Implications for Policy, Research and Practice on Paternal Involvement in Pregnancy Outcomes

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Health Policy Institute

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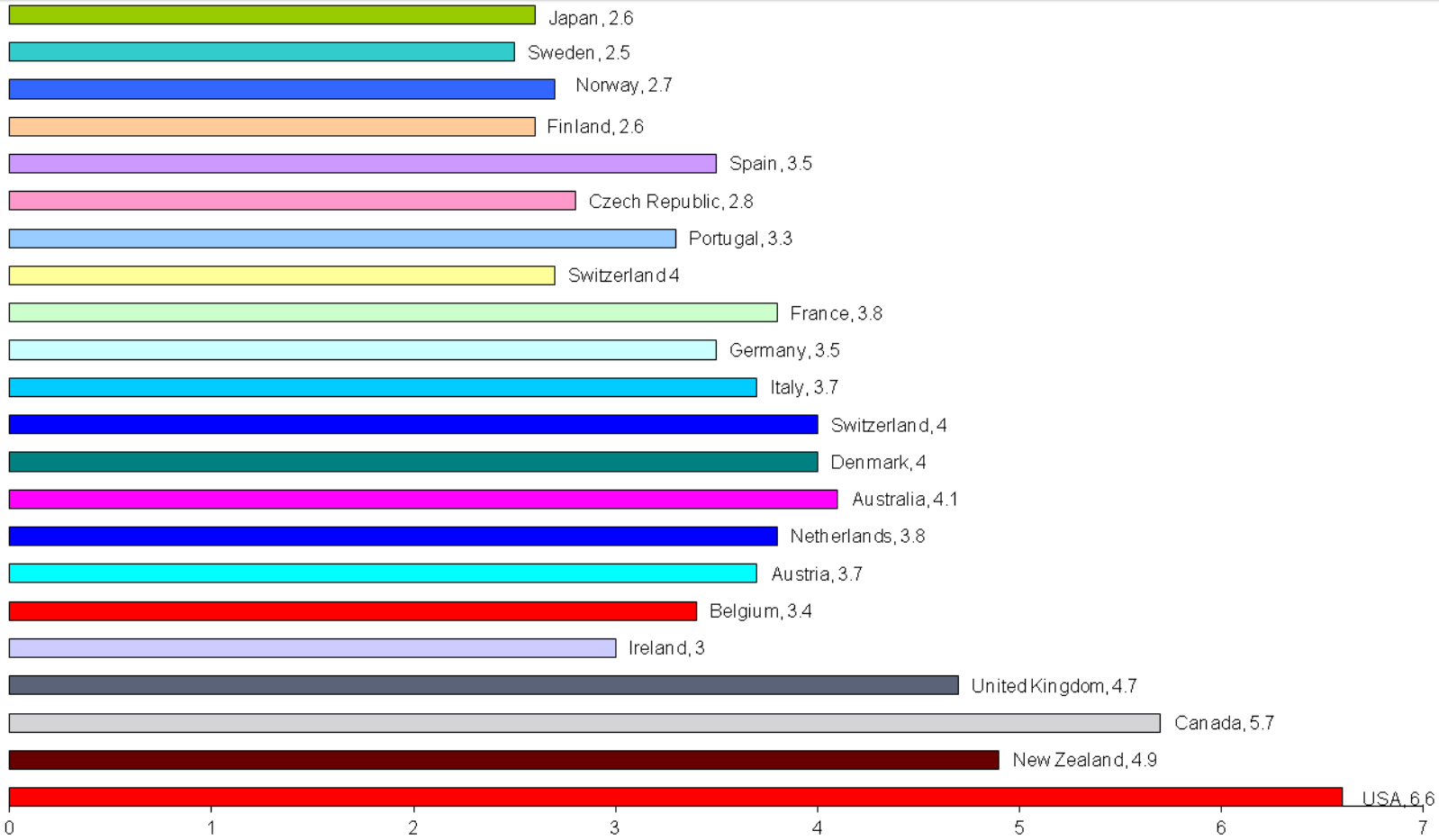
Objectives

- Review racial and ethnic disparities in pregnancy outcomes
- Describe historical and contemporary aspects of paternal involvement
- Identify pathways and recommendations to improve paternal involvement in pregnancy outcomes

The Problem

Infant mortality (IM) has been identified as a key indicator of the health of a nation. Currently the U.S. ranks 31st among developed countries in IM. The Healthy People 2010 target goal for the U.S. infant mortality rate is 4.5 infant deaths per 1,000 live births. The current U.S. rate is about 50% higher than the goal.

Infant Mortality



Source: Adapted from Organization for Economic Corporation and Development, OECD Health Data 2010. http://www.oecd.org/dataoecd/4/36/46796773.pdf. U.S. 2008 data from Ariadi M. Minino, et al., *National Vital Statics Reports: Deaths: Final Data for 2008, National Center for Health Statistics, Vol. 59, No. 10, Hyattsville, MD,* December 7, 2011.

