

# HEALTHCARE

## ABSTRACT

Healthcare is the largest industry in the United States, accounting for approximately \$1.4 trillion in sales of goods and services in 2000, about 14 percent of U.S. gross domestic product (GDP).<sup>1</sup> It is the nation's largest employer—one of every nine U.S. employees works in the healthcare industry. In addition to its economic importance, healthcare remains a critical element of national security. The state of public health directly affects the ability of a nation to project economic, political, and military power to protect its national interests. The U.S. healthcare industry sets the quality standard for the world, nonetheless there are significant concerns about rising medical costs, the number of un- and underinsured citizens, and the ethical and security concerns of using technology to improve medical services.

Lt Col Rene L. Boward, USAFR  
Ms. Brenda S. Farrell, U.S. General Accounting Office  
CDR Matthew S.A. Feely, SC, USN  
Ms. Lynn M. Fulling, Defense Logistics Agency  
Lt Col Marvin K. Harvey, USAF  
Mr. David M. Havrin, Dept. of the Navy  
LTC Patricia D. Horoho, USA  
COL Dorene Hurt, USA  
Mr. Darrell M. Kim, Dept. of the Navy  
Dr. Michael Krueger, Program Manager, European Aeronautic Defense and Space  
Company  
Lt Col Susanne P. LeClere, USAF  
Lt Col David Negrón, Jr., USAF  
CAPT Brian C. Prindle, USN  
LTC Hugh G. Robinson, USA  
Mr. Richard A. Stillman, Defense Systems Management College  
  
COL Dale R. Brown, USA, faculty  
Dr. William A. Knowlton, faculty  
Dr. Irene Kyriakopoulos, Faculty

## **PLACES VISITED**

### **Domestic**

Allegiance Medical Supply Operations, Hayward, CA  
American College of Traditional Chinese Medicine, San Francisco, CA  
Chinatown Alternative and Complementary Medicines, San Francisco, CA  
East West Academy of Healing Arts, San Francisco, CA  
George Washington University Medical Center, Washington, DC  
Johns Hopkins University and Medical Center, Baltimore, MD  
Kaiser Permanente Hospital System, Oakland, CA  
Molecular Design Institute, University of California, San Francisco Medical Center,  
San Francisco, CA  
Onyx Pharmaceuticals, Inc., Richmond, CA  
Siemens Corporation, Cancer Research and Manufacturing Center, Concord, CA  
U.S. Naval Ship *Comfort*, Hospital Ship, Pier 11, Baltimore, MD  
Washington Hospital Center, Washington, DC

### **International**

Al Maadi Egyptian Military Hospital, Cairo, Egypt  
Agouza Rehabilitation and Rheumatology Center, Cairo, Egypt  
British United Provident Association, London, United Kingdom  
Egyptian Health Center, Cairo, Egypt  
Egyptian Fever Hospital, Cairo, Egypt  
International Committee of the Red Cross, Geneva, Switzerland  
King's Fund, London, United Kingdom  
Palais de Nations, United Nations, Geneva, Switzerland  
United Nations High Commissioner for Refugees, Geneva, Switzerland  
United Nations Coordinator for Humanitarian Affairs, Geneva, Switzerland  
U.S. Agency for International Development, Cairo, Egypt  
U.S. Embassy, Cairo, Egypt  
U.S. Mission to the United Nations, Geneva, Switzerland  
U.S. Naval Medical Research Lab #3 (NAMRU3), Cairo, Egypt  
World Health Organization, Geneva, Switzerland

## **INTRODUCTION**

For this report, we define a *health system* to include all the activities whose primary purpose is to promote, restore or maintain individual and public health. The healthcare industry includes a wide variety of individuals, organizations, and institutions—public, private, for-profit and not-for-profit. The industry contributes to the physical, mental, and social well-being of our nation, and increasingly the world.

The U.S. healthcare system has emerged from a decade of fundamental restructuring driven by market-based, price competition. The traditional fee-for-service, largely unrestricted, healthcare plans that provided the dominant form of coverage in the United States for more than half a century have been replaced by a wide range of plans broadly described as those that “manage care.”

During the 1990s, health maintenance organizations (HMOs) have enrolled more than 60 million U.S. citizens.<sup>2</sup> In this highly competitive market, the number of fee-for-service plans continues to shrink as insurers seek to cut costs, primarily through the use of capitation. In a capitated environment, providers usually receive payment on a per-patient, per-month basis, rather than on a per-service basis. Since the advent of managed care, medical costs had leveled at a rate equal to, or lower than, other consumer prices. Although managed care had successfully contained costs, it raised concerns in the areas of access, quality, and patient choice-- and in 2001 overall costs are again on the rise.

The United States does not have all the answers. The World Health Organization (WHO) completed the first ever analysis of the world’s health systems in 2000. It found that France provides the best overall healthcare followed by Italy, Spain, Oman, Austria, and Japan. Although the U.S. health system spends a higher portion of its GDP than any other country, it has 43 million uninsured citizens, and it ranks 37 out of 191 countries. The United Kingdom, which has universal care spends just six percent of GDP on health services, ranks 18<sup>th</sup>.<sup>3</sup>

## **MAJOR ISSUES AFFECTING THE HEALTHCARE INDUSTRY**

### **PRODUCTIVITY**

Productivity is the amount of output produced by a unit of input; however, in the healthcare industry this is often difficult to measure. New technologies, new drugs, new devices, new procedures and tests are emerging daily and are changing the patterns of care and locations where care is provided. Overall, these innovations have improved healthcare productivity and improved the quality of care for patients. However, the aging population and emerging diseases (e.g., HIV, AIDS, and hepatitis C) are complicating the ability to continue providing quality healthcare.

In a survey conducted by the National Center for Health Statistics, medical productivity has only slightly improved in the last several decades. The length of stay in hospitals, for example, has declined by 30 percent since 1970. And, the duration of office visits to primary care physicians has increased only 12 percent in the last 15 years.<sup>4</sup> Despite numerous technological innovations in-hospital death rates have yet to decline (i.e., 2.7 percent of all discharges in 1985 and 2.6 percent in 1998)<sup>5</sup>.

Many futurists look to information technology to spur huge increases in healthcare productivity. They envision technology to reduce labor requirements, increase quality, and decrease costs. Yet, at the present time hospitals are only investing two to three percent of their total revenues in information technology, as compared to the banking industry at 15 percent annually.<sup>6</sup> Obviously, the healthcare industry has a ways to go before productivity increases significantly due to information technology; however, as will be discussed, it's gathering steam.

## **PHARMACEUTICALS**

Attempts to increase productivity also underlie a trend in the pharmaceutical industry; several pharmaceutical companies have merged and more are expected to merge over the next several years. Some view industry consolidation as a way to attain economies of scale, eliminate redundant overhead costs, and reach a critical threshold of effort necessary to discover new drugs. Consolidation proponents believe that the recent and future mergers and acquisitions will benefit the industry, which ultimately benefits healthcare consumers by ensuring improved availability of effective drugs at lower costs.

Detractors believe that the gains from consolidation do not apply to the pharmaceutical industry because the demand for pharmaceuticals is more diffuse than for most other industry products. Few diseases occur frequently enough to merit large production runs of a drug to realize the advantages of economies of scale. Other detractors suggest that the highly profitable industry is consolidating only to reinforce their market power. More consolidation decreases consumers' opportunity for choice and increases the ability of pharmaceutical companies to charge higher prices. Both groups of detractors favor government policies that would disallow further industry consolidation in the interest of maintaining competitive forces.

Government policy with regard to merger and acquisition applications matters to the pharmaceutical industry and to every American. Industry consolidation influences product pricing, technological innovation and product quality, technological efficiency, corporate profit and other elements that determine the viability of the industry. Industry viability, in turn, has important national security implications. The health of the pharmaceutical industry is important to the U.S. economy for two reasons. First, industry product shipments are approximately 1.2 percent of GDP. A contraction in the pharmaceutical industry would slow economic growth.<sup>7</sup> Second, a healthy population is a prerequisite to a capable labor pool. Finally, a healthy population is necessary to maintain a military that can respond when U.S. national interests are threatened.

## **INFORMATION TECHNOLOGY**

Information technology (IT) has the potential to revolutionize the healthcare industry and address many of the problems facing healthcare delivery in the United States. The convergence of this technology and medical care is already having an effect on healthcare providers, payers, and consumers. However, IT poses significant privacy and security issues for the healthcare industry. Much of the data needed to identify cost savings and determine best clinical practices could readily come from electronic patient records, but many fear the possible misuse of personal health information. Some first

steps are being taken. For instance, the Health Insurance and Portability and Accountability Act of 1996 (HIPAA) mandates that Internet-based electronic storage and transmission of patient data be standardized and secure. Analysts estimate it will cost the healthcare industry as much as \$16 billion to implement HIPAA. Beyond the cost, this conversion will require a major commitment of resources to standardize complex data and establish systems for transferring high volumes of data securely. However, HIPAA compliance will potentially save many billions of dollars in future administrative costs while enhancing care.

