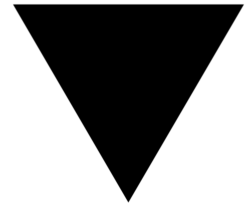
# V. The Nutrition Plan

**The Nutrition Plan**



The nutrition plan you develop is the most important outcome of this *Workbook & Training Manual*. The worksheets in the previous chapters were designed to help you produce a nutrition plan. You will refer to those worksheets frequently as you go through the process of putting your plan onto paper. Chapter V in *Moving to the Future: Developing Community-Based Nutrition Services*, reviews the value of a nutrition plan and provides more background on the information to be included in a nutrition plan.

Below you will find an outline of what to include in your nutrition plan. Using the outline as a guide for content, determine the format best suited to your needs. For example, if your organization has a community health plan, develop the nutrition plan using that format. Your nutrition plan could be 12 pages in length or it could be two pages. Again, you should determine what is most appropriate for your situation.

A sample nutrition plan is found on pages 129-138. This plan was developed for an actual community using the worksheets and following the process in this workbook and training manual.

## Description of the Community

This part of the nutrition plan is a report of the community assessment. It summarizes the work you have done on pages 1 through 54.

**Community Definition**

Describe in two to three sentences your community. Identify your target audience (group or population) separate from the whole community. Page 5 will be helpful here, at the top of that page is your target audience and on the bottom is the definition of your community.

**Community's Perceived Needs**

Summarize what the community perceives as its health problems. This information is on page 15. Include results of your media survey, focus group, and community opinion survey. As noted above, you need to decide how much information to include in your nutrition plan. If you are in a community with limited resources for nutrition services, you may only consider the top 1 or 2 health problems as perceived by the community.

**Demographic Profile**

Include the most notable demographics of your community that can impact nutrition and health. Refer to pages 18 through 23 to prepare this section of your nutrition plan.

**Assessing Health Status**

Include in this community description a summary of the community's health status, which you have completed on page 27. As with perceived needs, the staffing and financial situation of nutrition services will determine how many health problems you discuss and intend to affect through the nutrition intervention. At this point you are only identifying problems, you have not yet prioritized.

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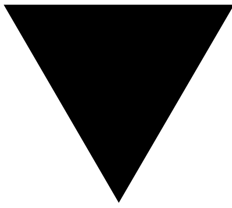


**Assessing Nutrition Status**

By now you may have determined what age group you will focus your nutrition intervention on, and, therefore, you may collect and assess only that nutrition status data. Analyze and summarize the nutrition status data you collect here. The analyses you have done on pages 33, 35, 37, 39, and 41 will help develop this part of your nutrition plan. It is essential that you reference and analyze the cost data related to nutritional health problems.

**Assessing Community Resources**

The last major area of assessment is recording and analyzing the nutrition services available to your community. Knowing both the quantity and quality of those services will help you design an intervention that will maximize everyone's resources and improve the health of the citizens of your community. The summary on page 54 should guide the development of this part of your nutrition plan.

## Needs Statement

As discussed on pages 27 and 28 in *Moving to the Future: Developing Community-Based Nutrition Services,* this is your assessment of why a nutrition intervention is needed in your community. This can generally be done in one or two paragraphs.

## Priorities, Goals, and Objectives

This part of your nutrition plan will most likely be brief. After assessment, you will begin to focus your plan and determine what intervention(s) are best to improve the nutritional health of your community. Recreate the content of page 67 for your nutrition plan.

## Implementation Plan

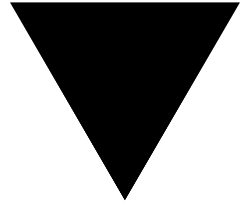
This is where you describe what you plan to do! Add to your list of goals and objectives (from the previous section of your plan) the interventions planned to achieve those objectives. You can either provide a simple list, as on page 74, or you can include a brief description of the intervention. Your workplan (page 76), budget (pages 86-88), and list of coalition members (pages 89-91) can be inserted here or attached to the plan as appendices.

