Obstetrical care and birth outcomes: What's race/ ethnicity got to do with them?

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North Carolina Preterm Birth Prevention Symposium

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OBSTETRICS & GYNECOLOGY

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- No financial disclosures

A-ha moment

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VOLUME 261
NUMBER 58
50 cents

The Boston Globe
WEDNESDAY, FEBRUARY 27, 2002

ROOM DARKENING SHADES
TODAY: *Clouds, then rain by afternoon, 45-50*
TOMORROW: *Mostly sunny, brisk cooler, 33-38*
HIGH TIDE: *10:54 a.m., 11:28 p.m.*
FULL REPORT: PAGE B8

Infant mortality of blacks on rise

By Stephen Smith
GLOBE STAFF

Black babies born to Boston parents in 2000 died at a rate more than four times higher than white infants — a stark reversal after years of progress in the effort to bridge the black-white health care divide.

Although overall infant mortality in Massachusetts has reached a new low, figures released yesterday by public health officials show that black infants in the city died at a rate of 13.6 per 1,000 births — higher than any year since 1993.

White babies, by comparison, had a mortality rate of 2.8 per 1,000 births. Statewide figures show a similar gap.

Health authorities yesterday were so alarmed that they vowed to examine every infant death in detail, hunting for causes and solutions.

"I'm deeply troubled," said Barbara Ferrer, deputy director of the Boston Public Health Commission. "Even with the decline in infant mortality overall, for us in Boston this is not a good news day."

CLOSING IN ON THE RED SOX

House closes loophole on clergy abuse

Churches back a compromise on reporting

By Michael Paulson
GLOBE STAFF
and Chris Tangney
GLOBE CORRESPONDENT

The Massachusetts House unanimously approved legislation yesterday that would require clergy and church employees to report suspected cases of sexual abuse to the state, closing what critics said were broad loopholes in a measure previously approved by the Senate.

The legislation, which is being rushed through the Legislature in the midst of public outcry over the Catholic Church's handling of pedophile priests, protects the confidentiality of allegations made during confession, but eliminates a proposed exemption for more general spiritual conversations.

Senate leaders said they would make Massachusetts the state to require that clergy re to authorities allegations of se abuse of minors.

The new, tougher language agreed upon last weekend du negotiations between Cath and Protestant leaders, who been feuding over the legisla The Catholic Church had ini wanted broader protectio conversations between clergy

Bill highlights

The legislation approved yesterday the House would:

- Require all clergy and church employees to report to the state Department of Social Services if the believe a minor is being abused.
- Require retroactive reporting by clergy who know that a child was abused in the past.
- Allow clergy to keep secret inform tion learned in confession or similar conversations "if disclosure is enjoined by the rules or practice of the church or religious body."

Racial/ethnic disparities in health and health care

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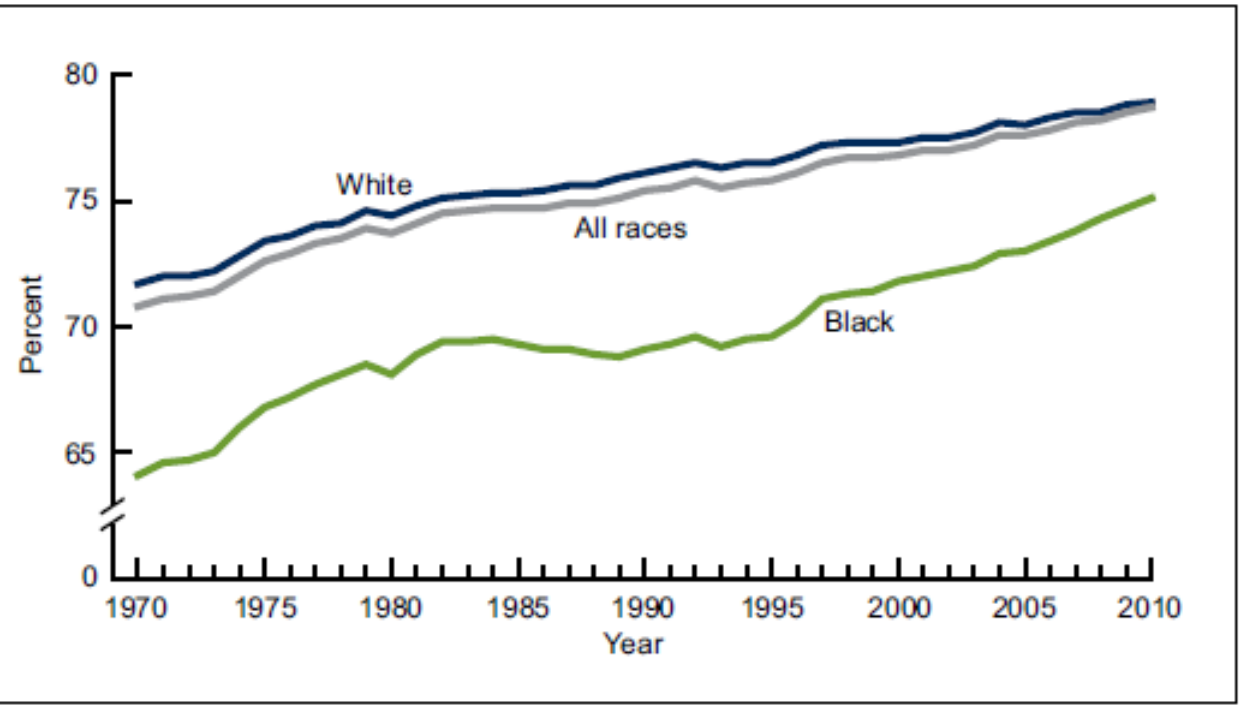
- Disparity (Webster's definition)
  - The condition or fact of being unequal, as in age, rank, or degree; difference

- Disparities in health vs. health care

Life expectancy

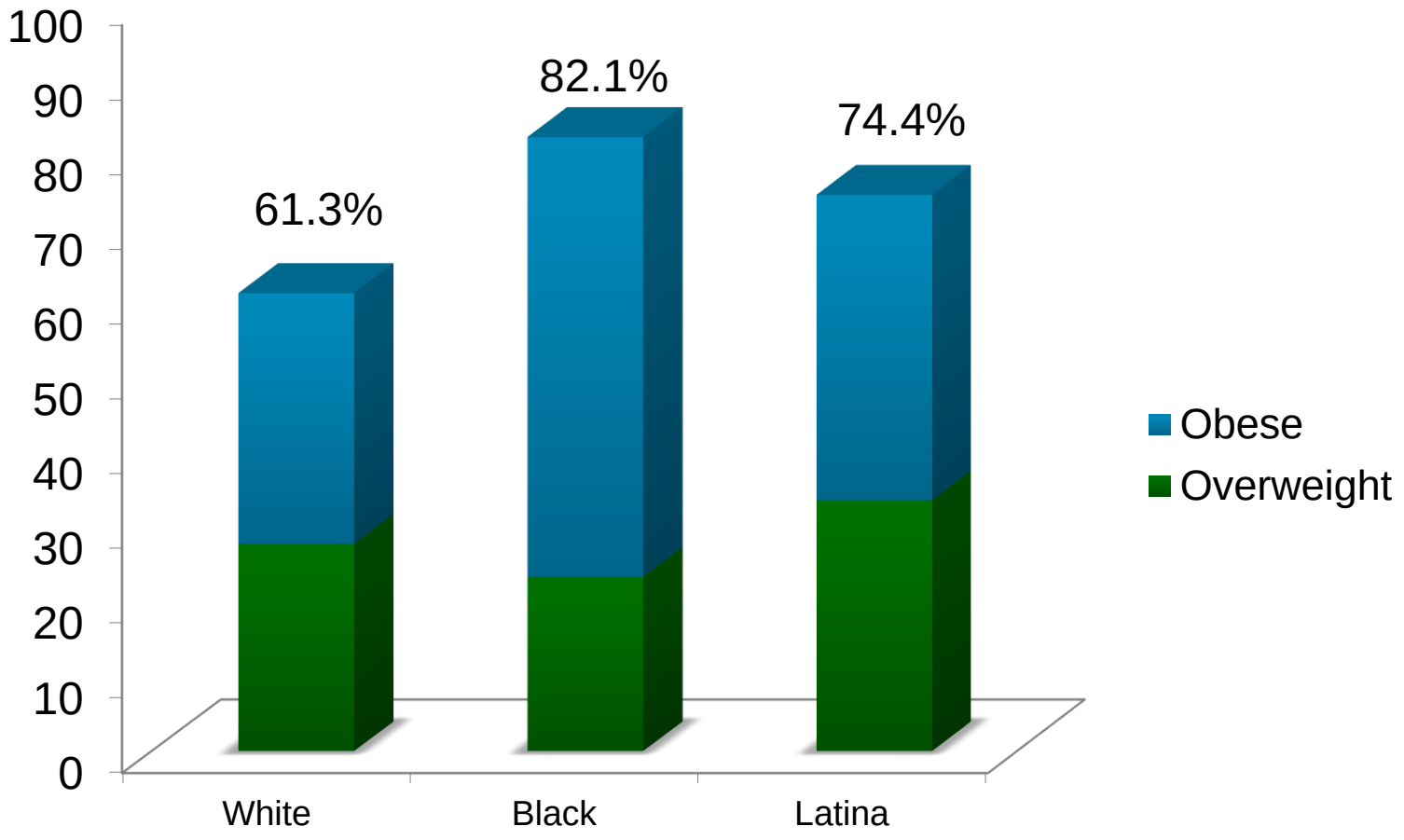
Figure 1. Life expectancy, by race: United States, 1970–2010



SOURCE: CDC/NCHS, National Vital Statistics System, Mortality.

NCHS , 2013

Overweight and obesity: Women



NHANES, 2009-2010

Health care disparities

- Black patients less likely to undergo surgical treatment of colorectal cancer, stage for stage (Cook et al, 2005)
- Black and Hispanic patients less likely to remain on evidence-based preventive medications at 12 months after discharge for MI (Lauffenburger et al, 2005)

Contributors to health and health care disparities

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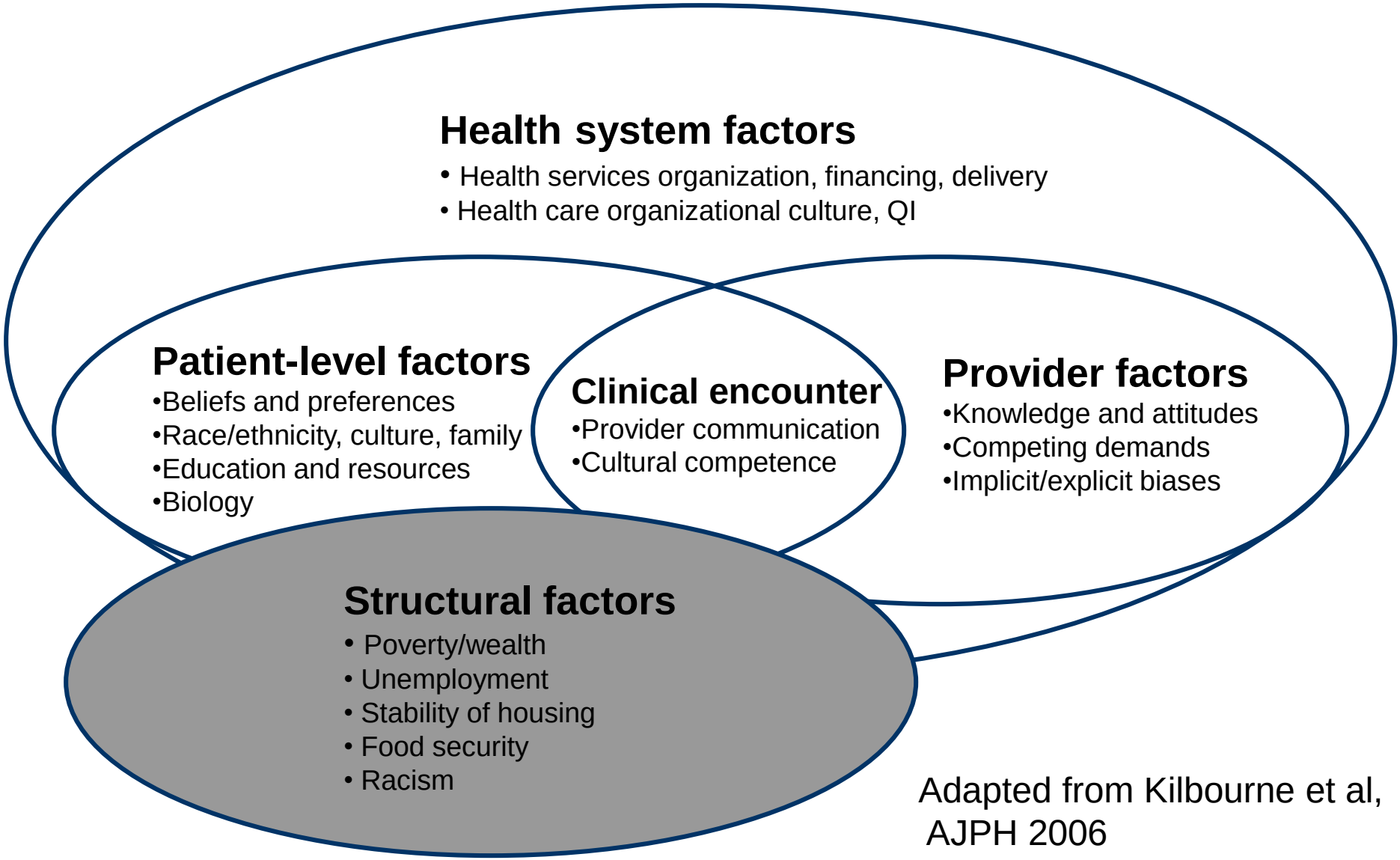

