

This material is protected by U.S. copyright law. Unauthorized reproduction is prohibited. To purchase quantity reprints, please e-mail [reprints@ons.org](mailto:reprints@ons.org) or to request permission to reproduce multiple copies, please e-mail [pubpermissions@ons.org](mailto:pubpermissions@ons.org).

## Oncology Nursing Society Environmental Scan 2004

Cynthia Miller Murphy, RN, MSN, CAE, Layla G. Ballon,  
Bridget Culhane, RN, MN, MS, CAE, Leonard Mafrika, MBA, CAE,  
Michele McCorkle, RN, MSN, and Linda Worrall, RN, MSN, OCN®

**E**nvironmental scanning is a systematic effort to obtain information about the world that will affect an organization. Scanning is important in managing change and avoiding costly mistakes. The Oncology Nursing Society (ONS) conducts an environmental scan at three-year intervals, consistent with its strategic planning cycle.

This environmental scan builds on previous work by incorporating a variety of methods, including

- A 2004 survey of ONS members
- A review of current business, healthcare, government, and association management literature
- Information provided one-on-one by nursing organization executives
- A review of the ONS membership database
- ONS financial reports.

The intention of environmental scanning is to understand external trends affecting all organizations, those trends that affect our members' operating environment, business trends that influence the ways in which associations like ONS operate, and internal facts and statistics about ONS itself. Environmental scanning is the first step in a strategic planning process in which trends are analyzed for the purpose of identifying the major implications for ONS.

ONS leaders will use the implications that arise from this process to help them determine the major strategic directions for ONS to pursue from 2006–2009.

### External Trends

#### Global

**The Internet has connected, but not necessarily united, the world.** In 2003, 500 million people used the Internet worldwide, and because of the rapid expansion of connectivity in developing nations, the number of Internet users is expected to increase to approximately 900 million by 2005 (Cetron & Davies, 2003b). In less than a decade, one-third of the world's population (two billion people) will have access to the Internet

(Snyder, 2004). Despite the efforts of traditional cultures and some governments throughout the world, cultural, social, and political isolation has become almost impossible. For example, the number of Iranians with Internet access grew from 500,000 in 2000 to 1.75 million in 2002 and is expected to increase to five million within the next few years (Cetron & Davies, 2003a). More people around the world are gaining education and exposure to modern ideology and lifestyles. Many are interested in Western culture and desire American products, thus causing a backlash among some religious fundamentalists who strive to preserve their traditional lifestyle, especially in societies where xenophobia is common (Cetron & Davies, 2003a). As cultural modernization continues to assault the world's traditional cultures, widespread political unrest and social tension are likely to elevate. Terrorist activity throughout the world is likely to continue through the next decade (Cetron & Davies, 2003b).

**More businesses are going global.** Despite the need for heightened security, multinational corporations prevail. American, Japanese, and European companies are expanding to build consumer markets and also outsource work to developing countries where the desire for American products is high and labor costs are low. At least 220 Fortune 1000 companies have outsourced work to India, where technology developers cost 30%–60% less than their U.S. counterparts and call center workers earn just \$1–\$2 per hour (Dalton, Jarratt, & Mahaffie,

*Cynthia Miller Murphy, RN, MSN, CAE, is the executive director of the Oncology Nursing Certification Corporation in Pittsburgh, PA. Layla G. Ballon, is the chief operating officer, Bridget Culhane, RN, MN, MS, CAE, is the executive director, and Leonard Mafrika, MBA, CAE, is the executive director of business development and publisher, all at the Oncology Nursing Society in Pittsburgh. Michele McCorkle, RN, MSN, is the executive director of Oncology Education Services, Inc., in Pittsburgh. Linda Worrall, RN, MSN, OCN®, is the executive director of the ONS Foundation in Pittsburgh.*

Digital Object Identifier: 10.1188/05.ONF.E76-E97

2003). The Internet enables even the smallest American business to market and sell its products to a wide array of international consumers.

---

**A**merican associations must be prepared to provide their products and services to an international constituency that includes the developing nations of the world.

---

American associations must be prepared to provide their products and services to an international constituency that includes the developing nations of the world. For example, in recent years, the Oncology Nursing Certification Corporation (ONCC), as well as other specialty nursing certifying organizations in the United States, has experienced a strong interest in and demand for certification in South Korea. ONCC has administered certification examinations to 314 candidates in South Korea during the past four years. Although the examinations currently are offered in English only, translation should be considered if this international market continues to grow.

Associations have the opportunity to expand their organizations through international membership or alliances and affiliations with organizations in other countries. This will involve adapting to the needs of potential members in these countries. The translation of educational materials or the production of very basic educational materials for developing countries may be needed. Currently, fewer than 600 ONS members reside outside of the United States. ONS is in the process of developing an international marketing plan and examining the feasibility of international chapters and international virtual membership subscriptions to attract more international members.

**Populations around the world are increasingly mobile** as people migrate to countries where opportunities for work and improved quality of life are available. At an average of two children per woman, the birth rate in the United States is at replacement level. However, because of increases in the rate of immigration, the U.S. population will grow steadily over the next 50 years. In 2005, the U.S. population will grow by 70 million people, an increase of 25% (Population Reference Bureau, 2004). Eight hundred thousand to one million people immigrate legally to the United States each year. One-third of all immigrants to the United States come from Latin America, the Caribbean, and Mexico, and another one-third come from Asia. Within the next 25 years, the Asian and Hispanic populations in the United States are predicted to double, reaching 24 million and 68 million, respectively (Wellner, 2003), and many regions of the United States will be primarily Spanish speaking (Dalton et al., 2003).

As the current nursing shortage worsens, a strategy already in place to help solve it is the immigration of foreign nurses. International administration of the NCLEX-RN and NCLEX-PN examinations was scheduled to begin in January 2005 in Hong Kong, South Korea, and England. These examinations will be identical to those offered for the licensure of nurses in the United States. The purpose of the international administration is to provide convenience to candidates without sacrificing standards while significantly minimizing the time required and overall cost to candidates to become licensed

in the United States (National Council of State Boards of Nursing, 2004). As general immigration to the United States rises, as does the immigration of international nurses to solve the nursing shortage, nursing associations will be required to meet the needs of an increasingly diverse constituency in the very near future. The ONS membership has become slightly more diverse during the past decade, with the percentage of Caucasian members declining from 91% in 1994 to 88% in 2004.

## Demographic

**The populations of most developed nations will steadily decline and age over the next 50 years.** This is caused primarily by birth rates falling below replacement levels. The U.S. population is aging, although more gradually than the populations of Europe and Japan (Dalton et al., 2003). As the large baby-boom generation, which accounts for 38% of the adult U.S. population, continues to age and live longer than any generation before it, the median age in the United States will climb (Mitchell, 2000). In 1990, the median age in the United States was 32.9 years. By 2010, the median age will be 37.2 years and the median age of the workforce will be 40.6 years (Dalton et al.). In the next 20 years, the older adult population in the United States will nearly double from 40 million today to 77 million (Pinsonault, 2003). By 2010, life expectancy will reach 76 years for men and 86 years for women (Sussman, 2000).

**As people live longer, the incidence of chronic illnesses, including cancer, will rise dramatically.** By 2010, an estimated 40% of Americans will suffer from some type of chronic disease, and another 40% will have more than one condition (Sussman, 2000). Because 76% of all cancers are diagnosed at age 55 or older (American Cancer Society [ACS], 2004), the incidence of cancer in the United States will rise steadily with increasing life expectancy. Healthcare professionals who specialize in gerontology and conditions associated with aging, including cancer, will continue to be in demand. However, a shortage of such workers is on the horizon.

The aging of the baby boomers is expected to place a large burden on current social institutions, such as social security and, in particular, the healthcare system. The evolving nursing shortage is one of the first indications of this strain, as nurses age along with the rest of the population and younger workers are not available to replace those who retire. Trends in ONS demographics clearly illustrate this problem. For example, 10 years ago, 53% of ONS members were younger than 40 years of age and only 15% were older than 50. Today, only 30% of ONS members are younger than age 40 and 32% are older than age 50.

**Baby boomers are redefining old age.** The baby-boom generation has transformed American culture in multiple ways and continues this transformation by redefining "old age" and all that has traditionally been associated with it. Industries and companies that traditionally have focused on youth have begun to seek customers outside the usual market of those aged 18–34 (Wellner, 2003). Companies and organizations, including associations, will have to establish brands that attract older consumers without alienating younger ones and market across generations. Smart marketers will create an image of an ageless society where people define themselves more by the activities in which they are involved rather than their age.

**Second, third, and even fourth careers within a lifetime could become the norm** (Cetron & Davies, 2003b). People will cycle in and out of activities based on their interests, not their age (Wellner, 2003). This will apply to careers as well as other interests. Midlife changes in occupations will become common. Baby boomers always have been committed to self-improvement and learning. Many even will enter new careers when they are past the traditional retirement age. ONS must continue to focus on the “over 35” demographic, because nursing is often a second career that is entered in the third and fourth decades of life.

**Baby boomers will redefine traditional retirement.** According to a survey conducted by AARP, 7 out of 10 workers aged 45 and older expect to work beyond their retirement years (Dalton et al., 2003). Some people may postpone true retirement until very late in life (Cetron & Davies, 2003b), and some will be motivated to remain in the workforce for financial reasons, fearing that social security will not be able to support them. This fear may be realistic because generation X, which succeeded the baby boomers, is 35% smaller, and generation Y, which is almost as large as the baby-boom generation, will not be in its peak earning years when most baby boomers need support. Other baby boomers may fear that they will outlive their personal retirement funds. However, many baby boomers will remain in the workforce because of a desire to stay active and connected to their professions. A new state of “revolving retirement” may be created as people drop in and out of the workforce (Cetron & Davies, 2003b). Associations are in a prime position to provide the “connection” that these older professionals will seek, even when they are not actively engaged in the workforce (Dalton et al.).

**Generations X and Y are independent, entrepreneurial, and likely to be self-employed.** Generation X, the small generation that followed the baby-boom generation, is composed of individuals born from 1965–1976 and currently are entering their peak earning years. This generation is well educated, media savvy, comfortable with technology, and self-reliant. Motivated by financial rewards, with little loyalty to institutions, this generation is entrepreneurial and even more likely to have multiple careers in a lifetime than the baby boomers (Cetron & Davies, 2003a; Dalton et al., 2003; Mitchell, 2000). Many will prefer self-employment to working for others, especially when traditional institutions are involved. Generation X currently accounts for 22% of the U.S. adult population (Mitchell).

The baby-boom echo, or generation Y, born from 1977–1994, is almost as large as the baby-boom generation and comprises 26% of the current U.S. population (Mitchell, 2000). As children of the baby boomers, members of generation Y tend to hold similar values. They are socially conscious, civic minded, and altruistic. They are the first truly “high-tech” generation and are comfortable getting, using, and sharing information that is visual, fast paced, and conceptual (Dalton et al., 2003). Members of generation Y, like their baby-boomer parents, are likely to seek involvement in professional associations. However, they may prefer more high-tech and multimedia methods of engagement.

**A hallmark of generations X and Y is diversity of all types.** The United States will experience a long-term shift in the ethnic makeup of the population over the next several decades. Currently, younger generations are much more het-

erogeneous than the generations whose members are older than 40 (Dalton et al., 2003). By 2025, the term minority as it is currently used will be virtually obsolete. The current Caucasian, non-Hispanic segment of the population (73%) will fall to 60%. The Asian and Hispanic segments of the U.S. population will double because of immigration and higher birth rates (Wellner, 2003).

**Striking differences exist in the rate at which various regions of the United States are becoming diverse.** Regions that currently are diverse will continue to become more diverse, and those that currently lack diversity are expected to remain unchanged over the next decade. For example, the non-Hispanic Caucasian population of California declined from 57% in 1990 to 48% in 2000 and will continue to decline annually by about 1.2%. Conversely, Maine’s Caucasian population that was 98% of the total in 1990 is projected to be 97% of the total in 2005. The same disparity in age diversity also exists, with regional populations having the greatest racial diversity also being younger on average than the regional populations with greater Caucasian representation. Religious diversity, also on the rise, is greatest in areas where there is other diversity (Orndoff, 2003).

---

**L**ike the for-profit sector of the country, ONS and its affiliates must learn to market to a consumer base that will include a patchwork of racial, ethnic, and generational identities.

---

Like the for-profit sector of the country, ONS and its affiliates must learn to market to a consumer base that will include a patchwork of racial, ethnic, and generational identities. While focusing on recruiting younger members, ONS also must keep in mind the importance that lifelong learning and maintaining professional connections hold for older members. Strategies to recruit increasingly diverse younger members also will need to be developed. Understanding the differences in consumers’ cultural identities will make the difference between failure and success (Wellner, 2003).

## Societal

**Advances in technology continue to dominate society,** and both technologic competence and dependence on technology are increasing. Computers have become part of our environment rather than just tools we use for specific tasks. For a good career in almost any field, computer competence has become mandatory. In 2005, computer competence will approach 100% in U.S. urban areas (Cetron & Davies, 2003a). The rate at which transactions can be completed and data are available has led to rising consumer expectations for speed, quality, and service (Dalton et al., 2003).

**Cultural clashes, accelerated by globalization, threaten our security.** Universal connectivity through technology has accelerated globalization, which continues to create cultural clashes that governments must learn to solve (Coles, 2003). The forces of cultural modernization, accelerated by economic globalization and the rapidly spreading wireless telecommunications infrastructure, are likely to marginalize the world’s traditional cultures before the century is over. Because these forces are so powerful, the defenders of traditional culture

have resorted to terrorism to preserve their way of life (Snyder, 2004).