## **CHALLENGES TO PROVIDING QUALITY HEALTHCARE**

### **E-HEALTHCARE**

The challenge for the near future will be the “intelligent use” of the Internet, which offers a medium through which to integrate stand-alone systems. “Intelligent use” refers to the recognition that IT’s benefits will only be fully realized if health care managers and administrators alter traditional processes while implementing the enhanced technologies. Such enhancements are known as optimized e-healthcare business processes. Implemented wisely, e-healthcare possesses huge potential to affect several of the most important aspects of healthcare: the aging population; dissatisfaction with traditional health information sources; the quest for better quality; managed care growth; and the challenge of cost inflation. E-healthcare will also amplify the efficiencies that result from integrated systems: online purchases, medical libraries, and home healthcare and online health monitoring. E-healthcare can also help to reduce the current disparity between healthcare availability and access to all citizens.

Based on a growing number of global Internet users, the U.S. e-healthcare industry will become a \$370 billion business by 2004.<sup>8</sup> E-healthcare sales for February through April 2000 were \$571 million out of \$10 billion total online US sales, and they continue to increase.<sup>9</sup> Prescription drugs will reach \$15 billion in online sales in 2004, while over-the-counter non-prescription drug sales will be at \$1.9 billion by 2004.<sup>10</sup> Simultaneously, 12 percent of natural health product sales will occur online.<sup>11</sup> The healthcare industry realizes the potential advantages of e-healthcare as a means to enhance a company’s image, increase brand name awareness, open new markets, and increase consumer information. E-health will promote more efficient and effective customer service, lower sales and marketing costs, and institute a new form of customer relations that combines a higher market transparency and lower purchasing costs as a consequence of higher competition. Further, it will enhance direct communication with patients, physicians and healthcare organizations and allow for the e-detailing to doctors at lower costs. Seventeen percent of all business-to-business transactions will move online by 2004.<sup>12</sup>

IT applications will affect physicians as well. Large institutions and small medical practices will turn to new Web players like [Embion](#), [Medicalbuyer.com](#) and [Medibuy.com](#) to simplify the procurement of everything from drugs to capital equipment. Medical supply vendors and distributors, meanwhile will use the Internet to improve supply chain management, which will provide additional efficiencies. By 2004, 12 percent of practices will procure goods online, while cost-conscious hospitals will move

24 percent of their purchasing online.<sup>13</sup> By 2010, more than 30 percent of their time will be spent using Web-based tools for knowledge and administrative improvements.<sup>14</sup> Orders placed electronically will eliminate handwriting interpretation and the need for phone calls. E-healthcare patients will more actively manage their health using electronically shared data. The goal is to develop properly structured IT solutions, making the right information available at the right place and the right time.

## **INFORMATION SECURITY**

Given the size and importance of the healthcare industry to Americans, as well as its increasing reliance on all forms of IT, the security of healthcare information has become paramount. Many forces are pushing for increased use of IT in healthcare, and advanced computing power has enabled generating vast amounts of medical information. IT integration is crucial just to remain abreast of the volume of information and to meet the growing U.S. demand to be informed consumers. Many scientific, administrative and economic efforts are underway to reduce the cost and complexity of healthcare via digitization. This approach will enable evidenced-based medicine and quality measurement for healthcare as the standard rather than the exception. Unfortunately, having all Patient Medical Record Information digitized has many people concerned, despite the benefits. There are valid questions about the security of digitized medical information, which is likely to become more vulnerable in the Internet environment. As the United States becomes more reliant on a national health information infrastructure, efforts to protect healthcare information must increase. Failure to provide healthcare information assurance has the potential to result in a loss of confidence in U.S. healthcare, an area that is arguably more vital to Americans than any other. This loss on a large scale will affect the health and security of the United States.

The inexorable movement toward digitization in healthcare points to the need to resolve a fundamental debate. Those advocating rapid expansion of IT to achieve the benefits of information access and availability are countered by those who argue that individual privacy and the security of digital records cannot be compromised. Resolving the debate will not be easy. An understanding by all participants of the privacy vs. access issue enables balanced policy formulation. It also clears the way for updating law and policy. As policy begins to reflect the importance of the new information environment, the need for a critical infrastructure protection plan becomes clear. This effort must reflect the immense scope of the healthcare industry and rapidly growing information vulnerabilities.

## **AGING AND SENIOR CARE**

The proportion of elderly in the U.S. population is on the rise and expected to increase sharply in the coming decades. Resulting from a long-term decline in fertility rates and an improvement in life expectancy, today's statistics on aging are rather startling. The older population (i.e., persons 65 years or older) numbered 34.5 million in 1999.<sup>15</sup> By 2030, there will be about 70 million older persons, more than twice their 1999 number and climbing from 13 to 20 percent of the U.S. population.<sup>16</sup> In addition, the proportion of "oldest-old" Americans, those 85 and over will grow even more rapidly

– quadrupling over the next fifty years.<sup>17</sup> While individually future elderly are likely to be healthier, the sheer number threatens to acutely strain the nation’s healthcare system.

As the dawn of this aging phenomenon begins, the future of healthcare delivery and financing has emerged as a leading, national issue. Embedded within this larger issue are numerous smaller ones. Key policy topics include: the benefit structure and reform of Medicare; Tricare for Life; long term or chronic healthcare and finance; HMOs and the aged; industry staffing shortages; cost and affordability of care; and health promotion and preventative services. These examples are just a few of the challenges we can expect to confront in the not too distant future, and the healthcare system must begin preparing to meet.

Financing and ensuring the quality of the Medicare program are concerns that loom particularly large for our society given the major challenges program currently faces. These challenges stem from a combination of the rising costs of healthcare, a growing Medicare beneficiary population, and inadequate revenue contributions.<sup>18</sup> Almost since the program’s inception, costs have outpaced revenue, and in the coming decade beneficiaries will accrue faster than the number of workers contributing to the system due to reductions in the U.S. birth rate. Without changes to the program and/or its financing, Medicare expenditures will rise from their current level of 2.7 percent of GDP to consume 5.3 percent by 2025.<sup>19</sup> Soon thereafter, spending on Medicare will surpass spending on Social Security, approaching 75% of the federal budget.<sup>20</sup>

Medicare issues generally translate into substantial increases in federal and state spending, burdens on the beneficiaries and their families, reduced access, and limited choices. Few of these trends show signs of abatement or reversal. Moreover, as 70 million baby boomers retire, many experts are forecasting that Medicare spending could crowd out other government initiatives, prompt a return to deficits, or force tax increases. No modern healthcare system can meet all the needs of an aging population, and there is no magic solution to improve healthcare quality, drive costs down, or conjure up revenue in the face of a dwindling labor force. However, there are ways to address these problems within the confines of reality. The United States has more potential to grapple with these challenges than any other nation in the world. Its fiscal position is good, and it still has enough time to prepare, to provide advance funding for its elderly-care programs, and to lessen the magnitude of its unfunded liabilities without causing undue hardships for any generation of workers or retirees.<sup>21</sup> IT and genetically engineered nutrition and pharmaceutical products may help improve quality of life for elder citizens and potentially drive down overall health costs.

## **GLOBAL HEALTH**

In 1997, an Institute of Medicine report concluded that active U.S. engagement in efforts to improve global health has become a vital national interest. Globalization is increasingly having a negative impact on U.S. health. Health problems associated with global movements of people and commerce, and increased importation of infectious agents and hazardous contaminants (e.g., pesticides, environmental toxic wastes) have erased the distinction between domestic and international health problems. The U.S. government must work not only to reduce direct threats from domestic disease, but also

collaborate to reduce international threats since healthy populations are essential for fruitful economic development, democratization and political stability.

The Centers for Disease Control and Prevention and the Agency for Toxic Substances and Disease Registry are taking active roles in promoting global health. They have developed a strategy that focuses on five critical areas of public health: 1) Public Health Surveillance and Response—aimed at detecting, investigating and monitoring diseases and injuries, their causes and then appropriately responding; 2) Public Health Infrastructure and Capacity Building—collaborating with countries by establishing and maintaining effective public health systems, and training workforces in the collection and use of essential information; 3) Disease and Injury Prevention and Control—international collaboration aimed at developing, implementing, and evaluating prevention and control strategies of public health problems; 4) Applied Research for Effective Health Policies—international partners in conducting applied research directed at improving the effectiveness of global public health policies and programs; 5) Exchange of Information and Lessons Learned—promoting free flow of information and sharing of lessons learned.

