



- SHIRLEE SHARKEY -

TRANSFORMING WOUND CARE: The power of people, process and technology

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The burden of chronic wounds is expected to increase with the aging population¹. However, home health care providers and policymakers continue to be challenged on how to increase the accessibility and quality of care provided to these clients, while containing costs. Increased demand for care, combined with human resource shortages, highly mobile workers and disperse geography, are demanding that we look at care in a whole new way.

Factors contributing to cost include inconsistency of wound assessment and documentation and low usage of advanced wound products, which lead to lengthened healing time, more frequent visits by practitioners, and low healing rates. Involving a wound specialist can improve client outcomes while decreasing cost; however, with a marked shortage of wound specialists, improving the traditional service delivery model remains a challenge.

In order to make the best possible use of limited human resources and deliver excellent client care at a reasonable cost, organizations today need to capitalize on the tremendous opportunities that information and communication technologies (ICTs) afford. Indeed, as Roy Romanow suggested in November 2002, delivering effective care into the homes of Canadians using new tools and techniques will be key to transforming our health care system².

With nearly a century of experience in home and community care, Saint Elizabeth Health Care has embraced the use of ICTs as a catalyst to transform and move beyond the traditional approach to wound care management and education, through the creation of interactive web-based programs.

The programs, known as @YourSide™, @YourSide Colleague™ and @YourSide Companion™, respectively provide education and health management for individuals; e-learning and development for health care providers; and care delivery tools to enable remote monitoring, expert assessment and consultation. The dynamic combination of these applications is referred to as a Web of Wisdom (WOW).

Last spring Saint Elizabeth Health Care applied for and was awarded some project funding from CANARIE to test and evaluate the merging of these e-learning and e-care initiatives (WOW Wound Care), to determine their collective value in urban, rural and remote settings.

Six test sites across Canada participated in the study, including West Prince Regional Health Authority in Prince Edward Island, Anishinaabe Mino-Ayaawin (AMA) Health Authority in Manitoba, and two of Saint Elizabeth Health Care's Ontario service delivery centres, London and North York. Within the Ontario home care market, the London and North York Community Care Access Centres have enabled us to work closely with their clients in this project. The implementation period was 20 weeks in duration and involved more than 25 nurses and over 200 clients.

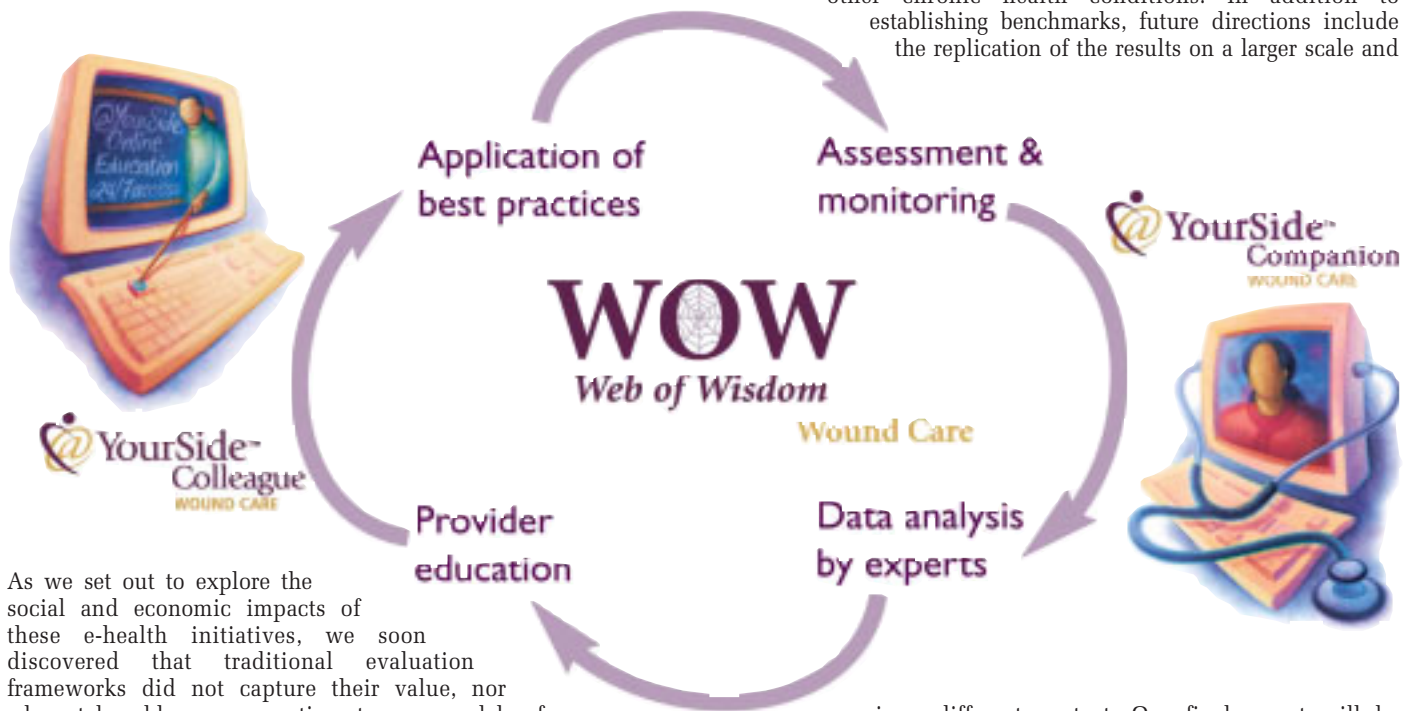
Prior to commencing data collection, health care providers participating in the project received basic training on the use of computers and the Internet, as well as a more extensive orientation to the web-based applications and digital imaging tools they would use to transform their approach to learning and client care.

