# Preconception Health

EVERY WOMAN, EVERY TIME

# Contact Information

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**NOTHING TO DISCLOSE**

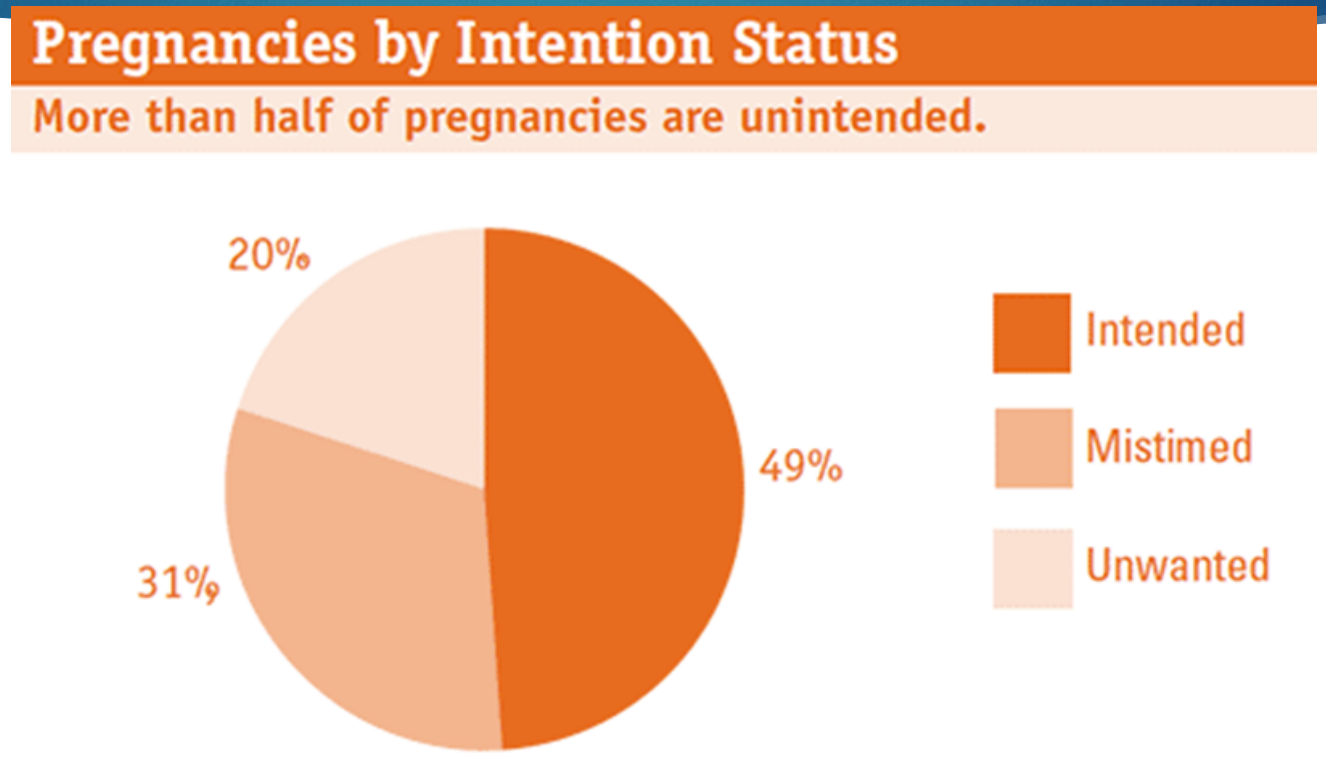
# Objectives

1. Recognize the role of all healthcare professionals in providing preconception care for women with childbearing potential
2. Review the frequency and impact of unplanned pregnancy
3. Describe the basics of preconception care, with an emphasis on risk management and patient education

# Every Woman, Every Time

- Most healthcare providers see women with childbearing potential
- All healthcare providers have a responsibility to provide appropriate medical care specific to women with childbearing potential
- Can and should be incorporated into all healthcare encounters