This ongoing cultural conflict is likely to continue. However, the possibility of future terrorist assaults is not likely to alter the way that Americans live or make daily decisions. Studies reveal that Israeli citizens have not altered their daily routines of life as the result of terrorist acts because they view these acts as random events for which no precautions can prepare them (Snyder, 2004). The same may be said for ONS members. Although the Institutes of Learning that immediately followed September 11, 2001, was poorly attended, the spring 2002 ONS Congress was the best attended in the Society's history. The venue of Washington, DC, in a year when patriotism was at its peak in America, may have provided an additional draw to the conference. Since that time, thousands of conference attendees and hundreds of ONS and affiliated corporations' volunteers have traveled to numerous meetings, undaunted by the inconvenience of enhanced security measures.

**The growth of the information industry has created a knowledge-dependent global society** (Cetron & Davies, 2003a). The development of new knowledge has become exponential. All of the technical knowledge with which we work today will represent only 1% of the knowledge that will be available in 2050. Medical knowledge is doubling every eight years. Half of what students learn in their freshman year about the cutting edge of science and technology is obsolete, revised, or taken for granted by their senior year (Cetron & Davies, 2003b). In this knowledge age, lifelong learning is paramount to success, and Americans are spending more time in school than ever before. Today, approximately 26% of adults have a college degree, compared with about 3% in 1900 (Dalton et al., 2003). The rapid development of new knowledge requires not only increased academic education but also ongoing education for workers to maintain competence. Workers and management must embrace the trend toward lifelong learning because it will become a significant part of work at all levels (Snyder, 2004).

---

**T**he role of professional associations is vital in providing cutting-edge, specialized continuing education as well as support for the various specialty and subspecialty areas of practice in a profession.

---

For many professions, the size of the body of knowledge precludes expertise across all specialty and subspecialty areas, causing professionals to select very specific areas in which to work. The role of professional associations is vital in providing cutting-edge, specialized continuing education (CE) as well as support for the various specialty and subspecialty areas of practice in a profession. Although general medical oncology continues to be the specialty practiced by the majority (70%) of ONS members, about a quarter of the membership belongs to at least one special interest group (SIG) and another 1,000 members participate in focus groups. Support for nurses in these well-defined subspecialty areas of practice and focused education may be vital to ONS maintaining this

segment of the membership on a long-term basis. ONCC has begun to explore the development of psychometrically sound and cost-effective methods of awarding subspecialty credentials to oncology nurses.

**The health and wellness movement, initiated by baby boomers in the United States, will continue to grow.** Lifelong learning is just one aspect of "remaining young" that the baby boomers have embraced. The health and wellness movement in the United States continues to flourish. Insurance companies that reduce premiums for policyholders with healthy lifestyles have fueled emphasis on preventive medicine. Smoking and the consumption of distilled liquor are declining in the United States, and the companies that sell these products will increasingly target markets in developing countries. As the health of America improves, healthcare costs should decline. Diet, fitness, stress-control, and cosmetic-enhancement industries will prosper (Cetron & Davies, 2003a). ONS promotes healthy lifestyles among its employees through several policies and activities, such as the availability of on-site massages and annual influenza vaccinations.

**The value of personal time is increasing.** Workers in the United States spend about 10% more time on the job than they did a decade ago (Cetron & Davies, 2003b). American families collectively also are spending more time at work. With mothers working in approximately 61% of families, parents together work about 81 hours per week in the United States (Dalton et al., 2003). This leaves little time for other activities, and the need for balance between work and leisure is greater than ever before. Leisure time has become a valued commodity, and consumers believe that they deserve whatever time savers and luxuries they can afford. More consumers are shopping virtually and making purchases online to allow more time for themselves and family. In a recent survey of the ONS membership, lack of time is cited as the primary reason for not joining a local chapter or SIG and not volunteering on the national level. As volunteer organizations, ONS and its affiliates need to continue to offer members ways to be involved and engaged that do not unduly interfere with personal and family time. Alternative ways of offering CE and other products, as well as virtual meetings using Web and conference call technology, should be implemented. The ONS e-Source should continue to expand, providing online registration and purchasing for all products and activities.

**The public is beginning to demand greater accountability and transparency in both the private and public sectors.** The recent wave of exposures of corporate malfeasance at Enron, Tyco, WorldCom, and others has accelerated the global movement toward greater transparency. These recent exposures, along with the controversy of child abuse in the Catholic church, have caused society to assign less weight to the guidance of their institutions and leaders and become more self-regulating (Snyder, 2004). Inspiring trust through transparency in all operations and accountability by all leaders must become priorities for all associations and related organizations. ONS and its affiliates must remain diligent in providing information to members and other stakeholders that will help them understand organizational processes as well as the rationale for decisions that are made. ONCC recently was in a position of explaining the rationale for discontinuing the AOCN® examination, which had been administered for almost a decade, and replacing it with two new role-specific advanced practice certification examinations. Patience, diligence, and

consistency of communication are required. More about this trend is discussed in the Business Trends and Government and Regulation Trends sections of this report.

---

**O**NS and its affiliates must remain diligent in providing information to members and other stakeholders that will help them understand organizational processes as well as the rationale for decisions that are made.

---

**Cheating among students is on the rise.** The erosion of ethical behavior also has filtered to the individual youth of our country as cheating in academic institutions is on the rise. Fifty years ago, 25% of high school students admitted to cheating; today, 75%–98% of students admit to cheating in some form. More than 50% admit to plagiarism (Kleiner & Lord, 1999). Cheating on standardized tests is also on the rise, aided by today's technology. Testing companies have begun to develop high-tech countermeasures for cheating, such as biometric scans (Kleiner & Lord). The required implementation of these measures has serious financial implications for professional certification organizations.

## Work and Workforce

**Like the consumer market, the workforce has become multigenerational and increasingly diverse in every way.** With the baby boomers remaining in the workforce beyond the traditional retirement age, generation X entering its peak earning years, and generation Y entering the workforce in large numbers, employers must understand the values and motivations of each age group to attract and retain experienced and younger workers. Baby boomers are known to have the greatest institutional loyalty, though to a lesser degree than their parents of the World War II generation. However, as baby boomers approach and surpass the traditional retirement age, their commitment to learning and self-actualization will cause them to seek new opportunities and perhaps begin new careers that are less stressful and more fulfilling. They may leave and reenter the workplace several times during their "periretirement" years.

Generations X and Y are spending more time in school and entering the workforce in later years than did the baby boomers. For them, work is a means to the lifestyle they desire. They are not motivated by job security but rather seek social mobility and job fulfillment. Members of generations X and Y thrive on challenge, opportunity, and training. Lifelong learning is a way of life (Cetron & Davies, 2003b; Dalton et al., 2003). Employers who want to attract and retain the best of these generations must provide ongoing cutting-edge training as a benefit. Because of the accelerating turnover in knowledge, employers will be best served in the near future by hiring employees with superior problem-solving and critical-thinking skills as well as a commitment to learning rather than seeking employees for the specific skills they possess, because these skills may rapidly become obsolete.

With little loyalty to institutions, generation Xers are self-reliant and entrepreneurial. Many would rather start their own business than advance in the corporate ranks. Approximately

10% currently are trying to start their own businesses, which is three times as many as in previous generations. Estimates from the Bureau of Labor Statistics and Forecasting International indicate that 10.2–12 million people will be self-employed by 2006 (Cetron & Davies, 2003b). Since the 1970s, small businesses have accounted for nearly all new jobs created, and by 2005, 80% of the labor force will be working for companies that employ fewer than 200 people (Cetron & Davies, 2003b). To benefit from the expertise of talented members of generation X, associations soon may need to consider contracting with these small entrepreneurial firms for some services currently provided by traditional employees.

Gender diversity also continues to grow in the workplace, as women become more educated and move into industries and roles previously dominated by men. At the same time, men are moving into occupations that traditionally have been filled by women, such as nursing. From 1979–1999, the number of women earning four-year college degrees increased by 44%, whereas the number of men receiving four-year degrees declined (Cetron & Davies, 2003b; Cole et al., 2003). Of current college students, 57% are women. This percentage is even higher among minority groups, with 60% of Hispanic and two-thirds of African American college students being women (Cetron & Davies, 2003a). Although women's salaries are currently only 78% of men's, in 30.7% of households where both the husband and wife work, the wife's earnings exceeded the husband's (Tyre & McGinn, 2003).

**Two-income families have become the norm.** With more and more women entering the workforce, the percentage of two-income couples has increased dramatically. By 2005, both partners will work full-time in 75% of households, up from 63% in 1992 (Cetron & Davies, 2003b). Dual-income families enable the two partners to cycle in and out of the workforce and take sabbaticals to train for career changes. This trend toward two working partners will increase the demand for flexible scheduling, on-site child care, extended parental leave, and other family-oriented benefits (Cetron & Davies, 2003a).

Telework, made possible as a productive alternative to on-site work by Internet technology, has dramatically improved scheduling flexibility for American workers as well as decreased costs for employers. Currently, 28 million workers telework under formal company policies, an increase from four million in 1990. By 2010, more than half of American workers will spend more than two days a week working outside of the office (Cole et al., 2003). The results of a survey conducted by the International Telework Association and Council indicated that most telecommuters work longer hours than they would in the office and do not think that their work interferes with their home lives (Dalton et al., 2003). The option of telework has enabled ONS and its affiliates to hire employees who are unable or do not wish to relocate to the Pittsburgh area. It also has offered a flexible alternative to local employees on both a part-time and full-time basis. ONS should continue to enhance and expand this option, requiring those who telework more than one day a week to share office space with other teleworkers.

Flexible in-office work schedules also are becoming a necessity to accommodate working parents. However, relatively few American workers currently control their work hours. The percentage of full-time workers with flexible schedules has increased only slightly in recent years, from 27.7% in 1997 to 28.8% in 2001. Flexibility also is unevenly distributed, with

fewer lower-paid workers being able to set their work hours (Dalton et al., 2003). Associations may be able to offer flexible work hours as a benefit and recruiting tool, enabling them to compete with the for-profit sector, which may not be able to offer the same flexibility. ONS currently offers some flexibility in work hours, within specific parameters, and should consider ways that this may be expanded.

**A labor shortage will occur within the next decade.** Although the current unemployment rate in the United States is near 6%, the convergence of several demographic factors soon will cause a dramatic labor shortage. In less than seven years, nearly 168 million jobs will exist in the U.S. economy but only about 158 million people in the labor market to fill them—a shortfall of 10 million workers, the U.S. Bureau of Labor Statistics estimated (Challenger, 2003). Many industries, such as nursing, manufacturing, technology, and construction, already are affected. Shortages in these areas exist because of an aging workforce and a lack of workers in the younger generations to replace those who are retiring. The baby boomers that remain in the workforce beyond the traditional retirement age are unlikely to continue to work in some of these physically demanding professions and, instead, will seek new career opportunities (Challenger).

Another factor contributing to the labor shortage is a current skills gap among younger workers that is predicted to worsen. As technology development grows, so does society's dependence on technology and the number of jobs in these areas. However, the number of students majoring in the fields of science, math, and computer applications has decreased in the United States. Consequently, the lack of skilled workers in the United States has led companies to outsource to other countries. To prepare for this impending labor crisis, employers should begin to determine where they are most vulnerable; find ways to keep older, experienced workers; and invest in school-to-work mentoring programs (Challenger, 2003).

## Science and Technology

**We continue to gain knowledge of life at the molecular level.** The Human Genome Project, concluded in April 2003, represented a great breakthrough in providing a foundation for making genetic discoveries. Researchers at the National Human Genome Research Institute (NHGRI) are working on projects that will chart genetic variations within the human genome and develop efficient ways of identifying and locating all genes within the human DNA sequence (NHGRI, 2004). According to a report developed by PriceWaterhouseCoopers (1999), 20–30 revolutionary treatments and drugs will emerge from genomics. Individuals will know more about their genetic profiles, allowing better prescriptive decisions tailored to the individual patient. Ethical and moral issues surrounding genetic mapping will continue to plague society.

Genetic mapping, coupled with technology, will pave new roads in science, including nanotechnology, genetically altered animals, more advanced digital imaging devices, the use of biomaterials, and tissue regeneration (i.e., tissue implants). Nanotechnology, which involves the creation of materials and devices through the manipulation of matter on a miniscule scale, is believed to play a pivotal role in the development of new diagnostics and therapeutics (National Cancer Institute [NCI], 2004). Through its Cancer Nanotechnology Plan, NCI ultimately will create a laboratory to facilitate the development

of nanotechnology. The use of this technology shows promise in the prevention and control of cancer, early detection, imaging diagnostics, and therapeutics (i.e., “smart” drugs).

---

**G**enetic mapping, coupled with technology, will pave new roads in science, including nanotechnology, genetically altered animals, more advanced digital imaging devices, the use of biomaterials, and tissue regeneration.

---

The biotech industry is booming, generating revenues of \$33.6 billion in 2002 (McGarvey, 2004). The marketplace is embracing biotechnology, as evidenced by venture capital trends.

ONS supports the specialty of genetics through its position statement and educates through the use of workshops and publications. Biotech companies and molecular device companies are increasingly supportive of the organization as they develop new products in the area of oncology and begin to recognize the value of oncology nurses. The biotech industry will drive the need for newer educational and business development strategies. Would the start of a biotherapy professional nursing society draw members away from ONS? The answer to this question remains unknown.

**The average citizen has increased access to information.** Currently, 73% of adults in the United States (156 million) are online, up from 63% in late 2003 (Harris Interactive Inc., 2004). Younger and affluent individuals tend to use the Internet more than individuals who are older and have lower incomes. Seven percent of individuals online are older than 65.

The Internet plays an important role in everyday life for the average American. Eighty-eight percent of Americans online say that they use the Internet to conduct some portion of their daily activities, and 64% of online users' daily activities would be affected if they could not use the Internet (Fallows, 2004).

Of current Internet users, 44% have broadband access as compared to 22% in 2002 (Harris Interactive Inc., 2004). In the future, households will have six different options of broadband service from which to choose: cable, digital subscriber line, satellite, fiber, power line, and wireless. Approximately 28% of American adults already use wireless connections (Horrigan, 2004).

Instant messaging also has changed access to information. Approximately 53 million American adults use instant messaging. Of those, 11 million use it at work (Shiu & Lenhart, 2004).

