



Family & Community Medicine
UNIVERSITY OF TORONTO

50 CELEBRATING
FIFTY
YEARS
1969-2019

University of Toronto Family Medicine Report





The University of Toronto Family Medicine Report

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Suggested Citation:

Tu, K., Greiver, M., Kidd, M. R., Upshur, R., Mullin, A.,
Medeiros, H., Krueger, P., Aliarzadeh, B., Alleyne, J.
M. K., Bourgeois, C., Chen, T., Dawson, D., Fleming,
K., Forte, M., Freeman, R., Fung, A., Jaakkimainen,
R. L., Kiran, T., Letovsky, E., Lofters, A., Makanda,
F., Meaney, C., Meleamad, O., Myers, J., O'Brien, T.,
Persaud, N., Pinto, A. D., Rashid, M., Redditt, V.,
Rouleau, K., Selby, P., Smylie, J., Wolfe, S., & Grunfeld,
E. (2019). The University of Toronto Family Medicine
Report. Toronto, Ontario: Department of Family and
Community Medicine.

Contents

Foreword	2
Letter from a family medicine patient	3
Chapter 1 Why We Created this Report	4
Chapter 2 Who We Are and How We Train Family Doctors	8
Chapter 3 Who We Care For: Who is Visiting their Family Doctor and Why	14
Chapter 4 Beginning at Birth: Providing Care Before, During and After Pregnancy	20
Chapter 5 Keeping You Well: Preventing and Testing for Diseases	24
Chapter 6 Keeping You Fit: Sport and Exercise Medicine	32
Chapter 7 Care When You Need it Most: Emergency Medicine	36
Chapter 8 Prescribing Your Medications: More Than a Pill	42
Chapter 9 Getting Older: Treating Chronic Diseases	48
Chapter 10 Treating the Body and Brain: Mental Illness and Addiction	54
Chapter 11 Care at the End-Of-Life: Palliative Care in Family Medicine	60
Chapter 12 Health for All: Addressing Social Determinants of Health	64
Chapter 13 Indigenous Health	68
Chapter 14 Caring for Refugees	76
Chapter 15 Global Health: Sharing Knowledge Around the World	82
Chapter 16 Providing Better Care: Improving Quality and Encouraging Innovation in Medicine	88
Chapter 17 Next Steps: Using Research in Family Medicine to Find the Best Ways to Provide Care	92
Appendix	96
References	97
Acknowledgements	104

Foreword

Building the foundations of a family medicine oriented health system

In this excellent compendium, members of the University of Toronto's Department of Family and Community Medicine describe what it is like to practice family medicine and both the roles and challenges faced by family medicine in our evolving health system. Basing their findings largely off electronic medical records and administrative data (UTOPIAN and MyPractice reports), the authors provide a first-hand, data-based picture of the health and social factors that define family medicine and the impact it has on our society.

Like in many parts of the world, in Canada, family medicine is a cornerstone of primary care. We know, from the landmark work of Barbara Starfield and others, that health systems oriented towards primary care – that is more primary care, more leadership by primary care, and a broader role for primary care – perform better than other systems. This has been proven time and time again, including in a recent paper that included authors from the department that showed that greater use of primary care was related to better performance on important health system outcomes in Ontario (Rahman et al., 2018). Commenting on an earlier study that again included authors from the department, Starfield pointed out that primary care orientation actually had little to do with how primary care doctors were paid (Starfield, 2009). Rather, strong access to primary care under any payment model was the key factor.

Right from the first analytic report in this volume, the continuing importance of family medicine to our health system is clear. As Dr. Liisa Jaakkimainen shows in Chapter 3, chronic diseases like diabetes and mental health complaints like anxiety dominate the use of family medicine. And subsequent reports underline the critical role of family medicine in responding to illnesses and the social determinants of health. But the importance of the UTOPIAN and MyPractice

systems that underpin each of these reports goes beyond providing today's data. Tomorrow's family doctor will work in a data-intensive environment and will need to refer to and use data; both for working with individual patients to manage and plan their care as well as planning population health interventions that can prevent disease and help people manage their health in the community.

At the University of Toronto's Faculty of Medicine and Dalla Lana School of Public Health, we are committed to training this next generation of data-driven healthcare providers and managers and we commend the authors of this report and the leadership of the Department for creating this first important data-driven documentation of the role of family medicine in our health system. We look forward to the next report.

Dr. Trevor Young

Dean, Faculty of Medicine,
University of Toronto

Dr. Adalsteinn Brown

Dean, Dalla Lana School of Public Health,
University of Toronto

Letter from a Family Medicine Patient

Family medicine is an integral part of patients' health and wellbeing. Family doctors are the first line of defence in our health care system. Patients rely on their doctors for medical expertise.

What patients may not be aware of is the number of research projects that family doctors are involved in on their behalf.

I became aware of this research when I became a patient advocate for the UTOPIAN Scientific Advisory Committee in Toronto a year and a half ago. The committee reviews, debates and can make funding recommendations for research projects to benefit family medicine or primary care.

I have been personally involved in a breast cancer prevention study. The insight I gained was invaluable to my wellbeing. It was my family doctor who had recruited me. The study is still ongoing.

Another opportunity I had was to participate in an in-home palliative care study for a late family member. The study was directed by Dr. Russell Goldman of Mount Sinai Hospital. Under nursing supervision, I provided daily care and pain management for three months in a home environment for a terminal patient who also had a regular visit from a family doctor in their home. Fortunately, this patient's end-of-life was peaceful. That study found that palliative care was less expensive than a hospital stay, freed up hospital resources as well as comforted the patient and their family. It also provided me with an exceptional learning experience.

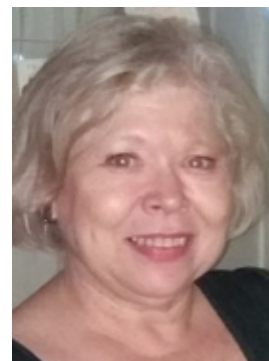
These studies are made possible by family doctors, nurses and researchers who strive to improve quality of life for all of their patients.

From my own experience of more than 20 years, I cannot say enough about the exceptional doctors including my own, Dr. Milena Forte, at the Granovsky Gluskin Family Medicine Centre at Mount Sinai Hospital in Toronto. They are the epitome of excellent quality care in family medicine.

I am excited by the first-ever report on care provided by family doctors in Toronto and its surrounding areas – who do so much more than we know—and look forward to hearing more upon its completion.

Kind regards,

Joanna McFadzean
Patient



1

Why We Created this Report

AUTHORS:

DR. MICHAEL KIDD, DR. EVA GRUNFELD, DR. MICHELLE GREIVER AND DR. KAREN TU

Family doctors are the cornerstone of Canada's health care system. When most people are sick, the first person they often go to for advice and care is their family doctor. They provide care for patients of every age and background and treat the full range of medical conditions, from severe infections and injuries, to chronic conditions like diabetes and heart disease, to mental illness, cancer and more. Many family doctors also deliver babies, work in emergency rooms and provide palliative care to people who are terminally ill. Because family doctors practice at the front lines of care in the communities where their patients live, they are also in a position to advocate for their patients and help address challenges to the health of the communities they serve. This includes working with many of our societies most vulnerable and marginalized people, including, for example, people who are homeless and people who have recently arrived in Canada as refugees.

The evidence from all around the world is clear: having strong family medicine as the basis of a country's health care system is a critical factor in keeping citizens healthier and providing health care to everybody. When family medicine is thriving, people live longer because illnesses and early deaths are more likely to be prevented, tax dollars for health care are spent more efficiently, and everyone has equal access to good health care that leads to better health for all.

Yet, despite having access to the entire population of Canada and treating the wide breadth of medical conditions, family medicine has not always been at the forefront of medical research and innovation. At a time when health care systems around the world are under pressure from ageing populations, rising rates of chronic diseases, and increasing overall costs, our policy makers, researchers

and health care professionals need reliable data to ensure we are providing optimal health care that is effective for each patient and providing value for our investment in health care as taxpayers. Family medicine is a source of important data about the health and wellbeing of our entire population: this data is a valuable national resource which needs to be better understood and utilized.

The people at the University of Toronto Department of Family and Community Medicine are working together to address this challenge. Our family medicine research program is one of the oldest and most established in the world. Our researchers are at the forefront in collecting and analyzing data from family medicine, publishing our findings, and informing the public about how we can work together to strengthen family medicine.

The University of Toronto Family Medicine Report

The **University of Toronto Family Medicine Report** is our first-ever public report on the current state of family medicine and family medicine research. The report illustrates the important work family doctors and the members of their teams are doing every day in Toronto and beyond. It reflects the breadth and depth of family medicine research at the University of Toronto, and the role family medicine research is playing in supporting and improving the health and wellbeing of people in Toronto and surrounding areas. This report is a reminder of the essential role family medicine plays in our health care ecosystem.

The University of Toronto Practice-Based Research Network, called UTOPIAN, is a network of over 1700 family doctors working in practices in communities and hospitals throughout the Greater Toronto Area and beyond. UTOPIAN brings researchers and family doctors and their practices together to answer important health care questions and to translate research findings into improvements in daily clinical practice which benefit all our patients.

UTOPIAN is a living laboratory that, in addition to conducting and supporting clinical research, draws from the electronic medical records of more than 500,000 people in Toronto and beyond. Each electronic record captures a patient's medical history, their encounters with the health care system, details of their family history, laboratory and radiology requests and results, prescriptions, screening

tests, referrals to other health services, and much more. As more family doctors are recording their patients' medical history in electronic records, these records have become a rich resource of important information to support better understanding and improvements in Canadian health care.

UTOPIAN maintains a database of de-identified electronic medical records that have provided the bulk of the information for this report. Protecting patient identity is paramount: all data meets the highest security, privacy and confidentiality standards.

As one of the largest primary care and family medicine databases in the world, data from UTOPIAN is providing essential insights that help us improve health services for individual patients and communities, improve the quality and cost-effectiveness of health services and, ultimately, contribute to a healthier population, both in Canada and around the world.

