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INTRODUCTION

Social work has been a part of the health care scene for more than 100 years. It has an impressive history of significant contributions to the field of health care in settings such as hospitals, clinics, rehabilitation centers, nursing homes, health departments, hospices, and home health agencies. Social workers have been involved in health care at all levels: preventive care, primary care, secondary care, tertiary care, restorative care, and continuing care. Depending on the major purposes and functions of each health care setting, their roles have varied, requiring differential professional skills. Their professional organization, the National Association of Social Workers, has not only promulgated standards of social work practice in health care but also has been in the forefront of the movement for reform of the health care system.

For a hundred years, many political leaders—including U.S. presidents—have talked and tried to bring about major changes in the nation’s health care system. They either failed in their efforts or succeeded in affecting some dimensions of the system in piecemeal ways. In 1912, Theodore Roosevelt promised national health insurance in his campaign for presidency. In 1945, Harry Truman came up with a plan for health care overhaul, but that fizzled after his critics started warning

him of “socialized medicine.” In 1962, John F. Kennedy promoted health benefits for the recipients of Social Security, but the powerful medical industry succeeded in stalling his plan in Congress. In 1965, Lyndon Johnson succeeded in creating the Medicare and Medicaid programs. In 1971, Richard Nixon backed a proposal requiring employers to provide a minimum level of health insurance to their employees, but Senator Edward Kennedy counter-proposed a universal, single-payer reform plan and nothing happened. In 1976, Jimmy Carter called for a “comprehensive national health insurance system with universal and mandatory coverage,” but as the nation fell into a deep recession, that call was neglected. In 1986, Congress passed the COBRA (Consolidated Omnibus Budget Reconciliation Act), which allows employees to continue their group health plans up to 18 months after losing their jobs. In 1988, Ronald Reagan signed the Medicare Catastrophic Coverage Act, which was repealed the following year. In 1994, Bill Clinton led a major effort to reform the health care system but failed. In 1997, he did create the State Children’s Health Insurance Program. In 2003, George W. Bush signed the Medicare Modernization Act, which expanded Medicare to include prescription-drug coverage (“History of Reform,” 2010).

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President Barack Obama has signed into law the Patient Protection and Affordable Care Act of 2010. It is far from an overhaul of the health care system but provides health care to 32 million more Americans, brings about some significant changes, and has the potential to give a new direction to the way health care is delivered. The act was passed exclusively with the votes of Democrats in the two houses of Congress; Republicans opposed it and are vowing to undo it. They also have been able to win large segments of the general population to their view of the health care law. Before discussing the nature of this opposition and its likely consequences, we will list the main provisions of the act.

The Patient Protection and Affordable Care Act of 2010 is divided into 10 titles. Its provisions will go into effect over a period of several years—some immediately (i.e., 90 days after enactment), others 6 months after enactment, and still others in the years 2011, 2013, 2014, 2018, and 2020. The law affects people, employers, and health insurance companies in significant ways. Following the example of Tumulty, Pickert, and Park (2010) and using some of their material, we present below a timeline of the new law's provisions as they affect different entities.

2010

Americans who are uninsured because of preexisting conditions get immediate coverage through high-risk pools. They pay premiums for a standard population, not for one with higher health risk. Young adults can remain on their parent's plan until their 26th birthday. Individuals affected by the Medicare Part D coverage gap receive a \$250 rebate.

Insurers are barred from (1) dropping coverage when a person gets sick, (2) denying coverage to children with preexisting conditions, (3) imposing caps in lifetime coverage, and (4) charging copayment or deductibles for preventive care and medical screening (on all new insurance plans). They are required to reveal details about their administrative and executive expenditures.

Employers: Small businesses (those employing 25 or fewer workers) can receive tax credits to purchase health insurance for their employees.

2011

Americans on Medicare Part D receive a 50% discount on brand-name drugs while they are in the doughnut hole; 50% of the Part D coverage gap is eliminated.

Insurers are required to (1) spend at least 80% of premiums on medical services or on improving the quality of health care, or (2) return the difference to the customer as a rebate.

2012

Employers must start disclosing the value of the benefits they provided for each employee's health insurance coverage on the employee's annual W-2 Form.

2013

Americans: Self-employment and wages of individuals above \$200,000 annually (or of families above \$250,000 annually) become subject to an additional tax of 0.5%.

2014

Americans: Most are required to get health care coverage or pay an annual penalty of \$95 or up to 1% of income, whichever is higher. Families can get subsidies to buy insurance if they earn up to four times the federal poverty level.

Individuals with income up to 133% of the poverty line become eligible for Medicaid. Individuals and small businesses can buy insurance packages from the state-run "exchanges" that will offer nonprofit health insurance plans.

Employed individuals who pay more than 9.5% of their income on health insurance premiums are permitted to purchase insurance from a state-controlled health insurance option.

Insurers *are* prohibited from (1) discriminating against or charging higher rates for individuals based on preexisting medical conditions and (2) establishing annual spending caps. They become subject to a new excise tax based on their market share.

Employers: Businesses employing 50 or more full-time workers must provide health insurance coverage or pay a \$2,000-per-employee tax penalty.

Others: Pharmaceutical companies and manufacturers of medical devices start paying an excise tax.

2018

Insurers: All existing health insurance plans must cover preventive care and checkups without payment. High-cost, employer-provided policies (\$27,500 for family or \$10,000 for single coverage) become subject to a 40% excise tax.

2020

Americans on Medicare Part D: The prescription-drug coverage gap is eliminated.

Other important provisions of the act are aimed at transforming the features of the health industry that reward volume of services and not value. These direct the federal government to experiment with ways providers can be compensated for quality of care. The experiments will include (1) pilot projects exploring different payment reforms within the Medicare program; (2) comparative-effectiveness research; (3) cuts to the Medicare program (eliminating waste in the system); (4) an independent board to study clinical outcomes and evidence; (5) penalizing hospitals with the highest rates of avoidable infections and unnecessary readmissions; (6) bonus payments to Medicare Advantage plans with the best clinical outcomes and highest patient ratings; (7) program funding for further training, scholarships, and loan repayments for physicians, nurse practitioners, and dentists entering primary care; (8) creating health centers based in communities and schools; and (9) support for programs such as “medical homes,” a team-based approach to health care that emphasizes maintenance of health rather than treatment of disease.

Although the new law does not directly change the health care system’s shape and structure, its functions and priorities, and the roles and responsibilities of its functionaries, it will affect the lives of millions of Americans. It will provide health insurance coverage to young adults between the ages of 19 and 29, who represent the largest segment of the uninsured—numbered at

about 13.7 million in 2008 (Collins & Nicholson, 2010). Up to 15 million women who are uninsured will gain subsidized coverage, and another 14.5 million who are insured will benefit from the provisions that improve coverage or reduce premiums. Women who are charged higher premiums than men, who cannot secure coverage for the cost of pregnancy, or who have preexisting conditions excluded from their benefits will ultimately find themselves on a level playing field with men (Collins, Rustgi, & Doty, 2010). Several short- and long-term provisions will help small businesses pay for their workers’ health insurance. Over the next 10 years, small businesses could receive an estimated \$40 billion in government support through the premium credit program. Up to 16.6 million workers are in business establishments eligible for tax credit (Collins, Davis, Nicholson, & Stremikis, 2010).

Despite the anticipated benefits listed above, the health care law is being challenged. Opponents, mostly Republicans, are opposing it on several grounds. Attorneys general of several states have sued the federal government, citing the law as a violation of state sovereignty. They claim that Congress has no authority to require individuals to purchase health insurance. Legislators in many states have introduced measures to amend their constitutions to nullify portions of the new law. Governors are afraid that adding millions of people to their states’ Medicaid rolls will add billions of dollars to state health care costs, even after the federal government picks up the tab for the newly eligible. There are those who believe that health care reform should be left to the states. However, the reality is that a state-by-state approach would make it harder to rein in health costs with system-wide reforms. In the current economic climate, states are in no position to launch initiatives. Even in better times, states with the highest rates of uninsured have shown little interest in expanding coverage (MacGillis, 2010). Furthermore, having 50 different health care delivery programs would create a nightmare of varying coverage and bureaucracy (Seward & Todd, 1995). And as Ignagni (1995) put it,

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If I am a Medicaid recipient, why should I be deprived of benefits in one state and entitled to them in another, or protected by quality assurance standards in one state and left unprotected in another, simply by accident of birth or residence? Similarly, should a health plan operating in 50 states be subjected to 50 different sets of regulatory requirements? And should different kinds of health care delivery systems be held to different levels of accountability? (pp. 223–224)

Many legal authorities are of the opinion that the legal challenges to the new law have no merit and are unlikely to succeed (Jost, 2010). Instead of beginning the work of developing systems to implement the expansion of Medicaid, state governments are allowing themselves to be distracted from the real work ahead. Many of the states opposing expansions are those whose Medicaid-eligible patient populations have the most to gain from health reform (Ku, 2010). Republican members of Congress are planning to repeal or roll back the new law, or to chip away at it if they cannot dismantle it. *Repeal*, *replace*, and *revise* are the buzzwords. Their strategies include (1) withholding money needed to administer and enforce the law; (2) going after specific provisions of the law, such as the requirement for most Americans to obtain health insurance and for employers to offer insurance to their employees or pay a tax penalty; and (3) scaling back the expansion of Medicaid if states continue to object to the cost of adding more people to the program. The probability of their plans' success is low because (1) the law is a response to a genuine need, (2) its popular and unpopular provisions are intertwined, (3) it will save \$143 billion over a 10-year period, (4) opponents do not agree on what to replace it with, and (5) they are not likely to gain the two-thirds majority needed in both houses of Congress to overcome a veto (Pear, 2010). Nevertheless, there is an air of uncertainty.

On the other hand, trends in demography, patterns of morbidity, and advances in the technology of health care are like straws in the wind, indicating the direction of future changes despite the politics of health care. Shapes of things to come already are visible, validating the truth of

the adage that coming events cast their shadows before them. It is reasonable to think that the future U.S. health care system will be different from what it is today. It will be different in the philosophy, approaches, priorities, and rewards of its organizations and in the attitudes, knowledge, and skills of its care providers. Social work must prepare for those changes and turn the prevailing uncertainty into an opportunity for meaningful contributions to the health care of tomorrow. This book is a partial response to that professional need.

This chapter (a) reviews the past and present of social work in health care; (b) forecasts the future of health care by looking at the anticipated demographic and other sociological changes, advances in biomedical knowledge and health care technology, and changes in health care financing, structure, and services; (c) identifies the health and health-related problems that are likely to persist; (d) discusses the significance of the changing health care scene for social work; and (e) identifies the assets that the social work profession can build on for its future roles.

A BRIEF LOOK AT SOCIAL WORK AND HEALTH CARE

In all health care settings, social workers have provided a holistic perspective on problems and situations, highlighting the social antecedents and consequences of illnesses and the need to deal with the larger picture along with the immediate concern. At the level of the individual's acute or chronic illness, a social worker's focus is on the patient's physical, psychosocial, and environmental health needs. In the second half of the 19th century, social workers were in the forefront of the movement for reform in labor, housing, relief, sanitation, and health care. They were acutely aware of the interdependence of all dimensions of human life. They saw how such social factors as poor housing, neighborhoods, work conditions, family situations, and diet adversely affected health and how poor health, in turn, produced a host of social problems. They viewed health as more than the mere absence of illness and

considered physical health as necessary for social, psychological, and economic well-being. The following quote illustrates this interrelationship:

It is bad enough that a man should be ignorant, for this cuts him off from the commerce of men's minds. It is perhaps worse that he should be poor, for this condemns him to a life of stint and scheming in which there is no time for dreams and no respite from weariness. But what is surely worst, is that he should be unwell, for then he can do little about either his poverty or his ignorance. (Kimble, as quoted in Houghton, 1972, p. 28)

This recognition of health care's importance for the total well-being of the individual and the ability of social workers to make unique contributions to patient care resulted in health social work becoming the largest field of social work practice. Of all the health care sectors, social work in hospitals became the most remarkable in terms of the number of social workers employed, variety of professional social work roles performed, richness of the practice models used, strategies and approaches developed, and tasks performed—tasks aimed at enhancing the quality of patient care, as well as at contributing to the institutions' efficiency and cost-containment efforts.

The emergence of social work roles and responsibilities and the development of appropriate knowledge and skills have been partly the result of an evolutionary process and partly that of the profession's reaction to the changing situation and needs of the health care system. Many factors have affected the development and practice of social work. The complexity of health care organizations along with a number of variables such as their perception of social work practice, their resources, the organizational climate, the competencies of social workers, and administrative and interdisciplinary support (Holosko, 1992) resulted in the differential use of social work skills. There is also much variation in the nature and functions of various health care organizations, even within each health care sector. Here, we look at hospitals as an example of this variance and how hospital-related variables affect the practice of social work.

Marked differences exist between, for example, a small community hospital and a large university-based teaching medical center or between a public general hospital and a for-profit private specialty hospital. Such differences have demanded variations in the nature and degree of social work involvement. The standards of the Joint Commission on Accreditation of Health Care Organizations require that every hospital make social work services readily available to patients and their families; that these services be well organized, properly directed, and staffed with a sufficient number of qualified individuals; and that social work services be appropriately integrated with other units. Hospital social work departments vary considerably, however, in terms of the number of social workers employed and the extent and nature of their work. The dominance of the health care field by physicians and their perspective of and approach to health care is also an important reality. Physicians and others often have tended to define social work roles and functions. Social workers have carried out the expected roles and performed the required functions, but while doing so, they also have sensitized other health care professionals to the psychosocial aspects of illness and treatment and the need for dealing with the total patient rather than merely his or her illness or disease.

In reviewing social work's goal of making the health care delivery system more sensitive to the needs of its clients, one finds that social work professionals have met with infinite success in their ability to have other professions adapt to their ways of helping, such as by considering the whole person and his or her life outside the institution. (Kerson, 1985, p. 301)

This success has had an important side effect. Professionals from other disciplines have accepted part of the "what" and "how" of social work and incorporated it into their philosophies and practices. Meyer (1984) said that we should be glad "that some of our special values are now held in esteem by others; it means that clients will reap the gains" (p. 7). However, this loss of distinctiveness of social work perspective and methodology has weakened, to a large extent,

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social work's claim to its own "turf" within the hospital. Social work functions in hospitals have included work with patients and their families involving provision of both concrete services and intangible psychotherapy; work on behalf of patients and their families, both within the hospital and outside; work regarding the hospital's mission and overall functioning; work regarding the community's health needs and resources; and education of social work students and other health care professionals.

Most social work units in hospitals have been responsible for at least the following functions: (a) high-risk screening, (b) psychosocial assessments and intervention, (c) interdisciplinary collaboration for coordinated patient care, (d) discharge planning, and (e) postdischarge follow-up. Despite the important relevance of these functions to the quality and effectiveness of medical care, social work has not become a core health care profession. Social workers have experienced only limited success in asserting their professional autonomy and assimilating into the medical world as occupiers of their own legitimate turf. In the words of Erickson and Erickson (1992),

Having a place to stand within the field, with a defined area of competence, a shared and recognized domain of autonomy, are all matters that are never finally settled (other than perhaps in specific sites) in the field, but rather are continuously subject to redefinition. (p. 7)

Meyer (1984) provides an explanation of this state of affairs:

Our professional problem is not that we are lacking in experience, knowledge and skills, but rather that we have for so long concentrated our efforts on the doing of our work, we have not articulated it, we have not evaluated it, and worst of all, we have not thought about it. We are still an emerging profession because we have used our feet and not our heads. In this regard, it would be well to follow the medical model; physicians write up what they do, and often because they claim expertise, they are perceived as having it. Social workers are too modest to claim the domain they have been working in for a hundred years. (p. 9)

The unpleasant reality is that, in the turmoil of change on the health care scene that started with the introduction of a new system of financing based on diagnosis-related groups (DRGs), social work lost ground in the hospital sector. Hospitals experienced closings, downsizings, mergers, affiliations, and other forms of restructuring, and in the process of cutting costs, departments viewed as not producing enough revenue became easy prey.

Since the late 1990s, hospital census and bed-utilization-per-staff statistics have contributed to the elimination of staff positions, which resulted in the reduction or elimination of hospital social work departments. As part of downsizing and reengineering, many hospitals eliminated the social work director's position and redeployed remaining social workers to operate under the supervision of nurses or generically trained case managers and administrators (National Association of Social Workers, 2006, p. 189).

Not only were social work positions eliminated, many social workers were replaced by nonprofessional staff and other disciplines appropriated key social work functions. In answer to the question, "Is hospital-based social work in jeopardy?" Ross (1993) said that a widespread, progressive, and serious malady was threatening this professional domain and that the prognosis was uncertain. That statement is still true. Although the status of social work in other sectors of health care has not been uncertain, social workers are not making up for the losses experienced in the hospital sector. This is where forecasting the future, and thereby hoping to influence it, becomes a desirable professional activity.