Optimists predict that, in the future, wireless Internet will become as common as a cellular phone connection. Street access to the Internet already is available on New York City sidewalks via Web phones offering Internet connections.

Consumers are using the Internet to access a wide variety of information, including healthcare information. More than five million seniors (aged 65 and older) currently use the Internet to access health information (“Seniors Turning,” 2004). The use of personal digital assistants (PDAs) in the nursing environment has increased greatly, especially among advanced practice nurses (Rempher, Lasome, & Lasome, 2003).

---

## The use of personal digital assistant technology could boom in the nursing market, particularly among advanced practice nurses.

---

ONS members aged 25–34 are most aware of the ONS Web site as compared to any other age group, yet ONS journals are the most valued ONS benefit within all age groups. Overall, the ONS Web site is the sixth most valued ONS activity or service. ONS Web site usage has increased consistently, averaging more than 2.4 million hits and 150,000 user sessions per month. ONS also has responded to the need for members to remain connected to their home and work e-mail by offering free e-mail kiosks at national meetings.

ONS also is collaborating with a company to offer access to oncology-specific content through PDA technology. The use of PDA technology could boom in the nursing market, particularly among advanced practice nurses. ONS has not conducted thorough needs assessments to determine unique ways to support this member need.

**Sensor and network technologies are expanding monitoring and data collection throughout society.** Collecting and monitoring data are much easier with the use of embedded technology, such as sensors contained within various devices. These data may be used to provide more personalized and individualized services to customers. However, the ethics of what data are collected and how they will be used need to be examined. Limits need to be set regarding what data are shared. For example, in 1999, Amazon.com employed an online marketing tool that revealed what customers from well-known corporations were buying and reading (Rothfeder, 2004). This information was shared with the public through book reviews. Those who read a review would see that employees from Microsoft, for example, were reading a particular book. It is important that businesses and organizations use customer data in an ethical and legal way to maintain customer trust and loyalty.

With privacy being a concern to the general public, ONS currently is developing confidentiality policies regarding the ONS database. Careful consideration must be given to decisions regarding the appropriate collection and monitoring of data, especially when using customer preferences to sell additional products and services.

**Technology is creating new ways for people to communicate and associate.** With 65% of the U.S. adult population having access to the Internet at home, millions of Americans are engaging in unique ways of communicating with ease. For example, chat rooms, blogs, discussion forums, and e-mail listservs are ways that bring new meaning to interpersonal communication. As of September 11, 2004, L-Soft, a company operating a large listserv database, has cataloged 71,634 public lists, representing only 19% of all listserv lists (305,253) (L-Soft International, Inc., 2004).

Nearly 600 people remain connected professionally through 20 different discussion forums available on the ONS Web site. ONS should continue to monitor ONS member needs regarding new technologies and Web site trends.

**People are beginning to question the value and utility of always being connected.** Technology and the new connectivity it affords have begun to blur the conventional boundaries

between work and home. E-mail, cellular phones, and laptop computers enable people to work virtually anywhere, anytime. Cellular phones have TV broadcast technology built into the device. This constant accessibility means that it is more difficult for most people to distinguish when they are off or on the clock (Jackson, 2002).

The convenience of always being connected brings a loss of privacy and a new wave of crime. The new face of cyber crime has moved from hacker vandals to professional hackers who aim for profit (Hallam-Baker, 2004). Because of newer technology that keeps employees connected to the ONS network, ONS is able to offer full- and part-time telecommuting opportunities to its employees. E-commerce connects members to the organization 24 hours a day, allowing them to order products essential to their practice at their convenience. ONS must continue to monitor privacy laws regarding Internet use and update policies as appropriate. Nondues revenue projects such as e-mail protection services should be considered.

## Economic

**Uncertain economic conditions continue to be of concern.** Uncertain economic conditions continue to plague the United States and the global market, despite economic forecasters' predictions of economic rebound over the next year (Miller, 2004). The dramatic increase in energy prices has affected inflation rates and spending habits (Global Province, 2004; Miller). Inflation has risen sharply to an average annual rate of 5.5%, and interest rates began to rise for the first time in four years (Miller). The stock market continues to slump because of high oil prices and concerns about terrorism (Despeignes, 2004). Consumer spending on "real consumer purchases" slowed as more out-of-pocket money goes to higher gas prices (Cooper & Madigan, 2004).

The Consumer Price Index increased 4.1% during the first seven months of 2004 as compared to a 1.9% increase in 2003. Petroleum costs increased at a rate of 44.5% annually (U.S. Department of Labor, Bureau of Labor Statistics, 2004a) and can be expected to top at a record high of \$50 per barrel (Reed, 2004).

The housing market accelerated because of low interest rates and increased home values. New home production reached levels not met in decades (U.S. Department of Housing and Urban Development, 2004). Sales prices for existing homes increased 7.3% in 2004. Economists predict that the Federal Reserve will raise interest rates to prevent a sharp decline in prices, causing further threat to economic recovery (Miller, 2004).

ONS and its affiliate corporations are not immune to the stock market slump. Investment losses over the past few years are not uncommon as boards determine ways to protect future interests. Although the housing market has been seeing positive results, ONS continues to search for a tenant to rent vacant space within its own building.

Rising costs, particularly energy costs, will affect the organization if ONS members choose not to travel to meetings because of higher airfares and gas prices. Despite economic conditions, ONS should continue to develop strategies that move the organization forward. Such strategies, however, should be examined carefully for long-term benefit versus risk. Savvy investment strategies must be employed, and alternate methods of educating and bringing members together

using technology such as Web conferences should be used to a greater degree.

More than 8.2 million Americans were unemployed as of July 2004, and the unemployment rate remains relatively unchanged at 5.5% (U.S. Department of Labor, Bureau of Labor Statistics, 2004b). Another 1.1 million people are not working because of school or family responsibilities. Unemployment is not a problem in the nursing market because the nursing shortage is expected to continue. However, workforce issues that have resulted from the shortage, such as mandatory overtime and unsafe conditions for patients, continue to be of great concern to nurses. According to the 2004 ONS Member Survey, workforce issues are the second-most important issue facing cancer care today.

---

**A**ccording to the 2004 ONS Member Survey, workforce issues are the second-most important issue facing cancer care today.

---

ONS has been active in legislative and educational strategies aimed at the nursing shortage and must continue to do so. While associations have suffered layoffs and unemployment issues, ONS has been fortunate to remain stable in this area, maintaining the ability to retain employees and hire new staff as needed. In looking to the future, ONS needs to carefully consider internal processes and procedures to ensure that they are the most efficient and cost conscious, and it must continue to examine and make decisions to proceed with projects that are fiscally responsible while meeting the ONS mission and vision.

**Income inequality continues to be an issue in the United States.** Income inequality has been a long-term trend since 1969 and can be attributed to historic unequal wage gains for top-line workers and losses for bottom-line workers (U.S. Census Bureau, 2004a). Income inequality, most commonly measured by the Gini Index, did not change from 2002–2003. According to the same report, the female-to-male earnings ratio for full-time, year-round workers declined for the first time since 1998–1999. Although the median income for men increased 0.8%, the median income for women decreased by 0.6%.

The official poverty rate, defined as annual earnings of \$18,810 or less for a family of four and \$14,680 or less for a family of three, rose from 12.1% in 2002 to 12.5% in 2003. The number of people in poverty increased by 1.3 million, to a total of 35.9 million in 2003. Poverty rates for people aged 18–64 and those 65 and older remain unchanged. From 2002–2003, Hispanics experienced a decrease in median income, Asians demonstrated increased poverty, and non-Hispanic Caucasians had declines in healthcare coverage.

Average annual earnings for RNs, including clinical nurse specialists (CNSs) and nurse practitioners (NPs), demonstrated a steady increase from 1992–2000 (American Nurses Association, 2003). More recent statistics were not available at the time that this report was written.

ONS has not experienced large membership declines because of income issues. The average ONS member salary is \$50,000 (ONS, 2004a). ONS should continue to offer membership as an added value for the dollar and continue offering an attractive membership benefits package.

**Rising healthcare costs are challenging all employers, including local, state, and federal governments.** Healthcare costs and the number of people without insurance continue to rise. Businesses are paying more for health care than ever before, at an average annual cost of more than \$6,200 per employee in 2003 (Porter & Teisberg, 2004). Double-digit increases are expected to continue. Towers Perrin Publications (2004) predicted that employers will notice an 8% increase in healthcare costs in 2005, with an average monthly cost representing an average annual increase of \$582 per employee.

According to the U.S. Census Bureau (2004b), an estimated 15.6% of the population (45 million people) was without health insurance coverage in 2003, up from 15.2% (43.6 million people) in 2002. The percentage of people covered by employment-based health insurance fell from 61.3% to 60.4% in 2002–2003.

In 2002, the Centers for Medicare and Medicaid Services (CMS) projected that national health spending will reach \$3.4 trillion, or 18.4% of the gross domestic product, in 2013. These figures represent an annual growth rate of 7.3% from 2002–2013. CMS reported that health spending would begin to slow in 2003 because of decreases in public spending (Medicare and Medicaid) and private health insurance spending.

Although prescription drug spending will decrease, CMS (2002) predicted that it will continue to be the fastest growing healthcare sector, with growth rates at 13.4% in 2003. Key drivers that will affect prescription drug spending from 2003–2013 include patent expirations, slower growth in drug prices, and multitiered copayments. The use of tiered prescription plans was mentioned in the 2002 ONS Environmental Scan (Mafra et al., 2002) and was linked to a decrease in out-of-pocket costs (Heffler et al., 2001). However, out-of-pocket spending is predicted to increase over the next decade because of increased employer and employee cost sharing. The key driver in growth of healthcare spending is predicted to change from prescription drugs to hospital spending.

The cost of prescription drugs is a source of ongoing debate within the United States. In the public media, rising drug costs are often blamed for rising healthcare costs. However, according to the Pharmaceutical Research and Manufacturers of America (PhRMA, 2004b), every additional dollar spent on new drugs saves \$4.44 on hospitalizations. The debate will continue as all issues and options are explored. The Medicare Prescription Drug, Improvement, and Modernization Act (MMA) affects future reimbursement of oncology-related benefits and services. More information about this law and future implications can be found in the Government and Regulation section of this report.

ONS has firsthand experience with rising healthcare costs, both to the organization and the employee. For 2004–2005, ONS is faced with a 21% premium increase to maintain the current level of coverage for its employees. Health insurance costs to employees and employers inevitably will continue to increase. ONS needs to identify innovative budget strategies, as well as include an inventory of all organizational benefits, to determine which should be continued and which should be eliminated or decreased.

## Business

**Firms are rethinking their business models more frequently as they strive to compete and grow.** Business has undergone significant change during the past few years as a



result of tough economic times. Mergers and acquisitions are commonplace as companies look for ways to cut costs while looking toward future growth. Mergers and acquisitions are not uncommon to the pharmaceutical industry. As reported in the 2002 ONS Environmental Scan (Mafra et al., 2002), heavy mergers and acquisitions will continue to occur in an attempt to meet changing customer needs.

Although ONS has no current plans to engage in mergers and acquisitions, the organization and its affiliate corporations closely monitor business models that, if implemented, potentially could save the organization money. ONS regularly examines its internal processes as a way of improving productivity, efficiency, and quality. An organization such as ONS, with its rich history and staff loyalty, may overlook more efficient and cost-saving ways to conduct day-to-day tasks and functions. ONS also has experienced the positive and negative aspects of pharmaceutical company mergers because approximately 25% of the ONS revenue stream is from corporate support, mainly pharmaceutical companies. Changes in the funding procurement process, such as the way in which requests are processed, increased length of time for approval, and increased staff time in securing funding, have affected ONS.

---

**T**o remain viable, ONS must continue to rethink the way it conducts business. Ways to cut costs, while delivering valuable services to members, must be established.

---

To remain viable, ONS must continue to rethink the way it conducts business. Ways to cut costs, while delivering valuable services to members, must be established. ONS must continue to support the business development process, exploring ways to meet the ever-changing and complex requirements of corporate supporters.

**Businesses are pressured for greater transparency.** As noted previously in the Societal Trends section, the fall of Enron and others turned the business world upside down and set the stage for greater transparency, including the enactment of the Sarbanes-Oxley Act of 2002. Details of the provisions of this act can be found in the Government and Regulation section. Recent business scandals are placing emphasis on executive conduct and organizational standards and practices. According to the 2003 National Business Ethics Survey (Ethics Resource Center, 2003), employees viewed ethics in their organizations more positively in 2003 as compared to 2000 and indicated that honesty and respect are practiced more frequently in their organizations. The survey also reported that ethics programs make a difference and are associated with higher levels of perception that employees are held accountable for ethics violations. Of note was the finding that smaller organizations (i.e., less than 500 employees) were less likely to have key elements of an ethics program in place than larger organizations.

Research regarding pharmaceutical companies' ethics reputations (RRC Rating Research LLC, 2003) revealed that ethical behavior was the second-most important factor governing how companies are perceived (Gasorek, 2003). Industry executives participating in the survey identified 12 ethical

reputation components ranging from being trustworthy to treating employees fairly. On average, the industry functions at a high- to medium-quality ethics reputation.

Healthcare professional CE is not immune to conflict of interest issues. In April 2003, the Accreditation Council for Continuing Medical Education (ACCME, 2004) adopted updated guidelines mandating providers to resolve conflicts of interest to those in a position to control the content of the educational activity. The need for this change stems from an increased prevalence of financial relationships with commercial interests. A small task force currently is convening to investigate recent ACCME changes and possible implications for ONS.

Dealing with ethical issues and conflict of interest was a key initiative for ONS and its affiliate corporations during 2003–2004. The ONS President's Council convened to discuss the global issue of ethics and conflict of interest under the facilitation of an ethics expert. The need for the President's Council Conflict of Interest Task Force unfolded as the ONS Board and the boards of its affiliate corporations began to engage in discussions related to complex conflicts of interest, such as the issue of having representatives of corporate funders (member and nonmember) sit on boards. Outcomes from this task force include revisions to the conflict of interest policies and education among the leadership. The ethics expert who provided consultation is now a member of the ONS Board of Directors.

