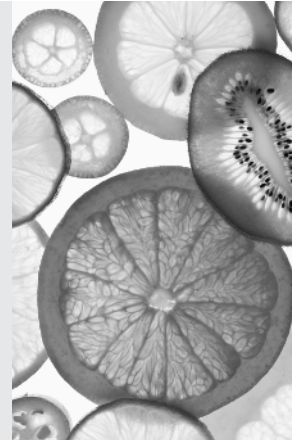


CHAPTER 1

FOODSERVICE INDUSTRY

An Overview



LEARNING OBJECTIVES

- Develop methods, procedures to identify a diverse and generational workforce.
- Learn who the customers are and how to meet their needs and wants.
- Accept ethical challenges and social responsibilities for all areas of foodservice operation.
- Define and apply changes, trends, and regulatory standards.
- Identify and utilize technology as a tool for effective and efficient operation of a foodservice operation.
- Discuss political issues affecting foodservice operations.
- Analyze changes in demographics—aging of the population, role of women and culture and how it is affecting services.

HHEALTH CARE IS being met with increased public awareness associated with the cost of, and equal access to, high-quality care and the passage of a national health care bill that is causing much discussion with the possibility of deletion of parts of the bill or completely discarding the entire bill. If the bill is discarded, a new bill may be introduced in Congress at a later date. The percentage of the national budget spent on health care is still rising at an alarming rate and will require persistent emphasis on cost-effective management. Past cost-control efforts include rightsizing the workforce by staff reductions, flattening management levels, using multidepartment management, heightening productivity, outsourcing various activities such as environment and grounds-keeping, and participating in purchasing groups. Changes occurring within health care are affected by the economy and by business and industry trends. In addition to their effect on health care costs, these trends will affect methods of operation, especially as those methods relate to quality, customer satisfaction, and management style.

Health care of the future will experience increases in patient age and acuity level and a continued population shift from inpatients to outpatients. Responses to these changes have caused hospitals to add extended-care services such as rehabilitation units, skilled-nursing units, and behavioral health centers to increase inpatient census. Hospital-owned home care services now extend services for patients after discharge while they increase revenues. Once the primary health care facility, hospitals now face competition from a growing number of alternative health care facilities. These competitors include nursing homes, adult day-care centers, retirement centers with acute care facilities, freestanding outpatient clinics, and independent home care agencies.

There is continuing concern about the millions of people who do not have any form of health insurance or access to health care, as well as for the millions of others who have severely restricted or inadequate protection. The health care field still faces other concerns. President Obama's health care plan will impact the delivery of care as more people may be covered by insurance. It is imperative that all health care employees gain knowledge on how the plan works and its effect on the foodservice operation. This knowledge includes the obesity crisis of all ages, but especially children, autism, cancer, heart disease, diabetes, Alzheimer's disease, the increased number of people with tuberculosis (TB), the increased prevalence of child and adult drug abuse, the aging of the population, diabetes, few medically trained personnel in geriatric medicine, and the emotional stress of daily living and working that takes its toll on health care providers.

These external factors affect the internal operation of health care organizations. Many of these organizations are faced with shorter lengths of stay, reduced census, increased use of the emergency room (ER) as the primary care "physician," influx of immigrants, fewer payers, shortage of qualified personnel, increased paperwork

and verification of services, and competition for customers. They are also faced with meeting the increasing cost of providing quality service while still meeting the needs, wants, and perceptions of the customers. As a result, many health care organizations are engaged in cost-effective programs that downsize the number of personnel, implement cross-functional training for the realignment of job duties, and combine elementary functions that may not meet the mission of the organization (therefore reducing expense cost). This includes more outpatient procedures, less invasive procedures, and the increased use of technology. The aging of the population and the increased number of sophisticated older adults in residential health care services are additional causes for concern. The implementation of continuous quality improvement processes or improved organizational performance as required by TJC is also tied in with cost-effectiveness.

This chapter is important because it gives an overview of food-service in health care today and in a number of instances projects problems that will need attention in the future. Read it carefully.

ISSUES: CHANGE

Changes are occurring almost minute by minute all across the world. Changes must happen for society to progress. Not all changes are due to the discoveries of scientists and advanced technology; some are due to the economic climate of the time, the desire for social equality, wars, and catastrophic disasters. *Change* is the result of substitutions, disruptions, competition, or new developments; it is a difference in the way that things are done.

A change in health care organizations may be seen in the way that care has shifted from a hospital base to outpatient departments, home health care providers, and other outreach centers. As these changes in organization take place, specialists who deliver care in hospitals are refocusing the way they deliver this care. Many physicians are being trained to perform cross-functional job duties. *Cross-functional* training is the integration and progressive sequence of learning experience whereby employees are provided with the knowledge and skills needed to perform more than one function.

Socioeconomic changes are taking place on a worldwide basis. The former Eastern Bloc nations are still seeking not only independence but also improved financial and technical assistance from the more prosperous nations. War in Iraq, Pakistan, and Afghanistan has cost many billions of dollars and the deaths of many U.S. soldiers and civilians. Problems still exist in other parts of the world, and changes are occurring now in the former Eastern Bloc. Wars and rumors of wars that use technological advances in weaponry are present. Daily across the world, thousands of people die of malnutrition, natural disasters, emerging pathogens, and major diseases and wars. Transportation and communications are almost instantaneous. When an event happens on the opposite side of the world, we are able to see and hear about it as it is happening. The length of time it takes to transport goods and people to a different location has been reduced from weeks to days (even hours). It has become impossible for any nation to remain isolated. Every developed country has experienced numerous problems: rapidly rising health care costs, increased and fluctuating gas prices, depressed or failing

economy, high unemployment, sluggish home sales, increased workplace violence, homelessness and hungry people, especially children.

In the twenty-first century, health care providers face the following factors:

- Consumer movements (protection of patient rights, informed consent, reporting, privacy)
- Managed care (prepaid health care, reshaped health care)
- Increased use of ambulatory centers (may be stand-alone centers)
- Integration of health care organizations, departments within the organizations
- Health maintenance organizations (HMOs)
- The aging of the population
- A prospective payment system based on classification of patients' diagnoses and the use of resources
- Quality of care (the longer patients stay in the hospital, the higher the risk for serious slip-ups, rising 6 percent for each extra day in the hospital)
- Worker's compensation laws
- Financial woes (decreased profit margins)
- Competition, mergers, and consolidations (especially of management teams)
- Social litigation that includes:
 - Sexual equality
 - Maternity leave
 - Length of workweek
 - Flexible scheduling
 - Cultural diversity, generational difference in the workforce.
 - Increased technology
 - Ethics
- Economic downturn, high unemployment, and increase in number of people receiving workmen's compensation

Public health: Approximately 1.3 million women and 835,000 men are physically assaulted by an intimate partner annually in the United States; many of the assaults include rape, physical injury such as gunshot and knife wounds, which result in an emergency room visit or admission to a health care facility as a result of the attack. Violence against ER nurses and other health care providers by patients and family members is on the increase.

Other Changes in Delivery of Care

Other changes in the delivery of care have been labeled *clinical pathways*, *empowering*, *restructuring*, *cross-functional training*, *decentralization*, *care paths*, *interdisciplinary team approach*, and *integrated systems approach*. Regardless of the labels placed on these changes, all of these approaches have some of the following commonality:

- Flattening of organizational structure, from the familiar pyramid-shape organization with six or more levels of management to a structure with just three or four levels may be necessary

- Redesigning of technological content and services to prevent hawking of employee personnel records and patients medical records
- Improvement of the admission and discharge procedures
- Training people to do more than one function, foodservice managers may be responsible for multioperations or departments
- Reducing the lengths of stay (quality may not be better despite shorter stay)
- Maintaining a stable, fiscally viable organization
- Building high-performance teams that empower personnel to do their jobs and take necessary risks
- Implementing standards and rewards to give control of care back to patients
- Benchmarking internally and with competitors
- Lacking qualified health care employees in some areas of the United States, especially family physicians
- Changing surveyors regulations

Many of these changes will also dovetail with the implementation of TJC's and other regulatory agencies' mandated improvement of organizational performance. Some of the changes need to be defined:

- *Empowering personnel.* Giving authority and responsibility to personnel to define problems and identify solutions that may involve resource allocation or interdepartmental coordination; giving employees the power to set their own work schedules, rotate jobs, and have a larger measure of control over the job—a greater sense of responsibility and authority. W. Edward Deming, who is credited with bringing quality control to Japan in the 1950s, is generally regarded as the intellectual father of total quality management. His concept of total quality is based on the 14-point system. These points were such that, when implemented, they improved quality, provided on-the-job training, broke down barriers between departments, and focused on zero defects.

Empowerment provides employees with the tools, authority, and information to do their jobs with greater autonomy. It also broadens the knowledge base, causing a shift in power; encourages creative open communications; and provides for access to data, the ability to cut through corporate bureaucracy and to communicate with shareholders, and the ability to implement solutions.