FORECASTING THE FUTURE OF HEALTH CARE

Erdmann and Stover (1993) told a story of two frogs in the meadow who fell into a pail of milk. After an hour of struggling to jump out and failing, one of the frogs gave up and drowned. The other struggled all night and churned the cream of the milk into butter and found himself sitting

on a solid clump. He jumped out and went on his way. Drawing and building on the lessons from this story, the authors emphasized the importance of an optimistic outlook, hard work, perseverance, facility for assessing a situation realistically, the ability to convert facts—even inconvenient and painful facts—into a solid basis for action, and being prepared for the unexpected. We, as social workers, can add to this list the need to recognize our power over the future. “We ourselves build the future both through what we do and what we do not do” (Cornish, 1994, p. 60).

Forecasting can be done through several methods. To anticipate and prepare for the future of social work in health care, we have mixed and matched those methods and used data from the past and present, as well as projections about people and the conditions of their lives in the future. This mixing and

matching has been done with the realization that forecasting the future is a risky affair. The risk of being wrong is high, and the rapid pace of changes in society is increasing possibilities of error.

The view of the health care field’s future presented in this book is based on many streams of information and conjectures. These include (a) anticipated demographic and other sociological changes that will significantly affect the health care field; (b) anticipated advances in biomedical knowledge and health care technology; (c) likely changes in health care financing, structure, and services; and (d) health and health-related problems that are likely to persist. In the following section, we discuss the likely ways the health care system will respond to these changes and social work contributions to those responses. Table 1-A provides a glimpse of those forecasts.

Table 1-A Factors Likely to Affect the Future of Health Care

<i>Demographic Changes</i>	Decrease in the population of younger people
	Increase in the elderly population
	Nonwhites composing majority of the population
<i>Sociological Changes</i>	Minorities gaining political power
	More women in the workforce
	Changes in the institutions of marriage and family
<i>Biomedical and Health-Related Technological Advancements</i>	New drugs and diets for disease prevention and treatment
	New technologies for diagnosis and treatment
	Enhancement in the understanding of the human organism
	Changes in the approaches to health care

(Continued)

Table 1-A (Continued)

<i>Changes in Health Care Financing, Structure, and Services</i>	Many more people on Medicaid
	High-deductible health plans combined with health savings accounts becoming widely available
	More emphasis on outpatient care
	Illness prevention and health promotion becoming prominent
<i>Likely-to-Persist Health-Related Problems</i>	Medical problems
	Medicalized social problems
	Social problems

Anticipated Demographic and Sociological Changes

In order to appreciate the projected demographic changes in the country, we provide some of its current demographics below.

In 2010, the United States had a population of a little more than 310 million (310,519,000 to be exact). In 2007, people under the age of 20 made up more than a quarter (27.6%) of the population and people aged 65 and over made up about one-eighth (12.6%). Of the total population, about 156 million are female and about 152 million are male. The total fertility rate (estimated in 2009) is 2.05 children per woman, which is slightly lower than the replacement rate of 2.1. Racially, the country has a white American majority. Minorities compose about one third (102.5 million) of the population. Population growth is fastest among minorities as a whole. In 2005, 45% of American children below the age of 5 belonged to minority groups (“Demographics of the United States,” 2010).

From 80 million in 1900, the population of the United States has grown to more than 300 million in 2010 and is projected to reach 438 million by the middle of the century. The nation’s elderly population will more than double by

then. The non-Hispanic white population will increase more slowly than other racial ethnic groups. That will result in white Americans becoming a minority (47%) by 2050. The Latino population, already the largest minority group, will triple in size and account for most of the country’s population growth (Passel & Cohn, 2008). In 2050, the nation’s population of children is expected to be 62% minority, up from 44% today. The percentage of the “working-age” population (those aged 18–64) is projected to decline from 63% in 2008 to 57% in 2050. The working-age population is projected to become more than 50% minority in 2050 (up from 34% in 2008). Immigrants and their U.S.-born descendants are expected to provide most of the population gain in the decades ahead (U.S. Census Bureau, 2010).

These projections are based on two assumptions: (1) the rate of immigration will hold steady, and (2) the different birth rates of first-, second-, and third-generation immigrants will continue. Regarding the validity of the first assumption, we agree with Haub (2008) that (1) there are no laws on the horizon that would seriously curb immigration, (2) some people view immigration as necessary for filling gaps in the aging workforce and providing support for retirees,

(3) the United States will continue to symbolize a better life for millions in developing countries, (4) populations in many sending countries and regions will continue to grow and thereby maintain a pool of potential immigrants, and (5) immigrants maintain ties with their extended families in their native lands, and family reunification provisions of the immigration law also lead to the continued inflow of new immigrants. Regarding the second assumption, there is no reason to believe that the pattern of birth rates for first-, second-, and third-generation Americans will be different in the future.

In view of the current and projected demographic changes, Irvin (2007) says that the United States is headed for a “demographic singularity,” which he defines as a pace of change so fast that the American identity as we know it will be irreversibly altered. These changes are also likely to lead to many others that will significantly affect the nature, quality, and structure of health care in the future. The gradual increase in life expectancy will continue. For example, in 2007, American men could expect to live 3.5 years longer and women 1.6 years longer than they did in 1990 (National Center for Health Statistics, 2010a). More and more people will live longer and be healthier. They will be culturally more diverse, better informed, and politically more active. Social institutions will constantly make efforts to accommodate the special needs of various groups such as the elderly, minorities, and women.

As hinted above, a sizeable proportion of the population will be made up of those aged 65 and older. The U.S. Census Bureau projects that the 65+ population will double between 2000 and 2050. One in nine current baby boomers will live to at least age 90. The number of those 85 years old and over will quadruple by 2050. Based on the findings of several studies and surveys, Ervin (2000) has offered the following forecasts regarding this population.

1. *The retired will work again.* More elders will reenter the labor force because of their proficiency with computers and the new legislation that allows those 65 to 69 to earn without penalizing Social Security benefits.
2. *Tech-savvy seniors will maintain their independence.* Elder-friendly technology will help in several ways by improving the ability of frail and vulnerable seniors to access information and resources and by reducing isolation of those living in rural and hard-to-reach areas. Products such as the multifunctional pager, which alerts seniors when it is time to take a particular medication, will become readily available.
3. *The hottest fitness buffs? Seniors!* Health plans will begin offering health club memberships and personal trainers as part of their coverage for seniors.
4. *Senior-friendly cars will offer independence.* Automakers will market cars that are easier and safer for seniors to drive. The “senior-mobiles” may feature higher seats, larger numbers on the speedometer, and slower acceleration. They will help seniors retain their independence—as losing the ability to drive is, for many, synonymous with losing their independence.
5. *Seniors will be important voters.* Seniors are already the top voters; they will be the most informed voters in the future. One survey showed that four of the five TV programs most frequently watched by seniors are some type of news program. Seniors also are avid readers, with 87% ranking reading the newspaper among their most favored regular activities.
6. *More alternatives to nursing homes will emerge.* These will include assisted living, independent living, life-care communities, and adult day-care facilities. Most people do not know of the alternatives currently available. One of the government’s biggest tasks in the future will be to increase people’s awareness in this regard.
7. *Boomers could end up impoverished.* Many aging baby boomers may find themselves impoverished because they did not plan for the costs of long-term care.
8. *Elder care shortage is coming.* As the population of those 85 and older doubles to 8.4 million by 2030, the demand for professional home-care aids will skyrocket.

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9. *Aging boomers will force health care policy changes.* There is power in numbers. About 76 million boomers born between 1946 and 1964 soon will join the ranks of older Americans. Many of them are providing care for their aging parents. They also have a vested interest in ensuring that quality health care will be available for them as they grow older.
10. *Elder care will hurt women's careers.* Despite their advancement up the corporate ladder, women are disproportionately affected by elder care. A study by the National Alliance of Caregiving and the AARP found that 31% of caregivers significantly alter their career paths, and some leave the workforce altogether.
11. *Telecommuting will assist family caregivers.* Increased telecommuting will ease the burden of long-distance caregiving by allowing working adults to move closer to their aging parents. As more and more companies offer telecommuting, their employees will be able to work from anywhere in the country and, thereby, also meet eldercare responsibilities.
12. *More employers will offer eldercare.* Eldercare benefits will become a major issue as increased eldercare-related absences and falling productivity begin to take a toll in the workplace. Employers will offer more eldercare benefits to combat employee turnover.
13. *Caregivers will need interviewing skills.* As the senior population grows, there will be a constant stream of new products and services for them. Caregivers will be forced to make decisions on whom to hire and which organization to use. Employers will provide training to their employees on how to make good decisions about hiring home aides and choosing eldercare service providers.
14. *Working families will gain state allies.* California, Minnesota, Oregon, and Washington already have passed laws that allow workers not covered by union contracts to use up to one half of their paid sick leave to care for an ill child, spouse, or parent. Other states will take similar steps to ensure that companies accommodate the caregiving responsibilities of their employees.

An increasingly large number of the elderly will lead generally healthy and independent lives.

More and more of them will respond to society's call to continue using their knowledge and skills by staying in the workforce longer or reentering it. As a group, however, the elderly will continue to be heavy users of health and social services as they survive such illnesses as heart attacks and strokes. At present, about 6.5 million older people need assistance with activities of daily living (e.g., bathing, cooking, cleaning, dressing). That number is expected to double by 2020. How best to meet the needs of the elderly and where—particularly the issue of community-based versus institutional long-term care—will continue to be important societal concerns.

The increased diversity *in* aging as well as *of* the aged population will be an important element adding complexity to that social reality. Even today, 40 years and three generations may separate the younger from the older “elderly.” Different subgroups of the elderly have differing needs. The number of elderly from different racial, ethnic, and otherwise culturally diverse groups will grow, making it impossible to ignore their needs. Meeting these differential needs will be a significant challenge to policymakers and program planners. The attention given to the needs of the elderly and the resources devoted to meeting those needs possibly will generate animosity toward them on the part of younger generations. Feelings of neglect and social starvation may become part of the experience of more and more elderly. The suicide rate of the elderly is higher than that of the general population. People over age 65 make up only 12% of the population but are responsible for 16% of all suicides. While the suicide rate in the general population is 11 per 100,000 persons, it climbs to 14 per 100,000 in the elderly age group (“Suicide in the Elderly,” 2009). This is despite the availability of powerful antidepressant medications and various psychosocial therapies for dealing with depression, which is considered to be the major cause of suicides in the elderly. The causes of depression in the elderly will not likely be reduced in the future.

As forecast above, the United States is moving rapidly from a white society of European origin to a multiracial and multicultural one. Many major cities already have nonwhite majorities,

and this trend is rippling out from urban centers to suburban and rural areas. With today's minorities making up almost half the U.S. population by 2050, not only will the country's complexion have changed but its cultural norms and power structure will have as well. Spanish language will vie with English for prominence as the medium of communication. Los Angeles is now the second-largest Spanish-speaking city in the world, after Mexico City. One can prosper in southern Florida even if one speaks only Spanish. Some 1,000 publications already cater specifically to Latino audiences ("Latinos on the Rise," 1993). Similarly, Asian Americans will become much more visible and active. In the future, the various minority groups—ethnically different, culturally varied, and religiously diverse—will assert their claim to their share of political and economic power more successfully than they are now.

The same will be true of women. Their participation in the labor force will continue to increase. In 2008, 59.5% of women aged 16 and over were employed, compared with 73% of men (U.S. Bureau of Labor Statistics, 2008). In the future, women will reach a critical mass in virtually all white-collar professions. They will exercise more political power and ensure the elimination of gender-based disadvantages for themselves in the educational, occupational, and political arenas. They will not only have greater employment opportunities with equal pay for equal work under conditions favorable to them but will also occupy positions of leadership at all levels of management. Traditionally "feminine" attributes, such as the willingness to share power and information, will be seen as necessary to lead in a time of rapid change (Rosener, as quoted in Field, 1993). Their influence on the health care field will be manifold. This statement is truer today than it was 20 years ago: "Women who have been the backbone of medical institutions in menial and powerless roles are now claiming more influential positions as well as seeking different attitudes and behaviors from male physicians who have dominated the health care field" (Rehr, 1991, p. 11). In the future, they will have secured not only an easy entry into the fields of medicine and health care management

but also positions of leadership. They will also be important for the application and success of many new health care technologies, such as gene therapy and chromosome manipulation, that will involve women more than men as patients.

Changes in marriage and family will continue at a mind-boggling pace. Fisher (2010) says that marriage has changed more in the past 100 years than it did in the 10,000 years before that and it could change more in the next 20 years than in the past 100. She has described the already occurring changes in this way:

Let's look at virginity at marriage, arranged marriages, the concept that men should be the sole family bread winners, the credo that a woman's place is in the home, the double standard for adultery, and the concepts of "honor thy husband" and "til death do us part." These beliefs are vanishing. Instead, children are expressing their sexuality. "Hooking up" (a new term for a one-night stand) is becoming commonplace, along with living together, bearing children out of wedlock, women-headed households, interracial marriages, homosexual weddings, commuter marriages between individuals who live apart, childless marriages, betrothals between older women and younger men, and small families.

Our concept of infidelity is changing. Some married couples agree to have brief sexual encounters when they travel separately; others sustain long-term adulterous relationships with the approval of a spouse. Even our concept of divorce is shifting. Divorce used to be considered a sign of failure; today it is often deemed the first step toward true happiness. (p. 27)

Before the 1960s, divorce was uncommon, laws made it difficult to divorce, and the general public disapproved of divorce. During the 1960s, 1970s, and 1980s, divorce rates increased, the legal system made it easier to get a divorce, and the general public became more accepting of divorce. In the 1990s, the divorce rate declined, state governments enacted programs to strengthen marriage, and the general public started supporting the norm of lifelong marriage. The present stage is likely to continue for some time (Amato, 2004).

Are the divorced better off than their married counterparts? Using data from the General Social

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Survey, Forste and Heaton (2004) examined mean differences in measures of well-being, family attitudes, and socioeconomic status of individuals divorced, remarried, or in first marriages. Those first married between 1965 and 1975 were sampled, and 48% reported being divorced or separated. The divorced/separated reported the lowest level of well-being relative to those in their first marriage, and those who had remarried reported higher levels of well-being than those who were still divorced or separated. Lichter, Graefe, and Brown (2003) used data from the 1995 National Survey of Family Growth to examine marital histories of at-risk women. They found that poverty and welfare receipt are substantially lower for those who married and stayed married than for those who never married or were divorced.

Children who experience family disruption in the form of divorce and conflict are adversely affected. A number of studies have shown that divorce affects children through several mechanisms: (1) the stress of divorce tends to disrupt the quality of parenting from custodial parents; (2) living in a single-parent household undermines the quality of relations with noncustodial parents; (3) divorce typically is followed by a decline in household income; (4) divorce tends to exacerbate conflict between parents, causing many children to feel that they are “caught in the middle”; and (5) divorce is frequently followed by other stressful events, such as moving, parental remarriage, and additional parental divorce (Amato, 2004). A study by Kirk (2002) compared young adults who had experienced family divorce with those who had not. Parental divorce did not affect relationship competence, but the level of perceived family conflict did influence self-esteem, fear of intimacy, and romantic relationship satisfaction. Those who reported more conflict in their childhood families reported more fear of intimacy, less self-esteem, and lower romantic relationship satisfaction. Parental divorce did affect fear and expectations of divorce for those who had experienced it more than for their intact counterparts.

American families will become even more diverse in the future. With the decline of the

traditional family of husband, wife, and children, it will become impossible to determine what a “typical” family is. The current picture of the American family includes nuclear families, single-parent families, remarried and stepfamilies, nonmarital heterosexual and homosexual cohabitation families, foster and adoptive families, and multiple-adult households. In 2008, 41% of babies were born to unmarried mothers, which is an eightfold increase from 50 years ago, and 25% of children lived in single-parent homes, almost three times the number from 1960 (Luscombe, 2010). Medical advances in the form of newer reproductive technologies are adding complexity to the familial picture. Genetic, gestational, and nurturing parents can now be separated or combined in numerous ways by various combinations of artificial insemination, in vitro fertilization, embryo transfer, and freezing (Chell, 1988).

