CANADIAN
NURSES
ASSOCIATION ®

TELEHEALTH

The World Health Organization (WHO) defines telehealth as "the delivery of health care services, where patients and providers are separated by distance. Telehealth uses ICT [information and communications technology] for the exchange of information for the diagnosis and treatment of diseases and injuries, research and evaluation, and for the continuing education of health professionals."[1] The term *telehealth* is commonly used alongside of "or synonymously with telenursing, telemedicine, teleconsultation, telehomecare, e-health and informatics."[2] Although telehealth began with the telephone, it now incorporates a wide-range of continually developing technologies, including video conferencing, remote monitoring, telehealth education, digital devices and other forms of Internet-based communication.[3]

Telehealth occurs in many settings of care, including "ambulatory care, call centres, hospital units, . . . visiting nursing agencies and public health departments."[4] While telehealth was initially used to help eliminate distance disparities in rural and remote communities, nearly 90 unique areas of telehealth clinical service now exist in Canada. Some of the most common telehealth areas are mental health, neurology, oncology, pediatrics and rehabilitation.[5] Yet other areas of practice are also on the rise, ranging from highly specialized care to care that addresses overall population health needs.

Telehealth is starting to replace many areas of practice traditionally provided in person. These areas include face-to-face visits, monitoring vital signs and patient movement, responding to personal alarms, and consultations.[6] Such a rapid expansion across Canada means the demand for health human resources in telehealth will also continue to grow. Given the theoretical framework of nursing in holistic, person-centred care, nurses should continue to lead the development and growth of telehealth. It is critical, however, that nurses become engaged with digitally connected health-care environments to provide optimal health and wellness to their patients.[7] Nursing leaders must also actively support emerging technologies, as a critical skill for effective nurse leadership in the future

[1] (World Health Organization [WHO], 2016, p. 56)
[2] (Nagel & Penner, 2016, p. 92; College of Registered Nurses of Nova Scotia [CRNNS], 2017)
[3] (Nagel & Penner, 2016; Canada's Health Informatics Association [COACH], 2015)
[4] (College of Nurses of Ontario [CNO], 2017, p. 3)
[5] (COACH, 2015)
[6] (van Houwelingen, Moerman, Ettema, Kort, & ten Cate, 2016)
[7] (Canadian Nurses Association [CNA] and Canadian Nursing Informatics Association, 2017)

includes "technology skills which facilitate mobility and portability of relationships, interactions and operational processes."[8]

General statistics

► Between 2012 and 2014, the number of clinical telehealth sessions increased by 45.7 per cent — from 282,529 to 411,778 sessions, respectively.[9]

► Four jurisdictions reported on their use of telehomecare services: British Columbia, Ontario, Quebec and New Brunswick. Telehomecare involves using home-based equipment to monitor measureable patient outcomes such as vital signs and weight.[10]

► The Canadian Institute for Health Information (2017) reported that 1,528 registered nurses and nurse practitioners had a direct care area of responsibility in telehealth. Quebec and Ontario nurses were highest at 611 and 367, respectively.

► Teletriage services are available in most jurisdictions and are often performed by nurses. These services operate 24 hours a day, 7 days a week.[11]

► The number of education sessions provided via telehealth rose by 78 per cent from 2012 to 2014, with most being delivered to health-care providers. Saskatchewan had the largest increase in educational sessions with a growth rate of 429 per cent.[12]

Facilitators and barriers

► WHO recognizes that national planning is a crucial factor in the successful implementation of telehealth. Such planning could, for example, enable the establishment of a policy consensus, better use of shared resources and investments in infrastructure. Currently, Canada does not have a national telehealth strategy.[13]

► Brewster, Mountain, Wessels, Kelly and Hawley (2014) have found that a central facilitator for accepting and using telehealth is to involve staff in the implementation process before, during and after rollout. Other facilitators included having reliable and accurate equipment and making sure it is easy to use.

► Nurses must "play an active role in the selection, design, deployment and evaluation of [ICT] solutions while, at the same time, be given opportunities to acquire ICT competencies to use in their practice."[14]

► Edirippulige and Armfield (2017) have noted the importance of training for health-care providers to facilitate the adoption of telehealth technologies. Since the existing lack of education and training can prevent successful telehealth implementation, traditional practices must change and include a systematic change management approach.

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[8] (CNA, 2015, p. 26)
[9] (COACH, 2015)
[10] Ibid.
[11] Ibid.
[12] Ibid.
[13] (WHO, 2012)
[14] (CNA, 2015, p. 21)

► Important implementation barriers to consider include low expectations regarding outcomes and a perceived negative impact on staff-patient relationships, staff autonomy and service implementation.[15]

Benefits of telehealth

► Improved access to health care is one of the most commonly cited benefits, as optimized telehealth can provide services to patients any time, anywhere while broadening the boundaries and potential of health care.[16]

► Technologies such as telehealth can add value while decreasing health-system costs.[17] Telehealth can reduce costs by the avoidance of unnecessary emergency room visits, better management of chronic diseases at home and better implementation of health promotion and prevention. Conversely, telehealth can also be less expensive for patients, given that less time is needed for travel and appointments.

► Telehealth has also been shown to improve a patient's ability to manage their own chronic illness and to facilitate "a sense of empowerment and independence."[18]

Nursing registration

► Provincial nursing regulators who have written about telehealth for their members state that nurses may practise telehealth within their own jurisdiction so long as they are registered with that licensing body. However, if a nurse provides telehealth care to a client outside their jurisdiction, the relevant licensing body must be contacted to determine if a second licence is required.[19] If multi-jurisdictional work is required for the nurse's employment, nurses may wish to enlist the aid of their employer if costs accrue to the nurse.

Professional liability protection and insurance

► The Canadian Nurses Protective Society (CNPS) has identified telehealth as a high-risk nursing practice. Eligible nurses may contact CNPS regarding professional liability concerns related to their practice.[20]

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[15] (Brewster et al., 2014)

[16] (COACH, 2015; Nagel, Pomerleau, & Penner, 2013; WHO, 2012)

[17] (Naylor et al., 2015)

[18] (Nagel et al., 2013, p. 107)

[19] (Association of Registered Nurses of Newfoundland and Labrador, 2002; College and Association of Registered Nurses of Alberta, 2017; CNO, 2017; College of Registered Nurses of British Columbia, 2011; College of Registered Nurses of Manitoba, 2015; CRNNS, 2017)

[20] (Canadian Nurses Protective Society, 2008)

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