

# The Telemedicine Trend in Contemporary Communication Technologies

CHEN B.

Faculty of Engineering, Universidad Finis Terrae, Santiago, Chile

E-mail: Chenchen@gmail.com

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## ABSTRACT

In relation to the past, present, and projected future trend, the state of evolution in the health care industry's technological, financial, and economic perspectives is worth analyzing. Specifically, changes in the mode of the industry's operations have been attributed to the nature of globalization in which the need for dynamism has arisen from changes in the needs of product and service users, as well as the flexible nature of the preferences of stakeholder groups. This paper examines the industry's trend in the past, present, and future, emphasizing aspects such as technological, financial, and economic changes.

**Keywords:** Industry's technological, financial, worth analyzing.

## INTRODUCTION

Dramatic changes have been witnessed in the health care industry's past decade of operation. These changes have been attributed to the digitization of patient experiences, as well as the emergence of technologies. One of the developments has been the use of electronic medical records that have made it easier for care givers to disseminate patient data to other task force groups, reducing the number of lost records (Ayanian & Van der Wees, 2012). With the data shared seamlessly, better patient care has been witnessed. Telemedicine forms another trend. The digital change has seen patients who are immobile or, those who are in remote regions gain doctor access via video chat technologies. The development has also been complimented by remote monitoring that has seen patients head home earlier, upon undergoing medical procedures. The implication has been a significant reduction in the cost of care on the sides of the hospital and, that of the patient (Fisher, Bynum & Skinner, 2009). Notably, small digital implants have been critical to the success of remote monitoring practice. Additional technological incorporations have included the use of wearable technology and wireless communication. It is also worth noting that variations in regional economic and financial statuses have had significant effects on the healthcare industry's past decade of operations. Specifically, care providing organizations have had to increase their

expenditure in a quest to meet these technological demands, with the eventuality seeing the cost trickledown to patients and their families. With the evolution of technologies, groups such as families and healthcare organizations have had to increase their financial allocations to meet the demanding nature of improved service provision; with payment and recording processes utilizing similar, wireless platforms. Overall, the last ten years have been characterized by emerging technologies whose direct correlation to the increase in economic and financial pressure could not be overemphasized.

## METHODOLOGY

This study was conducted from the perspective of a secondary survey. As such, data was collected from journals and e-books. These data sources had the inclusion criterion set in such a way that they were supposed to be recent articles addressing the subject of previous, current, and projected or future trends in telemedicine or telehealth services. For the purposes of ethical conformity, data from the secondary sources was collected and analyzed in its original form without the researcher's interference or manipulation. Also, researcher bias was minimized by selecting the sources of data randomly. Regarding the analysis and interpretation of the results, the chosen content analysis technique was complemented by inferential and descriptive statistics, having presented the data or findings graphically.