This picture of the family will become even more complex in the future. “More individuals will experience a greater variety of family situations over their lifetime. For many this will include growing up in single- and multiple-parent situations, living singly, cohabiting, remarriage, and widowhood” (Rubin, as quoted in Olson & Hanson, 1990). Child custody issues and disputes will become more tangled and difficult to deal with. Already, we are seeing biological parents fighting against stepparents for custody of children, grandparents suing for visitation rights even when a child has been adopted, and an estimated 1.5 million lesbian mothers living with their children (Herman, 1990). For the first time in its history, the U.S. Census Bureau counted gay marriages in its 2010 surveys. According to a 2007 study of adoption trends, more than 50% of gay men said they desired to be parents, compared with 41% of lesbians surveyed. Same-sex couples and homosexual singles applying for adoption tend to be older, better educated, and economically more resourceful than their heterosexual counterparts (Wagner, 2010). However, family policy, particularly adoption policy, has been slow in catching up to the reality of the new forms of family. As a result, same-sex couples are forced to manipulate the words of the law and “go in the back door” to

adopt children (Crawford, 1999). This situation will change in the future.

Rates of marriage and divorce may become meaningless in the future. In view of the multiple forms of the family, such information will have little explanatory and predictive value. A recent survey by the Pew Research Center revealed that nearly 40% of Americans think marriage is obsolete (Luscombe, 2010). If the number of single-parent households continues to increase, the associated problem of disproportionately higher rates of poverty among single mothers and their children will continue.

The average number of children per family will continue to shrink, and childless families will become more common. Overall, fewer children in the country does not mean that those children are more adequately cared for. Since 1974, children have been more likely than adults to be living in poverty. In 2007, children represented 35.7% of all Americans living in poverty. As many as 13.3 million (18%) children lived in poverty, and another 15.7 million (21.2%) were classified as near poor with a family income between 100% and 200% of the poverty level. The proportions of Hispanic and black children in poverty are much higher than the above overall percentage. In 2007, 29% to 35% of Hispanic and black children were poor, compared with 10% to 13% of white and Asian children (National Center for Health Statistics, 2010a). Hence, this problem is not only persisting but getting worse. Poverty will continue to breed numerous other problems.

The complexity of life in the future will be reflected not only in the diversity of family forms but also in economic and work situations. America's large companies already have gone global.

The companies on the S&P 500 generate 46% of their profits outside the U.S., and for many of the biggest American names, the proportion is much higher. . . . Nearly 80% of Coca-Cola's revenue comes from outside the U.S., and an even greater percentage of its employees are in foreign countries. (Zakaria, 2010, p. 32)

This phenomenon will affect not only the overall availability of jobs but also the nature and quality of jobs in the country. The U.S. industry will face

tougher competition from abroad and will have to satisfy much more informed and sophisticated consumers while accommodating the needs and demands of its workers. Worker benefits will include insurance for or provision of health care, mental health care, child-care, and eldercare services. Case management and comprehensive counseling will be included in benefits packages.

In the future, the importance of groups and group work in the lives of people will grow. Kessler, Mickelson, and Zhao (1997) conservatively estimated that more than 25 million Americans have participated in a self-help group at some time in their lives—more than 10 million of those in the past 12 months. They excluded groups organized or facilitated by professionals. Not only are people part of self-help or mutual-aid groups that meet face to face, they also are participating in online support networks. The latter operate on message boards, newsgroups, and bulletin boards, and through chat groups, discussion mailing lists, and interactive websites (Madara, 1997). Nearly half of all Americans have a Facebook account (Grossman, 2010). People who belong to these groups feel better emotionally and physically than those who face their problems alone. This trend will persist in the future as people continue to appreciate the benefits of acting together in groups, as well as the benefits of forming coalitions for mutual support and empowerment. Further improvements in communication technology will make it even easier for people to realize those benefits.

Advances in Biomedical Knowledge and Health Care Technology

Advances in social workers' understanding of human health and illness and their ability to affect those phenomena positively will continue at an astonishing pace. Already, advances in neonatal care are resulting in the survival of live-born infants weighing less than 1,000 gm. (2.2 lb.), who would more often die than live even 40 years ago. Techniques such as cardiopulmonary resuscitation, mechanical ventilation, renal dialysis, artificial feeding, and antibiotics are prolonging

the lives of adults. Experiments being conducted in laboratories and clinics all over the world provide examples of future advances. In his book *Rx 2000: Breakthroughs in Health, Medicine, and Longevity in the Next Five to Forty Years*, Fisher (1992), a physician, predicted not only specific improvements, inventions, and developments but also the time frames during which they were likely to take place. Some of these have happened already; others are happening or are expected to happen in the near future; and still others will involve some waiting for. We have divided the recent and anticipated changes into four groups: (a) development and discovery of drugs and diets for the prevention and treatment of diseases; (b) improvements in the technology of diagnosis and treatment, both medical and surgical; (c) enhancement in the basic understanding of the human organism; and (d) changes in the approaches to health care.

New Drugs and Diets for Disease Prevention and Treatment

In the future, (a) a drug for the prevention of breast cancer will be released, (b) an AIDS vaccine will be developed, (c) drugs will be able to prevent or correct osteoporosis by regulating calcium metabolism and bone formation, (d) drugs will be able to inhibit the growth of the prostate gland, (e) a vaccine against bacteria that cause cavities and periodontal disease will become available, and (f) drugs that slow cell metabolism (and thereby keep the cells alive longer) and, thus, slow the aging process will become available (Fisher, 1992).

Of all American deaths, 60% are attributable to behavioral factors, social circumstances, and physical environmental exposures (Kindig, Asada, & Booske, 2008). People will become more conscious of this reality and realize that they do have some control over these aspects of their lives. For instance, there will be a greater appreciation of the relationship between improved diet and good health. "Nutraceuticals"—nutritional products with disease-related benefits—will come into the mainstream of medical practice and thereby become an important part of health care in the

future. Examples of these nutraceuticals are calcium for possible prevention of colon cancer, nicotinic acid for reduction of serum cholesterol, beta carotene for possible prevention of lung cancer, and magnesium for the treatment and prevention of certain types of hypertension ("Foods That Bring Better Health," 1991). Gottlieb (1995) recommended food therapies for maladies as diverse as colds and prostate problems.

Not only will newer and more effective drugs prevent and cure diseases, but they also will be administered in easier ways. The following are some examples of future approaches to drug delivery.

A new form of oral drug delivery using hydrogel has been developed at Purdue University. Hydrogel is capable of remaining in the stomach and releasing drugs into the bloodstream for up to 60 hours, which is five times longer than the capability of current drugs ("A Spoonful of Hydrogel?" 1991).

The use of tiny pumps implanted in a patient's body to send a drug to the target site will become common. The pump can be reprogrammed by a computer and radio signals to alter the dosage of the drug released and can be refilled by hypodermic syringe when its reservoir is empty. It will help treat diabetes and heart disease as well as Lou Gehrig's, Alzheimer's, and Parkinson's diseases ("Tiny Pumps for Drugs," 1988).

Medicines will be delivered through a tiny array of hundreds of microscopic needles rather than through a single hypodermic needle. Researchers at the Georgia Institute of Technology are developing such a device. The microneedles penetrate only the outermost layer of skin, which contains no nerve endings, delivering drugs that cannot be administered orally ("Tiny Needles," 1998).

Smart drug delivery systems that deliver medicines to the body at a precise location could arrive before the end of the decade ("Tomorrow in Brief: Nanotubes," 2005).

New Technologies for Diagnosis and Treatment

Technology is reshaping health care by providing more sophisticated diagnostic tools and

treatment options. Already available diagnostic technologies include the following:

- *Three-dimensional and cine-computed tomography (CT)*, which is a vast improvement on the conventional CT. Three-dimensional CT has increased the utility of CT imaging, and cine-CT provides images at four times the speed of conventional CT.
- *Two-dimensional Doppler echocardiography*, which combines two-dimensional imaging with Doppler display of blood flow. This technique allows for a safe and definitive diagnosis of a number of cardiac problems.
- *Low-osmolality radiographic contrast agents*, which are safer than the standard media used in such procedures as angiography and myelography.
- *Magnetic resonance imaging*, which is the top-rated modality for imaging the central nervous system. Newer, low-strength magnetic resonance imaging units can even be installed in mobile labs.
- *Mammography*, which is considered a “must” technology for the diagnosis of breast cancer.
- *Single photon emission computed tomography*, which merges nuclear medicine and CT technology and is an improvement on conventional imaging in the fields of cardiology and oncology.
- *Tumor markers*, on the basis of advances in monoclonal antibody production, are likely to improve cancer diagnosis.
- *Chorionic villus sampling*, a promising replacement for amniocentesis for prenatal diagnosis.
- *Ultrasound*, which is being used in combination with other diagnostic approaches such as endoscanning, which combines ultrasound and endoscopy (Coile, 1990).

Even more powerful diagnostic techniques and tests will become available in the future. At Battelle’s Medical Technology Assessment and Policy Research Center, researchers have developed a machine that can measure gases in parts per trillion. Even at the very early stage of many diseases, the patient’s breath contains small amounts of certain chemicals. If physicians can detect these chemicals by analyzing the patient’s breath, they may be able to detect a disease (Olesen, 1995).

A simple blood test will predict heart attack in the future. Measuring plaque buildup within the

blood vessels of the heart is the best way to identify those at greatest risk of having a heart attack. At present, this is done through an invasive angiogram. A study has found that a blood test can forecast with 83% accuracy how much plaque is present. More research will determine the validity of the test (Park, 2010a).

Sudden cardiac death claims more than 400,000 American lives each year. It will become possible to prevent sudden cardiac death through the use of a portable heartbeat monitor. Researchers at Northwestern University are working on such a noninvasive monitor. It will record heart rate variability 24 hours a day and enable physicians to identify and treat patients at high risk of sudden cardiac death early enough to prevent death (“Preventing Sudden Cardiac Death,” 1990). While describing telemedicine already in practice, Blanton and Balch (1995) said that patients recovering at home from heart attacks can put on a headset, connect the electrocardiogram wires to their chests, and ride their stationary bikes. The electrocardiogram information is carried to a medical technician in a hospital through telephone wires. Physicians at East Carolina University have set aside a cable channel to enable cardiac rehab patients to make visual contact with the hospital staff.

Physicians and other medical care providers will be able to monitor their patients’ conditions more easily and reliably in the future. Devices that will enable them to do so include the following:

- A wireless digital “bandage” that continuously monitors a patient’s vital signs and transmits data in real time to health care professionals. Such a device is being tested in the United Kingdom (Cohen, 2010).
- The iStethoscope, developed by English computer scientist Peter Bentley, is an iPhone application that uses an audio amplifier to filter sounds from the phone’s built-in microphone to transmit clear signals of a patient’s heartbeat to his or her cardiologist (“Heartbeat Monitor by Phone,” 2010).
- The outpatient health monitoring system uses wireless sensors to constantly monitor asthma patients and check environmental factors in patients’ homes, such as the presence of allergens,

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pollution, and humidity. This is like a physician giving his/her patient constant online checkups (“World Trends & Forecasts: Your Doctor,” 2009).

- Wireless technologies such as wearable computers and hospital mattresses embedded with sensors will allow for more constant and reliable monitoring of patients’ vital signs by physicians and other health care workers (“World Trends & Forecasts,” 2004).
- A monitoring device developed at the University of Florida detects sanitizer or soap fumes from people’s hands, offering real-time monitoring of hygiene compliance (“Soap Sniffer,” 2009).

Similar devices will help patients monitor their bodies’ workings and will help in other ways.

- A small device called the Fitbit tracks how fast you are walking, your heart rate, and even how well you are sleeping, and then uploads that information directly to a publicly viewable database. The Fitbit Tracker became available for purchase in January 2009 (“Be Your Own Big Brother,” 2009).
- Laptop “doctors” will monitor your vital signs on the go (“Futurist Update,” 2005).
- Radio-frequency identification technology is being embedded in the traditional white cane used by people with little or no vision. The SmartCane incorporates an ultrasonic sensor, and the user carries a miniature navigational system in a bag. The device detects obstacles in the user’s path and provides navigational cues with voice as well as vibration-based alerts. The SmartCane is under development at Central Michigan University (“Smart Cane Will Help,” 2009).
- Lyme disease can cause neurological problems, cardiac distress, facial paralysis, and arthritis. Cases of this disease have increased over the past few years. It has symptoms similar to those of other diseases and is, therefore, often misdiagnosed. A specific test for this disease, which Fisher (1992) forecast, has become available.

Among the therapeutic technologies already being used are (a) balloon angioplasty, which is replacing cardiac bypass surgery for the treatment of blockages of cardiac vessels; (b) continuous arteriovenous hemofiltration, which is

used as an alternative to conventional hemodialysis for the treatment of acute renal failure; (c) cochlear implants, which are a multichannel, significant improvement over single-channel devices for those with profound hearing loss; (d) gallstone pumps, which are used for flushing chemically dissolved gallstones, a nonsurgical approach to that problem; (e) lithotripsy, which uses sound waves to shatter kidney and urethral stones and is fast replacing conventional surgery as a treatment choice; and (f) lasers, which are used for a number of therapeutic purposes such as closing surgical wounds and unblocking coronary arteries (Coile, 1990).

Radiation treatments will use newer devices and techniques such as the gamma knife, a noninvasive device that delivers a single high dose of ionizing radiation from 201 cobalt-60 sources to previously inoperable brain tumors. At the point where all 201 beams intersect simultaneously, gamma radiation is dispensed to the tumor without affecting the surrounding tissue (“Invisible Scalpel,” 1989).

Physicians at Clatterbridge Hospital in northwest England are testing the use of proton therapy for treating eye cancer. It is believed that beams of subatomic particles other than X-rays can be used effectively against cancer. The more precise targeting of doses allows physicians to treat a tumor without affecting the surrounding tissues (“Proton Therapy,” 1989).

Newer, more effective, and safer treatments for cancer will be developed. In their search for new strategies, scientists are focusing on genomic research.

Cancer occurs when changes in a cell’s genome, or DNA instruction manual, trigger uncontrolled growth. New drugs target such molecular changes—blocking the effects of a factor that promotes cancer cell growth, for example, or inhibiting the formation of blood vessels that feed the tumor. Different cancers have different patterns of genome changes, and patterns differ even among those with the same type of cancer. So researchers are devising ways to tailor chemotherapy to each patient’s tumor—which should be more effective and less toxic than the current one-size-fits-all approach. (Collins, 2010, p. 8)

It will become possible to cure allergies, reverse baldness, and even manipulate biological rhythms (to combat such problems as jet lag).

Researchers at the University of Cincinnati have developed an implantable hearing aid no bigger than an eyeglass screw. This micromachine holds more than 10,000 transistors and requires only 20 microamps of power from its battery to operate. Replacement of the battery once every 5 years can be done through a simple surgical procedure (“Tiny Hearing Aid Developed,” 1995).

Couples suffering from infertility will benefit from newer and more sophisticated noncoital reproductive technologies. Two new approaches to treating infertility—in vitro fertilization and gamete intrafallopian transfer—already are being used. The practice of embryo freezing as an adjunct to in vitro fertilization has become commonplace.

Researchers at Stanford University have found a way to film the development of embryos in the first 48 to 72 hours after fertilization in a lab dish. This early peek may be crucial in embryo selection (Park, 2010b).

A new field of fertility medicine that helps cancer survivors have babies after treatment already has emerged. It is called oncofertility, as it is at the intersection of oncology and reproductive medicine. In the case of women, it uses a cutting-edge technique called ovarian tissue cryopreservation. An ovary or a piece of an ovary is laparoscopically removed and frozen before cancer therapy and later transplanted when the woman decides to get pregnant. More than a dozen live births have been reported from transplanted frozen ovarian tissue (Rochman, 2010).

New technologies also will save many more premature babies. A new ventilator developed in England monitors a baby’s breathing pattern and works in harmony with it, rather than forcing air into the lungs haphazardly. By permitting these infants to breathe normally, the ventilator promotes full development of the babies’ brains and bodies.

Advances in surgical approaches to treatment will be equally impressive. These will be

in the areas of improved surgical techniques with fewer surgery-related risks, use of more sophisticated artificial devices, and transplantation of human organs and tissues. The following examples provide an idea of future possibilities.

Under microscopic surgery, surgeons are able to suture veins and nerves as small as the period at the end of this sentence (Ross & Williams, 1991).

The linking of new imaging technologies with robotic surgery will become common (Coile, 1990).

Robot-assisted surgeries already are happening. The first robot-assisted closed-chest coronary bypass graft procedure was performed in 1998 in Germany, and the first all-robotic-assisted kidney transplant was done at St. Barnabas Medical Center in Livingston, New Jersey, in 2009 (Mironov, 2011). Kolata (2010) reports that robot-assisted prostate surgery has grown at an unprecedented rate. Last year, 73,000 American men—86% of those who had prostate cancer surgery—had robot-assisted operations. In the future, not only will the surgical robotic systems perform operations with great precision without requiring surgeons to be present in the operation room, but they also will create new tissue that helps in rapid and complete healing (Mironov, 2011).

