Folic Acid Promotion Among Teens:
Data and Strategies

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Presenting:

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Learning Objectives

Participants will:

- Review the importance of folic acid for all women of reproductive age, including teens.
- Identify the sources from which women and teens can get folic acid.
- Consider barriers to folic acid supplementation and strategies to address these barriers.
- Learn about opportunities for women and teens to get folic acid-containing supplements through public and private health insurance plans.

What Is Preconception Health?

Preconception health is the health of women and men during their reproductive years.

Why does it matter?

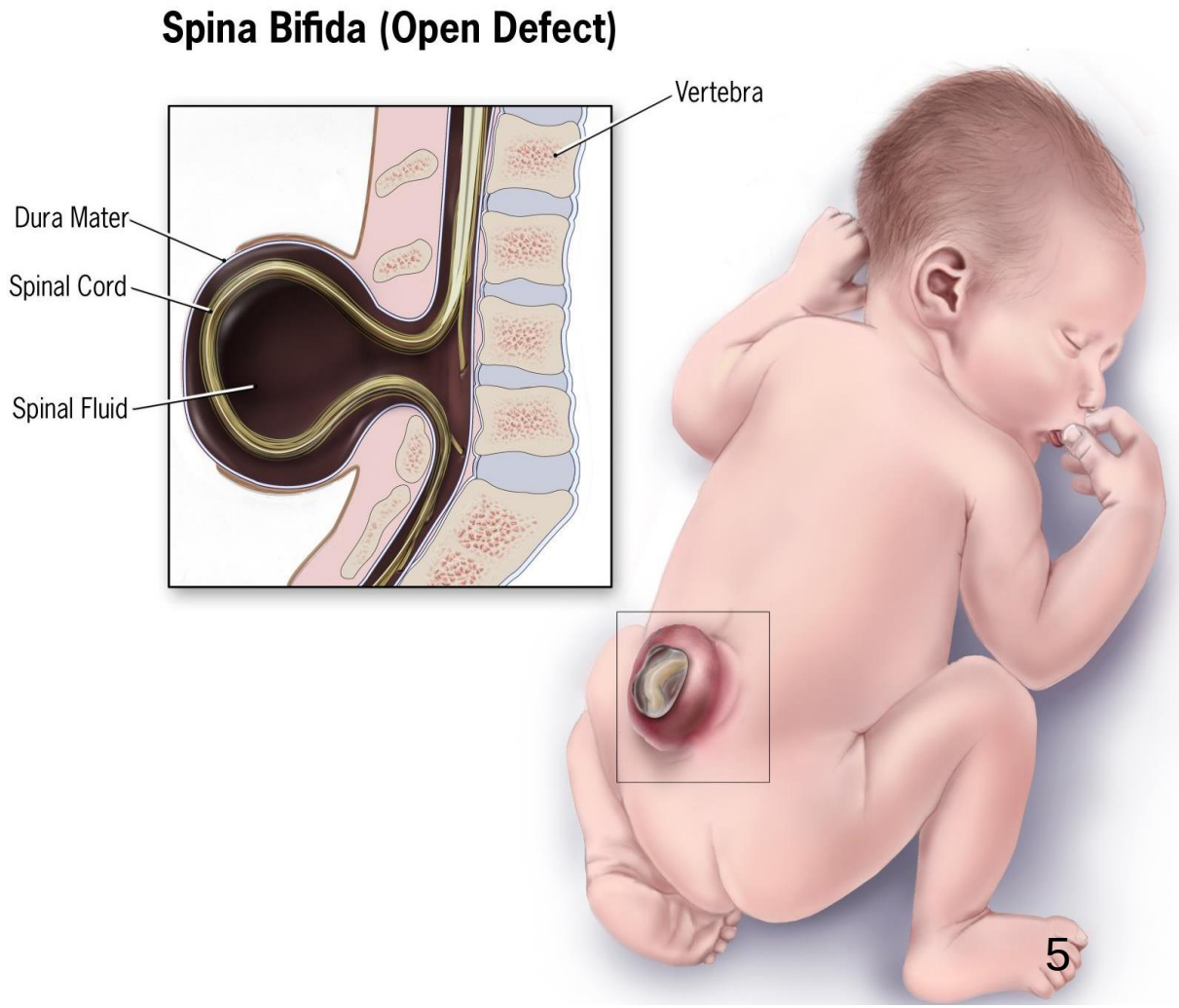
- All women and men can benefit.
- Foundation for the health of subsequent generations.
- Key in prevention of birth defects, preterm birth, low birthweight, and related infant mortality.

