Chapter 32

Improving Access to Oncology Care for Individuals and Families Through Telehealth

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ABSTRACT

Telemedicine, or the use of information communication technology (ICT) for medical diagnosis and patient care, is an innovative method of health service delivery. It offers opportunities and challenges for clinicians, consumers and health care organizations. In British Columbia, specialized oncology health care services are provided to cancer patients at one of the five Regional Cancer Centers of the B.C. Cancer Agency (BCCA). The burden and stress of travel for rural patients as well as the increasing demand for specialized cancer care services prompted us to explore telemedicine as an alternative health service delivery method for these patients. This article will outline a research study undertaken in partnership with the Vancouver Island Health Authority (VIHA), Provincial Services Health Authority

(PHSA) and the University of British Columbia. Implementation and sustainability of a telehealth program requires an examination of organizational, health care system and technical readiness. Barriers to uptake include human factors and infrastructure requirements. A systematic approach optimizes the successful implementation of a telehealth program.

INTRODUCTION

Cancer is a present and growing threat to Canadians. The increase in incidence coupled with the growing prevalence of Canadians living with cancer will seriously strain an already overburdened health care system. The BC Cancer Agency (BCCA) is mandated with the responsibility of delivering a provincial cancer control program. One aspect of this mandate is to ensure that cancer patients have access to timely and comprehensive cancer care services. The BCCA, Vancouver Island Centre (VIC), located in Victoria, provides comprehensive cancer services to patients on Vancouver Island and the Gulf Island.

However, more than 60% of the patients receiving this care live in rural and or remote communities. These patients experience financial, physical, and emotional hardships as they deal with their cancer compounded by the anxiety, inconvenience, and expense of traveling to the regional cancer centre in Victoria. Recruitment of oncologists to remote communities is difficult and even if accomplished, patients and referring physicians often prefer the subspecialty oncology consultation available at the regional cancer centers.

Telehealth is defined as the use of communication and information technology to deliver health and health care services, information and education where participants are separated (Roine, Ohinmaa, & Hailey, 2001). This innovative method of health service delivery may replace the traditional face-to-face encounters which have formed the basis for the delivery of health care services.

The increasing healthcare costs, the challenges of accessing appropriate health care services for patients who do not live close to specialized tertiary hospitals, along with British Columbia's Health Authorities mandate to ensure that BC residents have access to high quality specialized health care services has created an urgency to explore alternate methods of health service delivery such as telehealth. In order to gain insight into the integration of telehealth into the traditional health services delivery model, as well as to identify the long-term sustainability of telehealth services and the readiness of the organizations, patients and physicians involved we performed an ethically approved Michael Smith Health Services grant funded research study.

Background

British Columbia is a geographically large province with a population of approximately 4.4 million people spread over 95 million hectares. More than 50% of the population lives in the Lower Mainland and southern Vancouver Island. BC's size, population distribution and varied climate and geography pose many challenges to the delivery of equitable health care in the country (Figure 1).

Oncology health care specialist expertise is concentrated in regional cancer centers and patients and care providers travel long distances to access these services. Historically, centers have developed traveling clinics whereby specialists travel on a predetermined schedule to various communities to provide oncology care. Although the rural communities and cancer patients are appreciative, this method of service delivery is generally unsustainable and does not address equal access to care for all. The cost and stress of travel, lack of subspecialty expertise and impact on the clinician's efficiency are factors which

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