# Why is this so important?



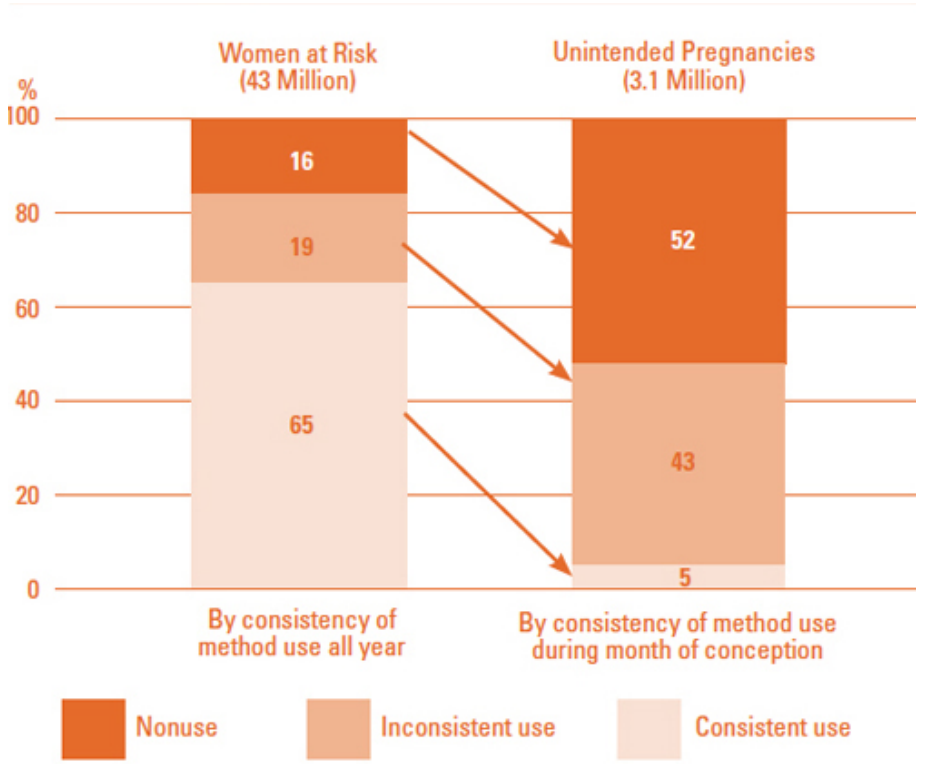

- Florida has one of the highest rates of unintended pregnancies at 59%

# Unintended vs. Intended

- Unintended pregnancy is one that is either unwanted or mistimed
  - About 5% of women have an unintended pregnancy each year
  - By age 45 more than half of women will experience an unintended pregnancy
- Intended pregnancy is one that occurred at the time it was desired (planned)

