

Historical & Scientific Basis for Lifecourse Model Anything New Here?

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Which Best Describes Your Program? (you must vote)

- A.** Health of people with disabilities is determined primarily by access to high-quality, well-trained physicians and allied health care professionals.
- B.** Health of people with disabilities is determined by many factors, including access to a variety of health and educational services, built environment, opportunities for participation, social attitudes, etc.

Outline

I. “Where we are”—lifecourse; social determinants

- Health disparities despite advances in medical care
- Some “new” science, but we already do this . . .

II. “Where we’re coming from”—this won’t be easy

- Medical model is deeply embedded in our approach to health
- Social determinants can be difficult to address
- We (LENDs) well-positioned, but . . .

Part 1 “Where We Are”

- ◆ Define “social determinants of health”
- ◆ Define “lifecourse”
- ◆ “Old news” to those of us in child development
- ◆ Why has this emerged recently?
 - Health disparities not getting better
 - Some new research
- ◆ MCHB strategic planning

Social Determinants

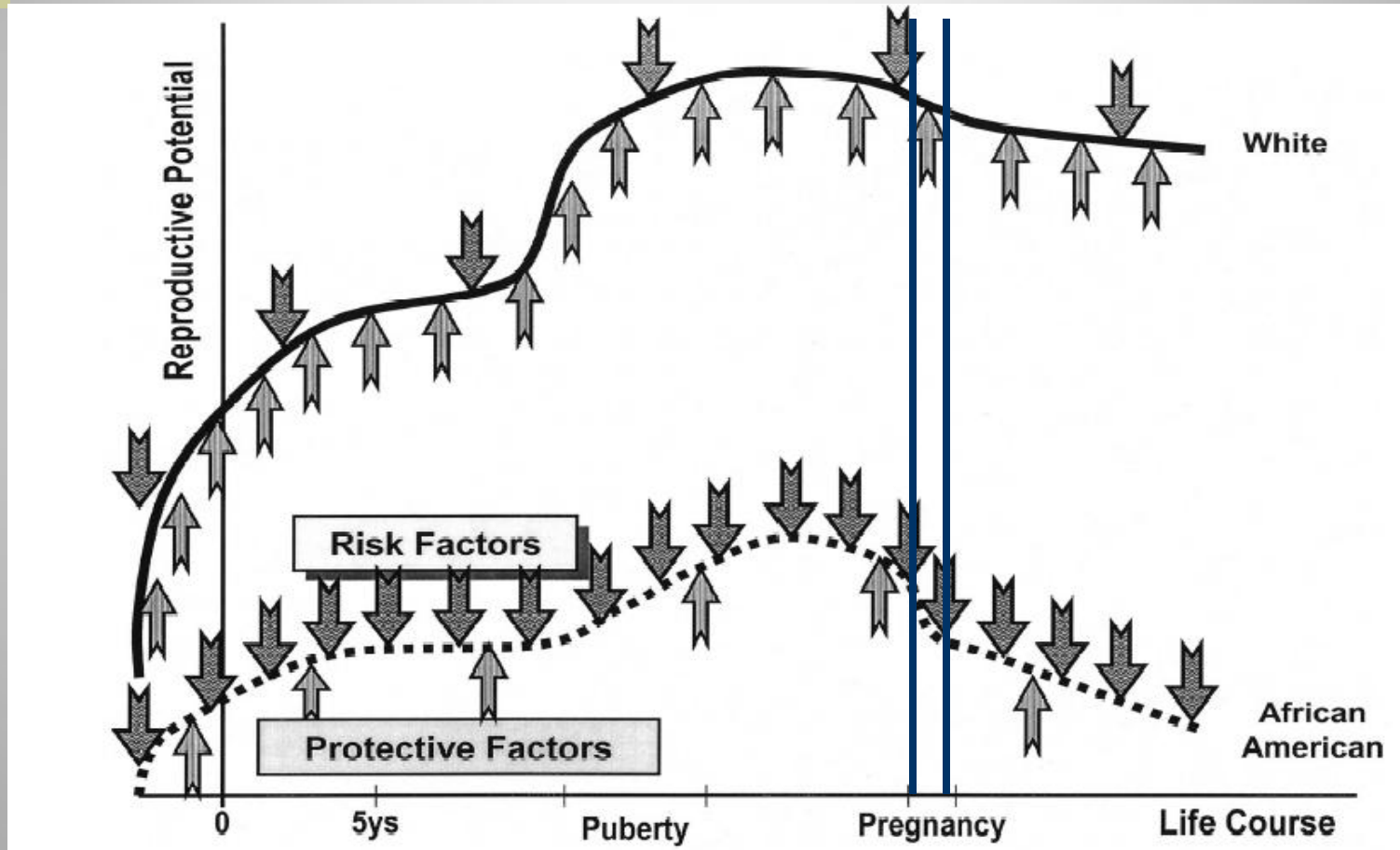
- ◆ The social determinants of health are those factors which are outside of the individual; they are beyond genetic endowment and beyond individual behaviors. They are the context in which individual behaviors arise and in which individual behaviors convey risk. The social determinants of health include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

Camara Jones, CDC, 2010

Health Disparities (Birth Outcomes)