## Monitoring and Evaluation Plan

Advance planning for how you will monitor and evaluate your nutrition intervention may help you identify potential barriers early on. It also ensures that this essential component is adequately addressed. Page 104 provides a format for this section of your nutrition plan.

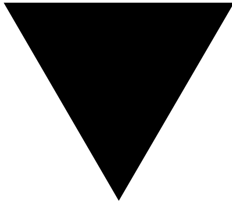
# Sample Nutrition Plan

Sample
Nutrition Plan



The sample nutrition plan on the following pages was developed by a public health nutritionist, using the process outlined in the handbook *Moving to the Future: Developing Community-Based Nutrition Services* and the worksheets included in this *Workbook & Training Manual*.

Sample
Nutrition Plan



# Sample Nutrition Plan

## Community Assessment

### Community Definition

Albany, Oregon is the county seat of Linn County, which stretches from the I-5 corridor to the Cascade Range in the heart of the Willamette Valley. For years, Albany has been a center for rare metals manufacturing, food processing, and timber and seed growing. Other major employers include Albany General Hospital, Linn-Benton Community College, Hewlett-Packard, and the Target Distribution Center. Social interactions focus on work, school, church, and community entertainment opportunities, such as the Timber Festival and the River Rhythms Concert Series.

Linn County has approximately 96,000 residents — more than one-third of those live in Albany.

This nutrition plan will be limited to Albany (hereafter referred to as "the community") due to differences in needs and available services among the three cities in Linn County.

### Community's Perceived Needs

This assessment of the community's perceived needs is based on a media survey and an opinion survey of community members. Lifestyle-related factors seem to be the biggest concern to health professionals, school personnel, community members, and the media. The main problems mentioned were obesity, sedentary lifestyle, and a focus on treating chronic diseases instead of trying to prevent them. (Other health problems mentioned, including heart disease, diabetes, and cancer, are all related to these nutritional/behavioral risk factors.) The community appears to believe that prevention through education would be the most effective way to address these problems.

Other health problems mentioned less frequently in the community opinion survey include alcohol consumption, poor outcomes of teen pregnancy, inadequate nutrition for seniors, and food allergy/sensitivity in children.

### Demographic Profile

Albany has a population of 37,090. Compared to the state, Albany has a higher percentage of people in the older age groups, beginning with the 45-64 age group. In Albany, as in the state, there are more males than females in every age group through age 24. There are almost the same number of males and females in the 25-44 age group, and the age groups above that have more females than males. Based on percentage of gender totals, the 45-64 age group is almost even, with the percentage of living males declining sharply after that. Between 1990 and 1995, the net migration into the state among people ages 65 and over was 10.5 percent, while in Linn County it was 17.9 percent.

Albany has less racial/ethnic diversity than the state. Ninety-seven percent of the population of Albany is Caucasian, compared to 92.8 percent of the state. Hispanics make up the largest ethnic minority group in Albany (2.4 percent of the population), followed by Native Americans (1.2 percent of the population).

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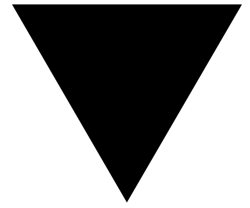

Socioeconomic factors put Albany residents at greater risk of poor nutritional status than the state as a whole. The unemployment rate is higher than the state's (9.2 percent vs. 7.2 percent). The percentage of households in Albany with annual incomes of less than $15,000 is 28 percent, compared to 25.5 percent for the state. Only 76.3 percent of Linn County residents have graduated from high school, compared to 81.5 percent of all Oregonians. Only 11 percent of Linn County residents have a bachelor's degree or higher, compared to 20.6 percent of all Oregonians. Linn County has higher percentages of the population than the state for all of the following factors:

- ➤ Percent of population below poverty level (13.5 percent vs. 12.4 percent)
- ➤ Percent of female-headed households living below poverty (59.5 percent vs. 48.3 percent)
- ➤ Percent of elderly (over 65) living below the poverty level (22.1 percent vs. 21.2 percent)
- ➤ Percent of population receiving Food Stamps (12.8 percent vs. 9.7 percent)
- ➤ Percent of persons on Temporary Assistance for Needy Families (4.1 percent vs. 3.25 percent)

**Community Health and Nutrition Status**

Based on leading causes of mortality and hospitalization among the age groups, the most detrimental nutrition-related health concerns are chronic diseases, such as heart disease, cancer, cerebrovascular diseases, and diabetes. (Unintentional injuries and suicide contribute to much of the years of potential life lost (YPLL), but these are not preventable by nutrition intervention.) Nutrition-related diseases contribute to 1,196 YPLL. According to the Behavioral Risk Factor Surveillance System:

- ➤ 19 percent of adults in Linn County, compared to 11.8 percent of adults in the state, consider themselves to be in poor or fair health.
- ➤ 24 percent of adults, compared to 20.5 percent in the state, reported having been told by a doctor that they have high blood pressure.
- ➤ 33 percent of adults, compared to 27.9 percent in the state, reported high cholesterol (>240).
- ➤ 6 percent of adults, compared to 4.4 percent for the state, reported having been told they have diabetes.
- ➤ 50 percent of adults, compared to 47.4 percent of the state, reported a sedentary lifestyle.

The top nutrition-related health problems in the community are heart disease, cancer, cerebrovascular disease, and diabetes. Obesity can be considered either a direct contributing factor or an indirect contributor to another risk factor for all of these diseases. Linn County has the fourth highest percentage of obese adults (32 percent) of the 36 counties in Oregon. The rate of adult obesity for the state is 27.4 percent.

This means that an estimated 8,794 obese adults reside in Albany. This large number of obese adults puts Albany's children at greater risk of becoming obese and, later, developing associated health problems. Studies show that a child has a 10 percent chance of becoming obese if the parents are of normal weight, a 40 percent chance if one parent is obese, and an 80 percent chance if both parents are obese. The 1988 Surgeon General's Report on Nutrition and Health recognizes the

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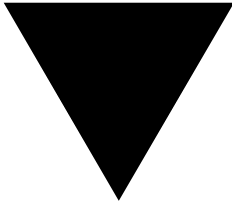

growing body of evidence correlating pediatric obesity with adult obesity. Overweight children are more likely to become overweight adolescents. Seventy-five percent of obese adolescents become obese adults; 40 percent of children who are obese at the age of seven become obese adults.

While Linn County has a higher percentage of teen pregnancies than the state, neither the infant mortality rate nor the rate of low birthweight are significantly different from the state rate. The rate of inadequate prenatal care for Linn County is also slightly higher than for the state, but this may be affected by the rates in Lebanon, Sweet Home, and some of the rural areas. The rate for Albany is not significantly different from the rate for the state.

### Community Nutrition Resources

This assessment of the community's nutrition resources is based on a survey sent out to identify food and nutrition programs and services available to community members. The survey was sent to food assistance programs targeted to various subsets of the population, restaurants, health care providers, educational settings, businesses, media, and professional and volunteer non-profit organizations. Types of services available to the whole population include food assistance for those who need it and nutrition promotion/awareness through public service announcements on the radio, newspaper articles, and healthy eating tips on restaurant menus.

The majority of community food assistance programs focus on the maternal and child population, although others, such as food stamps and soup kitchens, are available to everyone. The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is available in the community and serves 1,780 residents. Child Nutrition Programs (School Breakfast & Lunch and Summer Feeding Program) are available in all public elementary, middle, and high schools in the community. The majority of child care centers in the community participate in the Child and Adult Care Food Program (CACFP).

Nutrition education and counseling services tend to be more readily available to pregnant and breastfeeding women and their young children, through the WIC Program, private clinics, and Healthy Start; and to people with specific diseases through private clinics, the local hospital, and professional and volunteer non-profit organizations, such as the American Heart Association.

