Food and Nutrition in Nursing Homes

By Victoria Hammer Castellanos

Approximately 1.5 million older adults currently reside in skilled nursing facilities, or nursing homes, in the United States. With the nursing home's own unique culture and challenges, a number of factors set apart the delivery of nutrition care in this setting compared to others.

What is Unique About Nursing Home Nutrition?

Nutrition care in nursing homes is unique in both the challenges and opportunities it provides. First, in the nursing home environment, in particular, the facility is the resident's home, and many residents will live out the remainder of their lives there. Second, the residents of nursing homes tend to be both very elderly and quite frail, often suffering from a host of chronic and acute diseases and conditions. Third, the residents' physical ability to eat enough food is greatly reduced because of aging and disease processes. And, fourth, nutrition care is both driven and hindered by the regulatory environment. In sum, the characteristics of skilled nursing facilities and those who reside in them make nutritional well-being difficult to achieve but also present a rare opportunity for the nutrition professional to significantly affect both the health outcomes and quality of life of a significant number of older people.

The facility as home. Both regulations and ethics require nursing facilities to meet the nutritional needs of residents while maintaining their dignity and quality of life (American Health Care Association, 2003). After all, the long-term care facility is “home” for this population of older adults. Unlike a stay in a hospital, residence in a nursing home is not a short-term situation in which limited choice and reduced quality of life are justified by short-term clinical goals. But, as in a hospital, decisions in nursing homes are made facility-wide regarding the menu and the exact nature of meal and snack service. The implications of this situation for the nursing home residents are that each food, dining environment, and staffing decision made at the facility level will serve to either limit or expand the nutrition and eating pleasure available to them for a significant portion of their remaining life.

Again, although such decisions bring with them significant responsibility, they also afford
tremendous opportunity for the care provider. That is to say that the nursing home has both the infrastructure and consistency of client contact that make it possible to move beyond a reactive, medical model and instead adopt a proactive, prevention-focused approach to nutrition care for large numbers of people.

Illness and advanced age. The nutritional needs of nursing home residents are likely to be affected by both illness and advanced age. In recent years increased attention has focused on the role of nutrition in healthy aging. While it certainly is a worthy goal to help people retain their vitality and productivity in their later years, many people will nevertheless suffer a sharp decline in their health near the end of their lives and will require some type of skilled nursing care. Most nursing home residents are medically frail, with at least five chronic health conditions and intermittent bouts of acute illnesses such as infection and diarrhea. These conditions and incidents tend to increase nutritional needs. Further, some aspects of institutional living itself may affect nutritional needs. For example, too little exposure to sunlight makes residents highly dependent upon dietary and supplemental sources of vitamin D.

Nursing home residents also tend to be very old. Today's nursing home resident is typically older than age 75, and many are in their 90s or older. Some nutritional needs can increase with age. For example, as people age, their kidneys are less able to concentrate urine, and so more water may be needed to replace water loss through urination (Chidester and Spangler, 1997). Also, physiological changes commonly associated with aging can decrease absorption of some nutrients, including vitamin B12 and calcium (Institute of Medicine, 1998, 2001). Because of the physiological changes associated with disease and advanced age, the nutrition needs of nursing home residents should be considered separate from those of the healthier, and usually somewhat younger, older adults living in the community. Further, it would be appropriate for menu planning guidelines to be developed specifically for the nursing home population.

A reduced ability to eat adequate amounts of food is another problem that is common with advanced age and disease progression. A large percentage of nursing home residents have problems chewing or swallowing. Neurological or musculoskeletal disabilities can make it physically difficult or impossible for older people to obtain or consume foods without assistance. Health status, particularly the presence of gastrointestinal disease, increases the risk for weight loss. Patients who are taking more than one drug or experiencing such drug side effects as lethargy, nausea, and vomiting are often impaired in their ability to ingest food. Also, it is not uncommon for residents to be depressed, with depression affecting appetite.

Regulatory environment. Last but not least, the regulatory environment has a tremendous impact on nutrition care in skilled nursing facilities. Nursing homes are heavily regulated at both the federal and state levels, whereas community-based care and other types of long-term care are regulated only by the states, with regulation that is generally weak. The federal Centers for Medicare and Medicaid Services enforces many specific regulations related to delivery of food and nutrition care in nursing homes (American Health Care Association, 2003). Unfortunately, very few clinical studies among the nursing home population exist to inform either the nutrition regulations or the interpretive guidelines used by the state surveyors who uphold the regulations. Further, when clinical nutrition research findings do become available, they are not soon reflected in federal regulations. Because of this situation, nursing home regulations are often perceived as barriers to needed change in delivery of nutrition care, even when clinical research to support the change exists and there is little or no scientific information to support the original standard of care.

