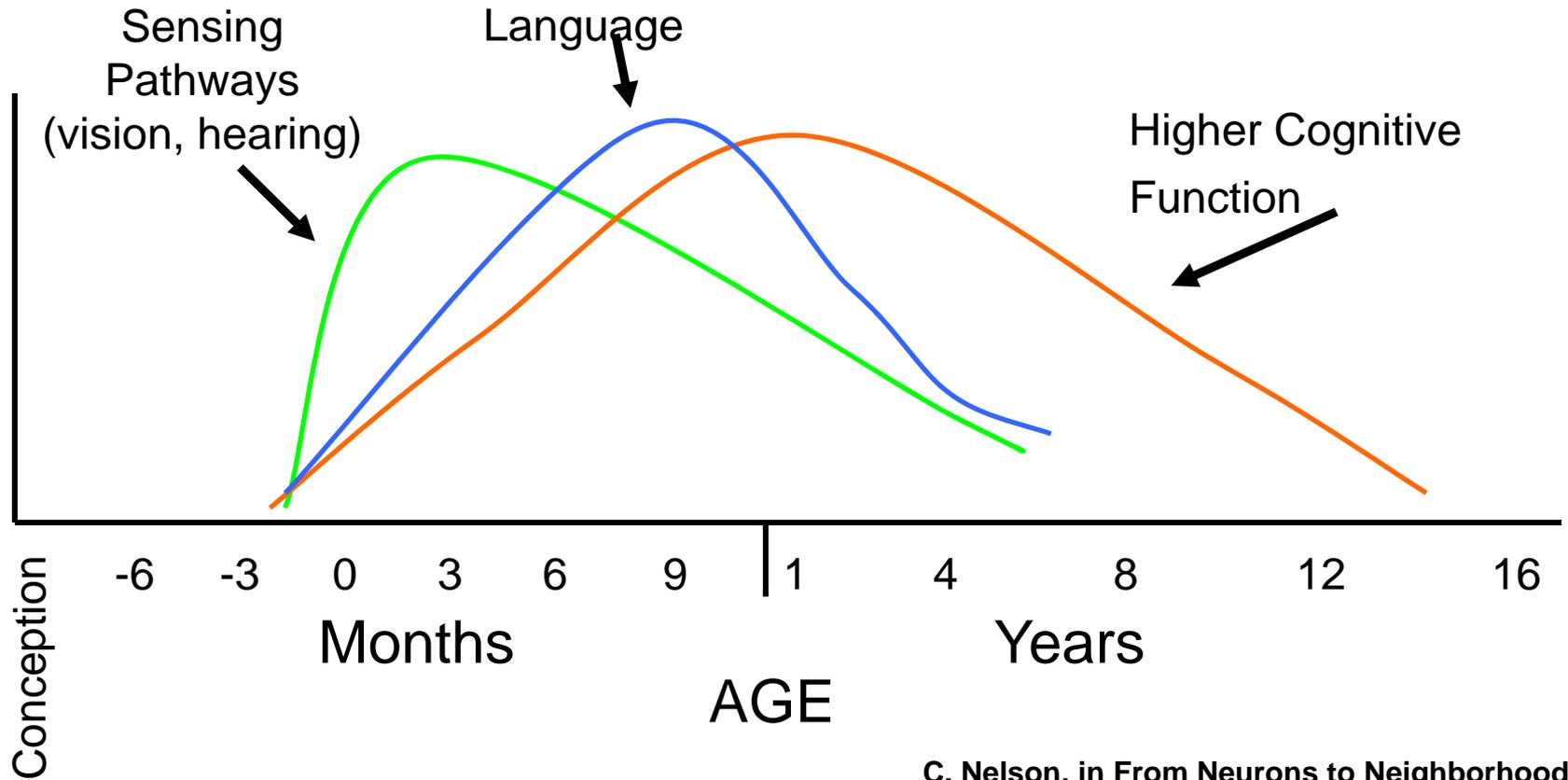
Early Environments Matter and Nurturing Relationships are Essential