The University of Toronto Family Medicine Report demonstrates the value of family doctors and family medicine to our health system. This report provides a sketch of family medicine that—as the years go by – will become a beautiful portrait of the work we do, why we do it, what we should do differently, and what it all means for the health and wellbeing of the people we serve.

About The University of Toronto Department of Family and Community Medicine

Exactly 50 years ago, in the spring of 1969, the University of Toronto established the Department of Family and Community Medicine. At the time it was one of the first university departments of family medicine in the world. The department quickly enrolled 24 medical graduates who became family medicine residents in our brand new program to train family doctors. At the time, it was the largest family medicine training program in Canada and, over the subsequent 50 years, it has grown to become one of the largest and most respected university departments of family medicine in the world. In 2018, the University of Toronto Department of Family and Community was recognized as the World Health Organization Collaborating Centre in Family Medicine and Primary Care.

Over the past 50 years we have trained around 40 percent of Ontario's family doctors and 25 percent of Canada's family doctors. In 2019, our academic department includes over 1700 faculty members and over 500 family medicine residents and graduate students, working with our staff in academic teaching clinics and community practices across Ontario, from downtown Toronto, to Barrie and Orillia in Southern Ontario, to Moosonee and Red Lake in Northern Ontario.

As well as training many of this nation's future family doctors, our faculty members are working together, through research and quality improvement activities, to create new knowledge which advances the practice of family medicine and improves the health care and the health of patients and communities all around the world.

Where the data is coming from

This report uses data drawn primarily from two sources:

1. The University of Toronto Practice-Based Research Network (UTOPIAN)
2. MyPractice Primary Care Reports

UTOPIAN

The data used in this report draws from the electronic medical records component of UTOPIAN data extracted up to March 31, 2018. The age of each patient was calculated as of March 31, 2018, and date of birth was considered as the 15th day of the birth month for each patient. These measures are further safeguards to protect the anonymity of the patients.

Included in the data are patients that family doctors see in multiple settings such as nursing homes, in the operating room when they act as operating room assistants, in the hospital as a hospitalized patient or for deliveries, both individual and group counselling, as a consultant for a specific procedure or specialized care, on a one off 'walk-in' basis and patients enrolled/rostered to their practice. We elected to focus on the patients enrolled with family doctors to best reflect the activity that occurs in the traditional family medicine out-patient clinic. There were 571,040 patients contained in this data collection. Of those patients 383,050 were enrolled by one of the 376 family doctors contributing to the UTOPIAN electronic medical records database.

TABLE 1: NUMBER OF DOCTORS AND PATIENTS INCLUDED IN THE TWO DATA SOURCES USED IN THIS REPORT

	UTOPIAN	MYPRACTICE
Number of Doctors	376	308
Number of Enrolled Patients	383,050	239,549

MyPractice Reports

The University of Toronto Family Medicine Report also uses data obtained from Health Quality Ontario's MyPractice Reports, which are produced in collaboration with The Institute for Clinical Evaluative Sciences (ICES), and which uses administrative data, collected by governments or other organizations for billing or record keeping, to provide practice and provincial-level information about use of health services. The MyPractice Report data used in the University of Toronto Family Medicine Report was available from 9 of our academic sites and includes patients who had an encounter with either a doctor or a nurse practitioner between April 1, 2015, and March 31, 2017. The age calculation used was the patient's age at the date of the earliest doctor visit or procedure date within a specified time period depending on what is being measured.

For an explanation of the limitations of the UTOPIAN data and MyPractice Reports see Appendix.

Dr. Michael Kidd is Professor and Chair of the University of Toronto Department of Family and Community Medicine and Director of the World Health Organization Collaborating Centre on Family Medicine and Primary Care

Dr. Eva Grunfeld is the Giblon Professor and Vice Chair, Research and Advocacy at the University of Toronto Department of Family and Community Medicine

Dr. Michelle Greiver is the Director of UTOPIAN at the University Of Toronto Department of Family and Community Medicine, the Gordon F. Cheesbrough Research Chair in Family and Community Medicine at North York General Hospital and a family doctor at North York Family Health Team

Dr. Karen Tu is Associate Director of the UTOPIAN Data Safe Haven, a Professor at the University of Toronto Department of Family and Community Medicine and the Institute for Health Policy, Management and Evaluation, and a family doctor at the University Health Network's Toronto Western Hospital Family Health Team

2

Who We Are and How We Train Family Doctors

AUTHORS:

DR. RISA FREEMAN AND DR. TARA KIRAN

Rapid technological changes coupled with new research findings mean educators must anticipate new trends and think differently about how they train future doctors and keep current family doctors up-to-date on new developments. The University of Toronto Department of Family and Community Medicine offers a wide range of educational opportunities to support the current and the next generation of family doctors.

How to become a family doctor

All medical students at the University of Toronto receive family medicine training throughout their four-year degree. After medical school, graduates who choose the specialty of family medicine are then required to complete two additional years of postgraduate training to be certified as family doctors. Over the two years, each resident is assigned to an academic teaching hospital or clinic where their main training is based, and where they work with family medicine teachers. They also complete training in general surgery, internal medicine, pediatrics, obstetrics/gynaecology, psychiatry, palliative care, and emergency medicine, as well as electives of their choice. Residents are also required to complete research and quality improvement projects.

Our residents also have opportunities to train in a variety of different environments, from large urban hospitals to community-based practices in smaller towns and rural and remote villages. After graduation, many residents are inspired to practice in smaller communities, where family doctors are particularly needed.

At the end of their training, residents must complete a certification examination to evaluate their competence to practice as a family medicine doctor. Upon completion, the resident will be awarded a Certification in The College of Family Physicians of Canada. Family doctors in Canada must continue to participate in professional development and education throughout their career to keep their certification in good standing.

While family medicine residents are ready to begin practicing family medicine after two years of residency training, some elect to undertake an additional third year of training known as enhanced skills training. This additional training helps graduates provide continuing care in a specific area of medicine, including: emergency medicine, palliative care, maternity care and care of the elderly. Many graduates of these programs continue to practice family medicine while acting as a resource to their patients and colleagues in their area of enhanced training.

Teaching hospitals and clinics at the Department of Family and Community Medicine

Since the department was established in 1969, it has trained nearly 3,500 family doctors. In January 2019, the department included over 1,700 faculty members educating medical students and residents. Most are family doctors with a focus on teaching. The department has fourteen core academic teaching hospitals, from downtown Toronto to Barrie and Scarborough to Mississauga. Beyond the large hospitals, our faculty members include family doctors who teach at rural and remote clinics across Ontario. They practice in communities across Ontario, such as Port Perry and Orangeville, and as far north as Moose Factory.

Most of our academic teaching clinics are structured as Family Health Teams: organizations that provide their patients with government-funded access to other health professionals, including nurse practitioners, nurses, social workers, pharmacists, and dietitians within one clinic. The Family Health Teams range in size, serving between 5,700 to 144,000 enrolled patients in the GTA and downtown Toronto. Larger family health teams may also include chiropractors, psychologists, physiotherapists, health promoters, caseworkers, occupational therapists, and community engagement specialists. All teams have partnerships with health and social service organizations including local hospitals, long-term care homes, community health centres, public health units, and agencies serving patients with mental health and addictions, seniors, children, and those with developmental disabilities.

Dr. Risa Freeman is Vice-Chair, Education and an Associate Professor at the University of Toronto Department of Family and Community Medicine and a family doctor at North York Family Health Team

Dr. Tara Kiran is Vice-Chair of Quality and Innovation and an Assistant Professor at the University of Toronto Department of Family and Community Medicine and a family doctor at St. Michael's Hospital

Sex breakdown of University of Toronto Department of Family and Community Medicine faculty members

TOTAL ACTIVE FACULTY

1,737

FEMALE

952

MALE

785

**The University of Toronto now includes a third sex option in Human Resources Information System: "other". This was implemented by the University to align with the new third sex option for governmental ID. However, this category has not been selected/identified yet by any of our faculty members.*

Rural vs. Urban: Comparing Two Family Practices



Dr. Jeff Golisky
Family Doctor
Midland, Ontario
(population 16,864)



Working in a smaller community like Midland, allows me to have a broad family medicine practice. Besides my own office practice, I am the Chief of Family Medicine, the Education Lead and provide patient care at Georgian Bay General Hospital, work regularly in its emergency department and teach University of Toronto family medicine residents and medical students.

In Midland, we see many patients who vary in age, background, income, etc. We also serve a large Indigenous population from Beausoleil First Nation and Francophone population from Penetanguishene.

There are many advantages to practicing in a smaller community. I care for a wide range of patients, including newborns, the elderly and everyone in between. Together with two other family doctors, my family medicine office in Midland has around 3,500 patients registered with us. We strive to offer timely booking and same-day appointments for urgent concerns.

It is also rewarding to work in the emergency department at Georgian Bay General Hospital, providing critical care to life-threatening emergencies.

One of the greatest challenges we face is accessing consultations with specialists. While we are grateful to have General Internal Medicine and General Surgical consultants locally, because of their limited numbers and significant on-call responsibilities, the wait times for non-urgent consultations can be lengthy. Patients are often hesitant to travel for consultation as well. Thankfully, telemedicine is beginning to improve access.

We have also been challenged by a change in family doctors' interest in providing hospital coverage as several of our colleagues have recently stopped working at the hospital. I strongly believe, however, that in a community the size of Midland/Penetanguishene, family doctors need to have a central role in the hospital and I have encouraged all of our new recruits to be involved at the hospital.

I am proud of the dedication to teaching that our community has demonstrated. We began by occasionally accepting medical students and have now evolved into a popular site for second-year family medicine residents and medical students at all levels. It's my hope residents see the advantages and value of practicing medicine in a smaller community and decide to practice in communities where family doctors are really needed.

