



**Women's Health  
Council of RI**

## **Women's Health Council of RI Inaugural Quality Conference**

BETTER QUESTIONS. BETTER QUALITY.

*Expanding the Standards for Women's Health*



Women & Infants



Lifespan

# PREGNANCY AS A WINDOW INTO FUTURE HEALTH

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## PREGNANCY AS A WINDOW INTO FUTURE HEALTH

- PREGNANCY MAY UNMASK CHRONIC DISEASE
- PREGNANCY OUTCOMES MAY PREDICT FUTURE DISEASE
- PREGNANCY OFFERS AN OPPORTUNITY TO IDENTIFY HEALTH RISKS AND PREVENT ADVERSE HEALTH OUTCOME



# The Scope of the Opportunity

- There are 62 million women of childbearing age in the US, 85% of whom will give birth by age 44.
- One third of women enter pregnancy with chronic medical illness and 50% are overweight or obese
- Only 55% will have obtained preventive health services in any given year and 17 million women do not have health insurance
- 50-69% of women with publically funded insurance at delivery were uninsured before pregnancy and likely will be post partum

# Physiology of Pregnancy



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# Pregnancy as a Stress Test

- The physiologic adaptations and stress of pregnancy may unmask a woman's predisposition to certain diseases, eg GDM
- There is an increasing body of evidence for preeclampsia as a marker for maternal disease in later life including hypertension, ischemic heart disease, stroke and chronic renal disease.

# Gestational Diabetes

- Gestational Diabetes complicates 7% of pregnancies and will rise with obesity rates
- GDM is associated with a significant increased risk of Type 2 DM
- 5% develop Type 2 DM within 6 months, 30-60% within 10 years
- Despite this, and ADA recommendations, only 14-40% receive post partum screen



# Chronic Kidney Disease

- Increased renal blood flow and GFR occur in pregnancy
- May unmask glomerulonephropathy
- Proteinuria is the earliest sign of CKD
- Pregnancy represents only time when we screen asymptomatic women for proteinuria



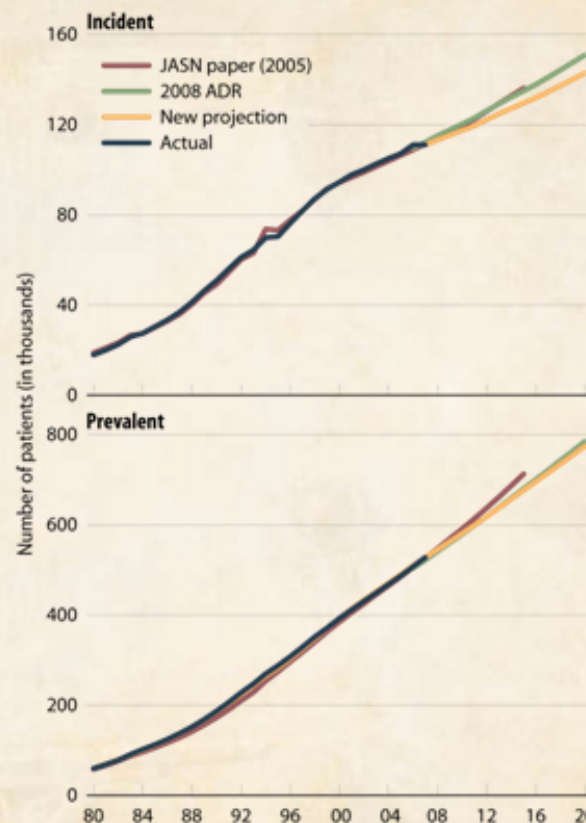
# The Scope of the Problem



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## Projected counts of incident & prevalent ESRD patients through 2020

Figure 2.1 (Volume 2)