ONS will need to continue exploring and discussing conflict of interest and governance policies, being flexible to necessary revisions and the resulting implications. ONS also needs to fully investigate and set policies in a proactive manner regarding recent ACCME changes.

**Business is changing to be part of the solution, not part of the problem.** Recent business scandals mentioned previously prompted corporate reform and the passing of the Sarbanes-Oxley Act. Businesses and healthcare institutions now are hiring corporate compliance officers (CCOs) to oversee corporate compliance programs. According to a survey, CCO positions were one of the 10 "hot jobs" of 2004 (Christian & Timbers' Hot Jobs for 2004, 2004).

In addition to Sarbanes-Oxley, other regulatory agencies, including the Office of the Inspector General (OIG), have instituted laws surrounding compliance and privacy issues. The Health Insurance Portability and Accountability Act of 1996 and the PhRMA Code on Interactions with Healthcare Professionals (PhRMA, 2004a) have set the stage for organizational changes in business practice.

The pharmaceutical industry has undergone significant change with the adoption of OIG's (2003) Compliance Program Guidance for Pharmaceutical Manufacturers. The new guidelines require a separation between promotional and continuing medical education (CME) activities. This has caused quite a stir in the industry because of the various interpretations of the guidelines. The industry began to shift money from promotional activities to educational activities. In turn, ACCME, the governing body providing voluntary accreditation to CME providers, updated standards to ensure that CME activities remain independent and free of commercial bias.

The new guidelines have affected ONS directly and indirectly. ONS (2003b) revised its policies and position on corporate support based on its interpretation of the ACCME and PhRMA guidelines. These safeguards allow ONS to continue to provide high-quality educational opportunities

that are underwritten through corporate support yet free of promotional influence. Interestingly, the American Nurses Credentialing Centers (ANCC) Commission on Accreditation, the governing body that accredits ONS as both an approver and provider of CE in nursing, has not changed its standards in tandem with ACCME.

---

## ONS has experienced changes in securing grant funding from the pharmaceutical industry.

---

ONS has experienced changes in securing grant funding from the pharmaceutical industry. These changes include increased and detailed industry paperwork regarding the nature of the funding request, delayed grant funding approvals because of internal routing procedures, and increased staff time required to secure funding. Many times, funding requests undergo multiple changes before the approval is granted. In addition, pharmaceutical companies want to ensure that they fund programs that attract the right target audience that meets their overall needs. They no longer are looking for company exposure but rather to interact with key constituents who can either recommend or administer their products. ONS and its affiliates are being asked, with much greater frequency, to include detailed needs assessment information about reaching a particular group of nurses, such as oncology nurses who administer targeted therapies in the outpatient setting. With the current demographic database, it is difficult to provide companies with this information that, in turn, is necessary in securing educational program funding.

Although ONS and its affiliates do not target the physician audience when providing CE, the industry will continue to hold them to PhRMA and ACCME guidelines. Thus, ONS must maintain current knowledge regarding the guidelines and make necessary strategic changes even if these changes are not mandated by ANCC. ONS also needs to be aware of the impact that NPs or CNSs may have on industry funding procedures because of prescriptive authority. ONS should look at current member demographics to determine whether they are specific enough or useful in gleaning the information needed in future grant funding requests.

**Organizations are struggling to share what they know internally and acquire what they do not know.** In 2002, U.S. companies spent \$4.5 billion on software and technologies to help employees share what they know (Gilmour, 2003). Because of the large financial commitment, some companies are forced to move the knowledge-sharing initiative to the lower priority list or even cut the initiative altogether as a cost-saving measure, and employees believe that knowledge sharing is deficient (Gilmour). Using organizational knowledge for strategic advantage can prove to be an invaluable resource. According to De Cagna (2004), forward-thinking associations create, share, and leverage knowledge. Knowledge becomes a strategic resource when association staff, members, and stakeholders leverage knowledge in day-to-day work rather than maintain databases that are not linked in a strategic manner. Organizations should create an environment where all stakeholders can collaborate openly.

ONS developed a knowledge management initiative as a way of regularly tracking corporate activity (e.g., mergers,

acquisitions), tracking and sharing sponsorship activity, staying aware of new product developments that affect ONS members, and being prepared for potential turnover in key ONS staff. In addition, greater emphasis has been placed on business development efforts by dedicating significant senior management time in ONS; Oncology Education Services, Inc.; ONCC; and the ONS Foundation. Furthermore, ONS has enhanced the annual corporate support meeting as a way of leveraging not only information given but also information received about corporate supporters' own priorities and activities.

**E-commerce continues to grow.** According to the U.S. Census Bureau (2004c), retail e-commerce sales for the second quarter of 2004 were \$15.7 billion, a 23.1% increase from the second quarter of 2003, whereas retail sales increased only 7.8%. Online retail sales are expected to grow 27% to \$144 billion in 2004, with health and beauty predicted to show the largest increases (Shop.org, 2004). The ability to purchase products and services via the Internet provides convenience to a fast-paced culture that places value on leisure time.

In 2002, ONS launched e-commerce capabilities within its Web site, providing members with the opportunity not only to order ONS publications online but also renew memberships, register for educational meetings, apply for certification examinations, submit documentation for recertification, and purchase ONS Foundation products. Since 2002, more than 11,500 orders have been placed online, with total sales reaching nearly \$1.65 million. Sales in 2004 alone reached more than \$945,000 as compared to \$29,403 in 2002. Membership renewals via e-commerce (in effect in 2003) jumped from 106 in 2003 to 3,145 in 2004. Online certification and recertification applications account for 37% of all such transactions. Of certification candidates, 80% opt to make their testing appointments online rather than by phone.

It is apparent that oncology nurses are increasing their use of and comfort with e-commerce. ONS needs to continue monitoring e-commerce activity within the Web site and develop innovative online initiatives that meet members' needs and attract new members.

**Involve customers in innovation.** Innovation will continue to be a priority for companies through 2006 (Conference Board, 2004). Of 100 companies surveyed, 90% said that innovation already is integrated into their businesses' strategic goals, whereas 60% reported that it is part of their mission or vision statements. The challenge is making innovation part of daily practice. Businesses and nonprofit organizations should develop partnerships with customers by establishing an emotional relationship that results in effective brainstorming (Schweitzer, 2004). Creative thinking leads to innovation, and organizations can begin the cultural shift by conducting an organizational innovation audit. Innovation is not just about ideas—it includes an ebb and flow of knowledge.

As an organization, ONS has implemented a variety of innovative strategies to maintain organizational vitality. Opportunities do exist to "think outside the box" in all areas to develop creative solutions that meet the ONS mission. Creative solutions are dependent on relationships with individuals such as members, with corporate funders, and with companies providing services to ONS. The ability to remain innovative with these groups continues to be of utmost importance to the organization.

**People expect organizations to provide individualized services.** Technology has revolutionized every aspect of American society, from grocery shopping to education. As a result, businesses and marketers are increasingly challenged to find the right way to send the right message to the right person at the right time (Bianco, 2004). Mass marketing is a thing of the past and is being replaced by micromarketing as America becomes a more commercially indulgent society. Technology provides businesses and associations with the ability to collect and track customer- and member-specific information, thus creating various market segments used for customized products and services. Examples include grocery store frequent shopper cards and targeted Web site promotional e-mails.

ONS has been using an allegiance program that segments members based on individual preferences. ONS began to investigate a customized dues menu in 2002 as a way of providing individualized services. ONS needs to explore innovative ways to meet members' needs in a more customized approach.

## Government and Regulation

The costs of government grow with every passing year. However, the government's financial "pie" is limited, and resources continue to shrink in the face of growing demands. The competition for federal funding is extremely stiff, requiring associations and nonprofit organizations to put more resources into advocating for their specific federal priority issues. Many trends are influencing the effects of government and regulation on associations, particularly associations dealing with healthcare issues.

**Greater demands are met with limited resources.** Government is experiencing pressure to do more with shrinking discretionary funds. With a finite pool of funds, more funding allocated to issues such as homeland security and the war in Iraq translates into less funding to support budget appropriations for the NCI, Centers for Disease Control and Prevention (CDC), and the Nurse Reinvestment Act (NRA). Increasing appropriations in these areas are crucial to quality cancer care and the profession of nursing.

---

**A**s appropriations to the National Cancer Institute decrease, ONS will be forced to rely even more heavily on corporate funding sources and fees for services to offset the decrease in federal grants.

---

ONS has a track record of securing educational grants from NCI to conduct educational programs for members. As appropriations to NCI decrease, the amount of grant funding available will shrink considerably. ONS will be forced to rely even more heavily on corporate funding sources and fees for services to offset the decrease in federal grants.

**Government costs continue to rise.** President Bush's budget proposal for fiscal year 2005 restrains spending on most domestic programs while increasing funding for national defense and international aid. The \$2.4 trillion budget focuses on three overriding goals: advancing the war against terrorism, enhancing U.S. security, and strengthening the economy. The 2004 budget deficit is projected to be \$521 billion. The

proposed 2005 budget reflects a deficit of \$364 billion (U.S. Department of State, 2004).

When deficits began to grow 20 years ago, the retirement of the baby-boom generation was a distant worry. Now, as the nation faces years of red ink, the graying population is a fast-approaching reality that will put unprecedented strains on Medicare, social security, and the economy beginning in 2010. At the same time, by committing to years of deficit spending, the government is reducing national savings and putting upward pressure on interest rates, which will limit the ability of Congress to increase taxes, issue bonds, or take other steps to reform massive healthcare and retirement programs, forcing even deeper benefit cuts. Today, social security and Medicare payroll taxes are generating a surplus. By 2008, however, the government will have to start pumping money into Medicare. Even without the new Medicare prescription drug benefit, the Medicare program alone is expected to consume 20% of all revenue by 2026 (Kirchhoff, 2003).

Currently, Medicare and social security are generating surplus trust funds, yet the government is targeting these programs for cuts just when the majority of baby boomers will be retiring in the next five years. In actuality, no money exists in the trust funds. The Treasury Department has been using that money to pay for other government services and issues special government bonds to cover what is taken. In other words, the trillions of dollars that are supposed to be accumulating in the trust funds are, in essence, IOUs, and now the bill is coming due. This problem has been exacerbated by the large tax cuts enacted during the current Bush administration. In the next 25 years, the number of people in retirement programs will increase from 48 million to 84 million people. Without drastic changes, the costs of social security and Medicare will rise substantially (McBride, 2004). ONS must continue its efforts to advocate before Congress for Medicare reform that will neither underpay nor overpay for Medicare services and to prevent proposed cuts in Medicare services from adversely affecting the quality of cancer care to Medicare beneficiaries.

**MMA may affect the timeliness of oncology treatment.** Sorting through the massive provisions and writing the implementation regulations that go with it will absorb a large part of CMS's agenda over the next several years. The central oncology-related policy change contained in the new Medicare law moves the current system of outpatient drug reimbursement from average wholesale price- (AWP-) based reimbursement (until now, Medicare reimbursed outpatient chemotherapy at 95% of AWP) to a system that uses a calculation of average sales price (ASP). In 2004, Medicare reimbursed for covered drugs at a rate of 85% of AWP. In 2005, Medicare moved to ASP plus 6%. In an effort to more appropriately reimburse for currently underpaid practice expenses and oncology nursing services, the bill includes approximately \$500 million for practice expenses. Although this increase in practice expense payments is a step in the right direction, the amount falls short of the funds necessary to ensure access to quality community-based care. Furthermore, the reimbursement for practice expenses decreases to \$460 million starting in 2005, further reducing the resources available to community-based oncology practices.

Of additional concern is that the legislation includes a provision giving physicians the option of obtaining covered drugs

through a third-party vendor. This represents a significant change in the current practice of oncology. ONS has serious concerns that under this new system, timely and convenient administration of treatment to Medicare beneficiaries will be virtually impossible because patients will likely not be able to receive treatment the day it is prescribed, resulting in delay of treatment and patients having to travel multiple times to receive care.

The Medicare bill also addressed reimbursement for cancer care provided in hospital outpatient departments. Among other improvements to the hospital outpatient prospective payment system, sole-source drugs cannot be paid less than 88% in 2004 and no less than 83% in 2005. Comparatively, payments for some single-source cancer drugs were as low as 50%–60% of AWP in 2003 (ONS, 2003a). ONS opposed this cost-cutting legislation because of its detrimental effects on quality cancer care and is working with Congress to try to reopen the bill for technical amendments in 2005.

---

**A**nother ONS priority that is adversely affected by these budget woes is the Nurse Reinvestment Act (NRA). ONS worked with other nursing groups in coalition to get the NRA signed into law.

---

Another ONS priority that is adversely affected by these budget woes is the NRA. ONS worked with other nursing groups in coalition to get the NRA signed into law. Because the NRA is an authorization bill, it gives the government the authority to set up programs to deal with the nursing shortage but it does not provide funding. The funding needs to be sought on an annual basis in the federal budget process. Because of the shrinking federal resources, securing full funding for the NRA has been difficult.

ONS also strongly supports budget increases to support research at the National Institutes of Health (NIH), NCI, and CDC. The increases have been disappearing in recent years because of other federal priorities. NIH, NCI, and CDC have been asked to accept level funding, which, in essence, is not a budget freeze but rather a budget cut because it does away with any adjustments for inflation.

**Government is losing the public's trust and confidence in its ability to solve complex problems.** As one possible result of this loss of trust is that the public's apathy toward voting has been increasing. Voter apathy resulted in only 36% of the electorate voting in the 2002 mid-term elections, one of the lowest turnouts in half a century. Even in presidential election years, voter turnout has decreased by 12% in the past 40 years (Pearson Education, Inc., 2004). That is until the recent 2004 presidential election, which resulted in the highest voter turnout in 36 years. An estimated 120.2 million people cast ballots in 2004, a figure that translates into a 59.6% turnout rate. That is five percentage points higher and 15 million more voters than in 2000 and the largest turnout since Richard M. Nixon faced Hubert H. Humphrey in the 1968 election (Faler, 2004). ONS needs to encourage its members to take a more active role in voting and government affairs to raise awareness of their priority issues and have their members' voices heard.

