



CHAPTER 2. Nutrition and Physical Activity

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NUTRITION AND PHYSICAL ACTIVITY

IMPORTANCE OF NUTRITION AND PHYSICAL ACTIVITY FOR CANCER PREVENTION AND CONTROL

While the important role of cigarette smoking in cancer etiology and prevention cannot be underestimated, for the great majority of Americans who do not smoke cigarettes, dietary and physical activity behaviors are the most important modifiable determinants of cancer risk.^{1,2} Former smokers, a group at high risk of developing cancer, can also benefit from a healthy diet and a physically active lifestyle. According to the World Health Organization (WHO), dietary factors are second only to tobacco as the most important known preventable cause of cancer.¹ There is also increasing evidence that physical activity may be inversely related to some cancers.³ The role of diet in cancer etiology and prevention is well established. A panel of experts commissioned by the World Cancer Research Fund (WCRF) and the American Institute for Cancer Research (AICR) concluded that approximately 30% of all cancers are preventable by dietary means, physical activity, and maintenance of appropriate body weight.⁴ Overweight and obesity have been associated with 14–20% of all deaths from all cancers.⁵ Maintaining healthy eating patterns throughout the life course can play a major role in cancer prevention, mainly because this is a potentially modifiable behavior. Therefore, the introduction of healthy eating patterns and physical activity at any time will promote overall health and greatly reduce the risk of cancer.

Evidence-based national dietary guidelines for cancer prevention have been issued by various organizations. Overall, recommendations include maintenance of a healthy weight and an active lifestyle, eating a healthy diet—emphasizing a variety of fruits and vegetables and whole grain products—and drinking alcohol only in moderation or not at all.^{1,2}

Less well known is the role played by diet and physical activity during the various phases of cancer survivorship—active treatment phase, recovery phase, health maintenance phase and, for some, a phase of living with advanced cancer. After a cancer diagnosis, many survivors look actively for information on dietary choices, alternative therapies, including supplements, and physical activity to help them gain some measure of control over their condition and improve their symptoms. Survivors have evolving needs and challenges regarding nutrition and physical activity throughout the phases of survivorship. The current scientific evidence on nutrition and physical activity was recently reviewed by a panel of experts organized by the American Cancer Society.² In general, the panel concluded that adequate dietary intake can improve nutritional status in virtually all cancer survivors and recommended that survivors follow the basic national dietary guidelines described above for a healthy diet. Yet, clearly, further research in this area is imperative.⁶



NUTRITION AND PHYSICAL ACTIVITY IN NEW JERSEY

As noted in the introductory section to this *Plan* on “Cancer Burden in New Jersey,” the incidence and mortality rates for certain cancer types in New Jersey are higher than the national average. The *Healthy New Jersey 2010 Report*⁷ and *Healthy New Jersey 2010: Update 2005*⁸ focus on the following goals for nutrition and health:

- Objective 1. To increase the percentage of persons aged 18 and over eating at least five daily servings of fruits and vegetables (including legumes) to 35.0%.
- Objective 2. To reduce the percentage of persons aged 18 and over who are overweight but not obese to 27.6% for all adults.
- Objective 3. To reduce the percentage of persons aged 18 and over who are *obese* to 12.0% of all adults.
- Objective 4. To reduce the percentage of persons aged 18 or older who do not engage regularly in moderate physical activity for at least 30 minutes per day to 57.5% of all adults.

Consumption of fruits and vegetables. As shown in Table 1, according to Behavioral Risk Factor Surveillance System (BRFSS) data, only 25.9% of New Jersey adults reported consuming fruits and vegetables at least five times a day in the year 2005. Although, the proportion of New Jersey residents eating 5 servings of fruits and vegetables a day is higher than the national average for the total population and for each race, gender, and age subgroup (Table 1), we are still far from the Healthy New Jersey 2010 target of 35%. BRFSS trend data also indicate that the proportion of people eating the recommended five servings of fruits and vegetables has remained essentially stable during the past decade. These data underscore the need for more effective nutrition interventions to help New Jersey residents achieve this goal. Males, Hispanics, and New Jersey residents aged 25 to 44 years may derive the most benefit from these interventions (Table 1).⁹