Adapted from Kilbourne et al, AJPH 2006

ACOG: Racial/ethnic disparities in Ob/Gyn

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	AI/AN	Asian	Black	Hispanic	White
Disparities in health outcomes					
Infertility in last 12 months (% of women)	--	10	12	9	7
Unintended pregnancy (% of pregnancies)	--	--	69	56	42
Preterm birth (% of live births)	14	10	17	12	11
Maternal death (/100,000 live births)	--	10	33	10	11
Gonorrhea (/100,000 population)	96	18	570	--	24
Cervical cancer (/ 100,000 population)	7	7	10	11	7
Breast cancer deaths (/100,000 population)	16	12	31	15	22

ACOG CO #649

ACOG: Racial/ethnic disparities in Ob/Gyn

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	AI/AN	Asian	Black	Hispanic	White
Disparities in health care access and services					
Provision of birth control in past year (% women aged 15-44)	--	--	29	29	37
Pap testing within 3 years (% women aged 21-65)	--	--	66	53	62
Mammography within 2 years (% women aged 50-75)	73	73	64	69	70
Ever received infertility treatment (% women)	--	--	11	12	16
Prenatal care in first trimester (% births)	70	86	76	78	85
Cesarean delivery (% of births)	28	33	36	32	32

ACOG CO #649

Determinants of health/ How do we care for those we see?

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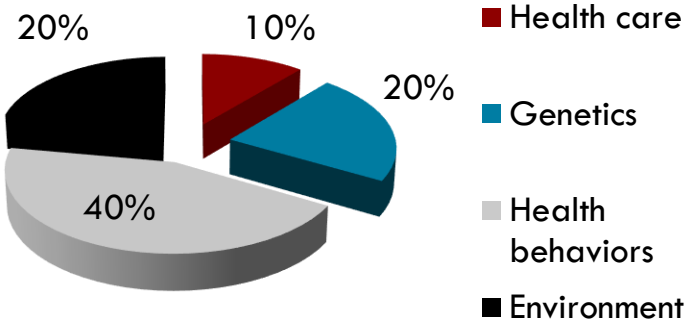
- Role of implicit bias
  - Extensive examples of role of race in MD willingness to recommend for CV evaluation



Adapted from McGinnis et al., Health Affairs 2002

- Implicit (but not explicit) bias against African Americans a significant negative predictor of likelihood to recommend thrombolysis for black patients (Green 2007)
- www.implicit.harvard.edu

Disparities in infant mortality: U.S., 2009

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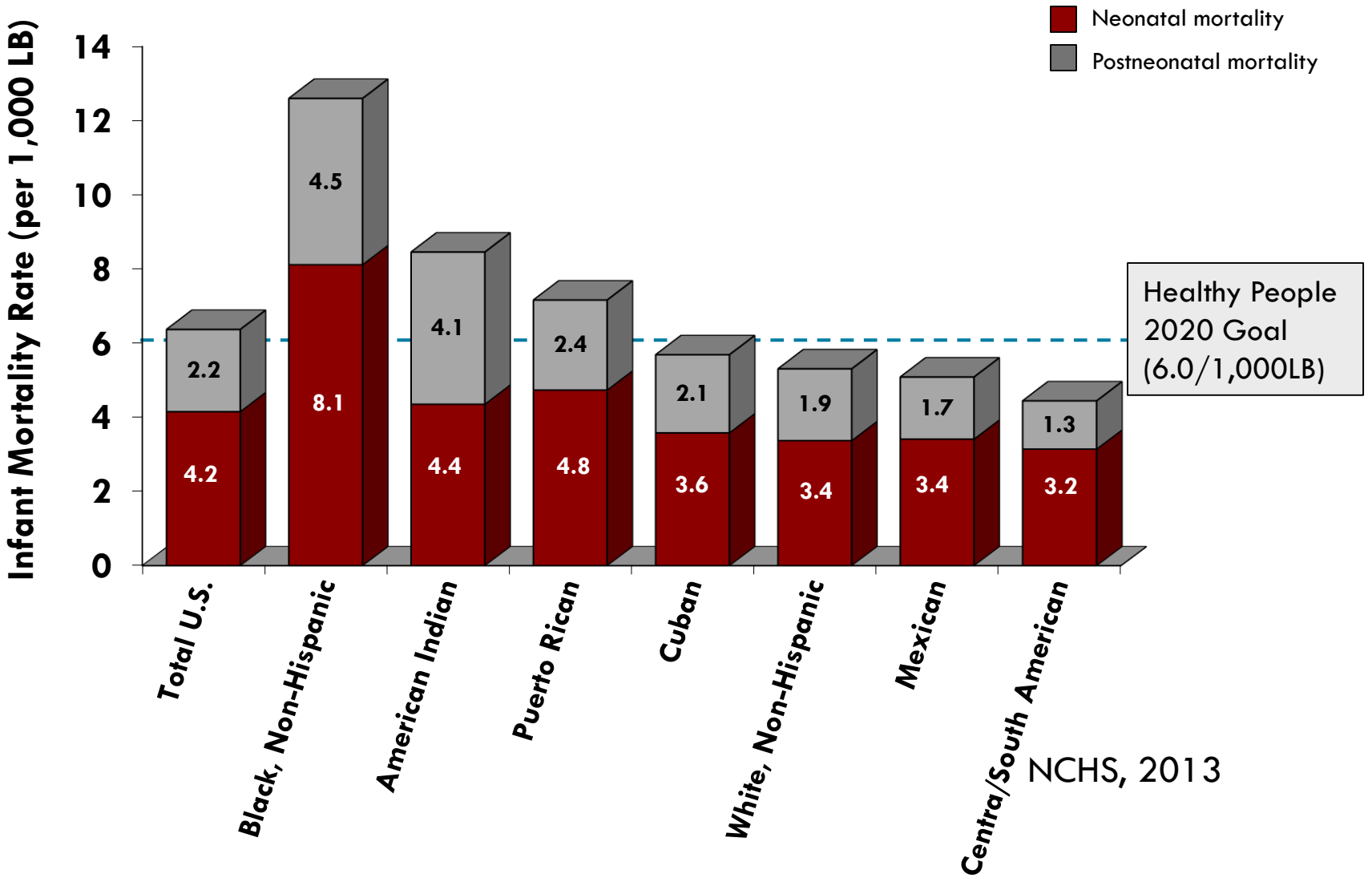

NCHS, 2013

Infant mortality

- Major contributors to Infant Mortality
  - Congenital Anomalies/Chromosomal Disorders
  - Preterm Birth/Low Birth Weight
  - Sudden Infant Death Syndrome
  - Maternal Complications of Pregnancy

National Center for Health Statistics 2004

Infant mortality

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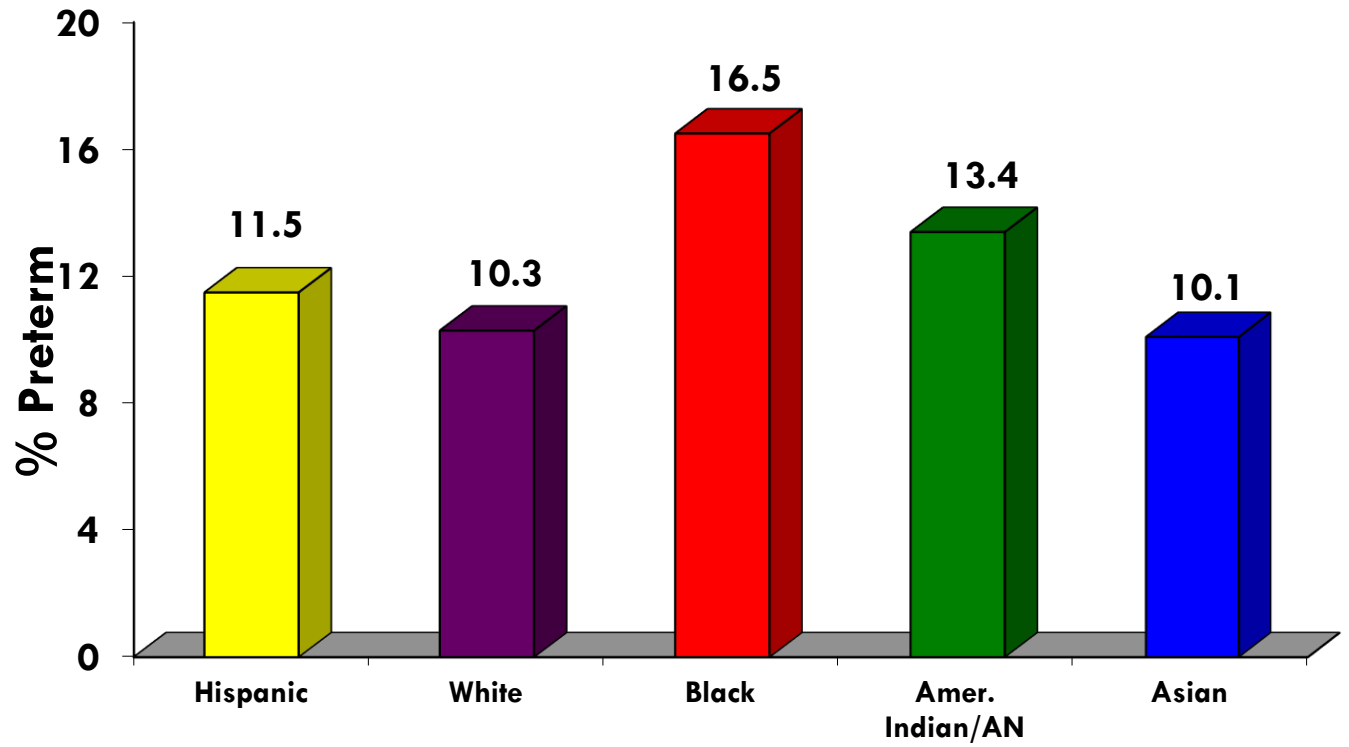
National Center for Health Statistics 2004

