

Family medicine researchers at Capital Health are pioneering new ways to improve the quality and accessibility of primary care in the district and across the Maritimes. Their ultimate goal: healthier, happier people.

Strengthening Family Medicine

Family medicine is the very foundation of the health care system in the Maritimes. Researchers in the Department of Family Medicine at Dalhousie Medical School and Capital Health in Halifax, NS, are strengthening this foundation to support better quality care and improved health outcomes for people in the region.

The researchers are exploring fundamental shifts that could transform the way primary care is delivered and monitored. “Our health system faces so many challenges—from doctor shortages, to an aging population, to an explosion in the numbers of people with multiple chronic diseases,” says Dr. Fred Burge, director of research for the Department of Family Medicine. “We are examining key issues and working on a wide range of practical solutions.”

The researchers are piloting a new approach to booking appointments, investigating team models of care (with doctors, nurses and nurse practitioners), fine tuning the electronic health record, and assessing a quality-indicator system for measuring how well practitioners meet best-practice guidelines. They are also working to improve care for seniors in nursing homes, and for people who are nearing the end of their lives. *(continued on page 4)*

Open Access Cuts Wait Times

When Bonita Hatcher’s rare connective-tissue disorder flares up, she needs to see the doctor pronto. “If the situation is not managed at the first signs of trouble, I can end up with serious problems,” says Bonita, who receives primary care through the Camp Hill Family Medicine Clinic at the Abbie J. Lane Memorial building in Halifax.



Dr. Stewart Cameron and Bonita Hatcher

That’s why Bonita was thrilled to take part in Dr. Stewart Cameron’s study of ‘open access,’ a new approach to booking appointments that reserves more than half a family physician’s openings for same-day appointments.

“Open access allows people to see their own doctor or nurse quickly, instead of going to emergency or a walk-in clinic, or just waiting it out,” notes Dr. Cameron, who led the project to switch the Abbie J. Lane clinic’s booking system over to open access. “We found we were able to substantially drop our patients’ wait times, resulting in more timely access and far fewer no shows.”

The researchers also found that physicians saw roughly the same number of patients per day as they did when all bookings were made in advance. To top this off, clinic nurses spent less time on the phone with concerned patients unable to get in, and more time face-to-face with patients in the clinic.

“It’s been a godsend for me,” says Bonita. “The other patients who took part in the focus group discussing open access felt the same.”

Dr. Cameron and colleagues Dr. Laura Sadler and Beverley Lawson published their findings in *Canadian Family Physician* last year and have developed tools to help other family practices adopt the open access model.

DISCOVERY AND INNOVATION



Capital Health



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CAPITAL HEALTH RESEARCH *focus on family medicine*

Addressing the Obesity Epidemic

Approximately 60 per cent of Nova Scotia's adults, and almost a third of the province's children, weigh too much to be healthy. These people are all at risk of developing cardiovascular disease, diabetes, cancer and other weight-related diseases.

Dr. Helena Piccinini-Vallis is convinced family doctors can play a vital role in curbing the obesity trend. "We see people on a regular basis and form ongoing relationships," says Dr. Piccinini-Vallis, a Capital Health/Dalhousie family physician and researcher. "It only makes sense that we do what we can to help our patients manage their weight."

The Canadian Medical Association (CMA) thinks so, too. In April 2007, it published clinical practice guidelines to help physicians in their efforts to manage and prevent obesity. However, in a survey of 425 family doctors across Nova Scotia, Dr. Piccinini-Vallis found fewer than 40 per cent were aware of the guidelines. Fewer still followed the basic recommendations, which include tracking patients' weight, waist circumference and body mass index (BMI). Such measures provide an early warning that a person is putting on pounds, and an opening for physicians to broach the topic.

In addition to raising doctors' awareness of the guidelines, Dr. Piccinini-Vallis wants to address key barriers to following them. "Treating obesity is more psychological than medical... most physicians don't have the training to counsel patients this way," she notes. "They also lack time, and resources to which they can refer patients."

Dr. Piccinini-Vallis is developing a training program to help family doctors learn how to raise the weight issue with patients and motivate them to make changes that will help them reach a healthier weight. She aims to test this program in a clinical trial. "As in smoking cessation, family doctors need to intervene to protect their patients' long-term health," she says. "But it is no easy task and they need tools to help them."