- Parents and other regular caregivers in children's lives are "active ingredients" of environmental influence during early childhood
- Children's early development depends on health and well being of parents
- Early experiences affect the brain (the focus on the 0-3 period begins too late and ends too soon)
- A wide range of environmental hazards threaten the developing central nervous system
- The capacity exists to increase the odds of favorable development outcomes through planned interventions

Strategies to Improve School Readiness Trajectories

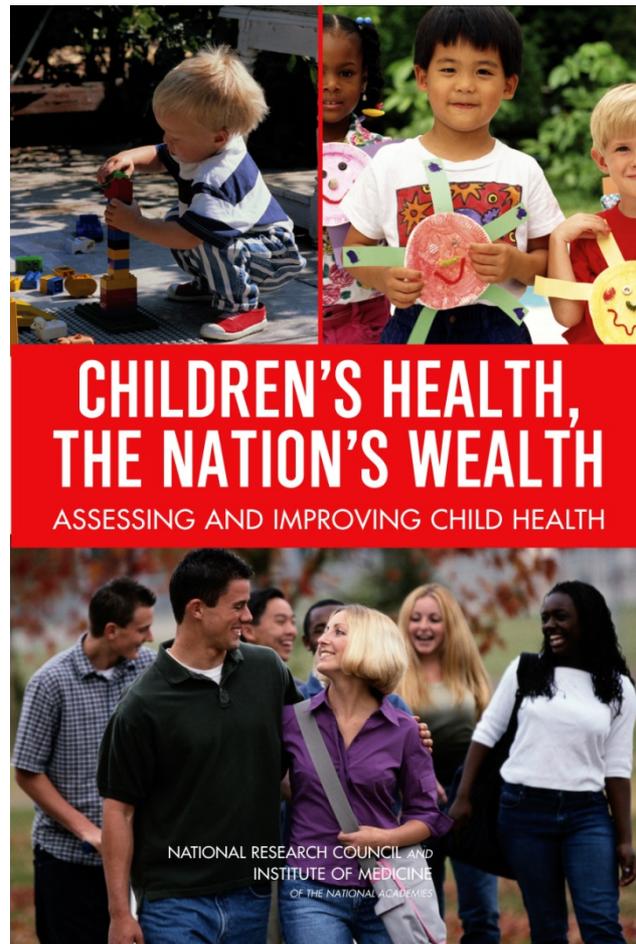


Human Brain Development - Synapse Formation



C. Nelson, in *From Neurons to Neighborhoods*, 2000.

2004 National Research Council and Institute of Medicine Report



IOM/NRC Definition of Children's Health (2004)

“Children’s health is the extent to which individual children or groups of children are able or enabled to (a) develop and realize their potential, (b) satisfy their needs, and (c) develop the capacities that allow them to interact successfully with their biological, physical, and social environments.”

From *Children’s Health, the Nation’s Wealth*,
National Academies Press, 2004.

