

Chapter 13

Nutrition and Overweight**Introduction**

Many dietary components are involved in nutrition and health relationships. The federal government has identified 20 goals and action steps to address the nutrition issues in this country. This chapter will focus on eight areas of concern.

Healthful eating must start with children and be maintained throughout adulthood. The family and other channels, such as schools, worksites and institutional food services, play a key role in this process. Food-related businesses can also be important vehicles for nutrition information for foods bought in supermarkets, fast food outlets, restaurants, and carry-out operations.

Public, private and voluntary organizations must work together to educate the consumer, present accurate and consistent messages, and use social marketing to particular groups to motivate Iowans to change behaviors and adopt healthy eating plans.

Iowans receive nutrition information and education from a variety of sources. However, they continue to be confused about nutrition messages. Nutrition educators believe that using recognized and creditable nutrition tools (food guide pyramid and the Dietary Guidelines for Americans) should be the foundation of nutrition messages. Educational materials and/or tools must also include the cultural food of various ethnic groups.

To encourage health professionals to discuss nutrition with patients, PACE (Provider-based Assessment training and Counseling for Exercise and Nutrition) training was provided to 40 people in June of 2001, including three physicians from Polk County.

Social scientists have theories for behavior changes that are useful to nutrition educators. Understanding the causes for dietary behaviors can help nutrition educators plan social marketing campaigns that target the underlying factors to behavior choices. This approach means discovering the target audiences' perceptions about motivation, benefits, barriers, and information sources.

Iowa's social marketing campaign, Pick a Better Snack™ (PABS), was established in 2000 to increase consumption of fruits and vegetables. Surveys indicate that low-income audiences most often recall messages on billboards, from school, on television, in grocery stores, and in WIC offices. Survey participants say they were starting to eat more fruits and vegetables (25%) and were thinking about eating more fruits and vegetables (36%) because of PABS.

Breastfeeding has well-documented benefits for infants and mothers, as well as employers. Benefits include lower absenteeism because infants are sick less often and breastfeeding mothers have higher morale. According to a 1997 survey, 61.7% of Iowa mothers breastfed their babies at the hospital, with 23% still breastfeeding at five to six months. Low breastfeeding duration rates are due in part to lack of support at work. Women are often unable to overcome the various barriers to breastfeeding or breast pumping at work and choose either not to start breastfeeding or discontinue it once they return to work.

To encourage worksite lactation support, local *Healthy Polk 2010* developed a breastfeeding worksite support kit that is distributed by the Iowa Department of Public Health. Training was conducted with child care providers and a 1-day conference was held in Polk County.

In general, excesses and imbalances of some food components in the diet today have replaced once prevalent nutrient deficiencies. In particular, the prevalence of overweight has increased at an alarming rate. More than one-third of American adults are now considered overweight based on body mass index (BMI) measurements. In Iowa, the incidence of obesity increased every year since 1989 for adults over age 18 (BMI of 25.3% to 32.7%).

In 2003, a team-based weight management program titled Lighten Up Iowa (LUI) reported 1,400 teams with 11,700 participants in all 99 counties. The program resulted in a dramatic improvement in physical activity and consumption of fruits and vegetables and a total loss of 47,000 pounds.

In 1997, the average BMI for the populations of only five states was greater than the percentage in Iowa. This indicates that Iowans are at increased health risk of chronic disease compared to residents of a majority of other states. Current nutrition education and initiatives have failed to promote healthy body weights. The first five years of the decade saw a dramatic rise in adult and child overweight and obesity in the nation and in Iowa. The best way to address this critical issue, the work group determined, was to raise the visibility of the issue by including “overweight” in the chapter title.

Childhood obesity is increasing at an alarming rate nationally. Surveys by the National Center for Health Statistics in the early 1990s found that 22% of children aged 12 to 17 were overweight at the 85th percentile compared to 15% from similar surveys conducted in the 1960s. The Pediatric Nutrition Surveillance System reports that 9.5% of children aged 0 to 5 participating in Iowa's Supplemental Food Program for Women, Infants and Children (WIC) were overweight at the 95th percentile in 1998, an increase from 7.6% in 1985. Data for older Iowa children and adolescents are not currently available.

A youth component of Lighten Up Iowa, Go the Distance, was added in 2004 with 2,866 participants. Another program, the Iowa's Partners for Healthy Kids Coalition, was

established to address health and weight-management problems for children.

Statistics indicate that Americans chronically lack fruits and vegetables in their diets. In 1996, Iowa ranked 50th in the U.S. in percentage of adults reportedly eating at least five servings of fruits and vegetables per day. Fruits and vegetables are good for the human body, outstanding sources of essential vitamins and minerals, and vital for good health.

Fruits and vegetables provide other dietary compounds with powerful chronic disease risk-reduction potential. Eating more fruits and vegetables can help prevent cancer. Based on growing evidence, the incidence of other chronic diseases, such as coronary heart disease, arteriosclerosis and stroke, can be reduced through increased fruit and vegetable consumption. Fruit and vegetables may also play a preventive role in birth defects, cataract formation, hypertension, asthma, diverticulosis, obesity, and diabetes.