Why Is Folic Acid Important?

- Folic acid is a B vitamin that our bodies use to make new cells.
- Every woman needs folic acid every day, regardless of whether she intends pregnancy.
- Folic acid helps support healthy skin, hair, and nails in addition to other health benefits.

Why Is Folic Acid Important?

- Folic acid in the month prior to conception and during early pregnancy **reduces the incidence of neural tube defects (NTDs) by approximately 70%.**
- Some data suggest that folic acid supplementation can reduce other categories of birth defects.



How many births are affected by NTDs?

Wisconsin Birth Defect Registry

- 2012 spina bifida births: 13
- 2012 anencephaly births: 8

Total births covered: 66,975

Focus on Maternal and Child Health

Wisconsin Birth Defects Registry collecting data

Elizabeth Oftedahl, BA; Richard M. Pauli, MD, PhD; Sharon Fleischfresser, MD, MPH; Murray L. Katcher, MD, PhD

Abstract

Wisconsin Statute 253.12 was enacted in May 2000 to create the Wisconsin Birth Defects Registry (WBDR), replacing the Birth and Developmental Outcome Monitoring Program, a previous birth defects and developmental disabilities reporting system initiated in 1989. In the summer of 2004, the new registry began collecting demographic, diagnostic, and identifying information for children from birth to 2 years of age who are born with reportable birth defects and/or are receiving health care services for them in Wisconsin. This article describes the development of the registry and outlines expectations for reporting of birth defects.

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Introduction

In Wisconsin, approximately 2000 infants are born with a birth defect each year, affecting approximately 3% of all births.[1] More than 4500 different birth defects have been identified, and together they cause more than 20% of all infant deaths. Birth defects are a substantial cause of childhood morbidity and long-term disability and are the fifth leading cause of years of potential life lost. Birth defects are also expensive. In Wisconsin, the estimated lifetime cost of only 12 selected birth defects among infants born in a given year is $141 million.[2]

As many as two-thirds of all birth defects have no identifiable cause. In order to prevent birth defects, we must know more about their causes. Fundamental questions such as how often each type of birth defect occurs and whether they are clustered in certain parts of the state or among certain racial/ ethnic groups must be examined. Surveillance is a means to begin identifying, counting, and providing services to babies with birth defects and their families.

Birth Defects Reporting Legislation

The Wisconsin Legislature supported passage of Wisconsin Act 114 in May 2000 in an effort to address this substantial public health problem. The goal of this law is to improve birth defects reporting in Wisconsin so that this information can be used to identify birth defect risk factors, conduct epidemiologic studies, decrease the incidence of birth defects, and facilitate service provision to the families of children with birth defects. The law mandates reporting of birth defects by physicians and pediatric specialty clinics. Any hospital in the state may also voluntarily report the occurrence of birth defects in children diagnosed or treated within a given facility.