Table 1. Proportion of New Jersey residents 18 years and older who reported consuming fruits and vegetables at least five times a day in the year 2005* and specified target % in Healthy New Jersey 2010**

	New Jersey (2005)	Nationwide (2005)	Healthy NJ 2010 Target	Preferred Healthy NJ 2010 Endpoint
Total	25.9	23.2	35	50
By Race and Ethnicity				
White	26.2	23.7	35	50
Black	28.3	21.8	35	50
Hispanic	22.0	20.4	35	50
Other	30.6	26.0	35	50
By Gender				
Male	22.0	18.6	***	***
Female	29.5	28.1		
By Age				
18–24	24.4	21.0	***	***
25–34	23.2	21.7		
35–44	23.3	20.1		
45–54	26.5	22.4		
55–64	26.7	24.8		
65+	31.3	31.0		
By Education				
< High School	23.0	18.7	***	***
HS or GED	22.9	19.0		
Some post-HS	25.9	23.6		
College graduate	29.0	29.2		

* [Behavioral Risk Factor Surveillance System](#) data, Centers for Disease Control and Prevention, 2006.

** [Healthy New Jersey 2010](#), New Jersey Department of Health and Senior Services, 2001.

*** Target and preferred endpoint not set by gender, age, or education.



Overweight. As Table 2 shows, the proportion of overweight subjects in 2005 was slightly higher in New Jersey than the national average (37.1% and 36.7%, respectively). This is also illustrated in Figure 1, where the prevalence of overweight subjects seems to have been slightly increasing over the last decade. The percentage of overweight males was considerably higher than that of females in the year 2005 (Table 2). The data also reveal differences by race and ethnicity, with the highest prevalence of overweight being reported by Hispanics (42.1%), followed by blacks (38.7%), and whites (36.5%) (Table 2). Although male and Hispanic populations appear to have the greatest need for the intervention and research programs, all groups are far from the Healthy New Jersey 2010 target of 27.6% and could benefit from health promotion activities aimed at achieving long-term healthy body weight.^{7.9}

Table 2. Percentage of New Jersey residents 18 years and older who are overweight (defined as BMI* between 25 and 29.9) in 2005 and specified target % in Healthy New Jersey 2010*****

	New Jersey (2005)	Nationwide (2005)	Healthy NJ 2010 Target	Preferred Healthy NJ 2010 Endpoint
Total	37.1	36.7	27.6	25
By Race and Ethnicity				
White	36.5	36.8	28.1	25
Black	38.7	36.1	28.4	25
Hispanic	42.1	37.8	32.4	25
By Gender	43.2	43.8	36.6	25
Male	31.2	29.3	25.1	25
Female				
By Age				
18–24	26.4	26.5	****	****
25–34	34.9	35.0		
35–44	38.0	37.6		
45–54	37.9	38.5		
55–64	41.3	39.8		
65+	40.4	40.5		

* BMI (Body Mass Index) is defined as weight in kilograms divided by height in meters squared (w/h²).