**Demands for transparency are rising.** In the face of recent corporate scandals in the public and private sectors, demands for greater public scrutiny are increasing. As a result of corporate scandals, government is stepping in to place greater controls on the governance structures and financial accountability of organizations and their boards via the Sarbanes-Oxley Act, which was passed in 2002. Although most of the Sarbanes-Oxley provisions apply only to publicly traded corporations, the new law is likely to raise the bar for nonprofit groups as well, especially in the wake of several well-publicized lapses in charity governance. The major provisions of the act are intended to ensure that people with financial expertise, including board members, have both the access and the independence needed to audit an organization's financial records and evaluate the manager's performance. Two provisions of the act currently apply specifically to nonprofit groups: those protecting whistleblowers and those making it a crime to alter, falsify, or destroy records (Board Source and Independent Sector, 2003; Green, 2003).

It is in the best interest of nonprofit organizations to begin implementing the provisions in Sarbanes-Oxley because all predictions are that these same provisions will be brought to bear on nonprofit groups in the near future. ONS and its affiliates recently have taken steps to form an audit committee that will oversee all of the organizations' annual financial audits.

**States are likely to seek new ways of raising revenue.** Many U.S. states are facing huge budget deficits, and their search for new revenues is intensifying. More than 30 states have approved the Streamlined Sales Tax Project, aimed at collecting state and local taxes on items sold online. Local governments soon may have a new weapon in the fight against budget woes. Federal legislation has been introduced that would allow states to require remote, or out-of-state, retailers to remit state and local sales and use taxes for online, catalogue, and over-the-phone purchases (Ursery, 2003).

The original Internet Tax Freedom Act of 1998 created a moratorium on the creation of any new taxes on Internet commerce. State governments have seen this as a threat to their sales tax collection ever since. The original moratorium and its extensions expired in the fall of 2003, so the debate on Internet taxation is heating up again (Oliva, 2003).

New legislation regarding Internet sales taxes could have significant impact on associations that conduct sales and business transaction via e-commerce on the Internet. ONS needs to monitor this type of legislation closely.

**Women are becoming more influential in government positions.** When women first entered the congressional political arena in the middle of the past century, they faced the assumption that they could not win and hold onto statewide offices in their own right, that is, without having first succeeded a husband who died or resigned from office. Currently, women hold 73 of the 535 seats in Congress (13.6%): 14 of the 100 seats in the Senate (14%) and 59 of the 435 seats in the House (13.6%). A total of 215 women have served in the U.S. Congress, to date, since the first woman was elected to the House in 1917 (Center for American Women and Politics, 2004b). In addition, eight women currently are state governors and 17 are lieutenant governors. Women serving in state legislatures numbered 1,680 in 2002, or 22.6% of all state legislators. That is more

than five times greater than in 1969, when only 4% of all state legislators were women (Center for American Women and Politics, 2004a, 2004b).

---

**A**ssociations need to acknowledge the growing influence of women through advocacy efforts, policy agendas, networking, and recruitment and training for leadership positions.

---

Associations need to acknowledge the growing influence of women through advocacy efforts, policy agendas, networking, and recruitment and training for leadership positions. This is especially true for nursing associations like ONS, whose members are predominately women.

**Interest groups are organizing into electronic networks and coalitions.** Many like-minded organizations and groups are combining their strategies to share and extend their political clout and their roles in government, federal regulatory processes, and national and state policies. These groups are forming networks and coalitions with mutual interests and priorities. These coalitions allow groups to work together to deliver the same message to legislators and regulators and increase the number of interested parties delivering the message.

ONS is already a member of several coalitions that advocate for issues related to quality cancer care and the profession of nursing, such as One Voice Against Cancer, the National Coalition for Cancer Research, Americans for Nursing Shortage Relief, and the Campaign for Tobacco-Free Kids. ONS needs to continue to look for opportunities to partner with other organizations in the cancer and nursing communities to extend its message and reach concerning government and regulation issues.

**Government is becoming more involved in surveillance.** With increasing concerns about domestic security and crime prevention, the government is becoming increasingly involved in surveillance of its citizens. New technologies are making surveillance techniques not only possible but also cheaper.

The series of terrorist attacks in September 2001 led to the passage of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act, otherwise known as the USA Patriot Act. This legislation touches on some of the most fundamental rights that U.S. citizens hold dear, such as issues of privacy, free speech, and the right of citizens to know when they are being investigated by the government. The act was passed during a period of unprecedented national unity. Although critics argued at the time that the law would be harmful to the rights of Americans, the act was passed very quickly and without much debate. President Bush signed it into law less than two months after the attacks. By the following year, the mood of the country had shifted and the effects of the Patriot Act began to be debated seriously for a number of reasons (USA Patriot Act, 2002).

The Patriot Act destroyed the wall between the intelligence and criminal branches of the Justice Department and may lead to the Federal Bureau of Investigation and Central Intelligence

Agency overstepping their bounds with the legal rights of citizens. The act includes provisions to allow the government to access the records of libraries and bookstores to see what people are reading and monitor Internet usage at libraries. Bookstores and libraries are prohibited from notifying their customers that they are being investigated in this way. The law also deals with the seizing of assets, which could lead to unconstitutional seizures in the future (USA Patriot Act, 2002).

The provisions of the Patriot Act could have implications for associations. Associations may be required to share certain information about their members, libraries, and book sales without being able to notify their members of these investigations. Foreign students are being tracked more closely, and associations may be expected to account for their international members. Many associations are becoming concerned about the implications for individual privacy with more intensive government information gathering. For now, the future of the Patriot Act is uncertain, but with terrorism being a constant threat, observers say that the government is unlikely to relinquish many of the new powers it received under the act and opposition to government surveillance has not gathered much momentum.

**Wider Internet access is influencing governance.** Associations are increasingly using Internet tools to broaden the reach and scope of their members' responses to public policy and legislative issues. Government agencies also are becoming more efficient in moving and handling information needed by the public via the Internet. Geography and location are becoming less relevant to political action. People can organize around a global issue as easily as a local one. The pace of political action is becoming faster, and people who are interested in an issue can become involved with it and track its progress online with increasing ease.

ONS has responded to this trend by developing an active Legislative Action Center (LAC) on its Web site. The LAC provides general resources to help educate members about the political process and grassroots advocacy as well as legislative action alerts that allow members to contact their members of Congress about an issue via e-mail with a few clicks of a mouse. The LAC, coupled with the ability to send out links to alerts via bulk e-mail to members, has been invaluable in getting timely information out to members regarding health policy issues.

The 2004 survey of ONS members asked participants to identify the top three legislative priorities for ONS. The issues consistently among the top five identified were

1. Reforming the healthcare system to overcome barriers to quality care for all (53%)
2. Ensuring access to pain control and symptom management from diagnosis through end of life (40%)
3. Ensuring private insurance coverage for cancer screening and early detection (36%)
4. Increasing Medicare reimbursement for oncology nursing and practice expenses (35%)
5. Increasing federal funding for research, early detection, prevention, and risk reduction (34%).

When survey respondents were compared for educational level, years in nursing, years in oncology, certification, and age, very little deviation existed from these top five issues, particularly for the number one issue regarding the need for reforming the healthcare system.

---

**O**NS needs to continue to educate members regarding health policy advocacy and recruit more members into the grassroots response network.

---

ONS needs to continue to educate members regarding health policy advocacy and recruit more members into the grassroots response network. Further ongoing development and expansion of the LAC are also important for the continued development of a politically active membership that will help shape future health policy.

## Members' Operating Environment

### Health Care

**The American consumer expects high-quality health care to be provided at minimal out-of-pocket expense** (Kirkman-Liff, 2002; Reece, 2003). Reece identified eight trends that are leading health care, with cost being a factor in almost all eight directions. Direct costs related to prescription drugs or health insurance coverage shifting from employers to employees play a major role in the future of health care.

As the population ages and individuals live longer, health-care issues will revolve around meeting the needs of these individuals. Prescription drugs will play a major role in the management of chronic diseases, and the costs associated with these drugs will continue to affect health care. In addition to disease management, healthcare programs will need to focus on disease prevention and early detection. The uninsured will continue to have limited access to preventive care and rely on emergency departments for care (Kirkman-Liff, 2002).

In addition to the nursing shortage, a shortage of physicians is beginning to affect healthcare costs and quality. Decreasing reimbursement for physician care and increased malpractice premiums have resulted in physicians leaving practice, no longer performing high-risk procedures, or not entering into practice at all.

Health care continues to move from inpatient to outpatient services, with Internet technology playing a key role. Improved quality of care, consistency, and outcomes are measures of performance that Americans are expecting from their healthcare providers. Putting systems in place to measure quality, consistency, and outcomes requires time and resources (Kirkman-Liff, 2002). Trends in health care directly affect nursing and the care delivered.

### Nursing

**The nursing shortage is expected to continue throughout the next 15 years.** In March 2000, an estimated 2.7 million individuals were licensed to practice nursing in the United States. Of those licensed nurses living in the United States, 81.7% were employed in nursing. Despite these numbers, nursing, a vital component to health care, is facing a shortage. The supply and demand for full-time equivalent nurses in the United States in 2000 were estimated at a shortage of 6%. This shortage is anticipated to continue at a slow pace until 2015 when the shortage will begin to accelerate to a projected 29% by the year 2020 (U.S. Department of Health and Human

Services [HHS], Health Resources and Service Administration, Bureau of Health Professions, National Center for Health Workforce Analysis, 2002).

HHS (2002) identified numerous factors contributing to the nursing shortage. Factors affecting the supply of RNs include the aging of the RN workforce because of a decreased number of nursing school graduates and a higher average age of recent graduates, alternative job opportunities available for RNs, and, although actual earnings for nurses increased over the past 20 years, relatively flat earnings for the past 10 years when adjusted for inflation. Factors that affect the demand for RNs include population growth, aging of the current population, increased per capita demand for health care, medical advances that heighten the need for nurses, and trends in healthcare financing. In addition, fewer individuals are entering the nursing profession because of the numerous professional opportunities that exist today (DeYoung, Bliss, & Tracy, 2002).

#### **Nurses are predominately female, Caucasian, and aging.**

A look at the current supply of nurses shows nursing as a predominately Caucasian, female profession. In 2000, fewer than 5.5% of nurses were male and 12% were non-Caucasian. Of the 12% non-Caucasian nursing population, black or African American and Asian nurses constitute the largest segment, with 5% and 3.5%, respectively (Spratley, Johnson, Sochalski, Fritz, & Spencer, 2000).

In 2000, a majority (61%) of nurses were between the ages of 35–59 and 49% of those were between the ages of 45–59. Seventy-five percent of employed nurses younger than the age of 30 and less than half of the nurses 50 and older worked in hospital settings (Spratley et al., 2000).

**The majority of nurses works in the hospital setting.** Of the 82% of the RN population employed in nursing in 2000, a majority (59%) worked in hospital settings, 18% worked in public or community health settings, 9.5% worked in ambulatory care settings, and 7% worked in nursing homes and extended care facilities (Spratley et al., 2000). Nurses employed in nonnursing occupations accounted for approximately 5% of the total RN population. The demand for nurses in the hospital setting will continue to be the major requirement, but it will remain rather stable in comparison to the increased need for nurses in settings focused on care for older people (e.g., nursing homes, home care) (HHS, 2002).

**Overall, 70% of nurses report being satisfied in their current positions.** The least satisfied nurses were staff nurses working in nursing homes followed by those working in hospitals, both areas of future demand. Nurses in positions other than staff nurse reported the highest levels of satisfaction in ambulatory care settings followed by those working in hospital settings (Spratley et al., 2000). In a survey of RNs who voluntarily terminated their employment or changed their employment status to as needed in three separate hospitals, 50% cited work hours, working every other weekend or holidays, and shifts as the reason for their departure or change, and 31% cited opportunities for more money and better hours as the reasons for their change or departure (Strachota, Normandin, O'Brien, Clary, & Krukow, 2003).

**Baccalaureate preparation for nurses is on the rise.** Three educational paths can lead to registered nursing: a bachelor of science degree in nursing (BSN), an associate degree in nursing (ADN), and a diploma. BSN programs, offered by colleges and

universities, are four-year programs. ADN programs, offered by community and junior colleges, take about two to three years to complete. Diploma programs, administered in hospitals, also are two- to three-year programs. In 2002, 678 nursing programs offered degrees at the bachelor's level and 700 offered ADN-level education. A small number of diploma programs exist, and that number is declining. Generally, licensed graduates of any of these educational programs qualify for entry-level positions as staff nurses (U.S. Department of Labor, Bureau of Labor Statistics, 2004c).

Because of hospital-based diploma programs closing and a decline in enrollments into degree programs, the number of RN graduates decreased from 1995–2000. From 2000–2001, baccalaureate enrollment increased 4%. Because the length of educational preparation for baccalaureate nurses versus associate degree nurses, it will be longer before we see these nurses in the workforce. Associate degree programs, the largest sources of new nurses, also have seen a decrease in graduates. With the decline in both diploma and ADN graduates and an increase in baccalaureate enrollment, the future workforce will see a greater percentage of baccalaureate nurses (HHS, 2002).

A large number of individuals choose nursing as a second career. Thirty-seven percent of RNs worked in a healthcare occupation immediately prior to attending a basic nursing education program, and a majority of these individuals (56%) enrolled in associate degree programs. Eighty-two percent of RNs who were employed as licensed practical nurses and licensed vocational nurses prior to becoming RNs selected associate degree programs (Spratley et al., 2000).

In 2004, the American Association of Colleges of Nursing (AACN) published results of a 2003–2004 survey that looked at 682 institutions with baccalaureate and higher degree programs in nursing. The overall response rate was 82.7%. In comparing data from 2002 and 2003, AACN showed that baccalaureate enrollment and graduations increased by 16.6% and 4.3%, respectively. Master's- and doctoral-level students increased by 10.2% and 5.6%, respectively, but graduations decreased by 2.5% and 9.9%.