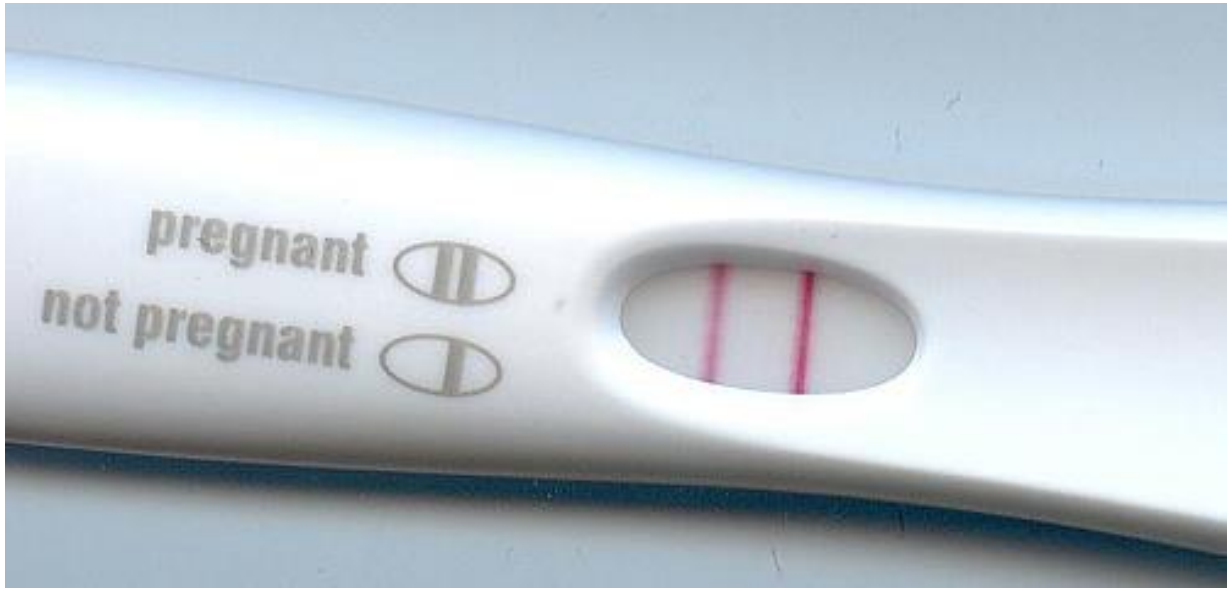
The law also requires the Department of Health and Family Services (DHFS) to maintain an up-to-date registry of the diagnosed birth defect of any Wisconsin child age birth to 2 years and to develop rules regarding which birth defects must be reported. DHFS must specify how the reporting will be accomplished and must notify the persons required to report. The administrative rules were passed by the Legislature and took effect April 1, 2003.

Statute 253.12 defines a birth defect as a structural deformation, disruption or dysplasia, or a genetic, inherited, or biochemical disease that occurs prior to or at birth and that requires medical or surgical intervention or interferes with normal growth and development. The administrative rules define a list of reportable birth defects (Table 1). This list was developed by the Scientific Advisory Subcommittee of the Council on Birth Defect Prevention and Surveillance. The subcommittee selected reportable

Important Point

Half of all pregnancies are unplanned

This figure is nearly 80% among teens



Folic Acid Recommendation for ALL Women

The United States Preventive Services Task Force (USPSTF) recommends that:

All women planning or capable of pregnancy take a daily supplement containing 0.4 to 0.8 mgs (400-800 mcg) of folic acid at least 4 weeks prior to conception and for the first trimester.

ACOG, AAP, AAFP, ACMG, and many other professional societies support and echo this recommendation. Wisconsin Association for Perinatal Care has revised their Folic Acid Policy Statement.

Risks of Folic Acid - Women

Theoretical concerns raised for women:

- Increased risk of cancer
- Masking vitamin 12 deficiency

These concerns have not been proven to be a problem.

Risks of Folic Acid - Children

- No harmful effects proven after in utero exposure.
- Possible concern for increased respiratory problems and atopy.
- Results are inconsistent.

Folate – Vitamin B9 – Water soluble

Food	Serving Size	Amount (mcg)
Chicken liver	3.5 oz	770
Breakfast cereals	1/2 to 1 1/2 cup	100 to 400
Braised beef liver	3.5 oz	217
Lentils, cooked	1/2 cup	180
Chickpeas	1/2 cup	141
Asparagus	1/2 cup	132
Spinach, cooked	1/2 cup	131
Black beans	1/2 cup	128
Kidney beans	1/2 cup	115
Lima beans	1/2 cup	78
Tomato juice	1 cup	48
Brussels sprouts	1/2 cup	47
Orange	1 medium	47
Broccoli, cooked	1/2 cup	39
Fortified bread	1 slice	38







Source: Food Values of Portions Commonly Used, 16th edition

Does Food Supply Enough Folic Acid?