Doctors will use sonar to detect bone fractures (“Health & Medicine: Doctors Use Sonar,” 2007).

A bone-substitute material that stimulates natural bone growth has been developed. It promises to revolutionize surgery for hip and knee replacement, bone cancer, and damage caused by accidents (“Bone Substitute,” 1994).

The use of artificial skin, hips, knees, finger and toe joints, Teflon ligaments, and heart valves already is taking place. These artificial body parts will be further improved, and others will join this list in the future. Research at Germany’s Fraunhofer Institute for Interfacial Engineering and Biology and its use of factory-like techniques may lead to the production of skin, cartilage, and other body parts quickly and in large quantities (“Tomorrow in Brief,” 2009).

Another example of future improvements in artificial body parts is found in the work done at the Oxford Orthopaedic Engineering Centre in England. Researchers there have developed a new standard for artificial-hip design and manufacture that can predict how such a hip will settle in the body over the next 10 years. Artificial-hip replacement markedly improves the quality of life for patients, but in up to 30% of cases, the surgery must be redone. The design of artificial hips in the future will be based on specific factors such as body weight, inertia, forces from the muscle, and the way the patient walks so that those hips can last the patient's lifetime ("Longer-Lived Artificial Hips," 1994).

People undergoing amputations will be able to wear more comfortable, natural-looking prostheses. For instance, the Endolite lightweight prosthesis enables its wearer to take part in strenuous activities such as squash, rock climbing, and cycling. Even those who have lost both legs can run again ("Amputees Get Back on Their Feet," 1990). Such prostheses may be crude examples of what will be available in the future.

Repairing of injuries to the nervous system will make significant progress in the next 10 years ("Health & Medicine: Repairing Injuries," 2007).

Use of nanotechnology in medicine will increase. Nanotechnology is a branch of engineering that deals with the manipulation of individual items and molecules. Current imaging methods detect cancers only after they are large enough to be visible. Nanotechnology will enable physicians to spot a single cancerous or even precancerous cell. The Center for Cancer Nanotechnology Excellence at Stanford University has developed a technique that attaches gold nanoparticles to molecules that have a special affinity for cancer cells (Collins, 2010).

"Artificial blood" will become the answer to the ever-present scarcity of donated human blood and the danger of contamination. Researchers at the University of Sheffield, England have developed a sterile synthetic blood made up of millions of plastic molecules that resemble hemoglobin. It contains iron atoms that help transport oxygen

through the body. This plastic blood can be used with any blood type, and unlike donated blood, it can be stored for months at room temperature. This may one day be used as a blood substitute in emergency situations ("Tomorrow in Brief," 2007).

In the field of transplantation, some things that existed only in human fantasy not long ago have become a part of regular medical practice. Surgeons are able to transplant some 25 tissues and organs. Tissues used in transplantation include bone, bone marrow, corneas and other eye parts, ligaments, tendons and other connective tissues, blood, blood vessels, and heart valves. Organs include kidneys, livers, hearts, lungs, pancreases, testis, stomachs, and intestines, and their transplantation already is giving thousands of sick people a new lease on life [1]. In the words of Humar, Matas, and Payne (2006),

The field of organ transplantation has undergone remarkable changes in the last decade. The growing number of agents available for immunosuppression have played a significant role in the advancement of this field. However, just as important has been the development of surgical innovations in the field. This includes not only the development of new surgical procedures, but also modification of the existing ones. This has involved all areas of organ transplantation including deceased-donor procurement techniques, living-donor transplantation, and transplantation of individual organs including kidney, liver, pancreas, and intestine. Examples include procurement from non-heart-beating donors; living donor transplants involving the liver, pancreas, or intestines; laparoscopic donor nephrectomy; split-liver transplants; and multivisceral transplants. All of these represent new, innovative procedures that are being performed on a regular basis in the last few years. (p. v)

Not long ago, a face transplant was performed at the Cleveland Clinic (McCarty, 2010), and a Belgian team used a novel method to make an organ acceptable to a recipient's body. The surgeons implanted the windpipe from a dead man into the arm of a young lady whose own windpipe had been smashed in an accident. After about 10 months, when enough tissue had grown around the implanted organ, they let her stop taking

antirejection drugs and transferred the windpipe to its proper place (Cheng, 2010). Spain has opened the world's first organ-growing laboratory for human transplants. The laboratory will "empty" human hearts or other organs unsuitable for transplantation and recolonize their cell content with the transplant patient's stem cells, allowing the organs to grow anew and readying them for transplant into the patient's body ("Spain Opens," 2010).

In the future, researchers will have added to the types of transplants being performed, including brain "implants." The ability to maximize the success of transplants will be further improved by such developments as the following:

- New approaches to keeping people alive while they wait for organs will be found.
- A suitable mechanical heart will be used in the interim to prevent death from heart disease during the wait for a transplantable heart.
- Transplanting organs from animals into humans will become possible.
- It will become possible to treat kidney failure by transplanting half a kidney instead of a whole organ, thereby maximizing the use of available organs.
- Maintaining the viability of recovered organs for transplantation for long periods of time will improve.
- Inducing transplantation tolerance in organ recipients will become possible.
- Transplantation of organs also will be used as a preventive measure.

Enhancement in the Understanding of the Human Organism

In the future, medical scientists will have added to human knowledge an understanding of life at the cellular level. Physicians of the future actually will be able to look inside every one of the trillions of cells of the human body and detect abnormalities at the most basic molecular level long before symptoms of disease appear (Fisher, 1992). That ability will empower them to attack disease at that most basic level and thereby make the prevention of disease the most important aspect of medical practice.

Genetics will be another area in which tremendous progress will be made. It will become possible to genetically engineer and artificially construct human organs. Similarly, the genetically engineered replacement for damaged brain cells in patients such as those with Alzheimer's disease will become a viable approach to treating those patients (Fisher, 1992). All human diseases and disorders will have their linkages, if any, to the human genome identified. The intermediate biochemical processes that lead to the expression of the disease and its interaction with a person's environment and personal history also will be explicated (Coates, 1994). A team of European researchers with EUREKA consortium has developed a novel chemical compound—a new type of synthetic DNA-carrying agent that brings the treatment of illness on the genetic level closer to reality. Gene therapy involves transferring new genetic information into the nucleus of damaged or deceased cells to reprogram those cells and thereby repair them (Tucker, 2010). In the future, research will help in the understanding, more effective treatment, and even prevention of such complex diseases as schizophrenia, heart disease, and inherited cancers. It also may lead to programs to enhance people's overall physical and mental abilities.

On the other hand, promises of genetic therapies will tempt people into tampering with their DNA. The Genetic Age will create a host of ethical issues that will defy our existing approaches to dealing with ethically challenging situations. Authors of *Chance to Choice: Genetics and Justice* (Buchanan, Brock, Daniels, & Wikler, 2000) have provided the following scenarios of the Genetic Age: (1) *Parents demand perfect babies*, babies who have no future risk of such diseases as breast cancer and Alzheimer's and who will fall in the highest quintile of intelligence. (2) *Jobseekers gain a genetic edge* by adding genetic credentials to their résumés. (3) *Genetic gridlock occurs* when an inexpensive blood test can detect for prospective parents all serious genetic disorders and susceptibilities for illnesses. Advocates and opponents of mass genetic screening have equally convincing

arguments for their stances. (4) *Cult leaders clone multitudes of followers.* (5) *Genetic technology transforms the insurance industry.*

A field known as *fetal origins* will grow in importance and influence.

Pioneers [of this field] assert that the 9 months of gestation constitute the most consequential period in our lives, permanently influencing the wiring of the brain and the functioning of organs such as the heart, liver, and pancreas. The conditions we encounter in utero, they claim, shape our susceptibility to disease, our appetite and metabolism, our intelligence and temperament. (Paul, 2010, p. 51)

Everything in the daily life experience of a pregnant woman, including the air she breathes, food she eats and drinks, conditions she deals with, and emotions she feels, is shared with the fetus and becomes a part of its body. Several research studies are being conducted to test the hypotheses generated by this field and the validity of the interventions based on those hypotheses. Particularly notable is a massive federally funded study, the National Children's Study, which will involve 100,000 pregnant women and follow their offspring until the age of 21 (nationalchildrensstudy.gov). This will lead to better services for the physical and mental health needs of pregnant women.

Changes in Approaches to Health Care

Approaches to health care will not be restricted to the traditional medical model of treatment. Already, Americans are spending billions per year on alternative medical methods, and agencies that offer nontraditional health care services have cropped up. The complementary and alternative medical treatment practices, as they are called, include "approaches such as aromatherapy, special diets, homeopathic and naturopathic medicine, traditional Chinese medicine, ayurveda, Qi gong, Reiki, therapeutic touch, light and sound therapy, energy healing, distant healing, and other modalities" (Huff & Yasharpour, 2007, p. 35). More than one third of American adults and 12% of children

are using some form of complementary or alternative medicine. Therapies showing significant increase in popularity in the past 5 years are deep-breathing exercises, meditation, massage therapy, and yoga. Hospitals are responding to increased patient demand for these services ("Hospitals and Patients Seek Alternatives," 2009).

The federal government has established the National Center for Complementary and Alternative Medicine within the Institute of Health to explore these practices, train complementary and alternative medicine researchers, and share research findings with public and health professionals. In 1994, 30 researchers and institutions were selected from among 452 grant applications for such projects as testing acupuncture and hypnosis to relieve pain and heal bones, massage therapy for surgical patients, dance movement for cystic fibrosis, macrobiotic treatments for cancer, biofeedback for diabetes, yoga for heroin addiction, tai chi for balance disorders, and massage therapy for AIDS babies ("Mainstream Takes New Look," 1994). Another example of newer therapies is aromatherapy. Research on the sense of smell by Shizuo Torii at Toho University in Japan has revealed that different fragrances produce different effects; some are calming and relaxing, others stimulating, and still others improve concentration ("Aromacology," 1990). "As life expectancy increases, people will not only be greatly concerned about their outer aging signs but about learning the techniques for keeping all of their senses at peak performance" (Green, 1993, p. 17). The growing acceptance of nontraditional therapies by even the medical establishment is reflected in the appearance of the journal *Alternative Therapies in Health and Medicine*.

In the future, health care personnel will not be dominated by those trained in allopathic medicine. These physicians will coexist with those practicing nontraditional forms of medicine such as acupuncture, homeopathy, and other approaches to treatment and care.

In the future, the current health care professionals will have redefined their roles in several ways. Landers (2010) has talked about physicians in San Diego, California, going to patients' homes with a new version of the black bag that includes

a mobile X-ray machine and a device that can perform 20 laboratory tests, and Massachusetts General Hospital in Boston is experimenting with Internet videoconferencing to permit virtual visits from patients' homes. Medical establishments will strive to provide accessible, patient-centered, coordinated care. The concept of patient-centered medical homes is being accepted as a viable approach to primary care. In 2007, four primary care specialty societies, representing more than 300,000 internists, family physicians, pediatricians, and osteopaths, agreed on the joint principles of the patient-centered medical home: (1) personal physician, (2) whole-person orientation, (3) safe and high-quality care, (4) enhanced access to care, and (5) payment that recognizes the added value provided to patients (Abrams, Davis, & Haran, 2009).

Gender change in the health care workforce, with more women in positions of authority, will be a significant feature of the future health care scene. Within the existing medical profession, pecking order will change among specialists. Specialties such as family practice, geriatrics, rehabilitation medicine, and psychiatry will become more prestigious. Newer specialties such as environmental medicine and addiction medicine, and subspecialties such as child abuse pediatrics (Lane & Dubowitz, 2009) will emerge. The resultant knowledge gaps and communication difficulties between specialties and subspecialties will become larger and bigger (Tow & Gilliam, 2009). On the other hand, general practitioners will regain a place of honor among their colleagues. Overall, focus of health establishments will be on primary care with a commitment to prevention and wellness. The need for generalist physicians will become even greater under the new law.

Schools of medicine and teaching hospitals already are being challenged to encourage students and residents to choose generalist careers. In 1992, the Association of American Medical Colleges created a task force to develop a policy statement for that purpose. That policy statement says:

The Association of American Medical Colleges (AAMC) advocates as an overall national goal that

a majority of graduating medical students be committed to generalist careers (family medicine, general internal medicine, or general pediatrics) and that appropriate efforts be made by all schools so that this goal can be reached within the shortest possible time. ("AAMC Policy," 1993, p. 2)

The task force also recommended several strategies for accomplishing this goal. Others since have added suggestions to these recommendations. However, there has been next to no success in this regard. The number of medical school graduates choosing careers in family medicine dropped by 50% between 1995 and 2005 (Bodenheimer, 2006). Among third-year internal medicine residents in 2003, only 27% planned to practice general medicine—a rate just half that in 1998 (Garibaldi, Popkave, & Bylsma, 2005). Government incentives will reverse this trend.

Health care retail outlets, which are more patient centered than physician centered, will become a part of the mainstream. These are located in drug stores, food stores, and department stores such as Target and Walmart and provide medical care for minor ailments 24 hours a day, 7 days a week. Certified nurse practitioners and physician assistants staff these mini-clinics and see walk-in patients quickly (in about 15 minutes) and affordably (for \$39 to \$110, covered by most insurers). The first of such clinics, called MinuteClinic, was opened in Minneapolis in 2000. Others are cropping up all over the country. Medical associations do not disapprove of them (Reece, 2007).

Within the diversity of professionals and approaches, unity will gradually grow. Considering and treating the patient as a partner will be the common theme reflected in the behaviors of all health care workers and their approaches. The informed consumers of future health care will not tolerate any other type of relationship. "Today's health care consumer is a sleeping giant—one who is awakening to his power. Fully awakened, he will be the master and health care providers will be the servants" (Leland R. Kaiser, as quoted in Coile, 1990). According to Veatch (2009), a new medicine is on the horizon in which patients will capture responsibility for their health choices. They will need to know the current medical

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facts—facts about diagnosis, prognosis, and expected treatment outcomes—but will become the experts in deciding which among the expected outcomes is best for them. Changes in the world of this new medicine will include the following:

1. The language of medicine will change. Veatch (2009) provides the following examples:
 - a. Doctors don't give orders. (They provide assessment of the medical facts.)
 - b. Patients are not discharged from hospitals. (Hospitals are not prisons.)
 - c. There is no such thing as "medically indicated treatment."
 - d. There is no such thing as "treatment of choice."
 - e. No treatment is ever "medically necessary."
2. Informed consent will be abandoned. (Patients need choice, not consent to the physician's recommendation.)
3. There will be no justification for physicians to prescribe medications (if they cannot know what is best for the patient).
4. Patients will no longer be stigmatized by labels created by health professionals.
5. Every person will be entitled to a decent amount of health care.
6. Hospice care will be a right of every person at the end stage of life. (It is not medical care and should not be part of health insurance.)

Ferguson (1992) presented a physician's forecast about how a health-active and health-responsible patient of the future will behave under what he called the "information age model of care." It is a six-step model. At Step 1—using individual self-care—the person tries to deal with his or her health problem or concern on his or her own. At Step 2—tapping into one's network of family and friends—he or she asks loved ones for help and advice if self-care does not work. At Step 3—using formal self-help networks—if advice from loved ones does not solve the problem, then he or she may seek help from community self-help programs such as a self-help hotline or self-help support group. At Step 4—using a

professional as an adviser—the person seeks appropriate information, tools, skills, and support. This does not result in the health professional stepping in and taking over. At Step 5—using a professional as a partner—the health professional does the things the person cannot do for him- or herself, such as ordering tests, prescribing drugs, and performing surgery. At Step 6—using a professional as an authority—the patient is unconscious or incapacitated and would want the professional to step in and manage the situation.

This health activity and health responsibility on the part of the patient will result from an easy access to information. Online technology already is making it possible for people to research information about their diseases and access disease support groups. Furthermore, patients are taking advantage of the growing self-help literature. For example, in one self-help book, Louria (1989), a physician, proposed a 17-point lifestyle regimen for what he called "taking control of your medical destiny." Included in the 17 points are specific medical tests (e.g., blood pressure, cholesterol level, mammogram) and the recommended frequency for running these tests. To these tests, he added a number of actions that people should take themselves, such as testicular or breast self-examination, daily back exercises, and seat belt use. For those over 65, his program includes yearly tests for taste, smell, hearing, and vision, as well as an evaluation of social support systems and disabilities.