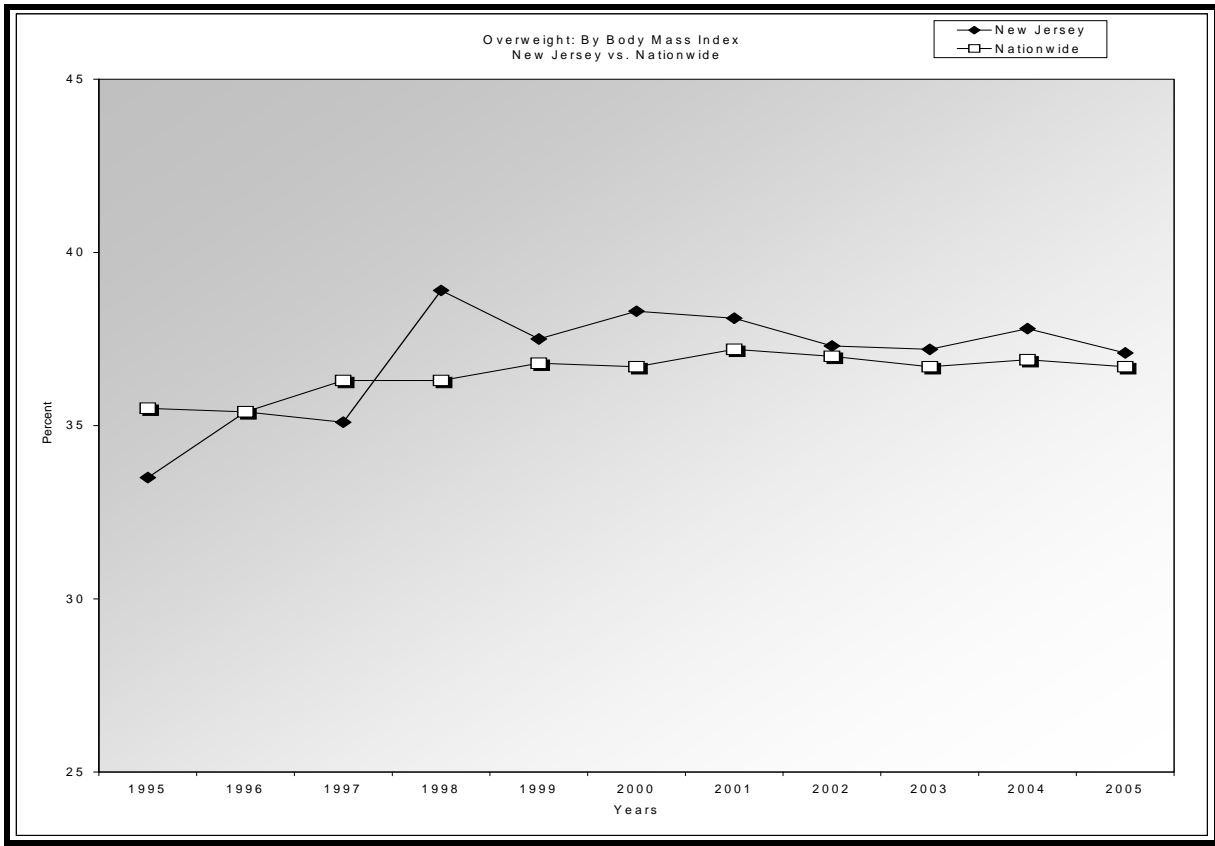
** [Behavioral Risk Factor Surveillance System](#) data, Centers for Disease Control and Prevention, 2005.

*** [Healthy New Jersey 2010](#), New Jersey Department of Health and Senior Services, 2001.

**** Target and preferred endpoint not set by age.



Figure 1. Trends in percentages of New Jersey residents who are overweight* versus nationwide, Behavioral Risk Factor Surveillance System, 1995–2005



* All respondents 18 and older who report that their Body Mass Index is between 25.0 and 29.9. BMI is defined as weight in kilograms divided by height in meters squared (w/h^2). Denominator includes all survey respondents except those with missing, don't know, and refused answers.

Obesity. Although New Jersey is closer to the Healthy New Jersey 2010 objective than the national average (Table 3), considerable efforts must still be expended to bring the current obesity prevalence of 22.1% to the Healthy New Jersey 2010 target of 12%. The obesity prevalence is particularly high among blacks (32.5%). Figure 2 illustrates the alarming trend in increasing obesity over the past decade and highlights the need for immediate effective intervention and research to reverse this trend.

Physical activity. Obesity results from an imbalance between energy intake and energy expenditure. The obesity epidemic in the U.S. and in New Jersey is the result of unhealthy diets and a sedentary lifestyle. As shown in Table 4, in 2005, 51.3% of U.S. and 54.1% of New Jersey adults did not meet the recommendations in *Healthy New Jersey 2010* for moderate physical activity (see Table 4 for definition of “moderate”). Activity levels vary by race, gender, age, education, and income. For example, males and Hispanics tended to be less likely to meet the recommendations. For both New Jersey and the U.S., the level of physical activity is directly related to education and income. Although the Healthy New Jersey 2010 target of reducing the percentage of adults who do not engage regularly in moderate physical activity to 57.5% has been reached for some populations such as whites, younger adults, the more educated, and the more affluent, reaching the target for blacks, Hispanics, older adults, the less affluent, and the less educated still appears to be a challenge.^{7,9}