Iowa is one of eight states to participate in the U.S. Department of Agriculture (USDA) fruit and vegetable snack program. Pick a Better Snack™ (PABS) trained nutrition educators representing team nutrition schools, fruit and vegetable pilot schools, Child and Adult Care Food Programs, and Food Stamp Nutrition Education coalitions. The Iowa Department of Education, Iowa Department of Public Health, and Iowa State University Extension received the USDA's Leadership, Innovation and Nutrition Collaboration (LINC) award for collaboration with the PABS Campaign.

Calcium is essential for formation and maintenance of healthy bones and teeth. Dairy products, including milk, yogurt and hard and soft cheeses, are important sources of calcium in Iowans' diets. U.S. estimates indicate that as many as nine out of 10 women and six out of 10 men are not getting enough calcium. Studies have found that people who meet their needs for calcium are more likely to meet their needs for other key nutrients important for good health.

Osteoporosis, one of the most prevalent diseases in America, fractures lives as well as bones. Costs associated with the disease in Iowa in 1995 were \$76 million, and the projected cost

is \$229 million for 2015. Currently, there is no funding for an osteoporosis program. However, the Iowa Osteoporosis coalition has established non-profit status and will maintain this status for potential funding opportunities.

Nutritional or dietary factors contribute substantially to preventable illnesses and premature death in the United States. Improvements in diet are critical to ensure a reduction of major chronic disease risks. The benefits from desirable dietary habits can be enormous.

Heart disease, cancer, stroke, and diabetes – the four leading causes of death in the United States – along with obesity, hypertension and osteoporosis, are all linked to diet. Together, these seven conditions account for an estimated \$250 billion each year in medical costs and lost productivity – a significant portion of which might be saved by improved nutrition.

Eating disorders can be a concern to many families. While food is the assumed focus of the disorder, food is, in fact, only the symptom. Nutrition professionals may assist with such concerns, but it must be understood that mental health professionals will take the lead in treatment.

Food security is defined as "access by all people at all times to enough food for an active, healthy life, and includes at minimum: a) the ready availability of nutritionally adequate and safe foods, and b) the assured ability to acquire acceptable foods in socially acceptable ways (e.g. without resorting to emergency food supplies, scavenging, stealing, and other coping strategies" (Live Sciences Research Office, 1990).

Food insecurity occurs when a limited or uncertain availability of nutritionally adequate and safe foods are available or limited, or there is an uncertain ability to acquire acceptable foods in socially acceptable ways. Data from 1995 on food insecurity from the U.S. Department of Agriculture show that 11.9 million households experience food insecurity at some level. In 1997, approximately 242,000 Iowans indicated some degree of food insecurity, according to the Food Research and Action Center. This means that many have had

to use emergency food sources, scavenge or steal to get food. In 1998, U.S. cities reported a 14% increase in the demand for emergency food. This may be due in part to welfare reform that has cut the availability of food stamps for many people.

Food security is achieved when people have access at all times to enough food for an active, healthy lifestyle. Iowa has a few local grassroots agriculture-based, anti-hunger groups, but lacks a statewide network strong enough to get more state funding for food assistance. The Iowa Alliance to End Hunger was formed in October 2003 to address food insecurity.

In 2003, approximately 561,069 people aged 60 and older lived in the state. Iowa ranks second in the nation for having the largest percentage of people aged 85 and older (2.6%). This segment is growing faster than the rest of the population. The state ranks sixth in the nation for people aged 75 and older (7.87%), and fifth for people aged 65 and older (14.7%).

Projections for Iowa indicate that the number of elderly will continue to increase while the number of youth will decline. During the 1990s, the number of babies born in Iowa fell below the death rate. The percentage of people 60 years and older is expected to grow to 635,890 by 2010, according to the Iowa Department of Elder Affairs. In 1992 through 1994, nutrition screening was conducted in the Home Care Aide Program with participants aged 60 and older. The screening tool was developed by the American Academy of Family Physicians, the National Council on the Aging, and the American Dietetic Association. This tool is now incorporated into the registration for all Older American Act funded services, including home delivered and congregate meals. The Senior Farmer's Market Nutrition Program continues to grow, serving 20,997 older adults in 2004. A co-funded nutrition position is maintained by the Iowa Department of Public Health and the Iowa Department of Elder Affairs.

Goal Statements & Action Steps

13–1 Goal Statement

Provide educational tools for Iowans to make decisions on the reliability of nutrition messages through at least three media. Baseline: See Rationale.

Rationale

Consumers seek nutrition information and education from a variety of sources, yet remain confused about the message. According to the 1997 American Dietetic Association Media Survey, consumers used television (57%), magazines (44%), newspapers (23%), family or friends, and books.

Although television is the major source of nutrition information, it is judged as "very valuable" by only 24% of people. Americans rank as valued sources of nutrition information: dietitians and/or nutritionists (52%), doctors (52%), specialty magazines (39%), and women's magazines (36%). However, a 1995 article in the American Journal of Preventive Medicine reported that only 21% of physicians agreed that they find counseling patients about dietary issues professionally gratifying.