Five-year trends (1999–2003) from the AACN survey revealed that baccalaureate students and graduates declined from 1999–2000 and then increased from 2001–2003. Although this increase is encouraging, it is not enough to meet the healthcare needs of the future. Master's enrollment declined from 1999–2001 and then increased from 2002–2003, but the number of graduates steadily declined over the five years. Doctoral-level enrollments increased, but the number of graduations showed little change (AACN, 2004).

The academic preparation of the RN population in 2000 was 22% diploma, 34% associate degree, 33% baccalaureate degree, an estimated 9.6% master's degree (21% of those in a nursing-related field), and 0.6% doctoral degree (51% of those in a nursing-related field). A little more than 7% of the RN population is prepared in an advanced practice role (e.g., CNS, NP, nurse anesthetist, nurse midwife). CNSs and NPs make up 80% of the advanced practice population, with 7.5% having both CNS and NP education. In 1996, only about 46% of NPs were prepared at the master's level compared with 62% in 2000 (Spratley et al., 2000). As of March 2005, 14% of ONS membership was prepared at the diploma level, 27% associate degree, 40% baccalaureate degree, 18% master's degree, and 1% doctoral degree. Eighty-two percent of the

ONS members who identify themselves as CNSs or NPs are prepared at the master's level.

---

## The shortage of nursing faculty has a major impact on the overall nursing shortage.

---

The shortage of nursing faculty has a major impact on the overall nursing shortage. The faculty shortage is the result of faculty age and retirement time lines. The mean age for nursing faculty in 2002 was 48.8 years for master's-prepared faculty and 53.3 years for doctoral-prepared faculty. On average, nursing faculty retire at age 62.5, with only 3% being older than age 65 (AACN, 2003). Of the individuals who received nursing doctoral degrees in 1999, only 6.8% were younger than age 35 (Berlin & Sechrist, 2002). These numbers indicate that a high number of vacancies will exist in the nursing faculty profession within the next few years. DeYoung et al. (2002) suggested providing incentives to nursing faculty to delay retirement as a strategy to help ease the shortage until the supply can meet the demand. The use of part-time faculty has helped somewhat; however, the extra burden of administrative duties and carrying out the mission of the institution still falls on the full-time faculty.

Although public campaigns to entice individuals into the nursing profession may work, the ability of schools of nursing to accept all interested and qualified individuals into existing programs is not possible in part because of the lack of qualified faculty members available to educate new nurses (DeYoung et al., 2002). A recent survey revealed that 16,000 qualified applications were not accepted in baccalaureate programs because of seat limitations and limited faculty (AACN, 2004).

Unfortunately, salaries in academia do not compare to those of nurses with similar education working in clinical roles. Low salary often is cited as a reason for leaving academia and deters other nurses from entering (DeYoung et al., 2002). This does not bode well for increasing the nursing academia population. A change in the salary structure may be required to increase the current number of nursing faculty.

Faculty in schools of nursing are required to have a minimum of a master's degree, and most are required to have a doctorate. In nursing, most individuals do not reach this level until they are in their 40s or older. This is much later than in other professions because, in nursing, those pursuing higher education are expected to have a fair amount of clinical practice experience. With most faculty members retiring in their early 60s, the careers of nursing academicians may be relatively short. To bring new faculty into the profession at an earlier age, DeYoung et al. (2002) suggested creating a fast track from baccalaureate to doctorate and decreasing clinical experiences before graduate work.

The number of master's degree programs with education as a major area of study has declined. Although there has been an increase in these programs in the past few years, they must continue regardless of low enrollment. Schools recently have begun to offer post-master's certificate programs in nursing education, including some that are Web based (DeYoung et al., 2002).

**The aging population will increase the demand for oncology nurses.** The demand for more nurses in the future is based on many factors. HHS (2002) anticipates that the population will grow 18% from 2000–2020, with a higher proportion of people older than age 65. According to ACS (2004), 76% of all cancers are diagnosed at age 55 and older. As the 65 and older population increases, so will the number of cancer diagnoses being made. Oncology nurses will be in great demand to care for this population.

**Patient safety is in jeopardy.** Patient safety always has been an integral part of nursing care, but a main focus on safety has been a trend since 1999, when it was estimated that 44,000–98,000 patients die yearly as a result of medical errors. Unfortunately, with the current and worsening nursing shortage, patient safety can be jeopardized (Stokowski, 2004). Recent studies by the Agency for Healthcare Research and Quality (2004) indicate that there is “at least some association between low nurse staffing levels and one or more types of adverse reactions” (p. 3). Adverse reactions include pneumonia, pressure ulcers, urinary tract infections, wound infections, injuries from falls, and sepsis. As of March 2002, 24% of the 1,609 sentinel events that have been reported cite staffing levels as a contributing factor (Joint Commission on Accreditation of Healthcare Organizations, 2002).

**The public is making more informed decisions about health care today.** A public survey in 2002 revealed that 96% of Americans believe that nurses play a major role in a patient’s welfare and recovery, and 73% are much more likely to select a hospital that employs a high percentage of nurses with additional specialty certification (Harris Interactive Inc., 2002). With access to vast amounts of healthcare information, consumers are becoming more informed than ever before. They are making informed decisions about their care, the clinicians who provide their care, and selecting the setting in which they obtain such care (Wakefield, 2003). Trends in health care also affect the demand for nurses. The number of individuals utilizing complementary and alternative therapies has increased. Nurses need to be knowledgeable about such therapies to discuss them intelligently, answer questions, and explain them to patients (Stokowski, 2004). In addition, the future holds an even more diverse population within the United States that will require nurses to understand and incorporate cultural differences into the care they provide to each individual (Stokowski; Wakefield). The number of uninsured and the high cost of new life-saving technologies and medicines also will affect nursing care in the future (Wakefield).

---

**To stay current and work within the constraints of cost-effective care, nurses will be required to alter the way they practice.**

---

**Nurses must adapt to new ways to manage patients.** To stay current and work within the constraints of cost-effective care, nurses will be required to alter the way they practice. In addition to caring for individuals diagnosed with cancer, nurses will manage chronic diseases that affect individuals for years or even decades. They will be required to incor-

porate cost-effective management models into their plans of care (Wakefield, 2003). Today’s healthcare models do not require patients to stay in the hospital for long periods for service. Unfortunately, learned nursing practices do not fit into the short stays of today’s healthcare environment (Porter-O’Grady, 2003).

**Nurses must acquire technologic competence.** Healthcare systems are increasingly becoming more technologically advanced, with computerized systems in almost every area of health care. Nurses will need to become proficient in a variety of technologic systems to perform their daily work routines (Stokowski, 2004). Nursing care must incorporate the latest technologies and pharmaceuticals, which are changing constantly, into education, practice, and research to provide competent care (Wakefield, 2003). The addition of new technologies and the need to be proficient in these technologies add another level of stress in the work environment (Porter-O’Grady, 2003).

## Association Industry Trends

Professional membership societies, like ONS, operate in an environment known as the association industry. Trends in how associations themselves manage their operations and deal with the trends affecting their members’ professional environments also have implications for ONS.

According to the American Society of Association Executives (ASAE, 2003), more than 147,000 associations exist in the United States, employing 295,000 people. Associations pay \$6 billion in annual health insurance premiums, as the source of health insurance for more than eight million people. Associations, often using members’ skills for the greater common good, document more than 173 million volunteer hours in community service annually.

Most professional societies do essentially the same kind of work, regardless of the professions they serve. Associations publish periodicals and books and offer educational programming to their members. They hold annual conventions with commercial exhibitions, produce public information services, conduct industry research, and are typically the definitive sources for professional codes of ethics and practice standards and guidelines.

To fully understand the environments in which ONS operates, it is important to examine the broad trends affecting the association community as well as those affecting the more specialized community of nursing specialty organizations. This section of the Environmental Scan places ONS within the context of each of these communities.

A 2003 manual published by ASAE (Dalton et al., 2003) identified new trends representing recent changes in the internal environment for associations. These trends, summarized in the following paragraphs, show where ONS currently is with respect to the trend as well as the future implications for the Society. Other specialty nursing organizations’ experiences with each trend, determined through an informal survey of their executives in September 2004, also are included.

**Microspecialties will expand.** As indicated previously in the Societal Trends section, the size of the body of knowledge in many professions precludes expertise across all specialties and subspecialty areas. Although oncology nursing is a well-defined specialty, many oncology nurses focus on a subspecialty area of practice. As more and more members



demand services and knowledge that is specific to their individual professional needs, professional societies are faced with creating services that are less directed at the whole population and more tailored to individuals. Determining how to balance between specialized and general needs is a growing challenge.

ONS began to address this issue with the “customized dues menu” project in 2001, which resulted in the inclusion of one free SIG membership to members. The team examined several ways to individualize member services but stopped short of recommending any individualized services. Recommendations have been made for test marketing and potential changes to the ONS Periodicals Publishing program based on a 2004 member segmentation study (ONS, 2004b). ONCC currently is exploring ways to recognize competence in various subspecialty areas within oncology.

ONS will need to closely monitor the needs and wants of members and potential members to continue to be relevant to newer and younger oncology nurses, more experienced oncology nurses whose needs are changing, and other nurses who care for people with cancer but do not necessarily consider themselves oncology nurses.

Most of the specialty nursing organizations surveyed indicated that they were providing some level of customization of member services. However, none is customizing to the individual level. For example, one organization provides Web resources customized to practice settings, and another offers selection of bundles of services that are customized to a predetermined list of specialty interests. The “Amazon.com” level of individualized marketing is not a reality for most organizations, and none of the organizations responding indicated that this was in their plans.

**Associations will differentiate themselves.** Associations offer information, education, and community to the people who join them. People have more choices than ever before to satisfy needs traditionally fulfilled by belonging to formal member groups like associations. People recognize that information, even very specialized information, is easily accessible today. CE also is widely available, from commercial sources, traditional educational institutions, and other associations. Community—often referred to as professional networking—becomes less defined by the organizational entity and more by individuals seeking other individuals in the fluid and ever-changing domain of the Internet. A professional association that emerges as a leader will be the one that is able to adapt so it remains a choice that its members will continue to make. This means that the association will need to be different from other information and education sources and different from other communities available to its members. ONS’s diverse educational offerings, expansive range of publications, and extensive Web site have helped to position it as the best resource available for its members.

ONS will need to abandon some of its assumptions about member needs that are based on the traditional array of member benefits and services. ONS must closely and regularly monitor member segments, needs and wants, and behaviors and attitudes. Current and potential members—both traditional and nontraditional—will need compelling reasons to keep ONS among their choices.

When asked what their organizations are doing to differentiate themselves from others that are providing services to their

members, responses from the executives surveyed centered on those things that make professional societies unique. For example, leadership development opportunities, practice guidelines, information that is specialized to the field, and quality of services were cited as important differentiators. In expressing the desire to stand out, one executive director said, “We don’t want anyone to think, ‘what have they done for us lately?’ . . . Our large, quality presence (in their mailbox, on their computer, in their workplace, and at their annual meeting) is intended to make the competition pale in comparison.”

**Aging membership may limit growth.** According to ASAE (2003), “Aging will affect some associations profoundly. Those with large aging populations and leadership could spend a lot of time thinking about how to attract younger members without actually recruiting them.” Associations are likely to begin placing younger people in leadership roles earlier than in the past.

ONS has paid a great deal of attention in the past few years to the aging of the nursing population and its own membership. Specialized programming for students and younger nurses, mentoring programs to develop new leaders, and marketing programs designed to appeal to younger people have been developed. All of this has been done with an eye toward maintaining its traditionally loyal membership base and tapping into the experience it represents.

---

**I**nstead of being one thing for many different people, ONS will need to be many different things for many different people.

---

ONS will need to continue to expand efforts to address the needs of newer and younger nurses without alienating its traditional membership base. As implied previously, this means instead of being one thing for many different people, ONS will need to be many different things for many different people.

All of the nursing organizations responding to the survey indicated that they are watchful about aging membership, yet most have experienced overall growth nonetheless. Demographics and average ages cited were similar to those found within ONS. There were some indications that, although aging membership is a concern, the population of potential members is large enough that membership declines are not a real threat in the long run.

**Relevance will be a growing challenge.** An ongoing and much-noted challenge for working people is the pursuit of work-life balance. As noted previously in the Societal Trends section, the value of personal time has increased. The pressures of working families and busier lives and the desire to maintain a healthy balance among multiple priorities sometimes push associations down the list.

We know that nurses’ lives have become busier as a result of sweeping changes in health care, the nursing shortage, and the aging patient population. Lack of time often is cited as the reason for nonparticipation by members and attrition among members. ONS is continually challenged to convince oncology nurses to renew their memberships, read the literature, and participate in education programs.

ONS will need to position membership as a way to face the challenge of work-life balance as opposed to being an extra thing to take care of. The challenge is to convince current and potential members that involvement is a way to improve their career potential, enhance their ability to care for patients, and keep them motivated to advance in their profession. Members should be provided with engaging ways to become involved in ONS that do not unduly detract from personal and family time, such as meeting via conference calls or Web conferences.

Specialty nursing organization executives were asked what they were doing to overcome the fact that their members have less time to dedicate to association activities. Short-term, big-impact commitments; small, focused project teams; and more staff time dedicated to coordinating volunteer work were cited as ways to overcome time constraints. Organizations also are increasing their use of communications and Internet technologies and conference calls. In contrast to the decreasing time commitment required of most volunteers, some organizations are seeing greater dedication and time commitment on the part of a core leadership group. One executive director said, "The time demands on our board of directors have increased significantly, yet our board members continue to meet that challenge."

**Perception of risk will remain high.** The general perceptions of risk and concerns for personal security have been major factors in Americans' decision making since 2001. Many people consider the terrorist attacks of September 11 of that year to be one of the most significant events in American history. Since then, we have seen war, vast changes in security practices and expenditures, and continued terrorism worldwide. Reluctance to travel, changing priorities in government and healthcare institutions, and a general reexamination by individuals of what is most important to them continue to be important factors in planning association programs and services.