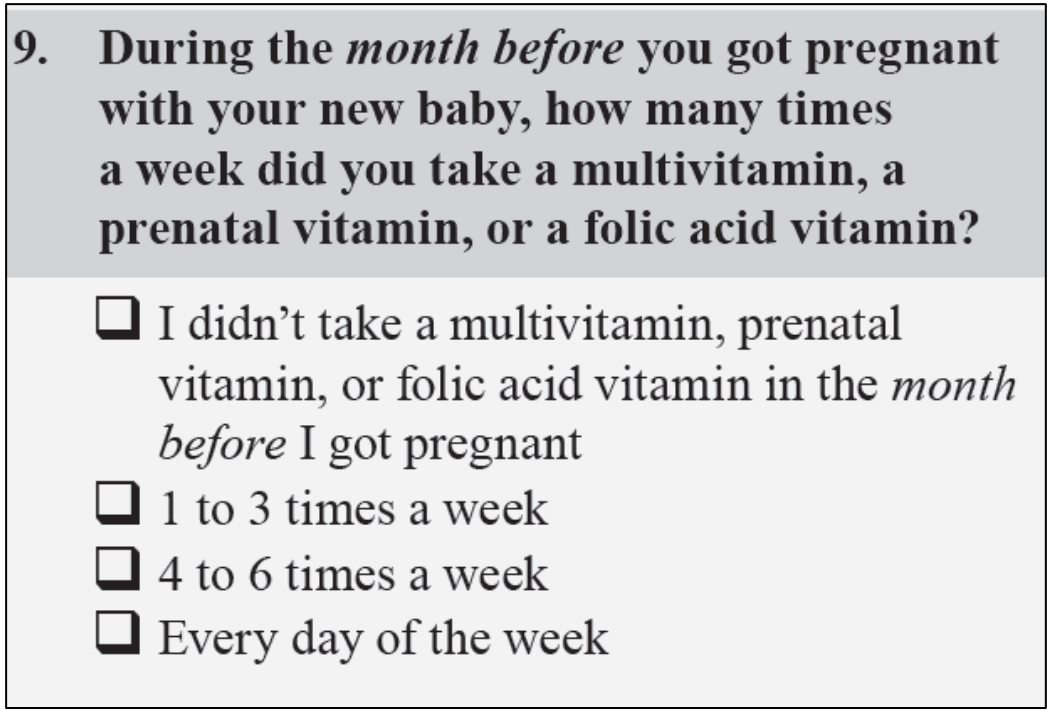
- Enrichment of grains since 1998 calculated to add 200 mcg folic acid daily to diet
- Certain diets limit folate intake
- Only 50-85% bioavailable in foods

What Do the Data Show?

Pregnancy Risk Assessment and Monitoring System (PRAMS)

- Mail and telephone survey of women after live birth, conducted jointly by CDC and state health departments.
- Survey on mothers' perceptions and experiences before, during, and shortly after pregnancy on many topics related to social determinants, environment, health behaviors, and health care.
- Wisconsin started PRAMS data collection in 2007.

PRAMS Question on Folic Acid



9. During the *month before* you got pregnant with your new baby, how many times a week did you take a multivitamin, a prenatal vitamin, or a folic acid vitamin?

- ❑ I didn't take a multivitamin, prenatal vitamin, or folic acid vitamin in the *month before* I got pregnant
- ❑ 1 to 3 times a week
- ❑ 4 to 6 times a week
- ❑ Every day of the week