Life Course Chronic Disease Epidemiology

Adolescent Origins of Adult Diseases

Childhood Origins of Adult Diseases

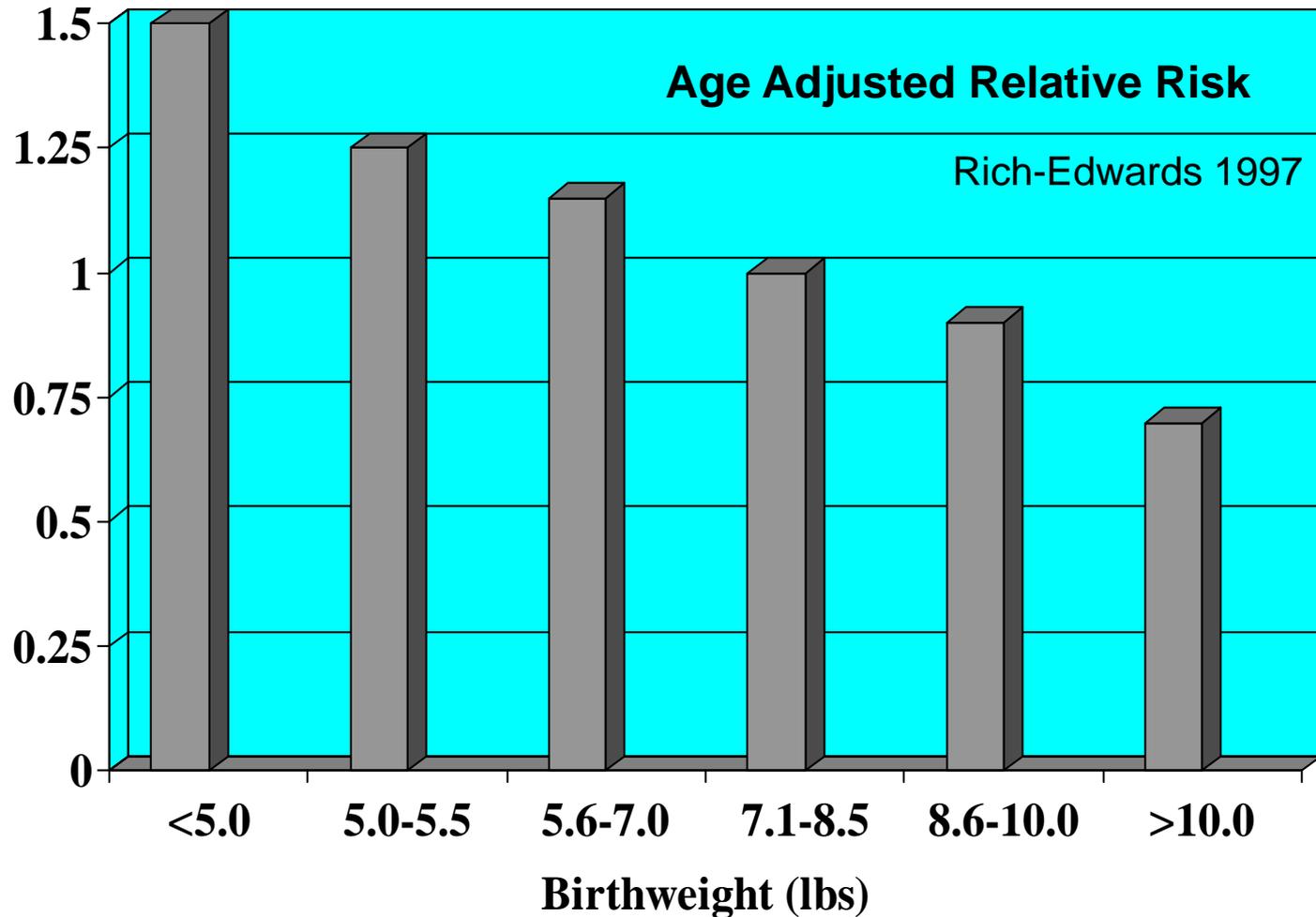
Fetal Origins of Adult Diseases

- High blood pressure
- Diabetes Mellitus
- Coronary Heart Disease
- Cancer
- Obesity