- *Clinical pathways.* This is a method or approach to improve care of patients from preadmission through inpatient stay and after discharge, with delineation of nutrition service for each practitioner involved. Information is provided among other providers such as physicians, home health care providers, and long-term care agencies. It is a multilevel, multidiscipline, multidimensional, long-term approach to care that “flattens” the organization, eliminates redundancy of bureaucratic functions, redesigns work, allows for creativity, allows empowerment of personnel, and gives employees the ability to take the initiative and, if needed, take risks. The facility environment must be one of support for change.

- *Interdisciplinary health care providers.* These providers have been cross-functionally trained. They are personnel who have been educated or trained to provide more than one function or job duty,

often in more than one discipline. They are multiskilled, competent, and cross-trained. The day of the generalist has come, as has the “preventive” approach to health care. Health care institutions are focusing on the interdependence of the various functions that must be completed to meet their organizational goals. *Cross-functional training* will also result in “broadbanding” (that is, combining multiclassifications of jobs under one occupational category). These changes will alter the roles of nutritional care providers. The director will assume more of the responsibilities of middle managers. Employees will play an increased and more visible role in the organization. Clinical registered dietitians will be involved in more nontraditional health care jobs, including entrepreneurial activities and consultation with pharmaceutical companies and home health care agencies as nutrition support directors, educators of the public, and major players in the critical pathway of care to patients. In-service teams can work together to cut costs and increase quality.

POLITICAL ISSUES

The future direction of health care will be influenced by *political* and *governmental* intervention as a direct result of increased public awareness and demands. Regulation of the health care industry is likely to continue, even intensify, as access to care becomes a concern of politicians and consumers alike (see the Obama health care plan). Health care foodservice departments will feel the effects of the political environment as it shapes and regulates the way service is delivered. In addition to regulation, managers will see the effects of more emphasis on environmental safety, the protection of the environment and sustainability, while they struggle to provide accurate nutrition information to consumers.

Regulation and Legislation

The nature of this text precludes a comprehensive discussion of legislation as it pertains to health care nutrition and foodservice delivery. Even so, legislative effects and subsequent regulations must be taken into account when foodservice directors plan the direction of their departments. This section briefly reviews various governmental and private sector regulations that affect foodservice delivery. In addition to those covered, the 12-week family leave legislation (Family and Medical Leave Act of 1993) should be scrutinized closely to determine what, if any, modifications are required in work methods and staffing patterns (discussed in full in Chapter 9). Another concern is the return of military personnel and the lack of medical care and job opportunities.

Most of the surveying agencies (TJC, Centers for Medical Services [CMS], Occupational Safety and Health Administration [OSHA], and *Omnibus Budget Reconciliation Act* [OBRA]), as well as local and state public health agencies, have updated and made changes in the surveying system.

Medicare and Medicaid

The regulations that currently have the greatest effect on health care are those dictated by *Medicare* and *Medicaid*, the largest

managed-care providers in the United States. Reimbursement rates for services have been set by Medicare and embraced by other managed care systems. Although most foodservice managers recognize their responsibility to provide a high-quality and safe food delivery system, Medicare regulations continue to ensure these entitlements for consumers. The Obama health care plan has made a number of changes in the Medicare and Medicaid regulations that need to be noted. These plans may not affect the nutrition services offered, those services for which a fee is charged, and the quality of care delivered through meal service. Emphasis is on adherence to medically approved diets, written prescriptions, and the service of wholesome food. Medicaid coverage continues to be an ongoing problem, with various bills awaiting action in both the House and the Senate. In 2007 21.9 percent of all federal movement expenditures were spent on Medicare and Medicaid. In 2008 Medicare provided coverage to 44.8 million Americans over the age of 65 and by 2030 is expected to cover 78 million as the baby boomers retire. Federal Medicare expenditures went up steadily in the past three years. In 2006 the expenditure was \$378.6 billion and in 2008 \$432.6 billion, and Medicaid spending grew to \$203 billion in 2008, reaching \$216 billion for the federal government cost, plus more than \$100 billion or more paid by states. *Medicaid* is the largest and fastest growing part of state budgets, comprising 20 percent of all state expenditures. The number is expected to grow as the population ages, the need for long-term care increases, and older people enter nursing homes. Medicaid is the largest purchaser of nursing home services and maternity care in the nation. Much of the anticipated increase in spending will go to purchasing prescription drugs. On March 20, 2010, the Congressional Budget Office estimated that the new health care bill will cost \$940 billion over the next 10 years; however, the actual amount is estimated to be several trillion dollars. Two major changes in the Medicare bill are the reduction in physician payments and the reduction in the cost of drugs after a specific amount has been spent. (It is important to keep informed on the cost, as it will affect you personally as well as the foodservice operation.)

Omnibus Budget Reconciliation Act of 1987

Foodservice departments that serve hospital extended-care units and long-term care facilities also must comply with the Medicare and Medicaid Requirements for Long-Term Care Facilities. These requirements, finalized in September 1992, implemented the nursing home reform amendments enacted by the Social Security Act by Omnibus Budget Reconciliation Act (OBRA) of 1990, as published by the Health Care Financing Administration. It is estimated that nearly 50 percent of the OBRA regulations relate directly or indirectly to nutrition and foodservice departments. The OBRA standards pertain to dignity and independence in dining, initial and annual nutrition assessments, nutrition care plans, and participation of a dietitian in family conferences. Anticipate additional changes in this act.

The Joint Commission

Medicare and Medicaid regulations are government-imposed, but some facilities choose to further their compliance efforts by follow-

ing standards set by independent organizations. *The Joint Commission* (www.jcaho.org) is one such organization. Standards set by TJC are similar to those set by Medicare; however, TJC surveys tend to place more emphasis on the systems, processes, and procedures that influence quality of patient care and outcomes. More recently, publications by TJC report that future emphasis will be on the education and training of patients and their families; orientation, training, and education of staff; leadership roles of directors; work place violence, and approaches and methods of quality improvement. They also have announced increased standards for safety, infection control, pain management, and emergency readiness. They will no longer announce the date or time of the surveys. Because TJC guidelines are updated and published annually, they must be reviewed annually to ensure compliance.

Americans with Disabilities Act

In addition to significantly influencing operations, legislation continues to dictate employment practices. As the labor force shrinks and alternative labor sources are explored, Americans with disabilities are one solution to some of the problems associated with inadequate staffing. Furthermore, ensuring equal employment opportunities for this segment of the population is mandated by federal law. In 1990, President George H. W. Bush signed the *Americans with Disabilities Act*, which prohibits employment discrimination against the disabled. The act mandates that employers with 25 or more employees are prohibited from discriminating against qualified individuals with disabilities with regard to applications, hiring, discharge, compensation, advancement, training, or other terms, conditions, or privileges of employment. The act affects both the selection of employees and the service of meals to consumers. Reasonable accommodations have to be made for both groups. Further explanation of the Americans with Disabilities Act is found in Chapter 8.

Health Care Affordability

Given the alarming rate of increases in health care costs and in an aging population, alternative health care options will be necessary. In 2008 U.S. health care costs were about \$7,681 per resident and accounted for 6.2 percent of the nation's Gross Domestic Product (GDP); this is among the highest in industrial countries. The new health care law, the *Patient Protection and Affordable Care Act*, and the amendment *reconciliation bill*, requires all U.S. residents to have insurance or pay a tax penalty. The Obama health care plan will provide coverage for most uninsured workers. This is extremely important and directors and managers must keep up to date on these changes.

Extended-Care Facilities

The concept of seamless delivery of care is demonstrated by hospital-based, long-term-care beds, with patients being moved to skilled-nursing beds or rehabilitation units designed to assist them in becoming self-sufficient. Moving from the higher-cost acute care setting benefits patients, hospitals, and payers. Meals and menus

continue to increase in complexity (such as the introduction of the “spoken menu,” room service, and gourmet menus) and diversity to meet the needs of inpatients in skilled-nursing and rehabilitation units. Although hospitals continue to convert unused beds to long-term care beds, most growth in long-term care is occurring in outside facilities. The elderly population, aged 85 years and older, will be about 17.6 million in 2050, with about 66 percent of this number being women. Assisted living continues to increase as more facilities become available. Extended-care facilities are becoming more innovative in meeting their patients’ mealtime needs. Many such facilities now provide selective menus; others have experimented with wait service and restaurant-style menus (that is, a number of selections per category per meal). Providing meals that meet the required nutrition modifications for elderly patients is becoming easier with the use of general diets that are lower in fat, sodium, and sugar; the liberalization of other diets; and the increased number of products on the market that meet texture adjustment needs.

Extended care facilities include:

- Skilled nursing care
- Residential care
- Adult day care
- Elder care
- Rehabilitation care
- Personal/boarding care
- Congregate/semi-independent living
- Independent living
- Life care
- Home care service

Patients’ lengths of stay vary from one institution to another and from one geographical region to another. The length of stay for hospitals (excluding psychiatric and rehabilitation facilities) in 1996 was 6.9 days; by 1998 it had decreased to 5.9 and has stayed in this range, with the exception of patients with acute problems such as heart disease and cancer and has continued to have slow decline since this date. In 1998 the mean occupancy rate had dropped to 69 percent. The length of stay and occupancy rate are projected to decline over the next decade. Most beds will be occupied by seriously ill patients.