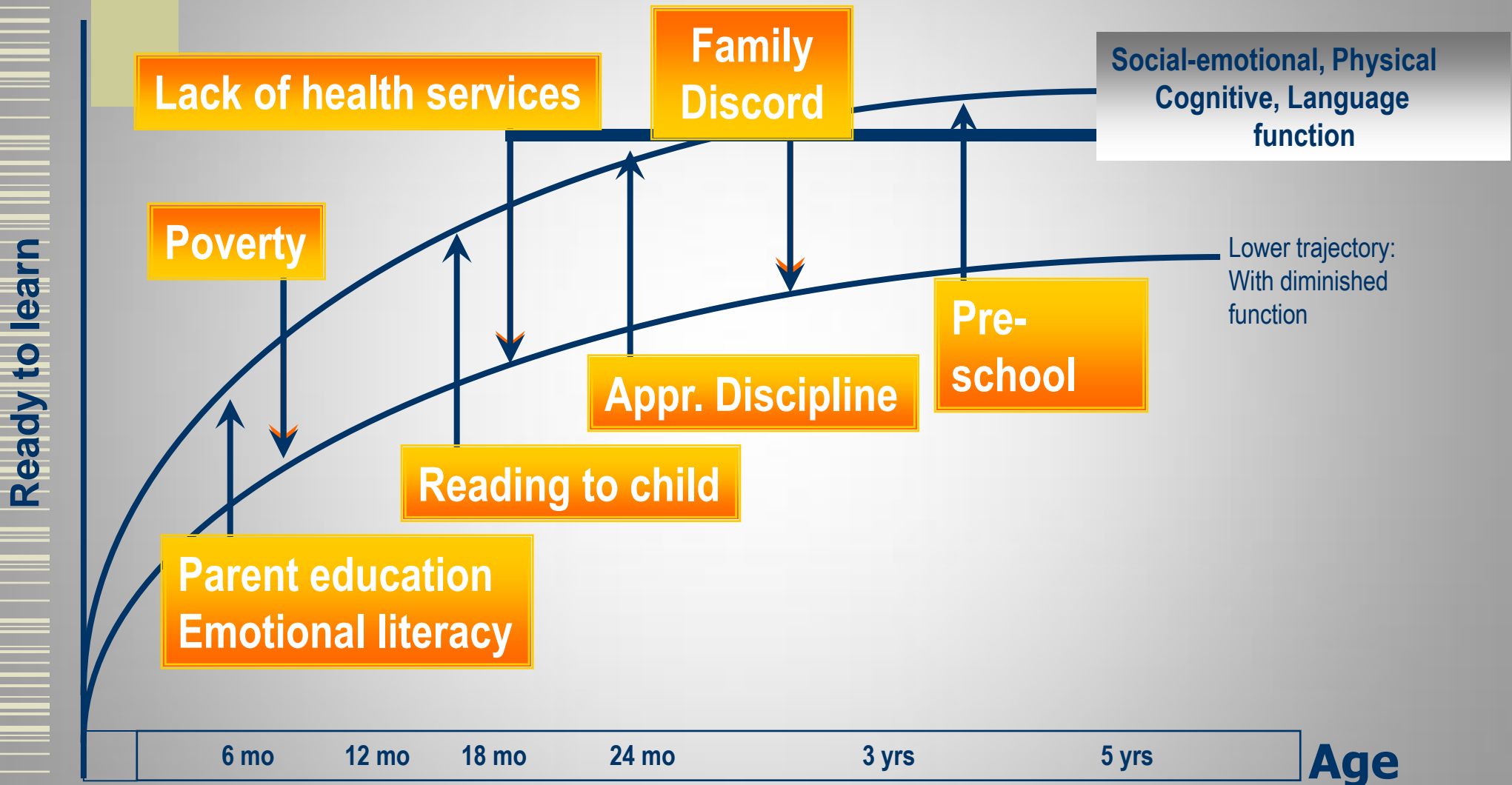
- ◆ 1970s – 2000: solution to disparities is improve health care
 - Better/more accessible prenatal care
 - Better/more accessible neonatal care
- ◆ Governmental and private actions improve prenatal care rates and decrease disparities in **health care**,
 - But poor outcomes worsened & disparities increased
- ◆ “You can’t cure a lifetime of ills in nine months of a pregnancy” (Milton Kotelchuck)