Although the 2001 Institutes of Learning saw a dip in attendance, participation in ONS conferences has not declined. The 2004 Institutes of Learning had record-high attendance. There is no way to know whether attendance would have increased at a faster rate had the events of September 11 not occurred. During this period, ONS also has expanded the variety of distance-learning offerings, development of which was well under way before September 2001.

---

Security concerns, personal reassessment of priorities, and vast changes to the travel industry can be expected to continue for the foreseeable future. ONS will need to continue to monitor these trends and provide learning options and opportunities for peer-to-peer interaction in new and innovative ways.

---

Security concerns, personal reassessment of priorities, and vast changes to the travel industry can be expected to continue for the foreseeable future. ONS will need to continue to monitor these trends and provide learning options and opportunities for peer-to-peer interaction in new and innovative ways.

Similarly to ONS, the nursing organizations responding to our survey have not seen significant effects on conference attendance or other forms of participation that they can attribute to perceptions of risk among members.

**Traditional association structure and operations are shifting.** In many associations, more attention is being paid to the business of the organization. Management accountability and business success are seen as more critical to an association's ability to fulfill its mission. Many associations are placing growing emphasis on nondues revenue. Issues of leadership transparency are becoming more important as well.

ONS has dedicated a great deal of board and management time and attention over the past few years to issues such as organizational ethics and conflict of interest. In addition, ONS has carefully monitored the outcomes of measurable goals that have been set in support of its strategic priorities. ONS has been careful to maintain a stable balance between volunteer leadership and professional staff and has structured itself in ways that capitalize on this balance.

The association executives surveyed were asked what was the most significant change in organizational structure that they have experienced in the last two years (e.g., larger or smaller boards, committee structure, staff structure). The responses indicated a trend toward governance boards focused on policy issues, a movement to advisory councils and project teams versus standing committees, and more reliance on professional staff for operational issues.

ONS must continue to regard business success as a critical factor in maintaining its success as a service organization. Keeping dues at approximately 12% of total revenue will ensure that ONS is in line with other organizations of similar size and complexity. Maintaining a focus on developing new corporate support and building on established business relationships will ensure that members continue to receive a high return on their dues investment.

**Population and workforce diversity will challenge associations in new ways.** As the professions that are represented by associations become more diverse, associations are challenged to develop relevant resources and services that satisfy a wider array of individual needs.

ONS has made a conscious effort in recent years to attract a more diverse workforce, membership, and leadership. Programs and resources that reflect this core value in a number of different ways have been developed. Although improvements have been made with respect to racial, ethnic, and gender diversity within ONS, the general lack of diversity within the nursing profession has been a limiting factor.

ONS will need to position itself as a leader in promoting diversity in the oncology nursing profession, in addition to increasing its efforts to continue the momentum to improve diversity within its own ranks.

## Summary of Implications for Strategic Planning

This report examined ONS's operating environment with respect to the external environment, the members' operating environment, and trends in the association industry. A general set of implications emerges for ONS and its affiliates that may be used as a starting point for a discussion of broad strategic goals. These implications, which have been identified throughout the report, are summarized in the following sections.

## Membership

- ONS will need to closely monitor the needs and wants of members and potential members: newer and younger oncology nurses, more experienced oncology nurses whose needs are changing, and other nurses who care for people with cancer but do not necessarily consider themselves oncology nurses.
- ONS must continue to focus on the fact that nursing is often a second career that is entered in the third and fourth decades of life.
- Opportunities exist to expand through international membership and alliances and affiliations with organizations in other countries.
- ONS will need to position itself as a leader in promoting diversity in the oncology nursing profession, in addition to increasing its efforts to improve diversity within its own ranks. Strategies will need to reflect the differences in consumers' cultural identities.
- ONS will need to position membership as a way to face the challenge of work-life balance, as opposed to being an extra thing to take care of. The challenge is to convince current and potential members that involvement is a way to improve their career potential, enhance their ability to care for patients, and keep them motivated to advance in their profession.
- ONS should increase efforts to generate awareness among members of volunteer opportunities along the continuum, from minimal to maximal involvement and the process for applying for these opportunities.
- Most members believe that their employers are supportive of professional development, yet many large employers of oncology nurses have relatively few who are ONS members. ONS should place greater emphasis on awareness and promotion among employers of the professional development opportunities available through ONS membership.

## Customer Service

- ONS must closely and regularly monitor member segments, member needs and wants, and member behaviors and attitudes rather than relying on traditional assumptions. Current and potential members—both traditional and non-traditional—will need compelling reasons to keep ONS among their choices.
- The rate at which transactions can be completed and data are available has led to rising consumer expectations for speed, quality, and service.
- It is apparent that oncology nurses are increasing their use of and comfort with e-commerce. ONS needs to continue monitoring e-commerce activity and develop innovative online initiatives that meet members' needs and attract new members.
- ONS should consider new advances and capabilities to expand knowledge about its customers, yet careful consideration must be given to the appropriate collection and monitoring of data, especially when using customer preferences to sell additional products and services.

## Education, Research, and Publishing Priorities

- A high level of agreement exists among all member groups for the priority issues in cancer care and oncology nursing. ONS should ensure that these issues are integrated into programming, products, and services for members.

- Support and focused education for nurses in well-defined subspecialty areas of practice are vital to ONS maintaining these specialized segments of the membership on a long-term basis.
- Patient safety, an integral part of nursing care, can be jeopardized with the current and worsening nursing shortage. This issue should be an educational and research priority for ONS.
- Genomics and genetics remain huge issues related to the future of cancer care. ONS should continue educational efforts to heighten awareness and competency regarding cancer genetics and consider increasing efforts in this area to better prepare members for future practice.
- As technology becomes more integrated into the workplace, nurses will need to become proficient in a variety of technologic systems to perform their daily work routines. Technology education will better prepare members for future practice.

## Program and Product Delivery

- Live programs are still the leading preference for delivery of education. However, ONS also must address the needs and capabilities of a new generation that is much more at ease with technology than traditional members.
- ONS publications continue to be cited as among the most valued member benefits. Formats, production processes, and awareness of what is available continue to be challenges in providing needed resources in efficient ways.
- The rapid development of new knowledge requires not only increased academic education but also ongoing education for workers to maintain competence. Both workers and management must embrace the trend toward lifelong learning.
- Pressures on members' personal and professional time require that ONS and its affiliates continue to offer educational programming that is effective yet less time-consuming.
- Security concerns, personal reassessment of priorities, and vast changes to the travel industry since September 11, 2001, can be expected to continue for the foreseeable future. ONS will need to continue to monitor these trends and provide learning options and opportunities for peer-to-peer interaction in new and innovative ways.
- To deliver programs internationally, translation of educational materials or the production of very basic educational materials for developing countries may be needed.
- The use of PDA technology could boom in the nursing market, particularly among advanced practice nurses. ONS should focus on unique ways to support this trend.

## Health Policy

- A high level of agreement exists among all member groups regarding the priority health policy issues for which ONS should advocate. This provides clear and consistent guidance for determining ONS positions and the Health Policy Agenda.
- ONS needs to encourage members to take a more active role in voting and in government affairs to raise awareness of priority issues and have members' voices heard.
- The growing influence of women with regard to advocacy efforts, policy agendas, networking, and recruitment and training of people for leadership positions is especially relevant for nursing associations, whose members are predominately women.

- ONS needs to continue to look for opportunities to partner with other organizations in the cancer and nursing communities to extend its message and reach concerning government and regulation issues.
- The nursing shortage, exacerbated by a shortage of nursing faculty and an aging population, points to continued efforts by ONS to contribute to national efforts to overcome the shortage.

## Business Practices and Operations

- Inspiring trust through transparency in all operations and accountability by all leaders must remain priorities for ONS and its affiliates.
- ONS will need to continue exploring and discussing conflict of interest and governance policies, being flexible to necessary revisions and the resulting implications.
- Managing knowledge for strategic advantage will continue to be an important strategic initiative for ONS. ONS should give consideration to innovative ways of leveraging knowledge among stakeholders.
- ONS needs to carefully evaluate internal processes and procedures to ensure that they are the most efficient and cost saving and fiscally responsible.
- ONS must continue to support a business development process that meets the complex and changing requirements of corporate supporters.
- ONS needs to fully investigate and set policies regarding recent ACCME changes in a proactive manner.
- It will be vital for ONS to continue to regard business

success as a critical factor in maintaining its success as a service organization. Maintaining a focus on developing new corporate support and building on established business relationships will ensure that members continue to receive a high return on their dues investment.

- ONS has a track record of securing educational grants from NCI to conduct educational programs for members. As appropriations to NCI decrease, the amount of grant funding available will shrink considerably. ONS will be forced to rely even more heavily on corporate funding sources and fees for services to offset the decrease in federal grants.
- New legislation regarding Internet sales taxes could have a significant impact on associations that conduct sales and business transaction via e-commerce on the Internet. ONS needs to monitor this legislation closely.
- ONS products and services valued the least by members should be critically evaluated for their effectiveness and value and discontinued unless there are other compelling reasons to continue them.
- ONS should continue to promote ONS services that are available to members. Services with the least awareness among members, but are still considered to be effective and valuable, should be targeted for increased marketing and publicity efforts to increase awareness.

**Author Contact:** Cynthia Miller Murphy, RN, MSN, CAE, can be reached at [cmillermurphy@ons.org](mailto:cmillermurphy@ons.org), with copy to editor at [rose\\_mary@earthlink.net](mailto:rose_mary@earthlink.net).

## References

- Accreditation Council for Continuing Medical Education. (2004). Standards for commercial support: Standards to ensure the independence of CME activities. Retrieved September 12, 2004, from [http://www.accme.org/dir\\_docs/doc\\_upload/68b2902a-fb73-44d1-8725-80a1504e520c\\_uploaddocument.pdf](http://www.accme.org/dir_docs/doc_upload/68b2902a-fb73-44d1-8725-80a1504e520c_uploaddocument.pdf)
- Agency for Healthcare Research and Quality. (2004). Hospital nurse staffing and quality of care. *Research in Action*, 14. Retrieved September 12, 2004, from <http://www.ahrq.gov/research/nursestaffing/nursestaff.htm>
- American Association of Colleges of Nursing. (2003). *Faculty shortages in baccalaureate and graduate nursing programs: Scope of the problem and strategies for expanding the supply* [White paper]. Washington, DC: Author. Retrieved September 14, 2004, from <http://www.aacn.nche.edu/Publications/WhitePapers/FacultyShortages.htm>
- American Association of Colleges of Nursing. (2004). *2003–2004 enrollment and graduations in baccalaureate and graduate programs in nursing*. Washington, DC: Author.
- American Cancer Society. (2004). *Cancer facts and figures 2004*. Atlanta, GA: Author.
- American Nurses Association. (2003). Nursing facts: Today's registered nurse—Numbers and demographics. Retrieved September 16, 2004, from <http://nursingworld.org/readroom/fsdemogrp.htm>
- American Society of Association Executives. (2003). Associations in a nutshell: Why are associations so important? Retrieved August 23, 2004, from <http://www.asaenet.org/asae/cda/index/1,1584,PID10550,00.html>
- Berlin, L.E., & Sechrist, K.R. (2002). The shortage of doctorally prepared nursing faculty: A dire situation. *Nursing Outlook*, 50, 50–56.
- Bianco, A. (2004, July 12). The vanishing mass market: New technology. Product proliferation. Fragmented media. Get ready: It's a whole new world. *BusinessWeek*, 61–68.
- Board Source and Independent Sector. (2003). *The Sarbanes-Oxley Act and implications for nonprofit organizations*. Washington, DC: Author
- Center for American Women and Politics. (2004a). Women in statewide executive office 2004. Retrieved March 31, 2004, from <http://www.cawp.rutgers.edu/Facts/Officeholders/stwide-current.html>
- Center for American Women and Politics. (2004b). *Women in the U.S. Congress 2004*. New Brunswick, NJ: Rutgers University.
- Centers for Medicare and Medicaid Services. (2002). National healthcare expenditure projections: 2002–2013. Retrieved November 9, 2004, from <http://www.cms.hhs.gov/statistics/nhe/projections-2003/highlights.asp>
- Cetron, M.J., & Davies, O. (2003a). Trends shaping the future: Economic, societal, and environmental trends. *Futurist*, 37(1), 27–42.
- Cetron, M.J., & Davies, O. (2003b). Trends shaping the future: Technological, workplace, management, and institutional trends. *Futurist*, 37(2), 30–43.
- Challenger, J.A. (2003). The coming labor shortage. *Futurist*, 37(5), 24–28.
- Christian & Timbers' Hot Jobs for 2004. (2004). Report methodology. Retrieved September 9, 2004, from <http://www.ctnet.com/pr/studies/hotjobs2004/pfversion.html>
- Cole, C.L., Greengard, S., Kiger, P.J., Lachnit, C., Raphael, T., Shuit, D.P., et al. (2003). 25 trends that will change the way you do business. *Workforce*, 82(6), 43–56.
- Coles, C. (2003). Government: Testing the limits of tolerance. *Futurist*, 37(2), 14–15.
- Conference Board. (2004). Innovation becoming higher priority in global companies. Retrieved September 6, 2004, from [http://www.conference-board.org/utilities/pressDetail.cfm?press\\_ID=2427](http://www.conference-board.org/utilities/pressDetail.cfm?press_ID=2427)
- Cooper, J., & Madigan, K. (2004, July 12). The economy slows—from a gallop to a canter. *BusinessWeek*, 29–30.
- Dalton, J.G., Jarratt, J., & Mahaffie, J.B. (2003). *From scan to plan: Integrating trends with strategy making process*. Washington, DC: American Society of Association Executives.
- De Cagna, J. (2004). Beyond pretend and defend. Retrieved December 9, 2004, from <http://www.gwsae.org/executiveupdate/2004/August/pretend.htm>
- Despeignes, P. (2004, August 18). Concerns over economy persist. *USA Today*, p. 6A.
- DeYoung, S., Bliss, J., & Tracy, J.P. (2002). The nursing faculty shortage: Is there hope? *Journal of Professional Nursing*, 18, 313–319.