This strategy stresses the importance of international collaboration with partner organizations and of forming new partnerships as needed. Countries need to learn from each other as to what works and what doesn't work to improve the performance of their health systems. The fact that health systems in some countries perform well while others perform poorly, even among countries with similar levels of health spending, lends testimony to the possibility of deriving benefit from knowledge sharing.

### **SHORTAGE OF MEDICAL SUPPORT PERSONNEL**

Shortages in medical support personnel—nurses, pharmacists, and medical technicians—are normally cyclic; however today's labor shortage has a far more ominous overtone. Previous labor shortages of support personnel were primarily due to poor wages and working conditions, both of which have improved measurably but still have a ways to go. However, today's shortage is different because there are also numerous other societal and external factors affecting the industry. The dominant factors are:

**Aging Workforce.** The average age of a nurse today is 42-48 years, and many of them are eligible to retire soon. Today, significantly fewer women are choosing nursing as a career field, not only because of still lagging wages and working conditions, but more important because of the many new and exciting professional opportunities for women.<sup>22</sup> Because the number of nurses leaving healthcare exceeds the rate of new recruits, the career field is experiencing chronic negative growth, which will likely not turnaround in the near future.<sup>23</sup>

**Baby Boom Generation.** Baby boomers—the largest population cohort—will retire within 15 years and they will dramatically increase their demand for healthcare services. Their retirement will coincide with the exodus of retiring medical support personnel, and this will create a greater gulf between the “demand and supply” of medical services.

**Professional Fulfillment.** The healthcare industry is moving to a for-profit economic model, and as the industry becomes more efficient, there are simply less

discretionary funds available to finance many important initiatives like recruiting and retaining people. However, today's care environment is the most significant factor negatively affecting recruitment and retention of medical support personnel. It's fair to say the medical career field does not always project an inclusive "team spirit." This leaves many talented support people without a sense of professional fulfillment and they exercise their option to pursue other career fields.<sup>24</sup> This also affects the "in-career-field recruitment" because medical support personnel are less likely to encourage friends and family members to become a nurse, pharmacist, or medical technician.

Today's labor shortage affects the industry across the nation. Medical companies are rethinking how they are composing their medical team as well as individual roles, responsibilities, and professional rewards. Today, it is not uncommon for an advertised position for a nurse, pharmacist, or medical technician to remain open for 6-9 months, and this will not turnaround in the near future because the labor pool is experiencing negative growth. The shortage of medical support labor hinders the ability of the United States to surge or mobilize to meet a regional or national demand.

## **NATIONAL SECURITY**

The 1999 National Security Report, entitled "A National Security Strategy for a New Century," outlined America's leadership role in an increasingly complex and intertwined world. Only a healthy and prosperous nation can commit the resources necessary to implement the "National Security Strategy for a New Century," making the healthcare industry a critical component of our security strategy.<sup>25</sup>

Although the U.S. remains a recognized leader in healthcare technology and facilities, there are growing concerns about our nation's inability to respond quickly and decisively to mass casualty incidents. Hospital consolidations and staff reductions during the mid to late nineties have reduced our ability to provide emergency medical needs in response to a nuclear, biological, or chemical weapon of mass destruction attack. Other concerns that pose threats to our nation's security include the worldwide shortage of nurses, new and emerging infectious diseases, the growing number of uninsured, and the increasing resources required to support a rapidly aging nation.

## **TRENDS AND FORECASTS: 2001-2020**

The industry is responding to changes occurring in five major areas: demographics, government policies, consumer perceptions and expectations, alternative medicine, and new technologies. Demographic changes are among the most profound. As life expectancy increases, the large baby-boomer cohort ages, the proportion of elderly Americans continues to rise. Medicare spending will also rise from a current level of 2.7 percent of GDP, to 5.3 percent by 2025, surpassing Social Security spending.<sup>26</sup> Additionally, the rising average age of the healthcare workforce, currently at 45 years for nurses and similar for pharmacists and medical technicians in various specialties, and declining school enrollments equates to an ominous declining supply of healthcare workers.

Simultaneously, healthcare expenditures are rising at an unprecedented rate. The Healthcare Financing Administration projects total spending will increase to \$2.2 trillion by 2008, and grow from 14 percent of GDP to 16.2 percent.<sup>27</sup> Double-digit increases seen in the late 1980's and 1990's abated for a time with managed care, however they are now returning even as plan competition and employer pressure persists against premium price increases, and consumers continue to seek discounts from providers.

Hospitals are still reeling from the effect of the 1997 Balanced Budget Act (BBA) and its attempt to curb federal healthcare spending. Congress has instituted some BBA relief measures, however the BBA and the proposed rollout of the Ambulatory Procedure Classification that will change Medicare reimbursement for outpatient procedures from a cost-based format to a fixed rate, pose significant implications for the industry. These financial pressures necessitate the industry to re-examine the Medicare payer mix of hospitals, how physicians are educated, the mix of healthcare providers, the basic level of care provided and which types of facilities remain open. For healthcare agencies to remain viable in a competitive economy, they must make wise choices in structuring products and invest in programs that maximize preventative and international services.

Consumers are increasingly more assertive and well informed. As a result, consumers are more likely to be directly involved in administering their own healthcare. Consumer participation and the demand for more choice have sparked enormous growth in complementary and alternative medicine. The GAO estimated that in 2000, 123.5 million consumers spent \$16 billion on herbs, vitamins, and thousands of other natural products to treat some form of illness or to improve their health.<sup>28</sup> This trend is expected to continue rising given the fact that more people currently visit alternative medicine providers than all primary care physicians in the United States.

Lastly, IT plays a key enabling role by facilitating the development of revolutionary healthcare research and delivery methods, support processes, and healthcare equipment advances. The Human Genome Project and the study of the major histocompatibility complex are both leading to new therapies to treat diseases from cancer to AIDS as well as those diseases (diabetes and rheumatoid arthritis) that attack the body itself. These discoveries could lead to cell-based cures for a wide range of diseases that have the potential of redefining how healthcare is delivered. Traditional demand for inpatient services will decrease, as the demand for high-tech outpatient facilities will increase. The Internet is proving to be a potent force in overall healthcare improvements such as electronic medical records, clinical information systems, telemedicine, and medical software programs. Growing information availability and transfer will require extensive and ongoing measures to maintain patient privacy, and to ensure information protection and assurance.

The future holds great challenge and promise. These trends offer the hope of truly integrating the healthcare industry, promoting active patient participation, enhancing patient care, controlling costs, and improving the overall health status of this nation.

## **NATIONAL POLICY INITIATIVES**

National health is a critical component of national security. Because a nation's people are its single most important element of national power, a major goal for any government is to ensure that its citizens have access to affordable, high-quality

healthcare. The government has a leadership role to play in fostering quality healthcare. Without this leadership, a piecemeal approach to solving our nation's healthcare problems will take more time and be more difficult to justify. To help curb healthcare cost, improve healthcare efficiency, and provide healthcare services to more U.S. citizens we identify six broad goals. The goals are derived from the issues and the outlook for the healthcare industry, as discussed above.

**Implement Market-Based Reform For Medicare Program.** The Medicare program faces significant problems ranging from outdated and inflexible fee-for-service benefits, inefficient and stifled fee setting and regulatory approaches, the collapsing HMO system, and burgeoning costs as baby boomers retire. The government could approach reform via a market-based approach by introducing competition in benefit packages and using a system of private coverage choices to temper future costs. Moreover, while seemingly counter-intuitive, it should add prescription drug benefits and new limits on out-of-pocket costs, and subsidize these sufficiently to encourage more seniors to enroll.<sup>29</sup> The right mix of Medicare benefit expansions and competitive reforms will require the best of both strong government oversight and flexible private markets.<sup>30</sup>

**Promote the use of Information Technology.** The government should actively work with professional industry organizations to establish a National Health Information Infrastructure (NHII) focusing market-based industry standards for information technology requirements, interoperability, security/privacy, and central electronic supply. While many healthcare entities are investing large sums on information technology, much of this focus is on near-term efforts to bring products and services to market with no attention on interoperability with or external to themselves. The government should support private research and development for information technologies to enable long-term improvements to the NHII.

**Partner with Non-Governmental Organizations (NGOs).** The government should team with and provide financial assistance to NGOs to provide holistic medical services to society's poor, outcasts, unserved, underserved, displaced peoples and those affected by natural and man-made disasters without medical services. NGOs are often the last safety net for vulnerable or marginalized U.S. citizens.