Nutrition education and counseling services for the general adult population are almost nonexistent. The only public health nutritionist at the health department works in WIC, and there is no funding for any chronic disease prevention services. The hospital has one outpatient dietitian whose services are available to anyone who can pay her fees (between $40.00 and $60.00 per session). She spends the majority of her time on diabetes education, high cholesterol, and weight loss. There are several private weight loss programs in the community, but clients at these frequently gain back the weight they lost because they did not modify their behavior.

## Needs Statement

In the United States, nutritional problems caused by deficiencies are rare, except in cases of extreme poverty or prolonged critical illness. According to *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*, there are, instead,

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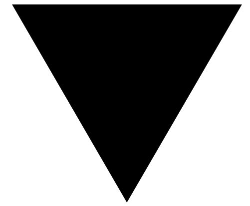

an abundance of nutritional problems related to overnutrition or unbalanced diets. This can lead to obesity, which is a contributing factor to hypertension, coronary heart disease, cancer, cerebrovascular disease, and non-insulin dependent diabetes mellitus. These diseases are more prevalent among older adults. Given the influx of people age 65 and older into the community, it is not surprising that the top nutrition-related health problems in this community are heart disease, cancer, cerebrovascular disease, and diabetes. Chronic disease prevention efforts will also be important as the "baby boom" generation ages.

Obesity is thought to contribute to 25 percent more cases of heart disease and 35 percent more cases of stroke or heart failure than would naturally occur in men and women at the optimal BMI associated with cardiovascular disease. Persons with mild obesity are twice as likely to develop non-insulin dependent diabetes mellitus; persons with moderate obesity are five times as likely to develop the disease; and persons with severe obesity are 10 times as likely to develop it, as are persons who are not obese. Obese persons are twice as likely to be hypertensive, and obesity contributes to between 40 and 50 percent of all cases of hypertension. Persons who gain 20 percent of their body weight are eight times more likely to develop hypertension than those who maintain a healthy body weight. Obese women are at an increased risk for both endometrial cancer and, especially after menopause, breast cancer. Approximately 50 percent of colon cancer cases are attributable to poor diet and a lack of physical activity.

Even moderate weight losses of five percent to 10 percent of initial body weight have been shown to improve chronic disease status. Weight losses such as these can decrease total cholesterol by approximately 16 percent, decrease LDL-cholesterol by 12 percent, increase HDL-cholesterol by 18 percent, and improve the LDL:HDL ratio. For persons with diabetes, weight loss can improve glycemic control and decrease insulin resistance. Weight losses of as little as three to five kilograms can significantly reduce blood pressure and may eliminate the need for drug therapy in 50 percent of patients.

Objective 2.3 in *Healthy People 2000: National Health Promotion and Disease Prevention Objectives* says, “Reduce overweight to a prevalence of no more than 20 percent among people aged 20 and older and no more than 15 percent among adolescents aged 12 through 19.” Linn County is far from reaching this goal, with 32 percent of its adult population reporting obesity. With no adult health division available at the health department and a current lack of chronic disease prevention services in the community, this percentage is unlikely to decrease, and may very well increase.

## Priorities, Goals, and Objectives

Prioritization of the health problems in the community was performed based on perceived needs of the community, the severity of the problems, the economic burden to the community, the amount of premature death related to the problem, the preventability of the problem, the benefits of addressing the problem, and the effectiveness of interventions already available in the community. This assessment revealed that the priority health problems for the community are obesity and the related problem of a sedentary lifestyle. A close secondary priority is heart disease. Because many of the objectives that focus on reducing obesity would also address the problem of heart disease, the focus of this intervention plan will be on reducing obesity.