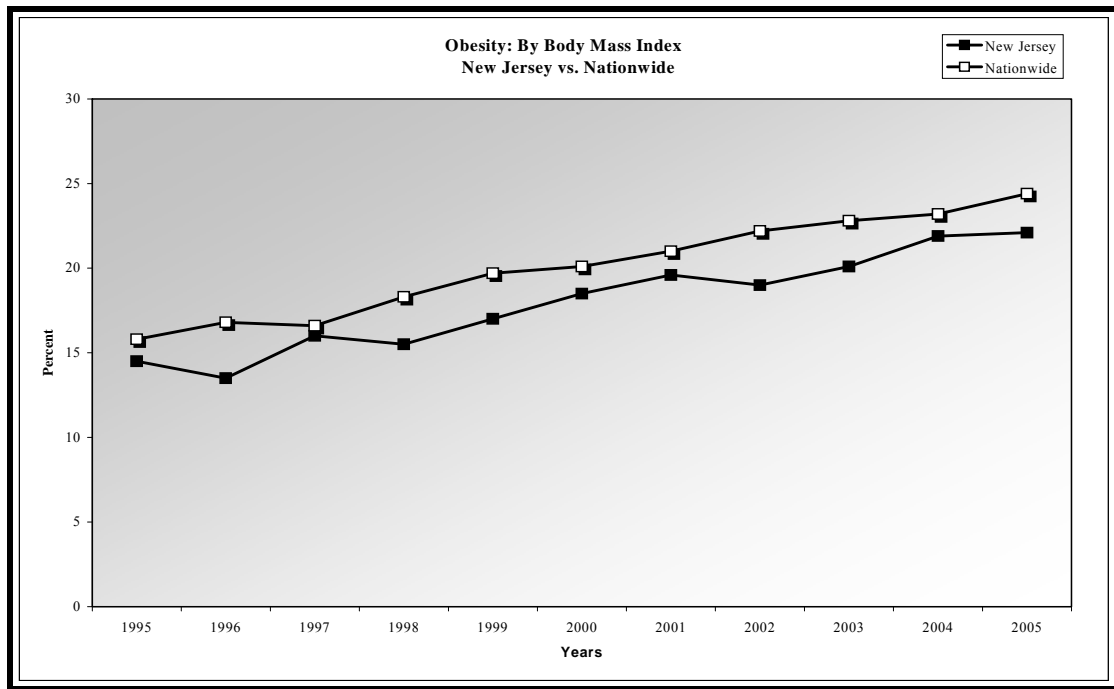


Table 3. Percentage of New Jersey residents 18 years and older who are obese (defined as BMI* of 30.0 or greater) in 2005 and specified target % in Healthy New Jersey 2010*****

	New Jersey (2005)	Nationwide (2005)	Healthy NJ 2010 Target	Preferred Healthy NJ 2010 Endpoint
Total	22.1	24.4	12.0	12.0
By Race and Ethnicity				
White	21.6	23.5	12.0	12.0
Black	32.5	34.7	15.0	12.0
Hispanic	22.2	24.6	12.0	12.0
By Gender				
Male	23.7	24.6	14.0	12.0
Female	20.5	24.0	12.0	12.0
By Age				
18-24	14.6	16.2	****	****
25-34	18.5	23.1		
35-44	21.3	26.3		
45-54	26.3	29.1		
55-64	28.7	30.5		
65+	21.0	21.0		

- * BMI (Body Mass Index) is defined as weight in kilograms divided by height in meters squared (w/h^2).
- ** [Behavioral Risk Factor Surveillance System](#) data, Centers for Disease Control and Prevention, 2005.
- *** [Healthy New Jersey 2010](#), New Jersey Department of Health and Senior Services, 2001.
- **** Target and preferred endpoint not set by age.

Figure 2. Obesity trends in New Jersey versus nationwide, Behavioral Risk Factor Surveillance System, 1995-2005



* All respondents 18 and older who report that their Body Mass Index is 30.0 or more. BMI is defined as weight in kilograms divided by height in meters squared (w/h^2). Denominator includes all survey respondents except those with missing, don't know, and refused answers.