Life Course Perspective

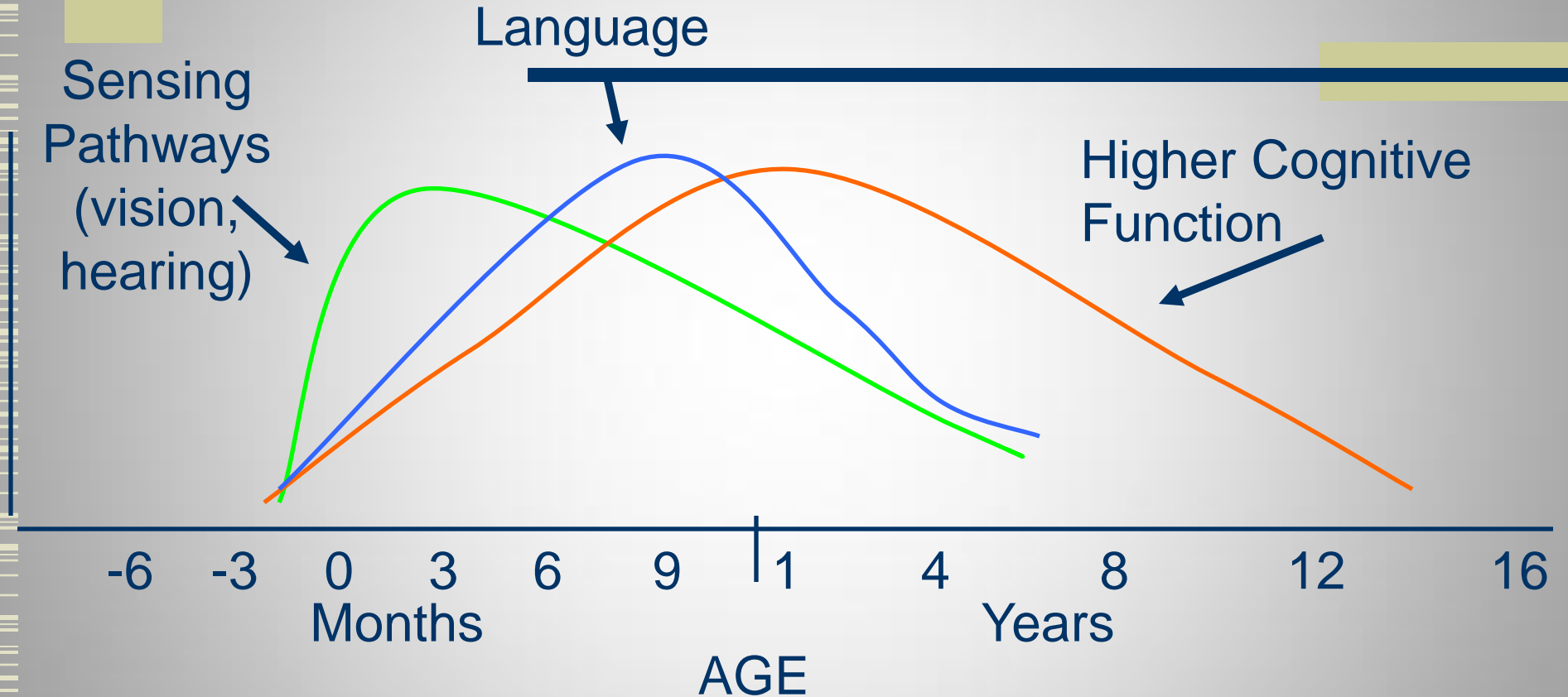


Lu MC, Halfon N. Racial and ethnic disparities in birth outcomes: a life-course perspective. *Maternal Child Health J.* 2003;7:13-30.

“Cumulative Impact” (School Readiness)



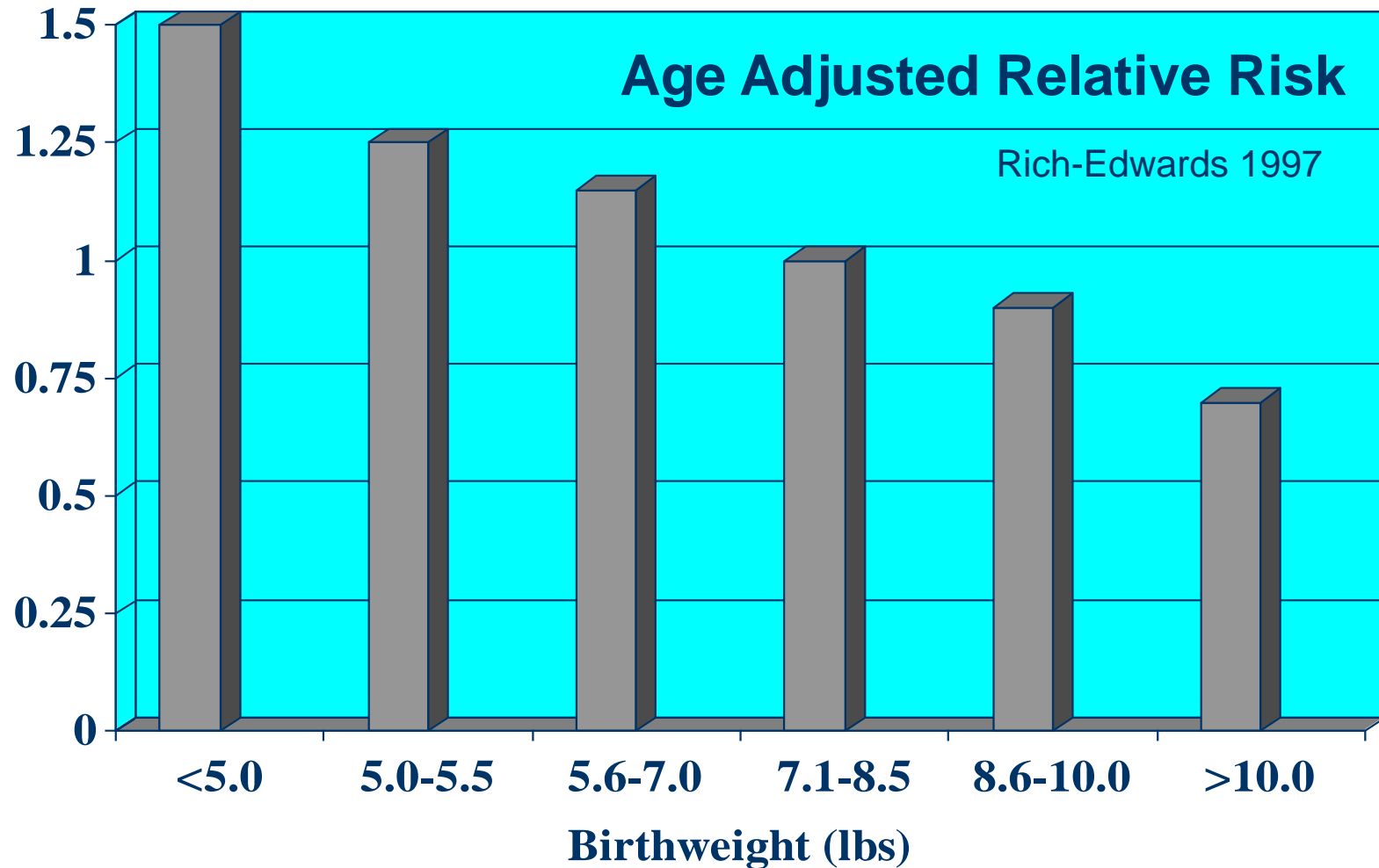
“Early Programming” (Synapse Formation)