Dr. Helena Piccinini-Vallis measures Father John Scott's waist in March 2011. Three months later Father Scott had lost 40 pounds, and he continues to lose 3.5 pounds a week. He began his weight-loss quest with support from the family medicine team and 'Partners for Healthier Weight,' a program which brings a psychologist, nurse, endocrinologist, dietitian, and physiotherapist together to help participants lose substantial amounts of weight over the course of one year.

Caring for patients with chronic diseases: How can we do better?

This question weighs heavily on the minds of health professionals, administrators and policymakers across Canada. As the population ages—and gains weight—chronic diseases are taking an ever-greater toll on families and the health care system.

"When people have more than one chronic condition, their risk of more health problems increases dramatically," explains Dr. Wayne Putnam, a Capital Health/Dalhousie family physician and researcher. "For example, people with type 2 diabetes and high blood pressure have a higher heart disease risk than they would if their blood pressure was controlled."

Family doctors and nurses can help patients control risk factors by following national disease-management guidelines for such practices as measuring blood pressure, calculating BMI, screening for various cancers, and prescribing medications.

Dr. Putnam and members of the Maritime Family Practice Research Network are working with the Canadian Primary Care Sentinel Surveillance Network to get a read on how family medicine practitioners are caring for people with chronic diseases. "We are creating an enormous national database, with information on primary care provided to more than 150,000 people across the country so far," he says. "This will allow us to let provinces and individual practitioners know how well they are doing compared to others, in terms of practice and patient outcomes, and to identify gaps that need to be addressed."

Two other initiatives feed into this larger effort: the electronic medical record (EMR), essential for gathering and analyzing information about primary care, and quality indicators. Dr. Fred Burge and Beverley Lawson are exploring the feasibility and acceptability of quality indicators that measure family practice processes and outcomes in relation to best practice guidelines. They are also working with Dr. Putnam and Dr. Nandini Natarajan to use the EMR for monitoring and improving primary care.

CAPITAL HEALTH RESEARCH focus on family medicine

Research Helps Build New Model of Long Term Care

A team of Capital Health/Dalhousie researchers is exploring a new approach to primary care in nursing homes. Called *Care by Design*, this new model has the potential to dramatically improve the quality of care that seniors receive in the final stages of their lives.

“As our population ages, we need to develop more effective ways to deliver primary care in the long-term care setting,” notes Dr. Emily Marshall, a PhD-trained researcher in the Department of Family Medicine who is evaluating *Care by Design*. As she explains, the traditional model—in which family doctors ‘follow’ their patients into nursing homes—is inefficient and difficult for doctors to maintain. As a result, residents are often transferred by ambulance to hospital to be assessed for such issues as breathing problems and falls.



Dr. Barry Clarke

Created by Dr. Barry Clarke, Capital Health's medical director of continuing care, *Care by Design* was launched in the district in 2009. The new model addresses a number of key issues. Instead of being followed by their family doctor, and often receiving sporadic care, residents now receive weekly visits and on-call care from dedicated family physicians. These physicians also conduct a ‘comprehensive geriatric assessment’ of each

resident in their care—which guides health-care decisions based on the resident's degree of frailty and their family's wishes—and work closely with the nursing home staff to plan and coordinate care, up to and including end-of-life care. And, an extended paramedic service provides emergency care, such as minor procedures, oxygen and intravenous antibiotics, at the long-term care facilities. This saves residents from having to make stressful trips to hospital.

Making the Most of the Electronic Medical Record

About 30 per cent of Nova Scotia's family doctors use an electronic medical record for patient care. Department of Family Medicine researchers are working to improve the usability and usefulness of the EMR, while encouraging more doctors to use it.

“The EMR is a vital tool physicians can use to improve the quality of their own practice,” notes Dr. Nandini Natarajan, a Capital Health/Dalhousie family physician and researcher. “It also allows researchers to shed light on key issues in primary care and the health status of Canadians.”

The Family Medicine researchers are also working with the Canadian Institute for Health Information to help standardize EMRs nationwide, to allow for more direct regional comparisons of health status, services and outcomes. “This kind of data is invaluable for identifying what areas of primary care need more attention,” says Dr. Natarajan. “It can even help governments decide what resources need to be allocated where.”