The average length of stay is affected by the high acuity level of patients. The high acuity level of a patient determines the need for extended care after discharge. Home care is one type of extended care that can positively influence the cost of health care, allowing for shorter hospital stays while ensuring that a patient is cared for in a familiar setting. Furthermore, readmissions have been shown to decrease as a result of team-managed home care. Advances in technology allow more services to be performed in the home, including infusion therapy (such as total parenteral nutrition). Home care offers bigger challenges for home delivery of meals, as does the continuing decline in funding for meal programs for the elderly.

Ambulatory Care

Ambulatory care is expected to show significant growth throughout the next decade. The number of outpatient procedures continues to

increase, resulting in a net increase in adjusted admissions. Surgical procedures in ambulatory care settings continue to increase nationwide. Technological advancements and reimbursement trends continue to support the shift from inpatient services to outpatient services. Emergency department visits increased due to a larger number of individuals without health insurance and the enforcement of the federal Emergency Medical Treatment and Labor Act. Outpatient visits will continue to increase by a rate of 15.7 percent per year.

Even though hospital foodservice departments continue to encounter declines in the number of meal demands for inpatients, the number of meals prepared for nonpatients is likely to increase. For example, as outpatient procedures increase, foodservice departments will serve more visitors and family members who accompany patients as well as employees associated with ambulatory care.

Case Management and Patient-Focused Care

The goals of *case management* and *patient focused* (or *patient centered*) care are to improve patient care and satisfaction, decrease the cost of delivery, and improve access to health care. Patient-centered care is a more advanced extension of case management, but both are designed to use critical pathways or standardized care paths that specify a “road map” for the care team and are specific to individual diagnoses. The standards of care or critical paths, developed with input from all team members, are based on the best-demonstrated practice within the facility. Comparing the standards and paths with those at other organizations can help further quality improvement efforts. The patient-focused care model uses a case manager or coordinator who is assigned to a patient on admission and is responsible for monitoring the patient’s progress throughout the hospital stay.

Patient-centered care eliminates traditional departmental lines, opting instead for health care teams that focus on patients with related conditions. To realize this type of care, a change in employee attitudes and structural changes to patient care units are necessary. Changes in these units will affect the nutrition and foodservice department as well as clinical caregivers. In models across the nation, foodservice workers are cross-trained to deliver meals and assist patients with their other needs. Some models assimilate jobs previously done by foodservice staff, housekeeping staff, and nurses’ aides into new positions, such as the multitasked patient care employee.

Accountability and Ethics

Government intervention and regulation have placed new emphasis on institutional accountability as it relates to physician recruiting. Once able to recruit physicians with income guarantees and low-interest loans, hospitals now must use their physician workforce plans and development plans to access and document their requirements for additional physicians. Demand cannot be based on the institution’s need alone but must be supported by hard evidence of community need. In addition to recruitment accountability, hospitals are confronted with questions related to joint ventures between physicians and hospitals, and that these joint ventures have been

entered into for freestanding laboratories and diagnostic centers. A federal ban now prohibits physicians from referring patients to joint venture facilities where referral is a condition of investment. The Josephson Institute of Ethics states “*ethics* is about how we meet the challenges of doing right things when that will cost more than we want to pay.”

Ethics play a role for nutrition and foodservice managers in their decisions regarding meal delivery and clinical care. For example, purchasers of food and supplies must avoid suppliers whose offer of favors or gifts would place them in a compromising purchasing position. Further discussion on ethics related to food procurement is presented in Chapter 18. As part of the health care team, registered dietitians must give input regarding the delivery of nutrition hydration services to terminally ill patients. Some ethical issues dealing with nutrition management are addressed by state-specific advance directives signed when patients are admitted to a facility. These advance directives, which reflect a patient’s wishes, help physicians and other caregivers in their decisions about the course of treatment.

Environmental Trends

Despite inroads on the amount of waste sent to landfills, more effort is needed. Americans continue to generate more waste than ever before. Each individual generates about five tons of waste per year. If this rate of growth continues, many landfills will be closed and there will be a demand for new ones or for shipping the waste to offshore locations. Health care and foodservice, both separately and together, have been targets in the environmental controversy. The waste from foodservice operations is composed of 60 percent to 70 percent of solid waste that includes food, paper, and plastic supplies such as napkins and single-use plastic items. The remaining 30 to 40 percent is from food production and preparation. Waste management efforts in all areas of health care should consider four agendas: **reducing** the quantity of waste, **reusing** as many materials or items as possible, **recycling** used materials, and **rethinking** what we can do to protect the environment. The increase in environmental regulation and public concern is forcing health care institutions to take innovative measures in handling medical waste, which includes many hazardous products as well as infectious waste that usually is incinerated.

Many foodservice opportunities exist to decrease waste and to implement recycling systems. For example, using individual coffee mugs and soft drink cups and eliminating or limiting disposable tableware can reduce waste. Recycling office paper, glass, steel and aluminum cans, and corrugated paper is another waste-reduction effort.

Many health care organizations have found a way to simultaneously decrease landfill use and help those less fortunate. For example, programs designed to feed the hungry are operated in many metropolitan areas. Food products prepared by health care foodservice departments are picked up by volunteers and distributed to organizations that distribute the food to homeless or low-income individuals. These programs have an added advantage in that the foodservice manager can measure and monitor food waste to improve preparation forecasts. An in-depth look at the environ-

ment and the responsibility of health care foodservice managers is presented in Chapter 12.

Food Labeling and Nutrition Claims

In 1992, the Food and Drug Administration (FDA) announced food-labeling regulations in conjunction with the Nutrition Labeling and Education Act of 1990. Both the number of foods covered and the amount of information required on labels have increased. The purpose of this legislation and ensuing regulation is to provide consumers with more reliable and informative material. Since May 1994, all processed foods regulated by the FDA must be appropriately labeled, and labels must include standardized serving sizes, grams of saturated fat, and fiber content. The percentage of daily values provides the percentage of fat, saturated fat, cholesterol, sodium, carbohydrate, and fiber contributed by a single serving, based on a 2,000-calorie daily diet. The new guidelines allow seven nutrient or disease-specific relationship claims and provide more detailed ingredient listings. Labels that use free, lean, lite, or extra-lean must meet the established standards for these product descriptions.

In 2006, the Food Allergen Labeling and Consumer Protection Act of 2004 became effective. This law requires manufacturers to clearly identify on their food label if a food product has any ingredients that contain protein derived from any of the eight allergenic foods and food groups: milk, eggs, fish, Crustacean shellfish, tree nuts, peanuts, wheat, or soybeans. These eight foods and food groups account for 90 percent of all food allergies. Other allergens are not required to be listed. The type of tree nut, the type of fish, and the type of Crustacean must be listed.

An exemption to providing nutrition labels has been made for food served for immediate consumption, unless health claims are made. This exemption applies to restaurants and health care foodservice facilities. However, if health claims are made, these facilities have to meet the specific guidelines for the nutrient, and the claims must be verified by a minimum of three chemical analyses. For example, a claim that a product is low in cholesterol requires that the product have three verification analyses that prove it is at least 30 percent lower than the original product.

Foods that are *irradiated* must be labeled as such. Companies that wish to include genetically enhanced ingredients in their food products may label genetically enhanced ingredients and ingredients enhanced using biotechnology.

WORKFORCE ISSUES

Globalization, deregulation, and technology are changing the nature of jobs and work. Today more than two-thirds of the U.S. workforce is employed in producing services, not products. Of 21 million new jobs added through the 1990s, many will become part time, and virtually all will be in service industries such as foodservice, retailing, consulting, teaching, and legal work.

The past few years have seen a spike in the unemployment rate. The rate has been as high as 20 percent in some areas of car production, and on average has hovered around 10 percent nationwide. All races, ages, and sexes were involved in the unemployment, and some

people have been unemployed for more than two years. There were more than 2.2 million people who wanted work, were available to work, and had looked for a job in the previous 12 months. Some jobs were added for seasonal work, a few factory jobs, and mining. In 2008 health care work employment had increased at the rate of 20,000 per month. Government was the area with the largest increase in employment. The census added 411,000 on a part-time basis.

The demand for institutional foodservice jobs such as chefs, cooks, and dietitians is expected to be the highest. Because of the increased number of dual-income families and women, who make up 48 percent of the workforce, and because of the aging of baby boomers, the demand for service workers has grown. Foodservice managers in health care will have to compete with other service industries for the dwindling labor resources. A reduction in skilled workers coupled with an increased need for foodservice workers will require higher pay scales, which will negatively affect budget and cost-control efforts.

