

## Life Course Perspective: A Context for Practice and A Call to Action

**State of Champions**  
Alabama's Campaign for Healthier Babies

RSA Activity Center  
Montgomery, Alabama  
Friday, January 10, 2014

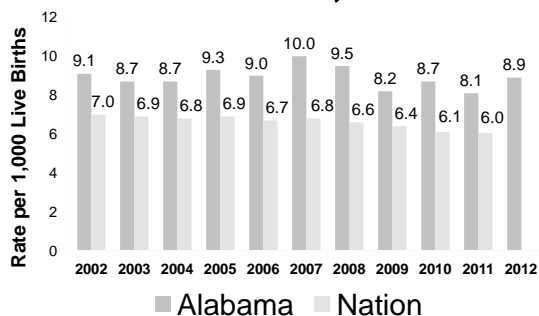
## Life Course Perspective: A Context for Practice and A Call to Action

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School of Public Health  
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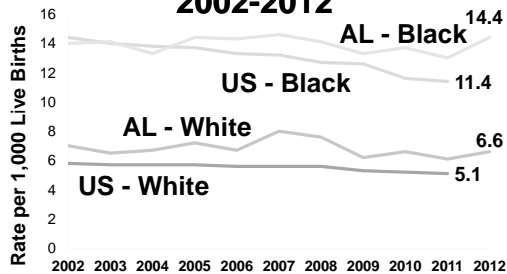
### My Lens

- Population-based public health
- All levels of prevention
  - Primary
  - Secondary
  - Tertiary
- Maternal and child health systems

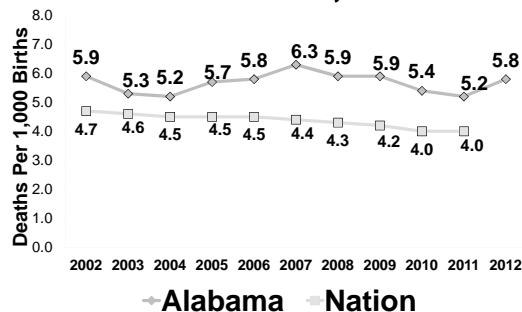
### Infant Mortality Rates (IMR) Alabama vs. Nation, 2002-2012



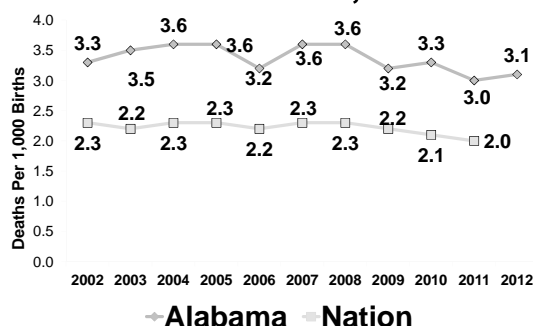
### Infant Mortality Rates by Race Alabama vs. Nation, 2002-2012



### Neonatal Mortality Alabama vs. Nation, 2002-2012



### Post-neonatal Mortality Alabama vs. Nation, 2002-2012



### Looking at Infant Mortality: Goals of This Presentation

- To introduce and highlight some basic concepts of Life Course Perspective
- To illustrate the need for a systems-based or life course approach to health, specifically for infant mortality and related causes / issues

### Slides and Ideas Adapted from:

- Jeff Brosco
- Amy Fine
- Cheri Pies
- Milton Kotelchuck
- Karen Edwards
- Michael Lu
- Neal Halfon
- Bonnie Spear
- Paula Braveman
- Paul Wise
- Johns Hopkins School of Public Health

### What is Life Course?

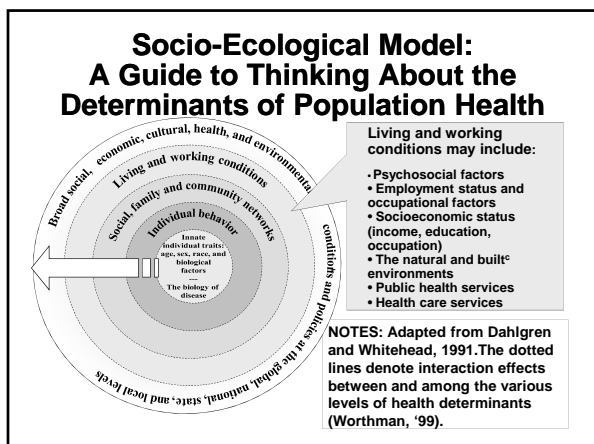
- Life Course is a perspective that seeks to understand, explain, and improve health and disease patterns across population groups (Amy Fine)
- Life Course suggests that a complex interplay of biological, behavioral, psychological and social protective and risk factors contribute to health outcomes across the span of a person's life (Cheri Pies)