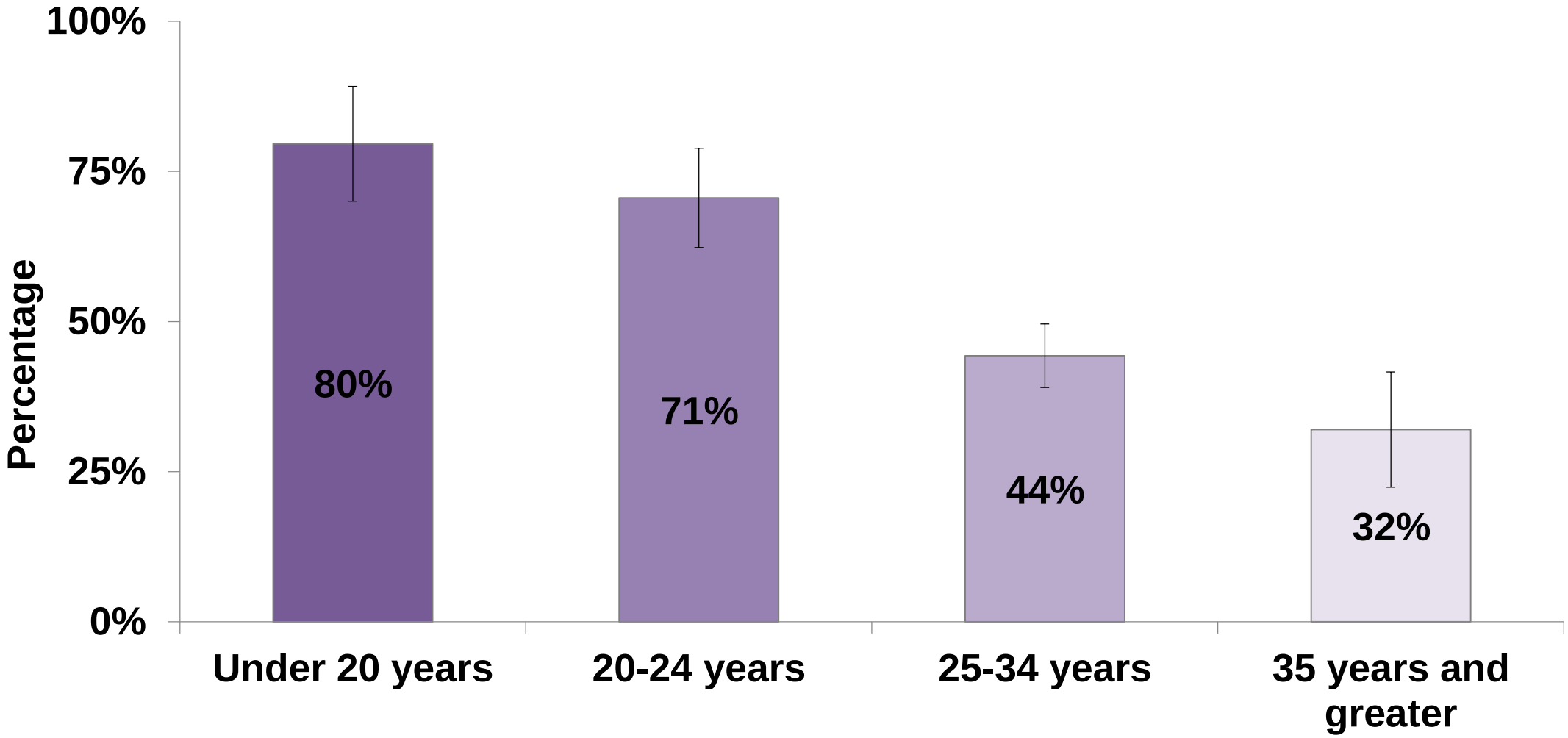
Half of all Wisconsin mothers surveyed during 2009–2012 reported not taking a vitamin containing folic acid in the month before pregnancy.

What Do the Data Show?

Disparities:

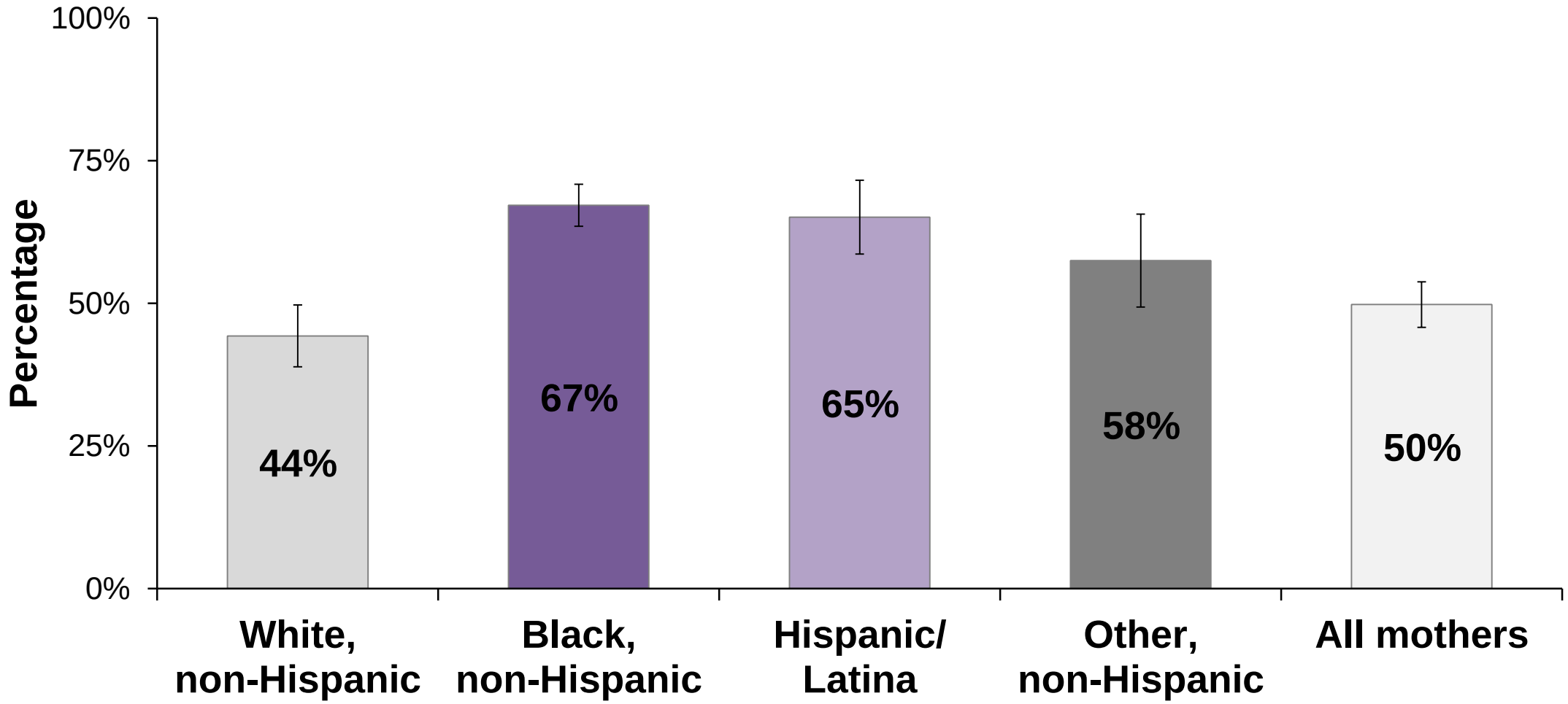
- **Maternal age**
- **Race/ethnicity**
- Maternal education
- **Federal poverty level**
- **Medicaid status**
- Pregnancy intention

