Neural tube defects (NTDs) are serious birth defects that involve incomplete development of the brain, spinal cord. NTDs affect about one in every 1,000 newborns in the United States. From 50 to 70% of NTDs can be prevented if women take a multivitamin with folic acid daily before becoming pregnant (see text box). Women must begin to take folic acid before they become pregnant, because these defects occur in the first 2-4 weeks of pregnancy before a woman realizes she is pregnant.

The Utah Birth Defect Network monitors the occurrence of NTDs and all other structure birth defects that cause structural malformations and works to prevent NTDs by educating women and health care providers about folic acid use. This Health Status Update presents information about knowledge and use of folic acid supplements by Utah reproductive age women collected on the 1998-2000 Utah Behavioral Risk Factor Surveillance System (BRFSS).

### Occurrence of NTDs

**Figure 1.** Number of infants identified with neural tube defects per 1,000 live births, Utah 1985 to 1999.

- **The identified occurrence of neural tube defects in Utah decreased during the 1990s (see Figure 1).**
- **Most women had heard of folic acid, but less than half of women knew that folic acid prevents birth defects. Awareness and knowledge of the preventive benefits of folic acid changed little from 1998 to 2000 (see Figure 2).**
- **Only 40-50% of reproductive age women reported they were taking folic acid supplements on a daily basis. That percentage changed little from 1998 to 2000.**
- **Women with more education were more likely to know about folic acid and its benefits, but the percentage who reported daily use of folic acid didn’t vary much by education (see Figure 3).**
- **Married women were more likely to report daily use of folic acid (49% vs. 39%).**

### Folic Acid Use Trends

**Figure 2.** Percentage of Utah women aged 18-44 who reported they ever heard of folic acid, knew it prevents birth defects, and took folic acid supplements daily, 1998-2000.

### Folic Acid Use by Education

**Figure 3.** Percentage of Utah women aged 18-44 years who reported they ever heard of folic acid, knew it prevents birth defects, and took folic acid supplements daily according to educational attainment, 1998-2000.

- **Only about one in four women reported they had heard about folic acid from their physician, but those women were more likely to report daily folic acid use (57% vs. 46%).**
- **Women in Utah were somewhat more likely to report awareness of folic acid, knowledge of its benefits, and daily folic acid use than were women in other states surveyed.**

A substantial proportion of Utah women of reproductive age report daily use of folic acid. Decreasing rates of neural tube defects during the 1990s may be due to such use. However, many women still don’t know about the benefits of folic acid and many are not using it daily. The Birth Defect Network, in partnership with the Utah Chapter of the March of Dimes, Primary Children’s Medical Center, and other programs in the
Utah Department of Health, works to increase folic acid use by providing educational materials to health care providers, health educators, and local health departments, paid advertisements, and by providing free vitamins to women through the Woman, Infants, and Children Nutrition (WIC) Program. Physicians, nurses, and other health-care providers can play an important role in educating women about this important preventive behavior.

Figure 4. Percentage of women aged 18-44 years who reported taking vitamins or supplements, knew folic acid prevents birth defects, and took folic acid supplements daily, Utah compared with other surveyed states, 1999.

Folic Acid

Folic acid is a B vitamin. The recommended daily amount needed to prevent birth defects is 0.4 mg. Some food has been supplemented with folic acid, but only a few cereals provide the needed amount in one serving. Most women should take folic acid supplements in addition to their food. All women need to take folic acid supplements to prevent birth defects. Folic acid supplements in this amount are safe and may have other health benefits as well. All multivitamins contain at least 0.4 mg of folic acid.

March Utah Health Status Update

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