### What is Life Course?

- A Life Course approach recognizes the role of time in shaping health outcomes and incorporates time into models explaining health outcomes

### Is Life Course Old or New?

- Life Course marries long-term MCH concepts with new science
- Barker Hypothesis
- Felitti's ACE Study
- Neurons to Neighborhoods, NAS
- Lu/Halfon
- Epi-genetics

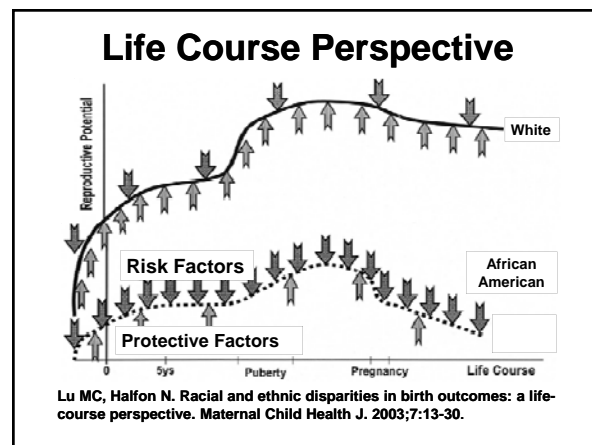


### Life Course Concepts 'T2E2'

- **Timeline** – health is cumulative and longitudinal
  - Developed over a lifetime
- **Timing** - health and health trajectories are particularly affected during critical / sensitive periods