No Vitamin Use the Month Before Pregnancy by Maternal Age



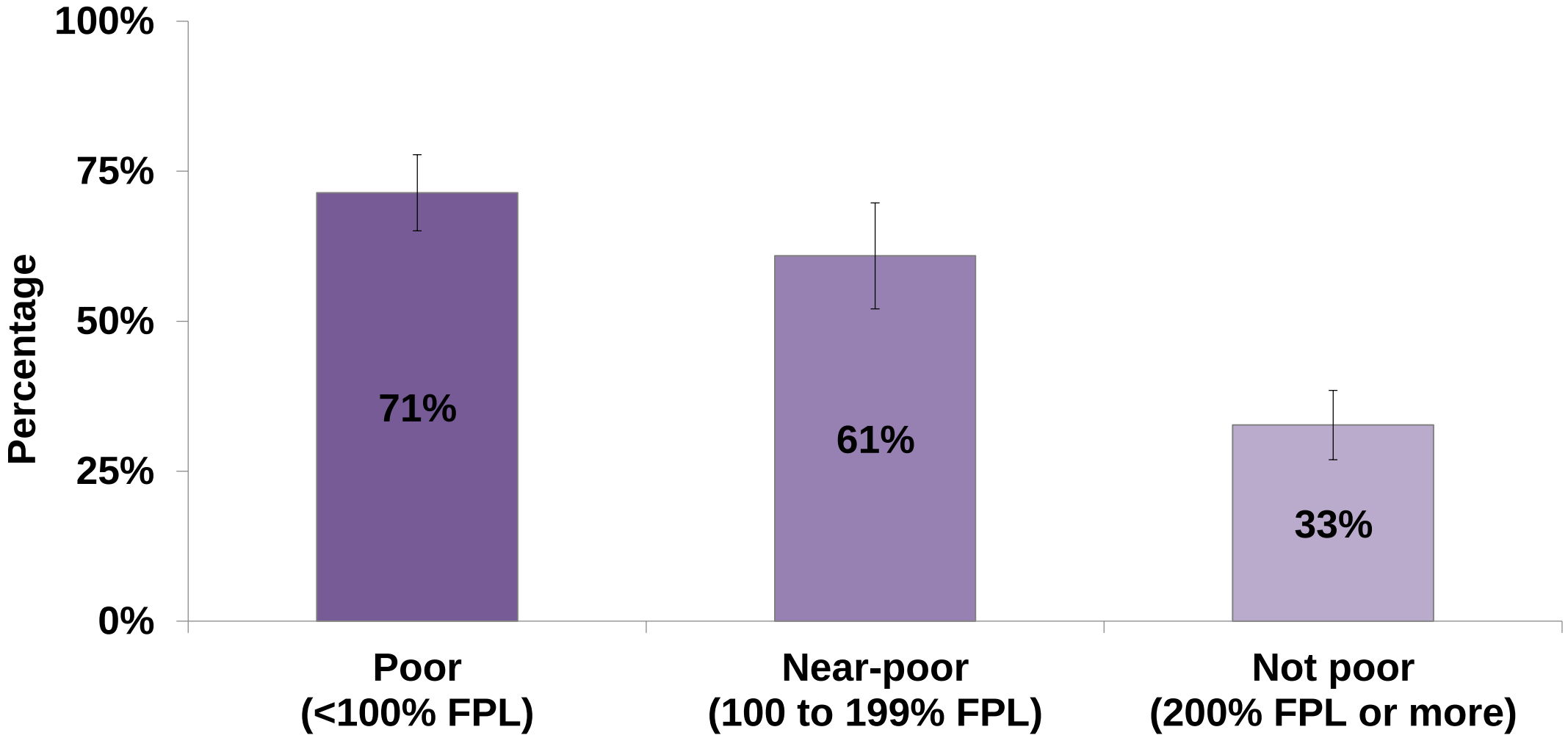
Source: Wisconsin PRAMS 2012, Division of Public Health, Department of Health Services

No Vitamin Use the Month Before Pregnancy by Race/Ethnicity



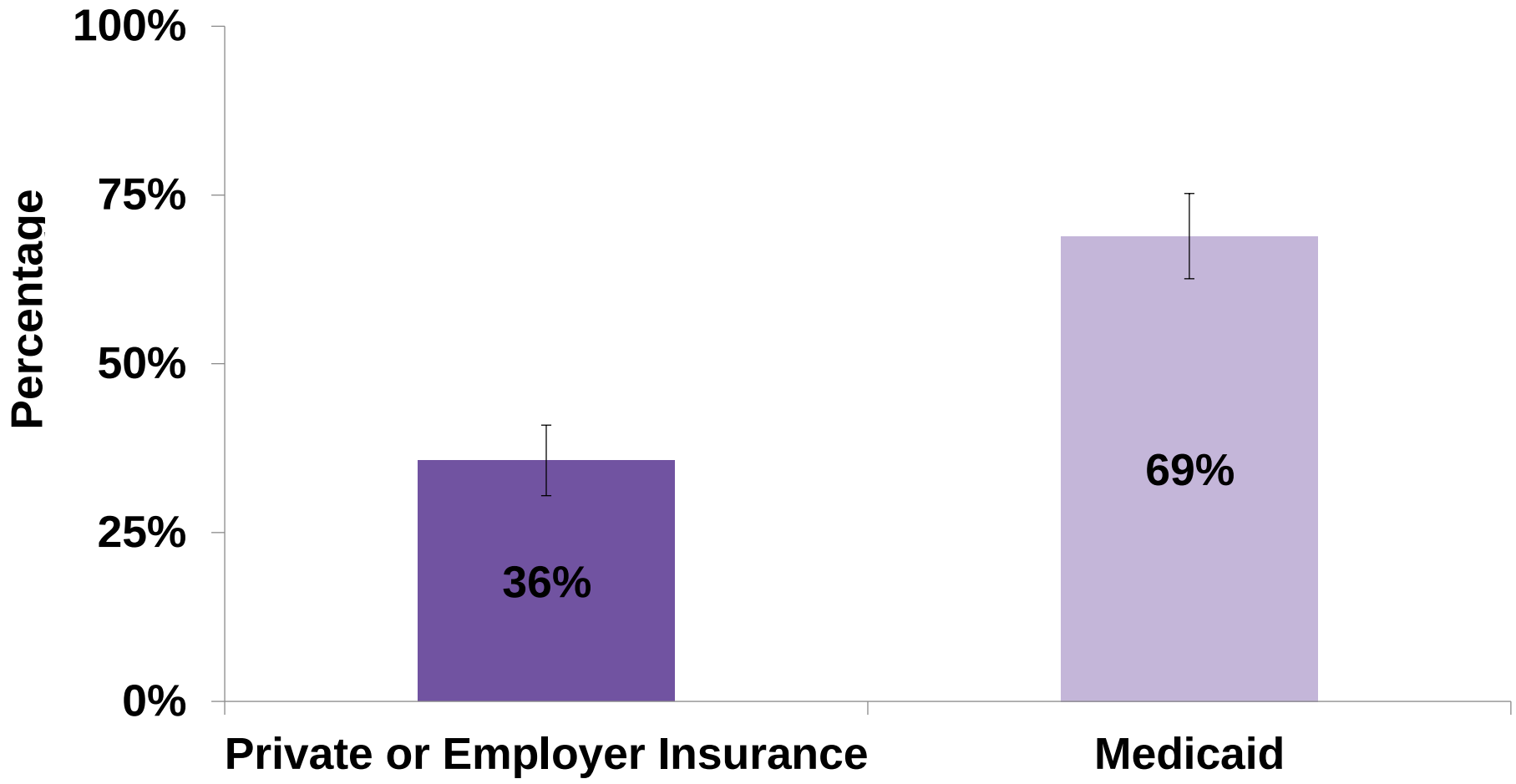
Source: Wisconsin PRAMS 2012, Division of Public Health, Department of Health Services

