

## ADEQUATE, APPROPRIATE, and SAFE FOOD AND NUTRITION

**Note to readers and users of the *Healthiest Wisconsin 2020* Profiles:** This *Healthiest Wisconsin 2020* Profile is designed to provide background information leading to collective action and results. This profile is a product of the discussions of the Focus Area Strategic Team that was convened by the Wisconsin Department of Health Services during September 2009 through November 2010. The objectives from this Focus Area have been recognized as objectives of *Healthiest Wisconsin 2020*. (Refer to Section 5 of the *Healthiest Wisconsin 2020* plan.) A complete list of *Healthiest Wisconsin 2020* Focus Area Strategic Team Members can be found in Appendix A of the plan.

### Definition

*Adequate, appropriate and safe food and nutrition* means the regular and sufficient consumption of nutritious foods across the life span, including breastfeeding, to support normal growth and development of children and promote physical, emotional, and social well-being for all people. Good nutritional practices can also reduce the risk for a number of chronic diseases that are major public health problems, including chronic conditions such as obesity, type 2 diabetes, cancer, heart disease and stroke. As established in the *U.S. Dietary Guidelines (2005)*, good nutrition includes meeting nutrient recommendations yet keeping calories under control. It includes safe handling, preparation, serving, and storage of foods and beverages. It also includes ready and appropriate access to nutritious foods throughout the year for all individuals and families in Wisconsin communities.

### Importance of the focus area

Nutrition policy is good health policy. Healthy eating is a staple for a good life. Adequate and appropriate nutrition is a cornerstone to prevent chronic disease and promote vibrant health. Because nourishment is required for survival, eating also serves as a basic source of enjoyment. In addition, preparing and sharing meals provide a common means through which people maintain a sense of family and community. The nutritional, social, cultural, and pleasurable aspects of food contribute to quality of life for all.

Fortunately, people can incorporate all of these benefits into a healthy lifestyle. Healthy nutrition is concerned with striking a balance in the types of foods and beverages consumed that falls squarely on the side of health. A healthy diet can be constructed from foods associated with very different cultures, customs, or places of origin (United States Department of Agriculture [USDA], 2005; USDA My Pyramid Plan).

Healthy eating is central to the health and well-being of Wisconsin's people and to the vitality of their communities. It is feasible for healthy nutrition to be the norm in Wisconsin and in diverse groups within its borders. However, there is still much work ahead to ensure that Wisconsin residents have ready access to high-quality, affordable, safe, and secure sources of nutritious foods and are also likely to, on balance, make healthy choices.

One key issue for this focus area is food security, or assured access to sufficient and nutritious foods in socially acceptable ways (e.g., without stealing, using food pantries, depleting household emergency supplies) to lead active and healthy lives. A household is considered food insecure if one or more members have uncertain or limited access to food through normal means, whether or not anyone experiences hunger. People living in food-secure households have diets higher in fruits and vegetables, variety, and overall nutrient content. Adults have better health and are at lower risk for obesity, and children do better in school and have lower rates of behavioral and emotional problems. However, 10 percent of Wisconsin households are food insecure (Nord, et al., 2009).

Several other prominent nutrition issues both promote general health and play a key role in obesity prevention and control. Obesity is one of the most critical health issues of our time. Overweight and obesity describe ranges of weight for a certain height that are higher than that considered healthy (Centers for Disease Control and Prevention [CDC], *About BMI for Adults*). Obesity is caused by many interacting factors at various levels of society (Story, 2008; McLeroy, 1988). However, prevention efforts are generally targeted toward the rates of six health behaviors, identified by the CDC. Four of these targets are clearly nutrition-related: (1) following breastfeeding recommendations, (2) eating adequate levels of fruits and vegetables, (3) limiting consumption of sugar-sweetened beverages, and (4) limiting consumption of large portion sizes and energy-dense (“junk”) foods (Sherry, 2005).