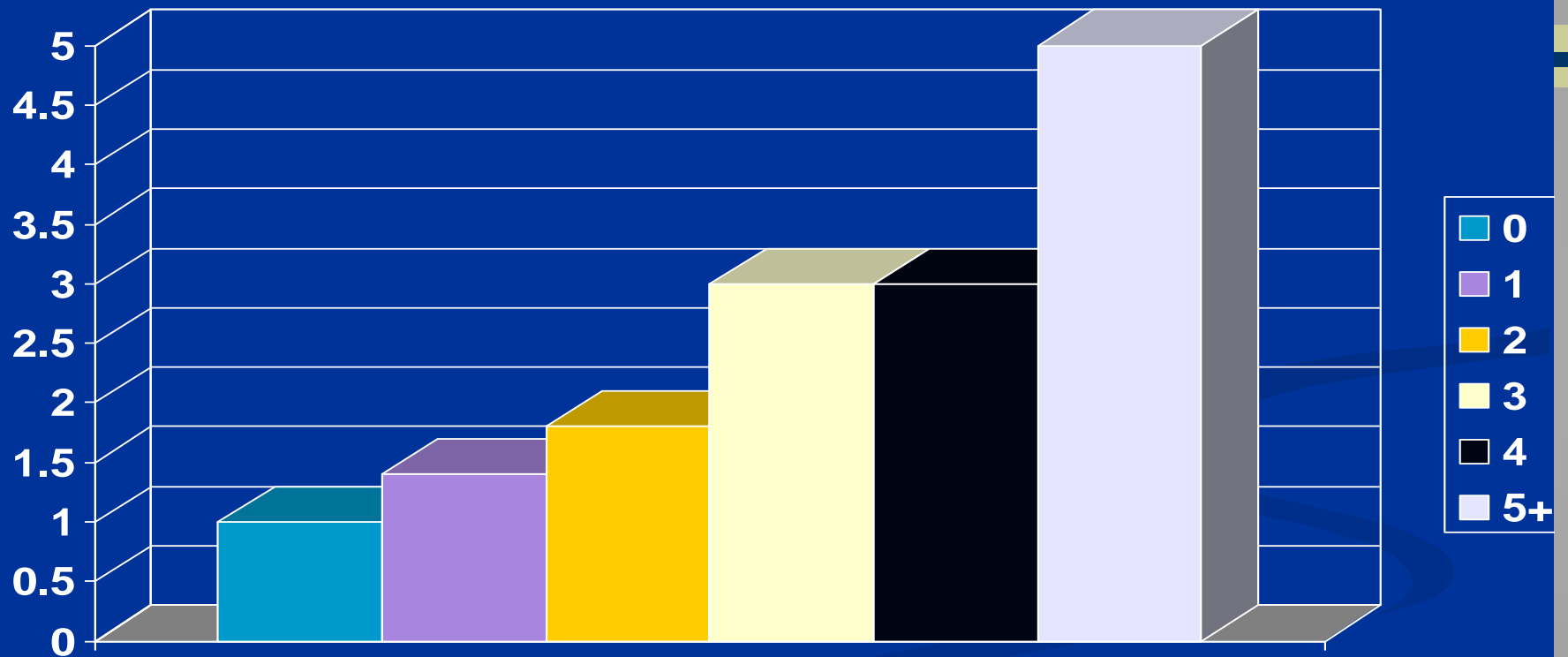
C. Nelson, in *From Neurons to Neighborhoods*, 2000.

Barker Hypothesis

Birth Weight and Coronary Heart Disease



Adverse childhood events and adult depression



Adverse Events





HRSA/MCHB Concept Paper



Rethinking MCH: The Life Course Model as an Organizing Framework

Prepared under contract by
Amy Fine and Milton Kotelchuck
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Part 2 “Where we’re coming from”

- ◆ Some history of medicine
 - Medical model
 - Addressing deeper issues? (e.g. poverty)
- ◆ We’re well-positioned at LENDs, but . . .