Infant Mortality - causes and risk factors

Major Causes

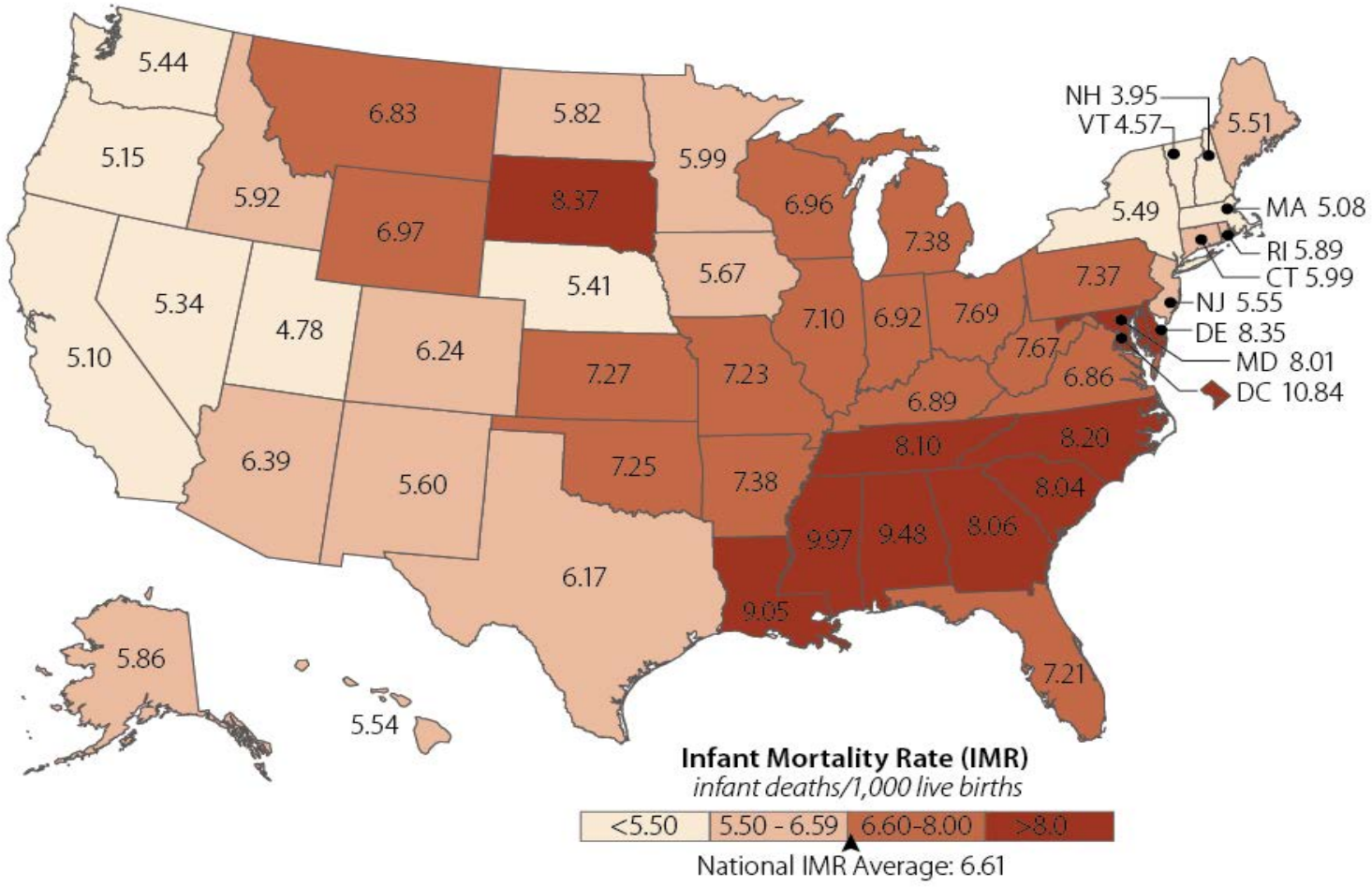
- low birth weight

  (LBW) (<2500g)
- very low birth weight (VLBW) (<1500g)
- preterm birth (< 37wks)

Risk Factors

- marital status
- maternal age
- stress
- SES (income, education, employment, housing)
- prenatal care utilization
- smoking and alcohol consumption