No Vitamin Use the Month Before Pregnancy by Federal Poverty Level (FPL)



Source: Wisconsin PRAMS 2012, Division of Public Health, Department of Health Services

No Vitamin Use the Month Before Pregnancy by Insurance Status Prior to Pregnancy



Source: Wisconsin PRAMS 2012, Division of Public Health, Department of Health Services

Barriers to Folic Acid Supplementation

What Women Say …

- No one ever told me to…
- Don’t see as a priority or important
- Lack of role models
- They are too big to swallow
- Upset stomach or cause constipation
- Cannot afford or don’t want to spend $ on vitamins
- Can’t remember to take them
- I don’t know…..I just don’t

Barriers to Folic Acid Supplementation

What the Research Says . . .

- Lack of knowledge about the benefits of folic acid
- Misconceptions, such as the belief that folic acid causes morning sickness
- Forgetting, or not having time to take a supplement
- Previously having a healthy pregnancy with no supplement use
- Not planning on getting pregnant.

Strategies to Address Barriers with Teens

- **Ask all young women** about their vitamin use and recommend usage.
- **Inform women of the importance** of taking folic acid even when not trying to conceive. Use messaging that resonates with young women: *Emphasize health and beauty.*
- **Discuss common side effects** of supplements and how to minimize them.

Strategies to Address Barriers

- **Suggesting memory devices**, such as keeping supplements next to her toothbrush, or setting a reminder on her cell phone.
- **Supplementation alternatives** to prenatal vitamin, multivitamin, children's chewable or folic acid supplement.

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New Opportunities for Folic Acid Access

Folic acid provision is a covered preventive service for women under the Affordable Care Act.

It is to be fully covered by insurance plans, with no co-pays or cost sharing.

These standards are also leading to changes to public insurance benefits.

Wisconsin Medicaid Policy Change

As of May 1st, 2015:

The diagnosis restriction on prenatal vitamins has been removed.

This means that prenatal vitamins—which contain folic acid—can be prescribed for ALL women ages 12-60, regardless of whether they are pregnant or not.

Private Insurance Changes

Plans that follow ACA rules and cover the list of covered preventive services should cover prescribed folic acid in some form—multivitamin, prenatal vitamin, or folic acid supplement.

Exact ages covered differ among plans.

Women can call their insurer to find out exact details.

Social Media Campaign

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http://www.folicstrong.org

Questions?

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