

Video Visits: Patient Satisfaction and Quality of Virtual Medical Care

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Abstract:

Electronic medical services via video visits has revolutionized the delivery of medical care by Physicians and medical staff alike. Its steady evolution and progression towards the future of healthcare has provided insight on how to better serve patients and community members seeking care. This study explores patient satisfaction and the quality of virtual medical care services provided by Physicians thru video visits as well as the impact of minimizing the spread of communicable diseases. Statistical data was gathered from a major U.S. healthcare company evaluating survey responses as well as feedback provided by member experience who visited with their respected providers via video visits. While the data captures survey response over a one year time frame, it provides insight towards positive future trends concerning video visits and how providers may use this information to improve services delivered to patients. This information may also serve valuable purpose for physicians in understanding technological advancements associated with the use of video visits, trends associated with cost effectiveness, marketability, competitors edge, patient satisfaction, and effective use of time as well as demonstrate its superiority to in person face to face patient visits with physicians.

Key Words: Electronic medical services, Video Visits, access to care, evaluation of technology.

Introduction

Video visits provide patients with the opportunity to seek medical care without having to physically be present in an office or hospital setting. Not only are patients able to communicate virtually via video conferencing, but email and texting providers are readily becoming available for patients to utilize as a faster method for contacting their physicians. Various situations lead to the utilization of video visits such as the urgency to seek advice without having to visit the Emergency Room, or for patients who live in rural communities that are underserved, those who may have ailing health where they may find difficulty accessing healthcare outside of the comfort of their homes and when unexpected emergencies may occur on weekends when most primary care offices are not open for service. “Virtual visits satisfy patients' thirst for timely access to care and allow them to communicate with their doctor when it's convenient for them, whether from home or work, regardless of the time of day. With a virtual visit, patients don't have to wait on hold to schedule an appointment, they don't have to miss work and they don't have to waste time in a waiting room. This type of information exchange allows them to describe their problem and formulate their questions without feeling rushed, and because they have their physician's response in writing, they can reread the information as often as they like or need to understand the content,” (Eads, 2007). However, numerous variables come into play that may disrupt the effectiveness of utilizing video visits specifically cost, marketability, provider reimbursements through insurance companies, provider to patient response time, patient satisfaction and quality of services provided. These variables will be further investigated to validate the efficiency and effectiveness of video visits in an evolving healthcare system and to reaffirm that it is the superior alternative to in person care treatment as well as the risk of spreading communicable diseases is lowered.

Background

Historically, telemedicine is the foundation and parent contributor to the development of electronic health technologies. According to Perednia and Allen (1995) Telemedicine has been part of the U.S. health care system for several decades. It can be broadly defined as the use of telecommunications technologies to provide medical information and services. Although this definition includes medical uses of the telephone, facsimile, and distance education, telemedicine is increasingly being used as shorthand for remote electronic clinical consultation. Telemedicine is a diverse collection of technologies and clinical applications. The defining aspect of telemedicine is the use of electronic signals to transfer information from one site to another (Perednia & Allen, 1995). Advancements in such medical technologies like video visits provides alternatives to consulting with physicians without physically having to be present.

Cost effectiveness and catering to the aging population through the use of video visits are some of many considerations for improving the health care delivery system overall. “Its applications in home health care are a relatively new phenomenon. Using personal computers and video equipment that transmit data over ordinary telephone lines, home health providers are now able to monitor patients and provide care at a much lower cost than earlier technologies that required wider bandwidth telephone lines and more complex equipment. The aging population and the push for more efficient delivery of hospital services have fueled this growing demand,” (Dansky, Palmer, Shea & Bowles, 2001). Maintaining affordable health care aligns with the current strategies of improving the availability and delivery of services with significant focus towards reducing costs and increasing access.

The continuous growth of internet access and creating affordable technologies such as computers, tablets and mobile devices play a vital role to successful video visit implementation. “In the United States, it is estimated that 72% of all adults and 81% of those using Internet services now access health information online. Meanwhile, the increasing use of smart mobile devices has facilitated remote video communication and access to information. As such, several specialities have investigated the feasibility and acceptability of virtual teleconsultations including primary care, dermatology, and orthopedics, with studies reporting high levels of acceptability and satisfaction, improved outcomes, and reduced costs,” (Viers et al., 2015).