U.S. IMR (Infant Deaths/1,000 Live Births), by State, 2008



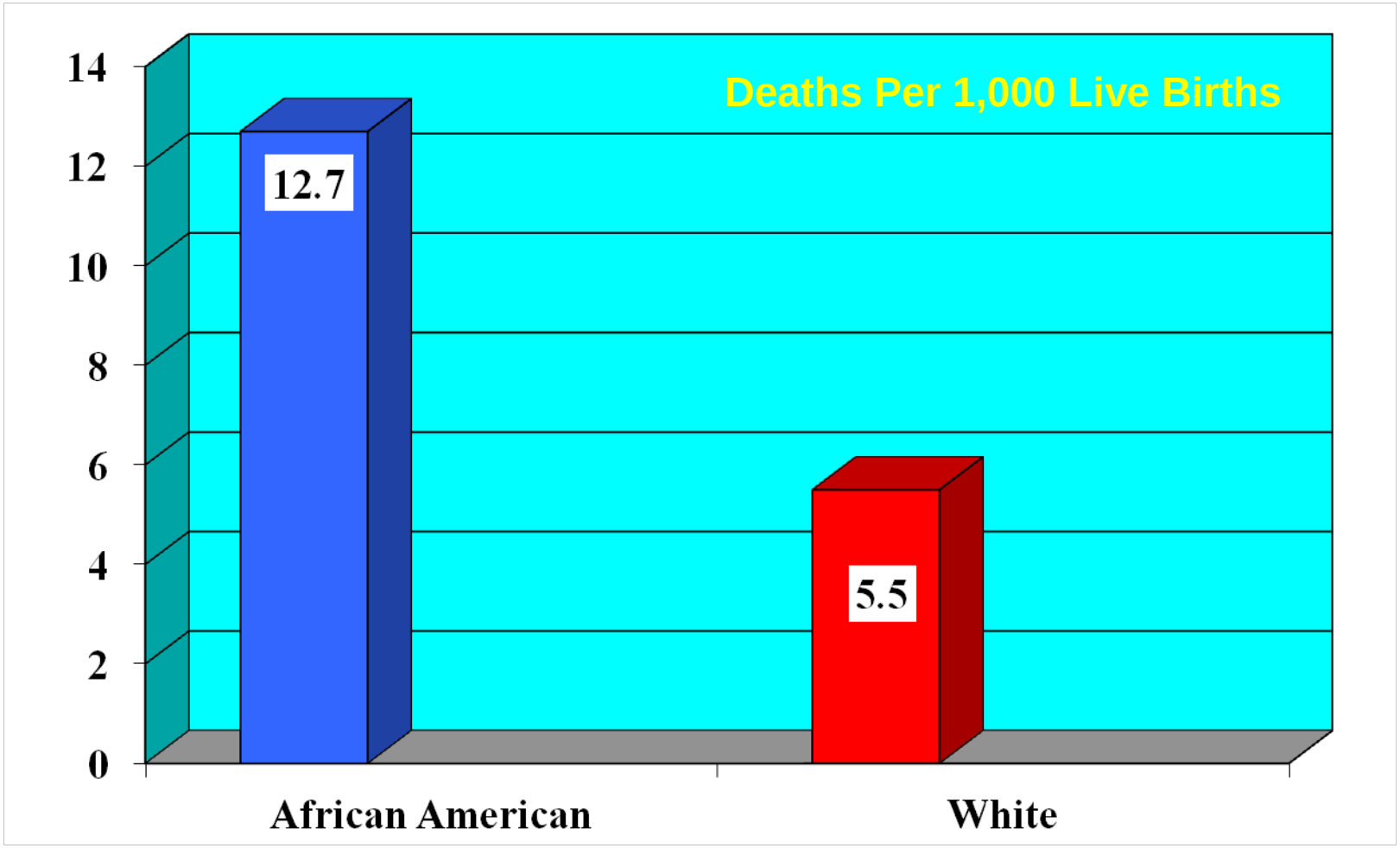
Source: Adapted by CRS from Ariadi M. Minino, et al., *National Vital Statics Reports: Deaths: Final Data for 2008,* National Center for Health Statistics, Vol. 59, No. 10, Hyattsville, MD, December 7, 2011.

Racial/Ethnic Disparities in Pregnancy Outcomes

- Twofold increase in low birth weight (LBW) (<2500g) and preterm births (< 37wks) and near threefold increase in very low birth weight (VLBW) (<1500g) among AA infants
- Although outcomes have improved an AA infant born today is still more than twice as likely to die within the first year of life as a WA infant

Racial & Ethnic Disparities

Infant Mortality, 2008



NCHS 2008

march of dimes

2008 Premature Birth Report Card

United States
Preterm Birth Rate: **12.7%**
Grade: **D***

The United States' preterm birth rate is more than 60% higher than the Healthy People 2010 objective of 7.6% and increased by more than 15% between 1995 and 2005. Disparities exist among population subgroups. While research continues on the causes of preterm birth, some contributing factors and prevention opportunities can be addressed. Three of these are below.