**Continue to Support International Healthcare Initiatives.** The government should continue to support international organizations to promote healthcare improvements in developing countries. The U.S. healthcare system must continue to play a major role on the international scene. The investment in the WHO and other agencies focused on improving health will result in a more stable world, promote strong economies and trading partners, and provide a safer environment for U.S. citizens and troops.

**Sponsor Initiatives to Recruit and Retain Medical Support Professionals.** Government and industry must implement initiatives to reverse the trends that threaten to breakdown the healthcare industry. Government can aggressively review federal and state support to nursing and pharmacy programs to increase student enrollment. Congress should create a commission to address the current

crisis and attach funding to the recommendations. Lastly, state governments should increase collaborative efforts with hospitals to unite clinical practice and education.

**Promote Healthy Living.** The government should expand the education campaign to promote nutrition, exercise, overall wellness, and healthy lifestyles. This initiative should include goals for reducing “sin” behavior like smoking, drinking, drug use, and sedentary lifestyle. These programs should take particular aim at young Americans because they offer the best response to intervention and best rate of return for preventive health dollar spent.

The way in which the nation chooses to address healthcare issues and ensure adequate access will affect U.S. national security for years to come. Government policies on regulation, litigation, and financing continue to have the single largest impact on healthcare providers, payers, and the people’s health. Pressure for rational and coordinated government policy grows with an ever-expanding array of healthcare choices, an increasingly informed and demanding public, and cost containment pressures. The six initiatives described above will not provide medical services to every one of the estimated 43 million U.S. citizens without healthcare coverage today.<sup>31</sup> But, there is simply no public or political demand to overhaul the industry to produce a socialized national healthcare-like system in the United States to fully cover under and uninsured citizens.

## **ESSAYS**

This section presents four essays on significant issues affecting the healthcare industry.

### **Essay 1: *Pharmaceutical Industry Market Consolidation***

by Commander Matthew S.A. Feely, Supply Corps, United States Navy

In recent years, some of the world’s largest pharmaceutical companies have become even larger through mergers. Since 1999, five key mergers have occurred: Astra and Zeneca have formed AstraZeneca, Rhone-Poulenc Rorer and Hoechst Marion Roussel merged to form Aventis, Warner-Lambert joined with Pfizer, Pharmacia and Upjohn have joined with Monsanto, and SmithKline Beecham has merged with Glaxo Wellcome to form GlaxoSmithKline. The trend appears likely to continue.

The evolving market structure influences product pricing, technological innovation and product quality, technological efficiency, corporate profit and other elements that determine the viability. Industry viability is important because the pharmaceutical industry product shipments alone account for approximately 1.2% of the U.S. GDP; a contraction in the pharmaceutical industry would slow the growth rate of the U.S. economy.<sup>32</sup> Industry viability also has national security implications because the pharmaceutical industry is a component part of the health care system, providing medications that affect the general health of the population. A healthy population, in turn, is necessary to maintain a strong economy and to respond to a call to arms should it be necessary.

Some view industry consolidation favorably since financial theory suggests that consolidation allows for economies of scale and reductions in redundancies, benefiting industry and consumers. Not all market observers are so sanguine, however. Pharmaceutical companies have been profitable – with profits averaging about 18% of revenues in 1999.<sup>33</sup> High profitability coupled with increased prices for prescriptions lead many to believe that pharmaceutical firms have too much market power already; more consolidation only adds to the industry's ability to gouge consumers.<sup>34</sup> Furthermore, some detractors believe that the theoretical benefits from consolidation do not apply to the pharmaceutical industry. They believe that government should disallow further market consolidation in the interest of maintaining industry competition. This paper suggests that the U.S. government take a “wait and see” approach before denying future requests for mergers and acquisitions since the relative magnitude of social benefits and costs attributable to consolidation is unclear.

### **Mergers and Economic Gain**

Economic theory explains that the decentralized market mechanism, free from government intervention, allows buyers and sellers to pursue their own best interests by interacting freely in the marketplace. Buyers select products that offer the greatest benefit for the lowest price. Sellers provide the goods and services that buyers want most in the most productive way while making a fair and reasonable profit. Pharmaceutical companies claim that mergers enhance productivity and profitability.

Management often claims economies of scale to justify mergers. Learning improvements and quantity discounts of inputs can reduce production costs, but applicability to the pharmaceutical industry is limited. Ansell explains that reduced production costs in the pharmaceutical industry are “of relatively modest consequence”.<sup>35</sup>

Ansell's statement reflects the fragmented demand for pharmaceuticals due to the diverse nature of diseases. The World Health Organization's current International Classification of Diseases, used as a basis for coding prescription audits, contains 58,000 disease codes, making the demand for pharmaceuticals more diffuse than for most other industry products.<sup>36</sup> Only a few diseases occur frequently enough to merit large enough production runs of a drug to realize the advantages of economies of scale.

Increased scale, however, can eliminate redundant administration and management. “By eliminating redundancies, organizations reduce the cost of operating the combined parts”.<sup>37</sup> British-based GlaxoSmithKline, for instance, published that they expect savings of approximately £1 billion<sup>38</sup> a year within three years of the merger.<sup>39</sup> Even if these cost savings occur, however, there is little chance that the mergers will sustain productivity and profitability gains. Bogan and Symmers state that removing redundancies does not create long-term value.<sup>40</sup>

Larger scale also helps corporations amass larger research and development (R&D) budgets to reach a critical threshold of effort to discover new drugs that guarantee revenue streams and benefit society. Pfizer, after acquiring Warner-Lambert, has a research staff of 12,000 – the largest in the world.<sup>41</sup> Meanwhile, the R&D budget of the recently formed GlaxoSmithKline is on par with that of the entire National Cancer Institute. These resources also allow for a more diversified portfolio of research.<sup>42</sup>

Increased R&D budgets are critical in the face of large, growing, and prolonged R&D costs as large numbers of drugs face patent expiration. Between 1997 and 2000,

patents have expired for drugs with combined sales of \$8 billion, and this figure is expected to rise to \$20 billion over the subsequent three years.<sup>43</sup> Rogers explains that patent expirations are outpacing new chemical entity approvals.<sup>44</sup> Smith mentions that the number of approvals of new drugs, between 45 and 50 annually in the United States, has not increased significantly, though the number of drugs in clinical trials has.<sup>45</sup> Pharmaceutical firms interpret these facts as confirmation of the need for huge R&D budgets.

Pharmaceutical companies are utilizing the larger R&D budgets. “In 1999, the global pharmaceutical industry increased R&D spending 14%, to a record \$24 billion”.<sup>46</sup> An industry trade association stated that the industry was on track to spend an additional 10% in 2000.<sup>47</sup> Failure to conduct a robust R&D program allows generic drug producers, which serve 40% of the U.S. drug market and which do not innovate, to gain market share as patents expire – at the expense of innovation and prospects for better health care in the future. “Pharmaceutical companies’ continuing quest to get bigger is not just megalomania. Staying on top in the global drug market requires doing more and better research”.<sup>48</sup>

Yet, even the reasonably sounding R&D justification has detractors. Shaywitz and Ausiello explain that consolidation will not ensure innovators maintain primacy because they typically use mergers to emphasize short-term objectives over long-term research.<sup>49</sup> Given that the stock market rewards short-term profit rather than long-term investment, the “short-term thinking” is not surprising. Bogan and Symmers explain that pharmaceutical CEOs now recognize that R&D productivity gains materialize much more slowly than previously anticipated.<sup>50</sup>

### **The Implication of Uncertain Gains**

The urge to merge sometimes seems little more than a reflection of a belief that bigger is better. The Economist (1999) notes that, “there is little historical evidence to support this article of faith.” Brealey and Meyers suggest that acquiring firms rarely gain much from mergers.<sup>51</sup> Bogan and Symmers cite statistics that show, “75 percent of large mergers [across several industries] fail to create shareholder value greater than industry averages.”<sup>52</sup> Yet, financial theory suggests that mergers could benefit industry and society – particularly since the pharmaceutical industry remains fractured. Scott explains that the largest pharmaceutical companies had only a 5% share of the global market before the recent mergers and will likely have between 8% and 10% after the mergers are complete.<sup>53</sup> Industry analysts and participants, then, present inconclusive and conflicting evidence as to whether recent mergers are justifiable or desirable.

### **A Policy for Uncertainty**

Given the paucity of definitive evidence of the net benefits of pharmaceutical industry mergers, it is impossible to conclude whether the mergers are necessarily desirable or undesirable. The policymaker must attempt to weigh the disadvantages with the advantages of each future merger proposal, but until more evidence clarifies the relative magnitude of the merits and demerits of mergers in the pharmaceutical industry, policy should allow more mergers – especially in light of the fact that industry concentration remains low even after the recent mergers. At the same time, government agencies should continue to ensure that the industry conforms to the standard principles

of competition as regulated by the Federal Trade Commission and the Department of Commerce.