Dr. Jeff Bloom
University Health Network:
Toronto Western Family Health Team
Downtown Toronto
(population 2,929,886)



I am the Family Physician-in-Chief at the University Health Network (UHN), Toronto Western Hospital. Our network includes two locations, one at the Toronto Western Hospital in downtown Toronto, where we have about 17,000 patients and 25 family doctors as of December 31, 2018. Our second clinic, Garrison Creek, opened in 2017 and is north of downtown Toronto and currently includes eight family doctors that are practicing there. Right now, Garrison Creek serves 5,000 patients but we are hoping to welcome 12,000 more patients over the coming years.

Each site is different in terms of the types of patients we serve. At the hospital, many of our patients are “acute” patients, meaning that they are coming to us for conditions that are severe and sudden, from a broken leg to an asthma attack. We also find many of our patients have a mental health condition or chronic disease, from high blood pressure or arthritis to anxiety and depression.

Our Garrison Creek clinic is in an underserved and unique area with a very multicultural population. We see many seniors who are living on their own. The area also has a higher-than-average teen pregnancy rate and disease rate overall, as well many patients with mental health and addictions issues.

Being located in a large hospital and being one of the oldest family medicine clinics in the city has many advantages for both our doctors and patients. Both clinics are part of our UHN Family Health Team, which are interdisciplinary health teams that provide comprehensive family health

care services for their community. Our teams include family doctors, nurse practitioners, registered nurses, registered practical nurses, social workers, dietitians, chiropractors, occupational therapists, physiotherapists, respiratory therapists, pharmacists and a health education specialist.

UHN also fully supports and embraces family medicine and we have great relationships and collaborations with our colleagues from other areas of medicine. It is a great advantage to be in a collaborative environment—we have found unique ways to integrate care for our patients. For example, our inpatient service allows our family doctors to care for patients who are very ill and require hospitalization. As well, our Homebound program sends interdisciplinary teams to care for patients in their homes.

Being based in a large hospital and network means that we sometimes face the same challenges any other large organization faces: How do we remain responsive, resilient and nimble when we’re so big? We’re always trying to be early adopters and adapt to what’s changing in family medicine.

3

Who We Care For: Who is Visiting Their Family Doctor and Why

AUTHOR:
DR. LIISA JAAKKIMAINEN

To understand how family doctors can best provide care to patients, find ways to reduce inequities and improve the performance of the health care system, it is essential to understand who is receiving care, what they are receiving care for and the types of care provided by family doctors. Any improvements in the health care system cannot be made without real-world data from primary care.

Below is an overview of the patients who are visiting family doctors who are part of UTOPIAN, including the reasons for visiting their family doctor and a comparison of five types of specialist visits.

The patients who are visiting family doctors and what they are visiting for

There is a diversity of patients seen by family doctors—every age group is nearly evenly represented (Table 1). Women, overall, see family doctors more than men, as they make up 54 percent of the patients seen within these family medicine practices.

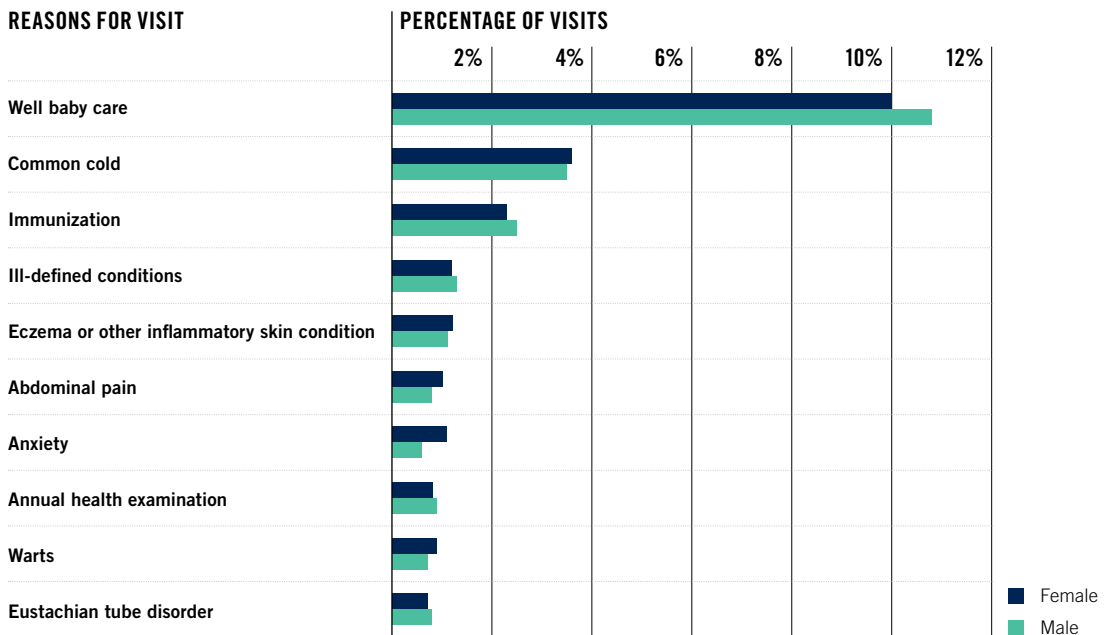
TABLE 1: UTOPIAN ENROLLED PATIENTS OVERALL AND BY AGE AND SEX

AGE	MALE		FEMALE		ALL PATIENTS	
	Number	Percentage	Number	Percentage	Number	Percentage
0–18 years	33,905	9	32,879	9	66,784	18
19–34 years	35,954	9	41,615	11	77,569	20
35–49 years	35,888	9	46,050	12	81,938	21
50–64 years	38,657	10	45,990	12	84,647	22
65+ years	30,979	8	41,133	11	72,112	19
Total	175,383	45	207,667	55	383,050	100

The types of family doctor visits differ by age group (Figure 1–3). Children and youth primarily visit family doctors for well-baby visits, common colds and vaccinations.

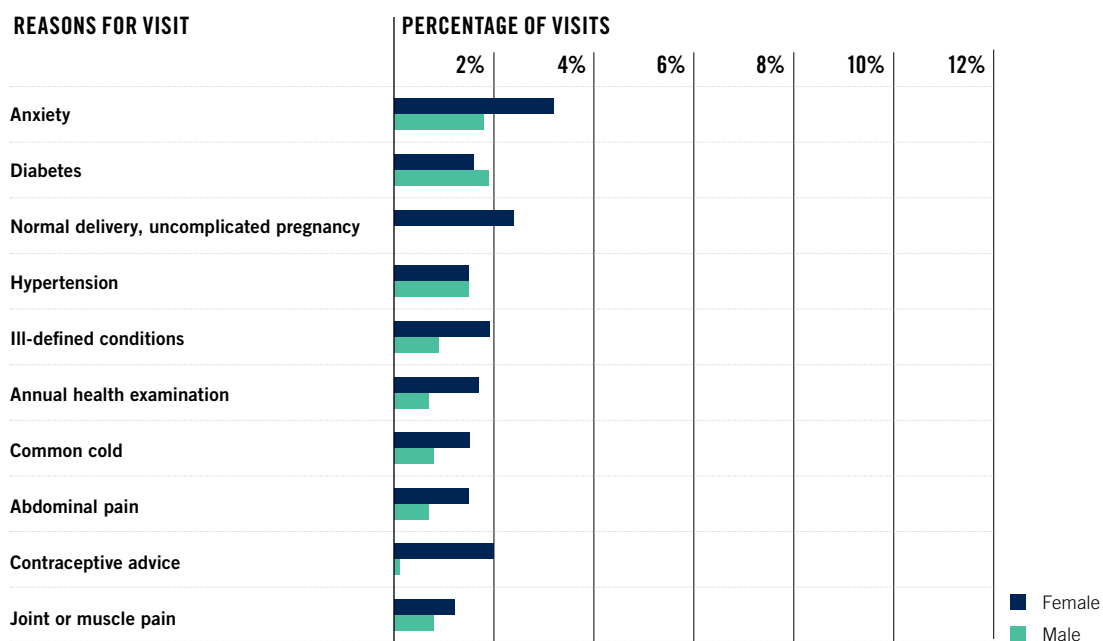
Middle-aged and older adults see family doctors more frequently for issues related to chronic diseases. Contrary to the notion that family doctors specialize in coughs and colds, visits for chronic diseases were far more common than for colds and viral illnesses in adults.

FIGURE 1: TOP 10 REASONS FOR VISITS TO FAMILY DOCTORS BY SEX IN 2017 FOR PATIENTS AGE 0-18 YEARS*



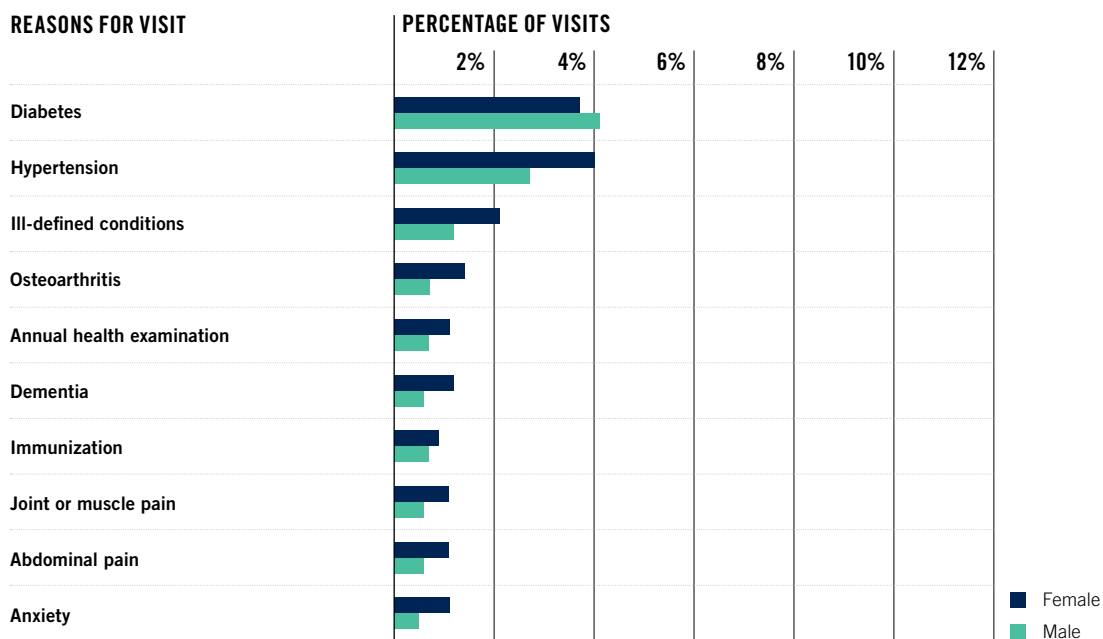
*Based on 33,905 males and 32,879 females age 0–18 years