Not only has the labor market diminished, the demographics have changed: the workforce of the next decade will be older, more culturally diverse, and will include more women, people with disabilities, and those with alternative sexual or affectional orientation. These trends will continue, especially with the increasing diversity of the population. The decrease in the number of teenage workers and the increase in the number of workers older than 50 changes the face of the average employee. Baby boomers will still be in the workforce before becoming eligible for Medicare. As a result, the largest pool of workers will also be the older labor force, with the number of workers aged 55 to 65 increasing to about 8.5 million. According to the Bureau of Labor Statistics (BLS; www.bls.gov/data), the median age of the labor force will continue to rise, even though the rate of growth in the youth labor force (16 to 24 years old) is expected to be larger than the growth rate for the overall labor force. The growth rate for the female labor force is expected to slow, but it will grow more rapidly than the male labor force. By 2010, the workforce will comprise 52 percent men and 48 percent women and for the first time in history the workforce will be composed of four generations:

Traditional (Silent), born before 1946, make up 7 percent of the workforce.

Baby boomers, born 1946–1964, make up 42 percent of the workforce.

Generation X, born from 1965 through 1979, make up 29 percent of the workforce.

Millennials, born 1980–2000, make up 22 percent of the workforce.

New Silent or Generation Z, born 2001—

In approximately 2017 Generation Z members will enter the workforce and most Traditional and a portion of baby boomers will be leaving the workforce. Generation Z members will bring completely new skills, attitudes, and needs to the workforce.

The full effects of the Americans with Disabilities Act have yet to be felt but are expected to be tied closely with the aging of the population, escalation of obesity, heart disease, and job shortage. The decreasing literacy rate among the nation's workers continues

to be an area of focus. A shrinking labor pool necessitates identifying employees as customers and focusing on their needs. Specifics on managing, recruiting, and retaining tomorrow's workforce are outlined in Chapters 2, 8, and 9.

Cultural Diversity of the Workforce

(See a philosophy statement in the Preface. This is a philosophy that my family and I have lived by for more than 40 years. This engraving hangs in our home as a reminder that we are all different.)

The following definition of *cultural diversity* is a collection of definitions and include “representation, in one social system of people with distinctly different group affiliations of cultural significance, any perceived differences among people; age, functional specialty, profession, sexual orientation, geographic origin, lifestyle, tenure, within an organization or position in an organized society. Refers to more than just skin color and gender—all kinds of differences—age, disabilities, status, military experiences, religion, education, plus gender, race, and nationality.” The United States is a nation reflected by the growing number of minority workers. This trend will continue because racial and ethnic groups compose about 25 percent of the U.S. population. The total population in the United States is more than 305 million. According to the U.S. Census Bureau the white race alone makes up more than half of the population; Hispanic or Latino *ethnicity* is 15.4 percent; black or African American alone 12.4 percent; some other race alone 4.9 percent; Asian alone 4.4 percent; two or more races 2.3 percent; American Indian or Alaska Native alone 0.8 percent; and Native Hawaiian or Pacific Islander alone 0.14 percent.

Currently the Hispanic population is the fastest growing among minorities as a whole, and according to the Census Bureau in 2005, 45 percent of U.S. children under the age of five belonged to minority groups. Hispanics and Latino Americans accounted for almost half of the population from 2005 to 2006. Immigrants and their U.S. born descendants are expected to provide most of the U.S. population gains in the decades ahead. A report from Pew Research Center projects that by 2050, non-Hispanic whites will make up 47 percent and the Hispanic population will rise to 29 percent by 2050. The proportion of Asian Americans would double by 2050. The major increase in population is due to (illegal) immigration. Of the nation's children in 2050, 62 percent are expected to be nonwhite. Approximately 39 percent are projected to be Hispanic and 38 percent are projected to be single-race, non-Hispanic whites, of Hispanic origin, and it is expected that by the end of the decade, Hispanics will represent 11.1 percent of the labor pool.

Cultural diversity of the workforce is represented to some degree by managers nationwide but varies regionally. For instance, the African American population is primarily in the South and Southeast, whereas Hispanics are located in the Southwest, West, Florida, New York, and the Chicago metropolitan area. Native Americans are concentrated in Alaska, the Southwest, and the Plains states, but Asian Americans most likely live in the West, with concentrations in Hawaii, California, and Washington.

Along with gains in cultural diversity comes the necessity for managers to recognize opportunities to draw on differences that enhance quality and service. In addition, these differences must be

understood to provide compatible leadership that can create career ladders and encourage minorities in entry-level health care positions to access the system for further development. Health care nutrition and foodservice departments represent entry points where training becomes more of a priority. Employee socialization and retention are specific concerns for foodservice directors.

The number of younger women (ages 25 to 29) entering the workforce continues to increase but at a substantially lower rate than before 1985. A slower economy and an escalation in the number of births for this age group are cited by the BLS as a reason for the slowdown. Incentives—benefits, flexible schedules, job sharing, maternity leave, and child-care centers—will need to be provided for them to return to work.

Age of the Workforce

Working teenagers (16 to 19 years old), a traditional foodservice complement, have declined in number due to the low birthrate. Despite the swell in this age group to a projected 8.8 million in 2005, their number in the labor pool will still be 1.2 million below the 1979 level.

The average age of the workforce today is 40-plus years. Workers aged 50 years and older are expected to remain the dominant age group during the remainder of the next decade. The aging of the workforce has been attributed to maturing of the baby boomers, lower birthrates, and increased life expectancy. The shrinking pool of available workers and the growing number of older workers has necessitated their selection as alternative labor. Today's older worker is healthier and can work longer than the same-age worker of a few decades ago.

Having knowledge of the average worker's age and the diversity of the labor force helps foodservice managers make the changes needed to attract and retain employees. The value system of most of the workforce will be based on worker individuality, maximum amount and control of free time away from work, and participation in deciding how work is accomplished. These values will require nutrition and foodservice managers to be flexible with schedules, including total hours worked, workdays, and responsibilities.

Infectious Disease in the Workplace

Closely tied to the Americans with Disabilities Act is the treatment of employees with AIDS in the workplace. In terms of knives and other tools and equipment that could cause cuts, certain risks are involved with kitchen employees who are HIV positive. Closely tied to AIDS—and perhaps more important to foodservice managers—is the near-epidemic number of cases of TB currently identified. Because TB is an airborne infection that is highly contagious, foodservice managers have to diligently ensure annual employee physical examinations.

Literacy and the Workforce

About 2.5 million or more Americans who are illiterate are expected to enter the workforce each year; many will be attracted to the

service industry, specifically foodservice. Of Americans who finish high school, only two-thirds will have adequate skills for employment. With the predictions of future labor shortages, quality of education and on-the-job training are increasingly important employment considerations. *On-the-job-training* (OJT), once limited to specific job skills, has to go a step further to provide basic reading and writing skills as well as oral communication in English. Partnerships between educational institutions and health care organizations are in demand to improve the knowledge base of the fewer number of entry-level employees available for foodservice work. Some organizations now include basic literacy courses as part of the health care employee-training program intended to provide service areas with needed staff.

Employee as Customer

The leaders of today and tomorrow have to consider employees not only as a resource but also as a valuable asset to be empowered, trained, and properly motivated. Although expert predictions that the demands of tomorrow's workforce will be linked to autonomy, more time off, and their being included in decisions affecting their work may hold some truth, differing employee value systems must be considered as a factor in this scenario. Value systems vary from one individual to another based on age, culture, and past experiences.

Viewing the employee as a *customer* can be effectively demonstrated through scheduling. Flexible scheduling based on the desires and needs of the workforce is not necessarily new. However, not all foodservice managers have felt the need to be accommodating. Part-time and occasional staff can be used to provide adequate coverage while maintaining flexible scheduling for staff. Occasional staff may consist of full-time parents who wish to earn extra income, older workers who wish to remain active without jeopardizing their retirement income, or disabled workers who may be unable to work full-time hours. Over the past few years, 32-hour schedules have become commonplace in many health care institutions, allowing full-time benefits with an extra day off for personal activities. Foodservice managers might learn by observing schedule patterns from other health care departments. Over a number of years, a shortage of professionals has created the demand for flexible, imaginative scheduling to provide adequate coverage, and no method of coverage should be dismissed without being given adequate consideration.

The Obama health care plan may help employees with medical coverage—not only for low-income workers but for all workers. Benefits are not limited to health insurance and may even include paid time off, freedom to design work areas, on-site child care, elder care, maternity leave, and time off to care for an ailing family member, to name a few.

Compensation continues to be a priority concern for health care foodservice employees, traditionally among the lowest-paid positions. Compensation is a focus for employees deciding which jobs to pursue. Specifically, cooks and chefs can expect income gains due to higher demand for their technical expertise.

CUSTOMER-ORIENTED FOCUS

The views and demands of *customers* affect their choices and have a tremendous influence on the health care delivery system. To determine customer wants and needs, customers must first be identified. Seven customer groups can be identified: patients, family and visitors, physicians, employees, volunteers, vendors, and payers. Of these, in the immediate future seniors, their children—the baby boomers—and women will influence the purchase of health care services. The customer concept is relatively new to health care providers and may be somewhat disconcerting because it depicts the delivery of health care as a business, an outlook that many of today's health care leaders believe necessary for survival.