## **Essay 2: Improving U.S. Healthcare: What Approach is Necessary?**

by CAPT Brian Prindle, United States Navy

### **Overview**

Healthcare delivery in the US is highly decentralized. Although a large percent of Americans receive care through Managed Care (MC) organizations, many remain covered by Fee For Service (FFS) arrangements, and approximately 15% are uninsured. Rising healthcare costs are likely to increase this uninsured percentage. The focus of care is on treatment, not prevention. Although U.S. healthcare is the most expensive in the world, overall outcome measures are mediocre given the investment. The MC business model receives much of the blame for the problems U.S. healthcare is currently facing. Whether or not this is true, many propose improvements to MC as the solution to these problems. An important issue is whether this is possible or preferable, or if a broader approach to improving U.S. healthcare is necessary given existing and projected challenges.

### **Report Card on U.S. Healthcare and MC**

The United States has the most advanced healthcare technology, providers and delivery system in the world. However, it's also widely accepted that MC as a healthcare business model is inefficient, with as much as 30 percent of expenditures wasted on administrative overhead<sup>54</sup> and fraud.<sup>55</sup> Although MC contained healthcare delivery cost growth for a number of years, costs are accelerating again. Profit concerns and near-term focus prevent adequate investment in cost saving measures such as Information Technology (IT) and preventative care (PC). Worst of all, MC lost public confidence because of numerous indefensible decisions to deny payment. Despite quality healthcare, many are frustrated in their attempts to obtain this care by "MC gatekeepers."

### **Today's Environment**

The ability of Medicare and Medicaid (M/M) to remain viable given the projected cost of healthcare for an aging population is a primary concern. The United States is also experiencing an explosion of medical knowledge, generating new fields of science such as genomics. In evaluating options to improve healthcare performance, it is important to understand what Americans want and the principles they feel should guide U.S. healthcare.

### **American Values and Desires – Idealized Vision of Healthcare in the New Century**

Near the top of the list of things Americans value in healthcare is choice. They accept government as a healthcare safety net, not as the only provider. Americans have confidence in technology to improve healthcare. They are willing to innovate, as evidenced by use of the Internet to obtain healthcare information. However, a strong desire to guarantee privacy also exists. What is standing in the way of change? Healthcare "is the single largest component in the United States economy, and it is remarkably out of sync with the technological opportunities that exist."<sup>56</sup> Americans

must demand that the complexity of U.S. healthcare not stand in the way of movement toward an idealized system.

The ideal vision of U.S. healthcare is high-quality affordable care, customized to the individual. Patients exercise control in a continuous healing relationship. Partnered, self-managed care (SC) makes individuals aware and responsible for tradeoffs. Readily available information enables cooperation among clinicians. Integrated teams anticipate individual treatment needs. Knowledge enables a whole person PC approach. Evidenced-based medicine improves decision-making and safety while reducing waste. But, “between the healthcare we have and the care we could have lies not just a gap, but a chasm.”<sup>57</sup> It will be difficult and take time.

### **Alternatives - Improve Managed Care / Transition to Self-Managed Care**

**Improve MC System** – This alternative focuses on the MC business model. Standardization of regulations and information exchange to simplify administrative requirements and reduce costs is a good place to start. “If the Europeans can establish a continental system of licensing, why is it inconceivable that the US can establish a national one?”<sup>58</sup> Such efficiency demonstrates to doctors, MC organizations and employers potential to cut costs further. The Internet will also cause a fundamental shift in the health insurance business, making “possible a micromarket capability that is impossible when you have a tiered structure with insurance agents as middlemen.”<sup>59</sup><sup>1</sup> The result will be an increase in the number of people able to obtain health insurance at reasonable cost. However, the number of different systems and payers will limit efficiencies possible. The US will not be able to match the Canadian single-payer system, with enviable administrative expenses of only four percent. The best possible result is to approach optimum administrative performance, and effectively eliminate fraud. Arguably, MC has controlled costs as much, if not more, than the public will tolerate. The essential question is, will these MC improvement efforts be enough?

**Transition to Self-Managed Care (SC)** – Transition to SC is an overarching approach to improving healthcare, and therefore broader than the MC business model view. The fundamental premise of SC is that keeping people healthy is the most efficient model for resource allocation. Many examples exist that show significant savings from this approach.

SC requires people to be responsible, active participants in managing their healthcare. Individuals are empowered by the Internet and IT. SC focuses on PC. People have incentives to make healthy choices and to participate in disease screening. They know how to remain healthy, and can compare the cost of health plans which reward PC efforts. The SC focus on prevention results in less demand for doctors, but more physician assistants and nurses. There is greater direct access to PC services, simplifying the care delivery system. Individuals are able to make appointments, access healthcare providers, receive notification of test results and obtain on-line services without going through excessively restrictive “gatekeepers.” A reduction in national healthcare costs makes health insurance more affordable and allows investment of some of the savings in healthcare for those with low incomes. Both these effects benefit the uninsured. Americans understand that it is cost-effective to maintain the health of everyone, even those who do not have the ability to self-manage their care.

### **Improving US Healthcare Performance: Transition to Self-Managed Care (SC)**

Improving MC is limited to finding efficiencies within a larger healthcare system that suffers from too much demand. It fails to address this underlying reason for cost growth because of negative incentives within the MC business model to make long-term investments. Although business changes to MC are necessary and inevitable, they will not come close to the improvement U.S. healthcare needs.

Transitioning to SC is the solution to controlling costs and providing a better return on every healthcare dollar. SC acknowledges that failing to address genetic, behavioral and environmental causes for disease, and waiting until disease occurs before acting, keeps U.S. healthcare behind both the disease cycle and the cost curve. A SC philosophy is consistent with American values and desires, and an idealized U.S. healthcare system. SC is also necessary to address challenges in the current and projected environment. Most important, existing forces for change are driving U.S. healthcare toward SC characteristics, such as providing better healthcare for the uninsured. However, there are obstacles and challenges along this path.

Transition to SC will benefit from MC improvement. However, the first significant challenge will be to tackle MC's inability to make investments in future cost reduction. Many efforts are underway to move toward evidenced-based medicine, and quality measurement. Public and private partnerships must ensure that focus on individual responsibility, as well as the measurement of disease prevention and health maintenance, are part of these efforts. This will require existing R&D spending to be consistent with the SC approach, concentrating on areas where return on investment is likely to be greatest. Where necessary, government leadership must require and provide incentives for private investment. Once initiated, SC efforts will pay for themselves and provide resources for continued investment.

Effort to change the attitudes of healthcare professionals will also be important. It will be difficult for many of them to shift from evaluations based on providing treatment, to how well they maintain healthy patients. Seeing SC disease prevention efforts reduce the demand for some trained specialties will threaten the educational investment of many doctors. Public and private efforts to retrain healthcare providers in SC areas will be necessary.

Equally important are educational efforts aimed at Americans. SC will require people to take on more responsibility for their healthcare. They must understand how this effort will pay off in better health throughout life. Perhaps a greater influence on individual behavior will be the effect of cost reduction. However, even these incentives are unlikely to change people overnight. It will take SC success stories and healthcare continued cost containment to tip the scales. When this occurs, Americans will understand that individual responsibility is the element that has been lacking from U.S. healthcare for a long time. It will then be clear that SC is exactly what the US needs to be able to deal with the healthcare needs of an aging population and the projected retirement cost of baby boomers.

### **Essay 3: *Emerging and Infectious Disease***

by Mr. David Matthew Havrin, Department of the Navy

#### **Issue**

Emerging and antibiotic resistant infectious disease is on the rise globally and domestically. More than 30 new disease agents have been identified since 1973.<sup>60</sup> Between 1980 and 1992, the death rate from infectious disease in the United States increased 58%.<sup>61</sup> Infectious disease is one of the leading causes of death worldwide accounting for 13.3 million in 1998.<sup>62</sup> Antibiotics, our primary defense against infectious disease, are the second most prescribed category of drugs.<sup>63</sup> Yet, infectious disease continues to rise. The target of our efforts should not be eradication but detection and control of infectious disease.

### **Background**

Understanding infectious disease requires a review of some basic concepts of nature, “evolution” and the related “epidemiological triad”. Evolution depends upon two things, i.e. time and death. Time permits a species to mutate, (adapt) and death makes room for the surviving species. The epidemiological triad suggests three elements of a cycle. First, the prospective host is susceptible. Second, the agent or infecting microbe coexists in the environment. Third, the agent, (microbe) must encounter a host. As inhabitants of this globe, we are subject to these concepts. The global population continues to rise with current estimates at 6 billion. This mathematically increases our chances of acquiring an infectious disease. Other contributing factors include globalization, international trade and travel, environmental pressures, mega cities, mass cultural migrations, AIDS, declining infrastructures, hospital invasive techniques, antibiotic misuse, etc. So, what are some options to reversing this trend?