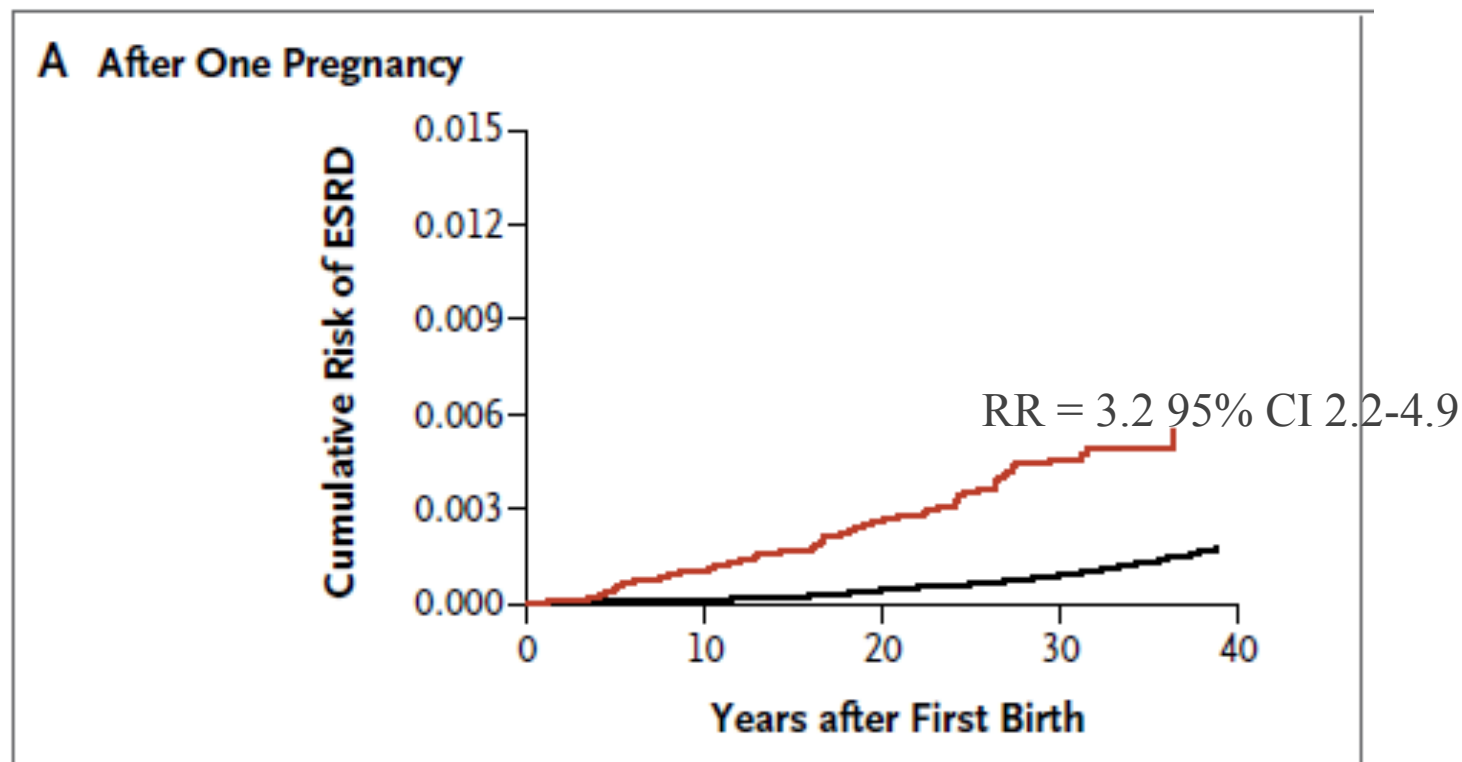


Counts projected using a Markov model. New projections use data through 2007, 2008 ADR projections use data through 2006, and 2005 JASN paper projections use data through 2000.