Consulting patients through the use of video web chat and the ease of convenience from doing so from home are components this study looks to explore to provide assurance and justification for its use. The purpose of this study is to understand how patients are able to save time to physically go into an office or hospital, to improve the delivery of health care, understand the quality of virtual medical care and possibly advocate for the increase use of video visits as the preferred method for seeking medical advice from physicians. The evaluation of patient satisfaction survey responses and feedback within this study may leverage support for physicians or healthcare facilities looking to adopt technological advancement through the use of home video visits. Research may also provide a positive use case for video visits particularly concerning how to prevent the spread of communicable diseases such as the flu. When patients participate in video visits, common symptoms of the flu such as coughing and sneezing are more contained and the risk of spreading germs to a greater population are less likely.

Methodology

Survey questions and results were obtained from the chief Physician of the Telemedicine Program affiliated with a major U.S. Health Care Company that is presently active in using video visits and engaging with their patients via video house calls. Surveys were sent to patients from the member patient satisfaction committee upon completion of their video visit call, to help providers and the company obtain feedback from patient experience (T.B. Holsteen, personal communication, June 3, 2015). The following questions appeared on the survey:

1. How would you have chosen to receive care if house calls was not available?
2. Did you find having the video consultation more or less convenient than your alternative?
3. Based on your level of satisfaction with your experience, what rating would you give to your video consultation overall?
4. What rating would you give to the representative that initiated your video session and made the hand off to the physician?
5. What rating would you give to the physician you saw for your video consultation?
6. How would you rate the ease of using the technology?
7. How would you rate the quality of audio?
8. How would you rate the quality of video?
9. How do you connect for the company for this video consultation?
10. How was your device connected?
11. Will you use house calls again in the future?
12. Would you recommend house calls to your family/friends?

Population and Sample Design

Mail surveys are sent to participating members of the affiliated Healthcare Company by the member patient satisfaction committee. Those who participated in the video visit interactive call are provided the option to respond via mail or electronically via logging into the member satisfaction website provided. Stratification is based on medical center and participating specialty type and limited analysis to include video visits.

Data Collection Procedure

Request was made to the member patient satisfaction committee to access data concerning member satisfaction after participating in video visits. Upon receiving response from member services, data was tabulated in Excel and presented via tables, pie charts and graphical depiction of results. Data represented the number of video visits conducted within the varying specialties year to date as of 7/31/2015 as well as patient satisfaction survey results from July 1st 2014-July 31st 2015.

Results

A total of 8,529 video visits occurred YTD as of 7/31/2015. Of the data collected, survey responses from 1,403 members were provided dating from 7/1/2014-7/31/2015. An average score of 92% was yielded for an overall “excellent/very good” experience limited to 10 out of the 12 questions. Percentages were tabulated based on the selection members made responding to the various questions from the survey.

Breaking down by the number of chosen responses for each question, the following bar charts depict a visual representation of the patient satisfaction level for each subject to include video rating, audio quality, video quality, representative rating, physician rating, ease of technology,

video consultation convenience, future use, recommendation, willingness to be contacted, choice if no video visit care, device connect and device used.