The trend of identifying and meeting customer needs will likely intensify. Added services intended to increase customer satisfaction eventually become expected, so that further service-expansion attempts must be made continually to ensure customer satisfaction. This phenomenon encourages the philosophies of continuous quality improvement and total quality management, discussed in Chapter 4. Frontline employees will become more important in providing customer satisfaction because they are the ones who represent the organization or department. Customers and their wants will be identified through market research and its application, discussed in Chapter 3.

Value in the Quality-Cost Equation

To provide *value*, quality must be delivered while keeping cost under control. Customers' demands for quality from their perspective have provided the stimulus for customer satisfaction programs in health care. These programs span the continuum from simple customer service guidelines to detailed continuous quality improvement programs. All have the essential objective of improving quality and customer satisfaction in an effort to improve outcomes and increase use. Whereas customer satisfaction programs emphasize service delivery, continuous quality improvement programs provide a mechanism for in-depth enhancement of systems, processes, and methods of delivery.

Nutrition and foodservice departments have many opportunities to provide full quality and satisfaction to customers. Three distinct opportunities related to the foodservice component are the product, the service or delivery of the product, and the nutritional value of the product. In addition to these foodservice opportunities, many more exist in the delivery of clinical nutrition care. Each of these opportunities for quality enhancement must be evaluated in the customer service or quality improvement process selected.

Programs and services have continued to evolve, with the purpose of generating revenue for nutrition and foodservice departments, but they are now developed with a dual focus on customer satisfaction. Approaches to patient meal service include menu enhancement, nontraditional offerings such as room service, and home meal delivery after discharge. Cafeterias continue to be the primary type of service in health care facilities, although many have added restaurants, 24-hour coffee shops, cooperative vending, and on- and off-site catering. Some hospitals, finding it necessary

to reduce costs, no longer offer 24-hour or weekend services. Many have installed vending operations that may be managed by hiring an outside contractor, by leasing machines and managing the operations in-house (cooperative vending), or by purchasing machines for independent operation. "Branding" is another concept adopted by some health care foodservice departments to improve satisfaction for a variety of customer groups, either by including products in the existing service areas or with fast-food franchises opening on-site. *Branding* is defined as the use of a nationally known labeled product for sale in the current foodservice area or the inclusion of an entire operation (for example, a McDonald's in a hospital lobby). More detailed discussion of quality and customer satisfaction is found in Chapter 4, and branding and catering information is presented in Chapter 3.

Nutrition Awareness

Today's consumers have an increased awareness of nutrition and the effect diet can have on their health. Nutrition information collected through research efforts is no longer the exclusive domain of professionals who pass this information to their patients. Consumers are bombarded at every turn with reports on the latest nutrition research through television, newspapers, magazines, and numerous books and pamphlets. Although intended to educate consumers, this information is often conflicting and not easily interpreted for application to daily dietary intake. Because informed consumers are not always wiser consumers, attempts must be made to meet their perceived needs if customer satisfaction is the goal.

Heightened nutrition awareness is closely linked with an increased emphasis on fitness. Yesterday's fitness fad is today's lifestyle for many consumers of health care and nutrition and foodservice. Even so, people continue to indulge their appetites, especially when dining out. The number one health problem is now obesity. Portions in fast-food outlets, restaurants, and other foodservice operations continue to be "supersize," adding additional unneeded calories.

Increased nutrition awareness and health education will prove beneficial for patients who desire to participate actively in their care. This trend may be one answer to lowering the cost of delivering health care while improving customer satisfaction. In contrast, the large number of less knowledgeable persons living at or below the poverty level will be further disadvantaged by the continued economic dual tiering of society and the growth of a minority immigrant population. The upward trend of poverty will negatively affect the number of individuals at nutritional risk in communities and further validate the role of nutrition awareness.

Demographic Changes

Three primary demographic changes will affect the delivery of nutrition and foodservice in health care: *aging population*, more *women as decision makers*, and *cultural diversity*. Today the median age is 36.7 years. Ages 0–14 years make up 20.2 percent of the population; 15–64 years, 67 percent; and 65 and over, 12.8 percent. The estimated birth rate is 13.83 births per 1,000 population and the death

rate is estimated to be 8.3 deaths per 1,000 population. The health care needs of these three groups will continue to center on preventive medicine, fitness, nutrition, and well-child checkups. In addition, this age group will become the primary caregivers for the majority segment—the elderly. (The elderly are sometimes classified as either “young elderly,” ages 65 to 74, or “older elderly,” ages 75 and older.) Those from age 60 to 80 and older will be the largest segment of the population.

An Aging Population

The number of people older than 65 years of age in the United States will be 70 million by the year 2030. The average age of the old is increasing—the age over 85 is the fastest growing segment of the older population. At least 80 percent of the population over 65 years of age is diagnosed with one or more chronic illnesses, and is reflected in an increased acuity level of patients, an increased number of patients at nutritional risk and more older patients requiring health care than at any other time in history. However, it is important to remember that not all older people are going to be unhealthy or ill. Today’s older adults are healthier and more independent than at any time in history. There is a trend for older adults to stay in their own homes rather than move in with their families or to long-term care facilities. These older adults are a diverse group. They know their bodies and what they can do. They are better educated and have more knowledge regarding health care issues and they want more input into their care.

The shift in longevity and poor health of some older adults fostering extensive growth in extended-care facilities, including nursing homes, adult day-care centers, retirement centers, and assisted living facilities. In addition to the increased growth in these freestanding facilities, a larger number of hospitals include skilled-nursing units and rehabilitation units. In addition to caring for the elderly once they become ill, health care organizations are proactively designing preventive care programs to evaluate the health needs of older persons and provide appropriate education. Evaluation includes individualized screens for nutritional risk and guidelines for improving nutrition status related to illness prevention and treatment.

Women as Primary Decision Makers

Women are the primary decision makers in health care delivery choices and want more involvement in matters dealing with their health and that of their families. Centers and specific departments that consider their unique needs continue to influence the delivery of care. Interest in women’s health concerns also is evidenced by increased research in this area especially in heart disease and cancer. As the average life expectancy continues to increase, women are facing more responsibility in caring for parents and other extended family members as well as their immediate families. This fact, together with the expanding number of women entering the workforce, will further emphasize customer satisfaction from the perspective of women. As health care decision makers, women influence the balance between high-touch and high-tech aspects of care.

In addition to the nutrition and foodservice demands already mentioned—affordability, continuity of care, equal access, and so forth—the growing number of working women expect convenience. Food choices for this group are influenced by the makeup of the family unit, and many experts in nutrition and foodservice predict that children will become the new “gatekeepers” of the food supply. Convenient well-prepared nutritious food becomes a key element in this scenario as the demands of female consumers provide opportunities for health care foodservice managers. For example, the cafeteria can be extended to offer take-out services, bakery products, and prepackaged kids’ meals.

Cultural Diversity in Menus

The effects of cultural diversity on foodservice are prominently reflected in menus enhanced with ethnic dishes. Some operators call for a return to more basic, home-style “American” food choices, but the question arises as to what that means. For example, one of the most popular foods in America is pizza, followed closely by Mexican and Asian food selections. These cuisines have become American menu staples. In planning menus, foodservice managers should consider the population to be served. Demographics vary by region in age and cultural diversity and should be evaluated before making menu selections. Although menus may return to basics in the coming decade and reflect lighter fare, the signature items of various cultures will find a place. Application of this and other information pertinent to menu planning is found in Chapter 16.

TECHNOLOGY TRENDS

The past several decades have been marked by a pronounced growth in technology. Information services underwent the most rapid growth. In general, health care has been slow to implement computerization, especially in foodservice. Many hospitals today, however, have chief information officers who coordinate computer systems planning and implementation. In addition to information technology, medical technology has significantly changed the delivery of health care. Both diagnostic advances and treatment technology have improved patient outcomes while placing extreme financial burdens on health care organizations. Because of heavy diagnostic and clinical advances, many nutrition and foodservice departments have been left out of the capital expenditure cycle or have spent more time justifying equipment needs. However, this does not mean that significant advances that are important to the delivery of cost-effective, high-quality foodservice have not been made in foodservice technology.

At a recent dialogue, conducted by the American Hospital Association, 10 panelists, who were CEOs or senior vice presidents, discussed “The future of care and the implications for hospitals and health systems.” These high-level health care administrators came to the conclusion that “The next decade will bring a host of clinical and technological advances that promise to transform the way health care is delivered. Personalized medicine and genomics, the aging population, the implementation of reform and many other emerging trends will impact how hospitals and their leaders will

operate.” (For the full text see *H&HN Hospitals & Health Networks*®, October 2010, pp. 56–65.)

Information Systems

Information systems will continue to dominate the technological front in the coming decades. Information systems in health care organizations over the past decade have been primarily in the areas of financial, accounting, and human resource management. This emphasis will continue to become more refined in assisting management with making budget-related decisions and with reporting specific information for the new requirements established by Medicare and Medicaid.