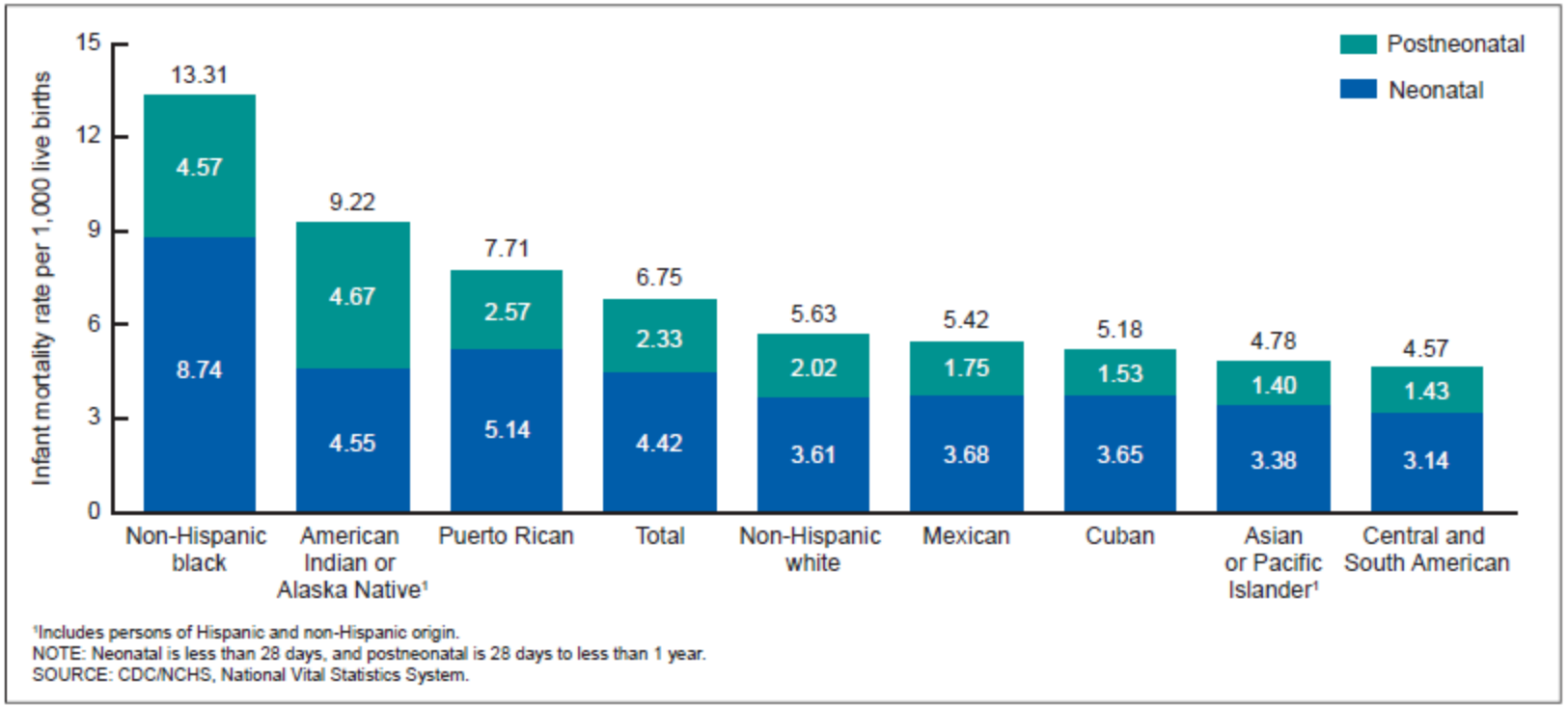
Selected Contributing Factors	Rate (%)	Comments
Uninsured Women	**20.1%**	About 1 in 5 women of childbearing age has no health insurance coverage. Health care access before and during pregnancy can help identify and manage conditions that contribute to premature birth.
Women Smoking	**21.2%**	About 1 in 5 women of childbearing age is a smoker. Smoking cessation programs can reduce the risk of premature birth.
Late Preterm Births	**9.1%**	About 1 in 11 live births is late preterm (34-36 weeks gestation). The rise in late preterm births has been linked to rising rates of early induction of labor and c-sections.

March of Dimes Call for Action

1. We urge the federal government to increase support for prematurity-related research and data collection as recommended by the Institute of Medicine and the Surgeon General's Conference on the Prevention of Preterm Birth, to: (a) identify the causes of premature birth; (b) test strategies for prevention; (c) improve the care, treatment and outcomes of preterm infants; and (d) better define and track the problem of premature birth.
2. We urge federal and state policymakers to expand access to health coverage for women of childbearing age and to support smoking cessation programs as part of maternity care.
3. We call on hospitals and health care professionals to voluntarily assess c-sections and inductions which occur prior to 39 weeks gestation to ensure consistency with professional guidelines.
4. We call on the business community to create workplaces that support maternal and infant health.
5. We invite all concerned citizens to sign the 2008 "Petition for Preemies" at marchofdimes.com/petition and learn how you can help.

* Grade based solely on preterm birth rate, not on rates of contributing factors.

Infant, neonatal, and postneonatal mortality rates, by race and Hispanic origin of mother; US, 2007



[1]Includes persons of Hispanic and non-Hispanic origin.
NOTE: Neonatal is less than 28 days, and postneonatal is 28 days to less than 1 year.
SOURCE: CDC/NCHS, National Vital Statistics System.

Unnatural Causes:
Is Inequality Making Us Sick?

A four-hour documentary series &
Public Education Campaign

Produced by California Newsreel with Vital Pictures
Presented by the National Minority Consortia of Public Television
Campaign in association with the Health Policy Institute

Explaining Racial/Ethnic Disparities in Pregnancy Outcomes

- Numerous investigators have theorized…however the cause of this racial/ethnic disparity remains largely unknown
- Unnatural Causes: Is Inequality Making Us Sick?

  A seven-part documentary series explaining racial and economic inequalities in health
- http://www.unnaturalcauses.org/

Why be Concerned with Paternal Involvement?

- 45 Years ago the United States became the world's leader in fatherless families
- Mother-only households grew from 7.7% in 1960 to 21.6% in 1990
- In 2000 - 25% of America's children lived in mother-only families
- Of these mother-only households, the percentage of mothers who had never been married increased from 3.9% in 1960 to 31.5% in 1990
- In 2003 - 34.6% of all births were to unmarried women up from 18.4% in 1980

Fatherlessness is our nation's most pressing social problem.

—David Blankenhorn *Fatherless America*

Historical aspects

- Rise in non-paternal care for children
- Increase in non-marital childbearing
- Cohabitation
- Women's increasing labor force participation
- Welfare policies
- The legacy of slavery
- Declining employment for Black men

Contemporary aspects

What we do know

- Paternal involvement has received increasing attention, but our current knowledge of father involvement has been informed largely by mothers' reports (Coley & Morris 2002)
- Fathers' prenatal involvement may determine later engagement (Grossman & Volker1984) and presence (Shannon, Cabrera, Tamis-LeMonda, & Lamb 2003)
- Men experience significant pre-, peri-, and postnatal changes in each of the three hormones –prolactin, cortisol, and testosterone (Storey et al. 2000)
- Marital status is an important predictor of birth outcomes (Starfield et al.1992; Jones and Bond1999; Padilla and Reichman 2001)
- Paternal age recently identified as an independent risk factor for LBW in the US (Reichman and Teitler 2006)

Contemporary aspects

What we don't know

- What aspects of paternal involvement leads to better outcomes?
- What theories best explain paternal involvement in pregnancy outcomes?
- Why disparities in pregnancy outcomes still exist among racial/ethnic groups?
- Why men don't get pregnant?

the real reason men don't get pregnant

Paternal Involvement-what is it and how is it measured?