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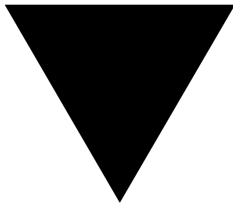

### Goals related to these priority health problems include:

| | |
|---|---|
| **Obesity** | To improve the overall health of overweight and obese adults, adolescents, and children in Albany. |
| | To decrease residents' chances of developing certain chronic diseases associated with obesity. |
| | To decrease the community's health care costs and YPLL due to heart disease and other chronic diseases associated with obesity. |
| **Sedentary Lifestyle** | To improve the cardiovascular health of the community. |
| | To help community members lose weight and maintain weight loss. |
| **Overall Goal** | To bring the community's rate of obesity in line with the *Healthy People 2000* goals. |

### Structure Objectives

1. Within six months, one full-time public health nutritionist, one half-time nutrition educator, and one full-time clerk will be hired to staff the Obesity Reduction Project.

2. Within one year, a nutrition education/weight loss program for adults will be designed at the Linn County Health Department in Albany.

3. Within one year, an exercise program coordinated by the Linn County Health Department in Albany will be designed.

### Process Objectives

4. The Obesity Reduction Project will provide an inservice on the importance of identifying and referring potential clients to at least 50 percent of primary care physicians, nurses, and other staff members within the first two years of the project.

5. The Obesity Reduction Project will provide screening based on BMI for potential clients at five different sites in Albany every three months.

6. The Obesity Reduction Project will contact and attempt to enroll in the program at least 20 percent of the estimated 8,794 obese adults in Albany within two years of the beginning of the program.

7. Each person enrolled in the program will attend at least five of the six group education classes and at least three individualized counseling sessions.

8. The Obesity Reduction Program will receive local media coverage at least once every six months to retain interest in and excitement about the program.

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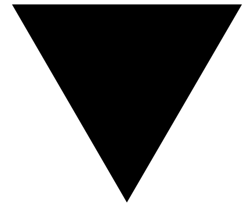

9. The Obesity Reduction Project will assist two worksites, one high school, and two middle schools in the community in establishing an environment conducive to maintaining healthy weight and an active lifestyle.

### Impact Objectives

10. Eighty percent of obese adults enrolled in the program will demonstrate ability to choose a diet with 30 percent or less calories from fat.

11. Fifty percent of obese adults enrolled in the program will reduce their fat intake to 30 percent or less of calories.

12. Thirty percent of obese adults enrolled in the program will achieve a healthier body weight (weight loss of 1 to 2 BMI units or 10-16 pounds) and maintain that weight for at least one year.

### Health-Related Objectives

13. People who participate in fewer than three 20-minute physical activity sessions per week are classified as leading a sedentary lifestyle. Currently, 50 percent of adults in Albany report a sedentary lifestyle. Within five years of the beginning of the program, adults reporting a sedentary lifestyle will be reduced to 45 percent.

14. Currently, 32 percent of adults in Albany (an estimated 8,794 people) are obese. This is significantly higher than the state level of 27.4 percent. Within five years of the beginning of the program, obesity among adults in the community will be reduced to 30.0 percent.

## Implementation Plan

The Obesity Reduction Project will be implemented in two phases. The first phase will create the structure to carry out the program. This will include hiring staff, designing the weight loss and exercise components of the program, identifying community supporters, planning a local media promotion of the program, training program staff, and training primary care providers on identification and referral of obese patients. Most of the activities in this phase will be completed within the first year.

The second phase will put the program into action, and will include both individual and environmental interventions. Individual interventions will include screening for obesity, enrolling participants in the weight loss and exercise components of the program, providing group education classes on a variety of topics to program participants, and monitoring of clients' exercise programs and ability to choose a lowfat diet. Environmental interventions will include working with the media to educate the public, working with worksites and schools to provide their employees and students with lowfat food choices and an opportunity for exercise, and working with insurance providers to give incentives to people who maintain a healthy weight.