A big increase in the awareness of the Food Guide Pyramid (67%) has occurred since 1993 (58%) when it was introduced. Of Americans who are aware of the pyramid, 43% rate it high in helping select a balanced diet. Getting Iowans to use it to adopt healthy eating is the next step.

Public, private and voluntary organizations must work together to educate the consumer, provide accurate and consistent messages, and use social marketing to motivate dietary behavior change.

13–1.1 Action Step

By 2005 and ongoing thereafter, aim for 50% of those surveyed by the Iowa Department of Public Health to recognize the updated Food Guide Pyramid and use it to make at least one food choice decision daily. (An Iowa State University, Iowa Department of Public Health, corporate grocery store dietitians, and Iowa Dietetics Association action step.)

13–1.2 Action Step

By 2010, provide nutrition information for consumers and the media on the Iowa Department of Public Health web site. By 2005 and ongoing thereafter, encourage Iowans to look at the web site, with 4,000 people annually accessing it, to learn how to evaluate nutrition information in the media. (An Iowa Department of Public Health action step.)

13–1.3 Action Step

By 2010, provide materials and/or trainings to clinicians and health-care providers to help patients eat healthy foods and increase physical activity. (An Iowa Department of Public Health, Iowa Cancer Consortium, Iowa Dietetic Association, and Iowa Medical Society action step.)

13–1.4 Action Step

Through 2010, educate health and nutrition professionals on recognition and understanding of the dietary guidelines released in 2005. (An Iowa Department of Public Health, Iowa State University Extension, and Iowa Dietetic Association action step.)

13–1.5 Action Step

By 2010, investigate development of a link on the Iowa web site for nutrition books and resources for children and adults, and develop a nutrition resources list for public libraries to use in selecting nutrition books, and distribute the resource list via the web site and the Iowa State University Extension. (An Iowa Department of Public Health action step.)

13–1.6 Action Step

Through 2010, continue to increase exposure of nutrition messages via the broadcast media through a planned educational campaign. (An Iowa Nutrition Network, Iowa Department of Public Health, and corporate grocery store dietitians' action step.)

13–2 Goal Statement

Educate Iowans so that 75% of infants are breastfed at birth, 35% until the infant 6 months old, and 15% until age 12 months. Baseline: See Rationale.

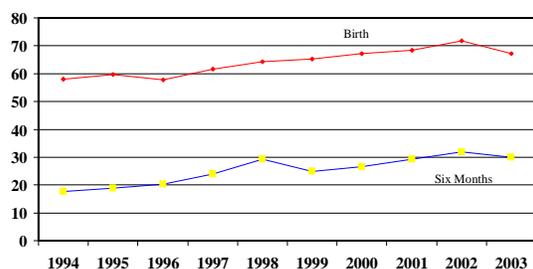
Rationale

According to a 1997 survey of Iowa mothers by Ross Products, a division of Abbott Laboratories, the *Healthy Iowans 2000* goal that 61.7% of infants be breastfed at birth was close to being met. However, duration rates have fallen, with only 23% of infants still being breastfed at six months.

Low breastfeeding duration is due in part to the lack of support at work. Women are often unable to overcome barriers to breastfeeding or breast pumping at work and choose to not start breastfeeding or discontinue it once they return to work. Several sources have indicated the following barriers:

- Rigid break times and/or insufficient time to express breast milk;
- Employers not allowing a woman to express breast milk at work;
- Not having a place to express breast milk;
- Length of maternity leave; and
- Lack of information about breastfeeding and working.

Iowa Breastfeeding Rates 1994-2003



Source: Ross Products Division – Mothers Survey



Photo provided by Le Leche League International

13–2.1 Action Step

By July 2008, disseminate a breastfeeding worksite support kit using the following schedule:

- By July 2005, identify companies in Iowa that have human-resource contacts;
- By December 2005, explore the option of making a worksite kit through state human resource associations;
- By July 2006, contact corporate wellness councils in the state to communicate the availability of the worksite kit;
- By July 2006, submit an article about the worksite kit to state corporate wellness councils and human resource associations,
- Beginning in 2004, submit an article about the Iowa Lactation Task Force every two years to the Human Resource Association Newsletter;
- By December 2007, disseminate the kit and/or information on how to download the kit; and
- By July 2008, charge an organization or group with keeping the worksite support kit current and available for dissemination.

(An Iowa Department of Public Health action step.)

13–2.2 Action Step

By 2005, increase by 50% the participation of health-care providers and employers of women of childbearing years in the Iowa Lactation Task Force using the following schedule. Baseline: Current health-care provider membership is 27.

- Began in 2002 and to continue every two years thereafter, submit an article about the Iowa Lactation Task Force to the following Iowa affiliate organizations for inclusion in their

newsletters: Iowa Dietetic Association, Iowa Chapter of the American Academy of Pediatrics, Iowa Nursing Association, Iowa Academy of Family Physicians, Iowa Association of Nurse Practitioners, the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), and others as identified.

- By 2002 and annually thereafter, review Iowa Lactation Task Force materials to ensure that they are current.
- Begun by 2003 and to continue annually, provide a display at statewide professional conferences such as the Women, Infants and Children (WIC) Conference, Annual Breastfeeding Conference, State Perinatal Conference, Iowa Dietetic Association Annual Meeting, Iowa Nursing Association State Convention, Iowa Academy of Family Physicians Conference, and others as identified. (An Iowa Lactation Task Force action step.)