Table 4. Percentage of adults at risk for not meeting the moderate physical activity recommendation* and specified target % in Healthy New Jersey 2010**

	New Jersey (2005)	Nationwide (2005)	Healthy NJ 2010 Target	Preferred Healthy NJ 2010 Endpoint
Total group	54.1	51.3	57.5	50.0
By gender				
Males	52.4	49.5	57.5	50.0
Females	55.6	52.3	57.5	50.0
By race and ethnicity				
White	50.0	48.8	57.5	50.0
Black	58.3	58.2	57.5	50.0
Hispanic	62.8	56.2	57.5	50.0
By age				
18–24	47.5	40.6	***	***
25–34	53.2	48.3		
35–44	50.0	49.7		
45–54	54.9	51.5		
55–64	55.1	55.3		
65+	62.8	61.0	57.5	50.0
By education				
< High school	71.3	62.2	***	***
High school graduate	55.8	54.1		
Some college	51.8	50.4		
College graduate	49.8	46.9		
By income				
<15,000	64.5	61.3	***	***
15,000–24,999	62.7	57.1		
25,000–34,999	61.3	52.1		
35,000–49,999	53.9	50.4		
≥50,000	47.3	46.2		

Source: Behavioral Risk Factor Surveillance System data, Centers for Disease Control and Prevention, 2005.

* 30+ minutes of moderate physical activity five or more days per week or vigorous physical activity for 20+ minutes 3 or more days per week.

** *Healthy New Jersey 2010: Update 2005*, New Jersey Department of Health and Senior Services, 2005.

*** Target and preferred endpoint not set by age group (other than 65+), education, and income.



GOALS, OBJECTIVES, AND STRATEGIES

The recommendations of the Nutrition and Physical Activity Workgroup are summarized below for the following focal areas:

- Cancer prevention
- Cancer survivorship

OVERALL GOAL

To reduce cancer incidence in the State of New Jersey by improving the diet and increasing physical activity among its residents; and to improve survival and quality of life among cancer patients and survivors.

CANCER PREVENTION AND NUTRITION/PHYSICAL ACTIVITY

In this section we discuss the role of nutrition and physical activity in cancer prevention, as well as current efforts to promote sound nutrition and increased physical activity among New Jersey residents.

The Role of Nutrition and Physical Activity for Cancer Prevention

The role of diet and nutrition in cancer prevention is well established.^{1,2,4} It has been estimated that approximately one-third of all cancers occurring in the U.S. are attributable to dietary factors.^{1,4,10} The precise biological impact for any single dietary factor is difficult to determine, given the endless number of compounds present in diet and the interactions among them. However, we do know that the foods we eat contain agents with both carcinogenic (cancer-causing) and anticarcinogenic (cancer-preventing) potential.

At the present time many aspects of the relationship between diet and cancer are not fully understood. For example, the role of dietary fat as a key factor in cancer development has been recently challenged.^{11,12} The type of dietary fat consumed, rather than total fat, seems to be a more important factor in determining cancer risk.^{13,14} Nevertheless, there is fairly consistent evidence supporting a role for fruits and vegetables, whole grains, and physical activity in preventing some cancers, whereas obesity, alcohol, certain food preparation methods (such as barbequing at high temperatures) may increase cancer risk.^{6,15}

The body of literature showing that diets high in fruits and vegetables are associated with a reduced risk of cancer is large and fairly consistent, particularly for cancer of the gastrointestinal and respiratory tracts.¹⁶ The WCRF/AICR report concluded that increasing the consumption of fruits and vegetables may prevent at least 20% of all cancers worldwide.⁴

A growing body of evidence suggests that obesity increases the risk of prostate cancer for males and of post-menopausal breast cancer, endometrial, ovarian, gall bladder, and cervical cancer for females; and of colon, kidney, and adenocarcinoma of the esophagus for both males and females.^{13,15} Hormonal mechanisms have been proposed to explain the relationship between body size and cancers of the breast,



endometrium, and colon, in particular through increases in estrogens and insulin and insulin-like growth factors. These hormonal factors have been implicated in the etiology of breast, endometrial, and colon cancer.^{13,15}

Evidence for a role of physical activity in reducing cancer risk is also accumulating.^{3,5} A recent systematic review of the epidemiologic literature concluded that the evidence for a protective role of physical activity for colon and breast cancer is convincing, for prostate cancer is probable, for lung and endometrial cancer is possible, whereas for testicular and ovarian cancers evidence is insufficient.¹⁷ Several mechanisms have been proposed to explain the beneficial effects of regular physical activity, including modification of endogenous sex and metabolic hormonal levels and growth factors, decreased body fat content, and possibly enhanced immune function.¹⁷