## RESULTS AND DISCUSSION

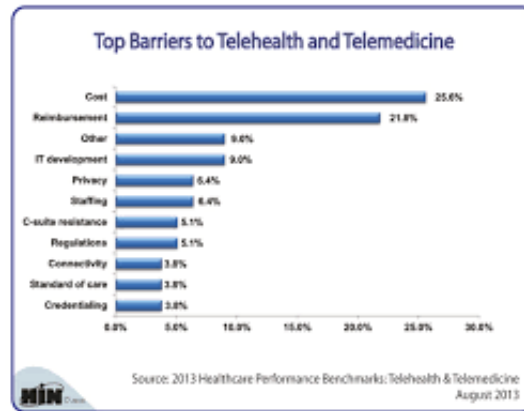


Fig:1

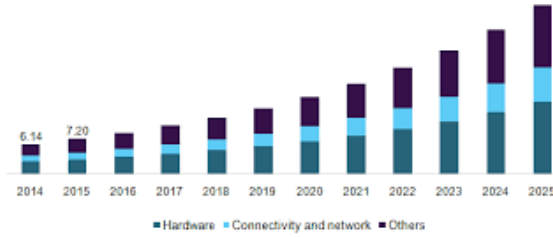


Fig:2

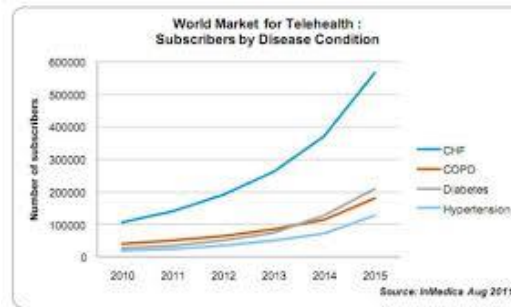


Fig:3

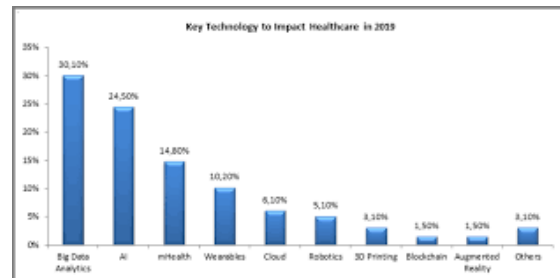
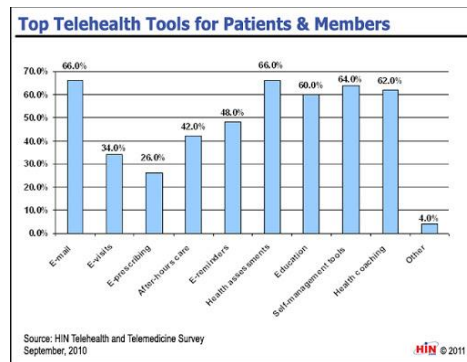


Fig:4

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**Fig:5**

Of the numerous forces responsible for the transformation of the healthcare system, a shift from volume-based payment to value-based payment has been more significant. With inventions and innovations focusing on the facilitation of telemedicine, value has been perceived to be a fundamental drive that reorients the cost-effectiveness and quality of care (Kawamoto et al., 2014). Currently, the dominant source and means of payment is that which combines government funding with employer contributions, seeking to compliment the out-of-pocket expenses that patient undergo. Additionally, cost-shifting and price controls have created varying price structures for different care purchasers.

Apart from the aforementioned financial implications and payment mechanisms, technology plays a crucial role in shaping the current state of the health care industry. Specifically, wireless technologies such as the use of Asthmapolis sensors have seen care providers and other practitioners monitor the patients from a distance. Additionally, the wide scale acceptance and adoption of electronic medical records has seen government agencies, employers and patients take keen interest in understand what they can expect out of the care expenses incurred (Ayanian & Van der Wees, 2012). In summary, the current state of health care has seen technological applications gain a wide scale adoption while economic and financial operations have seen groups such as government agencies and healthcare organizations collaborate to compliment the out-of-pocket expenses incurred by patients and their families.

In future, electronic technology is predicted to improve efficiency. Specifically, the electronic

medical records might be tied directly to the bills expected of patients and their families, allowing physicians to utilize software for analyzing types of procedures or visits to create automatic codes (Fisher, Bynum & Skinner, 2009). With billing linked to the medical record content, it is expected that a marked reduction in the need for complex compliance programs will be experienced in the near future. On the economic side, it is predicted that the cost of care will increase. Whereas the industry might witness less wasteful procedures and tests (because of the availability of better data regarding appropriate care) and that a more efficient billing system could arise, the emergence of technology-related efficient care models could see the improvements dwarfed by increasing costs while caring for patients at home (Kawamoto et al., 2014).

The rise in the cost of care is also predicted to yield an increase in the number of the uninsured. This attribution is avowed by observations that the employers and other players in the private system might seek to reduce their costs through reductions in coverage, increasing the burden on the part of the employee (Ayanian & Van der Wees, 2012). With an increase in premiums, workers are less likely to afford basic health insurance, increasing the ranks of the uninsured. In turn, the cost of caring for uninsured groups is likely to shift to private and government insurers. Overall, this trend might increase the uninsured in vicious circles, besides increasing the overall cost of healthcare coverage.

It is also projected that the future of the health care industry might experience providers being paid less. Whereas the current state has seen a majority of the industry providers receive approximately the same amount from most of the payers, an increase in health care costs might

witness health plans incur the increases to the inevitable sectors and reduce payments to those given less priority (Fisher, Bynum & Skinner, 2009). With aspects such as payment for new devices and drugs, the bottom line to make profit among private plans, and administrative costs given priority, it is predicted that the providers might be paid less. Of imperative to note is that the current payment sources and mechanisms might still be utilized by a more collaborative approach is likely to dominate.

### CONCLUSION

In summary, the future of the health care industry depicts a promising generation that will be dominated by increased efficiency and effectiveness, and that timely provisions of services might lead to improvements in the state of patient satisfaction. However, the technologies utilized to achieve these efficiencies will come with far-reaching implications. Specifically, the widespread use of technologies will see the overall cost of health care increase, leading to financial pressure on the part of patient groups, government agencies, and other insurers. Indeed, the overall observation is that there is an increasing trend in the adoption and use of the communication technology of telemedicine in the healthcare industry. This trend comes at a time when there is growing need for flexibility to accommodate the changing needs and

preferences of system or service users, as well as the interests of the key stakeholders. For the affected industry players, the implication is that the ability to survive in the future and remain competitive will depend on the ability to keep abreast of the needs with which the communication technology of telemedicine or telehealth service provision comes.

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