Current emphasis is on the design and implementation of a universal electronic data interchange system for processing health care claims. This system necessitates the development of a common language for hospitals, the federal government, and insurers, along with standardization of core financial information. Most hospital billing departments do not find it easy to accommodate a common language or method because of the lack of integration of computer systems and the large volume of services billed. This type of common claims processing will make it increasingly necessary for hospitals to improve their current computer systems.

Medical professionals are including clinical information systems in their office practices. Much of this technology provides for more accurate diagnosis, improved customer care, and improved patient medical records. As the technology becomes more commonplace, future professionals will have greater access and comfort levels. Clinical information systems tie diagnostic testing results directly to nurses' stations or physicians' offices, a linkage that allows quick review and action on test results and facilitates improved patient care. *Bedside charting*, a term used more and more frequently in discussions of patient care, and the computerized medical record improve information flow, thereby assisting with reimbursement.

Information systems also are important in the foodservice department, where management control systems are numerous and their applications vary considerably. Systems may include software packages designed to manage information for clinical management and meal service; menu planning; forecasting and purchasing; inventory management; food safety; payroll; financial management; and in skilled-nursing facilities, material data sheets. Many vendors or distributors offer foodservice operators a direct computer link to warehouses for the purpose of placing orders and accessing information regarding purchase history. Foodservice inventory systems range from department-specific personal computers and software to mainframe systems designed for the organization. Information is entered into inventory either manually or through the use of a scanner.

Still other software programs include nutrition analysis and additional clinical applications. As it becomes increasingly important to evaluate past and current information to make the best decisions for tomorrow, advanced information systems will become more significant. The use of computer systems may not decrease staff needs, but in today's environment they are necessary to manage the increasing amount of information needed by managers to run their departments effectively. Computer software should be

purchased based on individual needs. What works for a hospital department may not work for a nursing home. Detailed discussion on management information systems is covered in Chapter 10.

Medical Technology

The delivery of high-quality health care continues to rely on technology, the increased cost of which tends to affect health care faster than other businesses. This cost dynamic is due to rapid changes in technology that can be linked to equipment obsolescence over a short time period, acquisition or replacement costs, and the effects of competition among facilities. Some technological advances have been able to reduce labor needs, but more have required new or higher skill levels. A more demanding skill requirement has led to specialization within departments or fields, making it difficult to use staff for a variety of tasks. Technology also can be effective not only in diagnostics but also in treatment to lower costs and decrease the length of stay. Technology has been responsible for decreasing patient admissions and for increasing the use of outpatient services. More general surgery is being performed as laparoscopic surgery, which can be done in the outpatient setting.

Another type of *medical technology* with widespread effects on health care involves pharmaceuticals. The number of new medications entering the marketplace yearly is staggering. The rapid pace of development creates new problems for the FDA and for the public in that a number of medications have been recalled after their extended use was found to cause side effects not predicted in trials before FDA approval. In view of the AIDS crisis, for instance, demands for rapid approval and release of pharmaceuticals are not likely to decrease.

Food Technology

This section briefly describes developments in *food technology* that foodservice operators should become familiar with. They include *sous vide*, biotechnology, irradiation, and medical foods.

The *sous vide* (“under vacuum”) process, developed and perfected in Europe, uses freshly prepared foods that are processed with low-temperature cooking and vacuum-sealed in individual pouches. That process presented some problems with bacterial growth during the 1980s, but perfection of the slow-cooking methods to achieve pasteurization and improved packaging has made it a safe, viable option for foodservice operators. This technology is proving to be the least controversial and most widely accepted by both foodservice professionals and customers. Because many of the products prepared and preserved with low-temperature cooking and vacuum sealing are considered gourmet in nature, foodservice managers can expand and improve menu options for patients and other customer groups. *Sous vide* products are excellent for room service when one portion may be needed.

Biotechnology is creating the taste of the future. In this form of *genetic engineering*, a gene foreign to a product is spliced or added to its DNA to enhance or inhibit qualities of the original product. This bioengineering technology is being used to improve the current food supply; for example, vegetables and fruits are engineered to resist spoilage, increase variety, improve nutritional content,

enhance resistance to disease and freezing, and provide a longer shelf life. The major reason for pursuing these genetically altered products is to decrease the amount of chemicals used during growing; by altering certain genes, the plants can be made resistant to insects.

The FDA has developed a guidance document for companies that wish to declare genetically enhanced ingredients in their food products. The National Food Processors Association announced before the FDA ruling that, in its view, no new regulation was necessary for food produced through biotechnology. Groups opposing the FDA guidelines include the Center for Science in the Public Interest, the Environmental Defense Fund, and the National Wildlife Federation. Since the FDA decision, many—including a number of chefs—have publicly renounced bioengineered foods. It is not clear whether this disapproval mirrors sentiments of the general public or is limited to this group. Nutrition and foodservice managers should follow development on this topic so as to make informed buying decisions.

Although it has been approved for food since the 1960s, *irradiation* is a technological breakthrough affecting current food supplies. Irradiation refers to exposure of substances to gamma rays or radiant energy. Irradiation has been used since 1985 to control trichinella in pork and since 1992 to control pathogens and other bacteria in frozen chicken and in some vegetables and fruits, especially strawberries.

In the late 1990s, after extensive and thorough scientific reviews of studies conducted worldwide on the effects of irradiation on meat, the FDA approved irradiation of fresh and frozen red meats, including beef, lamb, and pork, to control disease-causing microorganisms.

Federal law requires that all irradiated foods be labeled with the international symbol identified as the “radura”—simple green petals (representing food) in a broken circle (representing the rays of the energy source)—and accompanied by the words “Treated by Irradiation” or “Treated with Radiation.”

Cloned food is food that is an exact genetic copy of another. This means that every single bit of DNA is the same between the two. There are a number of types of cloning. There are strict rules/guidelines on cloning, especially cloning humans. Cloning is used in hundreds of species, including goats, sheep, cows, mice, pigs, cats, dogs, and rabbits. Obviously not all cloned animals are used for food.

After years of research and development, fat replacers or substitutes are beginning to obtain FDA approval. Fat substitutes are classified by the core ingredient used in their production and are carbohydrate-, protein-, or fat-based. Carbohydrate-based fat substitutes are made from dextrins, modified food starches, polydextrose, and gums. Many generic forms of these fats have been approved for use in baking but are not heat stable enough for use in frying. The most common protein-based fat substitute is Simplese®, produced by the NutraSweet Company and approved by the FDA in February 1990 for use in frozen desserts. Because protein is not an effective heat conductor, Simplese cannot be used in frying but can be used at high temperatures, for example, in cheese melted on pizza. The most widely known fat-based replacement is Olestra®, produced by Procter & Gamble. The FDA has

spent 25 years studying Olestra. As of 2002, the product is moribund, if not totally dead. More than 18,000 people have submitted reports to the FDA of adverse reactions they attributed to the ingestion of Olestra. That is more reports than for all other food additives in history combined. Procter & Gamble has not sought FDA approval for the use of Olestra in products other than snack foods and has sold its factory. Sales of chips prepared with Olestra have steadily declined.

A new no-calorie fat substitute is being tested in the hope that it can eventually be used to slash calories in everything from cookies to burgers. Z-Trim™, the name of the new substitute, was invented by a government scientist and is an insoluble fiber (hulls of oats, soybeans, peas, and rice as well as bran from corn and wheat) that goes through the body without being digested. Z-Trim cannot be used for frying, but it can replace up to half the fat in many prepared foods. There is some concern that fat substitutes will not decrease the desire for fatty foods and may in fact increase overall fat consumption, similar to the effect sugar substitutes have had on sugar consumption.

Obesity is a growing national problem. Many calories could be eliminated by the use of nonsugar sweeteners. Many consumers are hesitant to reduce their sugar intake because of the many misconceptions about the products. Even with the hesitation and concern about the safety of nonsugar sweeteners, in April 2003 the World Health Organization stated that Americans’ need for sugar substitutes is on the rise. The FDA has approved the use of saccharin (Sweet’N Low™, Sugar Twin™), aspartame (NutraSweet™, Equal™, Sugar Twin™ [blue box]), acesulfame-K (Ace-K™ or Sunett™, Sweet One™), sucralose (Splenda™) and sucralose (Splenda). Aspartame is found in more than 5,000 products, including Diet Coke®. Sucralose is found in many products, including Diet Rite Cola®. Saccharin is found in many products, including Sweet’N Low™ brand of cookies and candy. Foodservice personnel have a responsibility to continue to educate the public concerning the safety of the products.

Medical food is a food or a mixture of food components that is administered under the supervision of a physician and interdisciplinary team and is intended for specific dietary management of a disease for which the “food” was intended. Prebiotic and probiotics may be considered as medical foods. *Prebiotics* is a nondigestible food ingredient that beneficially affects the host by selectively stimulating the growth and activity of one or a limited number of bacteria in the colon. Probiotics are living organisms that, when administered in adequate amounts, confer health benefits to the host.