The Most Significant Nutrition Problems

Most nutrition-related problems in nursing homes are a consequence of under-nutrition. These problems include unintended weight loss, protein energy malnutrition, pressure ulcers, and dehydration (Morley, 2003). A host of additional nutrient deficiencies are likely to occur as an accompaniment to inadequate food intake, including vitamin and mineral deficiencies. For most nursing home residents, the risk of illness
and death related to under-nutrition exceeds the potential for adverse outcomes of chronic disease. Even so, there are few data on which to base nutrition care for frail older adults.

As many as 65 percent of nursing home residents experience unintentional weight loss and under-nutrition (Sullivan and Lipschitz, 1997). The causes are likely to be related to both psychological factors and physiological changes (Morley, 2003). Recent studies have suggested that behavioral and environmental factors may be the most important determinants of food intake in the nursing home setting (Simmons et al., 2001a; 2002).

It is critical that nutrition care focus on underlying causes and emphasize prevention of weight loss (Beck and Ovesen, 1998). Several factors, including assistance with feeding (verbal prompting, socialization, and physical assistance), snack programs and use of nutrient-dense foods and supplements have been shown to increase older adult residents’ nutrient intake (Simmons et al., 2001a; Simmons and Schnelle, 2004; Barton et al., 2000; Johnson, Dooley, and Gleick, 1993).

Replacing restrictive diets with a wider range of food choices for residents with poor appetite may also improve intake and quality of life (American Dietetic Association, 2002). Medications thought to stimulate appetite are sometimes used in order to improve food intake and weight status, but these medications are controversial. Qualified dietitians should be responsible for managing facility-wide dining and snack programs and should design menus to meet the unique needs of this population.

Inadequate hydration is another pressing problem of people in the nursing home setting (Kayser-Jones et al., 1999; Chidester and Spangler, 1997). Because older adults in nursing facilities are likely to be unwell and have limited access to palatable fluids, they are at greater risk for inadequate hydration than are other older people (Chidester and Spangler, 1997). Inadequate water intake can contribute to acute confusion, urinary tract infections, pressure ulcers, constipation, and adverse drug responses (American Medical Directors Association, 2002). These problems can lead to increased illness, disability, and death—and the concomitant increased healthcare costs (American Medical Directors Association, 2002; Chidester and Spangler, 1997).

One difficulty is that older people do not always feel thirst, even when they are dehydrated (Rolls and Phillips, 1990). For older people with neurological or musculoskeletal disabilities, it may be difficult or impossible to obtain or consume liquids independently. Yet, nursing staff or other caregivers do not always offer fluids or assist people in a timely manner (Kayser-Jones et al., 1999; Simmons, Ostenweil, and Schnelle, 2001b). Fluids may be too infrequently offered between meals or with medications or the amounts may be inadequate to supplement fluids taken with meals. In addition, it is not uncommon for nursing home residents to have medical conditions like diarrhea and vomiting or be prescribed such treatments as diuretic medications that put them at increased risk for dehydration. Systems put in place to assure adequate assistance with eating are likely to have the added benefit of supporting adequate intake of fluids.

A SYSTEMS APPROACH

A systems approach is an effective way that healthcare providers can address the problems of nutrition in nursing homes.

Feeding assistance. Since the most common and significant nutrition problems in nursing facilities are related to inadequate consumption of food and fluids, care providers should focus their attention and resources on proactive systems approaches to maintain optimal intake. The scientific literature suggests that one of the most effective ways to increase food intake is to provide adequate assistance at meals and snacks. Such assistance encompasses a range of activities including social interaction, verbal prompting, and appropriate levels of physical assistance with eating (see Table 1). Simmons and colleagues (2001a) found that 50 percent of residents who had one-on-one feeding assistance significantly increased their oral food and fluid intake during mealtime. Further, many of the residents who did not respond to feeding assistance at meals did significantly increase their between-meal food intake when they received additional attention and assistance during snacks (Simmons and Schnelle, 2004). Bernstein and col-
Table 1
Beneficial Types of Feeding Assistance in Nursing Homes