Obesity is a paramount health concern for Wisconsin and the nation because of its strong relationship to many negative health conditions and outcomes, such as Type 2 diabetes, cardiovascular disease, certain cancers, arthritis, asthma, depression, and negative pregnancy and birth outcomes (Bray, 2004; Li, et al., 2005; Yu, et al., 2006; National Institutes of Health, 1998). Obesity is also a driver for skyrocketing health care costs. The increase in annual health care costs alone for every obese adult exceeds \$1,400 (Finkelstein, et al., 2009). For youth, obesity increases the risks for many of the same health conditions (Barlow, et al., 2007; Reilly, 2003). Obese youth are also much more likely to become obese adults, putting them at risk of having lifelong health consequences (Krebs, et al., 2007).

Over the past several decades, cultural, social and individual changes have occurred to make healthy eating more difficult and obesity more likely. Most women work outside the home, making continuing breastfeeding reliant on workplace support (CDC, *Guide to Breastfeeding*). In general, foods are more highly processed and portion sizes are larger. People also eat fewer meals at home and many schools and workplaces have inexpensive, high-fat or sugary snacks available throughout the day (Story, et al., 2008).

Evidence is mounting that healthier eating and drinking habits are linked to ready access to healthier foods and beverages and less incentive to choose unhealthy foods and beverages. Changing environments and policies to support healthful eating is likely to be critical for preventing obesity and improving overall health. Key behaviors for obesity prevention provide logical priority areas for Wisconsin’s public health and health care systems.

- Breastfeeding offers many health benefits to both mother and child (Ip, et al., 2007). Bottle-fed infants also have an increased risk of childhood obesity (CDC, 2007). The

American Academy of Pediatrics (2005) recommends that infants be fed only breast milk until about six months of age and then continue to be breastfed for a total of at least a year. In Wisconsin, most infants are breastfed initially, but few are breastfed according to recommendations.

- Fruits and vegetables are essential to a high quality, nutritionally complete, and balanced diet (USDA, 2005). This food group reduces hunger and is “nutrient dense” which means they are rich in nutrients and lower in overall calories per gram. (Sherry, 2005). Recommendations for intake vary with age, sex, and activity level (CDC, *Fruit and Veggies Matter*; USDA, 2005). However, in Wisconsin, intake tends to be uniformly poor.
- Sugar-sweetened beverages have little or no nutritional value but account for an estimated 8 to 9 percent of energy intake for youth and adults (Malik, et al., 2006). The *U.S. Dietary Guidelines for Americans* (2005) recommend that people avoid or limit their intake of sugar-sweetened beverages (USDA).
- Large portion sizes can promote overeating without awareness of this. Foods that are “energy dense,” or high in calories per gram, frequently due to added sugar or fat, are often tasty but typically offer little nutritional value. If readily available or eaten freely, they tend to replace healthier choices and promote obesity (Ello-Martin, et al., 2005; Sherry, 2005).

## **Wisconsin Data Highlights**

### ***Obesity***

- Twenty-six percent (26%) of Wisconsin adults are obese and 64 percent are overweight or obese (Behavioral Risk Factor Surveillance System, CDC, 2008).
- Obesity-related medical expenditures for adults (in 2003 dollars) are estimated at \$1.5 billion annually (Finkelstein, et al., 2004).
- Twenty-three percent (23%) of high school students are overweight or obese (Youth Risk Behavior Survey, Wisconsin Department of Public Instruction, 2009; Youth Risk Behavior Surveillance System, 2009, CDC).
- Thirty percent (30%) of the 55,000 preschool-aged children participating in the Wisconsin Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) are overweight or obese (Pediatric Nutrition Data, Wisconsin Department of Health Services, 2008; Pediatric Nutrition Surveillance System, CDC).

### ***Health behaviors***

- Seventy-six percent (76%) of infants are breastfed initially, but only 45 percent are breastfed exclusively for at least three months. Only 26 percent are breastfed for a year (Breastfeeding Report Card for Wisconsin, 2009, CDC).

- About 14 percent of adults and 7 percent of high school students eat fruit at least twice per day and vegetables at least three times per day (State Indicator Report on Fruits and Vegetables, 2009, CDC).