Fig1- Customer Experience Survey

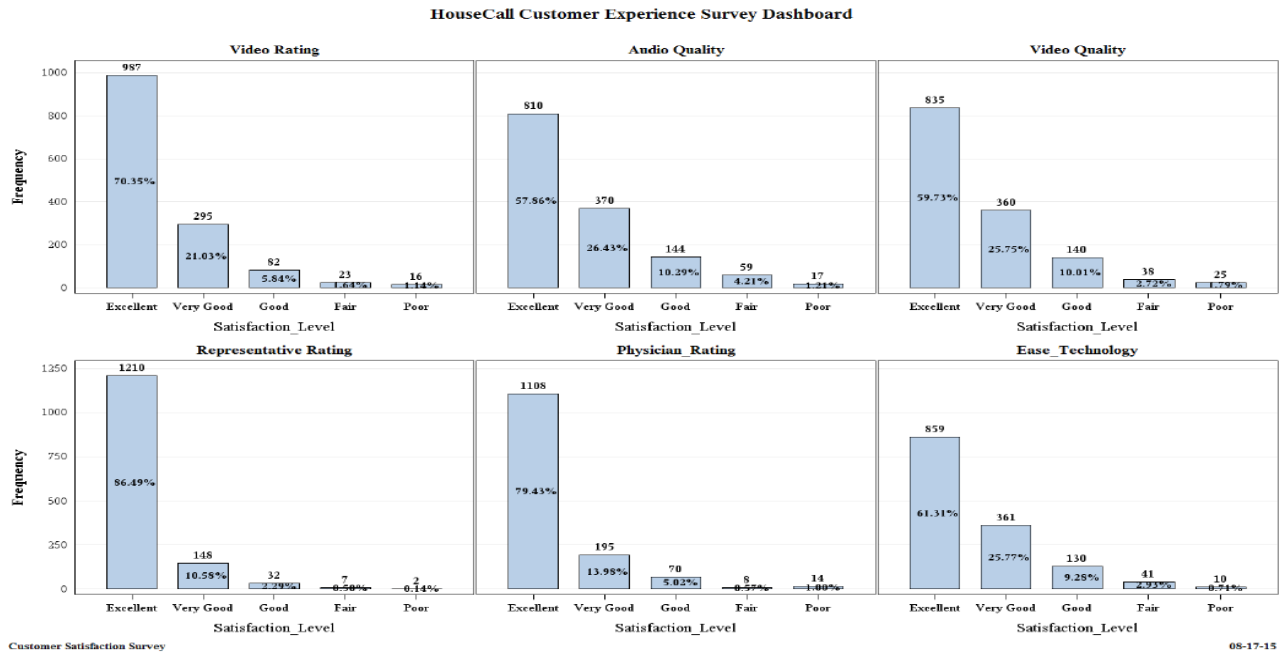


Fig2- Customer Experience Survey

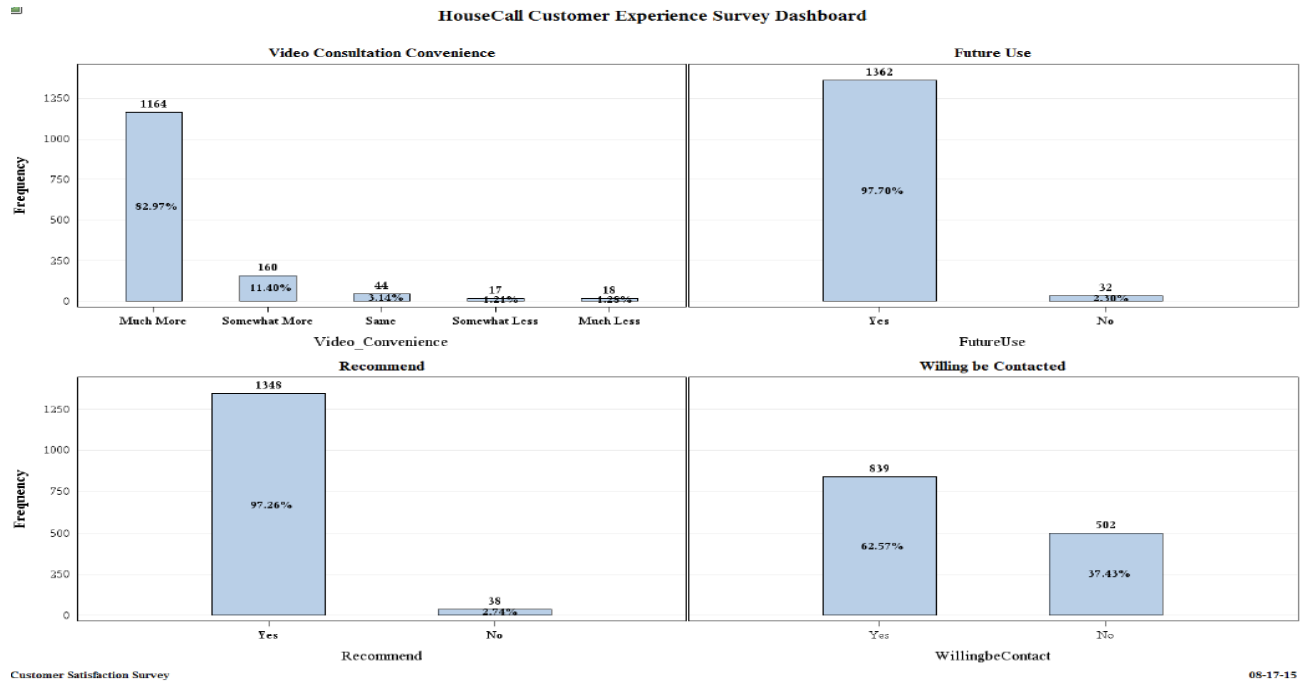


Fig3- Customer Experience Survey

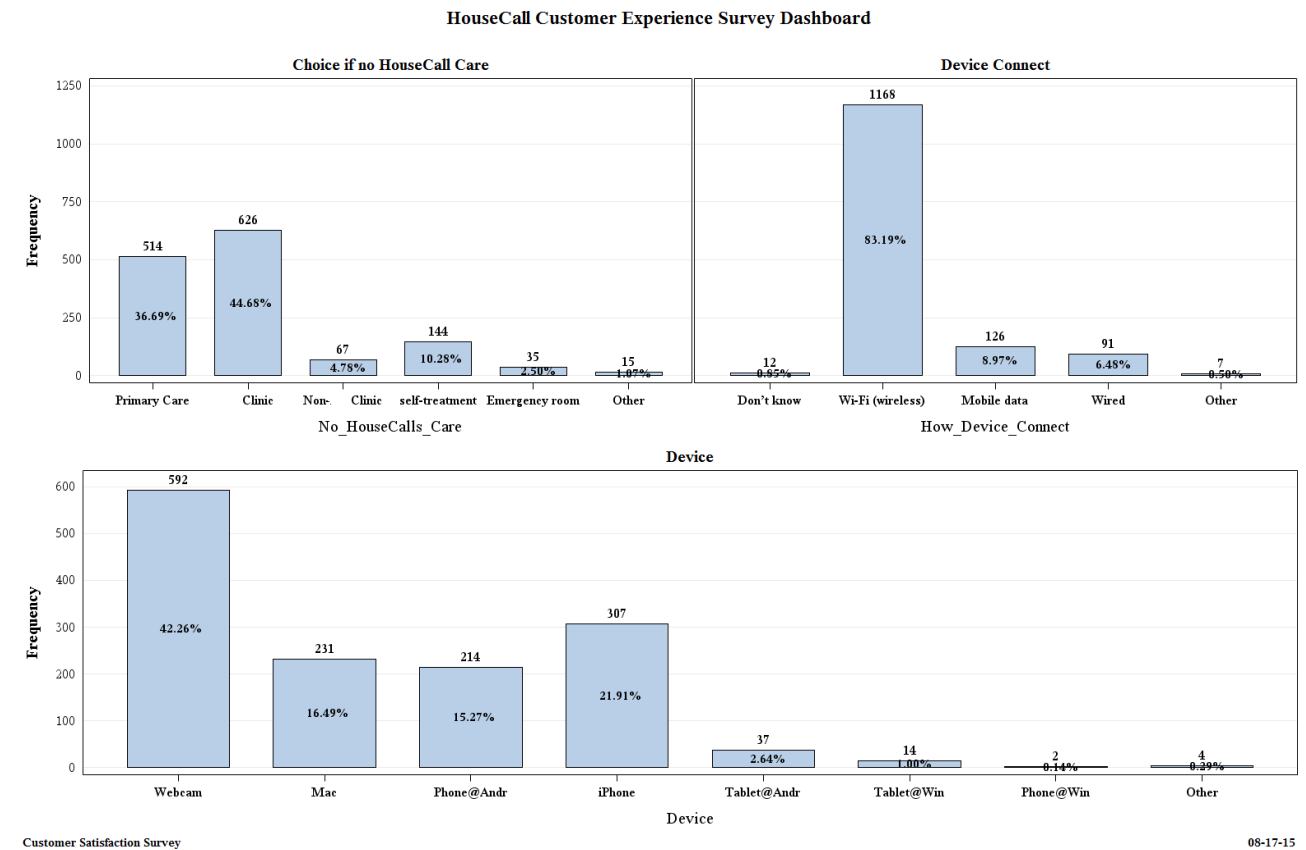


Fig 4- Pie Chart and Bar Chart YTD-7/31/15

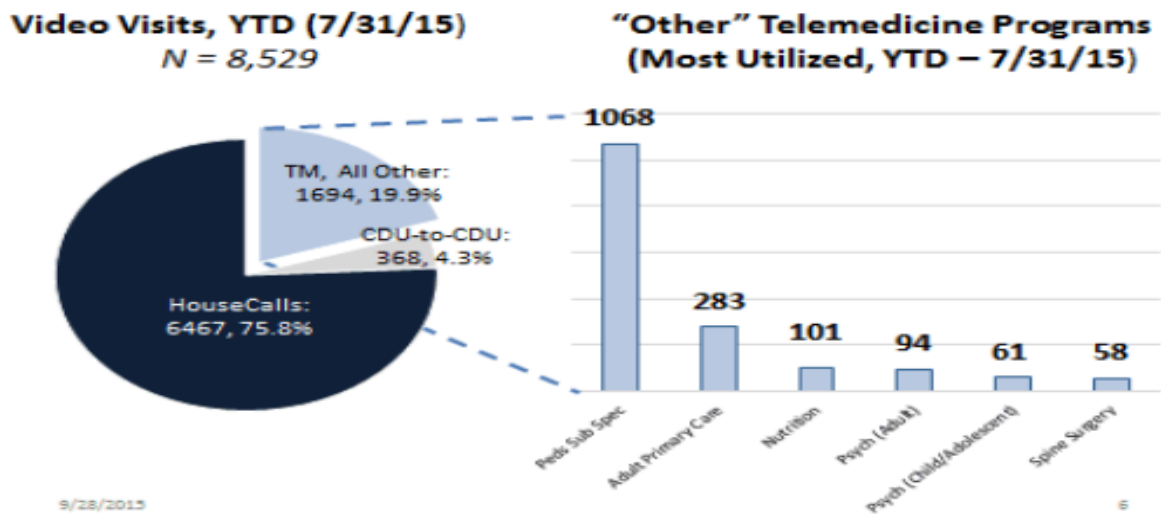


Fig 5- Survey Responses from 7/1/2014-7/31/2015

"HouseCalls" Survey Questions/Responses N = 1403	Percent "Excellent/Very Good"
Overall Perception: Video Met All Needs	91%
Audio Quality	84%
Video Quality	85%
Representative Rating	98%
Physician Rating	93%
Ease of Using Technology	87%
Convenience	94%
Would Use Again	98%
Would Recommend	97%
Average Score	92%

Timeframe: 7/1/2014 - 7/31/2015

Adapted Materials and all Rights Reserved for Charts 1-5 by KPMG provided by Dr. D. V. Truong. Personal communication, September 28, 2015.

Conclusion

Upon reviewing the data and summary of findings it can be concluded that with an overall rating of 92% for an excellent and very good experience, patient participation via video visit provides justification for the need to continue promoting the use of virtual health technologies. Providers have an opportunity to see more patients vs. in person visits eliminating the middle man of having to check in, fill out paper work and nurse triage. Patients are presented the opportunity to communicate using various technologies such as tablets, web cams, lap tops and mobile devices. The convenience of being able to use varying virtual technologies does not limit the patient from having to use a specific device for a video visit encounter.

Implications of Study

This study was able to provide solid data and results associated with patient satisfaction and overall experience when participating in video visits. It is important to note that patient satisfaction is a key driver to achieving reimbursements through varying programs provided by CMS and other Federal Health Care agencies. Physicians are able to boost production and incorporate more patients on their schedules to accommodate the patient population. Patients who are too sick or may be prone to spreading communicable diseases to other patients or medical staff (especially during flu season), have an advantage of seeking medical care through video visits which prevents putting oneself and others at risk. Not only do Physicians gain an opportunity to see more patients, but patients are able to save time and money from having to visit a provider in person.