13–3 Goal Statement

Prevent a further rise in the percent of Iowans who are overweight. Baseline: Obesity – 18.7%, 1996; 22.9%, 2002; Overweight – 35.2%, 1996; 38.3%, 2002; Behavioral Risk Factor Surveillance Survey (BRFSS).

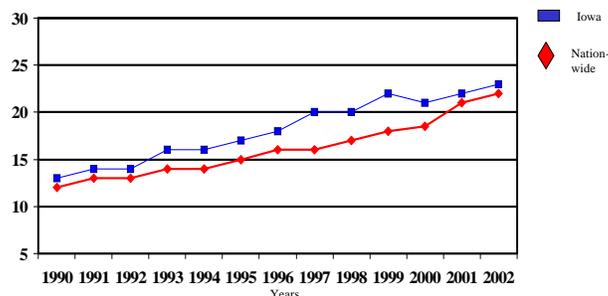
Rationale

More Iowans are becoming overweight each year. Weight reduction programs have been studied intensively and, without exception, have not produced lasting healthy weights. Therefore, prevention of overweight is of primary importance. The principal health risk is weight gain regardless of the body mass index (BMI). Small losses of approximately 5% of body weight have been shown to decrease morbidity from hypertension and prevent the conversion of impaired glucose tolerance to overt Type 2 diabetes in some people.

Small weight losses would result in maintenance of the prevalence rate. Most primary health providers are aware of the possible complications of obesity and are concerned with its increasing rate. Yet, they are

unmotivated or unprepared to provide counseling or treatment referrals.

Obesity: By Body Mass Index Nationwide vs. Iowa



Source: Behavioral Risk Factor Surveillance System

13–3.1 Action Step

By 2007, promote worksite programs and incorporate healthy weight management. Assure that 20,000 Iowans will participate in Lighten Up Iowa and use the data from Lighten Up Iowa to determine business and worksite involvement in weight management. Assure availability of culturally sensitive wellness materials to support weight management programming. (An Iowa Department of Public Health, Iowa Games, Iowa State University Extension, Wellness Council of Iowa, and Iowa Cardiovascular Health Council action step.)

13–3.2 Action Step

By 2010, promote policy change in the public and private sectors to support healthy lifestyles for adults by increasing the number of local recreational opportunities and facilities and by increasing funding for communities to develop the availability and/or accessibility of recreation facilities. (An Iowa Dietetic Association, Iowa Department of Public Health Harkin Wellness Grant, and Iowa Nutrition Education Network action step.)

13–3.3 Action Step

By 2010, promote the development of multi-disciplinary health-care centers to provide research opportunities, training for health providers, and direct services for all overweight people. Establish criteria to describe the ideal

multi-disciplinary program, and establish and promote best practices for the multi-disciplinary approach, including nutrition counseling for bariatric surgery. (A University of Iowa Hospitals and Clinics Center for Development and Disability and University of Northern Iowa Childhood Center for Physical Activity and Nutrition Across Rural Iowa action step.)

13–3.4 Action Step

By 2010, develop and implement a state plan to address overweight and obesity. (An Iowa Department of Public Health, Center for Disease Control and Prevention, and Iowa Medical Society action step.)

13–3.5 Action Step

By 2010, investigate inclusion of nutrition messages on healthy weight through a variety of media channels. (An Iowa Department of Public Health partners such as insurance company foundations, Mid-Iowa Health Foundation, and Wellness Councils action step.)

13–4 Goal Statement

Prevent further rise of weight gain among children and adolescents under aged 18 in Iowa. Baseline: 8.5% of 2-5 year olds > 95% weight for height, 1999 Pediatric Nutrition Surveillance System.

Rationale

Childhood obesity is a complex disorder involving genetic and environmental factors. The consequences of childhood obesity range from great health risks, such as hypertension, hyperlipidemia and diabetes, to physical impairment. Psychological concerns include preoccupation with body image, disordered eating, lack of self-confidence, lowered self-concept, depression, and peer rejection. Unfortunately, treatment has shown few positive, long-term results. Also, dieting in children is highly discouraged due to the nutritional needs of growing children. Given the extent and seriousness of the disorder and the difficulty in attaining good treatment outcomes, an emphasis on prevention is needed.

Prevention of overweight in childhood should be given the highest priority.

13–4.1 Action Step

By 2010, promote policy change in public and private schools to support healthy lifestyles with such strategies as fruit and vegetable programs to provide healthy snacks and school wellness policies that include goals for nutrition education and physical activity. (An Iowa Association for Physical Activity, Recreation and Dance, American Health Association, Iowa Partners for Healthy Kids, and Iowa Department of Public Health action step.)

13–4.2 Action Step

By the end of 2010, promote healthy lifestyle education and development of a healthy environment in public and private schools using the following schedule:

- By 2007, establish body mass index baselines for Iowa children and youth;
- By 2007, pilot an after-school program that promotes healthy eating and activity; and
- Through 2010, partner with the Iowa Department of Education on nutrition and physical activity interventions in schools.