Many more devices than blood pressure kits (commonplace today) will help in such self-performed or self-directed programs. A meter that determines a person's percentage of body fat is available. This handheld device uses infrared light to analyze the muscle-to-fat ratio in five places on the body. It compares the user's weight, height, age, and gender with medically established values and produces a customized health and fitness plan. Those who are ill but not in need of acute care will have personal emergency response systems based on implantable biosensors. They also will use a number of techniques and devices at home as part of their treatment. This home care already is happening to an

extent. “Cancers and pneumonias are now routinely treated with home chemotherapy and portable infusion therapy. Indwelling catheters allow home administration of hyperalimentation formulas and antibiotics” (Coile, 1990, p. 115). When they need the services of health care practitioners and facilities, patients in the future will have researched their background, experience, resources, quality of care, and cost beforehand. In the words of Reece (2007),

Given the size of the self-care movement, the electronic data entry self-services already common in U.S. retail establishments and widespread use of Internet search engines, innovations in self-care, self-service, and self-empowerment are powerful and inevitable. (p. 323)

For those needing hospital-based acute services, the *cure* will be accomplished through the use of sophisticated medical and surgical techniques and equipment, and *care* will be marked by patient-centered approaches and environment. To satisfy the patients of tomorrow, hospitals will have an atmosphere of openness and informality. Ferguson (1992) described some pilot programs [2] in patient-centered health care that are turning out to be the forerunners of hospitals of the future. Reece (2007) listed the following characteristics of hospitals being built for aging boomers and their children.

- *Hospitals designed for safety.* Designs include one-bed rooms, better lighting, rounded corners on all objects in the room, no-slip floors, sound-proof walls, and hand-washing basins in every room.
- *Hospitals designed for rapid information transfer.* Designs include information kiosks in every room for both patient and hospital staff use. Hospitals are linked with community-wide information systems.
- *Hospitals designed to create a culture of caring and healing.* Designs include “spacious receptive atriums, colorful decorating schemes, pastoral paintings on walls, entertainment and information centers, roof-top gardens, plants in the room, gourmet menus, and beds for relatives—even quarters for favorite pets” (p. 135).

- *Hospitals designed for convenience.* Designs include “ample parking; electronic check-in sites; websites showing medical staff backgrounds, nurse/patient ratios, and outcomes for major procedures; and one-stop shopping for doctors, lab tests, X-rays, imaging studies, and retail sites for 24/7 care manned by hospital-employed nurse practitioners” (pp. 135–136).

The recognition of special needs of older patients also is generating “senior emergency rooms” in hospitals across the country. Senior emergency rooms feature a quiet environment, dimmable light, extra-padded mattresses, non-glare floors, and blanket warmers. Doctors and nurses in these emergency rooms are trained in geriatrics. Every visit is followed by a call from a geriatric social worker or nurse (“An ER Just for Older Patients,” 2011).

On the long-term care front, some nursing homes are changing in ways that will enhance their residents’ quality of life. Labeled as “culture change in nursing homes,” a group of providers—the Pioneer Network in Long-Term Care—is dedicated to making nursing homes exemplify the following values: (1) responding to spiritual as well as mind and body needs; (2) putting persons before tasks; (3) seeking to enjoy residents and staff as unique individuals; (4) acting on the belief that as staff are treated, so will residents be treated; (5) beginning decision making with residents; and (6) accepting risk taking as a normal part of adult life (Fagan, Williams, & Burger, 1997). While discussing the physical environments of long-term care facilities, Kane (2001) says,

But on the positive side, currently there is unprecedented interest in physical design of living quarters for care, as well as specialized furnishings, fixtures, and equipment to enhance functioning. Long-overdue attention is being paid to chairs, switches, knobs, fabrics, colors, and materials. (p. 301)

The provision of *patient-as-a-partner-focused* comprehensive and well-coordinated services aimed at enhancing the patient’s quality of life will become the overall goal of the system at all

levels of care and in all settings. Mental health and social services will have to be viewed as integral parts of this broadly conceived health care system. The futility of artificial boundaries between health and mental health and health and social welfare will become obvious. Comprehensiveness of services will be the feature distinguishing that system from what we have today. Social and psychological disorders and social diseases resulting from lifestyle, environment, substance abuse, and stress will be as much the focus of that system as the treatment of physical diseases.

Understanding of mental illness will improve, and perspectives on and approaches to dealing with mental health problems will change. The belief in the biological bases of psychiatric disorders will continue to propel the search for more effective medicines for these disorders. Already, drugs capable of targeting specific mechanisms in the brain have been developed (White, 1993). Important changes in the theoretical perspectives on mental health problems are happening already. Friesen (1993, p. 12) listed the following among the advances in child mental health:

- *From* psychological models focusing mostly on intra- and interpersonal phenomena *to* more complex biopsychosocial and ecological models
- *From* a focus on pathology and deficits *to* a focus on strengths and empowerment
- *From* a focus on “child saving” *to* a focus on preserving and supporting families
- *From* a primary view of families as objects of intervention (client, patients) *to* families as partners in the design, delivery, and evaluation of services

Similarly, the concepts of “service delivery” and “practice roles” are changing (a) from a paradigm of program-centered services to person- and family-centered services; (b) from a solely therapeutic focus on the sick person’s behavior, emotional life, and family dynamics to comprehensive services that address the full range of the person’s needs; (c) from an exclusive focus on formal services to a larger view inclusive of formal and informal sources of help; (d) from limited service options to a wide array of services; (e) from agency-based “expert” roles to

professionals working collaboratively with families; and (f) from a specialized, fragmented set of services to the ones that are truly coordinated at the interprofessional and interagency levels, with the sick and their families as full and active members of the therapeutic team (Friesen, 1993). Such approaches will be built into the system, encouraged, and rewarded.

Changes in Health Care Financing, Structure, and Services

The Patient Protection and Affordable Care Act of 2010 will bring health care within the reach of many more Americans, but a comprehensive reform of the health care system is not likely within the foreseeable future. The historical and economic factors responsible for the current system will continue to exert their influence.

Historically, how Americans financed health care was based on the goal of protecting health care providers and not on serving the consumers. Economically, the health care system is a pervasive force in society (Merrill, 1994). Health insurance in the United States is a child of the Depression and the American Hospital Association, or AHA (Law, 1976). Because of the ravages of the Depression, when people could no longer pay for their hospital care, hospitals developed what later became Blue Cross plans. As Merrill (1994) put it, “It is interesting to note that, until 1971, the logo for Blue Cross was owned by the AHA and, historically, hospital representatives tended to dominate the boards of these plans” (p. 17). Although other motivations and concerns led to the creation of Blue Shield, the major motivation was physicians’ need for “a mechanism by which they could also get reimbursed by patients who were financially strapped as a result of the Depression” (p. 18).

The health care industry is a vital economic force. In 2007, it represented 16.2% of the gross domestic product, or about \$2.2 trillion (AHA, 2009a). It directly employs millions of people and indirectly creates jobs for millions more—the people who manufacture products or provide services that are health related. Any prospect of

major changes in the financing and structure of the health care system threatens the profits and positions of powerful groups and the bread-and-butter sources of millions of people. However, health care in the United States at the beginning of the 21st century is becoming characterized by a single-minded quest for profitability (Bodenheimer & Grumbach, 2002). This is reflected in the consolidation of the health care market—large insurance companies buying smaller ones, hospitals merging into hospital systems, and physicians forming specialty groups (and opening their own ambulatory surgery, diagnostic, and imaging centers). “Consolidation went hand in hand with organizations converting from nonprofit to investor-owned ‘for-profit’ status as they sought to raise capital for buy-outs, market expansion, and organizational infrastructure” (p. 190). These phenomena are a threat to the notions of professionalism and community service; however, they are leading to innovations in various sectors of health care.

In the future, the recipients of health care will continue to fall into the following four groups:

1. Insured through Medicare providing universal access to those 65 and older
2. Insured privately through employment or individual purchase
3. Insured publicly through Medicaid
4. Uninsured (the number in this group will be much smaller than before the passage of the new law)

States will continue to be heavily involved in the needs of those in Groups 3 and 4, with varying degrees of success. Society will gradually accept health care as a societal obligation and not as an individual responsibility.

The increased access to health care will result in (a) the demand for medical services exceeding the available resources, (b) growth in cost-containment measures, and (c) rationing of expensive medical technology (Barzansky et al., 1993). A cultural paradigm shift from “don’t worry about it, the insurance will pay for it” to “we’re only going to do this if you really need it and we’re

fairly convinced it will help” (Lundberg, 1994) already is taking place. However, it will become more difficult to decide what the minimal but adequate care is. Gradually, a consensus will emerge that “an adequate level of care should be thought of as a floor below which no one ought to fall, not a ceiling above which no one may rise” (Abramson, 1990, p. 10).

The problem of high cost of care will continue. So far, cost-containment efforts have essentially been cost-shifting strategies, each entity trying to contain its costs by shifting them to someone else. Society has not had the political will to reduce health care costs. As Merrill (1994) put it,

It may not be in anyone’s best interest to see overall costs contained and, thus, there never was the consensus needed to ensure that any of these efforts would prove successful, whether they involved regulatory approaches or more competitive strategies. (pp. 51–52)

Managed care and managed competition will continue being used as approaches to controlling costs and regulating access to health care but will be supplemented by consumer-driven approaches. Managed care is a generic term for organized systems of care that feature precertification requirements, a limited network of providers, and risk-based payment. Managed care is not new. In 1932, the Committee on the Cost of Medical Care called for the reorganization of medical practice from fee-for-service provided by solo practitioners to prepaid group practice. Kaiser Permanente started the first prepaid group practice more than 70 years ago, and health maintenance organizations (HMOs), the traditional form of managed care, grew after the passage of the HMO Act of 1973.

HMOs and preferred provider organizations (PPOs) are popular examples of managed health care. There are various models of HMOs and PPOs. All forms of HMOs use a gatekeeper, a primary care physician who is the first point of contact for care and must authorize referrals for specialty care. PPOs do not require a gatekeeper and allow for self-referral to specialists. PPOs generally are formed by insurers or employers

who contract with health care providers to create a network of preferred providers. These providers agree to follow certain utilization management guidelines and accept discounted fee-for-service payments in order to belong to the network. There are also point-of-service (POS) plans that offer limited coverage for self-referral outside the network of care providers. Members in plans that use a gatekeeper (HMOs) have the lowest copayments, those in plans that allow for self-referral to network providers (PPOs) have higher copayments, and those seeking care outside the network (POS plans) have the highest copayment (Kominski & Melnick, 2007). Managed competition is a system that allows health plans to compete for the enrollment of beneficiaries who can choose among those plans. “Thus, a sponsor—an employer, a government unit, a purchasing cooperative—acting for a large group of subscribers, structures and adjusts the market to overcome efforts of insurers to avoid competition” (Leukefeld & Welsh, 1995, p. 1210).

Over the years, enrollment in managed care organizations has varied. By the end of the 1990s, HMO enrollment (including enrollment in POS plans) had grown to an estimated 81 million people or about 25% of the U.S. population. Since then, the growth of HMOs has declined and PPOs have made gains. The primary driving force behind the growth of managed care has been employers seeking lower-cost alternatives to fee-for-service indemnity insurance for their employee health benefit plans. Of all individuals who obtained health insurance through their place of employment, 97% were enrolled in some form of managed care as of 2005 (Kominski & Melnick, 2007).

As a cost-containment strategy, managed care has met with limited success. Miller and Luft’s (1994) extensive review of the literature on the performance of managed care plans led them to conclude that no bottom-line estimates of expenditure differences per enrollee existed between managed care plans and indemnity (traditional insurance) plans. In the fee-for-service world, providers make more by doing more; financial incentives encourage over-treatment. In the managed

care world, providers make more by doing less; the system encourages under-treatment. The primary mechanisms used by managed care organizations are strict utilization review and financial risk shifting. “These mechanisms may operate in direct conflict with the goals of improving the health status of the underserved” (Randall, 1994, p. 225). The later literature reviews by Miller and Luft (2002) supported their earlier findings that HMOs use fewer resources but that most of the effect is now attributed to shorter lengths of hospital stays rather than to lower admission rates. Thus, these managed care and managed competition approaches do not seem “capable of providing universal, comprehensive, affordable, equitable coverage” (Mizrahi, 1993, p. 89). Others see managed care as an effort on the part of many important entities to attain dominance of the health care world.

Providers wish to protect their sources of income; industry and government are under pressure to contain health care expenditures; and the medical industry wishes to protect and increase its profitability. It is important to note that the health care consumer is conspicuously absent from this array. (Cornelius, 1994, p. 49)

Nevertheless,

managed care has become entrenched in the health care market, and the predominant form of health care delivery, albeit in continuously evolving organizational forms. Along with its rapid growth during the 1990s, managed care has also experienced an increasing level of popular dissatisfaction and bad publicity since the late 1990s and throughout the early 2000s, as newspapers and other media constitute regular outlets for some of the most common complaints against managed care. (Kominski & Melnick, 2007, p. 564)

A new model of health care has emerged that puts the patient center stage. Employers are offering their employees high-deductible health plans (HDHPs) combined with health savings accounts (HSAs). These consumer-directed health plans are “designed to make patients and families more conscious of each dollar spent on

health care by making them more responsible for the financial consequences of their health care utilization” (Brown & Lavarreda, 2007, p. 104). An HSA consists of contributions made by an employer to an employee’s tax-free savings account to help pay predeductible expenses under a health insurance policy that has a high deductible. This shifts the responsibility for health care services from the employer to employees (or patients). Any money not spent from the account is allowed to accumulate tax free, and employees can take the account with them if they change jobs. This not only makes the health care plan portable but also provides incentive for people to stay healthy and shop around for the best care at the most reasonable price, because they pay upfront for health services themselves. West (quoted in Reece, 2007) gives an example of how an HDHP policy with an HSA account would work for someone whose health care is not paid for by an employer. The premium for a healthy family in his area is \$1,600. His family of seven is covered by a policy with a \$5,000 deductible and costs them \$300 a month. They put \$420 in their HSA. Thus, it costs them \$720 a month instead of \$1,600.

The insurance industry, health care providers, financial institutions, and employers also are helping in the success of this model. Regulations under the Medicare Modernization Act of 2004 (which had a provision making HSAs widely available) provide a list of safe-harbor benefits that an HDHP can provide. Preventive safe-harbor services covered by HSAs include periodic health evaluation, routine prenatal care, well-child care, immunizations, tobacco cessation programs, obesity weight-loss programs, and screening services (e.g., Pap smears, mammograms, and bone-density measurements; Reece, 2007). The HDHP policies provide these services for free, and insurance companies are outdoing one another by offering richer preventive services. Managed care companies are providing websites for clients to track medical records, look up information on diseases, and compare costs and ratings of hospitals, physicians, and other care providers. In 2005, Aetna started a pilot project comparing hundreds

of negotiated rates with area physicians and making those negotiated prices available online. By the end of 2006, that program had been extended to many different parts of the country (Reece, 2007). St. Luke’s Health System, a 10-hospital system in Kansas City, Missouri, is making shopping easier for HSA holders by repricing its inpatient care and outpatient procedures and services. Physicians seem willing to provide services at discounted prices because they get paid at the time of service and do not have to wait months for payment by insurance companies. “Banks, credit unions, and money management firms are now quietly positioning themselves to become central players in the business of health care, offering 401(k)-type accounts to cover future medical expenses” (Dash, as quoted in Reece, 2007). Soon, these institutions will be offering debit cards to HSA account holders. Large employers are providing their employees education, encouragement, technical assistance, and technological wherewithal to take advantage of the preventive and wellness services and manage their HSA accounts (Hogan, as cited in Reece, 2007). About 3 million Americans are currently signed up for HSAs (Baum, as cited in Reece, 2007). It seems likely that the future will see further growth in HDHPs, with HSAs and even HMOs trying to regain some of their lost market by focusing on health maintenance.

The health care system of the future will continue to be marked by pluralism and diversity, but with more logic to its organization and greater integration of its services, both within the system and in the larger human services community. In health care settings, on the one extreme, hospitals will provide short-term, intensive, specialized treatment, and on the other extreme, residential facilities will provide long-term care through different service models. Between the two extremes, all kinds of ambulatory centers will provide both specialized and generic disease prevention, illness management, health maintenance, and wellness enhancement services. These centers will see more patients with more diverse problems than presently are being seen in ambulatory care settings.

Hospitals of the future will be cores of high-intensity and high-technology medical care. Most diagnostic and therapeutic technology, as well as powerful computer programs, will be within the reach of most hospitals and will turn even small hospitals into medical centers. Hospitals, however, will be for only those patients who have acute problems requiring highly specialized treatment. Hence, there will be fewer hospitals with fewer beds. The volume of acute inpatient services has begun to shrink already. Inpatient days fell from 263 million in 1982 to 206 million in 1990. In the overall scheme of things, hospitals will lose much of their preeminence in the future.