<table>
<thead>
<tr>
<th>Feeding Assistance that Can Be Provided by All Facility Staff, Volunteers, and Family</th>
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<tbody>
<tr>
<td>Verbal prompting (&quot;Pick up your spoon and take a bite.&quot; &quot;Swallow.&quot;)</td>
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<tr>
<td>Encouragement (&quot;How about trying a little of this meatloaf?&quot;)</td>
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<tr>
<td>Tray setup, assistance unwrapping food, open containers, cut food, rearrange for easier access</td>
</tr>
<tr>
<td>Social interaction throughout the mealtime period</td>
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<tr>
<td>Meal tray substitutions if preferred by resident</td>
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<tr>
<td>Extended access to tray up to 1.5 hours per meal</td>
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<tr>
<td>Compliance with resident preferences for dining location and type of assistance</td>
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</table>

Feeding Assistance That Can Be Provided by Nurses, Nursing Assistants, Trained Feeding Assistants, and Family

- Physical guidance, e.g., aide puts food on spoon; guides resident’s hand but resident feeds self
- Proper positioning for eating

Feeding Assistance That Can Be Provided by Nurses/Nursing Assistants

- Physical feeding, e.g., aide feeds resident (only if necessary)

Source: Adapted from Simmons et al., 2001, 2002.

Schnelle (2001b). Table 2 provides some suggestions for how family members could help a nursing home resident combat weight loss and inadequate hydration.

In order to provide adequate feeding assistance to residents, facilities need to put various systems in place to assess residents' dining needs and to assure that appropriate staff resources are provided. Some have recommended that nursing homes increase the number of certified nursing assistants present during mealtime (Schnelle et al., 2000). Although high-quality feeding assistance interventions may require additional direct-care staff, most feeding assistance does not require actual physical feeding and so can be provided by a variety of existing staff and volunteers. Some facilities successfully implement an “all hands on deck” policy during mealtimes, having all direct-care staff, including licensed nurses, be responsible for feeding residents. Administrative staff, other facility employees, and volunteers can assist by seating residents, passing trays, opening packages, and providing social interaction.

Foods and menus. Enjoyment of food has a positive psychological impact and contributes to quality of life and “successful” aging. Medical therapeutic diets are most often based on foods that are low in salt, cholesterol, saturated fats, and carbohydrates—unfortunately, the very components that contribute most to the palatability of food and, thus, quality of life. For this reason, elimination of such low-salt, low-fat, and “diabetic” diets in favor of a well-balanced, healthful “regular” menu that all residents can consume and enjoy is the recommendation of the American Dietetic Association (2002), and the practice of many nursing homes. After all, only food that is consumed will ultimately enhance nutritional status.

It is important to understand that “liberalized diets” for nursing home residents do not represent a disregard for their health but instead are an appropriate response to the shift in healthcare priorities for this particular population. Studies have shown that because most nursing home residents eat only modest amounts of food, and nursing homes all provide well-balanced and predictable meals, residents do not gain additional benefits from being on restric-
tive diets. In a 1994 study, Buckler and colleagues found that most nursing home residents with evidence of malnutrition were also on restricted diets that might discourage them from eating. The American Dietetic Association (2002) now takes the position that nutrition care that focuses on personal food preferences may improve appetite and decrease unintentional weight loss among older adults.

Beyond liberalizing diets, it may be appropriate to consider systematically enhancing or fortifying foods commonly consumed by nursing home residents. The findings of several studies (e.g., Barton et al., 2000) suggest that energy and nutrient intakes of nursing home residents can be increased by simply increasing the nutrient density of the foods (that is, the amount of nutrients per weight of food). For example, the

**Table 2**

**Suggestions for Families**

To Reduce Unintended Weight Loss and Dehydration in a Nursing Home Resident

**If you are able to visit the facility regularly**

Visit at mealtimes and provide assistance and encouragement with eating (see Table 1).

Don’t hesitate to ask for toppings, a larger portion, seconds, or a substitution.

Encourage the resident to take meals in the dining room and to participate in facility social activities. Report symptoms of depression or social isolation to the nurse or social worker.

Visit at different times of the day and days of the week to evaluate whether adequate feeding assistance is consistently provided. Inform the nurse and the dietitian if it is not.

Bring in some favorite meals from restaurants or from home. If the facility is not providing food that is culturally acceptable to the resident, speak to the dietitian and the food service manager.

Bring a favorite high-calorie snack and encourage consumption while you are present. You may request other snacks from nursing staff.

Take the resident for regular trips to the facility’s ice cream parlor, cafe, or snack station for a high-calorie treat.