(An Iowa Department of Public Health, Iowa Headstart Association, and Iowa Coalition for Comprehensive School Health action step.)

13–4.3 Action Step

During 2005, develop and implement a state plan to train staff to work with parents on healthy eating for children. Provide training for parents on a healthy environment that promotes nutrition and physical activity. (An Iowa State University Extension partnering with parents, Child Care Resource and Referral, Iowa Partners for Healthy Kids, and Iowa Fit Kids Coalition action step.)

13–4.4 Action Step

By 2010, develop and implement a state plan on overweight and obesity in children. (An Iowa Department of Public Health, Center for Disease Control and Prevention, and Iowa Medical Society action step.)

13–5 Goal Statement

Increase to at least 50% the proportion of people aged two and older who meet the minimum daily average goal of at least five fruits and vegetables as recommended in the Dietary Guidelines for Americans. Baseline, 1996 Behavioral Risk Factor Surveillance Survey: 15.1%.

Rationale

Growing evidence links fruit and vegetable consumption with disease prevention and control. Year 2000 Dietary Guidelines: The Case for Fruits and Vegetables First includes:

- More than 500,000 Americans die from cancer each year. Eating five or more servings of fruits and vegetables a day can help prevent one-third of these deaths.
- The fiber in fruits and vegetables may help in the management of diabetes.
- Obesity and overweight now affect 10 million U.S. children and has doubled in the last 20 years. Almost a quarter of all vegetables consumed by U.S. children are French fries, with only one in five children eating the five or more recommended servings of fruits and vegetables per day.
- High-fiber diets are known to provide the best defense against the development of diverticulosis.
- Data suggest that a high intake of fruits and vegetables enhances ventilatory function, reducing the risk of chronic obstructive pulmonary disease.
- Scientists estimate that half of all neural tube defects could be prevented if women consumed the recommended intake of folic acid shortly before they conceive. Fruits and vegetables containing folic acid along with fortified grain products can play a vital role in meeting folic acid recommendations to prevent these defects.
- Epidemiological evidence suggests a strong protective role for fruits and vegetables in coronary heart disease.
- Although the evidence is still limited, the risk reduction for high fruit and vegetable intake on stroke may be up to 25%.

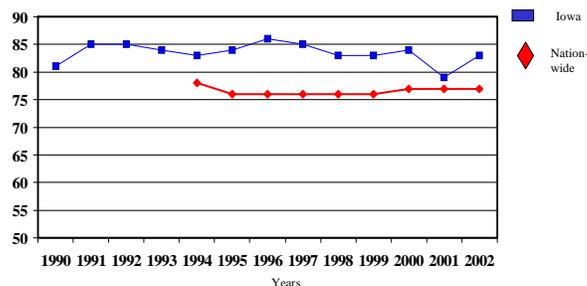
The 5 A Day For Better Health program is a nationwide nutrition campaign to encourage

Americans to eat five or more servings of fruits and vegetables every day for better health. A state coalition has been formed and includes representatives from major grocery store chains, produce brokers, the Iowa Grocery Industry Association, the Iowa Fruit and Vegetable Growers Association, the American Cancer Society, the Food Bank of Iowa, the Iowa State University Extension, the Iowa Nutrition Education Network, the Iowa Department of Agriculture and Land Stewardship, and the Iowa Department of Public Health.

The purpose of the coalition is to promote and increase consumption of fruits and vegetables by Iowans through partnerships with organizations that can 1) increase public awareness of the importance of eating at least five servings of fruits and vegetables every day; and 2) provide consumers with specific information about how to include more such servings into daily eating.

Coalitions such as the Iowa 5 A Day Coalition and the Iowa Nutrition Education Network need to join with the nationwide nutrition campaign to communicate the importance of eating fruits and vegetables to lower the risk of heart disease, cancer, diabetes and high blood pressure. (Behavioral Risk Factor Surveillance System).

Not Enough Fruits and Vegetables Nationwide vs. Iowa



Source: Behavioral Risk Factor Surveillance System

13–5.1 Action Step

By 2005 and ongoing thereafter, increase by 10% the proportion of preschools and schools that have a curriculum or program that supports the 5 A Day message (Team Nutrition, Dole/5 A Day) through the coordination and support of the

Iowa Department of Education, the Iowa Education Network, and the Iowa 5 A Day Coalition. (An Iowa Department of Public Health and Iowa Nutrition Education Network action step.)

13–5.2 Action Step

By 2005 and ongoing thereafter, increase awareness of the 5 A Day and/or fruit and vegetable messages to people aged 18 and over by 25% through campaigns conducted by the Iowa 5 A Day Coalition, the Bureau of Health Promotion, and the Iowa Nutrition Education Network. Continue implementation of Pick a Better Snack™ social marketing campaign through community coalitions and state initiatives. Integrate fruit and vegetable messages with other programs, such as chronic disease, senior nutrition, WIC, Farmers Market, and Lighten Up Iowa. (An Iowa 5 A Day Coalition, Iowa Department of Public Health, and Iowa Nutrition Education Network action step.)