History of Medical Care in US

1850s

- ◆ General practice
 - ◆ Varied training
- ◆ Rural/local/isolated
- ◆ Low income/prestige
 - ◆ +/- State license
 - ◆ Pre-germ theory
- ◆ Eclectic therapies

1930s

- ◆ Specialization
- ◆ Standardized training
 - ◆ Urban/connected
 - ◆ Reasonable income/prestige
 - ◆ License required
- ◆ **Scientist as hero**



Doctor's Office, late 1800s



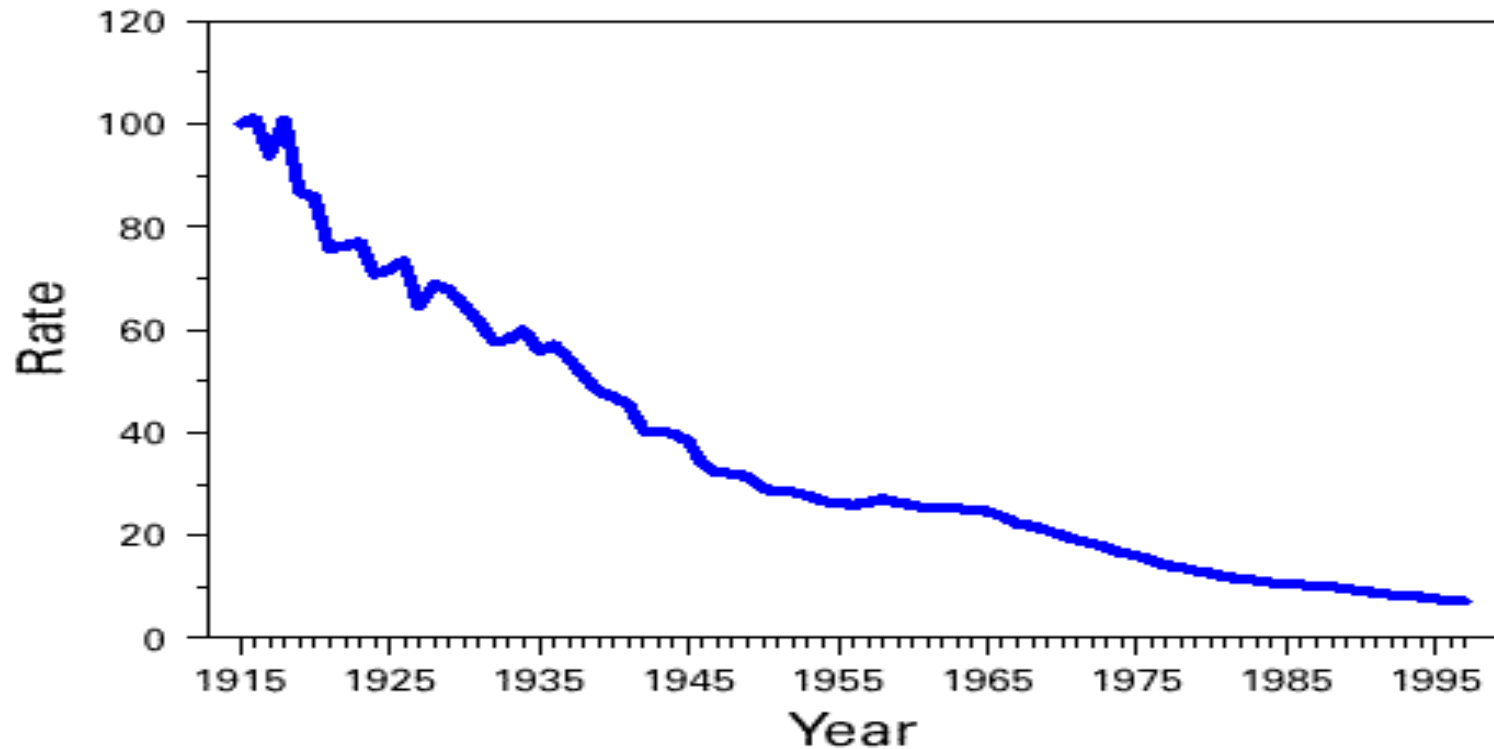
Hospital Operating Suite, c. 1910

Social Determinants of Health

- ◆ Two thousand years (up to 1850s)
 - Illness as humors out of balance
 - Physician investigated a patient's environment & habits
 - No clear distinction between public and personal health
- ◆ By 1930s
 - Illness as disruption of the body by invading organism
 - Physician treats individual patients; public health professionals deal with epidemics, environment

Infant Mortality (US Bureau of Statistics)

FIGURE 1. Infant mortality rate,* by year — United States, 1915–1997



*Per 1000 live births.