Researchers have disagreed about what it means to be an 'involved father'

- Lamb et al.'s (1987) three dimensions of father involvement:
  - Accessibility - a father's availability to the child
  - Responsibility - a father's meeting of his child's needs, including economic resources
  - Engagement – a father's experience of direct contact, care giving, and shared interactions with his child

Pathways to improve paternal involvement in pregnancy outcomes

The Commission on Paternal Involvement in Pregnancy Outcomes (CPIPO)

Assembled in 2009, by the Joint Center for Political and Economic Studies, Health Policy Institute with funding from the Office of Minority Health in the Department of Health and Human Services.

CPIPO's Purpose

To improve paternal involvement in pregnancy and family health by reframing debates and informing research, policy and practice to support greater involvement of expectant fathers in pregnancy.

Definition of Paternal Involvement in Pregnancy Outcomes

Activities or practices by the male partner and a couple anticipating birth that ideally lead to an optimal pregnancy outcome. Those activities may include the three dimensions described by Lamb and others but unique to the preconception and perinatal period.

Implications for Research, Policy and Practice

"There is a great need to develop evidence-based strategies to improve paternal involvement (PI) before, during, and between pregnancies, particularly in communities where PI has traditionally been low and pregnancy outcomes have been poor."

Michael Lu, MD, MPH

Recommendations to improve paternal involvement in pregnancy outcomes

The Commission on Paternal Involvement in Pregnancy Outcomes Presents:

COMMISSION OUTLOOK: BEST AND PROMISING PRACTICES FOR IMPROVING RESEARCH, POLICY AND PRACTICE ON PATERNAL INVOLVEMENT IN PREGNANCY OUTCOMES

JOINT CENTER FOR POLITICAL AND ECONOMIC STUDIES

Research Recommendations

Research Recommendations

- The National Institutes of Health (NIH) and other relevant agencies should expand current efforts in, and support for, research on PIPO, especially in communities with marked disparities in health and healthcare

Research Recommendations

- Funding should be made available to develop a network of trans-disciplinary research centers of excellence in PIPO

Research Recommendations

- Funding should be made available for researchers to identify effective clinical and population-based strategies for enhancing PIPO

Policy Recommendations

Policy Recommendations

Remove disincentives and barriers
Increase incentives and supports

Policy Recommendations

- Amend Family and Medical Leave Act (FMLA) to include paid parental (maternity and paternity) leave

Policy Recommendations

Reduce the "marriage penalty" in the Earned Income Tax Credit (EITC) to allow deductions on the second earner's income

Eliminate the distinction between single-parent and two-parent families in determining Temporary Assistance for Needy Families (TANF) eligibility

Policy Recommendations

Increase TANF funds to support fatherhood initiatives

Mandate that Healthy Start, Early Head Start, Head Start and other public programs serving children and families develop more "father-friendly" practices and programs

Practice Recommendations

Practice Recommendations

- Identify and disseminate best practices
- Before, during and beyond pregnancy

Practice Recommendations

- The Centers for Disease Control and Prevention (CDC), Title V and Title X programs, and other relevant agencies should convene an expert panel to develop clinical and population-based strategies for improving reproductive life planning, reproductive health education, and access to contraception services for young boys and men

Practice Recommendations

- CDC and other relevant agencies should convene an expert panel to develop a clinical care model and population-based strategies to improve preconception health and healthcare for men

Practice Recommendations

- Preconception care for men
  - Public awareness
  - Provider training
  - Insurance coverage

Practice Recommendations

- American College of Obstetrics and Gynecology (ACOG), Agency for Healthcare Research and Quality (AHRQ), Title V programs and other relevant organizations should develop and promote best practice models for improving paternal involvement in pregnancy and childbirth

Practice Recommendations

- The Joint Commission, American Hospital Association, and other healthcare organizations should promote more father-friendly hospital settings, practices, and policies

Practice Recommendations

- Health plans and healthcare organizations should aim to provide services that welcome and empower the expectant father, and develop education materials to help sustain PI after the newborn has been discharged from the hospital, including support for breastfeeding

"It is essential to provide expectant fathers with the necessary tools to improve their involvement not only during pregnancy, but before, between, and beyond pregnancies."