FIGURE 2: TOP 10 REASONS FOR VISITS TO FAMILY DOCTORS IN 2017 BY SEX FOR PATIENTS AGE 19–64 YEARS*



**Based on 110,499 males and 133,655 females age 19–64 years*

FIGURE 3: TOP 10 REASONS FOR VISITS TO FAMILY DOCTORS IN 2017 BY SEX FOR PATIENTS AGE 65+ YEARS*



**Based on 30,979 males and 41,133 females age 65 years and older*

Visiting specialists

Using MyPractice Report data, rates of visits (expressed per 1,000 patients in a practice) to five specialist doctor groups were examined. Visits to psychiatrists were the highest with an average of 432 visits per 1,000 patients. This rate was higher than the Ontario average of 154 visits per 1,000 patients. This was followed by 107 cardiologist visits, 75 internal medicine specialist visits, 70 endocrinologist visits and 61 respirologist visits per 1000 patients. This was similar to provincial averages which were 82, 88, 44, 34 visits per 1000 patients respectively.

Implications for potential improvements in the future

Family doctors and their practices need to provide primary care that corresponds to the needs of their patients. Policies should focus on the population needs of family doctors' practices, which include supporting patients with chronic diseases and poor mental health. If this is done, higher quality primary care will be achieved and the performance of the health care system will improve.

Dr. Liisa Jaakkimainen is an Associate Professor at the University of Toronto Department of Family and Community Medicine and the Institute of Health Policy, Management and Evaluation and a family doctor at the Sunnybrook Academic Family Health Team

Family Doctors can be Advocates in Helping Patients Navigate Complex Care

When a patient develops multiple illnesses, the challenges they face in receiving treatment can multiply as well. Having to attend numerous appointments, see different doctors, manage complex drug regimens, and keep track and fully understand their conditions can be significant burdens for both patients and their caregivers. The health care system can become a complex maze that many patients feel they have to navigate alone. Having a family doctor who helps coordinate care, follows through on treatments and keeps an eye on a patient's overall health can help ease the burden for both patients and their caregivers.

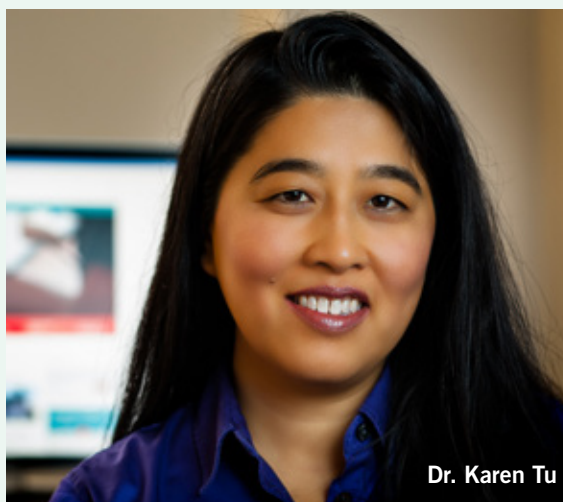
When Mr. Smith's* wife became sick with multiple serious illnesses, was hospitalized and seeing various doctors for her care, dealing with her health became extremely challenging for him and his wife to manage. Fortunately, their family doctor at the Toronto Western Hospital Family Health Team, Dr. Karen Tu, went above and beyond to assist Mr. and Mrs. Smith in ensuring Mrs. Smith could recover in the comfort of her home and then eventually receive palliative care in her own home.

"She was the point-person in our care: if she hadn't done that, we wouldn't have been able to get the results we had," Mr. Smith says. "She visited our home to provide care numerous times so my wife didn't have to go to the hospital."

For Dr. Tu, a family doctor at Toronto Western Family Health Team, the Smith's illustrate the complexities of navigating a health care system, particularly for the elderly. Mrs. Smith passed away in late 2018; however, she was able to do so in the comfort of her own home.

"Knowing them for several years, I felt compelled to help Mr. and Mrs. Smith advocate for and arrange the best care for Mrs. Smith," says Dr. Tu. "Our family health team knew them and their social context, which I think was helpful when assisting them in making decisions. Despite her advanced age and because I knew that Mrs. Smith was fiercely independent and wanted to be at home as much as possible, I advocated and helped to make arrangements as best I could to allow her to do that."

**Name has been changed to protect privacy*



4

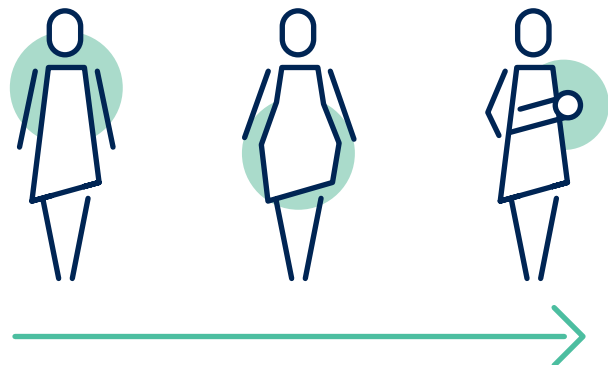
Beginning at Birth: Providing Care Before, During and After Pregnancy

AUTHORS:

DR. MILENA FORTE AND DR. KAREN FLEMING

Family doctors are typically the first point of contact for a woman when she becomes pregnant. They are able to help with decision-making and determining what, if any, risks need to be considered during pregnancy care. Many family doctors will care for women throughout their pregnancy, including delivering babies and caring for mothers and babies in hospital and after they are discharged home. Family doctors can also provide breastfeeding support, general medicine and counselling to new mothers and make referrals to specialists for any further needs.

Family doctors bring unique skills that combine a medical and holistic approach to maternity care: They recognize birth as a natural event and are passionate about delivering excellent family-centred and evidence-based care that values women's choices.



FAMILY DOCTORS CAN HELP PATIENTS PREPARE FOR PREGNANCY, CARE FOR PATIENTS THROUGHOUT PREGNANCY AND LABOUR, PROVIDE POSTPARTUM SUPPORT AND GENERAL MEDICAL CARE.

Family medicine and maternity care

Pregnancy is a unique time in a woman's life where she will make many visits to her health care provider. The care she receives affects the health of not one, but two or more lives.

In Ontario, one in five women will develop a pregnancy complication that will increase both her and her baby's risk for several chronic conditions, including type 2 diabetes, cardiovascular disease and obesity (BORN Ontario, 2016).



1 IN 5 WOMEN WILL DEVELOP A PREGNANCY COMPLICATION

BORN Ontario, 2016

Family doctors can identify early risk factors for diabetes and high blood pressure in pregnancy, as well as for chronic mental health conditions such as anxiety, depression and substance use. Treatment, including lifestyle modifications such as diet, physical activity, and reduction of substance use in pregnancy, may improve the future health of a woman and her baby.

Family doctors are also in a unique position to provide comprehensive care that can avoid the need for multiple referrals to specialists. By providing quality maternity care to women and their families while managing their chronic conditions and understanding their emotional needs, family doctors bring value to the patients, families and communities we serve, as well as to the health-care system.

Family doctors providing maternity care at the University of Toronto

The University of Toronto Department of Family and Community Medicine has the largest family medicine maternity care training program in Canada. Each year, approximately one-third of graduating residents plan to continue providing maternity care in their future practice. Currently there are over 100 family doctors providing maternity care, including delivering babies, who are affiliated with the department. In 2017, they delivered over two thousand babies at eleven hospitals across the Greater Toronto Area.

Our maternity care providers are leaders in maternity care education and research and are recognized for developing innovative models of caring for pregnant women. These models include:

- **Group prenatal care programs:** A peer support program where small groups of women and their partners learn about key pregnancy topics and receive pregnancy care from a team of family doctors and midwives.
- **Substance use in pregnancy program:** Family doctors with knowledge in substance use in pregnancy provide care and support to marginalized women with two programs offered in both the east and west end of Toronto.

Future research on maternity care

We have a tremendous opportunity to gather important data using UTOPIAN in the future. Further development of methods to analyze electronic medical record data concerning maternity care will allow us to draw meaningful conclusions about how and to whom we provide maternity care in Toronto. This will provide an opportunity to evaluate maternity care and pregnancy outcomes, and to better understand our impact on the health of women and their babies.

Dr. Milena Forte is an Assistant Professor at the University of Toronto Department of Family and Community Medicine and a family doctor at the Ray D. Wolfe Department of Family and Community Medicine, Sinai Health System

Dr. Karen Fleming is an Assistant Professor at the University of Toronto Department of Family and Community Medicine and a family doctor at Sunnybrook Health Sciences Centre

Growing your Family with your Family Doctor



Grace Toby

Each year, over 11,000 babies are delivered by family doctors across Canada; yet, many pregnant women are unaware that family doctors provide maternity care, including delivering babies.

Grace Toby, a mother of three, was surprised by the news when she became pregnant with her first child. She recalls the apprehension she felt during her first pregnancy when her doctor at the time referred her to another family doctor at Sunnybrook Hospital.

“Beyond being nervous about switching doctors, I remember being surprised that a family doctor could also be trained in obstetrics,” said Grace.

But once she got to know her new doctor, Dr. Karen Fleming, her fears abated, and the two formed a trusting patient-doctor relationship.