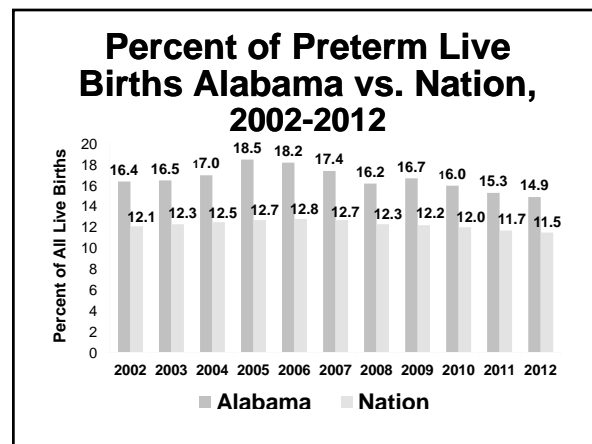
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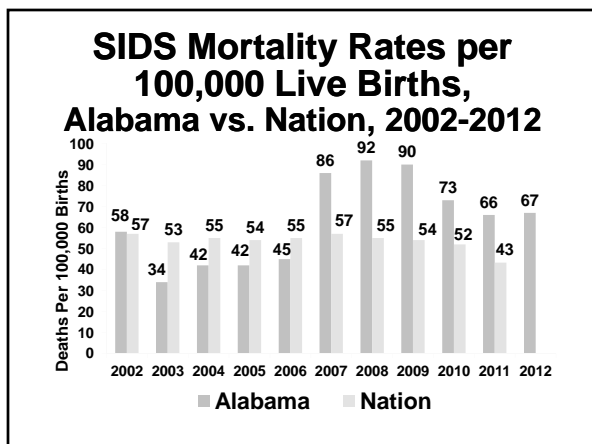
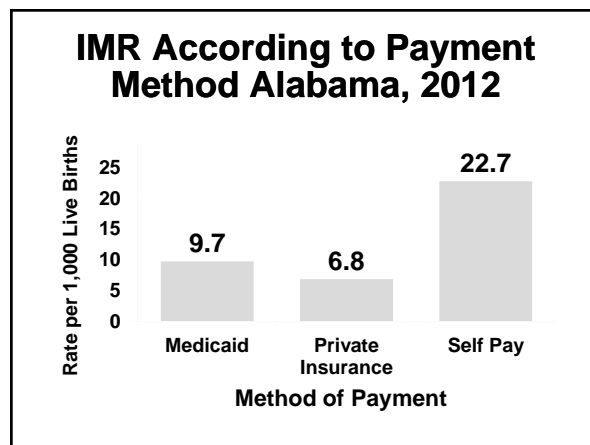
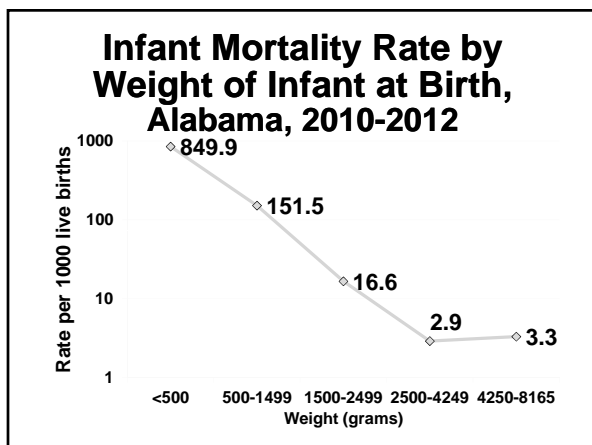
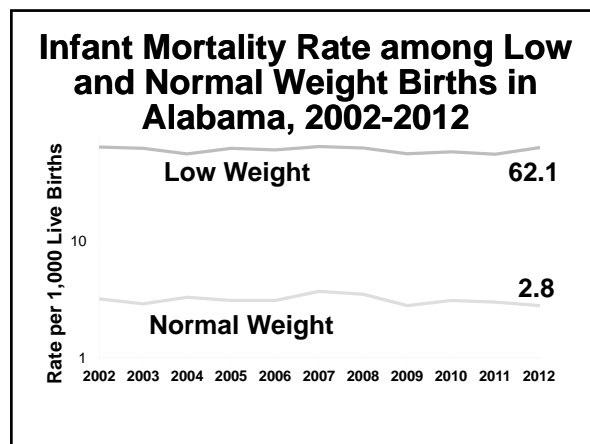
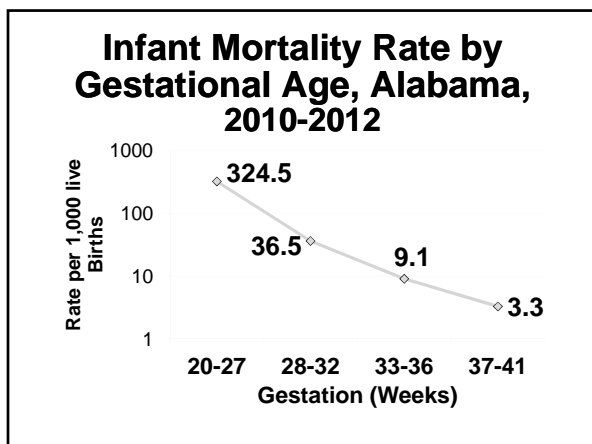
- **Environment** – the broader environment (biologic, social, physical, economic) affects health and development
- **Equity** – health inequality reflects more than genetics and personal choice
  - Fine and Kotelchuck, 2010