### **Defensive Engagement**

Our current strategy of engagement, surveillance, containment and control could be an effective strategy. It engages the global environment through an extensive surveillance program. Upon detection, the disease is identified, hosts are isolated and treatment provided. Speed of detection and readily available medical services and resources are essential to success. However, in many cases, success only minimizes loss of life. This strategy lacks cohesive national leadership, fiscal resources, and has minimal supporting national will. The new administration made two very quick decisions in 2001. These decisions reduced the priority of disease as a US national responsibility and have eliminated the directorate dealing with international health from the National Security Council.<sup>64</sup> Consequently, these decisions reduce the ability of disease and international health issues to compete for limited fiscal resources. Demographically, the baby boomers are more concerned with living longer, looking good and growing old. They lobby our political structure towards allocating finite fiscal resources towards social security and Medicare benefits. Pharmaceutical companies respond by developing drugs specifically targeting those individuals that can pay and not the growing number of impoverished that acquire and propagate infectious disease. Little private research and development is targeting infectious disease. No new class of antibacterial drug has been approved since 1970.<sup>65</sup> Microbes used this time to “adapt” and survive, developing resistance to even our most lethal defensive agents. We are currently on the verge of returning to the days without effective treatment for infectious disease. This consequence brings with it a tremendous cost burden. Its associated economic impact on our national fiscal resources, reduction to our labor resources, and

general erosion of national “will” as a by-product of increased sickness, mortality and deformity, would be devastating to the United States across all elements of national power.

The private sector is targeting short-term gains and profits while the clouds of impending doom accumulate. It is a moral and social imperative for the US government to intervene in the market and make the necessary corrections. Currently the government provides research and development funding to academia and various government and international consortiums in the areas of medical research. This includes specialties in genetics, infectious disease detection and identification, biotechnology. The private sector decides which technological breakthroughs are further refined and produced for mass consumption. The government must encourage the private sector to invest in two sectors of the healthcare industry, i.e. microbe detection sensors and new classes of antibiotics and vaccines. These investment areas are crucial to the execution of this alternative.

### **The Policy: A Promise of Tomorrow**

Our challenge and our opportunity is to stand up and lead the world toward infectious disease detection and control. D.A. Henderson, during a recent world disease conference in Geneva stated, “...there is a growing belief that mankind’s well-being, and perhaps even our survival as a species, will depend on our ability to detect emerging diseases.”<sup>66</sup>

**Economic Perspective:** A sick and dying world does not grow and prosper. Its citizens do not produce goods and services. In fact, they generate economic burden. Today’s crises in Africa are excellent examples of inefficient use of human capital. Lack of economic activity generates minimal revenue from which nation building or democracy can develop. If the US is successful in developing high tech sensor devices to detect and identify infectious disease early in the epidemiological cycle, we can save lives. Domestically, these sensors could help reduce the high cost of healthcare in America with spin off industries. The literature identifies a key to success against cancer is early detection. The potential healthcare savings derived from early disease detection are boundless. Treatment alternatives become more numerous, less invasive, less expensive and less life altering. Imagine...today we live in homes with smoke and carbon dioxide detectors. Tomorrow we could live in homes with disease detectors. Sampling both the air we breathe in and the air and waste products we expel. We will know when we are in an epidemiological cycle, and be able to react to it.

**Military Perspective:** A sick military cannot fight and win this nation’s wars. A sick civilian populace cannot mobilize and support the war. Sickness also erodes the will and focus of our deployed sons and daughters concerned about loved ones at home. However, military engagement is still necessary. Global engagement serves several purposes. Until sensors can be developed and deployed globally, our military is our sensor. They represent a cross sampling of America, some are genetically profiled, and most are in better shape than the average American. They engage not only other humans but also other microbes on “their own turf”. They bring both political stability and detection capability to their immediate environments. By monitoring the health of our armed forces we are in affect, sampling all that the globe has to offer.

**Diplomatic Perspective:** The diplomat's job should be considerably easier if the US comes bearing gifts of health and well-being. Nation building and military engagement are seldom successful without good diplomatic relations. Diplomatic engagement is essential in acquiring third party support from organizations such as the United Nations and World Health Organization. Economic activity and international trade between the US and other nations require diplomatic activity to establish national ties, create coalitions and trade commitments. It also helps establish political stability and the "Rule of Law" under which international trade can occur to the mutual benefit of all parties.

**Informational Perspective:** A comprehensive informational campaign plan is essential for success. The President must lead this initiative. This will necessitate the creation of a joint vision on global infectious disease. Congress will assess the method of funding most tolerated by their constituents. Indirect funding in terms of tax credits, and other tax incentives are obvious options. A compromise on the President's Tax Proposal is another alternative to fund the US portion. A more intriguing solution would be to attach an "off-set" to international joint weapon system procurements such as the Joint Strike Fighter, (JSF) Program. These funds would go directly to Pharmaceutical companies to develop "dual use" detection and treatment products. Education of the populace about the problem, its true impact and the potential benefits are essential to molding the national will toward a global will. History tells us that events drive policy far more effectively than planning. Today's never ending barrage of infectious disease headlines from around the world ranging from Mad Cow Disease, hoof and mouth disease, Ebola, malaria, flesh eating bacteria, West Nile virus, etc. should create fertile ground upon which to build this policy. The products we buy show evidence of national concern. Today, antibacterial soaps are the norm. The national populace is waiting for leadership. The global inhabitants desperately need it.

#### **Essay 4: HMOs and Patients' Rights: A Congressional Dilemma** by Mr. Richard A. Stillman, Defense Systems Management College

##### **Issue**

Nothing is more important to the nation than people's health. However, there are issues in America. Consumers in Health Maintenance Organizations (HMOs) are facing major problems in the new millennium. Premium rates are up. Covered service and patient care is down. Weekly, the media has been reporting instances in which managed care plans controlled and limited care to recipients. Local, state and federal government officials want to fix the problems and protect the consumers. Over 25,600 proposed pieces of legislation, addressing healthcare, were introduced in the state legislatures in 1997 alone. Of those, 900 were signed into law.<sup>67</sup> Still, the problems with HMOs persist. Federal legislation is needed to produce a nationwide set of rules and protections. To that end, Senator John McCain (R-Arizona) introduced a Bipartisan Patient Protection Act on February 7, 2001. It is the latest attempt to develop a federally mandated Patients' Bill of Rights. The bipartisan proposal will overhaul HMO operations, and define a wide variety of patients' rights.<sup>68</sup>

##### **Background**

After 27 years of operations, managed health care in the United States has become a big business. In 1999, 115 million Americans were members of Health Maintenance Organizations which was about 42% of the US population. For the publicly owned HMO, total market capitalization increased from \$3.3 billion in 1987 to \$38.9 billion in 1997. That is an inspiring twelve-fold increase, while the whole stock market grew about four-fold. Throughout that period, stock prices performance of HMO stocks typically outperformed the overall stock market.

HMOs were once hailed as the saviors of the health care industry. By the mid-1990s, however, customers in HMOs were beginning to express significant discontent. For example, a 1997 survey of Californians found 42 percent reported having problems with their health plans in the previous 12 months; and also 22 percent reported that their health condition worsened as a result. They believed that the profit incentives and cost reduction mentality at HMOs was overpowering the best interests of the patient. The physicians were losing their decision-making and treatment authority to insurance bureaucrats at the HMO headquarters. Patients accused HMOs of reducing their healthcare coverage by requiring use of an authorization process. Generally, HMOs had limited, excluded and/or constrained their choice of physicians, treatments, and pharmaceuticals. Horror stories and lawsuits followed. According to some members of Congress, every day 59,000 HMO patients experience added pain and suffering, due to denied services. Of those, 41,000 patients experience a worsening of their medical condition. As a result, over 35 class-action lawsuits, representing more than 30 million HMO enrollees, have been filed to date. Consumers were demanding more protection and rights in healthcare. The time was right for a patients' bill of rights.