# How does this happen?

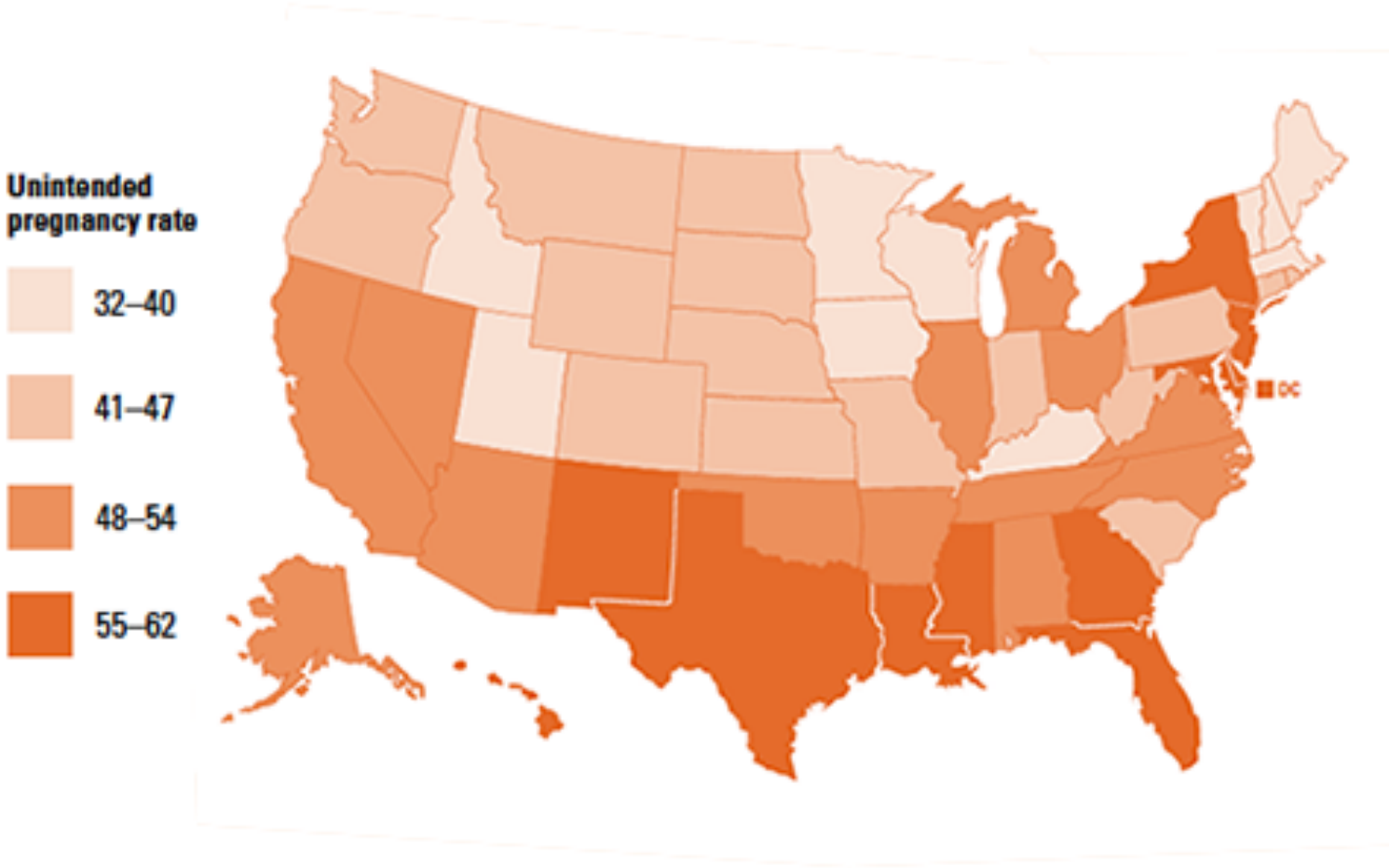
- **Contraceptive nonuse**
  - About 16% of all women resulting in 52% of all unintended pregnancies
- **Contraceptive user failure**
  - About 19% of all women resulting in 43% of all unintended pregnancies
- **Contraceptive method failure**
  - About 65% of all women resulting in 5% of all unintended pregnancies




*Notes:* Nonuse includes women not using a method all year (6%) and those with a gap in use of at least one month (10%).

www.guttmacher.org

## Unintended Pregnancy Rates, by State, in 2010




*Rates for Arizona, Indiana, Kansas, Montana, Nevada, New Hampshire, North Dakota and South Dakota estimated by multivariate regression.

www.guttmacher.org

# Contraception Discussion

- Consider patient's childbearing plans FIRST
- Offer contraceptive options most likely to achieve that plan
- Address healthcare issues and prevention that will result in healthiest pregnancy possible – whether intended or unintended

