

Technological Advances

Student's Name

Institutional Affiliation

### Technological Advances

In healthcare system delivery, technological advances can be used with reference to the procedures, medical equipment, and the processes by which medical services are delivered to the patients. There have been significant technological changes such as the recently introduced medical and surgical procedures, for instance, joint replacements and angioplasty. Additionally, medical devices such as the implantable defibrillators and computed tomography scanners appeared. Finally, there have been new support systems, for example, telemedicine and electronic medical records with dissemination of information. Generally, there are very few medical fields that have not utilized any form of medical technology or have not been impacted by the new technological advances. In America, the healthcare system has undergone significant adjustments throughout history. The changes have been associated with the technological advancements and the social reform (Iglehart, 2009). This paper seeks to discuss two historical perspectives of healthcare delivery in America and the impact of the availability or unavailability of technology on the perspectives. Additionally, two technological advances that have had an impact on the healthcare system as well as the effect of the technological advancements on public opinion about the ever-changing care system will be discussed.

#### **Historical Perspectives on Health Care Delivery**

The two historical perspectives on the healthcare service delivery in America include American Capitalism as well as public opinion on the delivery of healthcare throughout history. These perspectives are significant in terms of healthcare trends and development throughout the care history.

#### **Public Opinion on Care Delivery**

According to the study survey conducted by Blendon and Benson, American people are dissatisfied with the healthcare system and the associated sectors, such as private insurance. The study also made an observation of a decline of the confidence in the medical leaders. The study was a part of a fifty year data collection research process of understanding of the individual American perspectives on the health system (Blendon & Benson, 2001).

Inadequacy of the healthcare technological development is possibly a cause of the people's declining trust in the health care system. Moreover, the recent advancements in technology are possibly causing distrust in other areas. These include the unethical collection of data from the patients or shifting towards the electronic medical records.

### **American Capitalism**

American Capitalism of the healthcare is also a historical perspective that is associated with the technological development in the health care systems. The United States economy is primarily driven by the market-based capitalism (Iglehart, 2009). The market-based system comprises of a collection of the decision-making units, namely the households as well as the businesses and other larger organizations' collection. Even though the health care delivery system's main concern is the individual Americans' health and wellbeing, there is also a concern in American Capitalism. The health care institutions must comply with the same business ethics and codes legislated by the American government.

Medical technological developments have also permitted the advancement of Capitalism. The health care organizations have improved in their efficiency and profitability due to technology. In addition, advances in technology have decreased the human errors caused in provision of patient care.

### **Examples of Technological Advancements**

For better comprehension of the effect of the technological developments in the medical field, two specific examples will be highlighted. These include the utilization of smartphones and diagnostic imaging advancements.

### **Utilization of the Smartphones**

The evolution of the smartphone is significant in the medical field. Although the smartphones do not seem to be connected to the healthcare system in any manner, they have actually been of benefit in the world of medicine. The medical practitioners utilize the smartphones and tablet devices in a bid to access patient data. Moreover, more recent developments have an indication that the smartphones may be of value to individual Americans' health. An example is the recent development of a checkup experience application available on the iPhone or iPad, which enables people to check their pulse. This was developed by the Masimo Company. The application has a device in which people can put their ring finger. This device records oxygen, pulse rate, and perfusion index. However, the devices are limited in their numbers, but it creates possibilities for future developments. For example, the patients may acquire more resources from their smartphones while undergoing diabetes self-care. The future smartphones may include application devices for the measurement of blood sugar levels. There are numerous possibilities for this medical technological advancement (Blendon & Benson, 2001).

### **Diagnostic Imaging Advancement**

The advances in diagnostic imaging have already had a significant medical impact. They include computed tomography scans, positron emission tomography scans, and magnetic resonance imaging. The imaging advancements in the past five years have created a revolution in almost every medicine aspect (Griffin, 2013). Since technology has enabled detailing and

accessibility of imaging, the medical practitioners have enhanced their accuracy in diagnosis. In many cases, serious medical conditions have an early discovery, hence making technology a prevention tool. The technology application in medicine is of high benefit since it provides doctors with real-time access to data. Finally, another significant medical technology component is the reduction of room for human errors.

### **Technological Developments' Effect on Public Opinion about the Health Care**

As noted earlier, medical technological developments have affected public opinion in health care in both positive and negative ways. Since technology is extensively celebrated and accepted in different fields, the patients have a high likelihood of accepting technology implementation in the medical field as well. Trust in the medical devices enhances trust in doctors. More complex surgical operations were rarely performed due to the dangers associated with the procedures. However, today the patients may have surgical operations and even get up and walk right after they are done. Such developments have had a positive impact on public opinion with regard to the changing healthcare system.

However, the Americans still distrust the health care system because of the technology application manner in other medical areas. The recent shifting from the traditional patient record keeping to the electronic medical records has received massive challenges from the public. Some Americans believe that the electronic system could be easily breached; and the patient privacy is also a significant concern in the medical technology implementation (Iglehart, 2009).

### **Conclusion**

In summary, the technological advancements have impacted on every aspect of the modern society with an inclusion of the field of medicine and healthcare. These technological breakthroughs have revolutionized the healthcare delivery. They have altered the entire structure

and organization of the medical field. From the widespread adoption of the electronic medical record keeping to the biomedical engineering and technology advances, the modern healthcare and the delivery methods are changing at a rapid rate.

## References

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