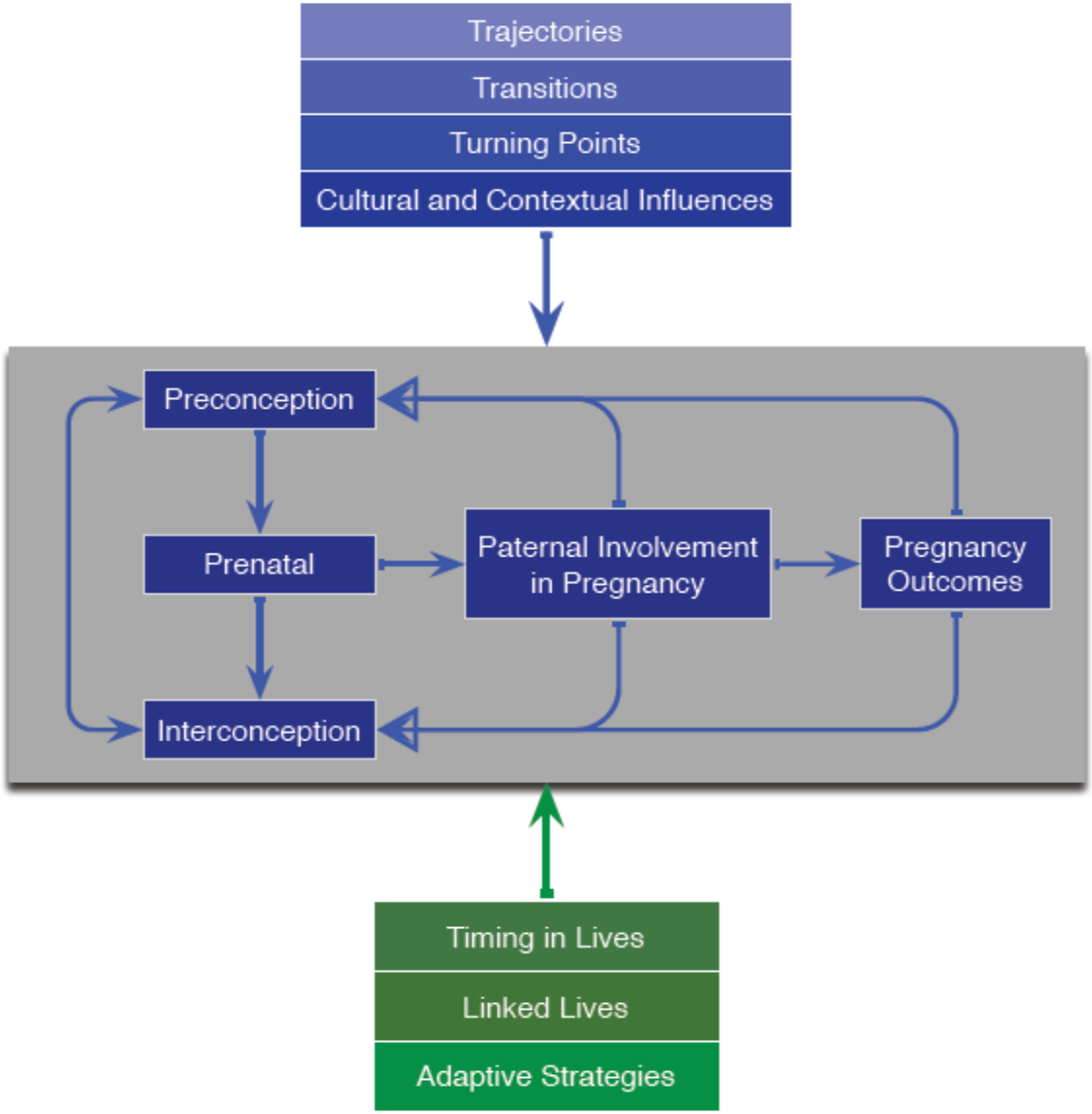
The Commission on Paternal Involvement in Pregnancy Outcomes

Approach

A 3-Phase model of care for men, expectant fathers and fathers

- Preconception
- Prenatal
- Interconception

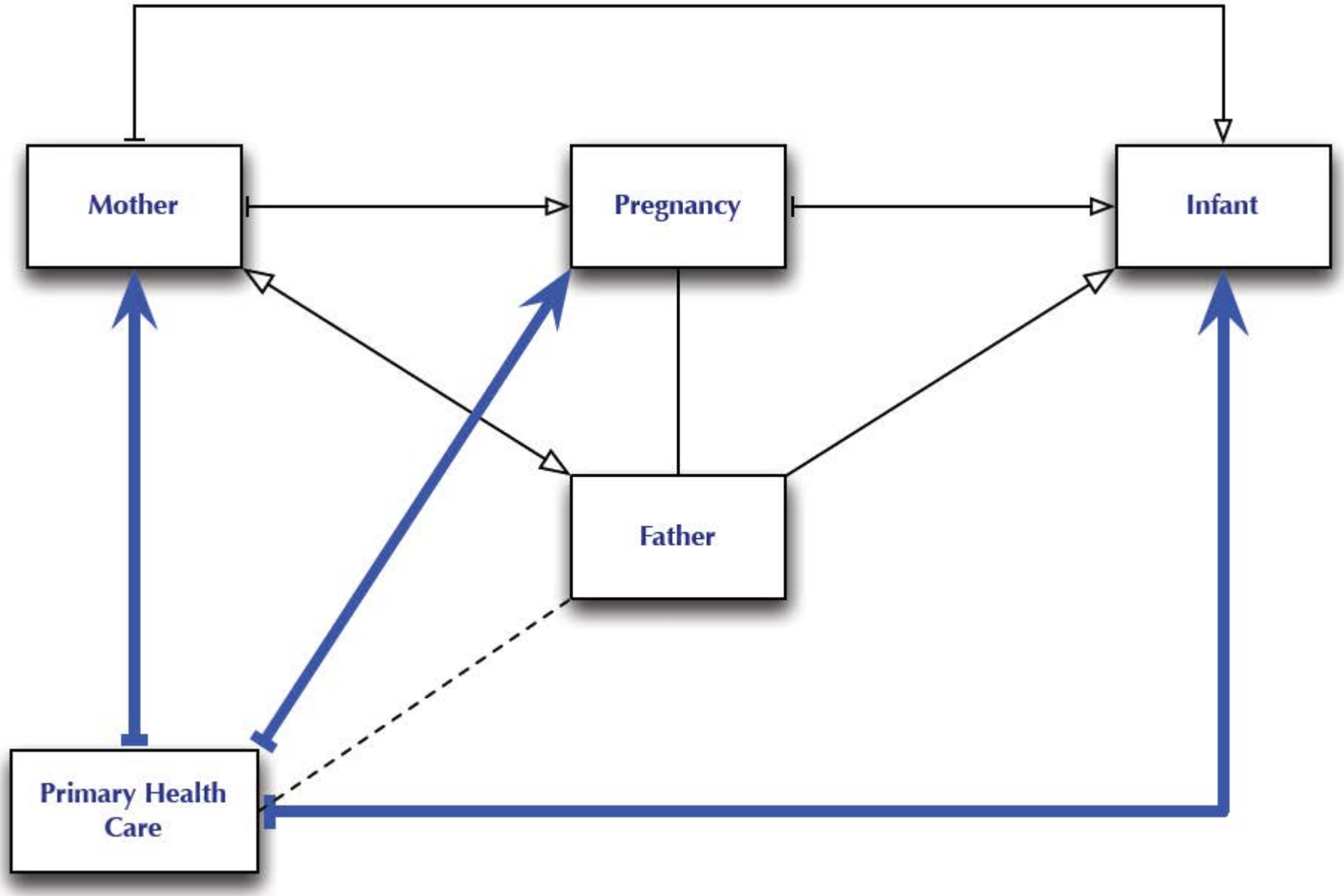
Conceptual Framework of Factors Influencing PI