### ***Access***

- Sixty percent (60%) of Wisconsin middle and high schools sell unhealthy foods, such as soda, candy, chips, or cookies in school vending machines or snack bars (School Health Profiles: School Level Impact Measures, 2008, Wisconsin Department of Public Instruction; School Health Profiles, CDC).
- Only 60 percent of census tracts have healthy food retailers within one-half mile of the tract's boundary (State Indicator Report on Fruits and Vegetables, 2009).

### ***Food Security***

- One in ten Wisconsin households has low levels of food security, and one in twenty-five has low enough levels that hunger is likely; both values have worsened over the past decade (Nord, et al., 2009).
- Between 2005 and 2007, Wisconsin FoodShare participation increased by 37 percent. High levels of increased participation were observed in central and western Wisconsin (Isaacs & Smeedling, 2009).

### ***Health Behaviors***

- Only 27 percent of infants enrolled in WIC (a relatively low-income group) are breastfed for at least six months, compared with 49 percent of all Wisconsin infants (Breastfeeding Report Card, 2009).
- For infants enrolled in the WIC, breastfeeding rates are highest for Hispanics/Latinos, lower for Whites and American Indians, and still lower for Asians and Blacks/African Americans (Pediatric Nutrition Data, Wisconsin Department of Health Services, 2008; Pediatric Nutrition Surveillance System, CDC).
- Young and middle-aged adults are less likely than elderly adults to consume fruits and vegetables five or more times per day (Behavioral Risk Factor Surveillance System, 2007, CDC). For high school students, fruit and vegetable consumption starts low and drops with grade level (Youth Risk Behavior Survey, 2009, Wisconsin Department of Public Instruction).

### ***Obesity***

- Asian adults have lower obesity rates than adults of other racial or ethnic groups; however, Asian youth tend to have similar or higher rates of unhealthy weight status, relative to other youth.
- Among men, American Indians have a much higher obesity rate than Whites, Blacks/African-Americans, and Hispanics/Latinos.

- Among women, Whites have a much lower obesity rate than rates for Hispanics/Latinas, American Indians, and Blacks/African-Americans.
- College graduates have a lower obesity rate relative to all groups with less education.
- Milwaukee high school students are more than 1.5 times as likely as all Wisconsin high school students to be overweight or obese.
- American Indian and Hispanic/Latino high school students are more likely to be overweight or obese than are White high school students.
- For preschool-aged children participating in WIC, Blacks/African-Americans and Whites have lower obesity rates, compared with Asians, Hispanics/Latinos, and American Indians.

## **Objective 1**

**By 2020, people in Wisconsin will eat more nutritious foods and drink more nutritious beverages through increased access to fruits and vegetables, decreased access to sugar-sweetened beverages and other less nutritious foods, and supported, sustained breastfeeding.**

### **Objective 1 Indicators**

- Proportion of Wisconsin infants exclusively breastfed at three months, and breastfeeding duration of at least six months and 12 months (National Immunization Survey, CDC).
- Proportion of Wisconsin census tracts with healthy food retailers (State Indicator Report on Fruits and Vegetables, CDC).
- Number of farmers markets per 100,000 population (State Indicator Report on Fruits and Vegetables, CDC).
- Proportion of Wisconsin and Milwaukee schools that do not sell candy, high-fat snacks, or soda and juice that is not 100% juice (School Health Profiles, CDC).

### **Objective 1 Rationale**

To prevent or control obesity, it is important that individuals have the desire, knowledge, and skills necessary to make healthy choices. However, changes that focus solely on individuals are likely to be unsuccessful or insufficient. Instead, efforts to change the environments and policies where people live, work, learn, and play in ways that make healthy choices relatively easy can complement individual efforts, reach more people, and produce more lasting changes (Swerissen & Crisp, 2004).

## **Objective 2**

**By 2020, all people in Wisconsin will have ready access to sufficient nutritious, high-quality, affordable foods and beverages.**

### **Objective 2 Indicators**

- Proportion of Wisconsin infants exclusively breastfed at three months among racial/ethnic populations, low income and low education population groups (Pregnancy Risk Assessment Monitoring System, CDC; Pediatric Nutrition Surveillance System, CDC).
- Proportion of Wisconsin farmers markets that accept payment from Electronic Benefit Transfer (EBT) and Women, Infants and Children (WIC) Farmers Market Nutrition Program Coupons (State Indicator Report on Fruits and Vegetables, CDC).
- Proportion of Wisconsin households with low and very low food security (Current Population Survey, U.S. Department of Agriculture – Economic Research Service).