# Goals of Preconception Care

- To improve the health of women before pregnancy, including preconception and intervals between pregnancies
  - Health promotion and prevention
  - Screen for risk factors
  - Management of chronic conditions
  - Patient education at every stage
- Fetus is vulnerable to some insults by 17 days, and prenatal care often begins at 10-12 weeks

# Health Promotion

- Maintain (or attain) healthy weight
- Nutritious diet
- Exercise regularly for cardiovascular health
- Avoid tobacco exposure, all types
- Avoid harmful substances
  - Drugs and alcohol
  - Toxic exposures
- Baby spacing recommendations

# Baby-Spacing Recommendations

- Too close together?
  - Repeat pregnancy within 12 months of giving birth
    - Increased risk of placental abruption, placenta previa, possibly autism in 2nd child
  - Repeat pregnancy within 18 months of giving birth
    - Increased risk of low birth weight, small for gestational age, preterm birth
- Too far apart?
  - 5 or more years may increase maternal hypertension, preterm birth, low birth weight, small for gestational age

www.who.int/maternal_child_adolescent/documents/birth_spacing05/en/

# Prevention: Folic Acid

- USPSTF recommends all women capable of pregnancy take a daily supplement of folic acid – A
  - Only 32% of women age 18-45 take folic acid supplements
- Prevention of neural tube defects: folic acid daily for all women with childbearing potential
  - 400-800 µg daily for most women
  - 4000* µg daily for women with a prior pregnancy affected by NTD, dialysis, SCD, celiac, take medication for some chronic conditions (type 2 diabetes, epilepsy, RA, psoriasis, lupus, asthma, IBD)

# Prevention: Vaccines

## BEFORE Pregnancy

Up to date on all routine immunizations

Complete Hepatitis B series

MMR at least ONE month prior to conception

Varicella vaccine at least THREE months prior to conception

## DURING Pregnancy

Tdap can be given, ideal between 27 – 36 weeks gestation

Flu vaccine – inactivated

Hepatitis A vaccine

## AFTER pregnancy

Tdap will confer immunity to infant for pertussis

MMR and Varicella after birth if mother is not immune

Flu vaccine if not given during pregnancy

www.cdc.gov/vaccines/adults/rec-vac/pregnant.html

# Risk Factors: Interpersonal Violence

- USPSTF recommends screening women of childbearing age for intimate partner violence (IPV) and provide or refer for intervention services - *B*
- IPV increases during pregnancy
  - Increased risk of placental abruption, IUGR, spontaneous abortion, preterm labor
- 2-5x increased risk during postpartum
  - Decreases maternal-infant bonding

# Risk Factors: Substance Use

- Alcohol
  - 10% consume alcohol during pregnancy
- Tobacco
  - 11% smoke during pregnancy
- Drug use – street drugs, prescription and OTC
  - 3% take prescriptions or OTC meds that are known teratogens

# Risk Factors: Environmental Exposures

- 32% of US women aged 20-39 have toxic exposures
  - Household: heavy metals, solvents, pesticides
  - Workplace: clinical and laboratory health care, dry cleaning, printing, manufacturing, agriculture
  - Mercury exposure = large fish (shark, swordfish, king mackerel)

# Infectious Diseases: USPSTF Recommendations

- Chlamydia and Gonorrhea – screen all sexually active women 24 and younger and those at increased risk – *B*
- HIV – screen all pregnant woman, individuals age 15-65 and others at increased risk – *A*
- Syphilis – screen all pregnancy women and those at increased risk – *A*
- Hepatitis B – screen all pregnant women (*A*) and those at increased risk (*B*)
- Hepatitis C – screen persons at high risk and offer one-time screening to those born between 1945 and 1965 – *B*

# Risk Factors: Other Infections

- Cytomegalovirus
- Parvovirus
- Toxoplasmosis
- Tuberculosis
- Listeria
- Periodontitis
- Herpes simplex

# Risk Factors: Genetic Conditions

- Personal or family history of congenital anomalies or genetic disorders
- Refer to genetic counseling when risk factors identified
  - Cystic fibrosis
  - Sickle cell
  - Thalassemia
  - Neural tube defect
  - Aneuploidy