Key Concepts and Definitions of the Life Course Perspective

Concept	Definition	Examples
Trajectories	Stable patterns of health behavior or health across time.	Alcohol, tobacco use, chronic disease.
Transitions	Changes in social roles or responsibilities.	Marriage, Divorce, birth of a first child, career change.
Turning Points	Transitions that are major changes in ongoing social role trajectories.	Educational decision that impacts career path.
Cultural & Contextual Influences	Events that shape and constrain the process of change or adaptation.	A recession, race, gender or neighborhood factors that affect childhood.
Timing in Lives	The interaction between age/stage of the life course and timing of an event or transition.	Age at the time of a major event; age at birth of first child.
Linked Lives	Dependencies of the development of one person on the presence, influence, or development of another.	Influence of spouse on the other's health behaviors.
Adaptive Strategies	Conscious decisions that people make to improve their health or well-being or social norms that frame the way in which decisions are made to adapt to external changes.	Changes in health behavior; individual coping strategies, such as taking action, denial, or avoidance.

Wethington 2005


Mother
Pregnancy
Infant
Father
Primary Health Care

The clinical content of preconception care: preconception care for men

Keith A. Frey, MD, MBA; Shannon M. Navarro, MPH; Milton Kotelchuck, PhD, MPH; Michael C. Lu, MD, MPH

Little attention has been given to men's preconception health and health care. This paper reviews the key elements of an approach to optimizing the preconception health status of men. Preconception care for men is important for improving family planning and pregnancy outcomes, enhancing the reproductive health and health behaviors of their female partners, and preparing men for fatherhood. Most importantly, preconception care offers an opportunity, similar to the opportunity it presents for women, for disease prevention and health promotion in men. Currently, no consensus exists on service delivery of preconception care for men—who should provide preconception care to whom, where, when, and how, and there are significant barriers to this care including the organization, financing, training, and demand. Finally, much more research on the content and how to effectively market and implement preconception care for men is needed.

Key words: father, health promotion, preconception, risk assessment

In 2005, the Centers for Disease Control and Prevention (CDC) and 35 partner organizations convened a national summit and issued a set of recommendations to promote preconception care in the US. While passing recognition was given to the importance of preconception health promotion "among both men and women," the focus was on women. To date, little attention has been given to men's preconception health and health care.

The belated recognition of men in our efforts parallels efforts to involve men in reproductive health initiatives internationally, which has only gradually recognized that men should be legitimate targets for sexual and reproductive health promotion, and that men should play direct, active, and constructive roles as part of a broader reproductive health agenda.[1] Several international initiatives have taken place with themes such as "Men as Partners in Reproductive Health."[2] In the US, there has been a steady increase in research and programs on men's health and family involvement, but these have not heretofore been conceptualized in a preconception health context. We believe that there are several distinct reasons why preconception care for men is important.

First, as with women, improving men's preconception health is critical for ensuring that all pregnancies are planned and wanted. Men are critical partners in family planning, and until the advent of modern assisted reproductive technologies (ART), necessary partners. The CDC's first Preconception Care recommendation encourages all women, men, and couples to have a reproductive life plan.[3] Men's contribution to the family planning partnership means addressing the utilization, access, and efficacy of male fertility control, including barrier methods and hormonal agents; and not assuming that all reproductive responsibility (and biologic risk) is held by women. Although many assume men are not interested in or supportive of family planning and contraceptive usage, most recent research shows that this is untrue.[4] Men's preconception care should encourage men to positively influence their own and their partner's contraceptive decision making.

