



The Future of Telehealth

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What is Telehealth and
how it changes the
approach to healthcare
in different sectors

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ProEX Telehealth hub in Telehealth technology

Application of telecommunication technology in the domain of healthcare services is collectively known as telehealth technology. Telehealth enables a host of services ranging from online support group hosting, X-ray examination of patients to performing medical diagnosis from an inaccessible location or arranging an online videoconference for educational purposes. Advantages of using telehealth are not only restricted to services related to healthcare services but also health learning and promotion of public health curriculums. ProEX telehealth Hub is a comprehensive examination toolkit for observation, patient data storage and live streaming. It is a device which can connect isolated patients to medical professionals via telehealth. Faster, detailed medical examinations can reduce the need for expensive and risky patient transportation. The ProEX Telehealth Hub is specifically designed and engineered to enable health practitioners all over the world to confidently carry out detailed medical examinations on patients based in regional, remote, rural, and urban areas. The state-of-the-art device features high-quality, live video and imaging capabilities via its optional GEIS HD Camera, which is integrated with the unit's ergonomic design. The HD camera uses built-in, high-intensity white LED illumination and precision optics to deliver quality patient data consistently.

The ongoing COVID-19 pandemic has also witnessed an exponential application of the telehealth devices and technology. Using telehealth technology to help manage the coronavirus epidemic allows patients and health professionals to meet 'virtually' which significantly reduces the transmission risk of the virus and increases response times. Telehealth also allows health professionals to see more patients at any given time, which is critical during this period of limited resources and climbing infection rates. Telehealth can also assist in providing early diagnosis of the disease by connecting medical specialists to health professionals in rural and remote clinics, thereby reducing travel times for these patients and improving response and treatment times dramatically.

Need for telehealth technology in different environments

Adopting innovative technologies act as a driving force for clinicians to deliver quality healthcare and ensure patient safety. Expansion of healthcare technology has opened several areas that aid in increasing the societal advancements in the last 20 years. With the exponential rise in the use of technology in health services, the storage, sharing and analysis of health information have significantly improved. Telehealth is a lifesaving technology that aids in increasing the aptitudes of providers and patient accessibility, which further improves the patient's quality of life. Currently, the applications of continuously are rapidly evolving, focusing on the growth of portable medical equipment, and sophisticated telehealth devices capable of measuring the vital signs or perform health scanning of data at home, without administration of a clinician.

The ProEX accelerates quick consultations of health management for patients not having enough access to specialized health services. These patients can successfully connect with their desired healthcare specialist with the help of video conferencing, and they can also get examined by any local health professional by use of an integrated medical camera. The captured images and videos can be transferred to a specialist via a video call, particularly for remote diagnosis, or the data can also be saved in an encrypted hard drive for future use.

Aged Care

Telehealth plays an integral role in aged care. It effectively assists older people in maintaining their independence and living at the comfort of their homes for a longer period. It provides a variety of healthcare which is more contented and accessible. With the ageing population, there is a significant rise in the incidence of long-term health complications that could benefit from the use of telecare. For the host of advantages of employing telehealth care for seniors, they are now considered as a primary target group to utilize telecare technologies.

To combat the concerns associated with advancing age, available telehealth devices can help manage chronic health conditions effectively and aid in cases of mobility or memory limitations. ProEX telehealth hub helps the elderly population via providing the following services mainly:

- health parameters and vital signs, such as heart rate, blood pressure, body temperature, and glucose level monitoring
- aged care support through sharing of information and using of communication technology

Rural Health

Telehealth can contribute substantially to healthcare systems, organizations, and providers by expanding access to specialist care and improving rural healthcare quality. Telehealth can be applied in rural areas to supply enhanced healthcare services that can decrease or mitigate challenges and problems associated with patient encounters, such as issues of delayed transportation. Telehealth also accelerates rapid monitoring, accurate medical diagnosis, and communications within the healthcare system.