Preterm birth



March of Dimes Peristats 2011-2013

Impact of preterm birth

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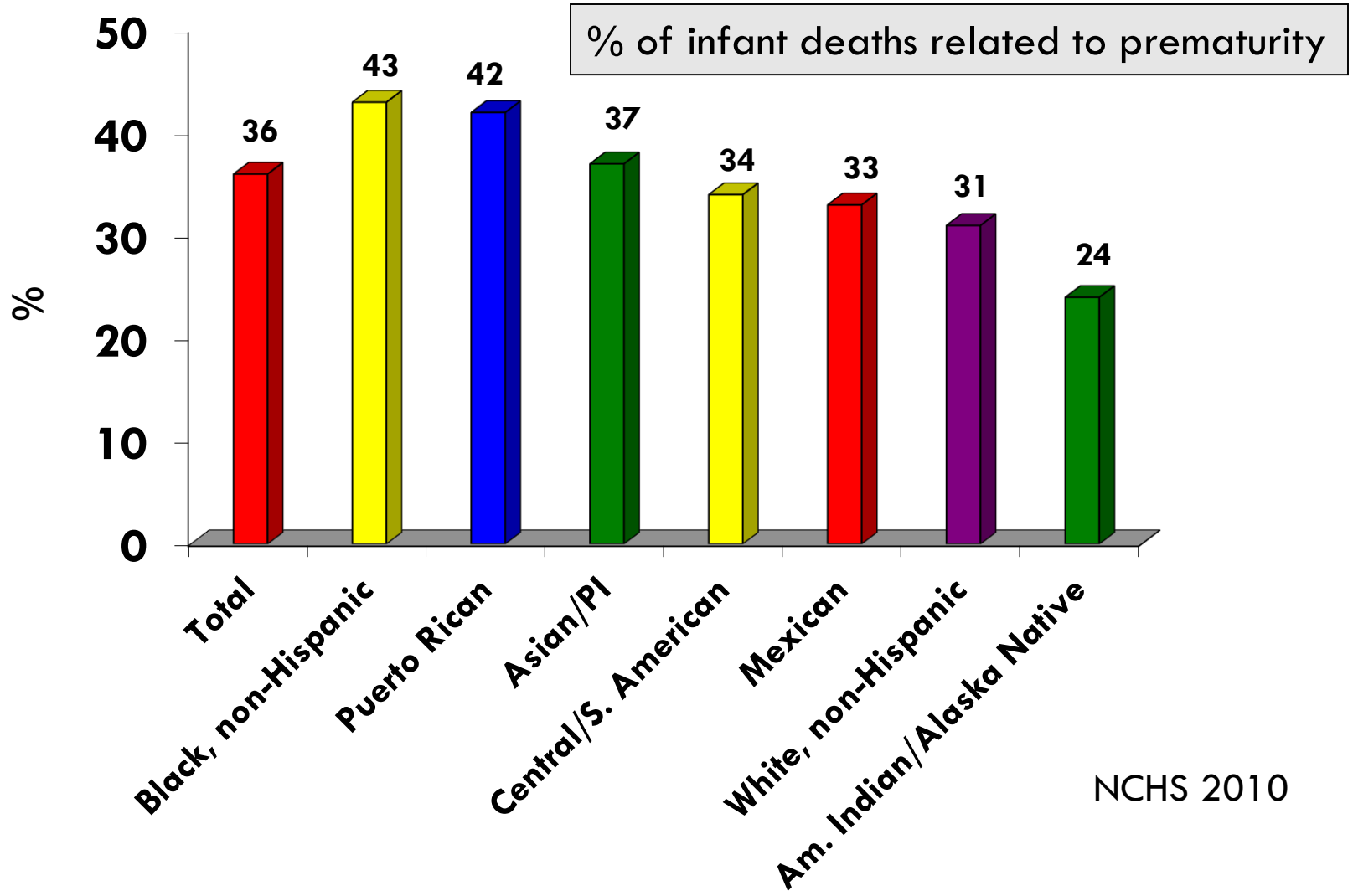

NCHS 2010

Risk factors for preterm birth

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Biology/Genetics

- Chronic dise
- Infl
-
-

Behavio

- Unintende
- Short interpregnancy interval
- Alcohol/tobacco/drug use

Environment

- us exposures

Prior preterm birth (RR = 5-6)

conception

health/health care

- No prenatal care

Risk of recurrent preterm birth

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Gestational age at first birth	% preterm birth at second birth	Adjusted RR of preterm birth at second birth
≥37 weeks	6%	ref
32-37 weeks	29%	4.8
28-32 weeks	38%	6.0
24-28 weeks	40%	6.4
20-24 weeks	28%	4.9

Loughon et al. AJOG 2014

Progesterone to prevent recurrent preterm birth: the evidence

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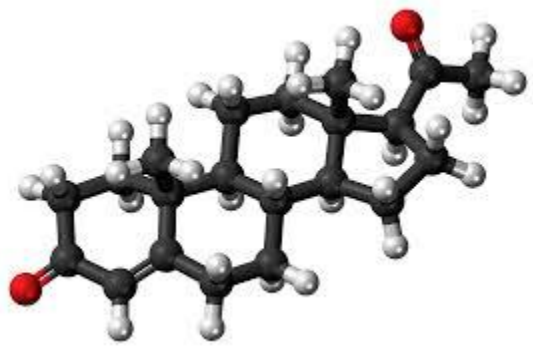
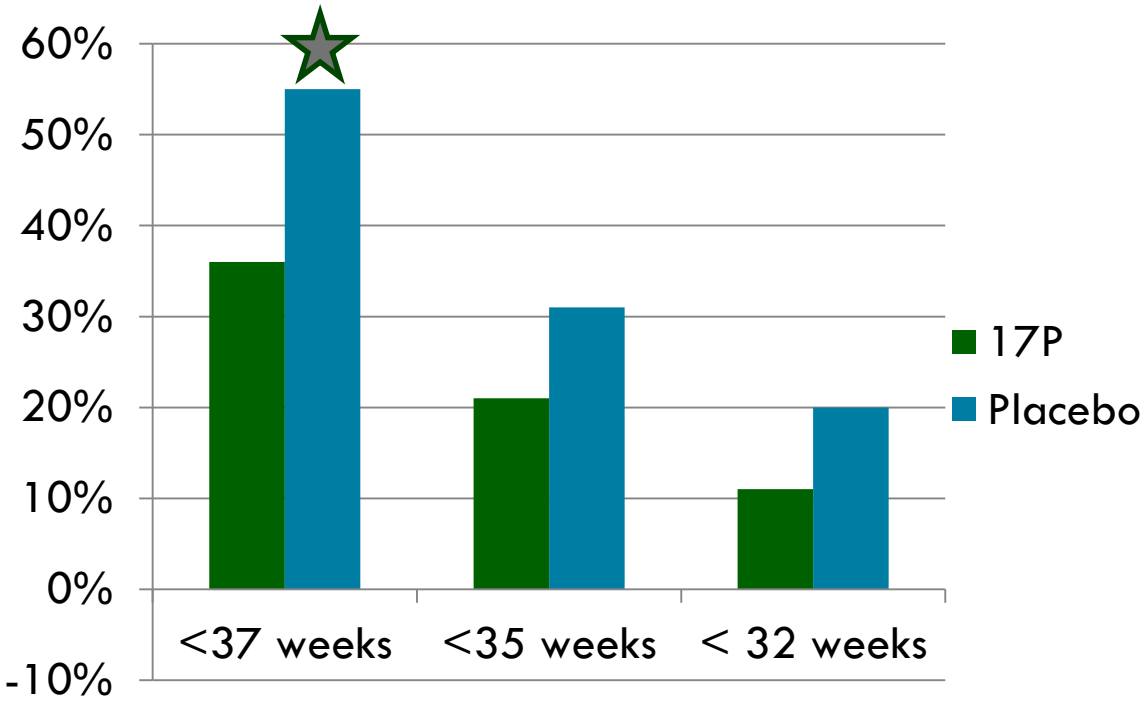
- PROGESTational STERoidal ketONE
- Normally produced by corpus luteum, then placenta by 9 weeks
- Maintains uterine quiescence in the latter half of pregnancy
- Johnson et al, 1975, NEJM: small randomized trial of 17α-hydroxyprogesterone caproate (17P) vs. placebo
  - Significant benefit with respect to latency to delivery, birth weight, perinatal mortality
- Subsequent, less convincing studies followed
- Keirse et al, 1990, BJOG: meta-analysis of trials to date
  - Significant benefit with respect to preterm labor, preterm birth, and low birth weight




Radio Silence

2003: The year of the progestins

- Meis et al, 2003, NEJM: MFMU trial randomized 459 women with prior sPTB to weekly IM 17P starting at 16-20 weeks, through 36 weeks gestation



ACOG

TABLE 3

Current Society for Maternal-Fetal Medicine recommendations regarding use of progestogens for prevention of preterm birth

Population	Recommendation regarding use of progestogens
Asymptomatic	
Singletons without prior SPTB and unknown or normal TVU CL	No evidence of effectiveness
Singletons with prior SPTB	17P 250 mg IM weekly from 16-20 wk until 36 wk
Singletons without prior SPTB but CL ≤20 mm at ≤24 wk	Vaginal progesterone 90-mg gel or 20[illegible] diagnosis of short CL until [illegible]
Multiple gestations	No evi[illegible]
Symptomatic	
PTL	
PPROM	

Society for Maternal-Fetal Medicine

-24 weeks
transvaginal
ngth, to reduce the
pontaneous preterm

Current prevalence of appropriate 17P use?

What do we know?

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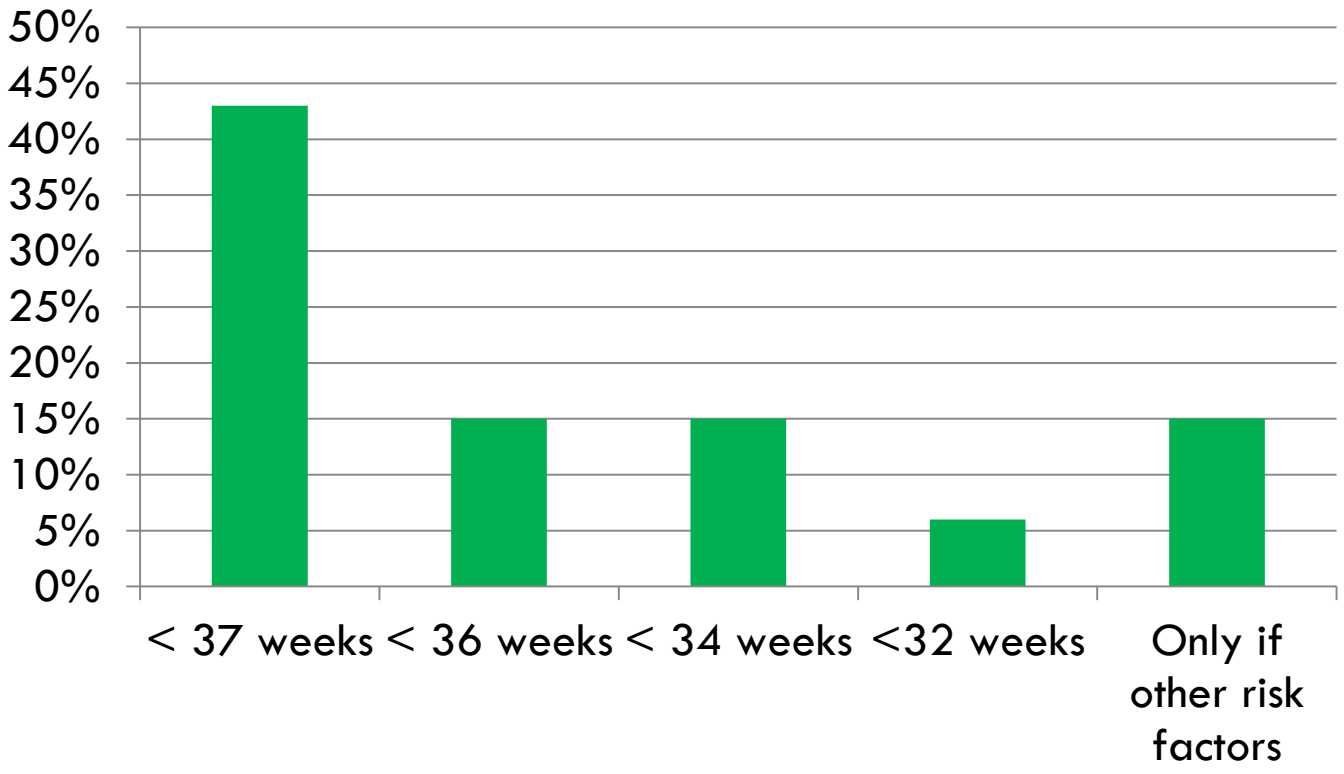
- Henderson et al., 2009: survey of 469 ACOG Research Network members
  - 26% reported no use of progesterone in practice