13–5.3 Action Step

Through 2010, promote a policy, such as that in USDA's Fruit and Vegetables Snack Program, in public and private schools to increase fruit and vegetable consumption. (An Iowa Department of Public Health, Iowa Department of Education, Iowa State University Extension, Iowa Partners for Healthy Kids, and Iowa Dietetic Association action step.)

13–5.4 Action Step

Through 2010, encourage partnerships and collaborative interventions among nutrition assistance programs and other related groups such as public health programs, health-care providers, schools, faith-based groups, and other community organizations to promote daily consumption of at least five fruits and vegetables, and:

- Adopt increased fruit and vegetable consumption as the focus of the State Nutrition Action Plan (SNAP). Continue discussion of partnerships and collaboration in conjunction with quarterly Iowa Nutrition Network meetings.

- Invite additional partners, such as American Cancer Societies, Iowa affiliate of American Heart Association, Practical Farmers of Iowa, Retail Grocery Partners, and Iowa Network for Community Agriculture.
- Monitor the results of a research grant that focuses on effective strategies to promote the intake of vegetables to children on the WIC program.
- Promote the intake of fruits and vegetables through Team Nutrition activities.
- Encourage partners to provide a link on their web sites to the 5 A Day for Better Health program and Pick a Better Snack™ campaign.
- Provide a template for local agencies to produce a brochure listing all food assistance programs in local areas.
- Explore ways to increase consumption of locally grown produce among all Iowans.
(An Iowa Department of Public Health and Iowa Department of Education action step.)

13–6 Goal Statement

Increase by at least 20% the proportion of people aged two and older who meet the dietary recommendations for calcium. Baseline: 1999 Behavioral Risk Factor Surveillance System and the Youth Risk Behavior Survey.

Rationale

In the fall of 1997, the National Academy of Sciences increased the recommended level of calcium intake. Children and teens aged 9 to 18 need 1,300-mg of calcium daily, which is equal to four servings of a milk food group. Failure to maximize intake will increase the risk teens face for stress fractures now and osteoporosis and other diseases later. It is estimated that nearly 40% of post-menopausal women will suffer an osteoporosis fracture during their remaining lifetime.

According to the year 2000 U.S. Census Bureau, the median age of Iowa's women is 39.1 years. Iowa is ranked number two nationally in the percentage of population over aged 85, number six in the percentage of population over aged 75, and number five in the percentage of

population over aged 65. Population projections show the number of women aged 65 and over will increase by 36% over the next 20 years.

The Iowa Osteoporosis Coalition, comprised of about 100 people, began as a task force in July 1998. The coalition is committed to raising awareness and providing education on the prevention, screening and treatment of osteoporosis. Its goal is to establish, coordinate and promote osteoporosis prevention and treatment education, raise public awareness, and educate consumers, health professionals, teachers, other stakeholders, and public policy makers. It is, therefore, appropriate for the coalition to assume responsibility for the completion of objectives whose aim is to increase calcium in diets.

13–6.1 Action Step

Through 2010, maintain the Iowa Osteoporosis Coalition non-profit status for program funding. Establish a system for providing reliable information to the media and policy makers and develop a statewide speakers' bureau. (An Iowa Department of Public Health and Iowa Osteoporosis Task Force action step.)

13–6.2 Action Step

By 2010, increase by 10% the number of educational opportunities that stress calcium as a necessary nutrient in promoting bone growth and development. Education will target groups that are at risk or potential risk for osteoporosis (a baseline survey was conducted in 1999) by providing information and resources on osteoporosis prevention, detection, treatment, and support for health professionals and consumers on the Iowa Department of Public Health's web site on an on-going basis. Also:

- Identify existing toll-free hotlines for consumers;
- Identify education materials for consumers that accurately translate the latest scientific information on osteoporosis into easy-to-understand terms that are culturally and linguistically inclusive;
- Identify educational materials that translate the latest scientific and medical information into clinical applications;

- Identify available curricula for training health and human service providers and community leaders on osteoporosis prevention, detection and treatment;
- Investigate providing a downloadable, interactive computer program for adolescents to use in science and health programs throughout the state;
- Sponsor a speaker on osteoporosis at a statewide conference;
- Provide a link to information on bone-density screening sites on the Iowa Department of Public Health web site; and
- Inform health professionals, physicians and consumers of the importance of bone density screening and the location of screening sites and reimbursement procedures.

(An Iowa Department of Public Health and Iowa Osteoporosis Task Force action step.)



13–7 Goal Statement

Provide Iowans at higher risk for nutrition related disease because of family history, genetics, disabilities, and/or lifestyle choices targeted information on reducing such diseases and death risks. Baseline: See Rationale.

Rationale

Three leading health indicators related to nutrition are key factors in the prevention of chronic diseases: healthy eating, physical activity, and obesity. Coronary heart disease is the leading cause of death in the United States, accounting for nearly 500,000 deaths annually. Experts recommend that physicians emphasize ways to prevent coronary heart disease, such as

counseling their patients to exercise more and eat a healthy diet. Also, a number of studies show that regular physical activity can significantly reduce the risk of developing Type 2 diabetes, which also appears to be associated with obesity.