- Ethics Resource Center. (2003). 2003 national business ethics survey. Retrieved September 9, 2004, from [http://www.ethics.org/nbes2003/2003nbes\\_summary.html](http://www.ethics.org/nbes2003/2003nbes_summary.html)
- Faler, B. (2004, November 5). A polling sight: Record turnout. *Washington Post*, p. A07. Retrieved November 11, 2004, from <http://www.washingtonpost.com/wp-dyn/articles/A26598-2004Nov4.html?sub=AR>
- Fallows, D. (2004). The Internet and daily life: Many Americans use the Internet in everyday activities, but traditional offline habits still dominate. *Pew Internet and American Life Project*. Retrieved September 8, 2004, from [http://www.pewinternet.org/PPF/r/131/report\\_display.asp](http://www.pewinternet.org/PPF/r/131/report_display.asp)
- Gasorek, D. (2003). Ethics beyond corporate governance. *Pharmaceutical Executive*, 23(9), 98, 100, 102, 104.
- Gilmour, D. (2003). How to fix knowledge management. *Harvard Business Review*, 81(10), 16–17.
- Global Province. (2004). The global view from Mount Olympus. Retrieved August 19, 2004, from <http://www.globalprovince.com/letters/8-18-04.htm>
- Green, S.G. (2003). Nonprofit groups urged to follow governance act. *Chronicle of Philanthropy*, 16(2), 60.
- Hallam-Baker, P. (2004). The new face of cyber crime. *CNET News.com*. Retrieved July 29, 2004, from [http://news.com.com/The+new+face+of+cybercrime/2010-1029\\_3-5275150.html](http://news.com.com/The+new+face+of+cybercrime/2010-1029_3-5275150.html)
- Harris Interactive Inc. (2002). *American Association of Critical-Care Nurses Nurse Certification Survey*. Rochester, NY: Author.
- Harris Interactive Inc. (2004). More than four in ten Internet users now have broadband—Doubled in two years [Harris poll #63]. Retrieved September 11, 2004, from [http://www.harrisinteractive.com/harris\\_poll/index.asp?PID=492](http://www.harrisinteractive.com/harris_poll/index.asp?PID=492)
- Heffler, S., Levit, K., Smith, S., Smith, C., Cowan, C., Lazenby, H., et al. (2001). Health spending growth up in 1999; faster growth expected in the future. *Health Affairs*, 20, 193–203.
- Horrigan, J. (2004). 28% of American adults are wireless ready: A PIP data memo. *Pew Internet and American Life Project*. Retrieved September 8, 2004, from [http://www.pewinternet.org/ppf/r/127/report\\_display.asp](http://www.pewinternet.org/ppf/r/127/report_display.asp)
- Jackson, M. (2002). Can you be too connected? Part 1 [Book excerpt]. Retrieved August 10, 2004, from [http://www.businessweek.com/careers/content/feb2002/ca20020211\\_5812.htm](http://www.businessweek.com/careers/content/feb2002/ca20020211_5812.htm)
- Joint Commission on Accreditation of Healthcare Organizations. (2002). *Health care at the crossroads. Strategies for addressing the evolving nursing crisis*. Oakbrook Terrace, IL: Author.
- Kirchhoff, S. (2003, August 16). Aging population makes this deficit scarier. *USA Today*, p. 4b.
- Kirkman-Liff, B. (2002). Keeping an eye on a moving target: Quality changes and challenges for nurses. *Nursing Economics*, 20, 258–265, 290.
- Kleiner, C., & Lord, M. (1999). The cheating game. *U.S. News and World Report*, 127(20), 54–63.
- L-Soft International, Inc. (2004). About the database. Retrieved September 11, 2004, from <http://www.lsoft.com/lists/lastupd.html>
- Mafrica, L., Ballon, L., Culhane, B., McCorkle, M., Murphy, C.M., & Worrall, L. (2002). ONS 2002 environmental scan: A basis for strategic planning. *Oncology Nursing Forum*, 29, E99–E109. Retrieved September 9, 2004, from <http://www.ons.org/publications/journals/ONF/Volume29/Issue9/pdf/99.pdf>
- McBride, T.D. (2004, March 1). America's future lives on borrowed time: Tax cuts could rob baby boomers' Social Security and Medicare. *St. Louis Post-Dispatch*, p. B7.
- McGarvey, R. (2004). Biotech comes of age. *Harvard Business Review*, 82(5), 112–121.
- Miller, R. (2004, July 5). What keeps Greenspan up at night. *BusinessWeek*, 36, 38–41.
- Mitchell, S. (2000). *American generations: Who they are, how they live, what they think* (3rd ed.). Ithaca, NY: Strategist Publications.
- National Cancer Institute. (2004). *Cancer nanotechnology: Going small for big advances*. Retrieved September 9, 2004, from <http://otir.nci.nih.gov/brochure.pdf>
- National Council of State Boards of Nursing. (2004). *Frequently asked questions about international NCLEX® administration*. Retrieved September 1, 2004, from [http://www.ncsbn.org/pdfs/Intnl\\_FAQ\\_Sept\\_04.pdf](http://www.ncsbn.org/pdfs/Intnl_FAQ_Sept_04.pdf)
- National Human Genome Research Institute. (2004). What's next? Turning genomics vision into reality. Retrieved September 9, 2004, from <http://www.genome.gov/11006944>
- Office of the Inspector General. (2003). *Compliance program guidance for pharmaceutical manufacturers*. Retrieved June 14, 2005, from <http://oig.hhs.gov/fraud/docs/complianceguidance/042803pharmacymfgnonfr.pdf>
- Oliva, R.A. (2003). Time will tell. *Marketing Management*, 12(5), 44.
- Oncology Nursing Society. (2003a). *Medicare Modernization Act summary*. Retrieved November 11, 2004, from <http://www.ons.org/lac/pdf/MedicareModernizationActSummary.pdf>
- Oncology Nursing Society. (2003b). *Oncology Nursing Society, ONS Foundation, Oncology Nursing Certification Corporation, and Oncology Education Services, Inc., position on corporate support*. Pittsburgh, PA: Author.
- Oncology Nursing Society. (2004a). *2nd quarter membership demographics report* [Internal memorandum]. Pittsburgh, PA: Author.
- Oncology Nursing Society. (2004b, August 12). *ONS segmentation study* [Internal memorandum]. Pittsburgh, PA: Author.
- Orndoff, K. (2003). Assessing American diversity. *Futurist*, 37(1), 22–26.
- Pearson Education, Inc. (2004). National voter turnout in federal elections: 1960–2000. Retrieved March 31, 2004, from <http://www.infoplease.com/ipa/A0781453.html>
- Pharmaceutical Research and Manufacturers of America. (2004a). *Code on interactions with healthcare professionals*. Retrieved September 8, 2004, from <http://www.phrma.org/publications/policy/2004-01-19.391.pdf>
- Pharmaceutical Research and Manufacturers of America. (2004b). *Pharmaceutical industry profile 2004: Focus on innovation*. Retrieved September 8, 2004, from <http://www.phrma.org/publications/publications/2004-03-31.937.pdf>
- Pinsonault, P. (2003). The aging of America: The impact of demographics on the pharmaceutical industry. *Pharmaceutical Representatives*, 33(12), 32–40.
- Population Reference Bureau. (2004). *2004 world population data sheet*. Retrieved September 1, 2004, from [http://www.prb.org/pdf04/04WorldDataSheet\\_Eng.pdf](http://www.prb.org/pdf04/04WorldDataSheet_Eng.pdf)
- Porter, M., & Teisberg, E.O. (2004). Refining competition in health care. *Harvard Business Review*, 82(6), 65–76.
- Porter-O'Grady, T. (2003). A different age for leadership, Part 1: New context, new content. *Journal of Nursing Administration*, 33, 105–110.
- PriceWaterhouseCoopers. (1999). *HealthCast 2010: Smaller world, bigger expectations*. Retrieved September 7, 2004, from <http://www.pwchealth.com/cgi-local/hcregister.cgi?link=pdf/hc2010.pdf>
- Reece, R.L. (2003). Eight new directions for 2004. Retrieved May 23, 2005, from <http://www.healthleaders.com/news/feature1.php?contentid=46434>
- Reed, S. (2004). Oil prices could get even worse. *BusinessWeek Online*. Retrieved August 9, 2004, from [http://www.businessweek.com/bwdaily/dnflash/aug2004/nf2004086\\_1412\\_db039.htm](http://www.businessweek.com/bwdaily/dnflash/aug2004/nf2004086_1412_db039.htm)
- Rempher, K.K., Lasome, C.E., & Lasome, R.J. (2003). Leveraging palm technology in the advanced practice environment. *AACN Clinical Issues*, 14, 363–70.
- Rothfeder, J. (2004). Privacy in the age of transparency. Retrieved July 29, 2004, from [http://news.com.com/Privacy+in+the+age+of+transparency/2030-1069\\_3-5172731.html](http://news.com.com/Privacy+in+the+age+of+transparency/2030-1069_3-5172731.html)
- RRC Rating Research LLC. (2003). Corporate ethics reputation ratings: Pharmaceutical industry. Retrieved September 11, 2004, from [http://www.ratingresearch.com/ratings/pharma\\_ethics.html](http://www.ratingresearch.com/ratings/pharma_ethics.html)
- Schweitzer, C. (2004). Light-bulb leadership. Creating a culture where innovation is in. *Association Management*, 56(8), 31–42.
- Seniors turning to the Web for health info. (2004). *Pharmaceutical Representative*, 34(8), 10.
- Shiu, E., & Lenhart, A. (2004). How Americans use instant messaging. *Pew Internet and American Life Project*. Retrieved September 8, 2004, from [http://www.pewinternet.org/ppf/r/133/report\\_display.asp](http://www.pewinternet.org/ppf/r/133/report_display.asp)
- Shop.org. (2004). Online sales skyrocket as profitability jumps, according to Shop.org/Forrester Research study [Press release]. Retrieved September 13, 2004, from <http://www.shop.org/press/04/052504.asp>
- Snyder, D.P. (2004). Five meta-trends changing the world. *Futurist*, 38(4), 22–27.
- Spratley, E., Johnson, A., Sochalski, J., Fritz, M., & Spencer, W. (2000). *The nurse population*. Washington, DC: U.S. Department of Health and Human

- Services Health Resources and Service Administration, Bureau of Health Professions Division of Nursing.
- Stokowski, L. (2004). Trends in nursing: 2004 and beyond. *Topics in advanced practice nursing eJournal*, 4. Retrieved September 14, 2004, from <http://www.medscape.com/viewarticle/466711/viewarticle/466711>
- Strachota, E., Normandin, P., O'Brien, N., Clary, M., & Krukow, B. (2003). Reasons registered nurses leave or change employment status. *Journal of Nursing Administration*, 33, 111–117.
- Sussman, D. (2000, August 7). Generation Rx: As demographics change, the patient of 2010 will pose new challenges. Retrieved September 1, 2004, from <http://www.nurseweek.com/news/features/00-08/futpat.html>
- Towers Perrin Publications. (2004). *2005 health care cost survey*. Retrieved November 23, 2004, from [http://www.towersperrin.com/hrservices/us/default\\_us.htm](http://www.towersperrin.com/hrservices/us/default_us.htm)
- Tyre, P., & McGinn, D. (2003, May 12). She works, he doesn't. *Newsweek*, 141(19), 45–52.
- Ursery, S. (2003). Internet sales tax bills unveiled in Congress. *American City and Country*, 118(12), 8.
- USA Patriot Act. (2002, December 13). Issues and controversies. FACTS.com. Oncology Nursing Society Library, Pittsburgh, PA. Retrieved March 31, 2004, from <http://2facts.com>
- U.S. Census Bureau. (2004a). Data highlights on the middle class—Analysis: Income inequality (middle class)—Narrative. Retrieved September 9, 2004, from <http://www.census.gov/hhes/income/midclass/midclsan.html>
- U.S. Census Bureau. (2004b). Health insurance coverage: 2003. Retrieved September 9, 2004, from <http://www.census.gov/hhes/hlthins/hlthin03/hlth03asc.html>
- U.S. Census Bureau. (2004c). United States Department of Commerce news: Commerce sales in second quarter 2004 were \$15.7 billion, up 23.1% from second quarter 2003. Retrieved September 9, 2004, from <http://www.census.gov/mrts/www/current.html>
- U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis. (2002). *Projected supply, demand, and shortages of registered nurses: 2000–2020*. Retrieved June 9, 2005, from <http://bhpr.hrsa.gov/healthworkforce/reports/rnproject/report.htm>
- U.S. Department of Housing and Urban Development. (2004). *U.S. housing market conditions: 1st quarter 2004*. Washington, DC: Author.
- U.S. Department of Labor, Bureau of Labor Statistics. (2004a). Consumer price index. Retrieved August 18, 2004, from <ftp://ftp.bls.gov/pub/news.release/cpi.txt>
- U.S. Department of Labor, Bureau of Labor Statistics. (2004b). Employment situation summary. Retrieved September 9, 2004, from <http://stats.bls.gov/news.release/empsit.nr0.html>
- U.S. Department of Labor, Bureau of Labor Statistics. (2004c). *Occupational outlook handbook, registered nurses*. Retrieved September 15, 2004, from <http://stats.bls.gov/oco/ocos083.htm>
- U.S. Department of State. (2004). The Bush fiscal year 2005 budget in perspective. Retrieved March 31, 2004, from <http://usinfo.state.gov/ei/Archive/2004/Feb/02-410978.html>
- Wakefield, M. (2003). Change drivers for nursing and health care. *Nursing Economics*, 21, 150–151.
- Wellner, A.S. (2003, April 1). The next 25 years. *American Demographics*, 24–27.