A decrease in physical activity most likely has contributed to the increased proportion of individuals nationwide who are overweight or obese. Labor-saving devices at home and work, fewer safe areas for pedestrians and cyclists, and less emphasis on physical education in schools are just a few examples of factors that have caused a decrease in physical activity. At the same time, while physical activity continues to decrease, there is growing popularity and availability of fast foods and snack foods, which are increasing caloric intake and resulting in energy imbalance and, subsequently, overweight/obesity.

A study found that physically active individuals had lower annual direct medical costs than did inactive people. The cost difference was \$330 per person, based on 1987 dollars. The potential savings if all inactive American adults became physically active could be \$29.2 billion in 1987 dollars, or \$76.6 billion in 2000 dollars.¹⁸

According to the report of the Surgeon General, physical activity also appears to improve health-related quality of life by enhancing psychological well-being and by improving physical functioning in persons compromised by poor health.¹⁹

Several reports have been published that provide suggestions to improve healthy eating habits and increase physical activity to decrease the risks of cancer. The Surgeon General suggests that consistent influences on physical activity patterns among adults and young people include confidence in one's ability to engage in regular physical activity (i.e., self-efficacy), enjoyment of physical activity, support from others, positive beliefs concerning the benefits of physical activity, and lack of perceived barriers to being physically active. Interventions targeting physical education in elementary school can substantially increase the amount of time pupils spend being physically active in physical education class. For adults, some interventions have been successful in increasing physical activity in communities, worksites, healthcare settings, and at home.¹⁹

The *Harvard Report on Cancer Prevention* provides steps for prevention of cancer at the individual, community, and government levels. Researchers recommend that individuals foster better dietary habits, exercise moderately, avoid heavy alcohol intake (i.e., more than 2 drinks per day for men and more than 1 drink for women), and speak with their doctors about lifestyle decisions that reduce cancer risk. At the community level, nutrition and physical activity in school curricula are recommended, as well as mass media campaigns and accessibility for physical activity and nutrition education programs. Communities are advised to support physical and health education for all grades and to monitor food supplement programs for a nutritional balance.²



The WHO recommends establishing *enabling environments* in schools, workplaces, and communities, supported by transport and urban design policies; access to the resources necessary for a healthy diet; and legislative, regulatory, and fiscal policies. An enabling environment is one that encourages, supports, and protects healthy living.¹ In order to accomplish this, the WHO has published the following strategic actions for promoting healthy diets and physical activity:

- Surveillance of people’s diets, physical activity, and related disease burden.
- Enabling people to make informed choices and take effective action.
- Making the best use of standards and legislation.
- Ensuring that “healthy diet” components are available to all.
- Achieving success through intersectoral initiatives.
- Making the best of health services and the professionals who provide them.

Current Efforts in New Jersey

The New Jersey Department of Health and Senior Services (NJDHSS) has created a new Office of Nutrition and Fitness to help lead New Jersey’s fight against obesity. The office will oversee more than \$2 million in nutrition and fitness programs and will work to implement the Governor’s appointed New Jersey Obesity Prevention Task Force’s recommendations outlined in its 2006 report, *The New Jersey Obesity Prevention Action Plan*.²⁰ The recommendations include: improved nutrition, increased fruit and vegetable consumption, increased physical activity, exclusive breastfeeding of infants, and decreased time spent on television, computers, and video games.

The NJDHSS serves as the state health authority of the National Fruit and Vegetable Program. In 2007 the public health initiative Fruits and Veggies – More Matters™ was introduced to replace the program formerly known as the 5 A Day for Better Health Program when it is phased out by the end of 2008. The lead national program partners are the Centers for Disease Control and Prevention and the Produce for Better Health Foundation. The program is a national effort to achieve the Healthy People 2010 objective to increase the per capita consumption of fruits and vegetables to five or more servings daily. In 1995, a group known as the New Jersey 5 A Day Coalition was created to work collaboratively to increase consumption of fruits and vegetables. Approximately 30 organizations participate in the coalition. The group currently operates under its 2001 mission statement: “The New Jersey 5 A Day Coalition is a diverse group of stakeholders advocating the consumption of 5 or more servings of fruits and vegetables a day, for the purpose of promoting health and improving the quality of life for all New Jerseyans.”