Dietary modifications, together with maintenance of physical activity and appropriate body mass, can reduce cancer incidence and death between 30% and 40% over time. Based on current Iowa rates, dietary changes could, in time, prevent between 4,000 and 5,500 cases of cancer every year.

Evidence of dietary protection against cancer is strongest and most consistent for diets high in vegetables and fruits, and, therefore, in fiber, antioxidants and other bioactive phytochemicals.

Phytochemicals are the vast array of chemical substances found naturally in fruits, vegetables and grains. These substances, with names such as beta-carotene, lycopene and isoflavones, show tremendous potential to fight disease on several fronts. An important finding in recent years is that diets high in vegetables and fruits are associated with a reduced risk of cancers of the prostate, mouth, pharynx, esophagus, stomach, cervix, colon, and rectum.

The training and expertise of nutrition professionals in treatment and keeping people healthy are crucial to achieving the goals of *Healthy Iowans 2010*. That's especially true when diagnosis for a chronic disease has been made. Medical nutrition therapy (MNT) refers to the comprehensive services provided by a registered dietitian or other nutrition professional as part of a patient's health-care team.

Medical nutrition therapy in a variety of health-care settings reflects the complexities of changing diet and behavior, especially for patients with serious chronic illnesses. The therapy has been proven effective in treating and controlling cancer, heart disease, stroke, diabetes, high cholesterol, cancer, and other life-threatening conditions. Studies also show that patients receiving medical nutrition therapy require less hospitalizations and medications and experience fewer complications.

13–7.1 Action Step

By 2010, provide Iowans information on how to access a licensed dietitian for nutrition counseling. (An Iowa Department of Public Health and Iowa Dietetics Association action step.)

13–7.2 Action Step

By 2010, ensure that licensed dietitians are members of all known chronic disease task forces and/or coalitions and advisory councils on chronic disease, and that they are also represented on insurance-benefit task forces. (An Iowa Department of Public Health and Iowa Dietetic Association action step.)

13–7.3 Action Step

By 2010, support the Iowa Dietetic Association in promoting evidence-based practices that deal with nutrition-related diseases, and provide nutrition services and disseminate nutrition messages. (An Iowa Dietetic Association, Iowa Department of Public Health, and Iowa Nutrition Education Network action step.)

13–7.4 Action Step

By 2010, create links for consumers on the Iowa Department of Public Health web site to nutrition and physical activity information that can promote healthy aging and reduce the risk for developing cancer, heart disease, neurotube defects, diabetes, osteoporosis, obesity, and dental cavities. Coordinate the dissemination of nutrition messages on prevention through existing programs and the Iowa Dietetic Association and assure that messages are culturally and linguistically appropriate. (An Iowa Dietetic Association and Iowa Department of Public Health action step.)

13–7.5 Action Step

By 2010, advocate reimbursement for licensed dietitians to provide medical nutrition therapy and counseling to the population to foster healthier lifestyles. (An Iowa Dietetic Association action step.)

13–8 Goal Statement
Reduce the incidence of food insecurity to 5%. Baseline, 1997: 8.6%.

Rationale

Food insecurity means that families have had to use strategies such as emergency food sources, scavenging, or stealing to meet their basic food needs. It’s opposite – food security – is achieved when people have access at all times to enough food for an active, healthy lifestyle.

Food insecurity is affected by many uncontrollable social and economic variables. States that have organized anti-hunger networks or coalitions have affected state policy, and many have allocated state funds to fill monetary gaps from decreasing or stagnant federal funding.

	Iowa 2003	Iowa 2004	U.S. 2004
Percent of Households food insecure	7.6%	9.1%	10.8%
Poverty rate	7%	9.2%	12.1%
Unemployment rate	3%	4.2%	6.0%
Percent of eligible people participating in food-stamp program	52-68%	55-67%	59-61%
Students receiving free or reduced-price breakfast per 100 receiving free or reduce-price lunch 2002-2003	91%	88.7%	42.35%
RANK	36	36	
	Iowa 2003	Iowa 2004	U.S.
Ratio of students receiving summer nutrition lunch per 100 receiving free or reduce-price lunch 2001-2002	7.2%	7.5%	20.9%
RANK	48	48	

Iowa law requires allocation of state funds to the breakfast program to combat hunger. With an anti-hunger network, state policy could be affected and additional funding obtained. Besides affecting state policy, it can increase awareness of governmental programs and other

assistance available to individuals and families in need of food resources.

Food stamps are often very limited for many families, and some subgroups are at an even greater risk of need. The welfare reform act required recipients to go to work. As a result, they were no longer eligible for food stamps. However, low wages have resulted in a shortage of money for food. The following subgroups experience food shortages most often.

- African-Americans: 22%
- Hispanics: 21.7%
- Households < 130% poverty: 21.6%
- Single-parent families: 30.0%
- Elderly living alone: 7.4%

Children are at particular risk due to lack of proper food because inadequate nutrition leads to poor cognitive development and lower levels of school readiness.

In 1995, one in seven children in Iowa lived in poverty, according to the U.S. Census Bureau. The Family Investment Program (FIP) average monthly caseload for 2003 was 19,843. The number of recipients has dropped by more than 50% since welfare reform began. Research shows that families leaving the welfare system are at an even higher risk of food insecurity.

