

Causes & Risk Factors of Infant Mortality

Life Course Perspective & Social Determinants of Health

Southside Families & Babies Meeting
November 19th, 2013

Alex Meyer
Director, Prematurity Initiatives at Nationwide Children's Hospital
Director, Ohio Better Birth Outcomes (OBBO)



Infant Mortality

- Death of a child before his/her first birthday.
- Is a measure of a community's health and social condition
- Biological, behavioral, social, cultural, economic, and environmental factors all play a role



Franklin County

- In 2012
 - 18,300 babies born
 - 147 babies- 3 per week- died before their first birthday
 - 2,400 were born prematurely (too early)



Leading Causes

- Being born too early or too small
- Serious birth defects
- Unsafe sleeping conditions



Areas to address to improve Infant Mortality:

1. Prematurity (2/29/12, Progesterone, < 39w, MoD)
2. Congenital Anomalies
3. Sudden Unexplained Infant Deaths (AAP Guidelines from 10/11, Ohio Injury Prevention/Ohio-AAP/ODH/Children's Trust Fund)
4. Drug/Etoh Use During Pregnancy
5. Breastfeeding (AAP Guidelines from 2/12)
6. Smoking cessation
7. Care Issues (presumptive eligibility?, Strong Start, Medical Homes, other)
8. Family Planning (Medicaid Family Planning Waiver/State Planning Amendment)
9. Policy (Safe Sleep, Screening for Congenital Cardiac Anomalies)
10. Decreasing Teen Birth Rate (CDC)
11. Education/Marketing (make infant mortality #1 issue in the State)
12. Eliminating Racial Disparity in Birth Outcomes
- 13. SDOH/Lifecourse**
14. Fund Raising
15. Violence (Domestic/Childhood, i.e., Shaken Baby)
16. BEST BABY ZONES



Life Course Perspective

- the connection between individuals and the historical and socioeconomic context in which these individuals live
- the life course perspective elaborates the importance of time, context, process, and meaning on human development and family life (Bengtson and Allen 1993)

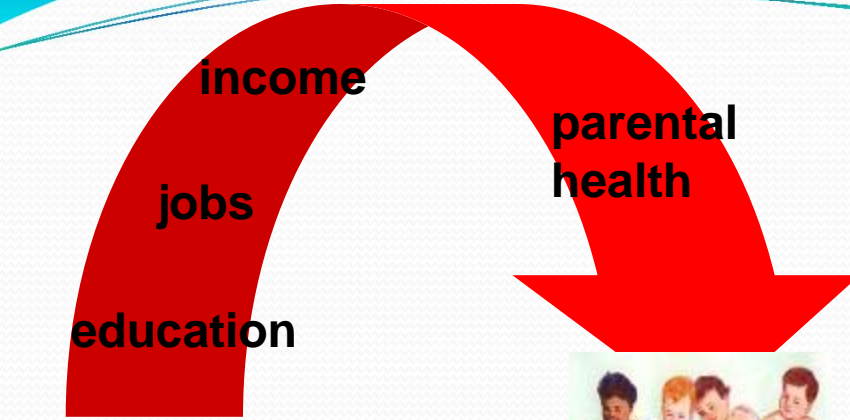
A Lifecourse Approach – The Basic Idea

- Many illnesses, like heart disease, stroke and cancer, have natural histories that involve long latency periods.
- Thus, it is logical to assume that exposures earlier in life have a role to play in the development of diseases (Barker's Hypothesis).
- Adopting a lifecourse perspective, means trying to assess the role of “early-life”, “life-long”, and perhaps “generational” exposures – be they biological, psychological, behavioural or socioeconomic – and then trying to understand how they interact and accumulate over the lifetimes of individuals and populations to eventually manifest as disease (Weathering Hypothesis).