USRDS 2009 ADR



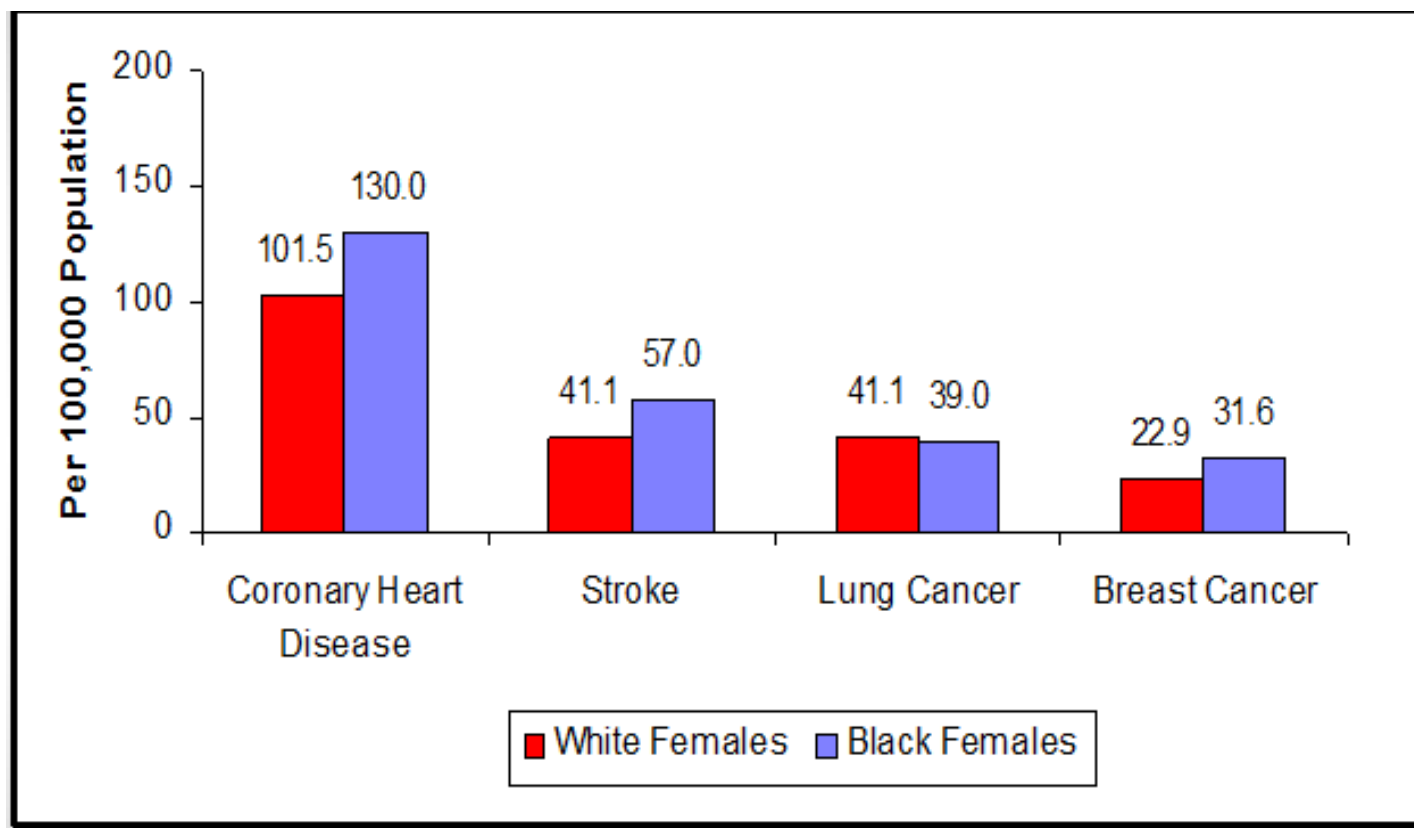
# Preeclampsia and ESRD



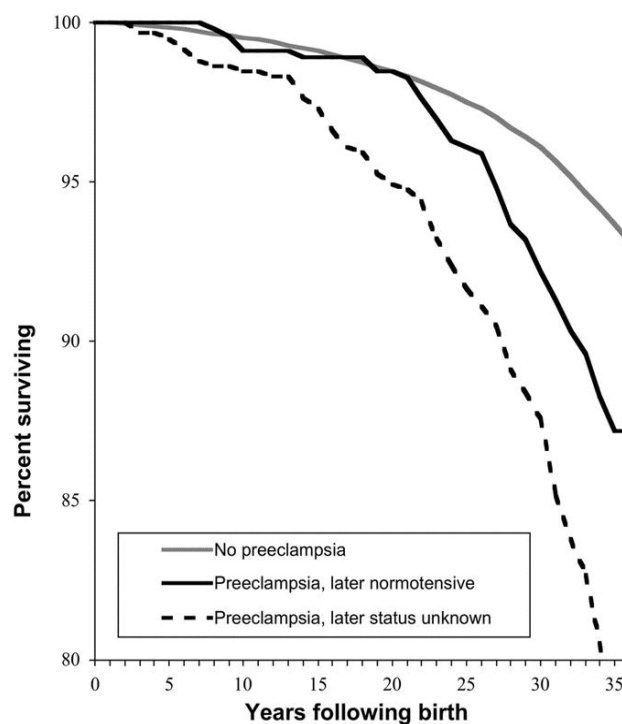
Vikse, et al. NEJM. 2008;359:800-0.