The implementation of WOW Wound Care at all of the test sites demonstrates its potential to meet a variety of diverse needs in different environments. For example, in the case of AMA health authority, community members are often traveling several hours each way to receive wound care in regional urban centres or

Winnipeg. With WOW Wound Care, care can now be provided in communities, offering individuals and families an enhanced quality of life and more time to enjoy it.

And reducing the need to travel isn't the only thing that has clients and care providers saying "WOW!" For one man in London, Ontario, it was the opportunity to see his wound for the first time after the visiting nurse took a digital photograph of it to upload to the secure @YourSide Companion website, which is powered by PixaLere.

By comparing the current picture and assessment with previous ones stored in the system, the nurse, together with the client, can effectively track progress towards wound healing. If necessary, an Enterostomal Therapist (ET) can also login from a remote location to review the client's profile and discuss the wound management strategy with the visiting nurse, thereby building capacity and augmenting the knowledge development facilities of @YourSide Colleague.



As we set out to explore the social and economic impacts of these e-health initiatives, we soon discovered that traditional evaluation frameworks did not capture their value, nor adequately address comparatives to new models of service delivery and new access to health information, education and care. With any innovation, the challenge in evaluating its effectiveness is that there is a lack of historical data to undertake a comparison or to benchmark against. Moreover, the innovation often represents a 'quantum leap' from what currently exists and therefore, the context in which you are undertaking the evaluation is constantly changing.

Accordingly, an innovative Performance Measurement System (PMS) was developed by a working group led by Dr. Wendy Young, a CIHR/CHSRF Post-Doctoral Fellow working with Saint Elizabeth Health Care. Members of the working group included internal and external stakeholders, academics, key decision makers and ministry representatives. A review of the literature findings as well as feedback from the working group enabled us to identify the 'vital few' critical measures in the areas of client outcomes, provider outcomes, non-traditional return on investment, and impact on the broader community environment.

Our preliminary findings indicate that WOW Wound Care increases the productivity of wound specialists, thereby providing greater

access to clients and families who require specialized care and expertise. Internally, at Saint Elizabeth Health Care, we expect to see an increase in the number of clients seen by an ET, from an average of six people per day to approximately 40 people per day. This suggests two opportunities for Canada's health system: increased effectiveness and utilization, particularly of specialized expertise, and greater responsiveness to the needs of Canadians.

Other preliminary findings reveal a standardized approach to both learning and care, and the use of best practice. This consistency, along with an engaged knowledge worker, results in enhanced health outcomes for the client. Moreover, by utilizing technology to capture data in a new way, we are building our knowledge of evidence-based wound management strategies and contributing to a smarter system for the future.

The project results regarding this use of telehealth are expected to have broad application to the management and care of many other chronic health conditions. In addition to establishing benchmarks, future directions include the replication of the results on a larger scale and

in a different context. Our final report will be submitted to CANARIE in March 2004.

With a commitment to transforming care through innovation, research and development, Saint Elizabeth Health Care is excited to be working with other players in the system to develop knowledge and ensure knowledge uptake. We would like to thank CANARIE, Canada's advanced Internet organization, for its support of this project, which has received matching funds and an additional in-kind contribution from Saint Elizabeth Health Care.

For more information on the WOW project, visit www.saintelizabeth.com.

¹ Canadian Institutes for Health Research, The Institute of Musculoskeletal Health and Arthritis, "Skin Research A Sturdy Multipurpose Shield", May 2003, <http://www.cihr-irsc.gc.ca/e/institutes/imha/11201.shtml>

² Romanow, Roy, "Building on Values: The Future of Health Care in Canada", November 2002, http://www.hc-sc.gc.ca/english/pdf/romanow/pdfs/HCC_Final_Report.pdf