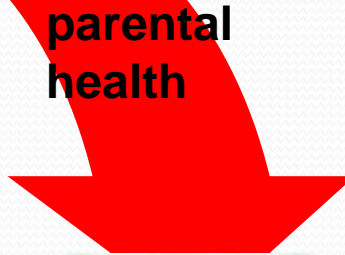
neighborhood

The Lifecourse and Health Inequalities

- Time – individual lifecourse (Generational)
- Cohort specific effects (AA's, the poor)
- Place specific effects
- Across Domains



Childhood Conditions



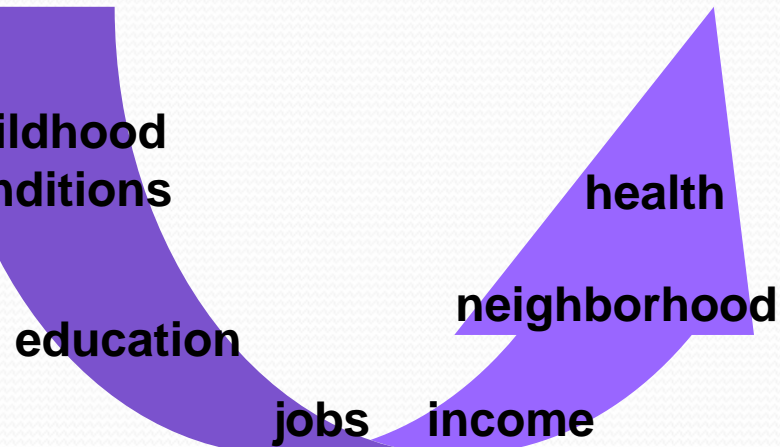
Inequalities in birth outcome infant health