# Death from Heart Disease



# Life table cumulative estimates of maternal survival after preeclampsia

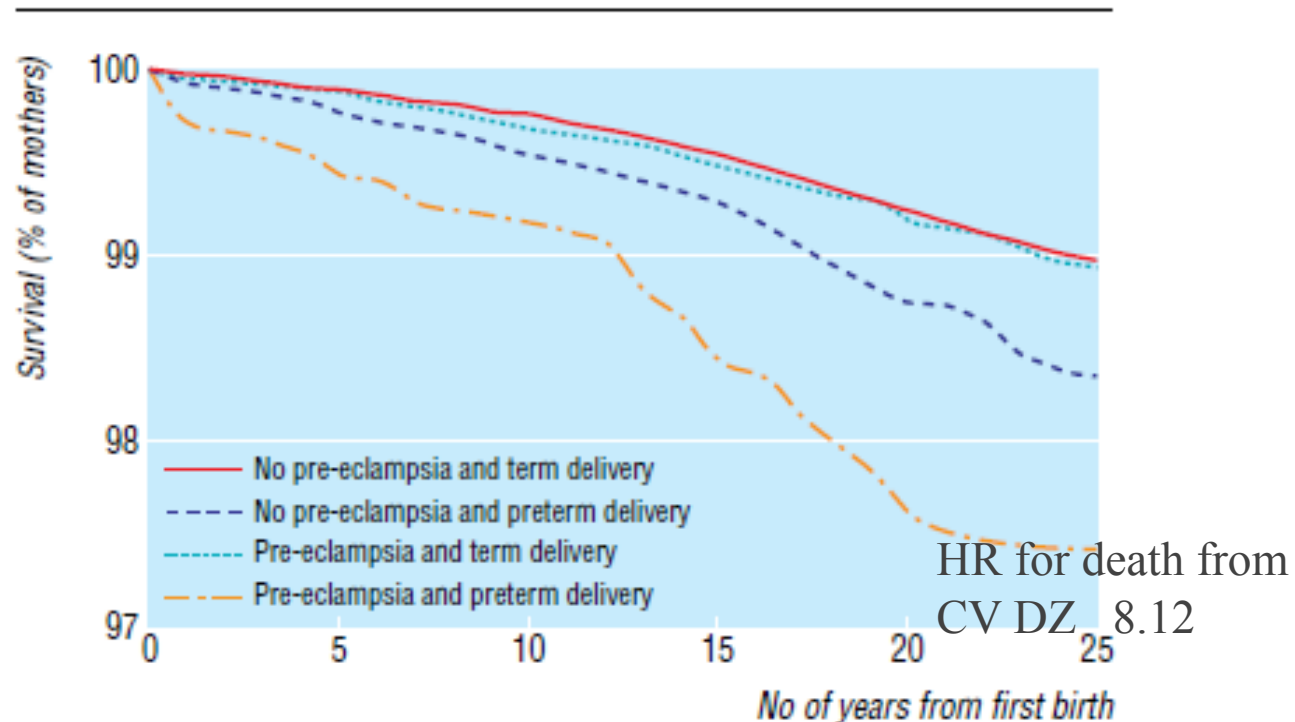


**relative risk of 3.1  
(95% CI 1.8–5.3)  
of cardiovascular  
death**

*Epidemiology 2005; Mar;16(2): 206-15*



# Maternal Survival after preeclampsia



Long term survival of mothers after their first delivery, according to whether they had pre-eclampsia and gestational age of baby at birth (term=37 weeks or more)

Irgens, et. al. BMJ 2001; 323: 1213-7

# Death and pregnancy complication

Category	Death from any cause	Death from IHD
Lowest birthweight quintile	1.4	2.4
Preterm delivery	1.6	2.2
Preeclampsia	1.2	1.8
Lowest birthweight quintile and preterm birth	2.1	6.8
Preterm birth and preeclampsia	2.1	6.4
Lowest birthweight quintile and preeclampsia	1.7	4.3
Lowest birthweight quintile, preeclampsia and preterm bi	2.8	16.1

# The Opportunity

- Pregnancy is an important access point
  - Pregnant Patients, especially in RI, access care and are motivated
  - Pregnancy provides components needed for behavioral change
  - Mothers are the gatekeepers to the health of the family

# The Problem

- By definition, preconception, prenatal, interconception care focus primarily on the pregnancy outcome and health of the baby
- The health of the mother may be seen only in the context of it's threat to the baby
- We miss opportunities to address women's health issues longitudinally





