

Consequences of technology: telemedicine essay example

[Technology](#), [Innovation](#)



Healthcare personnel are increasingly incorporating and employing technology-based alternatives to support and improve healthcare delivery.

Telemedicine programs are rapidly gaining traction all over the world.

Telecommunication technologies are utilized to exchange medical information and data thus allowing seamless provision of healthcare across social, cultural, geographical and temporal barriers.

Current technologies in fiber optics include baseband and broadband video fiber optic transmissions. Broadband fiber optic communication is the latest technology that encompasses applications that utilizes high speed and high bandwidth consumption. Such applications such as fiber optic CCTV transmission and VOSCOM's fiber optic transmission systems for transmitting multimedia are the latest applications that demand high bandwidth only possible through fiber optics. Their adoption in healthcare stands to benefit specialist and patients equally.

One consequence of technology is Telemedicine. Telemedicine is the delivery of healthcare to patient's miles of distance away using advanced audio and visual technologies. Telemedicine technologies have facilitated the delivery of off-site clinical consultation and treatment of critically ill patients. Advancement in video conferencing and high bandwidth data transmission have made it possible for teledoctors and telespecialist to diagnose and treat those who cannot access advanced healthcare services. Telemedicine has incorporated complex procedures and information flows in highly sophisticated and usable user interface. This has ultimately provided the opportunity to provide complex services over a distance to critical patients in remote locations.

The ultimate success of telemedicine as a viable alternative for service delivery and collaboration aspires that adopting organizations conclusively address issues pertaining to technology and management. Technology implementation has remained a pertinent issue in healthcare organizations. Telemedicine provides a means for specialist to travel electronically to remote locations, thereby increasing their coverage without physically travelling to those locations. The patient, on the other hand, stands to benefit because critical illnesses are attended to at the local facilities reducing their burden of logistical and financial requirements. With the use of telemedicine, healthcare facilities compete for coverage, ultimately driving down the overall cost. The quality and availability of care to patients in remote areas is boosted.

The unexpected concerns with telemedicine are expected in terms of cost. Cost proves to be one of the most nontechnical challenges. With the advent of technologies such as high speed internet connectivity through fiber optics and cloud computing, the question lingers as to whether the overall cost-benefit schemes is justified in the long run. As technology advances, the cost will generally reduce but will it reach a level of affordability? Likewise, will third-party players reimburse for the type of services offered. Services such as teleradiology and telepathology have been historically reimbursable due to its outsourced nature. But according to Rita et al (2010), the challenge lies in the mode of transmission of the consults whether physically, over the telephone or digitally for it to be eligible for reimbursement.

Another challenging outcome facing telemedicine is the fact that many states and countries have not successfully developed how health insurance

schemes that should cover telemedicine. The lack of empirical data to determine the specific cost of telemedicine is what is pulling down its implementation in public and private sectors. Even if the existing programs have generally showed cost savings in terms of security and transportation expense of prisoners, the data has not sufficiently been extrapolated to the general population to determine its effectiveness. Until adequate numbers of teleconsultations are conducted, the empirical studies involving cost-effectiveness is still inconclusive.

The solution to these challenges lies with policy makers and governments. As the adoption rates continuously grow, policies should be put in place that ensures that the telemedicine implementation should not be derailed. This includes streamlining of remuneration schemes and conducting global research to determine the overall viability of the technology in terms of cost.

References

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