# Chronic Disease Management (CRM)

- Consider the women in their childbearing years you care for who have chronic diseases
  - Infectious Diseases
  - Diabetes
  - Hypertension
  - Thyroid disease
  - Seizure disorders
  - Arthritis
  - Asthma
  - Thrombophilia and other clotting disorders
  - Depression

# CRM: Medication Use

- Assess for use of teratogens
- Use the fewest medications, at the lowest dose, needed to control a chronic condition
- Switch to safer medications when possible
- **AVOID:** isotretonoin (Accutane), most oral diabetic meds, ACE inhibitors, ARBs, atenolol, anti-seizure meds, warfarin

# CRM: Infectious Diseases

- HIV
  - Prevention strategies
  - Screen before or early in pregnancy
  - Antiretrovirals to prevent vertical transmission (⇩ risk < 1%)
  - Avoid breastfeeding
- Hepatitis B
  - Administer HBIG and 1st dose of Hep B vaccine to infant within 12 hours of birth
- Tuberculosis
  - Take pyridoxine (B6) with isoniazid; okay to breastfeed
  - Rifapentine not recommended during pregnancy (stop 3 months before conception
  - Avoid: streptomycin, kanamycin, amikacin, capreomycin, fluoroquinolones

# CRM: Diabetes

- Increased risk of congenital anomalies, macrosomia, preeclampsia, preterm birth, stillbirth, spontaneous abortion
- Monitor blood glucose frequently and aim for tight glycemic control before conception
- Medication use – okay to use insulin and metformin

# CRM: Obesity

- Women 20-39
  - 26% overweight, 32% obese
- Increased risk of
  - Type 2 diabetes, gestational diabetes, hypertension
  - Adverse pregnancy outcomes
    - Fetal: Macrosomia, congenital anomalies, IUGR, spontaneous abortion, stillbirth
    - Maternal: shoulder dystocia, operative delivery, preeclampsia, eclampsia

# CRM: Psychiatric Disease

- Screen for depression and anxiety
- Counsel patients with intent to become pregnant or those choosing no contraception
  - Risk of untreated depression during pregnancy
  - Risks of pharmacologic treatment
  - Risk of postpartum depression

# Uh-oh…
# She thinks she might be pregnant!

- Confirmation of pregnancy
  - Missed menses, past menstrual history, type of contraception, clustering of symptoms, physical findings
  - Positive pregnancy test
- Responding to her reaction
  - This is an unknown, so don't assume how she might react – create safe place for her own emotional reaction
    - Ambivalent – ashamed – pleased – angry – happy – guilty – frightened
    - Consider responses from others: father of baby, parents, friends/coworkers
    - Age and social situation may contribute to complexity of reaction to unintended pregnancy

