A new telephone health advice service implemented in September 2000 is integral to the Capital Health (Edmonton) Region’s strategy to build a comprehensive approach to primary healthcare. Capital Health Link operates 24 hours a day, seven days a week and was the first comprehensive nurse-based health advice phone line in Alberta. Callers to Capital Health Link (“Link”) can talk to experienced and specially trained registered nurses for health advice, information about programs and services, and to register in selected Capital Health programs. Satisfaction ratings have been high from the outset as Link supports people to manage their health through informed choice and decision-making. Evaluation results indicate the service is helping the public access the most appropriate level of care. This has led to a reduction in the number of visits to emergency departments, drop-in medical clinics and family physicians’ offices. Innovations for the future include linkages with a new electronic health record system and an expanded role in chronic disease management that will further support an integrated primary care strategy for the region.

**Strategy Focuses on Coordination to Optimize Health**

Implementing a telephone health advice service was an integral part of Capital Health’s strategy to advance primary healthcare to a rapidly growing population. Five key primary healthcare principles guided the region’s approach: timely and appropriate access, increased emphasis on health promotion, intersectoral and interdisciplinary collaboration, appropriate use of technology, and community involvement. Capital Health Link incorporates all of these principles. It ensures that healthcare services are accessed appropriately, encourages individual responsibility, increases emphasis on health promotion and prevention, reduces pressure on doctors’ offices and emergency departments, facilitates chronic disease management, and coordinates services so that healthcare professionals and other resources are used effectively and efficiently.

The contact centre also supports the provision of health information, which was identified as one of five core businesses by the Capital Health Authority Board in 2000. The introduction of Link helped to streamline operations by consolidating different telephone help lines within Capital Health, making one-stop access easier for the public and staff.

Capital Health is not alone in this direction; telecare services are developing across the country. Telephone health contact services are consistently viewed as a way to increase access to appropriate healthcare and foster evidence-based practice. The regional health model in Alberta, with the integration of acute, rehabilitation and community care services under one board and one chief executive officer, provides a distinct advantage in development of a telecare service. Because Link was developed by the regional health
authority, it can act as a hub, making referrals across the health system, including such areas as environmental health, emergency, labour and delivery and home care. The advantages of running a contact centre within a regional health system extend beyond referrals. Link nurses, for example, can provide additional specialized services to many existing and new programs within Capital Health. One such service is nighttime monitoring for at-home renal dialysis patients.

**INTERDISCIPLINARY COLLABORATION FORMS BASIS FOR SERVICE**

Capital Health Link was established with the assistance of a clinical expert team. The team included physicians and other health professionals from across the continuum of care in public health, medicine, rehabilitation, environmental health, communicable diseases, speech pathology and other areas as needed. Physician experts included an emergency physician, the Medical Officer of Health, a family physician, a pediatrician and an obstetrician; a medical director was also appointed to oversee medical input to Link.

The clinical expert team was instrumental in the selection of the medical database and reviewed all health advice protocols that are used as decision support tools by the registered nurses answering the phones. The clinical content was developed by the Cleveland Clinic Foundation, which is internationally recognized for its research-based practice and protocols. These protocols were then customized where required, to reflect Alberta practice standards. The protocols are continually reviewed by the clinical expert team and the Cleveland Clinic to ensure they meet best practice.

Link’s registered nurses are integral to the success of Link. They have an average of 15 years experience and undergo extensive orientation. Without being able to see the patient, Link nurses have to establish immediate rapport, win trust, ask the right questions, assess the situation and provide advice, information or referral. To do this successfully takes a combination of nursing knowledge, experience and communication skills. In fact, health contact centres like Link have led to the development of a new nursing specialty with expanding opportunities for nurses to use their skills in telephone contact centres.

Capital Health Link employs more than 85 registered nurses. Between 14 to 18 full-time, part-time and casual nurses answer calls on day and evening shifts, and three nurses manage call volume during the night. The contact centre offers a variety of full- and part-time positions and has shifts of variable length, allowing many Link nurses to also work in other community and acute care clinical practice settings.

**SERVICE IS RATED HIGHLY AS IT EXPANDS**

Pent-up demand for telephone health advice kept the phones ringing right from the start and utilization increased rapidly as word of the service spread. By the end of its first year of operation, Capital Health Link staff had received 250,000 calls. This grew to 310,000 calls in its second year. The service currently averages 7,000 calls per week – more than double the original estimates. Eighty per cent of the calls are for health advice, another indicator of its importance to primary care. For those calling for health advice, 55% are given information about managing their symptoms at home; 27% are advised to see a doctor; 12% are sent to emergency and 6% are referred to other agencies or providers, such as community pharmacists and home care. Twenty per cent of callers are primarily looking for assistance in identifying the most appropriate service to assist with their concern, such as a senior looking for housing options.

The value and strong public support for Link soon caught the attention of other health regions in Alberta and the Alberta government. Soon after implementation in Capital Health, interest in expanding the service was evident. Two northern regions, Mistahia health region centred in Grande Prairie and Peace health region centred in Peace River, contracted with Capital Health to provide Link to their residents in the fall of 2001. Last summer, the Northwestern Health Region also contracted with Capital Health for the service. The concept of a provincial health advice phone line was supported by the Council of Chief Executive Officers of the Provincial Health Authorities of Alberta in June 2001. In January 2002, a key Anticipate important operational reviews or strategic changes?