Families going from welfare to work make an average of \$6 per hour, but they need \$11 per hour to pay for basic needs.

13–8.1 Action Step

Through 2010, build on the Iowa Alliance to End Hunger that was formed in October 2003. Through 2004, organizational meetings were held that worked on recruitment, membership, structure, and so forth. In 2005, a mission statement will be developed and activity will begin on a work plan that will be developed annually thereafter. The Iowa Legal Aid and the Food Bank of Iowa worked to create an Iowa Food Pantry Directory that will be posted on Legal Aid’s web site. The Food Bank will distribute booklets to organizations needing to know about emergency food distribution. During 2005, Iowa Food Banks will conduct Hunger Study 2005, a nationwide study that will also produce an Iowa report. The study will interview food providers and clients and be

ready for distribution in the fall of 2005. (A Food Bank of Iowa action step.)

13–8.2 Action Step

Through 2010, the Women, Infants and Children (WIC) program will conduct food security surveys on a regular basis. A survey was conducted in 2003 and others will be conducted in 2006 and 2009. (An Iowa Department of Public Health, Bureau of Nutrition action step.)

13–9 Goal Statement

Provide nutrition screening and education to 90% of older adults who participate in health and nutrition programs, which include home-health services to older adults and case management for the frail elderly.

Baseline: See Rationale.

Rationale

As previously mentioned, Iowa has a high proportion of older residents, and that proportion is expected to grow significantly. A nutrition-screening tool developed by the American Academy of Family Physicians, the National Council on the Aging, and the American Dietetic Association was used to screen older Iowans. The results were reported to the Iowa 75th General Assembly.

13–9.1 Action Step

By 2010, provide ongoing nutrition screening and follow-up to Iowans over age 65, increasing from 10% to 12% the proportion of Iowans participating in nutrition programs funded by the Older American Act Title III, Senior Living Trust, and Iowa Medicaid Elderly Waiver and receiving nutrition education and counseling. (An Iowa Department of Public Health, Iowa Department of Elder Affairs, Iowa Department of Human Services, Iowa Dietetic Association, and Iowa Nutrition Network action step.)

13–9.2 Action Step

Through 2010, provide appropriate nutrition services to Iowans over age 60 that have been screened and determined by a referral system to be at risk. (An Iowa Department of Public Health, Iowa Department of Elder Affairs, Iowa State University Extension, and Iowa Department of Human Services action step.)

13–9.3 Action Step

By 2010, investigate the possibility of expanding supplementary food and nutrition programs through the U.S. Department of Agriculture for Iowans over aged 60. (An Iowa Department of Public Health, Iowa Department of Elder Affairs, Iowa Department of Human Services, Iowa Department of Agriculture and Land Stewardship, Iowa Dietetic Association, and Iowa Nutrition Network action step.)

13–9.4 Action Step

By 2010, institute an ongoing education program for adult health-care and service providers and caregivers covering health aging, screening and referral for nutritional problems, and availability of food and nutrition programs. These include congregate meals and home-delivered meals, Senior Farmer's Market Nutrition Program, and the food assistance program. (An Iowa Department of Public Health, Iowa Department of Elder Affairs, Iowa Department of Human Services, Iowa Department of Agriculture and Land Stewardship, Iowa Dietetic Association, and Iowa Nutrition Education Network action step.)

13–9.5 Action Step

By 2010, expand participation in the food assistance program by Iowans aged 60 and older at 185% poverty from 8% to 16%. (An Iowa Department of Public Health, Iowa Department of Elder Affairs, Iowa Department of Human Services, and Iowa Nutrition Network action step.)

13–9.6 Action Step

By 2010, seek funding to expand Senior Farmer Market Nutrition Program participation from 23,000 in 2004 to 50,000. (An Iowa Department of Public Health, Iowa Department

of Elder Affairs, Iowa Department of Human Services, Iowa Department of Agriculture and Land Stewardship, Iowa Dietetic Association, and Iowa Nutrition Network action step.)

**Nutrition and Overweight
Chapter Team**

Team Leader

Susan Klein
Iowa State University Extension

Team Facilitators

Judy Solberg
Carol Voss
Iowa Department of Public Health

Team Members

Virginia Bechtold
Iowa School Food Service Association
Council Bluffs Schools

Chuck Dufano
Johnson County WIC

Janice Edmunds-Wells
Iowa Department of Public Health

Jodie Kealey
Child Health Specialty Clinics
University of Iowa

Pat Hildebrand
Iowa Dietetic Association
Mid-Iowa Community Action

Ruth Litchfield
Iowa Dietetic Association
Iowa State University Extension

Mary Jane Oakland
Iowa State University

Susan Pohl
Iowa Fit Kids Coalition
Iowa Department of Public Health

Susan Roberts
Drake Law School

Karen Ford
Food Bank of Iowa

Carlene Russell
Iowa Department of Public Health
Iowa Department of Elder Affairs

Holly Szcodronski
Iowa Lactation Task Force
Iowa Department of Public Health

Ann Tabor
Center for Development and Disability
University of Iowa Hospitals and Clinics

Julia Thorius
Department of Education

Kris Wood
Mid-Iowa Community Action