Faith in Science: Polio Vaccine

- ◆ NY Times, July 11, 1957
 - “MASS VACCINATION CUTS POLIO'S TOLL”

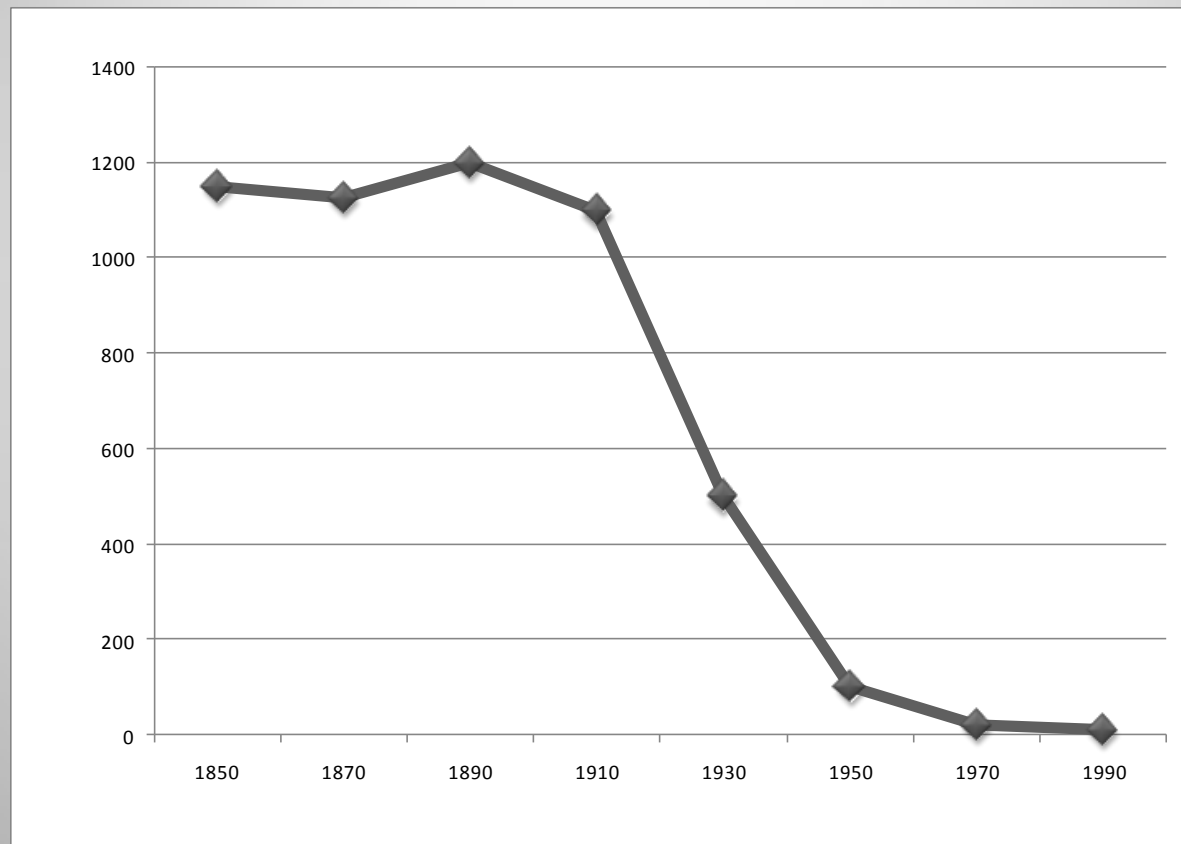
“Mass vaccination with Salk vaccine has sharply reduced the number of paralytic polio cases in the city and state this year, health officials reported yesterday.”
- ◆ Time Magazine, Aug. 12, 1957
 - “POLIO DECLINE”

“Polio is declining sharply in most of the U.S. for the second year, with abundant evidence that much of the improvement is due to the Salk vaccine.”

“Inward Vision; Outward Glance”