The Nutrition and Physical Activity Workgroup is collaborating with the 5 A Day Coalition to secure funding for New Jersey to participate in the USDA Fruit and Vegetable Snack Program (FFVP). The FFVP grants designate funds for states to provide school children with fresh fruits and vegetables. In a pilot study of the program, it was observed that FFVP lessened the risk of obesity, encouraged children to eat healthier food, increased children’s awareness of a variety of fruits and vegetables, and helped children, who would otherwise be hungry, obtain more food. School staff and parents of children enrolled in the program noticed that children requested more fruits and vegetables and consumed fewer unhealthy foods throughout the day.²¹

As mentioned above, all activities and events coordinated by the New Jersey 5 A Day Coalition are directed toward achieving the Healthy New Jersey 2010 objective to: “Increase the percentage of



persons (aged 18 years and over) eating at least 5 daily servings of fruits and vegetables (including legumes) from 27.0% to 35.0%.²⁷

It is widely recognized that nutrition plays a significant role in health promotion and disease prevention. It is also clear that consumers are not only listening, but also attempting to apply the information available to them. The availability of accurate nutrition information and use of well-researched nutrition education tools continues to be important. Tools appropriate to age and literacy level, as well as culturally appropriate tools are needed.

The New Jersey Core Curriculum Content Standards, with which local school districts’ curricula must be aligned, were most recently reviewed in 2004. The Standards were expanded to address in additional depth and clarity the many health issues that face school-aged children. There was a specific effort to increase the number of progress indicators in the Standards in grades Kindergarten through 12 that address healthy eating, increasing physical activity, and disease prevention strategies. The next revision of the Standards will occur in 2009.

To enhance existing nutrition and physical activity programs/services, the Nutrition and Physical Activity Workgroup advises that New Jersey residents continue to be educated about healthy eating patterns and exercise through such programs as the Mayor’s Wellness Campaign. Various nationwide research has shown successful community education^{22,23} and worksite education programs^{24–26} focusing on the importance of healthy eating patterns and moderate physical activity for cancer prevention. Additionally, school-based curricula²⁷ have a positive impact on the eating patterns of students. Therefore, the Nutrition and Physical Activity Workgroup proposes that New Jersey residents be educated about the importance of dietary factors and physical activity to decrease the risk of cancer through academic, worksite, and community education. Improving access² and services provided can enhance existing public health programs. Additionally, high-risk groups—such as certain ethnic groups,²⁵ those with lower incomes, and those at lower educational levels—should be targeted for education about cancer-risk reduction.^{1,2}

GOAL NP-1 To promote long-term healthy eating patterns, healthy weight, and physical activity for cancer prevention among New Jersey residents.

Objective NP-1.1

To increase the proportion of healthy foods, especially fruits and vegetables, that New Jersey residents consume each day.

Strategies

NP-1.1.1 Review the New Jersey Core Curriculum Content Standards for education about diet and nutrition, including healthy eating patterns, physical activity, and the prevention of



cancer. Make recommendations for improvements if and where needed in time for the 2009 revisions.

- NP-1.1.2** Recommend an evaluation of food services in educational institutions, daycare facilities, and workplaces in order to implement improvements in these services in line with federal guidelines.
- NP-1.1.3** Increase access to healthy foods, especially for high-risk groups, by supporting state-level nutrition programs, such as WIC, Fruits and Veggies – More Matters™, and Team Nutrition.
- NP-1.1.4** Assess needs and develop nutrition education programs for cancer prevention among college students.
- NP-1.1.5** Assess needs and develop nutrition education programs for cancer prevention among Head Start parents and other low-income groups.
- NP-1.1.6** Create a mass media campaign to promote statewide nutrition programs that encourage consumption of a diet consistent with dietary guidelines.

Objective NP-1.2

Enhance, or support where necessary, statewide nutrition programs to help New Jersey residents reduce the risk of developing cancer.