Encourage intake of fluids during your visits. Bring or request drinks from the nursing staff.

Immediately speak with both the dietitian and the nurse if you observe weight loss or any food or eating issue that may be interfering with appetite.

Regularly attend care plan meetings. If weight loss is an issue, make sure there are provisions in the care plan for adequate feeding assistance. Discuss all food and nutrition concerns with the dietitian or nurse.

**If you are unable to visit the facility regularly**

Track the resident’s weight with a monthly telephone inquiry. A weight loss greater than 3 pounds (from most recent weight) should be of concern and discussed with the facility dietitian.

Request to participate in care plan meetings by phone, or ask to be briefed after every care plan meeting. Make sure adequate feeding assistance is addressed.

Hire a private-duty aide to provide one-on-one feeding assistance for several meals or snacks per day. The nature of the feeding assistance will determine aide training requirements (See Table 1).

Check the Nursing Home Compare website at [www.medicare.gov/NHCompare](http://www.medicare.gov/NHCompare) and compare the facility’s own quality measure for weight loss.
Generations

menu can offer cream soups in place of broth-based soups; cheese, butter, sauces, and gravies can be added to vegetables and starch dishes; and hot cereals can be made with added cream and brown sugar. Breakfast can regularly include juices fortified with calcium and vitamin D and fortified breakfast cereals. A study by Simmons and colleagues (2003) found that provision of more nutritious food is one of the interventions most preferred by the families of nursing home residents.

It is clear that menu planning guidelines for nursing facilities should be designed to specifically address the high nutrient needs (relative to caloric needs) and the chronically low food intakes of this population. Thus, it may be necessary to systemically enhance or fortify key foods that are readily accepted by frail older adults.

One area to be specifically targeted for nutrient enhancement is texture-modified foods. It has been estimated that an average of 16 percent of nursing home residents are on pureed diets. The inherent problem associated with preparation of pureed foods is that it usually requires the addition of at least some water, and if done poorly, large amounts of water are added. By its very nature, water added to foods dilutes the calorie and nutrient content of the food, so significantly larger amounts of food must be eaten to achieve the same nutrient intake as the regular diet. Individuals who have difficulty swallowing are unlikely to be able to consume even normal amounts of food, let alone larger amounts of pureed foods. The care provider must commit the necessary resources to either staff training and supervision or the purchase of high-quality commercially pureed foods.

Quality Assessment and Assurance

Facilities should be using quality assessment and assurance processes to make sure that the nutritional needs of residents are being appropriately evaluated and that effective systems to optimize resident food and fluid intake have been put into place and are being maintained. The principles that should guide quality assurance for nutrition in nursing homes are a focus on the following:

First, meeting the quality-of-life and nutrient needs of the residents; second, understanding systems and processes required for provision of high-quality nutrition care; third, collecting data to analyze these processes, identify problems, and measure performance; and, fourth, utilizing a team approach to problem solving.

While registered dietitians are the most appropriate professionals to be in charge of resident nutrition, traditionally, this realm has fallen under the authority of nursing. Certified nursing assistants provide the majority of direct care, including feeding assistance, in nursing homes, and licensed nurses are responsible for training and supervising nursing assistants. Even if supervisory nursing staff recognize the importance of managing nutrition and feeding assistance, they have many other responsibilities and are obligated to respond to many other major issues within nursing homes (pain management, fall prevention, and the like). On the other hand, registered dietitians are trained to assess residents’ risk for inadequate food intake and to organize and manage dining programs that provide appropriate and adequate feeding assistance to residents. The facility dietitian is the healthcare professional specifically trained to both understand and respond to residents’ nutritional needs as well as to manage food service.

Conclusion and Applications

The unique nature of both the nursing home resident and skilled nursing facility provides both challenges and opportunities for the provision of nutrition care. The medical model of identifying the health problems of individuals and developing a plan to address each of those problems is not sufficient to reduce unintended weight loss and dehydration in a population that is both frail and fraught with medical challenges. A comprehensive facility-wide program to both prevent and respond to weight loss and dehydration in nursing home residents will require a commitment of staff and resources. Nutrition care providers must be proactive and establish systems to provide adequate feeding assistance at meals and snacks and to offer appealing, nutrient-dense foods and beverages.

In the long run, a focus on prevention of malnutrition will save facilities from survey citations and litigation. More important, as healthcare providers and as a society we will be providing
appropriate nutrition care that honors the individual resident and enhances, rather than detracts from, each resident's quality of life.

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REFERENCES


