



Future of Health

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Editorial



Editorial

A general review is given on current and future challenges of health...



Future of Health

Future of health is discussed by introducing some of new technologies...



15 Ideas to Improve Global Health

15 ideas are proposed to improve the situation of health around the globe...



Delphi: The most common method in FS

A brief explanation is given on Delphi method...



7 Principles in Futures studies

7 Principles in Futures Studies is reviewed quickly...



A Futurist

Life and works of John Naisbitt are introduced to our Iranian readers...



Book Review

The Future of Health is the book that is reviewed in this issue...



Web Surfing

Some of useful links on futures studies are given in this section...



Virtual World

A review on a website called "the future of medicine" is given...

There is a well-known saying: "An apple a day, keeps the doctor away." and perhaps for this reason apple is regarded as the symbol of health today. The health of body and psych in contemporary societies is so much important that has become really one of the economic challenges of these societies. In other words, rationalist and knowledge-based societies try to allocate their financial resources to the development of healthy conditions for life and health of their citizens rather than spending them as costs of treatments. This point of view which is shaped based on the well-known paradigm of "Prevention is better than treatment.", tries to take a step more than a mere slogan and take a useful action in the way of saving therapeutic funds. Of course, there is a long way to reach a complete superiority with this paradigm and realize it in the above mentioned societies. A significant challenge is: "How far can the prevention appear as effective in front of emerging and unknown diseases?"



In addition to economic challenges raised as a vital issue of health, its social aspect is also regarded as a serious challenge. Generally, societies with healthy conditions for their citizens have a greater degree of assurance in pacing paths of the future. Advanced countries with successful experience in converging social policies with health policies, have a remarkable potential in advancing national goals. The challenge occupying minds of many futurists is that "How far can social decision makers involve and coordinate themselves with future health policies?"

Another important challenge facing the people is the problem that technology has a dual performance. Technological progress advances health policies and measures; meanwhile it can be a threatening factor for the health. The electricity is used as the source of energy in many medical equipments and technologies. Using power in such devices always produces electromagnetic fields with different levels. Although such devices may be produced with reduced electromagnetic fields as much as possible, using them in large numbers at hospitals may increase the level of environmental hazardous waves even higher than what may be found in the patients' homes. For this reason many physicians and medical aid experts believe that patients' homes may be better than hospitals if they are going to recover faster. So one of current and future challenges of the health, is reducing side effects of using medical equipments and technologies.

Another challenge in this regard is health management. Health management has its own implications in personal and social levels. Health is affected by personal actions and decisions. On the other hand, it is being affected by the activity or passiveness of social health authorities. It seems always probable that one may do his/her best to save and enhance his/her health, but the moment she/he leaves home, he/she may be infected by different pollutions such as polluted air and intolerable noise. Although social health authorities accomplish their duties, individuals may be endangering their health by smoking. While, health management is a bi-variable equation, both variables should be taken into account. Today and tomorrow's most important challenge is keeping this equation as balanced so that the health of individuals and society can be guaranteed.

Technological products and achievements as machineries, tools, softwares and productive equipments in areas such as transportation, industry, mining, treatment, agriculture and entertainment all are gained from science and technology. But these products are not necessarily unique outcomes of science and technology. Science is the profession of those who are encircled by their own ideologies, time, place and other social, economic and cultural affiliations. For this reason, the science may find different technological solutions to material problems in different societies and fields of life and activity. The science takes some ways to solve human's problems and neglects the other directions. Decision on following each way depends on selecting a way just at the crossroads of the process of converting science into technology that is impressed by different factors, institutions and individuals. Many criteria and rules are governing these decisions.

Scientific advances in its process of development and evolution and also in the process of converting science into technology have continued to be in the direction of capital and capital gain. In this orientation, usually expensive routes have been chosen in which scientific outputs have become expensive and people with higher ability of payment have been entitled to their benefits. A system of hygiene free of commercial profit making intentions may combat heart diseases through implementing necessary preventive measures. Besides, expensive heart surgeries, artificial hearts and costly healthcares may not be chosen so that all of social classes may be beneficiaries of scientific advances. So it can be said that the science could choose less expensive ways and might serve larger parts of the humanity. A witness to the fact that the science has neglected public in creating some of technologies, is the approval of different kinds of medical insurance by the government for all the people even who are working at public sections. Pharmacological and curative technologies offer products and services which can not be consumed or used without the aid of medical insurance or subsidiaries, as they are not economically applicable for all the population in different societies.