The Barker Hypothesis: Historical Cohort Analysis

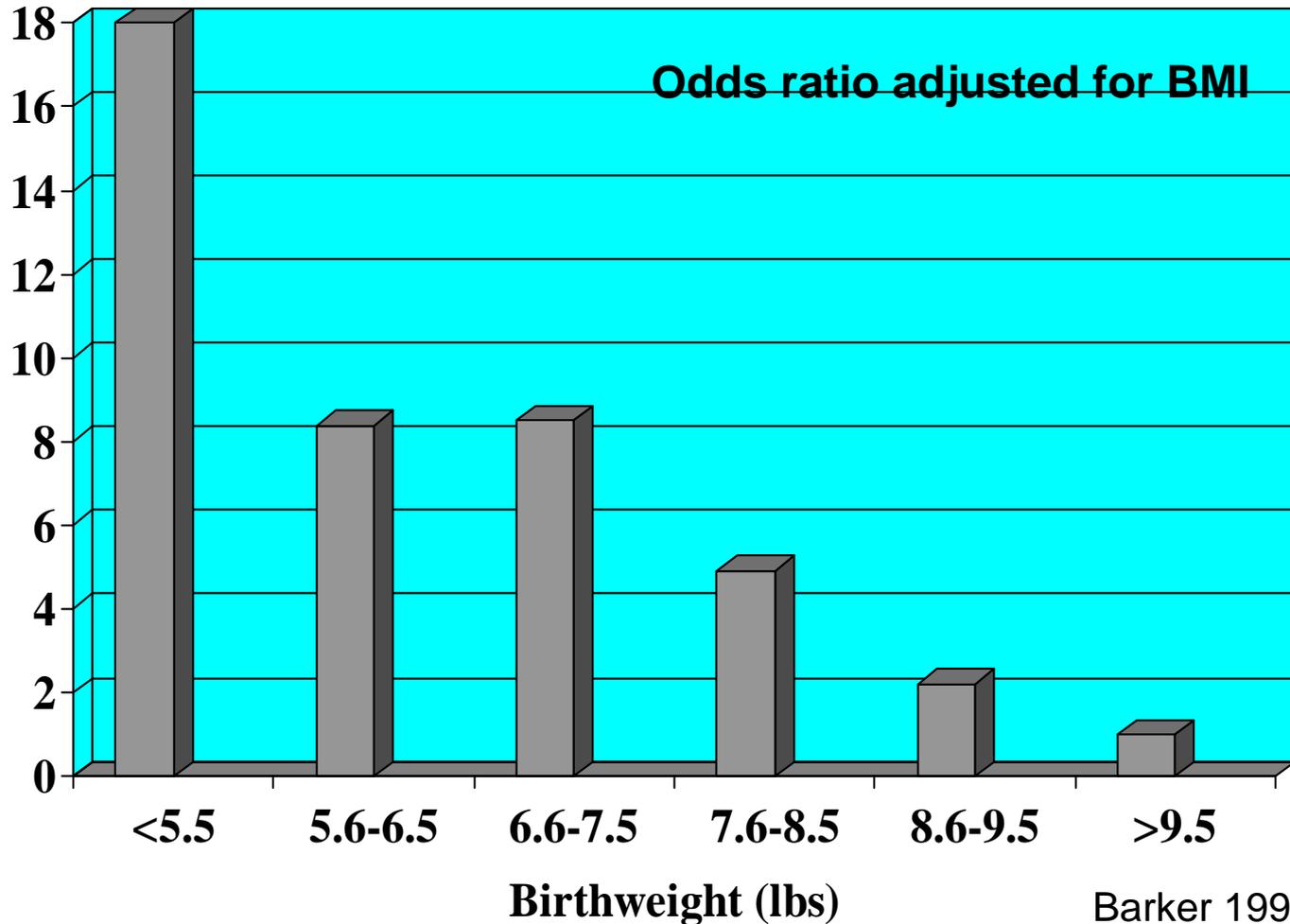
Barker Hypothesis

Birth Weight and Coronary Heart Disease

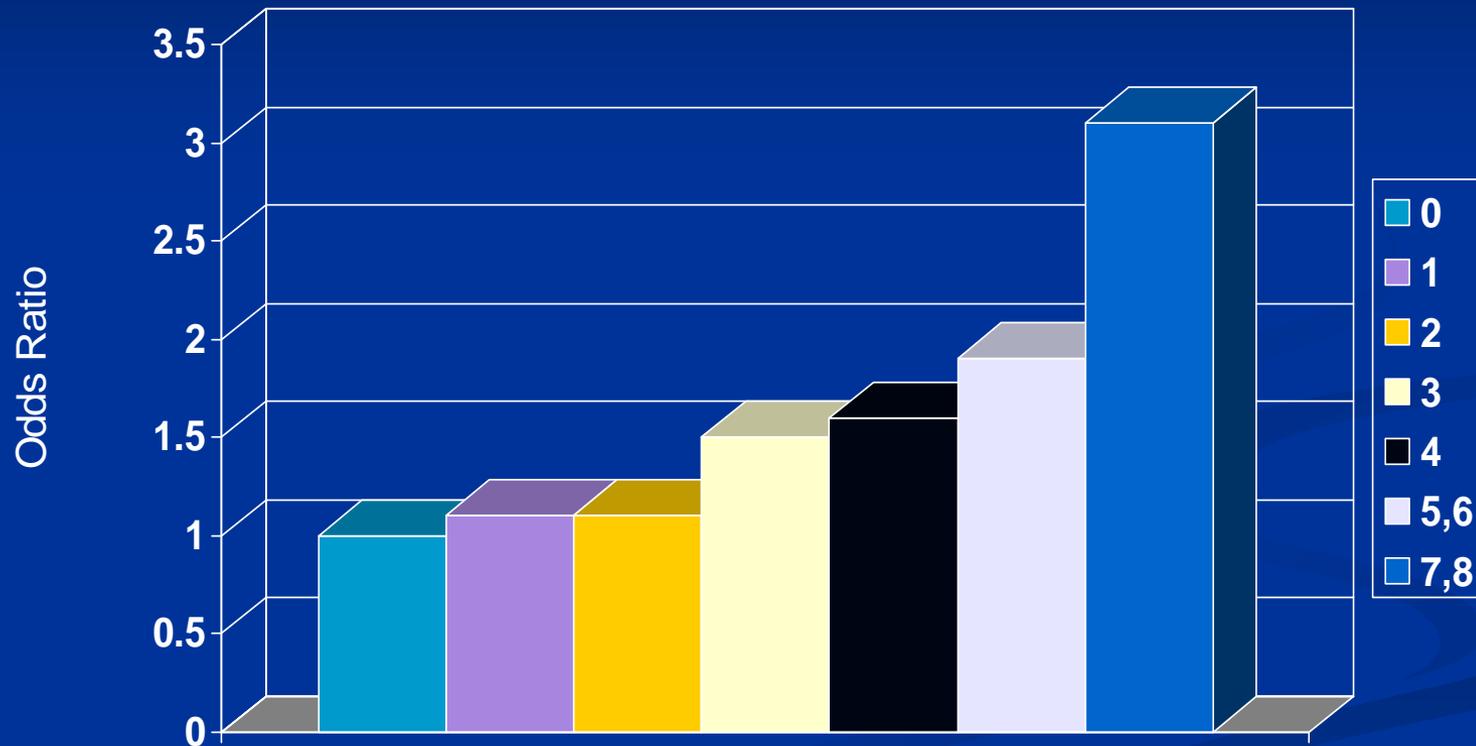


Barker Hypothesis

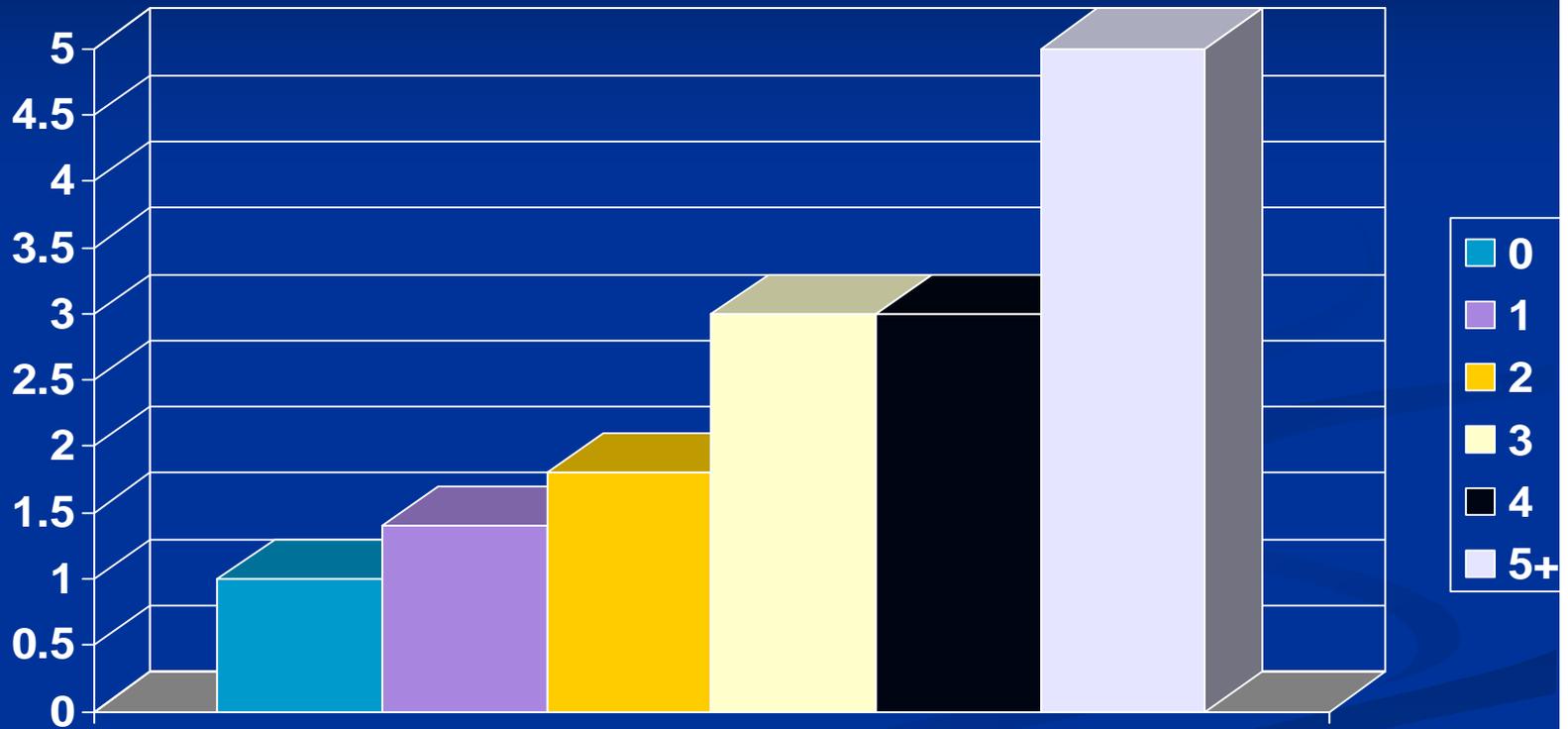
Birth Weight and Insulin Resistance Syndrome



Adverse childhood events and adult ischemic heart disease



Adverse childhood events and adult depression



Adverse Events



Life Course Model

Posits a new scientific paradigm for the MCH field

Addresses enduring health issues with new perspectives (e.g., disparities)

Requires new longitudinal and holistic approaches to MCH programs, policy and research

Provides an integrated framework for facilitating the MCH policy agenda

Links the MCH community to adult and elderly health and social service policy development

**MCH Life Course Paradigm Shift
MCH Life Course Conference
June 2008, Oakland CA**

MCH Life Course Model Topics to be Addressed

- Theory
- Research
- Practice
- Policy
- Education and Training

MCH Life Course Theory

- There is no single MCH Life Course theory text
- Yet there is a need for a unified conceptual framework to help move the MCH field forward
- To date, Life Course theory has focused primarily on causal analysis, with limited guidance for strategic actions