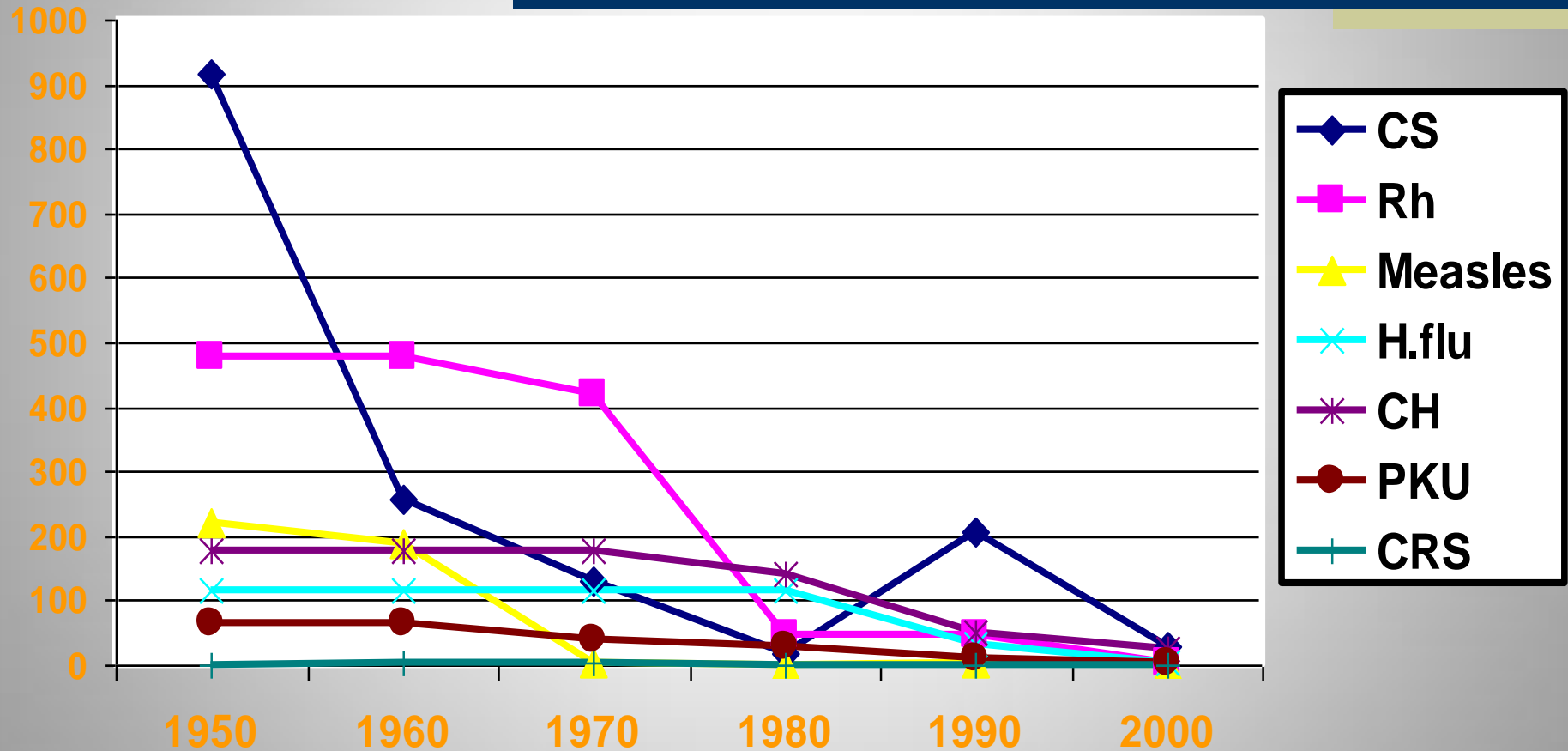
- The best way to improve health is to provide technologically sophisticated interventions to patients in the office, in the operating suite, or at the bedside of a modern hospital
- “Technological imperative in medicine”
 - Machines, vaccines, antibiotics, surgery, new drugs . . .
 - The “Medical Model”

Measles Vaccine?