Long the central institution of the health care delivery system, the hospital is being challenged by important developments in epidemiology, technology, and economics. Individually and collectively, these changes threaten to push the hospital to the margins of the system, leaving most medical services and dollars controlled by “accountable health partnerships” that emphasize outpatient, home health, and subacute care. Alternatively, these environmental changes could provide a window of opportunity for the hospital to embark on a new mission as a health care center without walls. (Robinson, 1994, p. 259)

Although the shrinkage in inpatient services alluded to above has not caused an appreciable reduction in the number of hospitals yet, it has led to diversification of the care provided by hospitals. “Hospitals have integrated rapidly into outpatient facilities that diagnose patients prior to admission, into subacute facilities that shelter patients after discharge, and into many forms of health care that are not directly linked to acute inpatient care at all” (Robinson, 1994, p. 262). “Ambulatory hospitals” are testing the feasibility of clustering ambulatory care services away from hospital campuses.

Hospitals of the future will embark on new ventures such as the ones mentioned above, as well as others such as alcohol and drug units, rehabilitation centers, occupational health centers, day hospitals for the elderly, and rape crisis centers. They will also be more effectively connected with

other health and social services in the community. The connection with other health care organizations will take the form of integration, both horizontal and vertical. The idea of regionalization of medical care also will become a reality, whereby, for example, a CT scanner or a cataract surgery center will be located in the institution where more patients are in need of it, and others will be referred from affiliated hospitals (Rehr & Rosenberg, 1991).

Most health care will be provided through neighborhood-based outpatient programs. Ambulatory care centers—variously called emergenciers, surgicenters, and walk-in clinics—already are appearing all over the United States at a rapid rate. Over the next 5 years, under the Patient Protection and Affordable Care Act, \$11 billion in funding will be provided for the construction, operation, and expansion of community health centers across the country. In the future, the various kinds of nonhospital health care settings will be better equipped to perform sophisticated diagnostic and treatment work and many of the functions of today’s hospitals. These settings also will be the centers of wellness-focused prevention and early detection work.

The health care system of the future also will be guided and goaded by the need for efficiency. The use of computers will increase and significantly contribute to improving efficiency (by minimizing the time taken doing paperwork today), cutting costs, and saving lives (because of easy access to patient data). For example, computer technology will create integrated information systems for hospitals; these systems will allow hospital personnel in any department to look at and update patient records. (Possibilities of the abuse of medical information have been reduced by HIPPA [Public Law 104-191].) [3] In emergency medicine of the future, physicians will not start from the very beginning with every patient—as happens today because emergency personnel often know nothing about the patients they treat. A typical future situation might be as follows: A patient, John, with a bleeding leg, appears in a hospital emergency room and hands his “smart card” to the nurse. By inserting that card into the

computer, the emergency room staff are instantly able to see onscreen all the needed information—his medical history as well as other pertinent data—and proceed with attending to his injury.

In radiology, imaging technology allows X-rays of John's leg to be scanned and stored in digital form so that physicians in any other department can view the image. Before John is sent to surgery, physicians schedule an operating room and order the necessary materials through an online scheduling system. ("Hospital of the Future," 1990, p. 46)

Such use of computer technology already is taking place and proving its utility. Several telemedicine projects are in place in the United States, mostly serving rural areas. These projects make it possible for medical specialists from medical schools to provide consultation to practitioners in distant and remote areas. Benjamin Berg, a Hawaiian heart surgeon, dictated a complicated heart surgery over an Internet feed for a man 3,500 miles away in Guam. Berg monitored every move and heartbeat of the patient via sensors embedded in the catheter inserted into the patient's heart ("World Trends & Forecasts: The Internet," 2009). The future possibilities of use of the Internet and other technologies are enormous, and these will affect all facets of health care.

LIKELY-TO-PERSIST HEALTH AND HEALTH-RELATED PROBLEMS

In the future, as pointed out earlier, health care agencies will be more than the illness care facilities that they are today; they will be responsible for the prevention, early detection, and treatment of illness, as well as the promotion of wellness. Health care professionals will take seriously the fact that medical care accounts for only about 15% of the health status of any population, while lifestyle accounts for 20% to 30%, and other factors—such as poverty, inferior education, income differences, and lack of social cohesion—account for the other 55% (Satcher & Pamies, 2006). Professionals will realize that social and

health problems are inseparable. Our discussion of the health and health-related problems likely to persist in the future include (a) medical problems, (b) medicalized social problems such as alcoholism, and (c) social problems such as poverty, homelessness, and violence and person abuse (e.g., child, spouse, and elder abuse). These will have tremendous impact on the scope, structure, and approaches of health care in the future.

Medical Problems

Swartz (1999) forecast that most types of diseases will be virtually eliminated by 2050, thanks to a combination of improved diet, lifestyle, and environmental factors and advances in gene therapy and drugs. However, in the foreseeable future, the likely-to-emerge scene shows that some diseases have been eliminated while others are persisting and have been joined by new ones. One unintended consequence of growing immigration may be new imported epidemics. Tuberculosis already is making a comeback. Most of the diseases likely to persist and continue to tax the skills of the health care community and U.S. resources are chronic diseases, such as Alzheimer's disease, arthritis, genetic defects, heart disease, stroke, and cancer.

Alzheimer's Disease

Alzheimer's disease will not only persist but possibly will worsen in incidence as the elderly population rises. Alzheimer's disease is a family disease, and it is a slow killer. Most of its victims live from 9 to 15 years after onset of the illness, and their families must live through the painful experience of watching their self-care abilities progressively worsen. Patients pass through the phases of forgetfulness, confusion, and dementia and put increasingly greater demands on their family's emotional, physical, financial, and social resources (Dhooper, 1991). The intensity of stress on the family during the dementia phase of the disease can be appropriately described as the "funeral that never ends" (Kapust, 1982). The needs of the families and

caretakers of Alzheimer's patients will continue to be a challenge to the health care community.

Arthritis

Arthritis is a common problem and a significant cause of much suffering, a fair amount of disability, and billions in cost every year. The National Health Interview Survey, 2007–2009, revealed that 22.2% of adults (49.9 million) suffer from doctor-diagnosed arthritis. Its age-adjusted prevalence is significantly higher in women than in men (24.3% vs. 18.3%). It causes functional limitations in common daily activities. Of those with arthritis, 40% report that it is “very difficult” for them to do at least one of the following nine activities: grasping small objects; reaching above one's head; sitting more than 2 hours; lifting or carrying 10 pounds; climbing a flight of stairs; pushing a heavy object; walking 1/4 mile; standing more than 2 hours; and stooping, bending, or kneeling. Arthritis and rheumatism continue to be the most common causes of disability in U.S. adults. With the aging of the U.S. population, by 2030, an estimated 67 million adults (25% of the projected total adult population) will have doctor-diagnosed arthritis. Two thirds of those will be women. It is further estimated that 25 million sufferers will report arthritis-attributable activity limitation (Centers for Disease Control and Prevention [CDC], 2010b). Despite the ability to apply sophisticated technology (e.g., use of artificial joints) to its treatment, arthritis will remain on the health care scene, claiming its share of the national resources. About 10 million Americans have osteoporosis, and 34 million have osteopenia, a precursor to osteoporosis. These numbers are projected to increase to 14 million and 47 million, respectively, by 2020 (Herson, 2007).

Cardiovascular Disease

Heart disease and stroke are continuing to extract a greater toll than any other conditions— a toll in the form of early deaths, disability, personal and family disruptions, loss of income, and medical care expenditures. Although the overall

age-adjusted death rates for heart disease and stroke have been declining since 1950, the actual number of deaths from these diseases has changed little in 30 years and has increased within the past decade. In 2006, heart disease and stroke were the first and third leading causes of death (National Center for Health Statistics, 2010a). *Cardiovascular disease* (CVD) is a term often used to refer to coronary heart disease, heart failure, and stroke. The burden that CVD imposes on the country is reflected in the following year 2000 figures.

Number of deaths:

2,600 deaths occur every day (i.e., one death every 33 seconds).

150,000 deaths occur each year among people younger than age 65.

250,000 coronary heart disease (CHD) deaths occur each year without hospitalization.

50% of men and 63% of women who suffered a sudden CHD death lacked any previous CHD history.

Survivors:

450,000 people had survived a first heart attack for more than 1 year.

450,000 people had survived with heart failure for more than 1 year.

375,000 people had survived a first stroke for more than 1 year.

Prevalence:

12.9 million people were living with coronary heart disease.

4.9 million people were living with heart failure.

4.7 million people were living with stroke.

Risk factors:

105 million people had high cholesterol.

50 million people had high blood pressure or were taking anti-hypertension medication.

Nearly 48.7 million people aged 18 and older were current smokers.

More than 44 million people were obese.

10.9 million people had physician-diagnosed diabetes.

Projected costs for 2003 were \$351.8 billion. This included direct costs (medical expenses) of \$209.3 billion and indirect costs (loss of income) of \$142.5 billion.

The aging of the U.S. population will make CVD an even greater burden in the future. Heart disease deaths are projected to increase sharply between 2010 and 2030, and the population of heart disease survivors will grow at a much faster rate than the U.S. population as a whole. A marked increase in the number of stroke deaths is also predicted. The disparities based on factors such as sex, race and ethnicity, education, and income will continue (CDC, 2010a).

The future will see noticeable improvements in the heart disease and stroke picture as a result of advances in medical care and changes in lifestyle. Battelle's Medical Technology Assessment and Policy Research Center forecasts that by 2015, these changes *could* prevent as many as 23 million cases of and 13 million deaths from these two illnesses. It is estimated that about half this improvement will be a result of behavioral changes, 40% a result of pharmaceuticals, and 10% a result of other biomedical advances. Despite the decline in heart disease and stroke cases, these illnesses will continue to occupy important positions among major health care concerns of the future because more than 600,000 U.S. children now have some form of heart disease.

The same will be true of a number of cancers. Some cancers will decline, but others will persist. Even with newly developed preventive vaccines and simple tests for mass screening, the United States will lag behind in its ability to bring about the drastic lifestyle changes necessary to reduce these illnesses to insignificance.

Diabetes and Obesity

Conditions associated with CVD, such as diabetes and obesity, will continue posing challenges to the health care community. Diabetes was the

nation's seventh leading cause of death in 2007. It affects the body's ability to metabolize blood glucose (sugar). A healthy person's pancreas produces enough insulin for cells to absorb and convert food into blood sugar. A diabetic person's body either fails to use insulin properly or fails to produce it at all. People with diabetes must, therefore, limit their sugar intake or take insulin. Uncontrolled or unregulated diabetes resulting in hyperglycemia or hypoglycemia can create a life-threatening situation. Onset of the symptoms of this disease is so gradual that many are not even aware they have it for a long time. Diabetics develop a number of complications that can include cardiovascular disease, vision problems, kidney failure, and nerve damage that can lead to amputations in serious cases.

There are two types of diabetes, Type 1 and Type 2. In Type 1 diabetes, traditionally diagnosed in children and young adults, the body does not produce enough insulin. In Type 2, which accounts for about 95% of cases, body's cells resist insulin's attempt to transport sugar. This type is most common in people who are overweight or obese, 60 or older, and members of minority groups such as American Indian and Alaska Natives, blacks, and Hispanics. In 2009, 9% of adults 18 years of age and over had been told by a doctor that they had diabetes. The CDC estimates that 1 in 10 adults has diabetes now, but the number could grow to 1 in 5 or even 1 in 3 by the year 2050 if current trends continue (Auslander & Freedenthal, 2006; Barnes, Adams, & Powell-Griner, 2010; Stobbe, 2010; Vital and Health Statistics, 2010).

Obesity correlates with excess mortality, and the obese are at risk of heart disease, stroke, diabetes, gallbladder disease, hypertension, osteoarthritis, and some cancers. Among children and adolescents, being overweight increases the risk of hypertension, high cholesterol, orthopedic disorders, sleep apnea, diabetes, and low self-esteem. In 2009, based on their body mass index (BMI), 35% of Americans were overweight (BMI between 25 and 29.9), and 27% were obese (BMI equal to or greater than 30). Compared with 29% of women, 42% of men were overweight.

Obesity percentages were similar for men and women. Compared with 32% of Hispanic adults and 26% of white adults, 38% of black adults were obese. Compared with 31% of Hispanic women and 24% of white women, 43% of black women were obese. Of Hispanic men, 33% were obese, compared with 32% of black men and 27% of white men. The percentage of adults 20 to 74 years of age has more than doubled from 15% in 1976 to 1980 to 35% in 2005 to 2006. Similarly, there has been an increasing prevalence of overweight children since 1976 to 1980. In 2005 to 2006, 15% to 18% of school-age children and adolescents were overweight. The percentage of preschool-age children (2–5 years of age) who were overweight doubled from 1976 to 1980 (climbing to 5%). The trend is obvious. Diet, physical activity, genetic factors, environment, and health conditions contribute to overweight and obesity (National Center for Health Statistics, 2010a; Vital and Health Statistics, 2010). “Weight loss can be an extremely difficult process. Time commitments, the cost of healthy foods, limited opportunities for physical activity, and lack of awareness of the negative effects of obesity can all be barriers to weight loss” (Barnes, Rogers, & Tran, 2007, p. 328).

Mental Disorders

Mental disorders will continue to afflict Americans. A national survey involving the most comprehensive look at the mental health of U.S. citizens to date found that far more people suffer from mental disorders than previously assumed. This survey used interviews with a nationally representative sample of 8,098 people aged 15 to 54 and employed the latest official psychiatric diagnoses. Its major findings were that (a) nearly one in two adults experienced a mental disorder at some time in his or her life, (b) almost one in three suffered from a mental disorder during the previous year, and (c) roughly one sixth of the population grappled with three or more mental disorders over the course of their lives (Bower, 1994).

The Genetic Threat

In addition to the diseases associated with unhealthy lifestyles and the emotional problems of living, there is the genetic threat. Advances in medical care will result in the survival of more and more people who have congenital illnesses and disabilities. This already is happening on a smaller scale. As these people live longer—long enough to reproduce—they will increase the genetic burden on the society of the future. The future will witness a race between genetic illnesses and genetic engineering. At the same time, the psychosocial needs of those who have such illnesses will need to be attended to. “Genetic diagnoses touch on intimate, deeply personal areas of life: sexuality, decisions to conceive, and decisions to terminate pregnancy for genetic reasons. A genetic diagnosis also may reveal family secrets, such as incest or adultery” (Rauch, 1988, p. 393).

New and Old Diseases

As hinted earlier, the future health care scene will show the appearance of diseases different in marked ways from those known today as well as the reappearance of some of those that had been conquered and were thought to be obliterated. Ullman (1988) included among the new diseases of the future (a) diseases of the immune system—in addition to AIDS—resulting from the deficiency or overactivity of the immune system; (b) newer viral conditions incurable with known therapies; (c) more bacterial infections resistant to available antibiotics; and (d) allergies to foods and common substances.

Researchers at Washington University in St. Louis have discovered a new lung disease that they have labeled “reactive airway dysfunction syndrome,” or RADS. RADS is brought on after an unusually short exposure to a toxic substance; its effects continue to disable patients long after their exposure (“Suddenly Breathless,” 1990). More than 90% of staphylococcus strains now resist treatment with penicillin and related antibiotics. The organisms that cause pneumonia, ear

infections in children, and tuberculosis are becoming harder to kill. Researchers at the CDC estimate that infections resistant to antibiotics already add \$4 billion per year to health care costs (American Society for Microbiology, 1995). We have forecast that the future will see an AIDS vaccine, as well as a cure, but that is not likely to happen soon enough. Even though the growth rate of the disease is declining, AIDS will continue to take its toll in terms of the suffering of its victims and their families, the helplessness of the service community, and the strain on U.S. health and social welfare resources.

Some of the old diseases also will stage a comeback. Neville, Bromberg, Ronk, Hanna, and Rom (1994) observed a striking increase in multidrug-resistant tuberculosis among patients admitted to the Chest Service of Bellevue Hospital in New York. These researchers reviewed the laboratory susceptibility test results of 4,681 tuberculosis cases over a 20-year period, from 1971 to 1991, and found that combined resistance to the drugs isoniazid and rifampin increased from 2.5% in 1971 to 16% in 1991, with higher rates noted for individual drugs. George E. Schreiner, an epidemiologist, considers the hantavirus a potentially serious threat to public health that may turn out to be more devastating than AIDS. The hantavirus causes hemorrhagic fever, which carries a mortality rate of greater than 70% (Smirnow, 1994).