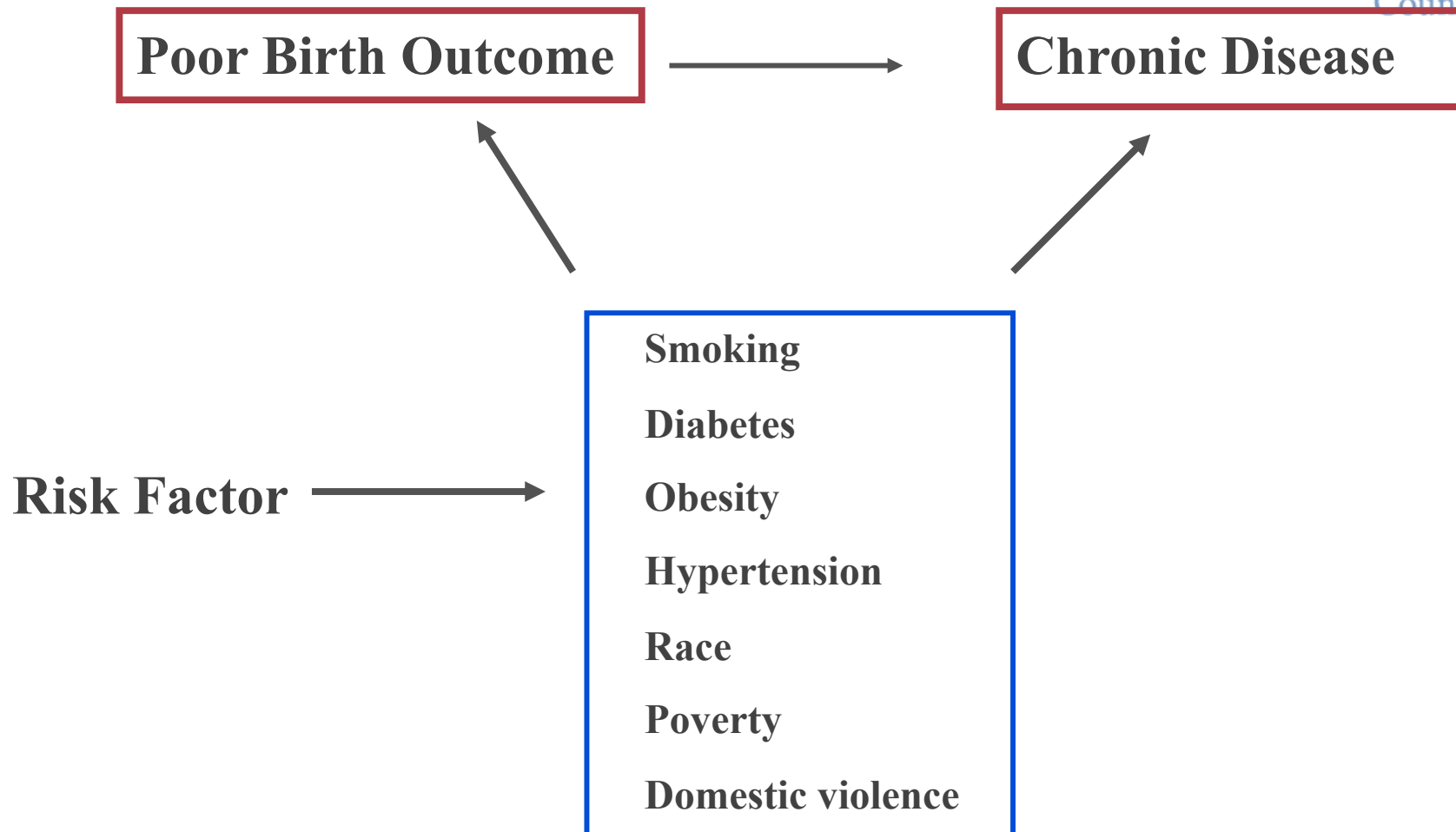
## WE ARE LOOKING THROUGH THE CRITICAL WINDOW

- Pregnancy acts as a WINDOW into future maternal health
  - Pregnancy provides a WINDOW to identify disease at its earliest stages
  - The post partum period is a WINDOW of opportunity for access to longitudinal care
  - The postpartum WINDOW should be the start of primary prevention of diseases for which risk has been identified during pregnancy
- The bottom half of the image is a solid blue horizontal bar.

# Changing the Model

- Recast concept of care centered around conception to comprehensive care for women regardless of childbearing status
- Link Obstetric Care to Ongoing Primary Care for Women

# New Models



# How do we get there?

- Educate patients, providers and insurers
- Training across disciplines and systems
- Improve communication between disciplines
- Include obstetrics in medical home concept for women
- Think of the Post Partum visit, not as an end of obstetric care, but as the beginning of women's longitudinal health care

## Next Steps

- Include history of adverse pregnancy outcomes in screening women for **Diabetes, Cardiovascular and Renal Disease** risks
- Counsel women with a history of GDM or preeclampsia about these increased risks
- Recommend intervention to prevent disease
  - Heart-healthy diet
  - Weight control and Exercise
  - Smoking Cessation

## LINK OBSTETRIC AND ONGOING CARE

“Separating childbearing from both research and management of chronic health problems and infectious diseases places women, their future pregnancies, and their future children at unnecessary risk”

*CDC Recommendations to Improve Preconception Health and Health Care. 2006*

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# EVERY BABY DESERVES A HEALTHY MOTHER FOR THE LONGTERM