References

- Birati, E. Y., & Roth, A. (2011). Telecardiology. *IMAJ*, 13, 498-499. Retrieved from http://library.tasmc.org.il/Staff_Publications/publications%202011/birati-1.pdf
- Dansky, K.H, Palmer, L., Shea, D. & Bowles, K.H. (2001). Cost analysis of telehomecare. *Telemedicine Journal and e-Health*, 7, 225-232. Retrieved from <http://online.liebertpub.com/doi/pdf/10.1089/153056201316970920>
- Demeris, G., Speedie, S. & Finkelstein, S. (2000). A questionnaire for the assessment of patients' impressions of the risks and benefits of home telecare. *Journal of Telemedicine and Telecare*, 6, 278-284. Retrieved from <http://m.jtt.sagepub.com/content/6/5/278.full.pdf>
- Demeris, G., Speedie, S. & Finkelstein, S. (2001). The nature of communication in virtual home care visits. *AMIA*, 135-138. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2243466/pdf/procamiasymp00002-0174.pdf>
- Demeris, G., Speedie, S., Finkelstein, S. & Harris, I. (2003). Communication patterns and technical quality of virtual visits in home care. *Journal of Telemedicine and Telecare*, 9, 210-215. Retrieved from <http://jtt.sagepub.com.ezproxy.uthsc.edu/content/9/4/210.full.pdf>
- Dixon, R. F. & Stahl, J. E. (2009). A randomized trial of virtual visits in general medicine practice. *Journal of Telemedicine and Telecare*, 15, 115-117. Retrieved from <http://jtt.sagepub.com.ezproxy.uthsc.edu/content/15/3/115.full.pdf+html>
- Eads, M. (2007). Virtual office visits: a reachable and reimbursable innovation. *Family Practice*

- Management*, 14, 20-22. Retrieved from <http://www.aafp.org/fpm/2007/1000/p20.html>
- Finkelstein, S. M., Speedie, S. M., Lundgren, J. M., Demiris, G. & Ideker, M. (2001).
TeleHomeCare: virtual visits from the patient home. *Home Health Care Management & Practice*, 13, 219-226. Retrieved from
<http://m.hhc.sagepub.com/content/13/3/219.full.pdf>
- Friedman, R.H., Stollerman, J.E., Mahoney, D.M. & Rozenblyum, L. (1997). The virtual visit: using telecommunications technology to take care of patients. *Journal of the American Medical Informatics Association*, 4, 413-425. Retrieved from
<http://jamia.bmj.com/content/4/6/413.full.pdf+html>
- Homsiak, L. (2011). A virtual walk through your office: a patient's first to last impression and beyond-part 1. *Podiatry Management*, 85-95. Retrieved from
<http://content.ebscohost.com.ezproxy.uthsc.edu/ContentServer.asp?T=P&P=AN&K=2011333487&S=R&D=rzh&EbscoContent=dGJyMNHr7ESeqLE4zOX0OLCmr0yepq9Ss6i4TK%2BWxWXS&ContentCustomer=dGJyMPGok6vqLNOuePfgex43zx>
- Perednia, D. A. & Allen, A (1995). Telemedicine technology and clinical applications. *JAMA*, 273, 483-488. Retrieved from file:///C:/Users/P821131/Downloads/jama_273_6_037.pdf
- Vargheese, R. (2014). Leveraging cloud based virtual care as a tool kit for mitigating risk of exposure during a pandemic. *Science Direct*, 37, 416-421. Retrieved from http://ac.els-cdn.com/S1877050914010278/1-s2.0-S1877050914010278-main.pdf?_tid=d72c898c-83b711e5a31300000aab0f6b&acdnat=1446726311_18b239a63ce0d9dc70881dc146dd55f5
- Viers, B. R., Prthi, S., Rivera, M. E., O'Neil, D. A., Gardner, M. R., Jenkins, S. M.,...Gettman,

M. T. (2015). Are patients willing to engage in telemedicine for their care: A survey of peruse perceptions and acceptance of remote video visits in a urological patient population. *Urology*, 85(6), 1233-1240. Retrieved from http://ac.els-cdn.com.ezproxy.uthsc.edu/S009042951500206X/1-s2.0-S009042951500206X-main.pdf?_tid=42458d0a-83ad-11e5-8732-00000aab0f01&acdnat=1446721766_8de390f995962042d9335d10b529be26