HRSA/MCHB Concept Paper

Rethinking MCH: The Life Course Model as an Organizing Framework

Prepared under contract by
Amy Fine and Milton Kotelchuck
October 2010

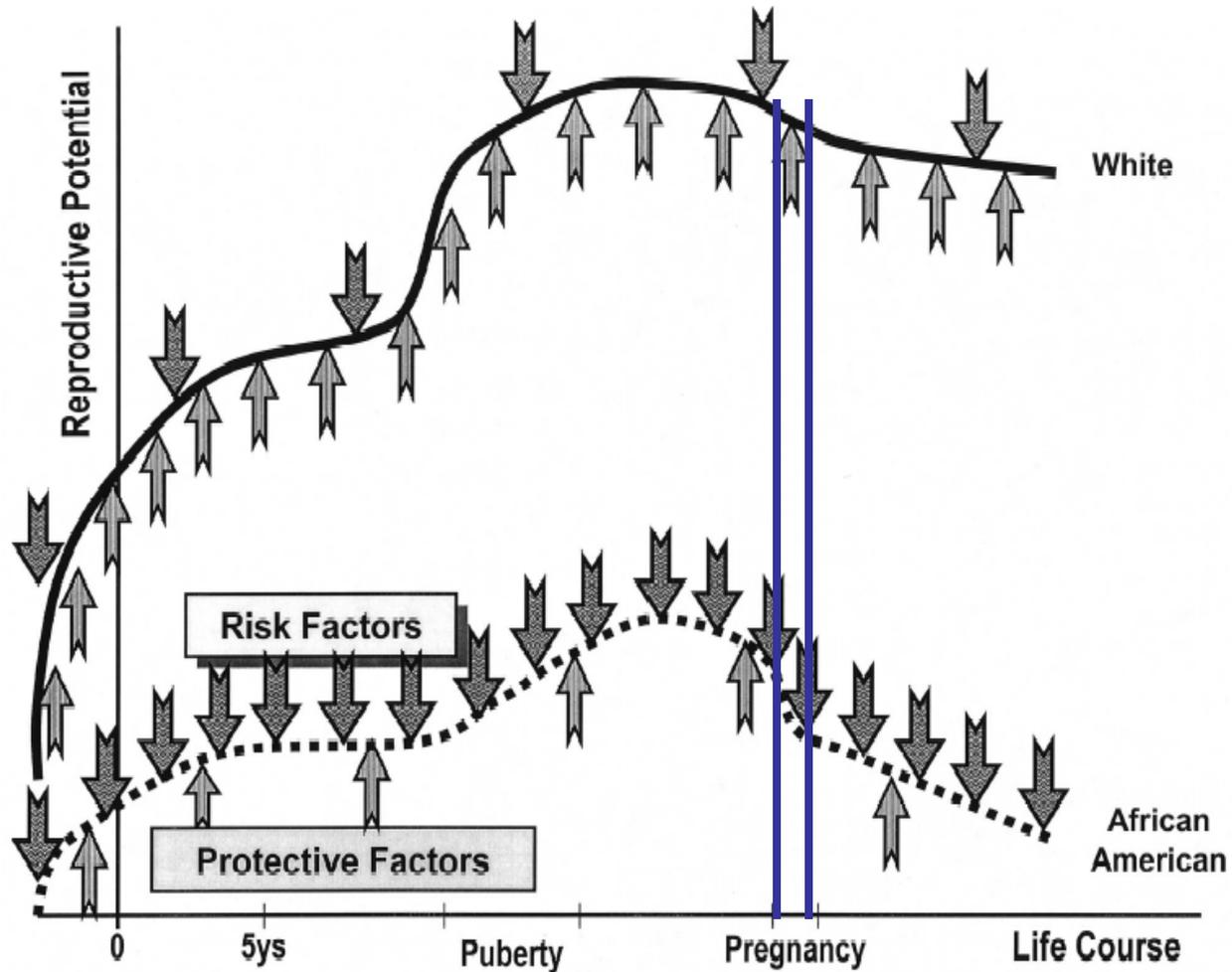
MCH Life Course Goals

- To optimize health across the lifespan for all people; and
- To eliminate health disparities across populations and communities