Louisiana experience: inequity

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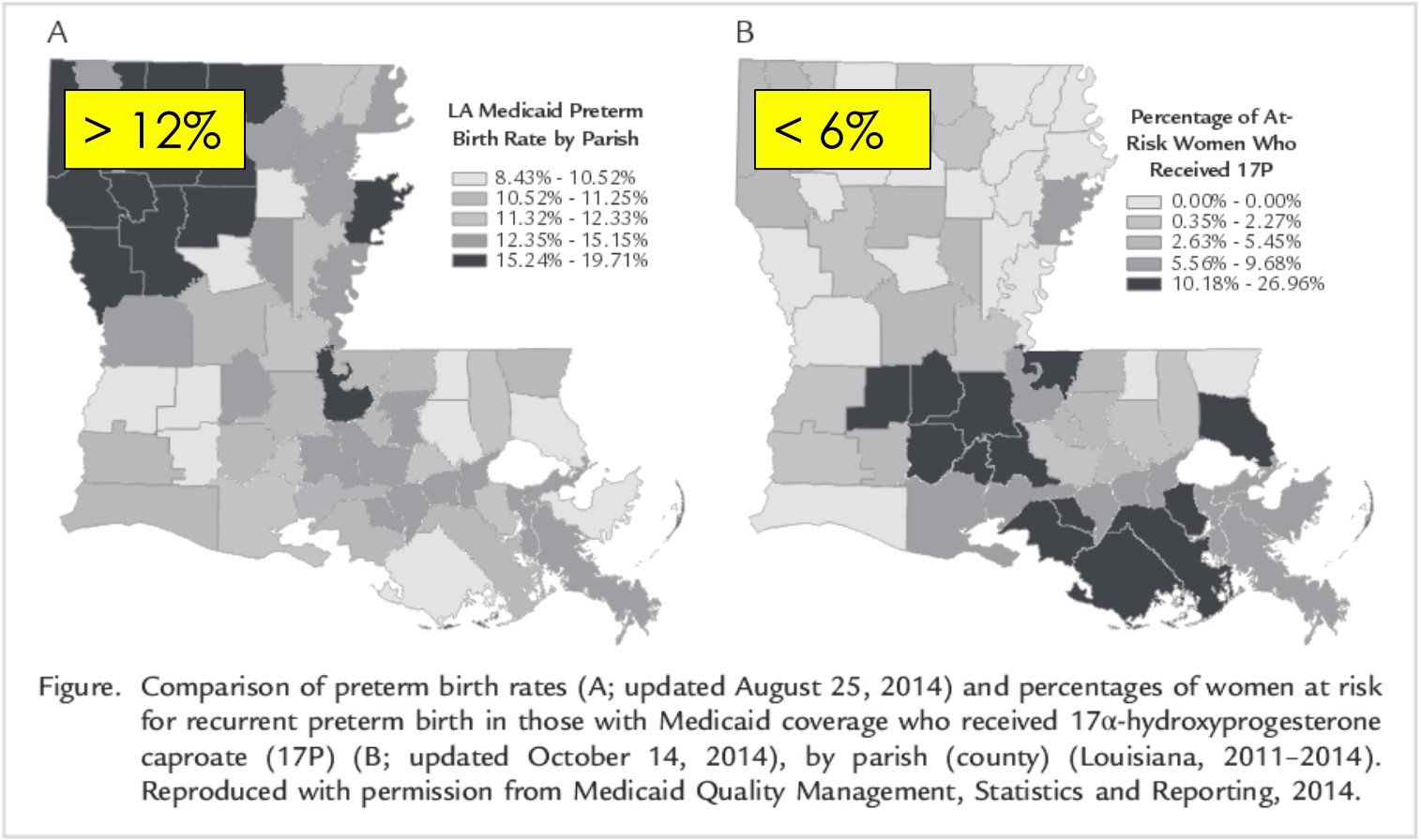

Figure. Comparison of preterm birth rates (A; updated August 25, 2014) and percentages of women at risk for recurrent preterm birth in those with Medicaid coverage who received 17α-hydroxyprogesterone caproate (17P) (B; updated October 14, 2014), by parish (county) (Louisiana, 2011–2014). Reproduced with permission from Medicaid Quality Management, Statistics and Reporting, 2014.

Orsulak, 2015

Barriers to receipt of 17OHPC/ Sources of care disparities

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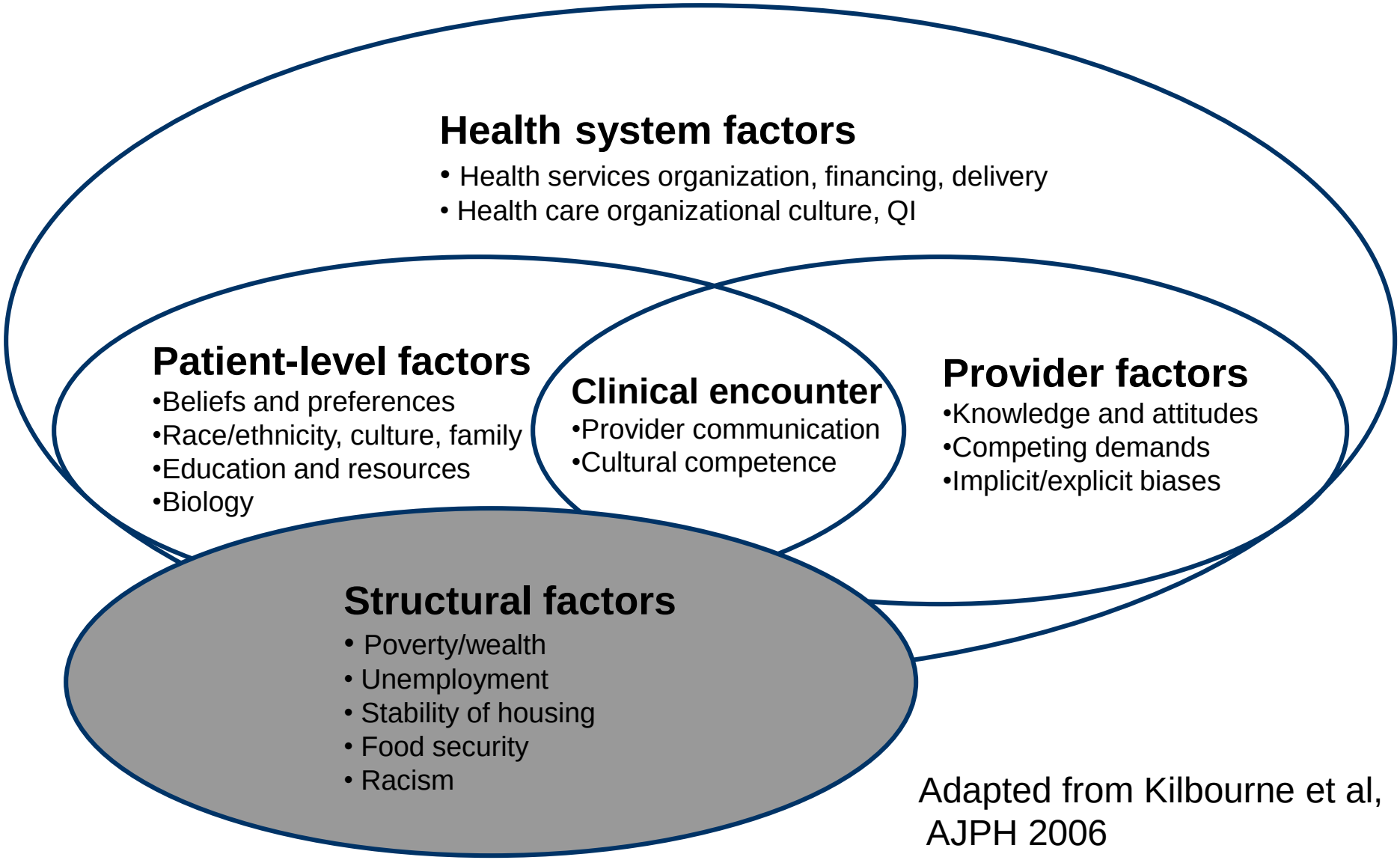

Adapted from Kilbourne et al, AJPH 2006

What is the health care experience of a woman with a prior preterm birth?

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Health Belief Model

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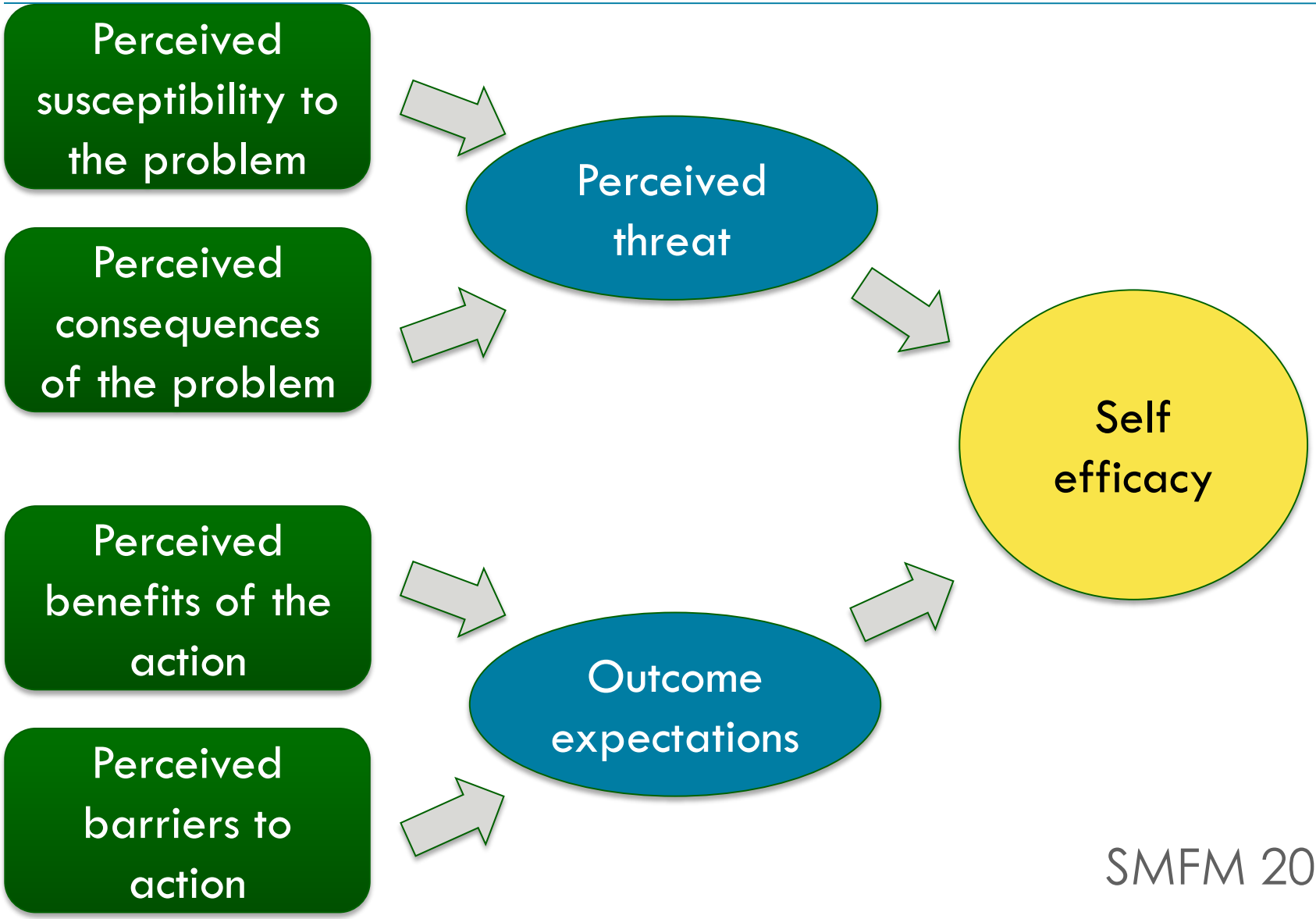

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First pregnancy affected by prematurity

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Recognition of preterm birth as concern and a risk to future obstetrical outcomes

- Lack of knowledge that preterm birth has occurred
- Preexisting knowledge/ attitudes/ social norms about recurrence of preterm birth
- Preexisting knowledge attitudes/ social norms about preterm birth consequences
- Inadequate provider knowledge
- Inadequate institutional recording [birth certificate, hospital record]