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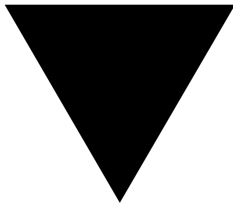

## Action plan

| Objectives | Methods |
| --- | --- |
| 1. Staffing | — Positions will be advertised in ADA/ODA publications and local newspapers.<br>— Applications will be taken up to six months.<br>— Interviews will be conducted and positions offered to qualified personnel. |
| 2/3. Program Design | — Focus groups with community members will be held to gain an understanding of what would be most helpful.<br>— Contacts will be made with local businesses to determine what part they are willing to play in supporting the program. |
| 4. Training | — Program staff will develop a short inservice on the importance of identifying and referring potential clients that can be provided to physicians and other staff members.<br>— Program staff will send letters describing the ORP and the inservice to all primary care physician offices in the community.<br>— Program staff will make follow-up telephone calls to these health care providers to schedule the inservice. |
| 5. Screening | — Screening sites will be advertised for at least a week prior to each screening in local newspapers and on local radio stations.<br>— Sites will be chosen according to the potential population that will be reached. |
| 6. Contact | — Those people discovered at the screening sites will be told about the program there.<br>— Those referred to the program by private physicians will be contacted by telephone.<br>— Those that cannot be reached by telephone will be contacted by mail. |
| 7. Education/Counseling | — The six group education classes will be taught on a rotating basis every three months. New participants can join at any time during the cycle. Classes will be about general nutrition, exercise, lowfat choices, dining out, reading labels, and recipe modification.<br>— Individual counseling sessions will be scheduled with participants to work on realistic goal setting and individual problems related to weight loss or diet. |

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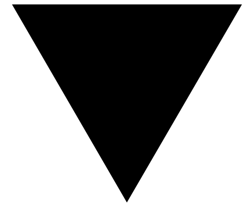

| | |
|---|---|
| 8. Media Coverage | — Program staff will periodically contact local media representatives to release nutrition education messages, information about the program, etc. |
| 9. Healthy Environment | — Program staff will contact local planning commission about adding more walking trails that can be accessed by the majority of people in Albany.<br>— Program staff will provide education to local businesses and schools about the importance of creating a healthy environment for employees and students.<br>— Program staff will contact local businesses and schools to offer assistance with creating an environment conducive to maintaining healthy weight and an active lifestyle. |
| 10. Lowfat Diet Skills | — Participants will attend at least five of the six group education classes where skills are taught.<br>— Participants will take pre- and post-tests. |
| 11. Diet Changes | — Participants will attend at least three individualized counseling sessions to apply skills to their own food preferences and lifestyle. |

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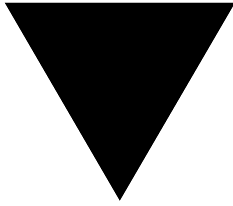

# Evaluation Plan

**Community Objectives:** Within five years, adults reporting a sedentary lifestyle will be reduced to 45 percent.
Within five years, obesity among adults in the community will be reduced to 30 percent.

**Behavior Addressed:** Eating habits and sedentary lifestyle.

**Intervention Description:** The Obesity Reduction Project will include both individual and environmental interventions related to decreasing both obesity and sedentary lifestyle in this community. The individual component of the program will include nutrition classes and counseling and an exercise program. The environmental component will include media presentations, creating healthy environments in worksites and schools, and working with insurance providers to give incentives to people who maintain a healthy weight.

**Structure Evaluation:** Does the program have adequate staffing? Were community members included in designing the program through focus groups or interviews?

**Process Evaluation:**

— Number (and percentage) of health care providers in the community that received the inservice on identification and referral of obese clients will be documented on program records.
— Internal record audit of time expenditures to see that screening was performed the correct number of times and at the correct intervals.
— Classes attended and individual counseling received will be documented on the medical record or intervention record.
— Media coverage will be documented on media record.
— Assistance to worksites and schools will be documented on intervention records.

**Outcome/Impact Evaluation:**

— Clients will demonstrate skill in choosing a lowfat meal plan.
— Three-day food diaries kept by clients twice each month will be evaluated by nutritionist for percentage of calories from fat being 30 percent or less.
— Client weight will be monitored weekly until goal weight is achieved and then monthly for a year.

**Behavior:** Change in percentage of people in community classified as obese or as leading a sedentary lifestyle. Determined by BRFSS state data.