Key concepts of the MCH Life-course Model

- Today's experiences and exposures determine tomorrow's health (**timeline**)
- Health trajectories are particularly affected during critical or sensitive periods (**timing**)
- The broader environment – biologic, physical, and social – strongly affects the capacity to be healthy (**environment**)
- Inequality in health reflects more than genetics and personal choice (**health equity**)

Life Course Perspective



All four key concepts need to be addressed

MCH Life Course Integration

- Social determinants, and health equity models are complementary, synergistic and integral to the MCH life course
- Life course perspective offers an explanatory model for how social determinants influence health
- Life course perspective offers an explanatory model for how health inequities develop
- Life course better incorporates longitudinal perspectives and the biology of human development into our understanding of health

Addressing key MCH Life Course concerns

- Life course goes beyond, but includes, medical/clinical care; it is complementary not antagonistic to medical/clinical care
- Life course is not deterministic trajectories, but transformational and interactive
- Life course values life at every age equitably

MCH Life Course into Practice

- Our field's challenge is to transform this new MCH Life Course theory and research into new MCH practice and policies
- Lots of MCH life course experimentation is now occurring
- Here are some initial ideas to get us thinking how MCH life course could influence our practice and policy

MCH Life Course Model

Barbara Ferrar's Overview of its Meaning for Practice

- Multiple time points for intervention
- Expanded settings for intervention
- Policy is important at local, state and national levels

MCH Life Course Practice

- The MCH Life Course Theory suggests a greater attention to four key continuities or discontinuities in health and health care that impact on achieving optimal health
 - **Longitudinal continuity**
 - **Vertical continuity**
 - **Horizontal continuity**
 - **Holistic continuity**

MCH Life Course Practice and Policy

- Integration initiatives for Clinical/Public Health
 - Within health systems
 - Between health and other systems of care
- Holistic approaches
 - Whole child, whole family, common root causes
- Placed based initiatives
 - Transformative initiatives within the community
 - Initiatives that strengthen the community
- Policy Initiatives



Housing



Childcare



Medical Care



Jobs



Healthy Food



Alameda County Building Blocks Collaborative



Clean Air



Parks and Activities



Policy Makers



Education



Economic Justice



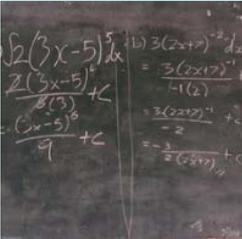
Preschool



Safe Neighborhoods



Residents



Transportation



Policy Implications for the Government Sector

- Avoid the allure of categorical solutions
- Focus on upstream population needs
- Assure that needed programmatic collaboration happens
- Partner with all sectors
- Invest in data for policy decisions
- Install visionary leadership

A Call to Action

- Transforming MCH life course theory and research into concrete programs and policies is our ultimate challenge
- We need an MCH life course learning community to share our knowledge and experiences
- We need to reframe our programs and policies to be more consistent with life course theory
- We need to transform all of our organizations into life course supporting organizations
- And we need a new strategic plan - to give structure and direction to our efforts and to help achieve the life course goals of optimizing health and eliminating disparities

MCH Bureau Strategic Planning and Leadership

- MCHB has a critical leadership role to foster the MCH life course paradigm shift
- The life course perspective, along with the social determinants, and health equity models, offers MCHB the opportunity to reinvigorate its Title V and Children's Bureau legacy and political mandate – to address all factors that impact on children's health and well-being
- The life course perspective provides the MCHB with a federal and national leadership opportunity to broadly improve the health and well being of mothers, children and families

MCHB is at a critical historical moment

- The MCH life course reintroduces and rebalances social determinants and life course perspectives within MCHB
- It builds on the Title V/MCHB's 75th Anniversary heritage/legacy
- This is an exciting, transformational moment; it is our community's call to the future
- But MCH life course is a work in progress – a paradigm shift – that will require all of our collaborations and efforts to make it happen