It wasn't until Grace got pregnant nearly 12 years after her first child with her third child in her 40's that she realized how invaluable that relationship with Dr. Fleming truly was. Her pregnancy was deemed high-risk and she faced complications throughout. While Dr. Fleming referred her to a specialist where her pregnancy could be closely monitored, she remained involved for Toby's entire pregnancy, including the delivery.

“I had to have a c-section when delivering my son, which is a scenario I wanted to avoid and something Dr. Fleming knew after being our family doctor for the past 14 years,” says Grace. “When it was determined there was no other option, she was reassuring and comforting before I went into surgery. She was also in the surgery room working alongside the surgeon. She was there every step of the way when she didn't have to be.”

For Dr. Fleming, who is now also Division Lead of Family Medicine Obstetrics and Interim Chief, Department of Family and Community Medicine at Sunnybrook Hospital, this kind of story is just an example of the type of work family doctors providing maternity care do every day.

“Family doctors are trained to take care of patients throughout all stages of their lives, including pregnancy,” says Dr. Fleming. “We collaborate with an entire team of health professionals to make sure the patient receives the right care, including referral to the right specialist, if necessary.”

Today Grace's almost one-year-old son is perfectly healthy and has Dr. Fleming as his family doctor, along with the rest of the family.

“As a family doctor, the greatest satisfaction of my career is developing a relationship with a patient and following them through their lives, especially watching kids as they grow into adults,” says Dr. Fleming. “It's a privilege for me to be able to be part of that.”

5

Keeping You Well: Preventing and Testing for Diseases

AUTHORS:

DR. AISHA LOFTERS AND DR. EVA GRUNFELD

In Canada, chronic diseases, such as cancer, heart disease and stroke, are leading causes of death and disability, and currently affect more than one in five Canadians (Public Health Agency of Canada, 2015). The need for health professionals to deliver effective disease prevention and screening recommendations to patients is increasing as rates of chronic disease among Canadians continue to rise.

Screening tests help find disease in a person who, otherwise, does not show symptoms. Screening early allows medical professionals to take preventive measures, such as removing growths, or start early treatment before a disease progresses, potentially saving a patient's life.

How family doctors play a role in preventing and screening for common diseases

Preventing and screening for diseases is common in family medicine. Family doctors place great value on preventing disease and illness before they occur and catching a disease in its early stages before it gets worse. Examples of screening depend on the disease being screened for. For instance, a pap test may help diagnose cervical cancer, a mammogram can help detect breast cancer, and fecal occult blood testing or colonoscopy may aid in the diagnosis of colorectal cancer. Examples of preventive measures might include immunizations against infectious diseases (i.e. flu shots, HPV vaccinations, etc.) and encouraging healthy eating, exercise and quitting smoking.

Rates of common diseases and risk factors

Smoking

Amongst UTOPIAN patients who have provided doctors with their smoking status, cigarette smoking appears to be most common among men and women combined age 50–64 years: 24 percent of men and 19 percent of women were smokers. Overall, 19 percent of patients whose smoking status was recorded in their electronic medical record smoke, which is significantly higher than provincial smoking rates, estimated to be around 11 percent (Reid et al., 2017). If we assume, however, that all the patients without their smoking status recorded are non-smokers, the smoking rates among UTOPIAN patients would be 13 percent, closer to the 11 percent estimated provincial smoking rates (Reid et al, 2017).

TABLE 1: PATIENTS THAT ‘CURRENTLY’ SMOKE OVERALL AND BY AGE AND SEX*

AGE GROUP	NUMBER	PERCENTAGE
MALE		
12–18 years	236	12
19–34 years	5,131	25
35–49 years	6,694	25
50–64 years	7,514	24
65 years	3,802	16
All ages	23,377	22
FEMALE		
12–18 years	246	11
19–34 years	4,577	16
35–49 years	5,971	17
50–64 years	7,078	19
65 years	3,990	13
All ages	21,862	16
ALL PATIENTS		
12–18 years	482	12
19–34 years	9,708	20
35–49 years	12,665	20
50–64 years	14,592	21
65 years	7,792	14
All ages	45,239	19

**Based on 240,517/343,398=70 percent age 12 years and over of patients that smoke had their smoking status recorded in their electronic medical record.*

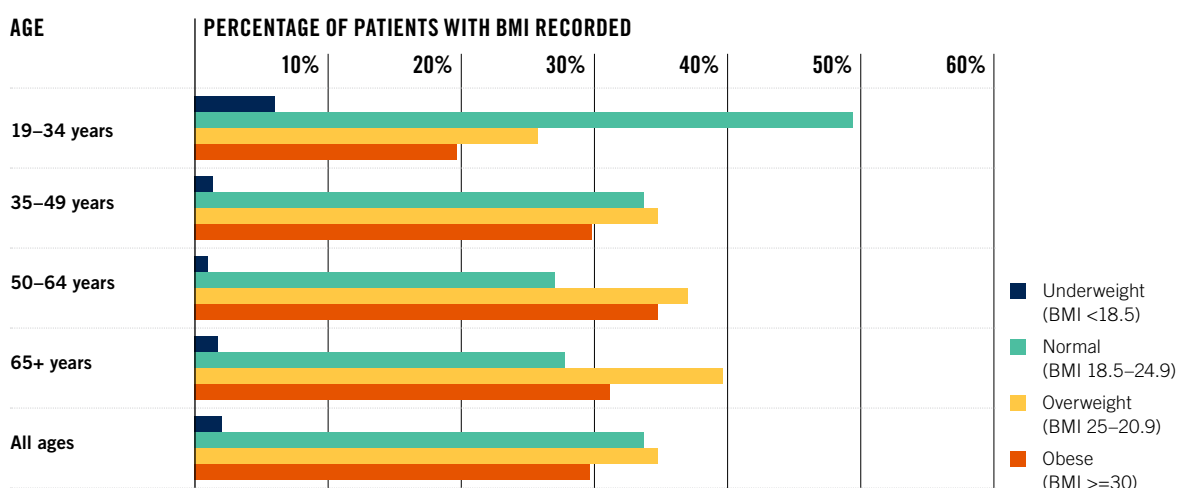
When looking at the table it is important to keep in mind that smoking status is missing for almost 30 percent of patients. Specifically, data were missing for: 85 percent of patients ages 12 to 18 years, 36 percent of patients ages 19 to 34, 23 percent of patients ages 35 to 49, 19 percent of patients ages 50 to 64, and 22 percent of patients over the age of 65.

Obesity

The body mass index (BMI) is a measure of body fat that takes into account sex, height, and weight and helps doctors determine if a patient is overweight. A healthy BMI range is 18.5 to 24.9; a BMI of 25 to 29.9 is considered overweight; and a BMI of 30 or more is considered obese (Health Canada, 2003).

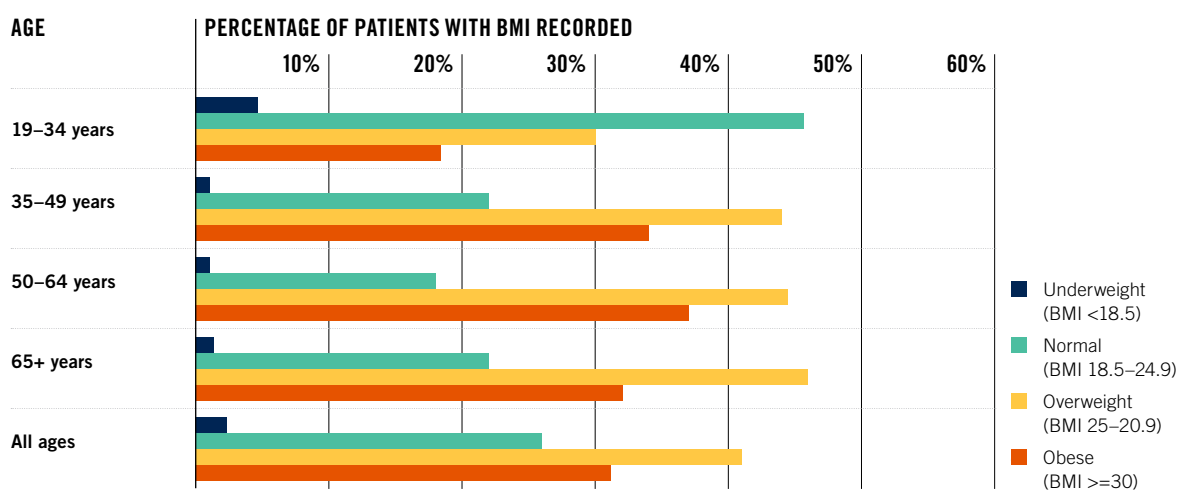
Overall 35 percent of all patients in UTOPIAN practices were overweight and close to 30 percent are obese (Figure 1). In general males (Figure 2) are more likely to be overweight than females (Figure 3). Figures 1, 2 and 3 are based on 71 percent of patients who had BMI data available.