Foodservice Equipment

Advantages in equipment should be considered annually when making capital equipment plans. Concerns for water, energy use and the environment must be considered when making capital purchases. Equipment needs vary from one institution to another and depend on the types of food purchased, the production methods used, staffing, the menu, and available space in the foodservice department. Under-the-counter storage equipment is available for more flexible storage. Equipment is also being designed to help operators to meet HACCP regulations. Most of the new equipment is designed to maximize storage. Recent advances in foodservice

equipment include cook-and-chill units, microwaves, blast chillers, smaller versions of existing equipment, and equipment that can be used for multiproduction methods. Some of the newer equipment can be matched with other equipment to offer flexible operation. Energy efficiency is increasingly becoming imperative, resulting in higher demand for energy-efficient equipment.

Many smaller versions of ovens and other equipment on the market were developed in response to limitations on space and the desire of some operators to use equipment in the view of customers. Other operators have installed preparation equipment—for example, a pizza oven—in full view of their customers. Microwaves, once used for boiling water or reheating foods, are finding their way into preparation areas of many foodservice departments. Microwaves can be used to reheat the many frozen products on the market and are excellent for preparing vegetables.

Equipment that is water and energy intensive is being engineered to conserve water and sewage bills but also to heat that water. Proper ventilation equipment can provide saving on energy used to cool the kitchen and help ensure that cooking and ware-washing equipment work more efficiently.

Another equipment advance is use of robotics, computerized units that assist with repetitive motion, such as placing items on patients' trays and cooking hamburgers. Technology is available to fully automate many kitchen and service activities. Equipment designs no doubt will consider changes in tomorrow's labor force. Instructions must be clear and understandable to workers whose abilities to read English may be limited, and knobs or switches must be designed for physically challenged individuals.

Background of Foodservice Industry

Providing food in an institutional setting has evolved from the Middle Ages when large feudal groups were fed. Many large royal households fed as many as 250 people at each meal. Religious orders served quality food in abbeys to thousands of pilgrims on retreats. Florence Nightingale was the first "dietitian" when she insisted that the troops in field hospitals be provided nourishing food.

Today food is served in homes; restaurants; schools; colleges; universities; health care organizations; the military; corrections facilities; clubs and other social organizations; day-care centers; and industrial, business, and transportation enterprises. Each of the facilities plan, price their menus, and provide a variety of eating rooms, from elegant dining to tray service in health care to fast food that can be eaten in an automobile.

The foodservice industry is one of the world's largest businesses. Sale of processed food worldwide is approximately 3.2 trillion in U.S. currency. According to the Food Industry Overview, U.S. consumers spend approximately US\$1 trillion annually on food, or nearly 10 percent of the gross domestic product (GDP). Worldwide foodservice is also the number one employer among all retail businesses, with more than 16.5 million persons employed, most being women and about 25 percent being teenagers. According to the BLS, foodservice and preparation jobs are the fastest-growing national occupation. It is predicted that it will continue to increase. The BLS also predicts a shortage of registered dietitians in the next decade.

There are approximately 1 million foodservice operations in the United States. Many U.S. households continuously rely on others for their food preparation. Before the economic downfall, more than half of every consumer food dollar will be spent on foodservice rather than groceries. Restaurants account for 62 percent of foodservice sales. Elder care is the fastest-growing market; correctional foodservice continues to grow and is expected to have a rapid growth in the next few years, with the greatest increase in federal prisons. More than 10 million meals per year come from correctional facilities.

Health care institutions, like many of the noncommercial foodservice operations, serve a captive audience. Their budgets for expense are included in the hospital room rate, and many health care foodservices are subsidized, which means they receive some funds from external sources.

Classifications of Foodservice

The *hospitality industry* is composed of three major segments: *lodging, food and beverage service, and travel and tourism*. *Lodging* includes hotels, motels, and so on and frequently offers foodservice to the customers. *Travel and tourism* includes retail stores, recreation sites, transportation, travel agencies, and so on. Foodservice may be available at some of the sites. The *food and beverage services industry* is made up of a broad scope of establishments. These establishments are classified as *commercial, noncommercial, and institutional*. *Commercial foodservice* has as its primary activity the preparation and service of food. In noncommercial and institutional foodservice, the preparation and service of food is a secondary activity. The commercial segment includes fast-food, quick-service, or limited-menu restaurants; fine-dining restaurants; airport restaurants; convenience stores; buffet and self-serve restaurants; catering; supermarkets; food courts; and retail outlets such as department stores. These establishments set their own menu, price structure, and hours of service. Some, like airport restaurants, may serve the same customer only once or twice a year.

The *noncommercial segment*, where entities operate their own foodservice, includes hotel and motel restaurants, country club restaurants, cruise ships, trains, airlines, zoos, sporting events, and theme parks. Each of these establishments may depend on the economy. When the economy is good, customers tend to spend more money to indulge in eating in these restaurants. The *institutional segment* includes the military; correctional facilities; hospitals; child-care centers; senior-care facilities; extended-care facilities such as nursing homes and other health care centers; employee foodservice for offices, industrial complexes, and health care facilities; schools, colleges, and universities; and not-for-profit establishments. All of the institutional segments have several things in common: a captive audience; low cost per meal; many regulatory agencies' standards; and local, state, and federal government regulations that must be met.

In-house management of noncommercial institutional foodservice, referred to as *self-operated*, has remained steady over the past decade. Many noncommercial operations hire contract foodservice organizations that manage the foodservice department as

well as other departments. *Contract foodservice management* is the provision of foodservice by a third-party company through a contract. The company meets the objectives of the department but is profit-oriented. The contract company provides management of the foodservice operation for the organization and in some instances may also provide clinical services. Some organizations may outsource some of their services, such as information services or purchasing. *Outsourcing* means that an outside company will provide a service that the organization may not have the staff or equipment to do on-site.

Self-operation is the opposite of contract management. *Self-operating foodservice* is defined as the organization or institution being responsible for the management and clinical components of foodservice. There is an ongoing discussion of the advantages and disadvantages of contract management versus self-operation. The advantages of using the contract companies include but are not limited to expertise, economy of scale, and service:

- *Expertise.* Provides the knowledge, skills, education, and resources that a company will use to operate the foodservice operation.
- *Economy of scale.* The work involved in developing resources for a foodservice operation is done economically, at a reduced cost per unit. The company offers buying power for food and equipment, expertise and in some instances money for renovation projects, computer technology, standardized recipes, and menus for a variety of diets.
- *Service.* Relieves the administration of worry about a department because the company will handle operational issues, quality control, customer satisfaction, and some staffing responsibilities, and the annual employee count is reduced because the employees are considered “management company” employees.

Disadvantages of the contract company versus self-operation include loss of control, expense, and divided loyalty:

- *Loss of control.* Hiring a contract company means relinquishing some control of the foodservice operation. Employees report to the manager of the contract company and are not part of the organization. Leadership roles are not clear unless they are clearly defined in the contract.
- *Expense.* The organization pays a management fee and also may pay the salaries and benefits of employees. The fees may be determined on a cost-per-day basis, plus a percentage of saving, or the revenue against expenses. Each contract may be different and must be carefully evaluated.
- *Divided loyalty.* Employees working for a contract company may have divided loyalties—the company or the organization. The contract should include a meeting between the organization’s representative and the contract company’s representative to plan and promote integrating loyalty. It is wise to be concerned over a power struggle.

Regardless of who operates the foodservice, it is vital that the needs of customers be the primary concern.

Role of Foodservice

The role of foodservice in a health care organization is to provide a variety of food that is nutritious and well prepared in a safe and sanitary environment that meets the financial obligation of the department while meeting the needs of customers and is served in a pleasing and attractive manner. The department will strive to meet the social, cultural, religious, and psychological needs of customers in meal planning and service. The staff provides education to its customers while they are patients in the health care facility, in out-patient consultations, in the community, and to the general public, as requested.

Employees in the foodservice department are leaders within the organization who adhere to the overall mission, vision, and values of the organization while dovetailing the department’s mission, vision, and values and philosophy to those of the organization. The role of the foodservice is to develop goals and outcome objectives and to seek commitment to achieving the outcomes. The department works with other departments within the organization in a team effort to provide for customers. The largest challenge to face a foodservice department is to provide food to its customers while integrating the department’s activities into the overall operation of the organization.

Managerial Ethics and Social Responsibility

Foodservice directors face *ethical challenges and social responsibility* as they balance the organization’s need to know and the privacy requests of employees and cultural and ethical behaviors of a diverse workforce and customer base to ensure that the organization is working in a socially responsible manner. They also have a responsibility to the *stakeholders*. Stakeholders have a direct “stake” or interest in its performance as they are affected one way or another in what the organization does and how it performs. For health care the stakeholders include customers, vendors, competition, regulators (at all levels), owners, employees, labor unions, clients, and local community.

Ethics is defined as the principles of conduct governing an individual or business or the views, attitudes, and practices about what is right or wrong; it concerns moral standards and basic values. There are professional or business and personal ethics. *Business ethics* refers to principles of moral standard that business executives follow. *Personal ethics* is a code that is influenced by religion or philosophy of life as a moral code. Organizations such as the Academy of Nutrition and Dietetics (AND) and the Association of Nutrition and Foodservice Professionals (ANFP) have written codes of ethics that are guidelines for members of the organizations. (These codes may be found on the organizations’ websites.) These codes are intended to promote and maintain the highest standards of food and nutrition services and personal contact among its members. Many codes of ethics are being replaced by standards. The term *standards* refers to some organizations’ bills of rights for employees that assist managers in dealing with employees while ensuring those employees’ rights.