Knowledge of potential interventions to mitigate preterm birth risk

- Inadequate patient knowledge
- Inadequate provider knowledge

THREATS to success

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Next pregnancy, at risk

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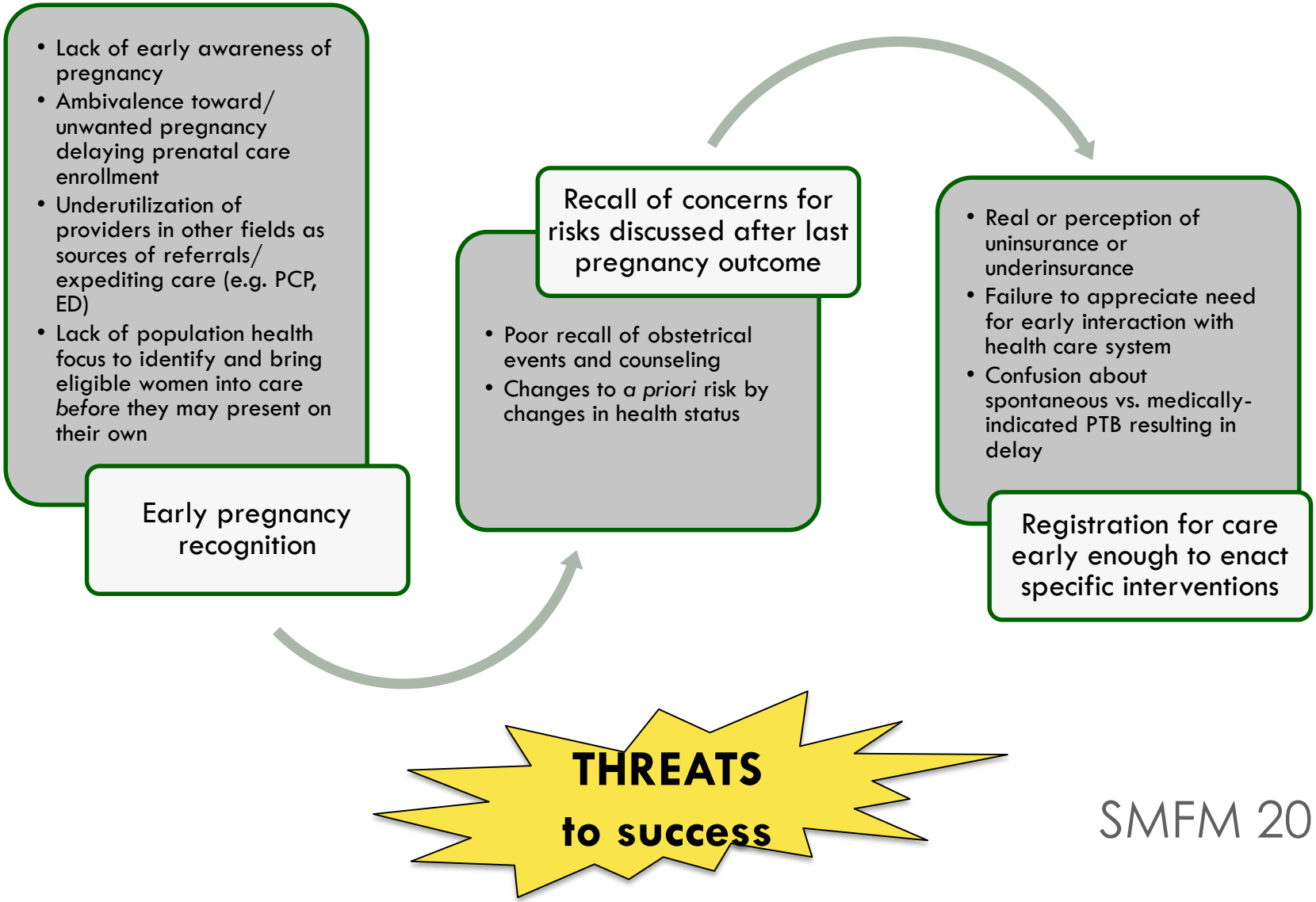

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Next pregnancy, at risk

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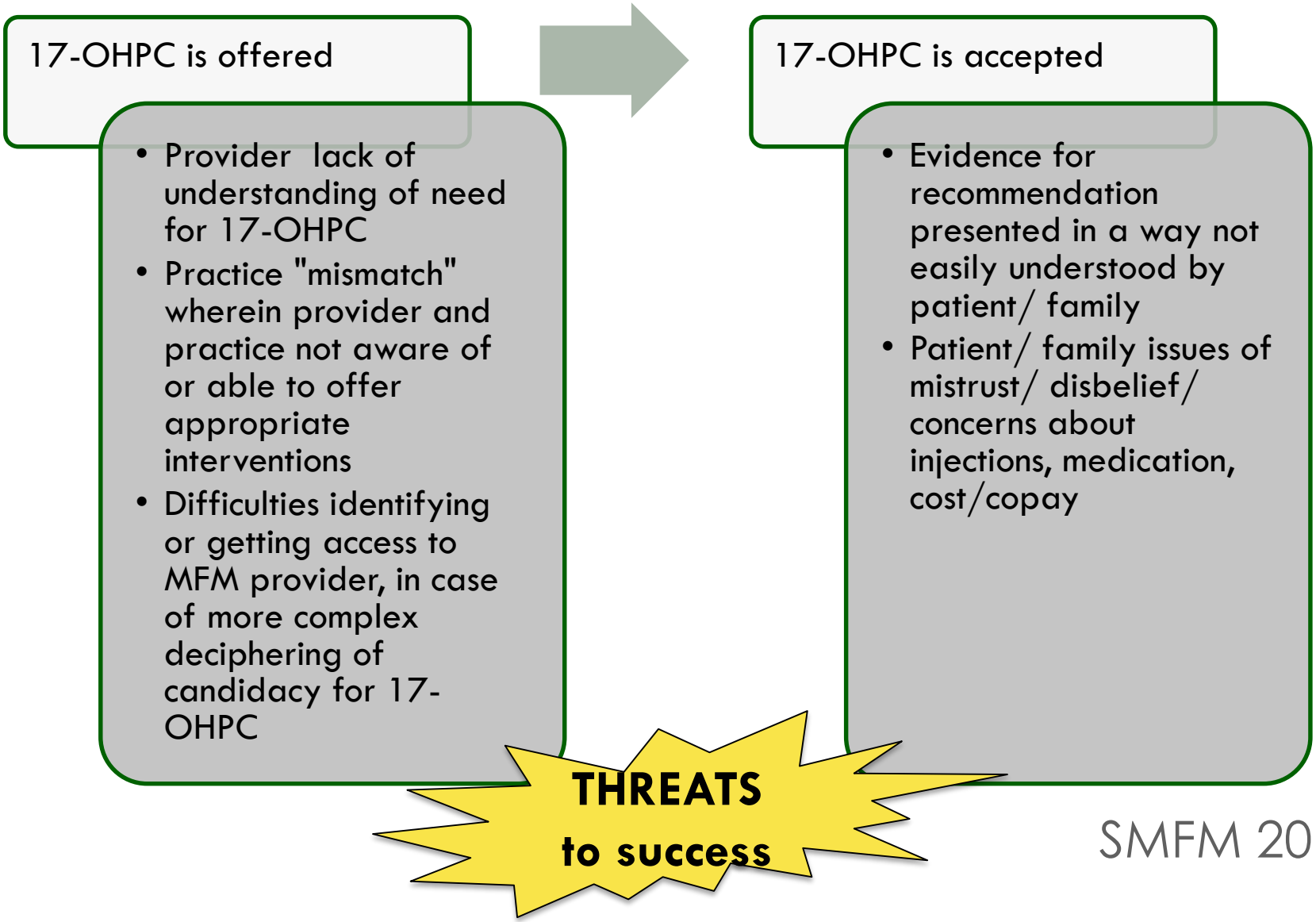

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Next pregnancy, at risk

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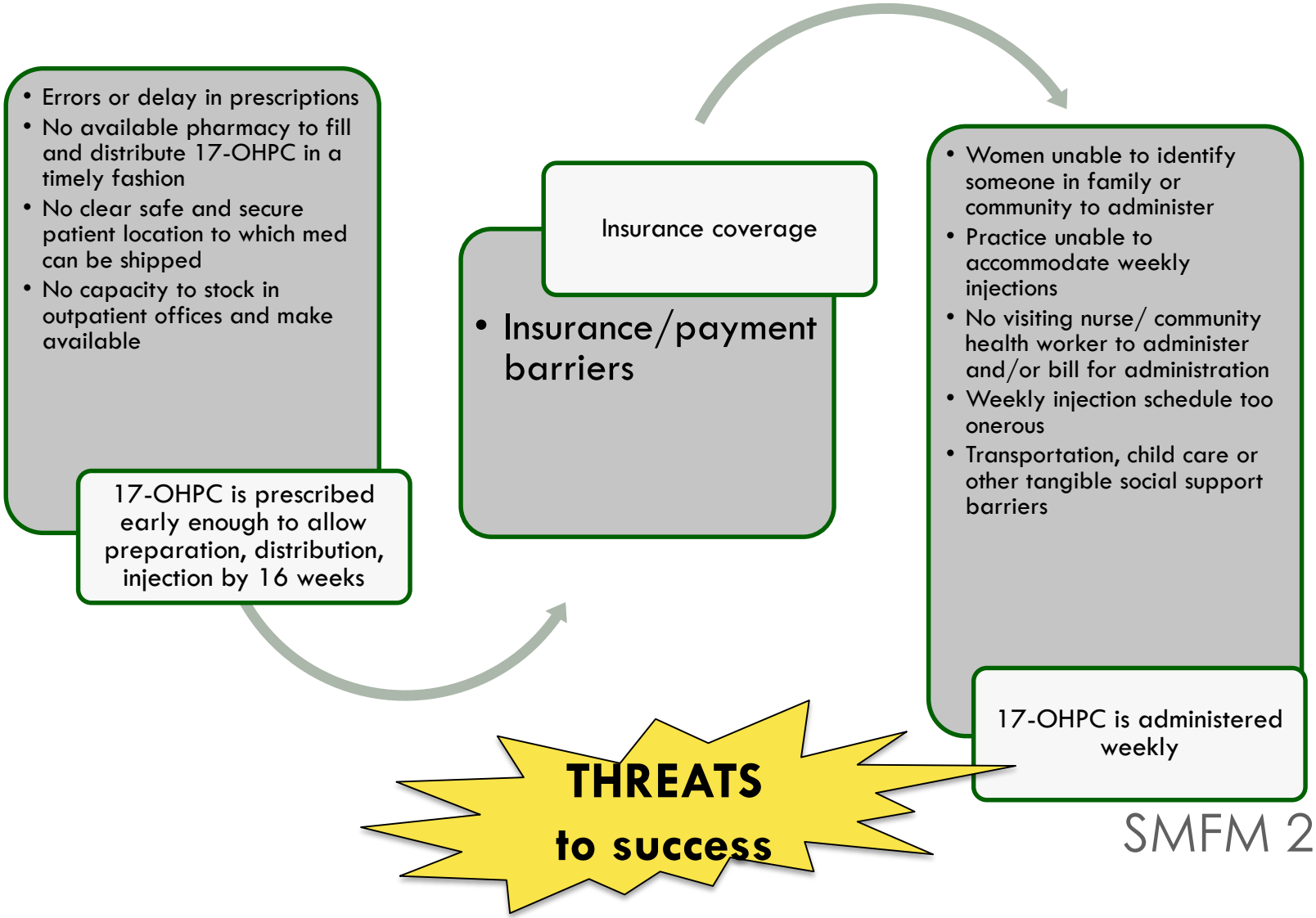

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How to intervene?: North Carolina 17P Project

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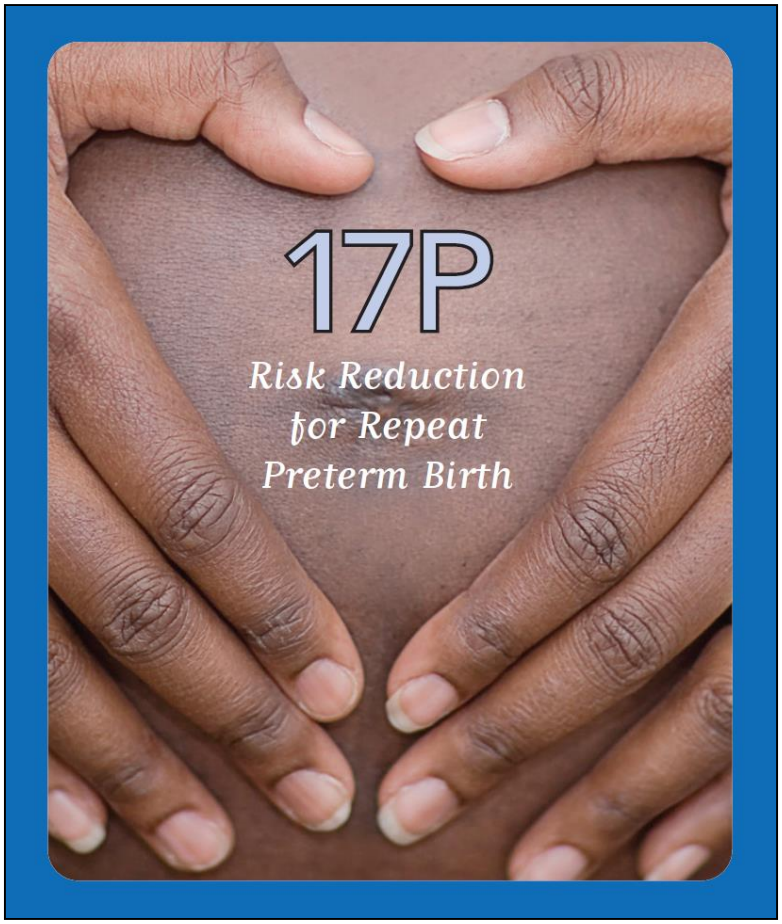

- Patient-level interventions
- Provider-level interventions
- Health-systems interventions
- Understanding of social determinants of health