FIGURE 1: BODY MASS INDEX (BMI) FOR ADULTS BY AGE



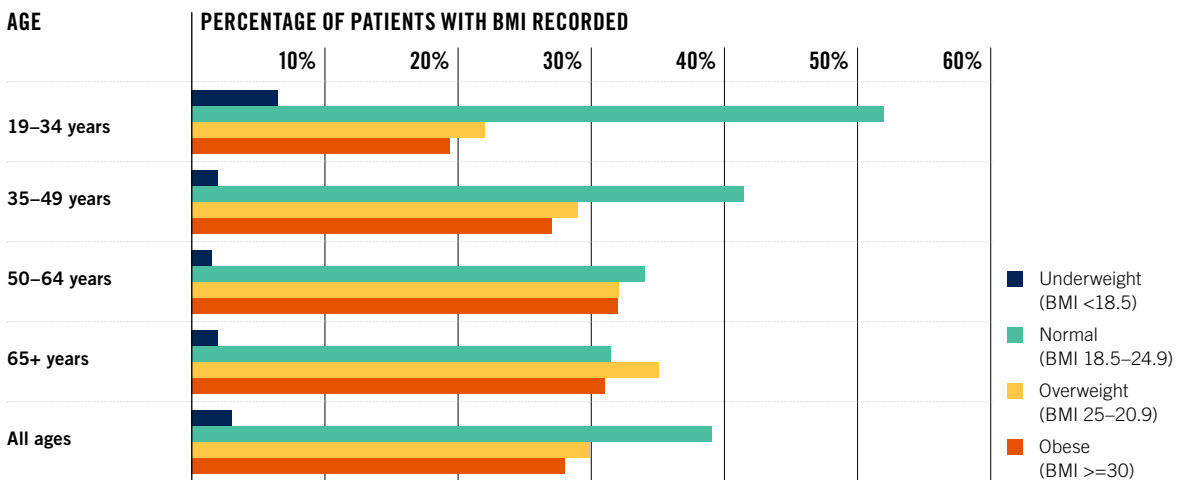
*Based on 224,295/316,266=71 percent of adults age 19 years and older with BMI recorded or calculated in their EMR record

FIGURE 2: BODY MASS INDEX (BMI) FOR ADULT MALES BY AGE*



*Based on 93,746/141,478 = 66 percent of males age 19 years and older with BMI recorded or calculated in their EMR record

FIGURE 3: BODY MASS INDEX (BMI) FOR ADULT FEMALES BY AGE*



*Based on 130,549/174,788=75% of females age 19 years and older with BMI recorded or calculated in their EMR record

Influenza

Ontario’s Universal Influenza Immunization Program (UIIP) offers flu shots free of charge to all individuals six months of age and older that live, work or go to school in Ontario. The flu shot is available through family doctors, public health units, pharmacies, and in various other settings across the province (MOHLTC, 2018). Some individuals are considered to be at high-risk for getting the flu (people over the age of 65, pregnant women etc.) and are recommended to get a flu shot as soon as it is released.

Data from UTOPIAN shows that of men and women over the age of 65, 46 percent of men and 47 percent of women received the flu shot. For women with a pregnancy in the past year only 28 percent had a documented flu shot in the past year. It is important to note that these figures may not capture everyone who received a flu shot, as it is possible to have a flu shot outside of the family doctors’ office, such as in a pharmacy, and therefore is not captured in a family doctor’s electronic medical record.

Cancer screening

Currently in Ontario, approximately 62 percent of patients were screened for colon cancer, 66 percent for cervical cancer and 65 percent for breast cancer (Cancer Quality Council of Ontario, 2017). The numbers in Table 2 are higher than provincial levels, with the exception of cervical cancer screening where the mean was 64 percent; however, cervical cancer screening tests done in a hospital outpatient setting are not entirely captured in this data.

TABLE 2: PERCENTAGE OF PATIENTS WHO WERE UP-TO-DATE FOR SPECIFIC TYPES OF CANCER SCREENING

TYPE OF CANCER SCREENING (BY AGE)	PERCENTAGE
Colorectal screening (ages 52–74 years)	75
Cervical cancer screening (ages 23–69 years)	64
Breast cancer screening (ages 52–69 years)	70

Source: MyPractice Reports

What does this mean?

Our research shows the number of patients who smoke and are overweight are similar to provincial smoking and obesity rates. Family doctors and other health care providers should continue to support patients to quit smoking and find ways to maintain a healthy weight.

The number of pregnant women receiving the flu shot was fairly low, thus health care providers should encourage more pregnant women to get the flu shot.

While the percentage of patients undergoing colon and breast cancer screening is higher than the provincial average, this is not surprising since the provincial data includes Ontarians who do not have a family doctor. Still, all family medicine practices should continue to maintain and improve cancer screening rates when testing is indicated.

Dr. Aisha Lofters is an Assistant Professor and Clinician Scientist at the University of Toronto Department of Family and Community Medicine and a family doctor at St. Michael's Hospital

Dr. Eva Grunfeld is Giblon Professor and Vice Chair, Research and Advocacy at the University of Toronto Department of Family and Community Medicine

Innovative Program “BETTER” for Chronic Disease Prevention Across Canada



Dr. Eva Grunfeld

Because they are often a patient’s first point-of-care, family doctors and other primary care professionals are frequently the first to recognize the signs and symptoms of a chronic disease, or patients who are at risk for developing one. While medicine has come a long way in the diagnosis and treatment of disease, prevention and screening still lag behind.

Researchers wondered, then, if given the right training and tools, could family practices better support patients to prevent developing a chronic disease or to get tested for a disease before it gets worse?

To answer this question, Dr. Eva Grunfeld designed the BETTER (Building on Existing Tools to Improve Chronic Disease Prevention and Screening in Primary Care) trial, a unique program that developed and tested an approach to integrate prevention and screening for major chronic diseases by training nurses, nurse practitioners and dieticians to be Prevention Practitioners. These Prevention Practitioners were trained to meet with patients about prevention and screening and develop a personalized “prevention prescription” that considers the person’s medical history, family history, and lifestyle factors.

The results of the trial, which took place in Ontario and Alberta, showed that Prevention Practitioners significantly increased the number of preventive actions each patient completed. It included exercising, eating healthier and other healthier actions. Patients who saw the Prevention Practitioners also felt more cared for.

“It was nice to have someone look at the big picture regarding my health and develop a plan for me to go forward,” said one patient who saw a Prevention Practitioner. “[I] wish I had someone look from a preventive nature long before this.”

The study was so successful that a new BETTER Prevention Practitioner Training Institute recently opened at Women’s College Hospital in downtown Toronto. A \$2.98 million collaboration over three years between the Canadian Partnership Against Cancer and the BETTER program, the BETTER Training Institute supports the spread of the approach across Canada. The Institute will also provide consulting services to individual family practices and doctor’s groups/primary care organizations interested in adopting the BETTER approach.

This program will ultimately spread the approach to family practices in seven provinces, serving rural, remote and Indigenous populations.

“What the BETTER program does is ensure that chronic disease prevention and screening are comprehensive and receive the proper attention, skills and resources that patients need,” says Dr. Grunfeld, the BETTER program’s original developer and the Chief Scientific Advisor for the BETTER Training Institute. “We want every Canadian to have a chance to develop a realistic, personalized prevention prescription and we want to have health practitioners assist patients in goal setting and achieving their health targets.”

Patients who have seen Prevention Practitioners are eager to see it spread.

“This needs to be a permanent part of the health care. Preventative care is essential before issues get out of hand,” says a patient. “If I had been seeing a Prevention Practitioner I would not have the chronic illness now without question. She would have picked up issues long before they became a serious problem.”

To learn more visit www.better-program.ca



6

Keeping You Fit: Sport and Exercise Medicine

AUTHOR:
DR. JULIA M.K. ALLEYNE

People are sitting more than ever. Studies have shown that inactive lifestyles are becoming more common. With the time spent in transport, sitting at desks, and looking at screens, adults are now reporting six to eight hours of sedentary behaviour per day. Among older adults, this increases to eight to ten hours per day (University of Strathclyde, 2019). Data from UTOPIAN found that 35 percent of patients were overweight and close to 30 percent were obese (see Chapter 5).

While it was once perceived that sports and exercise were for the elite, research has shown that being physically active is quickly becoming a key factor to overall health. Research continues to clearly define exercise as an evidence-based treatment for chronic diseases, mental health conditions and healthy lifestyles. Being physically active prepares one for work, for caring for family and for social interaction.

Sport and exercise medicine and family medicine

Sport and exercise medicine is an emerging discipline that integrates activity, early intervention and treatment into every patient visit. In family medicine, there is an option to enhance sport and exercise training through a one-year program after completing a residency in family medicine. If completing a speciality like emergency medicine or orthopaedics, residents may also enhance their training with sport medicine electives.

Family doctors are well positioned to practice sport and exercise medicine due to their background in caring for a wide variety of health issues and their commitment to promoting wellbeing and preventing disease.

Family doctors who practice sport medicine aim to diagnose and manage a wide range of injuries and conditions that may affect a patient's lifestyle and performance. Their scope of care encompasses a variety of conditions that affect the musculoskeletal system (e.g. bone breaks and sprains), chronic disease management (anything from activity guidance to obesity), and concussion care. They can also help patients develop strategies for weight management, arthritis and non-surgical care of common overuse syndromes.

While the discipline started with treating elite athletes, today the practice of sport medicine has broadened to caring for those who are active and promoting activity to those who are inactive. The lessons learned from treating Olympic athletes are now transferred to workers, pregnant mothers, inactive youth, patients with disabilities and our ageing population.

Volumes of research now support the concept of "exercise as medicine" in all aspects of health and disease. Sport medicine, overall, is an essential skill for family doctors as 40 percent of patient visits are related to aches and pains associated with movement and activity (Woolf et al., 2003, Artus et al., 2017, Wilitavaara et al., 2017). In fact, many family doctors are beginning to prescribe exercise to both prevent and treat medical conditions.

Programs in sport medicine

The value of sport and exercise medicine is becoming increasingly recognized in Canada and around the world. For instance, the World Health Organization recognized the need for better musculoskeletal care by establishing the Bone and Joint Decade initiative which, among many goals, calls on family doctors who practice sport medicine to lead innovation in health care systems internationally.

More locally, family doctors have been instrumental to the success of the Ontario Ministry of Health and Long-Term Care Low Back Pain Strategy (2014) and Health Quality Ontario's Osteoarthritis standards (2018). Both initiatives emphasized providing doctors with better methods of providing care for patients with pain and doing a focused physical examination. These initiatives led to improved patient care and decreased inappropriate imaging, saving the province over \$20 million in health care dollars.

Training the next generation of sport medicine specialists

The University of Toronto Department of Family and Community Medicine's one-year training program in sport and exercise medicine is one of the most well-established in the country and has graduated over 30 doctors in the last decade. In 2015, during the Pan and Parapan American Games in Toronto, many of our residents and faculty volunteered to serve the 10,000 athletes and coaches who participated in the event. Our legacy is the community centres, playing fields, swimming pools and stadiums built across the province for all Ontarians to enjoy.