### **Objective 2 Rationale**

Food insecurity is closely linked to poverty and also tends to be higher in racial or ethnic minority households. However, other community characteristics, economic assistance policies, and the availability and use of public and private resources also play an important role (Nord, et al., 2009).

Although breastfeeding is typically a money saving strategy for a household, low-income women are also less likely to have jobs that support breastfeeding (CDC, *Guide to Breastfeeding*). Also, low-income neighborhoods and those in urban areas with high percentages of racial or ethnic minorities often lack full-service grocery stores and farmers markets where people can buy fruits, vegetables, and other healthy foods. Instead, people are limited to shopping at small neighborhood convenience stores, where fresh produce and low-fat food items are limited, if available at all. For many households the lack of money can contribute to both food insecurity and overweight or obesity. This apparent paradox is driven, in part, by the economics of buying food. Households without money to buy enough food often have to rely on cheaper, high-calorie foods to stretch their food dollar and avoid hunger (McLaren, et al., 2007; Stafford, et al., 2007; USDA, Food Environment Atlas).

### **Objective 3**

**By 2020, Wisconsin will reduce disparities in obesity rates for populations of differing races, ethnicities, sexual identities and orientations, gender identities, and educational or economic status.**

#### **Objective 3 Indicators**

- Proportion of adults who are obese or overweight by race and ethnicity (Survey on Health of Wisconsin). (Indicator to be developed.)
- Proportion of Wisconsin and Milwaukee high school youth who are obese or overweight by race/ethnicity (Youth Risk Behavior Survey).
- Proportion of children aged 2-4 years in the Women, Infants and Children (WIC) program who are obese or overweight by race and ethnicity (Pediatric Nutrition Surveillance System, CDC).

#### **Objective 3 Rationale**

The burden of obesity is not shared equally among Wisconsin groups or communities. Rates of overweight and obesity are often higher in socially disadvantaged groups. Strategies to help make access to healthy eating behaviors more equitable (Objective 2) are also relevant.

However, showing progress toward achieving health equity requires evidence that gaps in obesity rates are also being bridged.

## **Potential evidence- or science-based actions to move the focus area objectives forward over the decade**

### ***Objective 1:***

- Enact a statewide worksite wellness policy (for businesses with more than 25 employees) that addresses lactation support for women returning to work (Shealy, et al., 2005).
- Enact a statewide policy to establish nutritional standards for competitive foods sold outside of school meals (Booske, et al., 2009).
- Create grant programs and economic incentives to fund the establishment or renovation of farmers markets and roadside markets (Booske, et al., 2009; Robert Wood Johnson Foundation, 2009).
- Support new and existing local farms by providing incentives for production, distribution, and procurement of foods (CDC, 2009).

### ***Objectives 2 and 3:***

- Allocate funding to establish the use of electronic methods of payment at farmers markets (Booske, et al., 2009).
- Create economic stimulus programs and public-private partnerships to promote the creation of farmers markets and the expansion of retail grocery operations in low-income neighborhoods (Booske, et al., 2009; National Conference of State Legislatures, 2005).
- Provide training on maternity care practices to support breastfeeding for health care providers and organizations (Booske, et al., 2009; Shealy, et al., 2005).
- Enact zoning to limit the number/density of fast-food restaurants per square mile, particularly in lower-income neighborhoods (Institute of Medicine, 2009; Robert Wood Johnson Foundation, 2009).
- Provide support for statewide breastfeeding promotion programs; ensure culturally appropriate messages for different segments of the population (Booske, et al., 2009; Shealy, et al., 2005).
- Provide training for health care providers on body mass index screening (BMI) and effective interventions available to prevent, treat or manage overweight and obesity (Prevention Institute, 2008).

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