Medicalized Social Problems

Alcohol and Drug Abuse

Alcohol and drug abuse will continue to challenge the health care community and society at large despite improved knowledge about pharmacological treatment of substance abuse and development or refinement of other therapeutic approaches, such as rational recovery (Galanter, Egelko, & Edwards, 1993), cognitive therapy (Wright, Beck, Newman, & Liese, 1993), and behavioral therapy (Leukefeld, Godlaski, Clark, Brown, & Hays, 2000). The 2009 National

Health Interview Survey data show that last year, overall, 52% of adults 18 years of age and over were current regular drinkers and 13% were current infrequent drinkers. Compared with 43% of women, 61% of men were current regular drinkers. As age increased, the percentage of current regular drinkers decreased. Educational attainment and family income were positively associated with current regular drinking status. Compared with 42% of Hispanic adults and 39% of black adults, 58% of white adults were current regular drinkers. Gender- and race-related differences were as follows: 66% of white men were regular drinkers compared with 56% of Hispanic men and 50% of black men; 51% of white women were current regular drinkers compared with 31% of black women and 28% of Hispanic women (Pleis, Ward, & Lucas, 2010). The formidability of the alcohol abuse problem is not likely to lessen in the future.

The drug abuse scene also is not likely to change significantly in the future, despite more research showing the damage done by drugs. Drubach, Kelly, Winslow, and Flynn (1993) explored the effects of substance abuse on the cause, severity, and recurrence of traumatic brain injury in 322 admissions to a large rehabilitation inpatient facility. They found that patients tended to be young and predominantly male and that although motor vehicle crashes were the most common cause of injury, those reporting drug or drug and alcohol abuse were more likely to have sustained violent injuries, such as gunshot wounds. Drug abuse also is a common cause of stroke in young patients (Kokkinos & Levine, 1993). The National Transportation Safety Board, in collaboration with the National Institute on Drug Abuse, investigated fatal-to-the-driver trucking accidents in eight states over a 1-year period. The study found that one or more drugs were detected in 67% of drivers and that 33% of them had detectable blood concentrations of psychoactive drugs or alcohol (Crouch et al., 1993). Drugs (and drinking) not only kill and maim users but also contribute to many other problems. In the future, new chemical entities will be

invented to combat drug abuse, and such alternatives to drug abuse as “virtual reality” will be created. Virtual reality is a computer program that takes the user to an illusional world of three-dimensional structures—an experience as powerful as any psychedelic drug but without any associated physical addictions or psychotic behavior (McNally, 1990). The drug abuse problem will persist, however.

Smoking

Smoking continues to be the leading cause of premature and preventable death. During 2000 to 2004, about 443,000 premature deaths each year were attributed to cigarette smoking. Smoking causes death from heart disease, stroke, lung and other types of cancer, and chronic lung diseases. New research shows that chemicals in cigarettes can harm the body from the moment they enter the mouth by attacking tissues as smoke travels to the lungs. Smoking also causes DNA damage and weakens the immune system’s ability to prevent damaged DNA from causing cancer (Peterson, 2010). Exposure to secondhand smoke causes premature death and disease in children and adults who do not smoke. Smoking during pregnancy is linked to poor pregnancy outcomes. Educational attainment is closely linked to cigarette use. In 2007, adults with less than a high school education were three times as likely to smoke as those with a bachelor’s degree or more education. Adults with at least a bachelor’s degree were less likely than other adults to be current smokers and more likely to never have smoked.

In 2009, 21% of adults 18 years of age and older were cigarette smokers; 23% of men compared with 18% of women were current smokers. There were differences based on race as well: 25% of white men were current smokers compared with 23% of black men and 18% of Hispanic men. Among women, 21% of white women were current smokers compared with 19% of black women and 9% of Hispanic women. In 2007, 20% of high school students in grades 9 through 12 had smoked cigarettes in the

past month. Female high school students were equally as likely to smoke as male students. Of all high school students, 14% had smoked cigars and 8% had used smokeless tobacco in the past month (National Center for Health Statistics, 2010a; Vital and Health Statistics, 2010).

The new law has given the Federal Drug Administration power to restrict marketing of tobacco products and has banned companies from adding flavors such as clove or strawberry to cigarettes (Peterson, 2010). Smoking will loosen some of its grip in the future but will continue to be a danger to the health of Americans. Researchers will learn about the many ill effects of smoking not before realized. Besides the generally known fact that smoking is the single most important cause of cancer (e.g., lung cancer, breast cancer, oral cancer), recent studies have revealed its other harmful effects as well. For example, Morgado, Chen, Patel, Herbert, and Kohner (1994) studied the effect of smoking on retinal blood flow and autoregulation in subjects with and without diabetes. They found that smoking caused a significant decrease in retinal blood flow and the ability of retinal vessels to autoregulate hyperoxia in both groups. Thus, smoking has a detrimental effect on vision. A study by Howard and associates (1994) not only confirmed the strong relationship between active smoking and increased thickness of the carotid artery wall but also found that even exposure to passive smoking is related to greater carotid artery thickness.

Another study (Sharara, Beatse, Leonardi, Navot, & Scott, 1994) found that women who smoke have an accelerated development of clinically detectable diminished ovarian reserve, which may be a principal mechanism reducing fertility in this group. Smoking also is associated with many periodontal diseases (Mandel, 1994). Czeizel, Kodaj, and Lenz (1994) found that smoking by pregnant women raised the relative odds for congenital limb deficiency in their offspring. Other studies also have found a relationship between maternal smoking during pregnancy and intellectual impairment in children (Olds, Henderson, & Tatelbaum, 1994), maternal smoking

during pregnancy and problem behaviors in children in middle childhood (Fergusson, Horwood, & Lynskey, 1993), and tobacco smoke in the home and children's cognitive development (Johnson et al., 1993). Researchers also are finding that even secondhand smoke can adversely affect the physical health of children (Marx, 1993) and that youngsters who smoke are much more likely to use alcohol and illicit substances (Gray, 1993; Torabi, Bailey, & Majd-Jabbari, 1993). A dynamic combination of complex pharmacologic, psychological, and sociocultural factors, however, makes cigarette smoking an extremely difficult problem to deal with (Christen & Christen, 1994). The complexity of the situation will continue to challenge our ingenuity and resources.

Social Problems

Poverty

Poverty can be considered the parent of many problems. It affects its victims in numerous ways and has a special affinity with illness. Research studies point to a causative link between poverty and ill health (McMahon, 1993). As Wilkinson and Marmot (2003) put it, "People further down the social ladder usually run at least twice the risk of serious illness and premature death as those near the top" (p. 10). Poverty forces the poor to live in environments that create conditions and encourage lifestyles inimical to their health. The poor not only live in dangerous and unhealthy environments but also have poor nutritional habits and detrimental lifestyles that leave them in poor health with multiple disease conditions. Because of the lack of resources, they cannot obtain health care adequate for their needs. If race (being black) is used as a proxy for poverty, its effect on health is reflected in the black infant mortality rate of 13.4%, which continues to be more than twice the white infant mortality rate of 5.6% (Mathews & MacDorman, 2010).

A look at the quality of care for cancer patients who are poor provides another example of how poverty affects not only health but also health

care. U.S. society has a special sensitivity, concern, and consideration for victims of cancer, but the poor tend to receive poor cancer care. This inadequacy is highlighted by several studies. Berkman and Sampson (1993) found that poor people are more likely to be diagnosed with cancer when the disease is advanced and treatment options are significantly more limited. Limited access to medical care carries the additional risk of denied access to community resources, which often require referrals from the health care system. Underwood, Hoskins, Cummins, and Williams (1994) discovered the following characteristics of cancer care for the economically disadvantaged: (a) Care was deferred because of costs; (b) care was described as "fragmented," "impersonal," and "symptomatic"; (c) patients were discouraged from worrying about bodily changes; (d) patients were discouraged from seeking state-of-the-art care; (e) patients experienced difficulty communicating their needs and concerns; and (f) poverty interfered with efforts to participate in volunteer activities.

A study of posthospitalization care of low-income, urban-dwelling, black cancer patients in the Philadelphia area (O'Hare, Malone, Lusk, & McCorkle, 1993) found that the poor had significantly greater symptom distress related to frequency of nausea, intensity of pain, and difficulty in breathing and that their personal care and home activity needs were not being met adequately. Byrd and Clayton (1993) called the state of care for black cancer patients the "African-American cancer crisis."

The problem of poverty, with all its sordidness, will persist in the future. In 2007, 12.5% of Americans lived in poverty. The faces of poverty also will remain essentially the same. At all ages, a higher percentage of Hispanic and black persons than of white are poor. The poor include a disproportionate percentage of children. In 2007, children represented 35.7% of all Americans living in poverty. More than 13 million children (18%) lived in poverty, and another 15.7 million (21.2%) were classified as near poor with family income between 100% and 200% of the poverty level (National Center for Health Statistics, 2010a). The

infant mortality rate—the risk of death during the first year of life—in the United States is worse than in other industrialized nations. Furthermore, large disparities exist among the various groups of the American population. During 1995 to 2006, the infant mortality rate was consistently highest for infants of black mothers. The rate also was high among infants of American Indian or Alaska Native mothers and Puerto Rican mothers (National Center for Health Statistics, 2010a).

Low-income children are at significantly higher risk for psychological, emotional, and learning disorders, as well as chronic physical conditions such as hearing and speech impairments. They also are more exposed to unhealthy and violent environments. A study (Durkin, Davidson, Kuhn, O'Connor, & Barlow, 1994) investigated the relationship between socioeconomic disadvantage and the incidence of severe childhood injury resulting in hospitalization or death. The study was conducted in New York and covered the 9-year period from 1983 to 1991. The average annual incidence of all causes of severe pediatric injury was 72.5 per 10,000 children, and the case-fatality rate was 2.6%. Among the socioeconomic factors considered, low income was the most important predictor of all injuries. Compared with children living in areas with few low-income households, children living in areas with predominantly low-income households were more than twice as likely to receive injuries from all causes and four and a half times as likely to receive assault injuries. The effect of neighborhood income disparities on injury risk persisted after race was controlled.

Homelessness

Homelessness is another manifestation of poverty. The number of homeless has been rising constantly and significantly. According to the most recent statistics from the National Law Center on Homelessness and Poverty, 3.5 million Americans are homeless. On any given night, several hundred thousand are living and sleeping on the streets, in parks, and in shelters. Today's homeless are younger, more ethnically diverse,

and more likely to be members of families than in the past. They include higher proportions of women and minorities and a growing number of people with full-time jobs. Among all the homeless, 17% are women. They often are victims of domestic violence and sexual abuse who lack education, affordable housing, affordable child care, and medical care. A study by Richards, Garland, Bumphus, and Thompson (2010) has proposed that a dual nature of victimization (personal and political) is responsible for the increasing number of female homeless.

Children under age 18, usually part of a family headed by a mother, are among the fastest growing homeless groups (Institute of Medicine, 1988b). The National Center on Family Homelessness estimates that as many as 1 in 50 U.S. children (1.5 million) are homeless or "precariously housed." Physical and mental health problems are much more prevalent among homeless youth. They also are more likely to be exposed to violence and drug use at an early age (Cohen, 2009). Rukmana (2008) investigated where homeless children and youths came from. The study identified 545 homeless children and youths in 219 homeless families. Their residential origins were not heavily concentrated in poor neighborhoods but also were in less-poor neighborhoods. The study revealed that domestic violence, which knows no socioeconomic boundaries, explains the spatial distribution of the residential origins of homeless children and youths.

Factors associated with homelessness, such as exposure to adverse weather, trauma, and crime; overcrowding in shelters, often resulting in unusual sleeping accommodations; poor hygiene and nutritional status; alcoholism; drug abuse; and psychiatric illness, have clear health implications. But homelessness may not be merely associated with illness; it may be the breeder of illness. Abdul Hamid, Wykes, and Stansfeld (1993) reviewed the literature on homelessness and concluded that the psychiatric needs of many of the homeless may be a direct result of poverty and homelessness. Nevertheless, health problems commonly seen in homeless adults include skin ailments; respiratory infections; chronic gastrointestinal, vascular, dental, and neurological disorders; and traumatic

injuries. Homeless children may have respiratory and ear and skin diseases, as well as special problems such as failure to thrive, developmental delay, neglect, and abuse (Usatine, Gelberg, Smith, & Lesser, 1994). While discussing the health care needs of homeless adolescents, Morey and Friedman (1993) concluded that these teenagers are at risk for sexually transmitted diseases including HIV infection, hepatitis, tuberculosis, accidents, and trauma. Mental health issues of depression, low self-esteem, suicidal behavior or ideation, and hostility—often compounded by drug abuse—also are common. A study of 336 homeless people aged 18 and older found that a substantial minority claimed to have health problems and that 47% of these did not receive needed medical care (Piliavin, Westerfelt, Yin-Ling, & Afflerbach, 1994).

The problem of homelessness is going to persist in the future because homelessness is now seen as an acceptable feature of American life. Conservative political forces are asserting that either homelessness is not much of a problem after all or such problems flow from the personal and moral failures of those who are homeless (Blasi, 1994).

Violence

The United States seems to thrive on violence and has accepted it as part of its culture and—more frightening—as part of its entertainment. During his or her lifetime, a child of 12 will see more than 200,000 acts of violence on television, and many will witness more than 40,000 murders on television (Thomas, 1992). The reality is not less frightening. The picture of crime and violence can be imagined by the following crime clock statistics: In 2009, one violent crime occurred every 23.9 seconds and one property crime every 3.4 seconds. These crimes took the forms of murders, rapes, assaults, robberies, burglaries, and thefts. The country experienced one murder every 34.5 minutes, one forcible rape every 6 minutes, one robbery every 1.3 minutes, one aggravated assault every 39.1 seconds, one burglary every 14.3 seconds, one larceny-theft every 5 seconds, and one motor vehicle theft every 39.7 seconds

(U.S. Department of Justice, 2010). More and more people are at risk of personally experiencing acts of violence.

The crime situation is not likely to improve significantly in the foreseeable future. Certain conditions associated with crime, such as “increasing heterogeneity of populations, greater cultural pluralism, higher immigration, realignment of national borders, democratization of governments, greater economic growth, improving communications and computerization, and the rise of anomie—lack of accepted social norms” (Stephens, 1994, p. 22), plus the proliferation of violent media that reinforce all forms of violence, will continue to set the stage for enactment of crime.

People experience violence not only at the hands of strangers but also at the hands of their own parents, spouses, and children. Health care professionals see, in emergency room trauma cases, the obvious results of violence in the streets. They also are required to see and recognize not-so-obvious cases of domestic violence. These cases of violence take the form of (a) child abuse—children may be physically abused, sexually abused and exploited, physically neglected, or emotionally abused and deprived; (b) spousal abuse, or IPV (intimate personal violence)—violence against women may also take the form of physical, sexual, and emotional abuse; and (c) elder abuse—which similarly encompasses physical, psychological, financial, and social abuse. The incidence and prevalence of all these types of abuse are on the rise.

Child Abuse

Child abuse is a social problem that has no boundaries. It occurs among all socioeconomic groups and in all locations—rural, urban, and suburban—and in all settings—children’s homes, foster homes, child-care centers, and residential institutions. Information from the Administration of Children and Families (U.S. Department of Health and Human Services) and Child Welfare Information Gateway shows that during the federal fiscal year 2006, nearly 3.6 million cases of suspected child abuse were investigated, 905,000 children were victims of maltreatment, and an

estimated 1,530 children died as a result of abuse or neglect. This number probably is not reflective of the true picture, as child fatalities are believed to be underreported. Besides the major types of abuse mentioned above, other types of maltreatment include abandonment and congenital drug addiction. Although victims are categorized on the basis of the prominent symptoms of maltreatment, children experience a combination of various types of abuse. A physically abused child is emotionally abused as well, and a sexually abused child also may be neglected.

Child abuse and neglect can adversely affect a child's physical, intellectual, social, and psychological growth and development. In the words of Green and Roberts (2008),

The effects of child sexual abuse may include fear, anxiety, depression, anger, hostility, inappropriate sexual behavior, poor self-esteem, substance abuse, and difficulty with close relationships. Effects of physical child abuse can include the immediate effects of bruises, burns, lacerations, and broken bones as well as longer-lasting effects such as brain damage, hemorrhages, and permanent disabilities. Physical trauma and abuse can also affect children's physical, social, emotional, and cognitive development. Emotional abuse, also known as psychological maltreatment, can seriously interfere with a child's cognitive, emotional, psychological, or social development. The effects of emotional abuse may include insecurity, poor self-esteem, destructive behavior, withdrawal, poor development of basic skills, alcohol or drug abuse, suicide, difficulty forming relationships, and unstable job histories. (p. 79)

In their paper titled "The Neurobiological Toll of Child Abuse and Neglect," Neigh, Gillespie, and Nemeroff (2009) say that abuse may cause alterations in the hypothalamic-pituitary-adrenal axis—a major mediating pathway of stress response—which in turn may contribute to long-standing effects of early life trauma. In addition, the effects of abuse may extend beyond the victim into subsequent generations as a consequence of epigenetic effects transmitted directly to offspring and/or behavioral changes in affected individuals.