Next steps: prescribing exercise

Family doctors have increasingly focused on children and youth as a target to increasing lifelong physical activity and decreasing early onset of chronic disease, including obesity. Statistics Canada, for instance, estimates 26 percent of children are obese and lack regular daily physical activity (Tjepkema and Shields, 2015). Doctors with a special interest in sport medicine prescribe a target of 60 minutes a day of activity for youth and a reduction in sedentary behaviours, especially screen time.

Public health leaders have also recognized that inactivity leads to a burden of illness in our population. Medical school curricula will need to address this gap to prepare our future doctors with skills to accurately prescribe exercise to their patients. The time has come where we will need to refine our approach and understand the complexity of human behaviour and the power of human movement. For primary care sport and exercise medicine, that means aiming for the integration of exercise and sport medicine into patient care, medical curriculum and comprehensive research.

Dr. Julia Alleyne is an Associate Professor at the University of Toronto Department of Family and Community Medicine and a family doctor with a focused practice in sport and exercise medicine at Toronto Rehab, University Health Network

Lessons on Staying Active with Dr. Julia Alleyne



Dr. Julia Alleyne

Dr. Julia Alleyne is a well-respected family doctor in Toronto with a focused practice in sport and exercise medicine. When she went into family medicine practice, many of her colleagues would come to her for her expertise in treating sport and musculoskeletal patients. Realizing that there was a disparity between training and practice that occurs in non-surgical musculoskeletal issues, Dr. Alleyne set out to start her own family practice and sport medicine practice to try to address this gap in the field and promote healthy lifestyles.

Dr. Alleyne has had a colourful career working in various positions with numerous organizations. Throughout her career, she has had the opportunity to work with the Canadian Olympic Committee on the medical teams for five different occasions: Salt Lake City 2002, Torino 2006, Beijing 2008, and Vancouver 2010, and as Chief Medical Officer for London 2012. She has served Canada as the Lead Physician for Skate Canada and Gymnastics Canada, and as the Chief Medical Officer for the 2015 Pan Am and Parapan Am Games.

Through her work with elite athletes, Dr. Alleyne has learned lessons that can be applied to everyday patients needing to stay active and prevent injuries, aches and pains. These lessons include:

- **Diversify your activities:** As much as you might love a particular type of activity, diversifying the types of exercise you do tends to reduce injuries. If you enjoy running, you can still run for a majority of your weekly exercise routine, but having a day of swimming or cycling, for example, will help to prevent injuries. Thus, children and youth should be exposed to a variety of activities so that they feel comfortable being active throughout all four seasons and participating in different types of sports.
- **If an ache or pain is manageable, don't stop being active:** It was previously believed that resting would help heal aches or pains, but stopping activity actually causes weakness and tightness which can make it more difficult to start exercising again. It is more beneficial to continue being active, but modify the activity to accommodate mild to moderate aches and pains.

“Inactive lifestyles are the new smoking,” says Dr. Alleyne. “Being inactive increases risk of chronic diseases and has the same negative impact on our health as smoking cigarettes. We need to focus the public’s attention and increase policy maker’s awareness on getting active, just like we did on reducing smoking.”

Being active—regardless of your abilities—is important to maintaining one’s overall health, and Dr. Alleyne continues to work to provide high-quality care and education and build awareness of the benefits of physical activity.

7

Care When You Need it Most: Emergency Medicine

AUTHOR:
DR. ERIC LETOVSKY

Emergency departments continue to play a vital role in Canadian health care. For Canadians in an emergency, it is the first point of care; for those patients without a family doctor, however, it may be the only care they receive.

In 2016, there were over six million emergency department visits in Ontario, a number that continues to rise. While Ontario's population has increased by six percent over the past seven years, the number of annual visits to Ontario's emergency department has increased 13 percent, more than double the increase in the province's population (Health Quality Ontario, 2016).

6 Million+

**emergency department
visits in Ontario in 2016**

29%

**more visits by people
ages 65+ between
2008-09 and 2014-15**

44%

**increase of visits made by
very sick patients over the
same time period**

(Health Quality Ontario, 2016)

The patients who visit emergency departments are changing as well. As Ontario's population ages, so is the average age of patients visiting emergency departments. Visits by people aged 65 and older rose 29 percent between 2008/2009 and 2014/2015 (Health Quality Ontario, 2016). Patients are also now collectively sicker than they used to be. In Ontario, patients visiting emergency departments are "sorted" by how sick they are through a five-level triaging system. The sickest patients are triaged as level one, and the least sick patients are triaged as level five. Between 2008/2009 and 2014/2015, visits made by very sick patients increased by 44 percent, and visits by patients who were ultimately admitted to the hospital by emergency doctors rose to 17 percent (Health Quality Ontario, 2016). So, while the vast majority of patients are usually in the middle, more patients are being triaged at levels one and two than before, while fewer are coming to the emergency department at levels four and five (Health Quality Ontario, 2016).

CANADIAN TRIAGE AND ACUITY SCALE (CTAS) LEVELS

CTAS is a tool that allows Emergency Departments (ED) to examine and prioritize patient flow, care, and processes. It helps to ensure that the highest risk patients are taken care of first when ED capacity has been exceeded.

LEVEL 1 RESUSCITATION

1

Level 1 applies when there are "conditions that are threats to life or limb (or imminent risk of deterioration) requiring aggressive interventions".

LEVEL 2 EMERGENT

2

Level 2 applies when there are "conditions that are a potential threat to life, limb or function, requiring rapid medical intervention by physician or medical directive".

LEVEL 3 URGENT

3

Level 3 applies when there are "conditions that could potentially progress to a serious problem requiring emergency intervention. May be associated with significant discomfort or affect ability to function at work or in activities of daily living".

LEVEL 4 LESS URGENT

4

Level 4 applies when there are "conditions that relate to patient age, distress, or potential for deterioration that would benefit from intervention or reassurance within one or two hours".

LEVEL 5 NON-URGENT

5

Level 5 applies when there are "conditions that may be acute but non-urgent as well as conditions which may be part of a chronic problem with or without evidence of deterioration. The investigation or interventions for some of these illnesses or injuries could be delayed or even referred to other areas of the hospital or health care system".

Information taken from the CTAS Combined Adult/Paediatric Educational Program Participant's Manual: Triage Training Resources ver. 2.5b (Nov. 2013).

Family doctors and emergency medicine

Family doctors play a pivotal role in providing emergency care in Ontario: over 50 percent of the emergency doctors working in Ontario are family doctors (The College of Family Physicians Canada, 2017). The MyPractice Reports suggests the number of visits to emergency departments at different hospitals across the Greater Toronto Area varies greatly. While the average rate of emergency department visits was 405 per 1,000 patients, the range was 363 to 528 depending on the hospital.

Emergency care in smaller rural and community hospitals is usually provided by local family doctors as part of their overall family practice; however, doctors in these communities sometimes have limited exposure to extremely ill patients and can lack the skills, expertise, or confidence to practice emergency medicine. As a response, the Division of Emergency Medicine at the University of Toronto Department of Family and Community Medicine, with funding from the Ministry of Health and Long-Term Care, created a special and unique professional development program known as the Supplemental Emergency Medicine Experience (SEME). The SEME program is an innovative three-month clinical training that incorporates online learning modules and simulation teaching sessions to complement an academic and clinical teaching program for doctors in rural communities.

Finally, family medicine plays a critical role in preventing patients from going to emergency departments in the first place, and many health teams are working diligently to provide same-day access to patients with acute medical problems. Removing the need for people to go to the emergency department, walk-in clinics and elsewhere by improving access to primary care doctors, is one of the best ways to reduce the need for more expensive emergency department visits, as well as provide people with a better experience that may prevent them from getting sicker.

Training in emergency medicine for family medicine residents

All family medicine residents in Ontario are provided emergency medicine training in family medicine programs and have the option to apply to do an additional one-year emergency medicine residency. The residency includes rotations in emergency medicine, pediatric medicine, intensive care, coronary care, orthopedics, plastics, anesthesia and trauma. In addition, residents in this program are taught to do point-of-care ultrasound to look for conditions such as fluid around the heart or an enlargement of the heart, which can cause massive internal bleeding and death if not treated immediately.

Dr. Eric Letovsky is a Professor at the University of Toronto Department of Family and Community Medicine and an emergency doctor at Trillium Health Partners – Credit Valley Hospital



Program Gives Family Doctors Skills and Confidence to Work in Rural Emergency Departments

Emergency departments represent a critical component of the health care system. In rural and remote areas of Ontario, emergency departments are staffed almost exclusively by local family doctors. However, it is becoming increasingly difficult for rural communities to recruit and retain family doctors willing to provide emergency care, as many doctors are reluctant to practice emergency medicine without additional training.

Created in 2011 in collaboration with the University of Toronto Department of Family and Community Medicine and the Ontario Ministry of Health and Long-Term Care, the Supplemental Emergency Medicine Experience (SEME) program provides practical training in emergency medicine for family doctors practicing in smaller and rural communities. The program is the first of its kind in Canada and has provided training for 119 family doctors to date.

“Rural and remote family doctors care for many of the most vulnerable and geographically isolated communities in our country,” says Dr. Sharon Reece, who completed the SEME program in 2017. “SEME provides invaluable training to help us in our challenging practice environments.”

During the twelve-week program, SEME learners complete clinical rotations in emergency medicine, trauma, critical care, and anesthesia. They participate in weekly education sessions incorporating high-fidelity simulation using computerized mannequins that permit the reproduction of real-life critical scenarios. In the course evaluation, 100 percent of SEME learners agreed that the program improved their emergency medicine knowledge base and clinical skills.