At the same time, Dr. Natarajan is working with Dr. Ingrid Sketris in Dalhousie's College of Pharmacy to see how the EMR can be used to track physicians' prescribing patterns. “We want to know what drugs are most commonly prescribed, and if doctors are prescribing the recommended medications and doses,” she says. “There are many issues to explore.”

On the other side of the prescribing coin, Dr. Natarajan is surveying patients to see if they are taking their medications as prescribed—and if not, why not.



Dr. Emily Marshall leads a discussion about the *Care by Design* study with (left to right, sitting) Dr. Barry Clarke, a lead proponent of the new model for delivering primary care in nursing homes, Dr. Sandra Rainbow, a family medicine resident, and Sharon Cross, RN, a staff member at Maplestone Enhanced Care in Halifax.

Dr. Marshall and her colleagues are now evaluating how well *Care by Design* works. “We're reviewing residents' charts to see if the various aspects of the new model are leading to such important changes as improved communication within the health care team, and reductions in polypharmacy and unnecessary transfers to hospital,” says Dr. Marshall, explaining that polypharmacy is when a person is prescribed 10 or more medications for regular use. “We also want to know if the comprehensive geriatric assessment is being used to its potential to guide realistic and compassionate health care decisions.”

Dr. Marshall holds a Capital Health New Investigator Award, a Network for End-of-Life Studies New Investigator Award, and funding from a number of other sources.

CAPITAL HEALTH RESEARCH *focus on family medicine*

Quality Care in the Final Chapter of Life

Family Medicine researchers Dr. Fred Burge and Beverley Lawson want to ensure that people in Nova Scotia—and beyond—receive sensitive and appropriate health care as they approach the end of their lives. They're conducting Canada's first 'mortality follow-back' study to learn first-hand from families about their experiences with end-of-life care.



Dr. Fred Burge, director of research, and Beverley Lawson, senior research associate, are involved in many facets of the Department of Family Medicine's research efforts, in addition to their work to improve end-of-life care.

"We're surveying more than a thousand families in Nova Scotia after the death of a loved one, to find out what services were most useful to them and what services were lacking," says Dr. Burge. "We're also learning who provided them with what kinds of information, and how useful it was to them."

The study is also revealing more about where people are spending the last days of their lives. "There's a perception that most people spend their last days in hospital, when they wanted to be at home," Ms. Lawson notes. "However, more than two-thirds of our respondents' loved ones were still at home or in a nursing home in their last month of life. Only slightly more than half were transferred to hospital, and this was only in the last few days of life. We're finding that when people are moved to hospital, it's because it is necessary to cope with a medical emergency, such as bleeding or breathing problems."

The fact that most people are home or in a nursing home until at least the last few days of life underlines the critical role that family physicians, nurses, home care and palliative care providers, and family members, play in the final chapter of these people's lives. "The family doctor plays an active role in end-of-life care outside the hospital, which could involve anything from prescribing pain medications to recommending spiritual care resources," notes Dr. Burge. "We want to know what steps we can take to improve the quality of that care and better support families, who are bearing a heavy load."

Dr. Burge and Ms. Lawson are key investigators in the Network for End-of-Life Studies (NELS), which Dr. Burge co-leads with Dalhousie/Cancer Care Nova Scotia epidemiologist Dr. Grace Johnston. NELS brings together experts in such fields as cancer care, palliative care, respirology, pediatrics, nursing, pharmacy, and family medicine to identify and address important issues in end-of-life care.

"Nova Scotia has the oldest population in Canada, and some of the highest rates of obesity, smoking, cancer and heart disease," Ms. Lawson says. "Our society will be caring for a lot more dying people in the coming years. Research will help us plan how to better support people through this very significant milestone."

Strengthening Family Medicine (continued from page 1)

Family Medicine researchers work closely with district leaders in primary health care and continuing care to design, implement and evaluate new approaches to improving health services in the district. Although, as Dr. Burge notes: "We hope our findings have a ripple effect across Nova Scotia and the Maritimes."

"Family medicine practitioners have an impact on people's wellbeing, from before conception to the end of life," says Dr. Burge. "As researchers, it is our job to provide both evidence and leadership for changes that will help ensure top-quality care across this continuum."

The Capital Health Research Fund, Canadian Institutes of Health Research and Nova Scotia Health Research Foundation fund Family Medicine's research efforts.

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