Second, improving men's preconception health can result in improved pregnancy outcomes by enhancing men's biologic and genetic contributions to the pregnancy conception. Sperm DNA can get damaged in many ways, including exposures to tobacco, alcohol, drugs (eg, anabolic steroids), caffeine, poor diet, radiation and chemotherapy, and testicular hyperthermia. Medical conditions such as diabetes mellitus, varicoceles, and epididymitis, if left untreated, can also reduce sperm count and quality. A growing number of xenobiotics, including 1,2-dibromo-3-chloropropane, nonylphenol, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), dioxins, phthlates and acrylamide, have been shown to cause oxidative stress and DNA damage to the sperm. Such damage usually results in infertility, subfertility, or spontaneous abortions. However, pregnancy may still be possible despite some degree of DNA damage, and can result in birth defects and even childhood cancers. Because new sperm is made every 42-76 days, damaged sperm can be replaced within 3 months of mitigated exposures. Thus, preconception care offers a window of opportunity to improve sperm quality.

Third, preconception care for men can result in improved reproductive health biology for women. Preconception care for men offers an opportunity for

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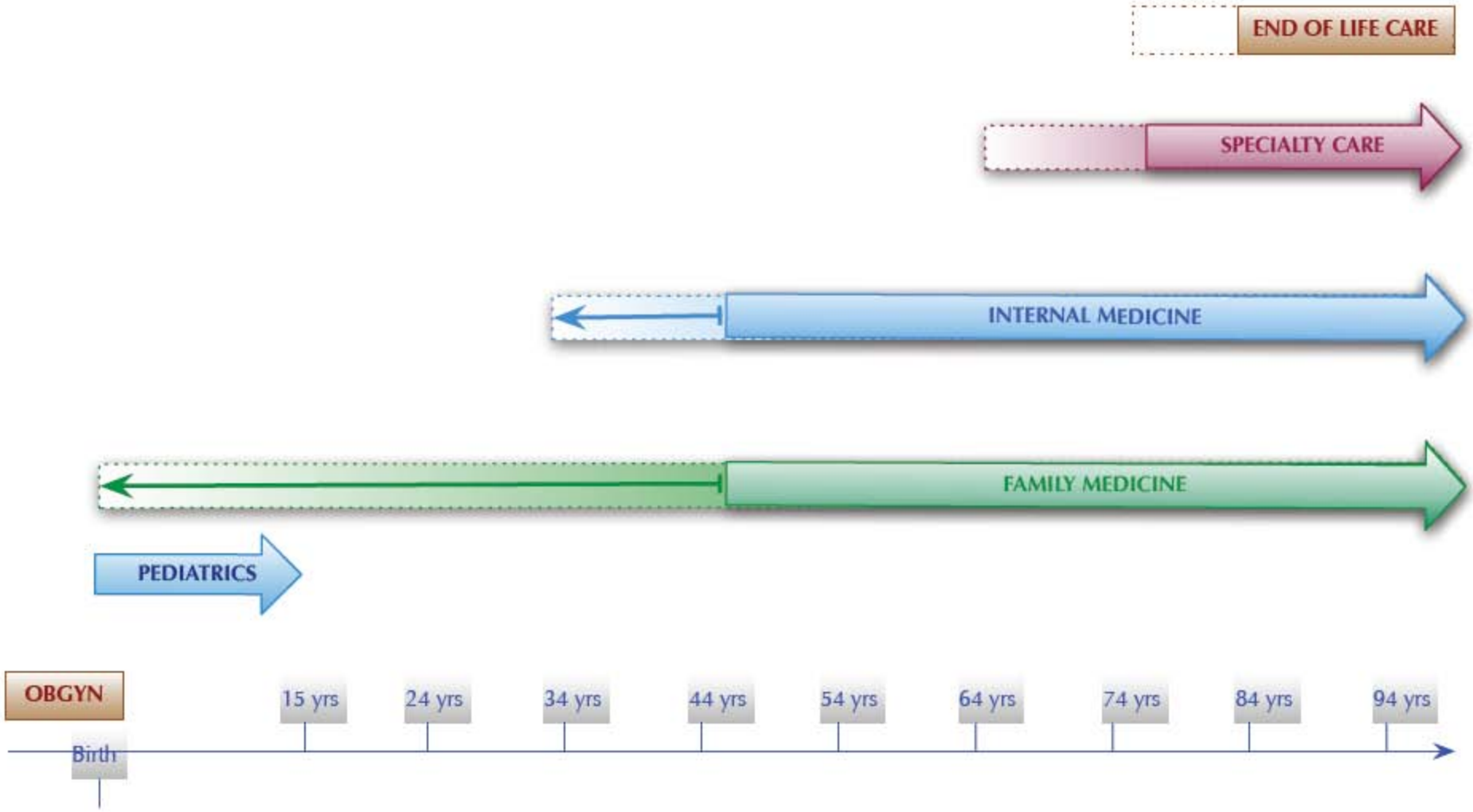
Basic Components of Preconception Care for Men

- Risk Assessment
- Health Promotion
- Clinical and Psychosocial Interventions


END OF LIFE CARE
SPECIALTY CARE
INTERNAL MEDICINE
FAMILY MEDICINE
PEDIATRICS
OBGYN
Birth
15 yrs
24 yrs
34 yrs
44 yrs
54 yrs
64 yrs
74 yrs
84 yrs
94 yrs

The primary task of every civilization is to teach young men how to be fathers.

Margaret Mead

THANK YOU!

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