All foodservice directors need to develop a personal code of ethics. The following should be included:

- Avoidance of conflict of interest
- Honesty and trustworthiness in all activities
- Respect for the rights of others, including cultural, ethnic, religious beliefs, and the right to privacy
- Loyalty to the employer
- Compliance with all applicable laws, regulations, rules, and policies
- Responsibility for one's own actions
- Honesty in credentials
- Adherence to a professional code of ethics
- Keeping confidential information confidential
- Protecting intellectual property

Social responsibility in organizations is changing. Organizations must operate to provide services to achieve the greatest good for the greatest number of people. This can be accomplished by an organization's support of charities or events of public interest or issues and time off for employees to participate in events such as health care fairs, wellness events, environmental, and other related community activities.

Social responsibility also includes the promotion of equal rights of all groups, a fair wage for work performed, and the avoidance of favoritism. Employees should be protected in freedom of speech and assembly. Employees should have the right to unionize. Employers should provide a safe and drug- and smoke-free work environment. Employees should be concerned about issues beyond business- or work-related issues including being proactive about ecology and environmental quality, the conservation of water and energy, pollution and the protection of patients' rights. As time and interest allow, employees should participate in community activities such as volunteering at health fairs, working with cancer-related and children's events.

STRESS

Job stress can affect all the systems of the body. *Stress* is a condition that can be physical or mental strain from situation(s) in the workplace. Foodservice is considered a high-stress occupation because of constant deadlines and demands, the objective of meeting the needs of customers, and in some instances the uneven distribution of the workload.

A foodservice director will need to be a buffer between staff and external stress. As an example, a customer in the cafeteria becomes angry over a perceived error in the amount of change received from a transaction. The foodservice director or cafeteria manager should intervene to deal with the problem, rather than leaving the cashier to fend for herself or himself because the relationship between the cashier and customer in the future could lead to additional stress.

To minimize the stress level in the workplace, foodservice directors should know their stress level and develop ways to cope.

Many books have been written on how to deal with stress. The following ideas may be helpful.

- Know what causes you the greatest stress. Accept your own mistakes as positive learning experiences. Do not constantly relive the experience and fret that it will happen again.
- Keep a positive outlook. See the big picture, focus on what you value, and do not let the little things destroy your attitude. Believe in yourself and your knowledge, skills, and abilities.
- Accept what you cannot change or control. If the administration tells you that you cannot change prices in the cafeteria, let it go. Do not worry about things that are beyond your scope of responsibility or control.
- Focus on one task at a time. Thinking about all the tasks you need to complete is a waste of energy and will not allow you to do your best with the task at hand.
- Use positive results from your work. While working hard and with lots of pressure, bask in the outcomes of your effort. For example, pleasing a customer, teaching a new employee a job task, or writing a well-received report to administration is a positive result.
- Eliminate as many stresses as possible.
- Clear your desk. Throw out clutter such as papers or materials that are no longer needed or used.
- Shut your door. Get rid of annoying or distracting background noises.
- Unclutter your life. Give up activities that cause stress and spend more time with yourself, nonstressful friends, or family members.

When the stress seems overwhelming, take a break. Get away from the situation. Take a walk, chat with a colleague, listen to music, do relaxation exercises that will help to loosen muscles, and release negative thoughts about the offending situation.

- Get a massage for overtired, overused muscles because this can relieve stress.
- Let others know you are stressed. Express your feelings without becoming overly angry.
- Be honest, be direct, and be definite. Learn to say no to something you do not want or need to do.
- Focus on the good things, and be grateful for what you have. Slow down; you can accomplish only one thing at a time. Keep your priorities in mind.
- Seek professional help if stress has increased your blood pressure, changed your life style, and changed your moods (depression)
- Be straightforward without being rude. Do not overreact. Take time out, review the situation, and try to discuss your feelings quietly.

Foodservice directors are better leaders and managers when they learn how to cope with stress and how to provide freedom

from undue stress at work. When a work situation becomes over-stressful for the director, it usually affects the staff as well.

PERSONAL AND PROFESSIONAL DEVELOPMENT

Personal and professional involvement is an individual choice. Effective foodservice directors are responsible for maintaining and improving their knowledge and skills to be competent to carry out their duties. This can be accomplished in a number of ways. The following is a list of suggestions that other foodservices directors have found to be beneficial.

- The foodservice industry offers professional development and ongoing education and training.
- The AND, the ANFP, and many other professional organizations conduct annual education conventions where speakers provide information on the latest research on food and nutrition services that can be used to improve skills and continue professional growth.
- Most professional organizations on both the state and national level lobby for its members on issues of interest to the organization. A good example is reimbursement for medical nutrition therapy.
- Professional and trade organizations also publish magazines and journals that address the needs and interests of its members.
- Involvement in professional organizations at local, state, and national levels help improve the profession and assist younger persons entering the profession.
- Serving as a role model or mentor and sharing ideas with students and staff will help new members and will give a foodservice director a sense of “giving back” to the profession.
- Foodservice directors should use information gained in participating in professional activities to train staff and in providing written reports to administration of the facility to let them know how the involvement not only helps foodservice directors personally but is beneficial to the organization.
- Education is lifelong. To continue the education process, foodservice directors should enroll in courses at community colleges, universities, or off-site continuing education programs or attend seminars or workshops that will benefit them and their organization. Education can be obtained while sitting at home/office via webinars, e-learning, websites, videos related to the profession (such as food safety), teleconferences, and online courses through university flexible-learning programs.
- Read critically; read books, journals, trade magazines, and then read some more.
- Networking is building and maintaining positive relationships with people, typically outside current organizations or businesses. Networking with other professionals is an excellent source of support, ideas, and methods improvement. Networking on legislative issues with other professional organizations to lobby support for

food and nutrition programs increases the awareness of these issues to the legislative body and the community.

Networking allows foodservice directors to know that their problems are not unique and that by sharing, problems may be solved. Networking can be accomplished by attending local, state, and national professional organization meetings and through websites, Internet chat rooms, telephone calls, and e-mail.

- At conferences offer your business card and collect cards from those you meet. Talk to other members, vendors, educators; ask questions without being intrusive or rude.
- Become involved in community affairs such as religious activities, schools, social and service organizations.
- If possible, participate in research within the organization or as a member of a focus group or a test site for evaluating a new piece of equipment or a new food product.
- Learn from suppliers. Suppliers have a wealth of information concerning new products or equipment. They are also available for hands-on demonstrations for incorporating new food items on menus, latest research reports, and in-service training on sanitation and proper equipment use. Many suppliers also sponsor trade shows where the newest equipment and food items are available, in addition to presentations by noted speakers in the field.
- Participation in professional organizations and networking provides many opportunities to continue on a career path or developing new skill set. It opens doors to what else is available within the profession or what is available if you desire to change professions. Building skills and experiences is lifelong learning. Using your interest and talents may lead to a unique new career. Networking and participation also can lead to lifelong friendships.

SUMMARY

This chapter analyzes the current and projected external environment for health care foodservices. The external environment includes trends and issues arising from the government, businesses and industries, health care institutions, workforce demographics, customer needs and demographics, and technology, the unknown effect the Obama health care plan will have on the delivery of health care. Many of these elements are evolving constantly and will continue to direct the operation of health care nutrition and foodservice departments.

As the environment changes, foodservice managers should modify the goals, objectives, and operation of their departments. Many trends discussed in this chapter will have a direct effect on how other information in the text should be applied to individual departments, and these will be noted in the relevant chapters.

By anticipating trends, successful managers will plan their departmental operations with a vision—both the department’s and the facility’s—of tomorrow. This is accomplished through conducting an internal and external environmental analysis and applying the information to organizing and planning functions, topics that are discussed fully in Chapter 5.

KEY TERMS

Clinical pathways
Cloned foods
Contract foodservice management
Cultural diversity
Empowering
Ethics
Genetically modified foods
Interdisciplinary health care providers
Irradiated foods
Medical foods

Medicare/Medicaid
Networking
Obama health care plan
Omnibus Budget Reconciliation Act (OBRA)
Organically grown foods
The Joint Commission
Self-operated
Sous vide foods
Stakeholders
Stress

DISCUSSION QUESTIONS

1. How will the Obama health care plan affect the delivery of health care, including foodservice?
2. How will trends and changes in regulatory agencies standards affect the foodservice operation?
3. What is the impact of having four generations working in the same department at the same time—the differences in how they process information and how they perform assigned tasks, and so on?
4. Name the methods to develop a cohesive workforce with the majority of the employees from different cultures, religions, and ethnicity.
5. What are the ways to be involved in networking and professional organizations?
6. State your own personal code of ethics and how this meshes with the organization's ethics.
7. Name some additional ways to reduce stress at work and in your personal life.