Strategies

- NP-1.2.1** Support an infrastructure within state government to coordinate and collaborate on activities among existing nutrition programs.
- NP-1.2.2** Coordinate and support comprehensive nutrition education programs in allied fields by sponsoring collaboration.
- NP-1.2.3** Encourage and support the incorporation of an evaluation component in nutrition education programs to evaluate effectiveness in persuading people to eat healthier diets, thereby modifying behaviors that affect cancer risk.

Objective NP-1.3

To increase frequent, leisure-time physical activity, as consistent with Healthy New Jersey 2010 goals.



Strategies

- NP-1.3.1** Educate the public about ways to increase physical activity using existing programs and information sources.
- NP-1.3.2** Increase the availability and accessibility of affordable opportunities for physical activity within communities.
- NP-1.3.3** Support an infrastructure within state government to coordinate and collaborate on activities among existing physical activity programs.
- NP-1.3.4** Coordinate and support comprehensive physical activity education programs in allied fields by sponsoring collaboration.
- NP-1.3.5** Encourage and support the incorporation of an evaluation component in physical activity education programs to evaluate effectiveness in persuading New Jersey residents to increase their physical activity.

Objective NP-1.4

Advocate for policy and environmental changes to increase support for proper nutrition and physical activity at the state and local level.

Strategy

- NP-1.4.1** Increase advocacy efforts and public support for initiatives, policy, and legislation that promote healthy eating and physical activity.

CANCER SURVIVORSHIP AND NUTRITION/PHYSICAL ACTIVITY

Currently every year nearly 1.4 million people are diagnosed with cancer in the U.S., and approximately 10.5 million cancer survivors are living today.²⁸ Proper nutrition and appropriate levels of physical activity have been demonstrated as important for the optimal efficacy of cancer treatment regimens and may reduce the chances of disease recurrence.²⁹

Cancer survivors are intensely interested in nutrition and complementary and alternative treatment regimens. Studies clearly demonstrate that they practice these treatments, often without the knowledge of their physicians and often without sufficient information to support their usefulness or safety.³⁰ This practice can have detrimental effects, as some products—such as certain dietary supplements—have been shown to have negative interactions with some conventional cancer treatments. It is important that patients and physicians discuss nutritional and lifestyle choices before, during, and after cancer treatment.²⁵



As advances in modern oncologic medical care become increasingly successful at extending the lives of those diagnosed with cancer, and in many cases curing the disease altogether, the number of people living with a history of cancer will continue to grow. As the number of cancer survivors increases, so does the need to address the specific health requirements and quality of life of this population. To date there has been limited study of the role of nutrition and physical activity in cancer survivorship.⁶ However, several ongoing studies are currently addressing precisely this topic, and the Nutrition and Physical Activity Workgroup plans to closely monitor study findings.

It is necessary for cancer survivors in all stages of treatment, recovery, living after recovery and, in some cases, living with advanced cancer to have ready access to solid evidenced-based information on dietary habits and physical activity that will permit them to make decisions to optimize their health and well-being. Cancer survivors should be able to obtain this information easily and to avail themselves of appropriate professional advice and services. Access should be equivalent regardless of socioeconomic status or education level. Finally, it is the responsibility of the healthcare community to generate this information through further research into the impact of dietary habits, nutrition, and physical activity on cancer survivorship.^{6,14}

GOAL NP-2 To assure proper nutritional care for cancer patients.

Objective NP-2.1

Encourage healthcare professionals to use nutrition guidelines for cancer patients/survivors during and after cancer treatment.

Strategy

NP-2.1.1 Promote national practice guidelines targeted to healthcare professionals relating to nutritional care for cancer patients.

Objective NP-2.2

Provide cancer patients/survivors with information about proper nutrition and physical activity during and after treatment.

Strategies

NP-2.2.1 Advocate for reimbursement coverage for Medical Nutrition Therapy.

NP-2.2.2 Provide support to those New Jersey residents who are receiving/or have received cancer treatment and are currently battling a nutritional problem.



Objective NP-2.3

To provide ongoing information regarding nutrition and physical activity guidelines to cancer survivors for the prevention of recurrence and of other cancers and chronic diseases.

Strategies

- NP-2.3.1** Assess current needs and develop educational programs for cancer survivors.
- NP-2.3.2** Provide primary care physicians with educational materials to facilitate long-term care for cancer survivors for the prevention of recurrence and of other cancers and chronic diseases.



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