### Risk and Protective Factors

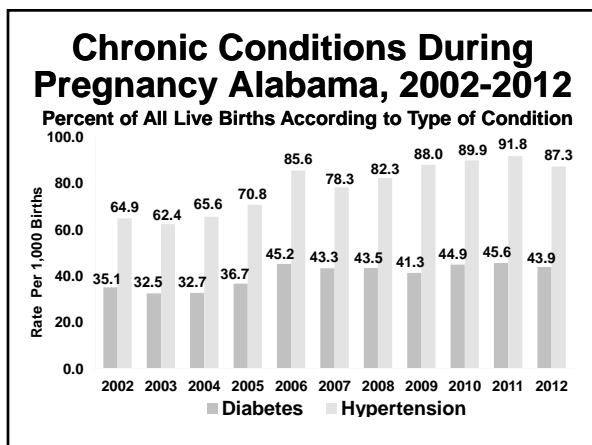
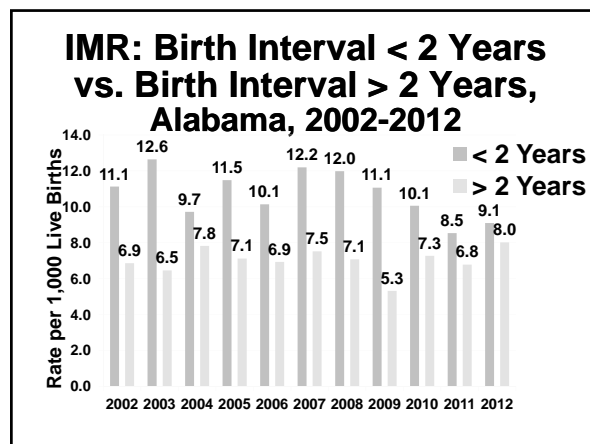
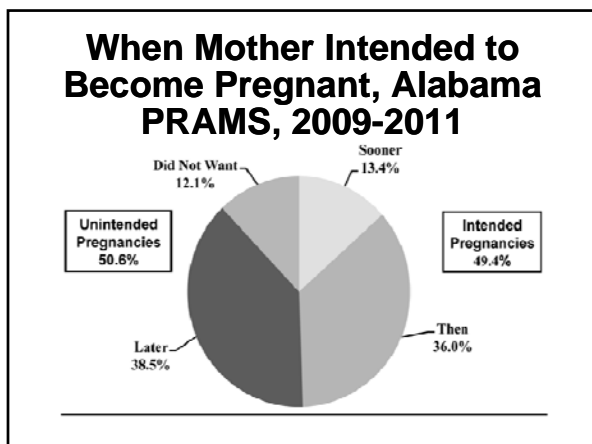
- **Protective factors** improve health and contribute to healthy development
- **Risk factors** diminish health and make it more difficult to reach one's full potential
- In addition to individual behavior or access to health, factors can include family, neighborhood, community and social policy





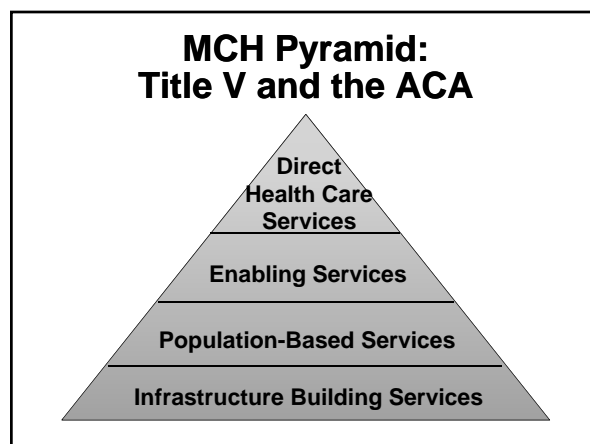
### Long Acting Reversible Contraceptive (LARC) Usage, Alabama, 2009-2012

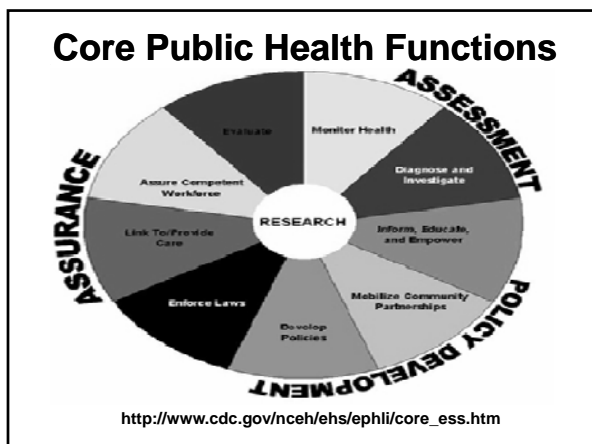
- 240,158 total live births
- 17,570 LARCS inserted
- 7.3% of the mothers had LARCs inserted



- ### Areas To Consider
- Socio - economic status
    - Poverty, education, social support
  - Pre - pregnancy planning
    - Sexually transmitted infections (STIs), preconception care, pregnancy spacing

- ### Areas To Consider
- Substance abuse
    - Smoking, alcohol use during pregnancy
  - Maternal risk factors
    - Nutrition, overweight / obesity, diabetes, hypertension
  - Mental health