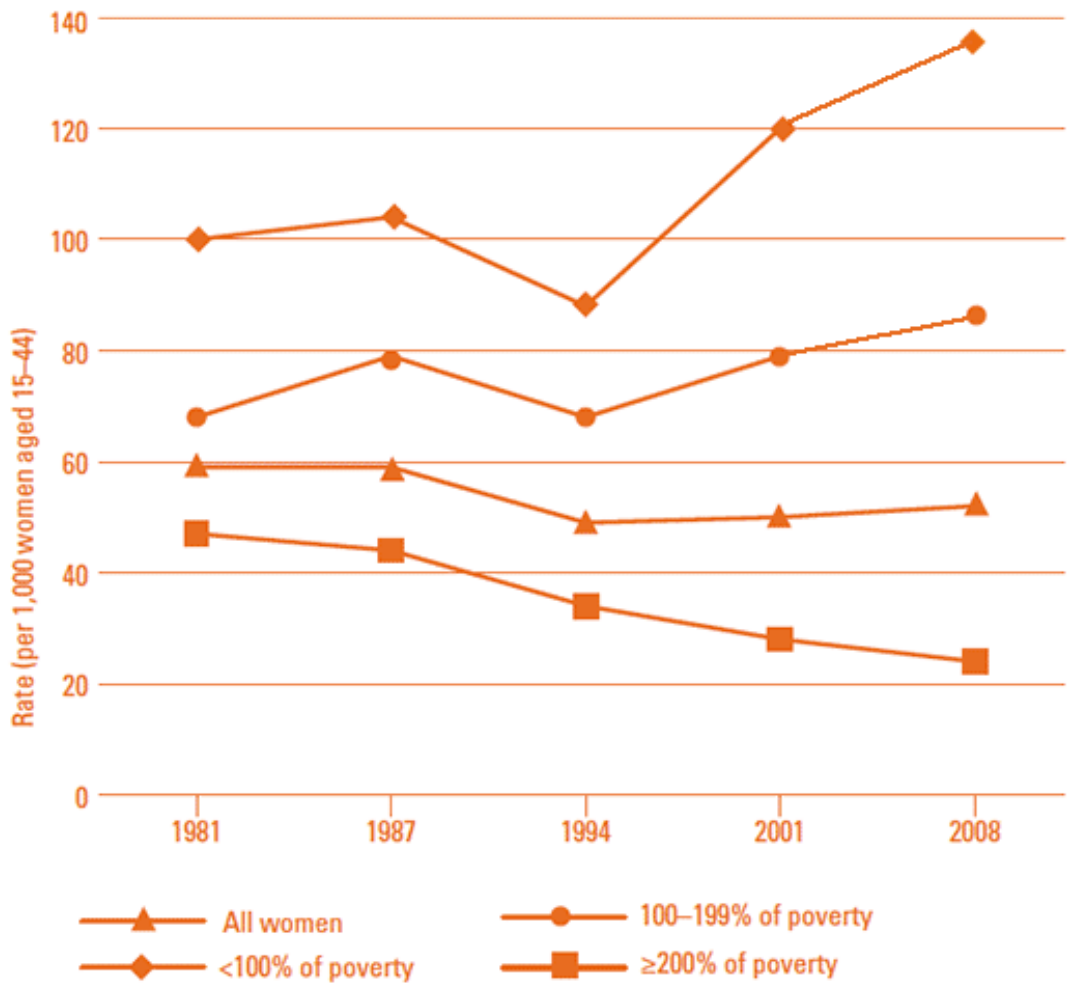
# Social Inequity: Disparities in Unintended Pregnancy

- Income
  - Poor women have 137/1000 unintended pregnancies compared to 26/1000 high income women
  - Higher rates of unplanned births and abortions in poor women
- Racial/Ethnic
  - Black women have highest rate of unintended pregnancy at 92/1000
- Education
  - Women without a high school diploma 101/1000

- Bottom Line: Women have greater success with timing a pregnancy with increased age, education and income.

## Unintended Pregnancy Rates, 1981–2008

**Unintended pregnancy has become increasingly concentrated among poor and low-income women.**



# Economic Sequelae

- Society
  - Increased public spending
  - Reduced gender equity
- Individual
  - Decreased access to education
  - Decreased job options and financial security
  - Diminished family resources

# Healthy People 2020

- Increase the proportion of intended pregnancies to 56%
  - Increase access to contraception
  - Encourage use of more effective and longer-acting reversible contraception options when appropriate
  - Increase correct and consistent use of all contraceptive methods among those who are sexually active but wish to delay or avoid pregnancy
- Decrease the number of teen pregnancies by 10%

# Key Recommendations

1. Ask about intent to become pregnant; provide contraceptive option tailored to plan.
2. Advise folic acid supplementation.
3. Assess BMI. Counsel regarding healthy weight before conception.
4. Check for teratogenic medications. Change to safer options if possible.
5. Screen for STIs when indicated.
6. Update vaccines.