There have been a number of attempts to develop a patients' bill of rights. On March 26, 1997, President Clinton appointed a 34-person commission to promote and assure patient protections and health care quality. During their process, the Advisory Commission on Consumer Protection and Quality in the Health Care Industry unveiled a proposed bill of rights.<sup>69</sup> Turning the Commission's recommendation into law, however, has proven to be a challenge. Members of Congress introduced legislation on a Patients' Bill of Rights in the 105<sup>th</sup> and 106<sup>th</sup> Congress. After much debate and considerable lobbying, those bills died. Senator McCain's bill is the latest attempt to break the congressional deadlock. The provisions of the Bipartisan Patient Protection Act should help correct many of the problems of the current HMO situation. It guarantees access to needed specialty care, treatment information, and emergency services. It also establishes grievance and appeal procedures.<sup>70</sup>

### **Evaluation of a Patients' Bill of Rights**

Congress should pass the Bipartisan Patient Protection Act. Most members of Congress agree that patients deserve rights. There is only one major issue with the McCain bill, and that is HMO accountability. Historically, most HMOs have had little concern with being sued. In 1974, Congress passed the Employee Retirement Income Security Act (ERISA) to protect employees in corporate-sponsored pension plans, health plans and other welfare benefit plans. It essentially has shielded most HMOs from any lawsuits in state courts for damages, involving the administration of their health plan. The employee can still sue in federal courts, but there the liability recovery is limited to the cost of the benefit that was denied.<sup>71</sup> In the closely followed lawsuit of Pegram v.

Herdrich, the US Supreme Court ruled that ERISA-covered HMOs cannot be sued for any harm caused to the patient. The Court's ruling underscores the fact that consumers can do little to hold their health plans accountable for decisions that wrongfully deny or delay needed care.<sup>72</sup> Approximately two-thirds of all large companies – that is 55 million American employees plus their families - are in ERISA-covered managed care systems. The proposed Patients' Bill of Right would effectively remove the ERISA protection and make it easier for dissatisfied customers to sue their HMO. Cases involving the adequacy of care issues (e.g., malpractice suits) would be remanded to the state court systems. Contractual claims (e.g., disputes of coverage denial) would be addressed in federal courts. Those federal cases would be capped to a maximum \$5 million award. The advantage of this provision is it will allow dissatisfied HMO patients to redress their complaints in court. For the first time, they could sue for non-tangible losses, such as pain and suffering.<sup>73</sup>

There are several disadvantages to that approach. Clearly, health insurers, managed care plans and employers perceive any potential change to employer liability as the overriding concern. Some advocates claim that trial lawyers would have a field day. No one can accurately predict the cost and magnitude of such litigation. However, researchers at Rand Corporation estimate that the flood to the courts could be as high as 150,000 new cases per year.<sup>74</sup> In their television advertisements, corporate America claimed that allowing patients to sue their HMOs would only serve to swamp the legal system, drive up costs and deny health care to millions. An independent study in 1998 found that the extended liability protection in a Patients' Bill of Rights could increase insurance premium to companies by as much as 8.6 percent.<sup>75</sup> There are no laws that require employers to offer health care insurance to their workers. If the cost of health insurance rises, companies could simply decide to stop providing it. The US Chamber of Commerce has warned that if a Patients' Bill of Rights is passed about 36 percent of all the employers will stop offering health care coverage.<sup>76</sup> Alternatively, corporations could limit coverage through stratagems, such as defined contributions, that raises the costs paid by the employees. Either way, many workers might lose their health care coverage and become uninsured or under insured.

### **Summary**

America needs a strong and viable health care system. The Bipartisan Patient Protection Act supports that strategic need. There appears to be significant public support for a patients' Bill of Rights. The Kaiser Family Foundation and Harvard School of Public Health conducted a nationwide survey following the presidential election in 2000. They found that 71 percent of all Republicans and 81 percent of all Democrats supported patients' rights legislation.<sup>77</sup> The rhetoric and rancor that surrounds the liability issue may just be hype. When The State of Texas approved liability suits for non-ERISA HMOs, two years ago, many people predicted a tidal wave of lawsuits. The flood turned out to be a trickle. Only 22 new health care lawsuit cases were filed in the first year of that law.<sup>78</sup> Lawyers did not kill the tobacco companies. They did not put Microsoft out of business. And, they will not destroy the HMO industry. America needs the Bipartisan Patient Protection Act.

## **CONCLUDING REMARKS FOR THE REPORT**

The state of public health is critical to U.S. economic performance and national security. The United States spends more of its GDP on healthcare than any other country, yet ranks 37th out of 191 countries in healthcare performance; clearly there is room for gains. Although the United States ranks behind most developed nations, no US public or political consensus exists regarding the most effective way to the overhaul or replace the existing healthcare system. Nonetheless, there is a national leadership role for the government in improving public health for all its citizens and in helping to foster industry innovation.

Today, the U.S. healthcare system provides superb primary and tertiary care in response to public demand-- for those who can afford it. However, the aging population, increased incidence of infectious diseases, and the growing number of uninsured citizens are testing the system's ability to satisfy the dual goals of providing quality healthcare for all while containing costs. The industry's increasing employment of IT is, in part, an attempt to enhance productivity and satisfy the dual goals. The potential benefits IT might confer upon the industry are tremendous, but still lagging industry funding and legitimate concerns about the security of digitized healthcare information are notable unresolved issues. The chronic shortage of nurses, pharmacists, and medical technicians also threatens the ability of the healthcare system to furnish society's daily or emergency healthcare needs. Unless resolutely addressed in the near term, the labor problem will remain for the foreseeable future and the number of medical career trainees will continue to decline.

With the public sector and private sector's concentrated effort to meet the above challenges, the U.S. healthcare industry will continue to provide superb healthcare for its citizens, while containing costs, thus enabling the country to effectively maintain and assert its economic, political, and military power to protect national interests.

## ENDNOTES

<sup>1</sup> Estimate is based upon seasonally adjusted annual GDP rates. Source: U.S. Department of Commerce, Bureau of Economic Analysis.

<sup>2</sup> [http://ndunet.ndu.edu/icaf/intranet/is2000draft/health\\_services.htm](http://ndunet.ndu.edu/icaf/intranet/is2000draft/health_services.htm)

<sup>3</sup> World Health Organization, The World Health Report 2000, Health Systems: Improving Performance, June 2000.

<sup>4</sup> Bernstein, A.B., Hing, E., Burt, C.W., & Hall, M.J. (2001, March - April). Trend Data on Medical Encounters: Tracking A Moving Target. Health Affairs.

<sup>5</sup> Ashby, J., Guterman, S., & Greene, T. (2000, September – October). An Analysis of Hospital Productivity and Product Change. Health Affairs. 1-7.

<sup>6</sup> Gates, W.H. III. (1999). Business @ the Speed of Thought: Using a Digital Nervous System. New York: Warner Books, Inc.

<sup>7</sup> The 1.2 percent calculation is derived by using Department of Commerce Industry forecasts for industry shipments for year 2000 as the numerator. The denominator is the GDP. All figures are nominal.

<sup>8</sup> <http://www.forester.com>

<sup>9</sup> Donovan, Craig. “E-healthcare in Europe: A Prescription For Change”, GigaTel. <http://www.giaweb.com/content/GigaTel/EAG-042000-00009.html>

<sup>10</sup> Ibid

<sup>11</sup> Ibid

<sup>12</sup> Ibid

<sup>13</sup> Price Waterhouse Coopers, Healthcare 2010 Survey, 1999.

<sup>14</sup> Ibid

<sup>15</sup> Administration on Aging, “A Profile of Older Americans: 2000”, 9 January 2001. <http://www.aoa.dhhs.gov/aoa/stats/statpage.html>

<sup>16</sup> Ibid  
<http://www.aoa.dhhs.gov/aoa/stats/statpage.html>

---

<sup>17</sup> Ervin, Sam L. “Fourteen Forecasts for an Aging Society.” *The Futurist*, Nov.Dec. 2000.

<sup>18</sup> The Urban Institute, “Growth in Medicare Spending: What Will Beneficiaries Pay?”, January 1999. [http://www.urban.org/health/medicare\\_growth.html](http://www.urban.org/health/medicare_growth.html)

<sup>19</sup> Ibid

<sup>20</sup> Ibid

<sup>21</sup> Gregg, Judd. “Confronting an Aging World.” *Washington Quarterly*, Summer 2000.

<sup>22</sup> Thompson, Pamela. *Short Supply, Hospitals and Health Networks*; Chicago; Jan 2001.

<sup>23</sup> Ibid

<sup>24</sup> Erickson, J. and Nevidjon, B. *The Nursing Shortage: Solutions for the Short and Long Term, 2001 Online Journal of Issues in Nursing*, Jan 31, 2001.

<sup>25</sup> The White House, *A National Security Strategy for a New Century*, Dec 1999.

<sup>26</sup> The Urban Institute, “Growth in Medicare Spending: What Will Beneficiaries Pay?”, January 1999.

<sup>27</sup> Health Care Financing Administration, “National Health Expenditures Projections: 1998-2008”, January 12, 2000. <http://www.hssweb.com/PDFs/proj1998.pdf>

<sup>28</sup> Spake, Amanda, “Natural Hazards”, *U.S. News and World Report*, Feb 2001.