Scientific advances which have been serving medical and treatment technologies in diagnosing, surgery and also in the production of drugs have not been developed democratically in spite of having vital roles in people's life and health. Other scientific fields such as electronics, metallurgy, chemistry and related technologies have found popular orientation. Today, many products resulted from scientific advances are serving world's growing populations: Some medical advances that control and vanish dangerous diseases like the tuberculosis, cholera, and blister; technologies that serve communicating message, information, voice and image; outputs that serve terrestrial, marine and aerial transportations; scientific achievements serving production, preservation, storing and processing of foods and many other feats, are serving the population of different countries. If the people benefit from technological advances of the Industrial Revolution, it has been because of freedom and competition in the markets, neither as an implication of inherent nature of shaping process, nor technological advancement. As well as the impressive and exclusive power of investment in advancing researches and technologies, freedom and competition have had determining roles in populating these advances. Considering the importance of health, this issue of the Iranian Society of Futures Studies e-monthly is devoted to this matter and new angles are given to our dear readers with a glance of the future.



Future of Health

Meeting the Challenge Ahead

As a society, we're living longer and better than at any time in history. In part, this is due to pharmaceutical advances. Death rates are down, long-term disability is down, life expectancy is higher than ever, and we're making progress against the most serious diseases we face. As we consider the direction health care will take in the future, one thing is certain: new, innovative medicines will assume an increasingly prominent role in the way we improve the quality of care for future generations.

One critical role of new medicines will be the prevention, treatment, and management of many diseases suffered by the aging generation. In America, for example, there were roughly 35.6 million Americans age 65 and older in the year 2000. By 2030, this number is projected to double to an estimated 71.5 million. Diseases like diabetes and Alzheimer's represent a growing threat, not only to patients but to our ability to keep health care affordable. We know that we have to do better in our lifestyles and in our health care system to avoid an enormous disease burden and economic burden on the younger generation themselves, their families, employers, and federal and state governments. New pharmaceuticals are a vital part of the solution to this rapidly emerging issue.

A Targeted Approach to Treatment

Increasingly, the administration of new medicines will be guided by predictive evidence from genetic and other molecular tests. The expectation of "personalized medicine" is that these tests will reveal whether an individual is likely to respond well to a drug, or avoid toxic side effects. A targeted approach to treatment can ensure that each patient receives the right medicine at the right time. About a dozen of such treatments are in use today, and the field is growing rapidly. Since molecular diagnostic tests can reveal a patient's susceptibility to disease, they can also guide preventive treatment before symptoms arise. The emergence of personalized medicine will shift the focus of medical care from "disease treatment" to "health care management."

Facing Alzheimer's and Other Diseases

A recent report by the Alzheimer's Association in America illustrates how medicines offer an important solution to this critical challenge, as well as the importance of finding new health solutions. As the elderly population grows, the number of people over 65 with Alzheimer's is expected to grow from 4.5 million in 2000 to 6.5 million in 2025 and 13.4 million in 2050. Without new solutions, Medicare spending on Alzheimer's will triple by 2015. Better treatments that delay the onset of the disease and slow its progression could have a dramatic effect, not only on patient's lives but on spending for the disease. According to the report:

- Medical research breakthroughs could result in nearly three million fewer Americans with Alzheimer's and \$149 billion in savings to government programs like Medicare and Medicaid by 2025.
- Spending on research today is projected to yield huge savings to the Medicare programs. According to the report, every one dollar invested in Alzheimer's research now would yield \$10 in savings by 2015 and \$25 in savings by 2025.

Of course, Alzheimer's isn't the only disease sorely in need of new treatments. We need new treatments for a broad range of conditions, or we will be left with a growing toll on health, quality of life, patients' families, and the economy. The status quo isn't good enough for patients and it's not the best way to spend valuable resources. The 1,000-plus new medicines in development represent potential advances that can shift the status quo for patients and our health care system.

Notes: http://www.innovation.org/index.cfm/futureofinnovation/Future_of_Health_Care