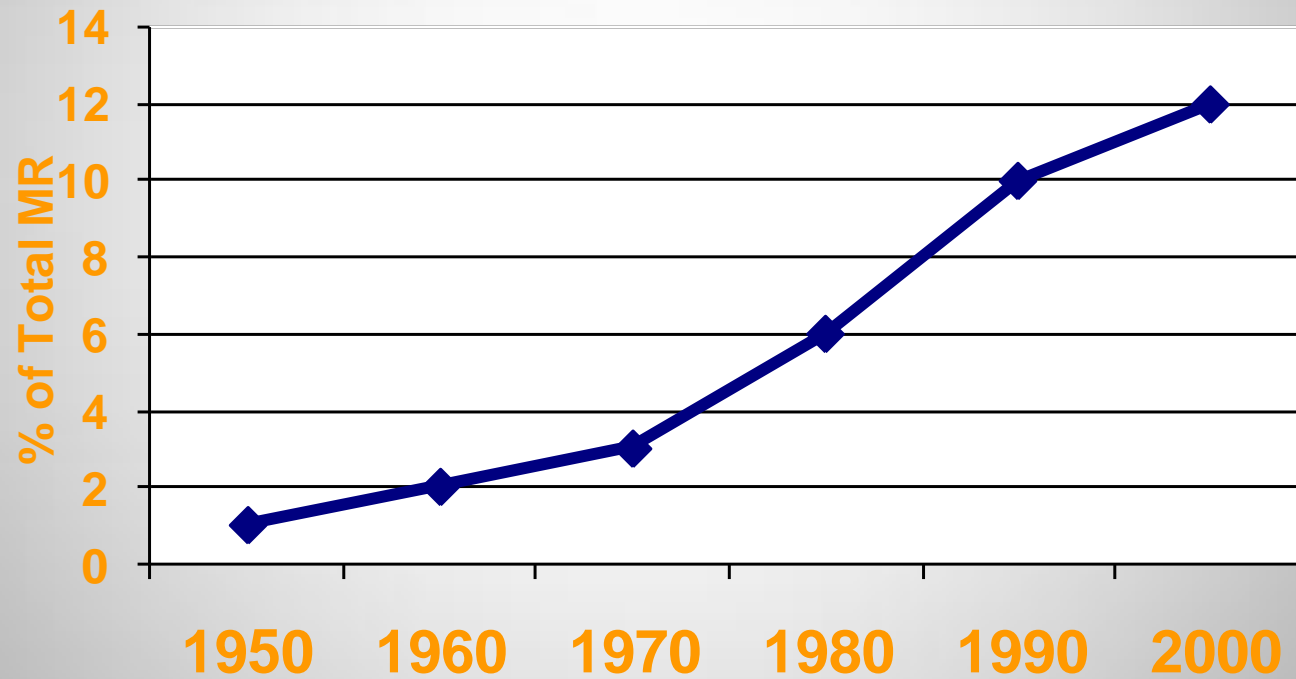


Estimated Prevalence of ID

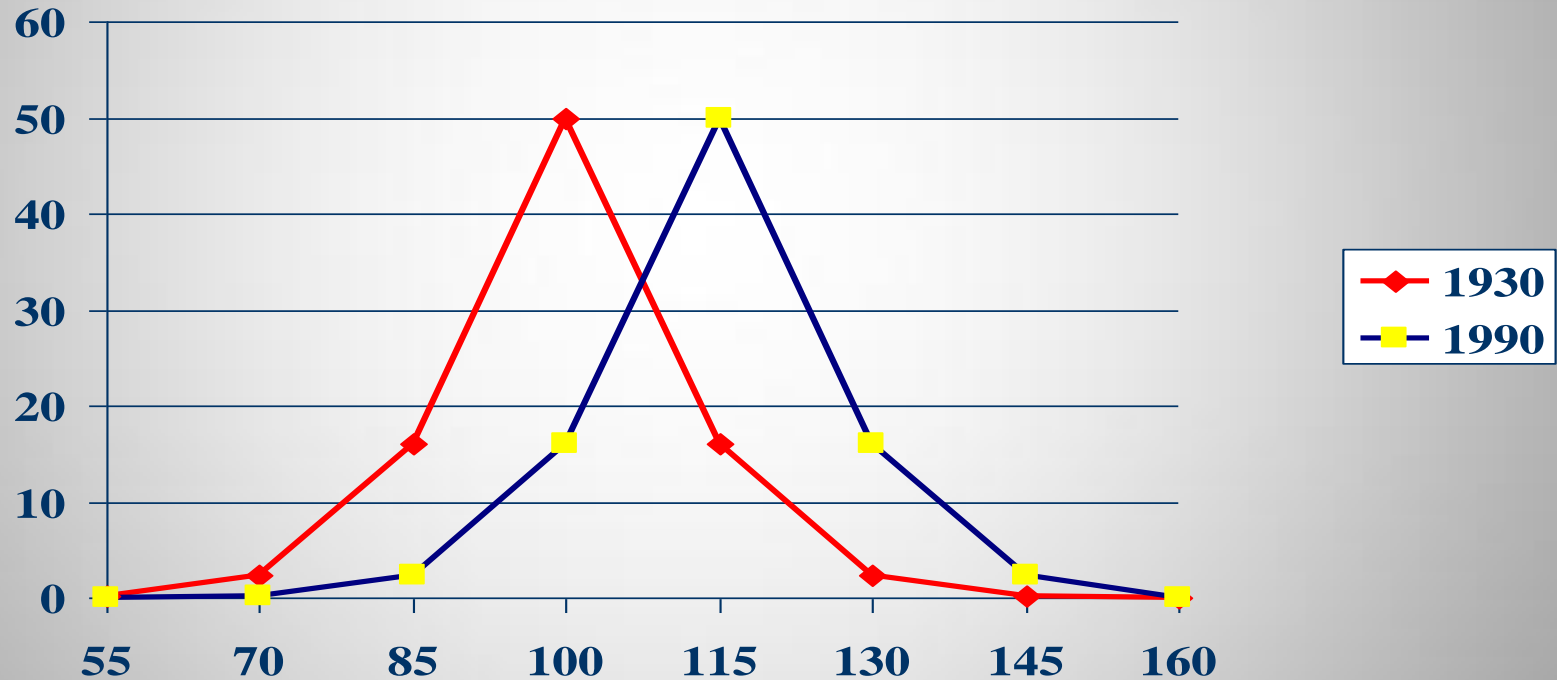
Prevalence CD per 1 million births Brosco, Arch. Peds., 2006



ID Associated with Low Birth Weight



Flynn Effect: Impact on Prevalence



“Social Determinants” of ID

- ◆ **Discrimination**
- ◆ **Poverty**
- ◆ **Psychosocial deprivation**
- ◆ **Malnutrition**
- ◆ **Inferior educational opportunities**
- ◆ **Poor housing**
- ◆ **Lead exposure**
- ◆ **Head injury**

Population Health Interventions

- ◆ **IDEA (education; deinstitutionalization)**
- ◆ **Civil rights legislation and judicial decisions**
- ◆ **Medicaid/Medicare**
- ◆ **Head Start**
- ◆ **WIC (nutrition for women, infants, children)**
- ◆ **TANF (AFDC)**
- ◆ **School lunch program**
- ◆ **HUD/MCHB programs (lead abatement)**

So What's the Problem?

- ◆ Medical model is deeply embedded
 - We may understand that environment and behavior affect health, but look at our health care system
 - Payment schemes, institutions, diagnoses, training all focus on providing discrete services to individuals
 - Will health care reform act change this?

Even Bigger Problem

- ◆ Social justice (yes, I said it out loud)
- ◆ If social determinants are critical, what are we going to do about poverty, discrimination, structural inequities in our society?
- ◆ US has long history of deep ambivalence about directly addressing social and economic inequities



Well baby clinic, ca. 1930



Hospital Operating Suite, c. 1910

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
http://www.who.int/social_determinants/en/**

How does this affect our training?

- ◆ In many ways, we already do “life course” and “social determinants of health,” but we’ll have to do a good job of explaining this
- ◆ Role of trainees? “Systems change”
 - Health care system
 - Social/economic system?
- ◆ And what about autism?