Risk factors for preterm birth

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Biology/Genetics

- Chronic disease
- Inflammation
- Infection
- Multiple gestation

Behavior

- Unintended pregnancy
- Short interpregnancy interval
- Alcohol/tobacco/drug use

Environment

- Hazardous exposures
- Stressors
- Poor nutrition
- Racism

Health Care

- Poor interconception health/health care
- No prenatal care

Risk factors for preterm birth

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Health Care

- Poor interconception health/health care
- No prenatal care

Unintended pregnancy and birth spacing among low-income women

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- Focus group study of low-income, recently postpartum women
- 7 groups conducted (N=47)
- Themes related to pregnancy planning, birth experience, interconception care, birth spacing explored, using semi-structured discussion guide

Pregnancy Planning: Meaning of “Planning” and “Control”

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- *“I think we can have all the plans in the world and life never goes the way it's planned... It’s not your plan anyway.”*

- *“... as far as that baby coming to this world, I don't think that's ever planned. You really don't know when you get pregnant. It just happens sometimes.”*

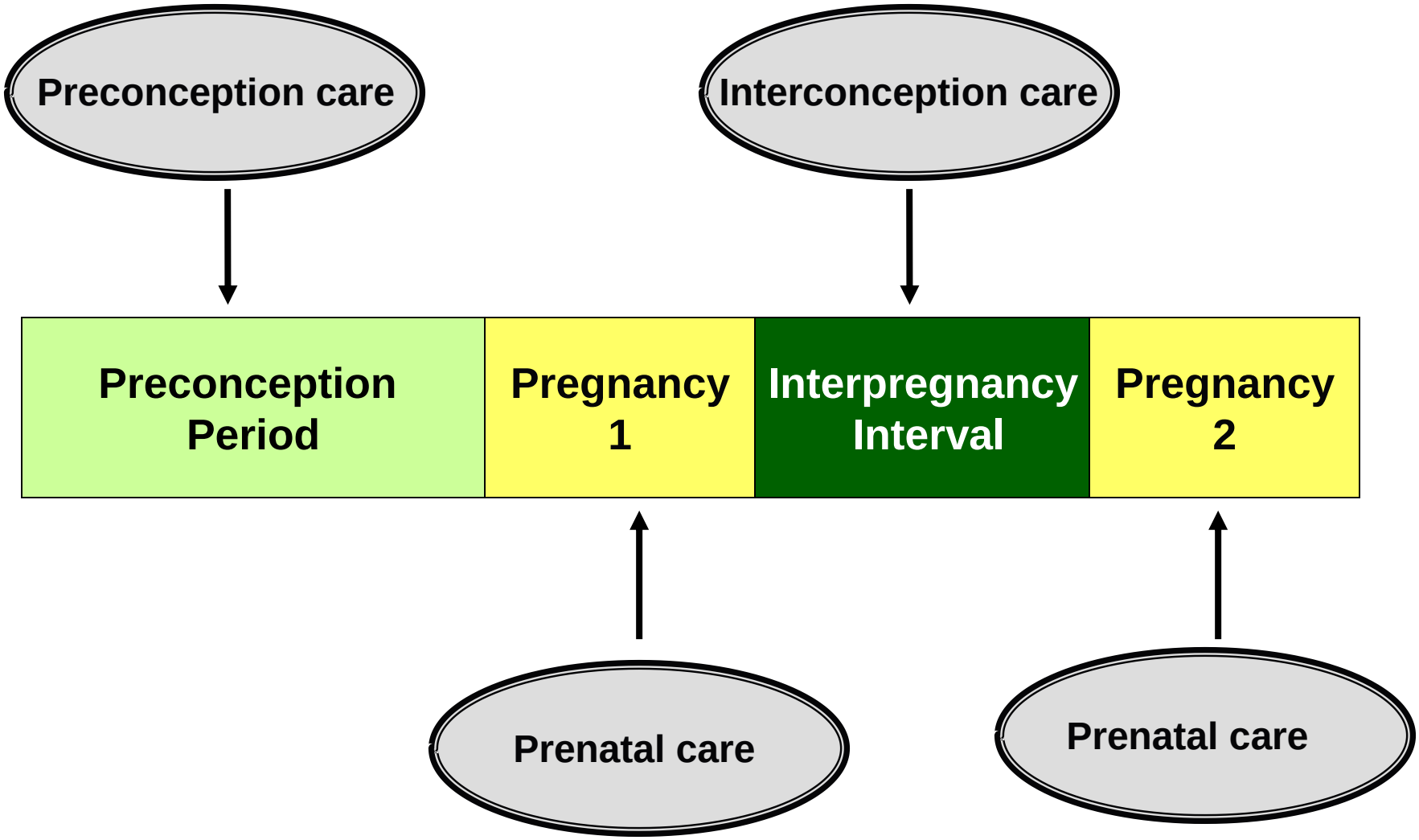
- *“Things happen, even if you’re on birth control sometimes you get pregnant, so why bother [planning]?”*

Innovative tools

- Qualitative study of low-income, largely A-A women at family planning clinic:
  - "Patient participants were very receptive to this online contraceptive support tool, describing it as trustworthy, accessible and empowering. "
  - "In contrast, clinic providers and staff had concerns regarding the website's legitimacy, accessibility, ability to empower patients and applicability, which limited their willingness to recommend its use to patients."

Gressel et al. Contraception 2014

Interpregnancy interval: Definition



Short interpregnancy interval: exemplar

Short interpregnancy interval: exemplar

Birth of Sean Preston
9/14/05 (a)

12 months (b-a)

Birth of Jayden James
9/12/06 (b)

Interpregnancy
Interval = 3 months
((b-a) - c)

Gestational age = 9 months (c)

Interpregnancy interval and perinatal outcomes

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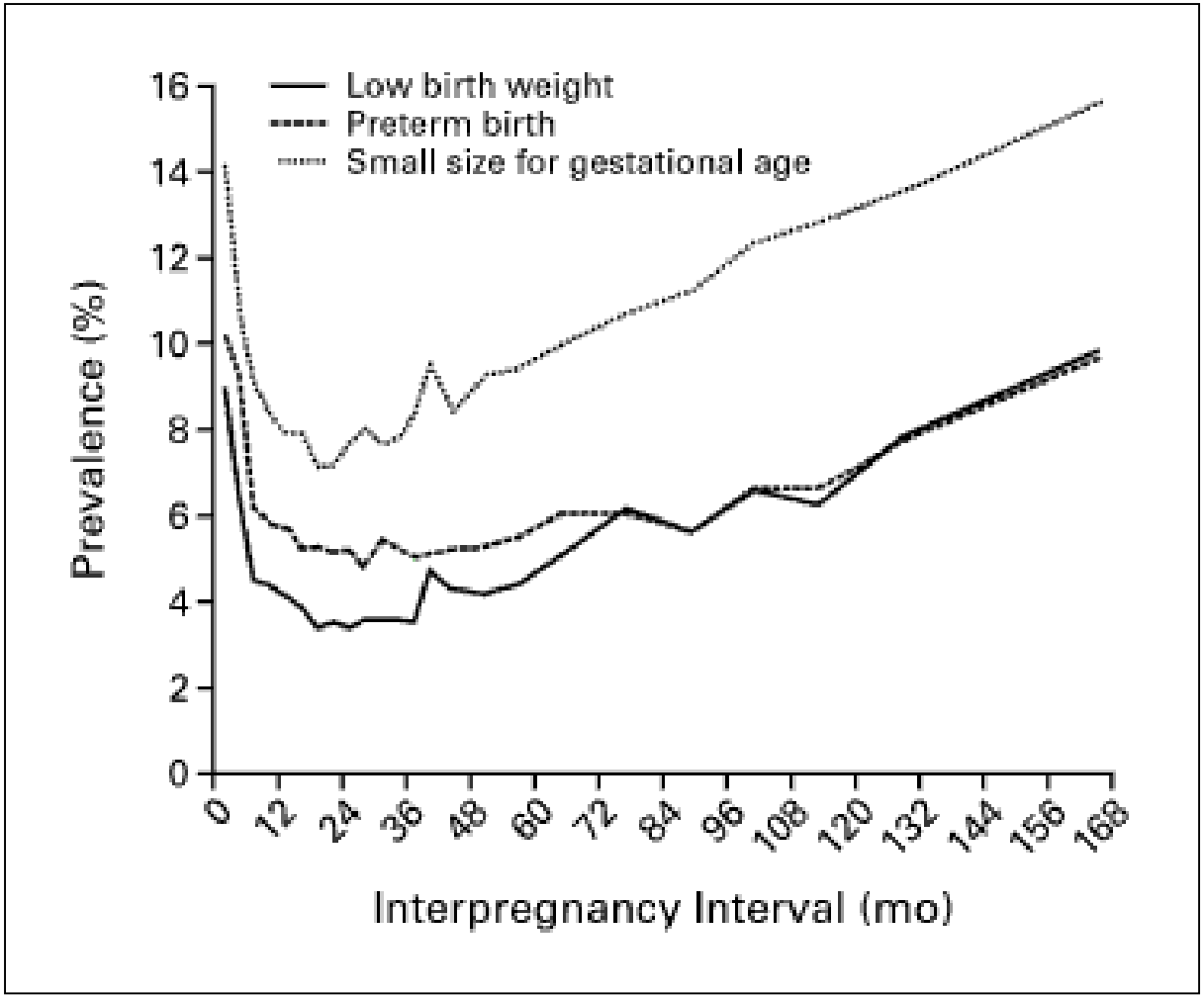

Zhu et al, NEJM 1999

Interpregnancy intervals and perinatal outcomes

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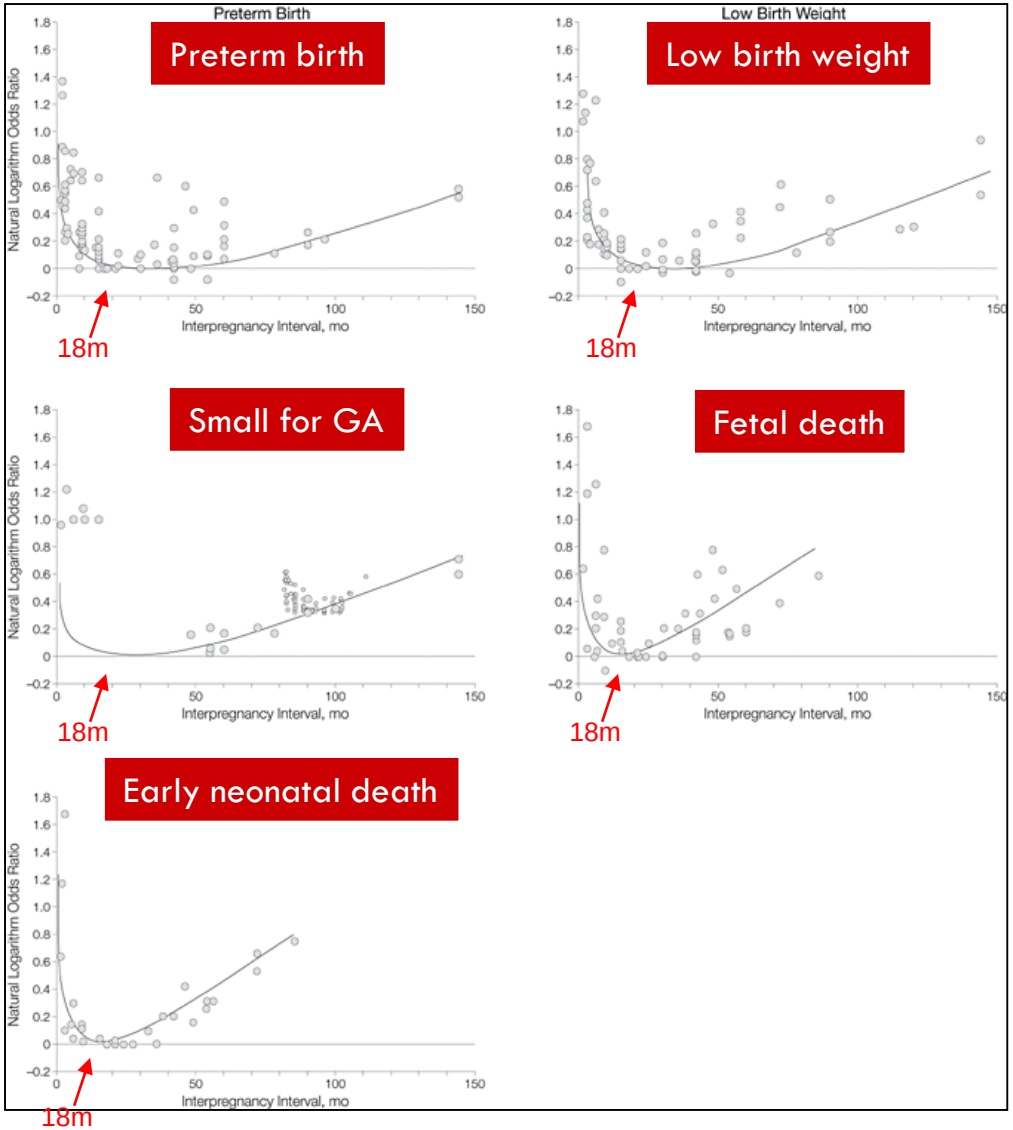