Prevailing Social Policies & Circumstances



Childhood conditions

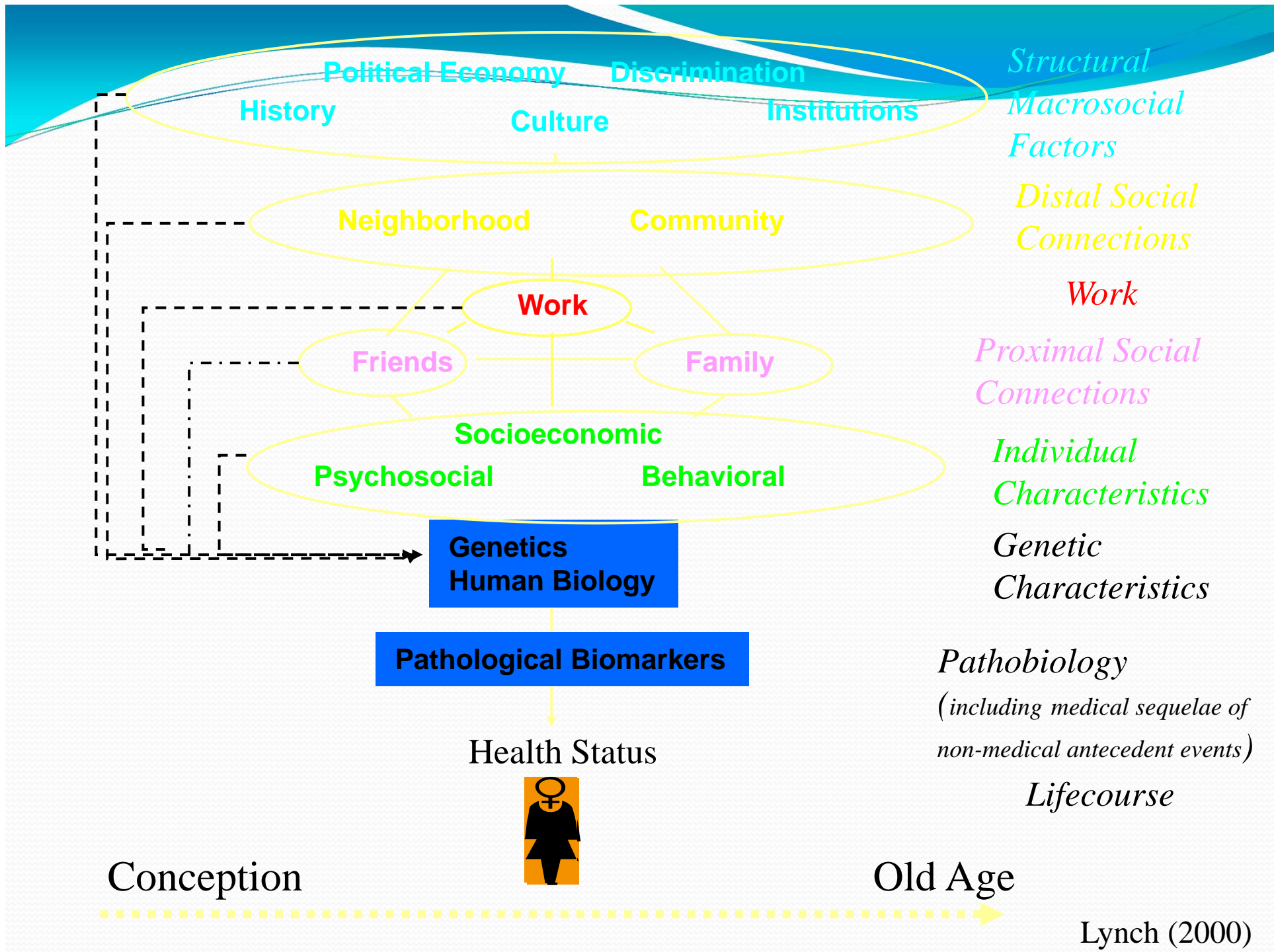
Inequalities in adult health



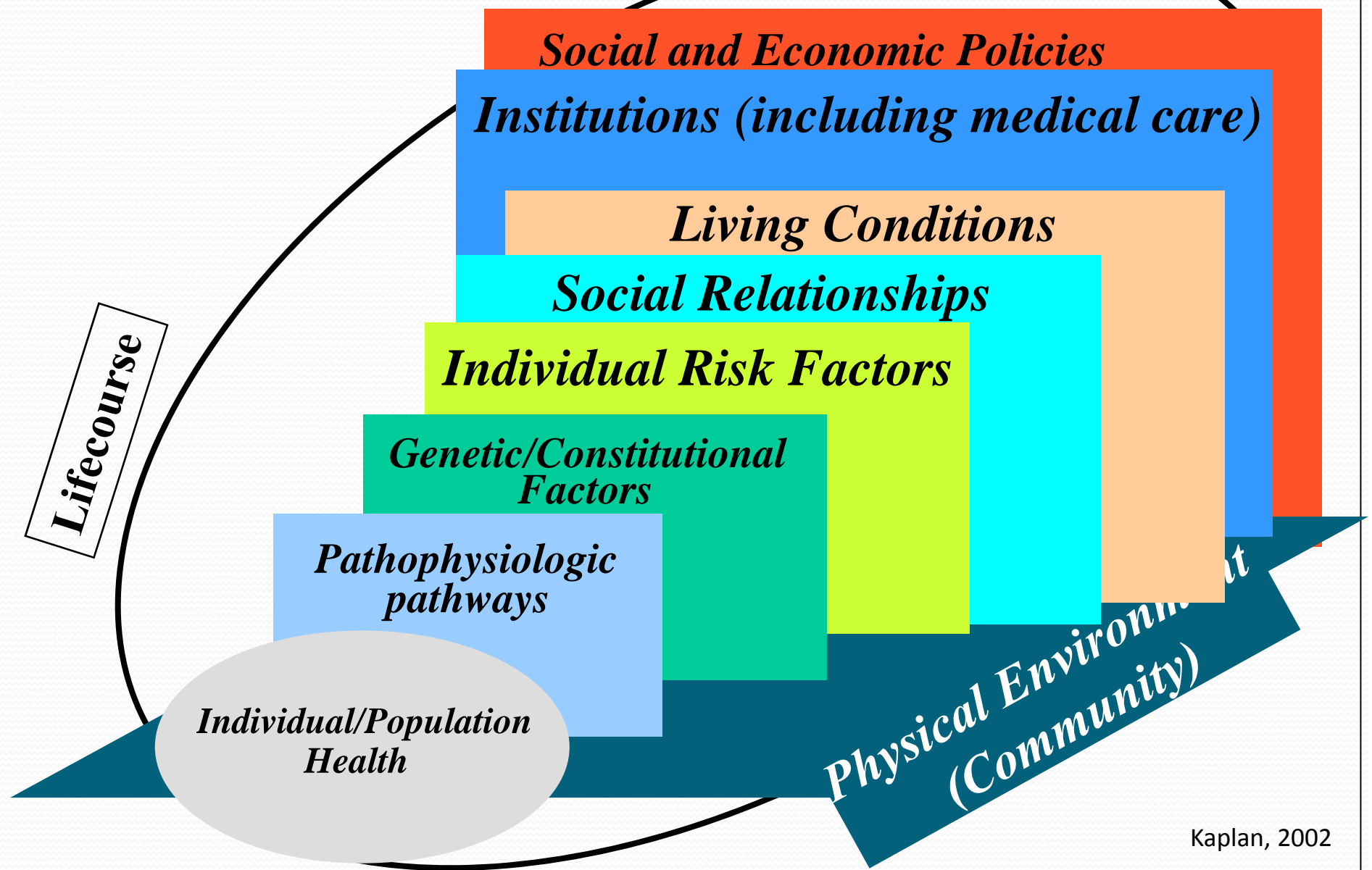
health

neighborhood

jobs income



Determinants of Population Health and Health Inequalities





Social Determinants of Health

- Conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.



Social Determinants of Health

- Resources that enhance quality of life can have a significant influence on population health outcomes.
- Examples
 - safe and affordable housing
 - access to education
 - public safety
 - availability of healthy foods
 - local emergency/health services



Examples of *social determinants* include:

- Availability of resources to meet daily needs (e.g., safe housing and local food markets)
- Access to educational, economic, and job opportunities
- Access to health care services
- Quality of education and job training
- Availability of community-based resources in support of community living and opportunities for recreational and leisure-time activities
- Transportation options
- Public safety
- Social support
- Social norms and attitudes (e.g., discrimination, racism, and distrust of government)
- Exposure to crime, violence, and social disorder (e.g., presence of trash and lack of cooperation in a community)
- Socioeconomic conditions (e.g., concentrated poverty and the stressful conditions that accompany it)
- Residential segregation
- Language/Literacy
- Access to mass media and emerging technologies (e.g., cell phones, the Internet, and social media)
- Culture

Healthy People 2020 “Place”-based organization





Social Determinants of Health