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recommendation from the Premier’s Advisory Council on Health (Mazankowski Report) called for a province-wide telecare health advice service. The Alberta government’s commitment to allocate $35 million from Health Canada’s Primary Healthcare Transition Fund to support development, implementation and initial operation is now making the province-wide service a reality. Capital Health and Calgary Health Regions submitted a proposal to operate the Link service from two sites to make the best use of infrastructure and nursing resources. Calgary Health Region began operation of the second contact centre in November 2002. The remaining health regions will have telecare service available by June 2003.

Evaluation of the service has been an important part of the contact centre’s mandate and ongoing quality assurance. Capital Health engaged an independent research firm to evaluate user satisfaction with Capital Health Link and its impact on health knowledge and behaviour. CIS Research Centre surveyed the public as well as healthcare providers and organizations in both 2001 and 2002.

Satisfaction with the service was high from the beginning and continues to rise. Almost all respondents (95% in 2001 and 96% in 2002) felt that using Capital Health Link was highly effective because they received the information they needed to assist them with their health question or concern. Satisfaction with the wait time increased about 5% from the earlier survey with 93% reporting they were either satisfied or very satisfied. Over 98% said they felt comfortable expressing their questions or concerns and found the information easy to understand. Ninety-one per cent said they felt informed and able to make a decision about what to do after their interaction with the nurse. Approximately 85% felt they would be able to handle a similar situation on their own in the future. Evaluations in the rural-based Mistahia and Peace regions show similar success.

**Impact on Health Services**

The evaluation results indicate Capital Health Link is beginning to shift the public’s patterns of behaviour. Being better informed is a critical outcome, the evaluators pointed out, because it can potentially reduce the use of other health services such as emergency departments and physician offices. The ability of Link to direct people with the most appropriate service is key to ensuring patients receive the care they need, and supports quality patient outcomes. Projections based on a random survey of Capital Health Link users have extrapolated that in one year Link resulted in 14,600 fewer emergency room visits, 17,900 fewer visits to family physicians and 8,200 fewer visits to drop-in medical clinics – more than 40,000 visits total. It was also projected that nearly 52,000 more Capital Health residents were able to treat their health conditions at home. Not only does this demonstrate the importance of personal responsibility, it frees up space for patients who need these services and also allows staff to use their time providing face-to-face assistance rather than answering telephone calls.

Despite a population increase of 25,000 in the Region (2001–2002), data on emergency room visits from the Canadian Institute of Health Information confirm a slower rate of growth in non-urgent emergency visits within Capital Health. Between 1996 and 2001, there was a 5.7% average annual increase. That rate dropped to a 2.0% increase in 2001-2002 and was below 1.0% as of the end of November 2002. Other factors come into play, but Capital Health credits some of this change to Capital Health Link.

**Contact Centre Acts as a Primary Healthcare Hub**

Other Capital Health primary healthcare initiatives are leveraging the Link infrastructure and expertise to provide increased access, appropriate use of technology, intersectoral and interdisciplinary collaboration, and increased emphasis on health promotion.

An example of increasing access and interdisciplinary collaboration is the after-hours physician sign-out service. The objectives of this initiative are to increase after-hours access to services, assist patients in navigating the healthcare system, and connect family physicians to Capital Health services. Fifteen family physicians are participating in a pilot project. Patients calling these physicians after their office has closed are encouraged to contact Capital Health Link. Link nurses provide advice and information and with the callers’ permission, their doctors receive a faxed report the next day to ensure continuity of care.

Health promotion is enhanced by providing immunization records and advice, registration for prenatal classes and diabetes education. Link can also assist with finding physicians who are taking new patients. Other organizations are also seeing the health promotion opportunities. Capital Health Link now operates a 24-hour provincial line for the Alberta Alcohol and Drug Abuse Commission, offering support, information and referrals for addictions including drugs, alcohol, and gambling and a tobacco cessation counselling service.

Other examples of the appropriate use of technology, and intersectoral and interdisciplinary collaboration, include remote monitoring of patients and chronic disease management. Currently, the contact centre supports a nocturnal renal dialysis program. Home dialysis equipment is connected to Link through the Internet, allowing Link nurses to monitor patients dialysing at home six nights a week. Quality of life for rural patients is enhanced because they can stay in their home community and do not need to travel to urban centres for...
Sheila Weatherill, Susan Paul and Marianne Stewart
Telephone Contact Centre Links to Primary Healthcare Reform

treatment. Plans are also underway for Link to start providing a single point of entry for diabetes assessment and education and future disease management by creating a registry of people who have diabetes.

Link supports intersectoral collaboration and appropriate access in both rural and urban settings. For example, in one rural Health Region, Capital Health Link nurses provide on-call advice to the local home support workers. This additional service not only ensures home care clients appropriately use emergency care, it also allows the Health Region to reallocate on-call resources. Another example of intersectoral collaboration in an urban setting is the 24-hour, seven-day-a-week registry for the Blood and Body Fluid Reporting Program. With this program, Link nurses determine the validity of the incident, provide first-aid advice, and will mobilize resources if there are apparent risk factors.

As part of the ongoing move to increase access and build on technology, Capital Health has also expanded its Web site, <http://www.cha.ab.ca>, to include a variety of health information on more than 2,000 health topics. The information will be updated regularly to ensure it is appropriate and relevant to the health needs of the population. In addition, a listing of doctors who are accepting new patients is posted on the Web site.

**Link Supports Primary Healthcare into the Future**

Future plans for Capital Health Link include integration with a region-wide electronic health record that will provide Link nurses fast and secure access to patient demographics, laboratory results, registration history and pharmacy profiles.

In over two years of operation, Capital Health Link has proven its worth. As it expands province-wide and facilitates new innovations, Link will continue to be an important component of the Capital Health Region’s and Alberta’s approach to client-centred primary healthcare.

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