Conde-Agudelo et al, JAMA 2006

Interpregnancy intervals among women in CA

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- Aim: To describe rates, predictors and outcomes of short interpregnancy intervals among women in California
- Methods: Retrospective cohort study of all women in CA with first birth in 1999-2000, second birth before 2005, using existing, linked administrative data
- N = 366,415

Results

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Mean interpregnancy interval ± SD : **23.7 ± 13.1m**

Risk of short IPI:

Interval	All women	Low-income women
< 3 months	0.9%	2.6%
< 6 months	3.3%	8.5%
< 12 months	10.9%	23.4%
< 18 months	19.9%	39.3%

Adjusted odds of short IPI by race/ethnicity

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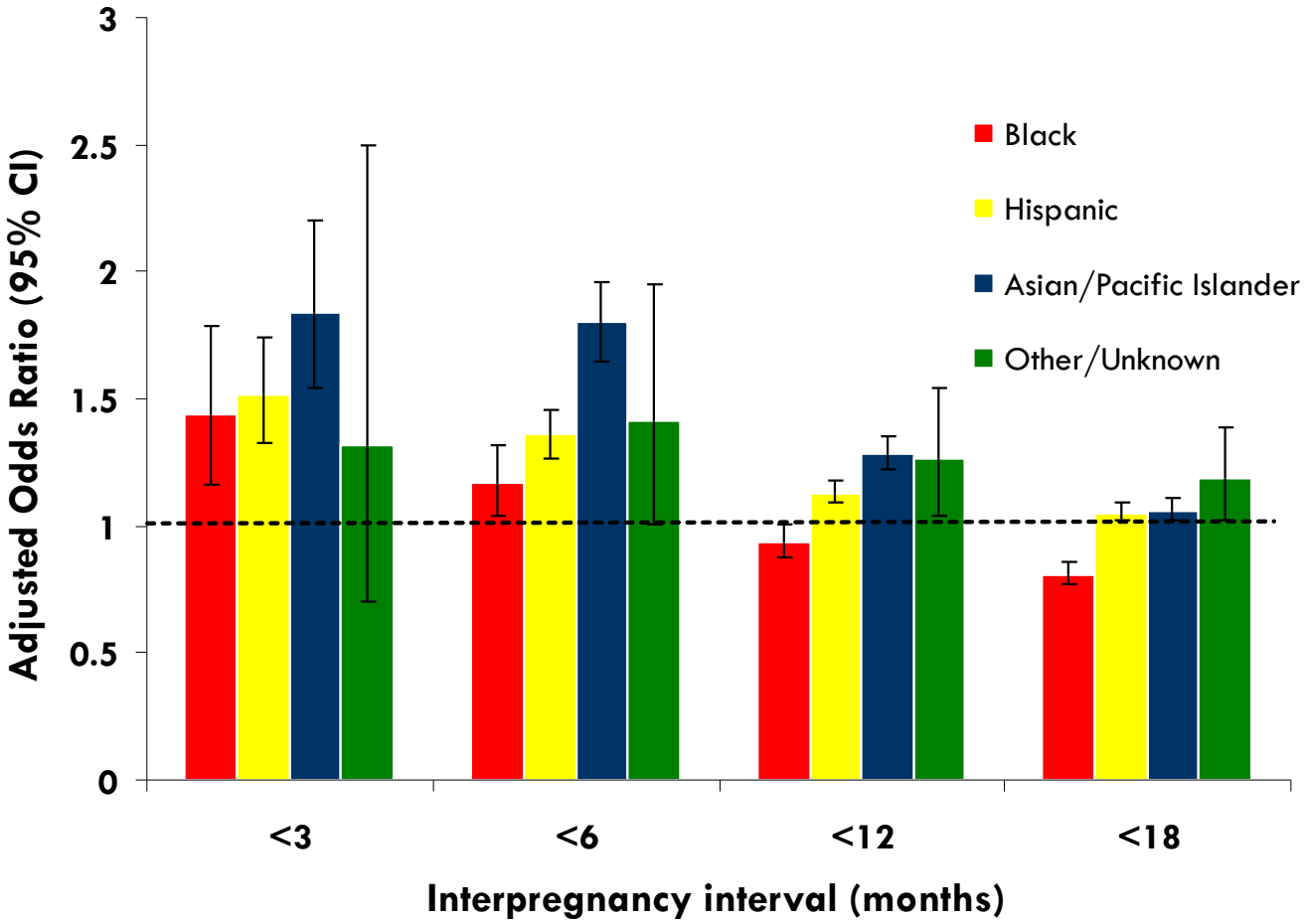

Are short IPIs worse for some?

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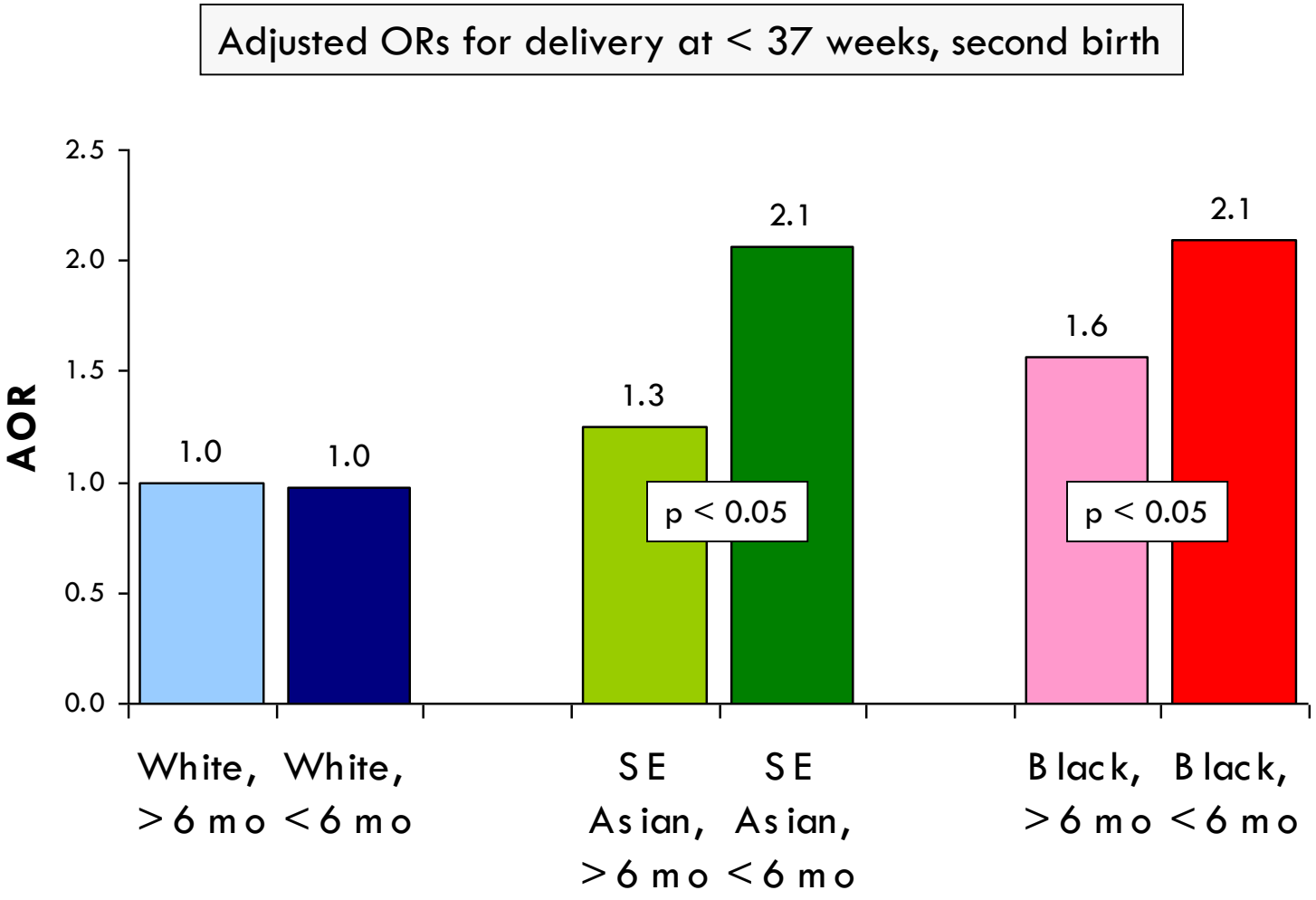

Birth spacing: Health

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- *"I did research to see what the safest time is to do it soonest ...[to] get this baby part over with as soon as possible. But it's not safe before a year… So, after a year, your stores are back and you can, you know, easily healthily maintain a pregnancy."*
- *"I think medically, you're supposed to wait – I don't know, I think only three or four months maybe."*

*Lesson learned: There are knowledge gaps related to adequate birth spacing

Birth Spacing: Sibling issues

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- *"So, it's like, they'll both have somebody to play with so they won't be working my nerves… Like… he can't go to school next year... So, at least they have a brother or somebody to play with… they wouldn't get into so much… I don't regret having my kids so close together."*
- *"I want my kids to enjoy each other's company as long as possible."*

*Lesson learned: Short birth intervals may be desirable for some women

Role of partners

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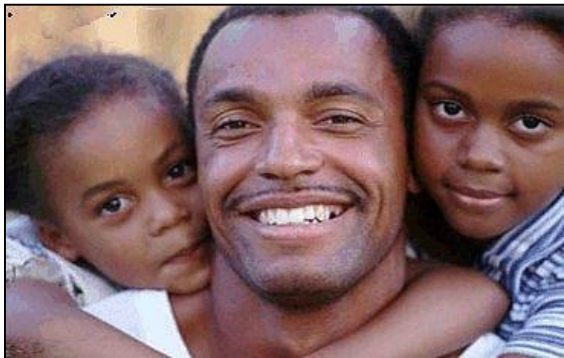
- *"Because in our country, the men have a bit of chauvinism in their heads... they just want children and children as if you were a baby-making machine... It's good to give time to children."*
- *"In my case.. he's my second partner and he's never had babies, so he says 'I want to have a child with you' and well, he convinced me, but I didn't want any more."*
- Moderator: *"When thinking about having babies, what are some reasons that women would have babies close together?"*

  Participant: *"So they can catch the same man... They won't have to deal with this man, this jerk, that Tom, that Harry. You know your one Sam and one Sam only."*



Role of family norms

- *"My sister had kids a year after each other and it was kind of easy like that because they're all young still and they're all growing up together. So I kind of wish I had my babies a year apart, too."*

- *"My mom had 7 kids in 7 years. She was fine."*

Birth spacing: Provider messages

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- Moderator: *"Have any of the doctors talked about the best time to wait between pregnancies?"*

  Participant: *"They said don't have sex for six weeks."*

  Moderator: *"Other than that?"*

  Participant: *"Nothing."*

• *"Well they tell you about the forty days, right? And after that... Before forty days, they tell you that you can't. That's the only thing, because they are not going to tell you, 'you know what, wait.' It depends on if you have an illness, then they tell you, 'you can have children at a set time,' but if you don't have anything, they can't tell you."*

A mother rests with her newborn infant in a Nigerian clinic. New evidence shows that longer birth intervals are better for health. If all women in Nigeria spaced their births at least 3 years apart, infant mortality could fall from 75 deaths per 1,000 births to 54 deaths per 1,000 births.

Population Reports

Birth Spacing

Three to Five Saves Lives

Couples who space their births 3 to 5 years apart increase their children's chances of survival, and mothers are more likely to survive, too, according to new research. Many women want to space births longer than they currently do. Programs can do more to help them achieve the birth intervals they want.

Highlights

Why are longer intervals better? 7
Spacing: A matter of choice 7
How to measure intervals 10

SPACING BIRTHS, SAVING LIVES

Ways to Turn the Latest Birth Spacing Recommendation into Results

By Donna Espeut, Ph.D., M.H.S.
Reproductive Health and HIV/AIDS Specialist

Healthy Babies are Worth the Wait®

Really important things happen to a baby in the last few weeks of pregnancy. Babies need at least 39 weeks in the womb to fully grow and develop.