Spouse Abuse

Spouse abuse is now called *intimate personal violence* (IPV), a term recommended by the CDC, which defines it as violence committed by a spouse, ex-spouse, current or former partner (of the same or opposite sex) in any of the following four forms: physical, sexual, threats of physical or sexual violence, or psychological/emotional abuse. There are other, more elaborate definitions of IPV, such as the following:

[IPV is a] pattern of assaultive and coercive behaviors that may include inflicted physical injury, psychological abuse, sexual assault, progressive social isolation, stalking, deprivation, intimidation, and threats. These behaviors are perpetrated by someone who is, was, or wishes to be involved in an intimate or dating relationship with an adult or adolescent, and are aimed at establishing control by one partner over the other. (Family Violence Prevention Fund, 2002)

Nearly 5.3 million intimate partner victimizations occur each year among American women aged 18 and older (National Center for Injury Prevention and Control, 2003).

Elder Abuse

Elder abuse, as hinted above, includes several different types: (1) physical abuse, (2) sexual abuse, (3) emotional abuse, (4) financial exploitation, (5) neglect, (6) self-neglect, and (7) abandonment. Wolf (2000) captured the reality of elder abuse in the following words:

Unlike some child abuse, which focuses solely on the child and parent (or surrogate parent), and relationship or spouse abuse, which deals with intimate partner relationships, elder abuse covers a wide range involving adult children, intimate partners, more distant relatives, friends, neighbors, caregivers, and other people in whom the older person has placed his or her trust. In addition to multiple relationships, each with its specific set of interpersonal dynamics, elder abuse has a financial component too not associated with either children or battered women. Pensions, social security, and home

ownership have made elders easy prey for unscrupulous caregivers, business service personnel, and even family members. (pp. x–xi)

The National Elder Abuse Incidence Study (National Center on Elder Abuse, 1998) found that about 450,000 elderly in domestic settings were abused or neglected during 1996. When elderly persons who experienced self-neglect are added, the number increases to about 551,000 in 1996. That study also confirmed the “iceberg” theory of elder abuse and neglect, which holds that for every abused and neglected elder reported and substantiated, there are five additional abused and neglected elders who are not reported.

SIGNIFICANCE OF THE CHANGING HEALTH CARE SCENE FOR SOCIAL WORK

We have discussed major changes within the health care system and in society at large that will challenge that system in the future. These changes have the potential to create social work opportunities of immense importance. The anticipated demographic and other sociological changes, the persistence of major social problems, and society’s expectations from health care establishments and health professionals will bring into bold relief the inadequacies of the dominant health care professions for dealing with the situation.

At this point in its history, social work seems to be losing ground in U.S. hospitals, and although it has increased its presence in ambulatory care and other nonhospital health care settings, it has done an inadequate job of marketing its image and importance. Social workers must turn the challenges of the future changes into opportunities of unprecedented professional significance. From an account of the anticipated changes in society and the health care system, we identify several major themes and discuss the relevance of social work to them. The “how” of future social work contributions is woven into the material for the subsequent chapters. These themes are (a) the

needs of the chronically ill, both the elderly and others with disabilities; (b) the needs of the victims of major social problems such as poverty, homelessness, violence, AIDS, and substance abuse; (c) the need of the public to change its views of health and illness and its health-related behaviors; (d) the need of health care providers to change their attitudes and behaviors for providing family-centered care that treats the patient as a partner; and (e) the need of the health care community—professionals and organizations—to know how to resolve ethical issues involved in the application of technology to health care and to make decisions about who should benefit from new technologies. The concept of “quality of life” will pervade all these themes.

1. *Chronic illness* in the elderly, as well as in others with disabilities, will be the greatest challenge for the health care system of the future. In 2005, 54.4 million Americans (18.7%) reported some level of disability. Of those, 34.9 million (12%) reported severe disability. As age increases, so does the prevalence of disability. Disabling conditions interfere with the everyday lives of the disabled and also adversely affect their economic status. Among those aged 25 to 64 with a severe disability, 27.1% were in poverty, and the poverty rate for those aged 65 and older with a severe disability was 10.1% (Brault, 2008). The bulk of the current health care system is structured and rewarded for acute care. Acute illness is of short duration and generally ends in either full recovery or death. There is no full recovery in chronic illness. Lorber’s (1975) observation still may have an element of truth: Physicians and nurses cannot cure the chronically ill; they feel frustrated, often secretly wish the patient away, and are then burdened with guilt.

Most of the chronically ill are cared for in their own homes, personal care homes, domiciliary homes, boarding homes, foster homes, and nursing homes with assistance from such agencies as outpatient clinics, mental health centers, adult and child day-care centers, hospices, and home-care agencies. Most of these are social

service programs planned, directed, and staffed by social workers who have, over the years, developed some practice principles, models of service, strategies, and techniques for effective intervention with the chronically ill. Their experience can be a significant asset to the health care system of tomorrow.

2. *Social problems* such as poverty and homelessness, violence and person abuse, AIDS, and substance abuse defy easy solutions and are beyond the resources of any profession. The health care community is ill-equipped to deal adequately with even the health consequences of these problems. The need is for multipronged, multidisciplinary, comprehensive, and well-coordinated approaches. Social workers are perhaps the only professionals who have closely observed the lives of the victims of these problems. They understand the realities of these victims, know how to relate to them and intervene in their lives, and deal sometimes with the problems and at other times with the consequences of those problems. Their knowledge, sensitivity, and skills in relating to and motivating these people and in mobilizing resources on their behalf are some contributions social workers can make to future plans and programs for these populations.

3. *The attitudes and behaviors of the public* about illness and wellness need to change, not only for people's own physical and mental health but also because the changed public attitudes and expectations will in turn force health care providers to change their attitudes and behaviors. Bringing about such change, however, is difficult because people see things from frames of reference they are familiar with, and those patterns of perception determine their behavior. Traditionally, the health care system has rewarded people for passive and unquestioning attitudes and blindly obedient behaviors. Social work macro practice involves, among other things, educating people, organizing communities, and lobbying policymakers. Public attitudes and behaviors change as a result of education, as well as in response to public laws. Social workers have more skills appropriate for these purposes than do other health care professionals.

4. *Attitudes and behaviors of health care professionals* must change to meet the challenges of the future effectively. The needed change will involve (a) a more holistic view of people and their problems; (b) a proactive stance involving a wellness orientation and the prevention and early detection of problems; (c) willingness to treat the patient as a partner; (d) interprofessional collaboration in substance as well as in form; and (e) a commitment to the idea of quality of life, rather than mere quality of services. Despite Ferguson's (1992) claim that many of his physician colleagues will welcome the chance to climb down off their pedestals and encourage patients to get up off their knees, these changes in position will be difficult because (a) habits die hard; (b) health care professionals in the future will function in many alternative delivery systems, quite different from those of today; (c) they will be required to coexist and collaborate with many more diverse health care providers; (d) professional boundaries will be much more blurred than at present; (e) consumers of health care will themselves judge the quality of services provided to them; and (f) the continued advances in health care technology will pull professionals in the opposite direction. Tension is bound to exist within and among the various professional groups.

The central focus of social work is on the person in his or her life situation, which demands simultaneous attention to the individual and the environment. Social workers are trained to look at the total picture, to consider the relevant larger societal forces—malignant as well as benevolent—while dealing with the private problems of individuals, and to keep in mind the suffering of the individual while dealing with public issues. This perspective compels them to collaborate with all those who can contribute to problem solutions. Their unique perspective and professional expertise, particularly their mediation skills, are important assets. The ethical principles that guide social work practice can help health care providers learn how to treat patients as partners.

5. *Ethical challenges* will multiply as a result of (a) the increased cultural diversity of the U.S. population, (b) the high cost of life-expanding

medical technology, (c) issues of the appropriateness of that technology's use, (d) questions of equity in the availability of that technology, (e) divergent views about the quality of life, and (f) issues of professional authority and patient autonomy. Referring to the major ethical issues faced in the health care world, Friedman (1991) said,

It is extremely painful to seek answers to questions of care (or non-care) of the dying; prolongation of the lives of fragile, doomed newborns; euthanasia; institutional survival versus community need; confidentiality of sensitive or dangerous information; meaningful informed consent; and how patients and providers can better relate to and trust each other. (p. 44)

Situations generating such questions will increase manifold in the future. Social work experience in respecting the client's right to self-determination and the practice principles and techniques relevant to that experience can contribute to the resolution of ethical conflicts and dilemmas.

SOCIAL WORK ASSETS FOR FUTURE ROLES IN HEALTH CARE

London (1988) identified the following four conditions that can help in dealing with change and mitigating risk: (a) respect for the past, (b) ability to adapt, (c) confidence in the future, and (d) recognition of the inevitability of change itself. Ample evidence suggests that these conditions already exist in social work and can be further strengthened easily.

Respect for the Past

Social work in health care has an impressive, proud, and rich past. In the 19th century, social workers were in the forefront of the movement for reforms in labor, housing, relief, sanitation, and health care (Wallace, Goldberg, & Slaby, 1984). They participated in the prevention, case finding, and treatment of tuberculosis, venereal

disease, and maternal and child health problems (Mantell, 1984). A social worker, Edward Devine, formed the National Tuberculosis Association and led the war against tuberculosis (Lewis, 1971; Quam, 2008). Social workers opened or were instrumental in the opening of free dispensaries for the poor in many cities. The roots of social medicine are to be found in organized social work (Rosen, 1974). Their response to the epidemics of influenza, polio, tuberculosis, and venereal disease in the first quarter of the 20th century was exemplary. During and after World War I, they worked as employees of the armed services with injured soldiers, families of those gone to war, veterans, the Red Cross, and the Department of Veterans Affairs. Throughout the 20th century, social workers have contributed their commitment and skills to health care settings of every type—hospitals, medical clinics, nursing homes, rehabilitation centers, hospices, home health agencies, and health departments. Social workers should have no difficulty in respecting this past.

Ability to Adapt

Social workers do not lack in adaptability. An example of the ability of social workers to adapt is the way they responded to the restructuring of financing and provision of services in hospitals under the DRG system. That system imposed a rigid time frame for accomplishing all medical and social objectives pertaining to a patient's admission. A psychosocial assessment had to be completed, problems identified, interventions planned and carried out, and the patient's family and community readied for his or her return home within the time limit set for his or her DRG.

Within a remarkably short period, however, health care social workers rallied and prepared themselves for the delivery of needed services under vastly different circumstances. Social work departments were reorganized, priorities reordered, roles redefined and sometimes reassigned, and staffing patterns reviewed. Sometimes the results were positive and social work departments expanded; at other times, the results were negative

and departments contracted; and in some cases, they were eliminated altogether. More significant in the long run, however, was the way health social workers reconceptualized their practice to assess client needs earlier and more rapidly to continue effectively providing the best social work services within the new time constraints (Carlton, 1989, pp. 228–229).

Social workers are adopting computer technology to demonstrate the efficacy of their services. Kossman, Lamb, O'Brien, Predmore, and Prescher (2008) have described how Mayo Clinic's Section of Medical Social Services created a computer program with many capabilities that have resulted in numerous benefits, including accountability, use as a clinical tool, ease of use, protection of patient confidentiality, time efficiency, and trend identification. They were able to measure productivity of social workers and justify a 38% increase in staffing from 1997 to 2002.

Confidence in the Future

Social workers must have confidence in the future in view of the very nature of anticipated future changes. Whether it is the emphasis on wellness rather than illness, the need for comprehensive approaches to problems rather than piecemeal tinkering (done today), or treating the patient as a partner rather than a grateful and obedient recipient of services (as expected in the past), the entire health care community can benefit from social work philosophy and practice principles. Knowing *what* social workers can give to that community and *how* their values and skills can set them apart as potential leaders should enable social workers to anticipate the future with confidence.

Recognition of the Inevitability of Change

Recognition of the inevitability of change is a condition that any profession desirous of increasing its respectability and societal approval must fulfill. It has taken social work practically the

whole of the 20th century to secure legal status through licensing laws in all 50 states. Much more remains to be accomplished, and social workers must accept the inevitability of change. They must become proactive enough to give change the desired direction.

In terms of the professional wherewithal necessary for effective contributions to the health care world of tomorrow, social workers' basic philosophy, knowledge, and skills provide a foundation strong enough to build newer models of practice. The remainder of this book is devoted to understanding the needs of the different health care sectors and to discussing social work knowledge and strategies appropriate for meeting those needs.

Critical Thinking Questions

1. Contrary to our forecast, imagine that the Patient Protection and Affordable Care Act of 2010 ceases to be the law of the land. Will that affect social work roles in the different sectors of health care recommended in this book? If yes, how? If no, why not?
2. The elderly will make up an increasingly larger proportion of the American population. Their claims to societal resources for health care and social services are likely to create intergenerational friction. How should social work deal with that problem at the policy and program levels?

NOTES

1. More than 26,000 patients underwent successful organ transplantations in 2006. The survival rates of those transplanted with organs are consistently improving. One-year graft survival rates in 2006 were as follows: 96.2% for kidneys from living donors, 90.8% for kidneys from deceased donors, 87.5% for hearts, 85.9% for livers from living donors, 83.2% for livers from deceased donors, 83.6% for lungs, 76.3% for pancreases, 70.8% for hearts/lungs, and 69.6% for intestines (Organ Procurement and Transplantation Network, 2010). The survival rates beyond 1 year are impressive as well.

2. For example, at the Planetree Model Hospital Unit in San Francisco's Pacific Presbyterian Medical Center, patients wear their own robes and pajamas, sleep on flowered sheets, sleep as late as they like, and have visitors at all times; their family members cook for them in a special patients' kitchen and are trained to serve as active care partners; and all things are arranged at the convenience of the patient, rather than at the convenience of the medical staff. The results of this pilot program so far show that it is working. "The Planetree unit consistently runs at 85% occupancy and has a waiting list. More than 300 Pacific Presbyterian doctors have voluntarily affiliated with the unit for patient referrals, up from an initial 75. The unit has handled every type of med-surg case, and with no more nursing staff than comparable units" (Coile, 1990, p. 270).

3. HIPPA is the Health Insurance Portability and Accountability Act of 1996. The Accountability part of the act deals with the problem of preserving the privacy of medical information. The *standards for Privacy of Individually Identifiable Health Information* called the *Privacy Rule* established under this law address: (1) the use and disclosure of individuals' health information (called *Protected Health Information*) by organizations subject to the Privacy Rule (called *Covered Entities*), and (2) individuals' right to understand and control how that information is used. The Office of Civil Rights within the Department of Health and Human Services is responsible for enforcing the Privacy Rule. The Covered Entities are essentially all health care providers and those working with health plans (all public and private health insurers). *Protected Health Information* under the Privacy Rule refers to information that identifies the individual and individually identifiable health information that is maintained or transmitted by health care providers. Under HIPPA, disclosure of Protected Health Information (PHI) by a covered entity is allowed only as (1) required by the Privacy Rule, (2) permitted by the Privacy Rule, and (3) authorized by the individual who is the subject of the information.

(1) *Required Disclosures*. A covered entity must disclose protected health information in only two situations: (1) to individuals (or their personal representatives) when they request access to or an accounting of disclosures of the PHI, and (2) to the Department of Health and Human Services when conducting an investigation.

(2) *Permitted Disclosures*. A covered entity is permitted to disclose PHI without the individual's authorization for treatment, coordination and management of services, payment, and health care operations (i.e. quality assessment and improvement activities, medical reviews, audits and compliance-related legal services, and specified insurance functions).

(3) *Disclosure authorized by the individual*: An individual may authorize the release of his/her Protected Health Information, but the authorization must contain the following elements to be valid.

Core elements: (i) a description of the information to be used or disclosed, (ii) the name and other specific identification of the person/s authorized to make the disclosure, (iii) the name and other specific identification of the person/s to whom the covered entity may make the disclosure, (iv) a description of the purpose of the requested use or disclosure, (v) an expiration date that relates to the purpose of the use or disclosure, and (vi) signature of the individual and date.

Required statements adequate to place the individual on notice of (i) the individual's right to revoke the authorization; (ii) ability or inability to condition treatment, payment, enrollment, or eligibility for benefits on the authorization; and (iii) the potential for the disclosed information to re-disclosure by the recipient.

Plain language: The authorization must be written in plain language.

Copy to the individual: The covered entity must provide the individual with a copy of the signed authorization.

Main sources of the above information are Olinde and McCard (2005) and U.S. Department of Health and Human Services (2003).