



## ABSTRACT

This research paper is to show how home telehealth also known as telemedicine will help reduced the health care cost of patients with chronic diseases in West Virginia, improves access to care and quality- of-life outcomes. In the USA, the government spend a lot of money about \$3 trillion on health care and chronic diseases are responsible for 86% of this money. About 8.6% of this money is spent to treat patients with chronic diseases in West Virginia. As shown, a lot of money is spend on this category patients. If telemedicine is successfully implemented in West Virginia, it will help to significantly reduced funds spend on these patients and this funds will be use to improve the economic status of West Virginia.

## INTRODUCTION

The home telehealth model can be defined as the use of telecommunication technologies, which facilitate communication between health practitioners and patients through telecommunication tools such as phone messages, emails, remote controlling and Skype to help improve patient's health status and create a long-term relationship (Roberts, 2016).

Telemedicine technology traces its roots from the late 1960s by the [National Aeronautics and Space Administration \(NASA\)](#) and the Nebraska Psychology Institute whereby, health practitioner assistants where able to deliver patients health information from remote monitoring equipment's to a hospital far away from the original hospital where the patient was examine (Roberts, 2016)

Home telemedicine is an important component of change process that is in line with the bright future of healthcare as it will help enhance the outcomes of healthcare among patients with chronic diseases in West Virginia (WV) State.

Telemedicine technology can be use by health practitioners by prescribing their drugs, doing post surgical follow up, chronic condition management and minor urgent care on online.

## HYPOTHESES

- **Hypothesis 1.** How home telehealth will help contain the cost of patients with chronic diseases in West Virginia.
- **Hypothesis 2.** In some states such as Massachusetts and California where home telehealth has been successfully implemented, the state spend less money about on patients with chronic diseases. So, if it is also successfully implemented in all hospitals in West Virginia, it will help contain the high medical cost spend on patients with chronic diseases.

## METHOD

### **How Home Telemedicine Will Help Contain Medical Cost in WV**

- Telemedicine will help reduced the rate at which patients with chronic diseases goes to hospitals in order to see primary care and speciality physicians. This will help safe transportation cost and time on the side of the patients. In a research conducted here in WV, 67% of patients said they are comfortable receiving treatment home.

-Moreover, home telemedicine will motivate most patients with chronic disease to take active part in their health condition. About 53% of patients telemedicine has made them to be more involved in treatment decisions

- Furthermore, home monitoring of patients with chronic disease by physicians is helping to reduce hospitals visits by about 50% by keeping patients stable on a daily basis monitoring

- To continue, home telemedicine will help reduce the rate at which patients with chronic diseases visits emergency rooms

### **Analysis**

Adoption of home telemedicine in West Virginia and in Massachusetts. With the successful implementation of home telemedicine in Massachusetts, in order to treat patients with chronic diseases, it healthcare cost drop from 6.0% to 2.3% in 2014 and it is among the top 10 states with the best healthcare system in the country where as, West Virginia is among the 10 bottom states with the worst healthcare system in the country.

Country. In 2010, WV State spend about \$2.3 billion in order to treat patients with chronic diseases resulting to an annual economic loss of about \$8.1 billion. This is a lot of money which could be use to improve other economic domains. WV is rank 46 out of 50 states with patients with chronic diseases compare to Massachusetts which is rank 2 out of 50 states. Research has shown that this amount will continue to increase if measures are not implemented to stop this.

### **Advantages of the Home Telemedicine Model in West Virginia**

Home telemedicine reduces transportation time and cost as 75% of hospital visits are usually unnecessary

Also, home telemedicine save patients with chronic diseases waiting time in hospitals waiting rooms as 87% of patients prefer telemedicine than long waiting time.

Moreover, home telemedicine facilitate things for patients with chronic disease who work

Furthermore, it gives some patients with chronic disease access to specialist's physicians as only 1 in 10 are specialist. In WV

In addition, home telemedicine will provide less chance for patients with chronic diseases to catch a new illness in hospitals.



### **Disadvantages of the Home Telemedicine Model in West Virginia**

-Home telemedicine will require hospitals to recruit expertise in Information Technology which usually cost a lot of money to hire them to train health practitioners on how to use electronic devices  
-Moreover, home telemedicine reduces care continuity among patients with chronic diseases. This happen when patients connect themselves to random care practitioners

### **Recommendations on how to Improve Telemedicine in West Virginia**

For home telemedicine to be successful in WV, physicians should be able to practise it with patients with whom they have an ongoing relationship

More so, health care practitioners should communicate and have a good relationship with other health care practitioners with whom the patients also get medical treatment from.

Also, hospital managers should hire expertise to educate both the physicians and patients on how to effectively use telemedicine in order to avoid medical errors

### **Conclusion**

If telemedicine is successfully implemented in WV State, it will help reduced the high expenses the state spend on patients with chronic diseases thus, helping to save money to solve other problems the state encounters. Which will improve the economic status of our beautiful state, WV.

### **SELECTED REFERENCES**

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