Here's what at least 39 weeks can do:

More and more births are being scheduled a little early for non-medical reasons. This can cause problems for both mom and baby. If your pregnancy is healthy, it's best to stay pregnant until labor begins on its own.

For more information about a baby's growth and development, go to: **marchofdimes.com/39weeks**

march of dimes
healthy babies are worth the wait®

DEPARTMENT OF HEALTH & HUMAN SERVICES

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

Potential interventions

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- Nurse visitation/care coordination in interconception period
  - In an RCT (Olds et al), home visits through 2 years of life associated with
    - Fewer pregnancies and births
    - Longer latency between 1st and 2nd births
    - Fewer months on AFDC or food stamps, arrests, days in jail, number of child abuse cases
- Education of women/ partners/ families
  - Reproductive life plans
  - Targeted education for those at highest risk
- Education of providers
- Improved access to interconception care, family planning

Black Health Matters.com

Boston Public Health Commission: Decline in Black Infant Mortality

Progress attributed to citywide partnerships to improve black women's health

| Friday, October 10, 2014

Good news out of Boston: The city's black infant mortality rate sees a significant drop.

Boston: decline in Black IMR

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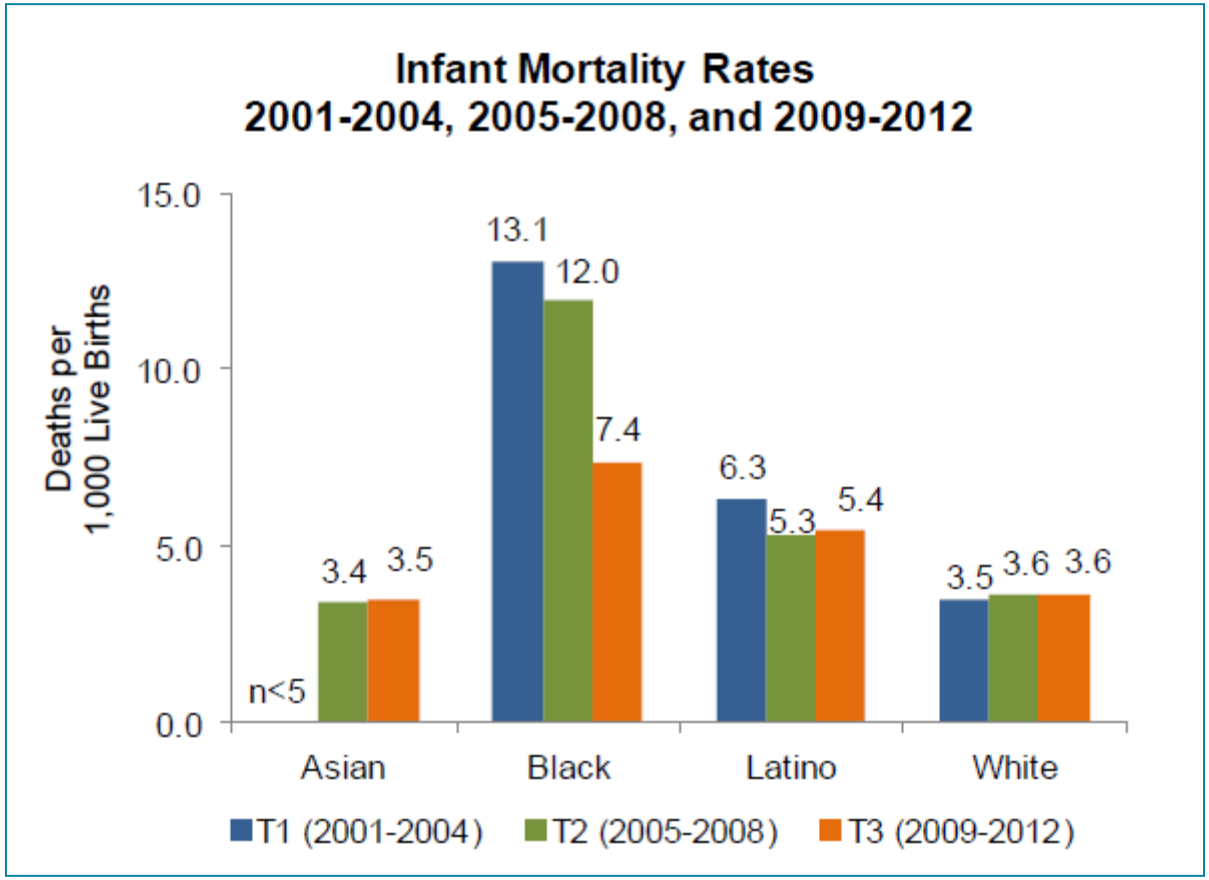
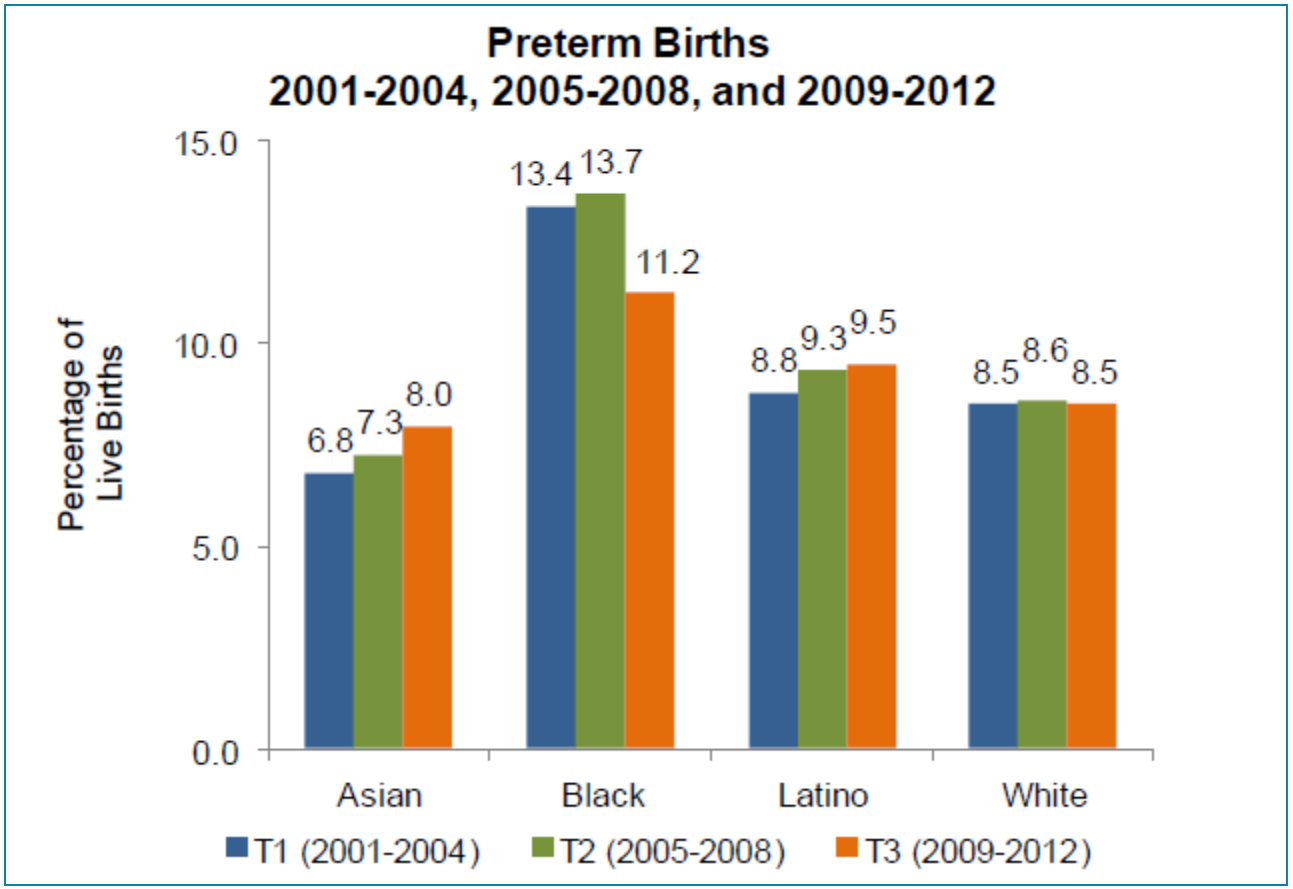
OBSTETRICS & GYNECOLOGY



DATA SOURCE: Massachusetts Resident Birth and Death files, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

Boston: decline in Black IMR



DATA SOURCE: Massachusetts Resident Birth and Death files, Massachusetts Department of Public Health
DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

What changed?

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- Decrease in births to teen mothers
- Increase in births to foreign-born mothers
- *"What is new in the current period, and most sharply since 2008, has been an explicit focus first, on the impact of poverty, racism and associated stress on health, and second, on the need for a broad, collaborative effort to support women facing theses stresses on a daily basis."*
  - Changed case management to include interconception period
  - Peer support via "women's circles" and group prenatal care
  - Recognition and addressing social determinants of health (food, housing, family medical concerns, finances)
    - Partnership with housing authority to prioritize pregnant women at risk of homelessness
    - Home visiting program

Equality vs. Equity

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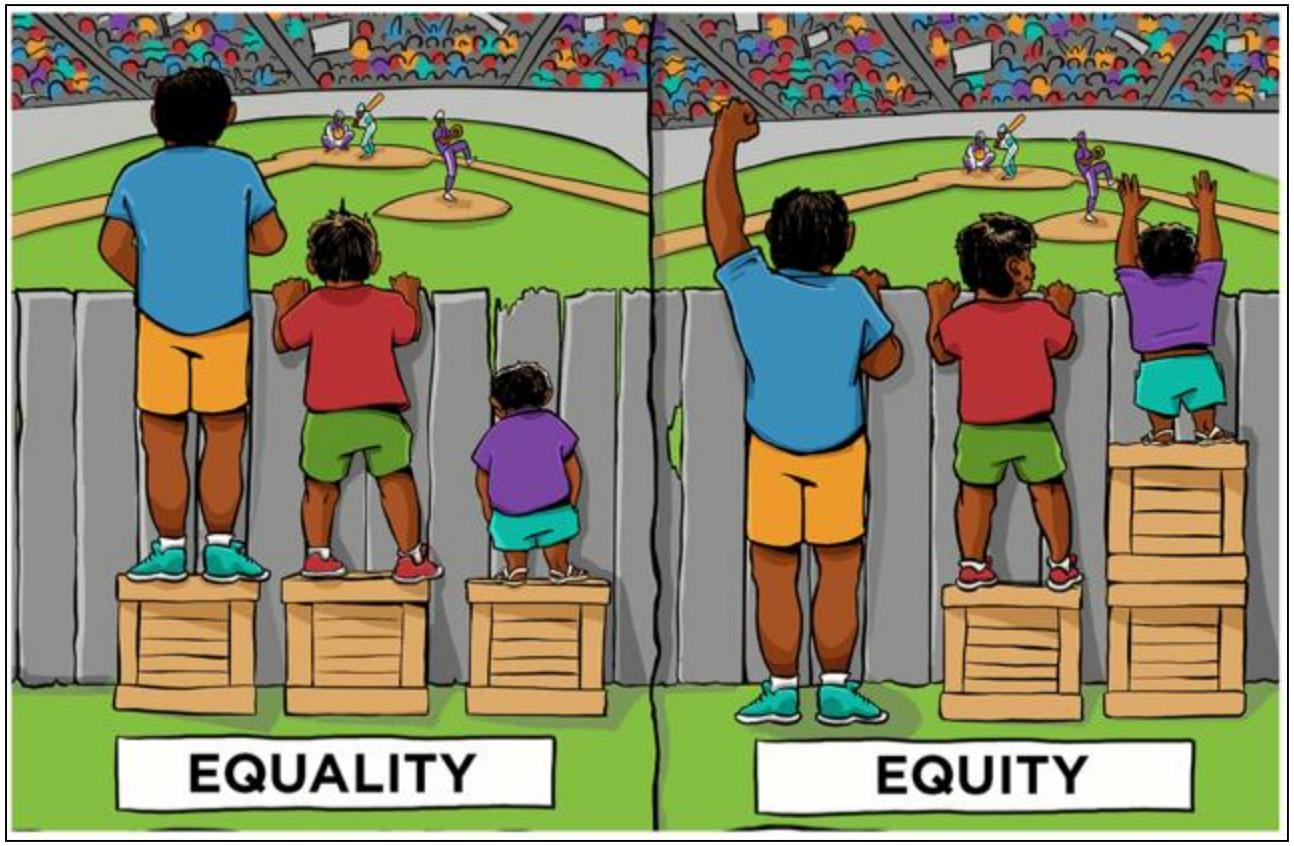

Equality vs. Equity vs. Liberation

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