Prison Health

The use of telemedicine and telehealth has transformed costing savings and patient outcomes in prisons and correctional facilities, mainly in three ways: ensuring security protocols are being maintained, reducing the overall costs associated with inmate healthcare, and enhancing the care process for the prisoners, even those in the remote facilities. The striking feature of telehealth application in prison is its efficiency to increase the accessibility of speciality treatments for the inmates suffering from complex health conditions or chronic diseases.

Remote Health

Remote patient monitoring (RPM) involves digital technologies that depend on the collection of medical and comprehensive health information from people living in remote locations and transmitting them electronically to other health care providers based in a different site for clinical assessment and approvals. Executing this kind of service permits a provider to continuously track a patient's healthcare data even after thereby reducing the rate of readmissions by avoiding any further health deterioration. These programs are capable of accumulating an extensive health database, including aspects such as point of care, vital signs, weight, blood pressure, blood sugar, blood oxygen levels, heart rate, and electrocardiograms.

Mining, Oil & Gas

Implementation of on-site telehealth units improves the safety of employees in high-risk industries such as mining, gas and oil operations. The urgency of a medical emergency needs to be addressed when it occurs in a distant offshore location having no access to medical services. Telehealth units can effectively tackle such challenges and reduce the rate of health complications happening faraway and manage when any possible human injury is caused due to oil or gas drilling operations. The facilities provided by telemedicine in emergency sites include prompt evaluation and treatment of an injury or symptoms like chest pain. Therefore, there is a low chance of further complication arising from a delay in medical intervention. In some occasions, remote paramedics take help of telemedicine for quick diagnosis and treatment, which eliminates the requirement of airlifting the patient to the nearest hospital. A ProEX Telehealth Hub at the mine-site or on a platform can link up with medical professionals back at base to rapidly assess the injury and determine the course of action via its audio, still images and live video capabilities.

Armed Forces

One of the prime duties of military healthcare is to ensure that the wellbeing of service members is being maintained during local and overseas missions. Telemedicine aids that mission by facilitating refined health care resources at the point of care, supporting the soldier to resume duties and evade evacuation on medical grounds. Telehealth can act as an economical alternative to on-site care facilities in the military. Likewise, ProEx Telehealth Hub has enhanced features which can deliver remote access to medical experts who are far from the hospital ships. With the increased use of telehealth, there is a significant positive impact on lives of service members and veterans actively involved in armed forces along with reducing the costs of healthcare in such setups.

General Practice

Telemedicine and telehealth care find promising application in face-to-face general practice (GP) care. Ensuring effective use of telehealth technology, such as the imaging services of ProEX Telehealth Hub assists GPs and hospital clinicians in rural areas to provide high-quality care, safe services with improved efficiency. There are several benefits of using a telehealth device by the GPs, such as flexibility in health care services, real-time patient monitoring permitting the delivery of more proactive and targeted care, coordinated care with seamless information exchange between GP and the specialist, and smooth documentation systems allowing available referrals.

Merchant Navy

Remote medical assistance facilitated by telehealth and telemedicine can substantially safeguard the health and safety of seafarers, for whom it is difficult and challenging to receive the best possible treatment or care while depending solely on the physical care from a doctor. An on-board ProEX Telehealth Hub pairs state-of-the-art medical examination tools with consultation from expert healthcare professionals onshore. Visual observation through specialized cameras combined with data from examination tools and access to the patient's medical history provides the best possible overview for the doctor to make their assessment.

Conclusion

Telehealth technology finds use in various segments of healthcare, from aiding in senior care, healthcare for incarcerated inmates and for providing accessibility of medical services in remote areas, to emergency medical facilities in incidents such as military warfare, or mining accidents. With the emerging need for enhanced technologies that can connect the experts with places that require immediate medical attention, telehealth proves to be of immense benefit. The ProEX Telehealth Hub is uniquely positioned to play a key role in delivering Telehealth services in more ways than one.

For additional information, please visit www.visionflex.com.au

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