- Economic Stability
 - Poverty
 - Employment Status
 - Access to Employment
 - Housing Stability (e.g., homelessness, foreclosure)
- Education
 - High School Graduation Rates
 - School Policies that Support Health Promotion
 - School Environments that are Safe and Conducive to Learning
 - Enrollment in Higher Education
- Social and Community Context
 - Family Structure
 - Social Cohesion
 - Perceptions of Discrimination and Equity
 - Civic Participation
 - Incarceration/Institutionalization
- Health and Health Care
 - Access to Health services—including clinical and preventive care
 - Access to Primary Care—including community-based health promotion and wellness programs
 - Health Technology
- Neighborhood and Build Environment
 - Quality of Housing
 - Crime and Violence
 - Environmental Conditions
 - Access to Healthy Foods

Infant Mortality:

Premature Births

Congenital Anomalies

SUID

Maternal pregnancy Complications

Placental or cord anomalies

Social Determinants of Health/Lifecourse

Social Determinants of Health/Lifecourse:

Weathering

Racism

Housing

Incarceration rates

Fatherless households

Neighborhoods

Unemployment

Hopelessness

Poverty

No Insurance

Stress

“Medical baggage”

Limited Access
to Care

Smoking

Substance Use

Under-
Education

Lower graduation rates

Family Support

Poor Working Conditions

Teen Births

Nutrition



Infant Mortality

- Broad-based approach is important
 - Not just a medical issue
 - Not just a pregnancy/prenatal issue
 - Not just a women's issue
- Understanding of Life Course Perspective & Social Determinants can help guide decisions to positively impact this community health condition