<sup>29</sup> Lemieux, Jeff. “A New Medicare for the New Economy.” *Blueprint Magazine*, Feb 2001.

<sup>30</sup> Ibid

<sup>31</sup> U.S. Department of Commerce/International Trade Administration, U.S. Industry & Trade Outlook 2000, The McGraw-Hill Companies, pp. 43-2.

<sup>32</sup> The 1.2% calculation is derived by using Department of Commerce industry forecasts for industry shipments for year 2000 as the numerator. The denominator is the GDP. All figures are nominal.

<sup>33</sup> Matthews, Merrill Jr., “Drug Prices: A Solution,” *Barron's*, Vol. 80, Issue 38, p. 60, Dow Jones & Company, Chicopee, Sep 18, 2000.

---

<sup>34</sup> A report from ExperTeam, an executive consulting firm, released in early 2000 shows that prescription drug prices have increased 12% since 1998 (See Thorsen, 2000.).

<sup>35</sup> Ansell, John, "The Billion Dollar Pyramid," *Pharmaceutical Executive*, Vol. 20, Issue 8, pp. 64-72, Advanstar Communications, Inc., Eugene, Aug 2000.

<sup>36</sup> Ibid

<sup>37</sup> Bogan, Christopher and Keith Symmers, "Marriage Made in Heaven?" *Pharmaceutical Executive*, Vol. 21, Issue 1, pp. 52-60, Advanstar Communications, Inc., Eugene, Jan 2001.

<sup>38</sup> £1 billion is approximately equal to \$1.4 billion.

<sup>39</sup> Gopal, Kevin, "GlaxoSmithKline: Mania, Part 1," *Pharmaceutical Executive*, Vol. 20, Issue 2, pp. 34-36, Advanstar Communications, Inc., Eugene, Feb 2000.

<sup>40</sup> Bogan, Christopher and Keith Symmers, "Marriage Made in Heaven?" *Pharmaceutical Executive*, Vol. 21, Issue 1, pp. 52-60, Advanstar Communications, Inc., Eugene, Jan 2001.

<sup>41</sup> Petersen, Melody, "Pfizer Gets Its Deal to Buy Warner-Lambert for \$90.2 Billion," *New York Times*, New York, Feb 8, 2000.

<sup>42</sup> Shaywitz, David A. and Dennis A. Ausiello, "Can Drug Giants Survive the Biomedical Revolution?" *Wall Street Journal*, New York, Feb 8, 2000.

<sup>43</sup> Barnard, Bruce and Susan Ladika, "Drug Company Wars," *Europe*, Issue 393, pp. 18-21, Delegation of the Commission of the European Communities Feb 2000, Washington, Feb 2000.

<sup>44</sup> Rogers, Ronald S., "Pharmaceuticals under Pressure," *Chemical and Engineering News*, Vol. 78, Issue 3, pp. 21-32, Washington, Jan 17, 2000.

<sup>45</sup> Smith, David, "The Effect of Outsourcing on the Pharmaceutical – Fine Chemical Industry Relationship," *Pharmaceutical Technology*, Supplement: Contract Services for the Pharmaceutical Industry, pp. 52-56, Advanstar Communications, Inc., Cleveland, 2000.

<sup>46</sup> Rogers, Ronald S., "Pharmaceuticals under Pressure," *Chemical and Engineering News*, Vol. 78, Issue 3, pp. 21-32, Washington, Jan 17, 2000.

<sup>47</sup> Van Arnum, Patricia, "Is Pharma M&A the Key to Strengthening the Pipeline?" *Chemical Market Reporter*, Vol. 258, Issue 8, pp. FR3-FR6, Schnell Publishing Company, New York, Aug 21, 2000.

- 
- <sup>48</sup> Agnew, Bruce, “When Pharma Merges, R&D is the Dowry,” *Science*, Vol. 287, Issue 5460, pp. 1952-1953, Washington, Mar 17, 2000.
- <sup>49</sup> Shaywitz, David A. and Dennis A. Ausiello, “Can Drug Giants Survive the Biomedical Revolution?” *Wall Street Journal*, New York, Feb 8, 2000.
- <sup>50</sup> Bogan, Christopher and Keith Symmers, “Marriage Made in Heaven?” *Pharmaceutical Executive*, Vol. 21, Issue 1, pp. 52-60, Advanstar Communications, Inc., Eugene, Jan 2001.
- <sup>51</sup> Brealey, Richard A. and Stewart C. Meyers, *Principles of Corporate Finance*, Third Edition, McGraw-Hill Publishing Company, New York, 1988.
- <sup>52</sup> Bogan, Christopher and Keith Symmers, “Marriage Made in Heaven?” *Pharmaceutical Executive*, Vol. 21, Issue 1, pp. 52-60, Advanstar Communications, Inc., Eugene, Jan 2001.
- <sup>53</sup> Scott, Alex, “Drug Makers Consolidate,” *Chemical Week*, Vol. 161, Issue 1, p. 29, Chemical Week Associates, New York, Jan 6, 1999.
- <sup>54</sup> Cunningham, Robert. “Two Old Hands And The New New Thing.” Page 3.
- <sup>55</sup> US Department of Commerce/International Trade Administration. Page 43-2.
- <sup>56</sup> Cunningham, Robert. “Two Old Hands And The New New Thing.” Page 8.
- <sup>57</sup> Committee on Quality of Health Care in America. Institute Of Medicine. Page 4.
- <sup>58</sup> Starr, Paul. “Health Care Reform And The New Economy.” Page 6.
- <sup>59</sup> Cunningham, Robert. “Two Old Hands And The New New Thing.” Page 2.
- <sup>60</sup> Cassell H. Gail, Mekalanos. “Development of Antimicrobial Agents in an Era of New and Re-emerging Infectious Diseases and Increasing Antibiotic Resistance”, *JAMA*, Vol 285, Chicago, Feb 7, 2001.
- <sup>61</sup> Ibid
- <sup>62</sup> Ibid
- <sup>63</sup> Ibid
- <sup>64</sup> Malinowski, Tom. “The Epidemic and the Administration”, *The Washington Post*, Washington, D.C., Feb 9, 2001.

- 
- <sup>65</sup> World Health Organization Report on Infectious Diseases 2000, Overcoming Antimicrobial Resistance (NOTE) Bibliographic entry 39, FDA reports on new products for 2000, lists the first of a new class of antibiotic.
- <sup>6666</sup>Garrett, Laurie. “The Coming Plague, Newly Emerging Diseases in a World Out of Balance”, Penguin Publishing, New York, New York, 1995, page 602.
- <sup>67</sup> Roalokken, D.W. Health Care Legislation Heats Up. New Jersey Law Journal. Dec 1998.
- <sup>68</sup> Pear, R., “McCain Joining Democrats to Offer Health Rights Bill”, The New York Time on the Web, <http://www.nytimes.com>
- <sup>69</sup> Advisory Commission on Consumer Protection and Quality in the Health Care Industry, Consumer Bill of Rights and Responsibilities: Report to the President of the United States, <http://www.hcqualitycommission.gov>
- <sup>70</sup> The New York Times on the Web, “Opinion: Bipartisanship on Patients’ Rights”, <http://www.nytimes.com>
- <sup>71</sup> Aronson, P., “Congress Squares Off over HMO Liability”, The National Law Journal.
- <sup>72</sup>Pollack, R., “Families USA Executive Director Says HMO Decision Show Need for Patient’s Bill of Rights”, Press Release: Families USA: The Voice of the Health Care Consumers. <http://www.familiesusa.org>
- <sup>73</sup>Sorian R. and Feder J., “Why We Need a Patient’s Bill of Rights”, Journal of Health Politics, Policy, and Law.
- <sup>74</sup> Gresenz, C.R., Hensler, D.R., Studdert, D.M., Dombey-Moore, B., and Pace, N.M., A Flood of Legislation? Rand Law and Health Issue Paper, <http://www.rand.org>, Feb 2001.
- <sup>75</sup> Combs, A.L. “A Kinder, Gentler ERISA”, The Recorder of the American Lawyers Media, Sept 1998.
- <sup>76</sup> Gregg, J., “Patients’ Bill of Rights”, Congressional Record Senate, S1111.
- <sup>77</sup> Kaiser Family Foundation, “Post Election Survey Finds Health Issues Rank High for Voters, But Consensus on Solutions Will Be Hard To Reach”, Kaiser Family Foundation Homepage, <http://www.kff.org>, Jan 2001.
- <sup>78</sup> “Patients’ Rights for All Patients?”, Business Week, Feb 2001.