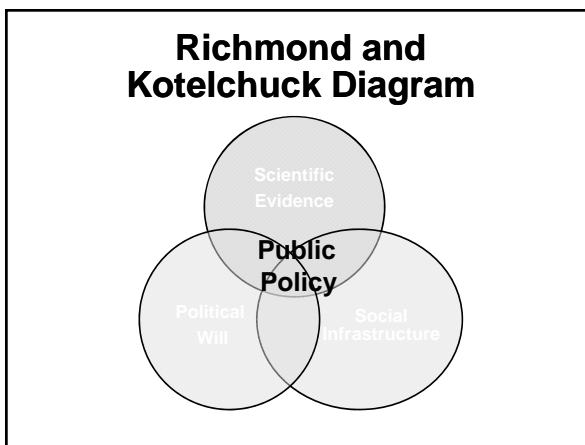


### Distinctions Between Title V and The ACA

- Title V allows for a systems approach (Life Course) to issues, addressing the continuum of needs for the population
- ACA provides some mechanisms for systems (home visiting), but largely it focuses on access / insurance issues

### Life Course: Putting It Into Practice

- So, we talk about Life Course as a perspective, framework, theory, but how does it really work in the real world?
- What do we need to make it happen?



### How Do We Know This Approach Is Working?

- Short - term outcomes
  - Program specific outcomes
- Long - term outcomes
  - Reduction of infant mortality and related causes
- Beyond “snapshots”
  - Data system and accountability

### So . . .

- The Life Course perspective allows us to get beyond the usual suspects related to infant mortality reduction
- There is a need for a focus on community health and greater public awareness across all spectrums of the population
- There is no quick fix to this issue

***“It’s the greatest poverty to decide  
that a child must die so that  
you may live as you wish”***

**– Mother Teresa**

***“The world is a dangerous place,  
not because of those who do evil,  
but because of those who look on  
and do nothing”***

**– Albert Einstein**

## **Resources and References**

### **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**

**<http://mchb.hrsa.gov/lifecourseresources.htm>**

### **A Critical Approach to Life Course**

- **Confronting Social Disparities in Child Health: A Critical Approach of Life Course Science and Research**

**Pediatrics 2009; 124;S203-S211, Paul Wise, MD, MPH**

**DOI: 10.1542/peds2009-1100H**

**[www.pediatrics.org/cgi/content/full/124/Supplement\\_3/S203](http://www.pediatrics.org/cgi/content/full/124/Supplement_3/S203)**

### **Maternal and Child Health Life Course Research Network**

**In October 2010, the Center for Healthier Children, Families and Communities was awarded a three-year grant from the federal Maternal and Child Health Bureau (MCHB) to develop a Maternal and Child Health Life Course Research Network (MCH LCRN). This exciting new project represents a unique opportunity to improve our understanding of how health develops over the life course by providing researchers, practitioners, policymakers and consumers with a transdisciplinary, translational and transformative mechanism for interacting, sharing information and tools, and engaging in collaborative and innovative projects.**

**– [www.LCRN.net](http://www.LCRN.net)**

### **MCHB Resource Guide**

- **This site provides a number of key resources in the hopes that MCH Training Programs will partner with MCHB in exploring the implications of Life Course perspectives to improve the health and well-being of all women, children, youth and families now, and over future generations**

**<http://mchb.hrsa.gov/lifecourseresources.htm>**

### **Top 5 Scientific Articles on Life Course**

- Hertzman C, Boyce T. How experience gets under the skin to create gradients in developmental health. *Annu Rev Public Health*, 2010;31:329-347.
- Power C, Hertzman C. Social and biological pathways linking early life and adult disease. *British Medical Bulletin* 1997;53(No 1):210-221.

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- Gluckman PD, Hanson MA, Cooper C, Thornburg KL. Effect of in utero and early-life conditions on adult health and disease. *N Engl J Med* 2008; 3;359(1):61-73.
- Kuh D, Ben-Shlomo Y, Lynch J, Hallqvist J, Power C. Life course epidemiology. *J Epidemiol Community Health* 2003;57:778-783.

### **Top 5 Scientific Articles on Life Course**

- Ben-Shlomo Y, Kuh D. A life course approach to chronic disease epidemiology: conceptual models, empirical challenges and interdisciplinary perspectives. *International Journal of Epidemiology* 2002;31:285-293.