8

Prescribing Your Medications: More Than a Pill

AUTHOR:
DR. NAV PERSAUD

Family doctors care for a wide range of people with varying health issues and prescribe a wide range of medicines, from antibiotics for pneumonia, to diabetes treatments like insulin, to treatments for HIV/AIDS. Before prescribing a medication, family doctors must ask themselves questions: What are the patient's unique circumstances? How certain are they that the patient actually has the condition? Do the benefits of the medication outweigh the potential harm? Since the stakes are high – a patient's life or death can hang in the balance – careful deliberation should always happen before a patient swallows a pill.

Many important prescribing decisions made

Data from UTOPIAN show that there were, on average, 3.3 prescriptions written per enrolled patient in 2017 for a total of 1.2 million prescriptions written overall. As expected, older adults received more prescriptions and different medications than younger adults and patients under the age of 18 received the fewest (Table 1).

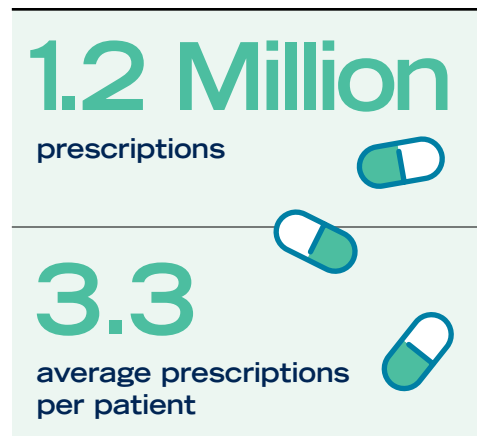


TABLE 1: PRESCRIPTIONS FOR PATIENTS OVERALL AND IN 2017 BY AGE AND SEX*

	PERCENTAGE OF PATIENTS WITH A PRESCRIPTION(S)	NUMBER OF PRESCRIPTIONS	NUMBER OF PRESCRIPTIONS PER PATIENT	NUMBER OF DISTINCT MEDICATIONS	NUMBER OF DISTINCT MEDICATIONS PER PATIENT
OVERALL					
	53	1,272,852	3.3	761,245	2.0
MALES					
0–18 years	31	26,591	0.8	19,787	0.6
19–64 years	45	269,710	2.4	156,587	1.4
65+ years	75	222,032	7.2	128,835	4.2
FEMALES					
0–18 years	34	29,128	0.9	21,829	0.7
19–64 years	59	421,697	3.2	259,235	1.9
65+ years	76	303,694	7.4	174,972	4.3
ALL PATIENTS					
0–18 years	33	55,719	0.8	41,616	0.6
19–64 years	53	691,407	2.8	415,822	1.7
65+ years	76	525,726	7.3	303,807	4.2

*Based on 383,050 patients

The medicines most commonly prescribed to children are amoxicillin and salbutamol (Table 2). Amoxicillin is an antibiotic and salbutamol is a treatment for asthma that can reduce hospitalizations and deaths (Lougheed, 2012). For adults, rosuvastatin and pantoprazole are prescribed most often (Table 3). Rosuvastatin can extend lives by reducing the risk of recurrent heart attacks and strokes (Chou, 2016, Abramson, 2013). Pantoprazole can treat heartburn and ulcers.

TABLE 2: TOP TEN MEDICATIONS PRESCRIBED FOR CHILDREN IN 2017 AGE 0–18 YEARS*

	MEDICATION NAME	PURPOSE
1	Amoxicillin	Antibiotic to treat bacterial infections
2	Salbutamol	Asthma and other asthma-like conditions
3	Fluticasone	Sneezing, runny nose, nasal congestion caused by allergies
4	Azithromycin	Antibiotic to treat bacterial infections
5	Betamethasone	Moderate strength topical steroid for skin inflammation and itching
6	Hydrocortisone	Mild strength topical steroid for skin inflammation and itching
7	Epinephrine	EpiPen allergic reactions
8	Levonorgestrel And Estrogen	Birth control pill
9	Fusidic Acid	Topical antibiotic to treat bacterial infections
10	Clindamycin	Antibiotic to treat bacterial infections

**Based on 66,784 patients age 0–18 years*

TABLE 3: TOP TEN MEDICATIONS PRESCRIBED FOR ADULTS IN 2017 AGE 19 YEARS AND OLDER*

	MEDICATION NAME	PURPOSE
1	Rosuvastatin	Lowers cholesterol
2	Pantoprazole	Stomach and esophagus problems such as heartburn
3	Atorvastatin	Lowers cholesterol
4	Levothyroxine Sodium	Underactive thyroid (hypothyroidism)
5	Salbutamol	Asthma
6	Amlodipine	Lowers blood pressure (hypertension)
7	Metformin	Lowers blood sugar (diabetes)
8	Lorazepam	Sedation
9	Ramipril	Lowers blood pressure (hypertension)
10	Naproxen	Anti-inflammatory, pain relief

**Based on 316,266 patients age 19 years and older*

Data can improve care

Data on the medications that are prescribed to patients can be used to help identify opportunities for improving care and flag when potentially inappropriate prescriptions have been made by doctors (Barry, 2016, Dreischulte, 2016, O'Mahony, 2015). These prescriptions may turn out to be appropriate or flagging them can turn into an opportunity to improve care, such as starting a needed medicine that is not being prescribed, changing a prescription or stopping a medicine. For instance, some medicines that are highly effective in certain circumstances are commonly prescribed to patients who have a relatively small chance of benefiting from the medication. These patients may particularly benefit from periodic assessments to determine if they still need to take the medicine.

Looking elsewhere, looking forward

These findings can help Toronto family doctors compare their prescribing habits to doctors in other areas of Ontario and other provinces and countries. Differences in prescribing between our family medicine practices and others that are not explained by differences in the needs of our patients might represent opportunities for improvement. Our data, then, allows us to contribute to a global community that is helping doctors prescribe better: we could help promote easy and appropriate access to prescribing data everywhere.

Future work will further our understanding of how medicines are being prescribed (or not prescribed) and this will help us develop approaches to improving prescribing practices by doctors. Patients will undoubtedly be our most important partner in this work. The ultimate goal is to minimize the harms of medicines and maximize their benefits.

Dr. Nav Persaud is an Assistant Professor at the University of Toronto Department of Family and Community Medicine and a family doctor at St. Michael's Hospital

Increasing Access To Essential Medication In Toronto

When money gets tight, people start to cut things out of their lives that they can no longer afford. For a large number of Canadians, this means skipping important or potentially life-saving medications and treatments as a money-saving strategy. The high cost of drugs is a burden to many Canadians' wallets including David, the owner of an automotive company who came upon hard times after the recession of 2008.

"Things were going extremely well, and then the recession hit like a ton of bricks and wiped me out," said David. "I went from comfortably well-off to desperately living in my car."

In late 2011, David was diagnosed with lymphoma, which required regular and expensive medications to manage. The stress of his illness and of being in a financially difficult situation eventually reached a tipping point: shortly after completing chemotherapy, David experienced complications with his medication and suffered a heart attack.

"I think what really caused the heart attack besides the medication was also the stress – I mean, I was broke, we were expecting a baby, money was tight, and I think everything combined led to the blockage," said David.

Because David was skipping out on his medications due to cost, he was enrolled in the CLEAN Meds study. CLEAN Meds was launched in 2016 by Dr. Nav Persaud to assess how improving access to medications for people with low incomes might improve the health of Canadians.

"CLEAN Meds is a randomized control trial, where we are testing the effects of providing people with carefully selected sets of medications completely for free. They are also being provided with convenient access to medications: the medications are mailed to people at an address of their choosing, like their home," says Dr. Persaud. "We are hoping to learn the effects of providing people with the medications they need for free. Do people take the medications? Are the medications more likely to be prescribed appropriately? And do people have better control of their conditions and diseases?"

For patients like David, the study provides more than just access to life-saving medications – it alleviates the stress associated with the financial burden of health.

"Stress is a huge killer. It can exacerbate any illness, and to not have that stress every month has made me feel much, much better," says David. "A program such as this allows you to have peace of mind. And really, if you have peace of mind, you can build on that."



9

Getting Older: Treating Chronic Diseases

AUTHOR:
DR. ROSS UPSHUR

Chronic diseases are the most common health challenges faced by Canadians in the 21st Century. Chronic diseases like high blood pressure, arthritis, and diabetes, are not curable and cause symptoms or impairments if left untreated. For example, diabetes can lead to blindness and amputations. High blood pressure, in a worst case scenario, can lead to a stroke if not treated.

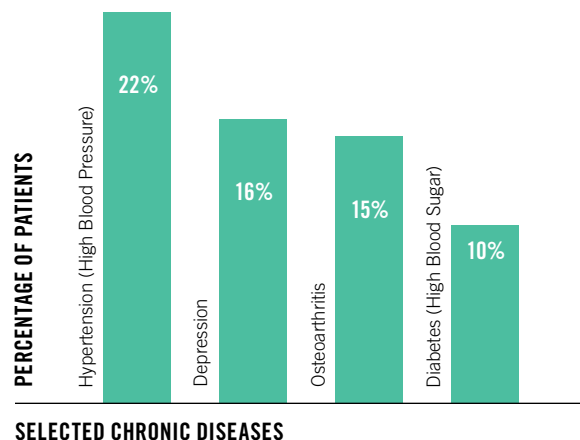
With so many patients having one or more chronic diseases, one of the core responsibilities of a family doctor is to prevent, diagnose and manage chronic diseases (College of Family Physicians of Canada, 2016). Though not a complete account, this chapter provides a high-level overview on the rates of some of the most common chronic diseases and provides a discussion of how they are being treated in family practices.

Family medicine and chronic diseases in Canada

Family doctors can manage the majority of chronic diseases that require ongoing care; in fact, research indicates that patients who have regular, ongoing care by a family doctor or primary care team are in better health (Starfield et al, 2005).

Family doctors can refer their patients to specialists to manage complex chronic diseases. Once the patient consults with the specialist, they return to their family doctor for ongoing care. UTOPIAN shows that high blood pressure was the most common chronic disease faced by patients, followed by depression, osteoarthritis and diabetes (Figure 1).

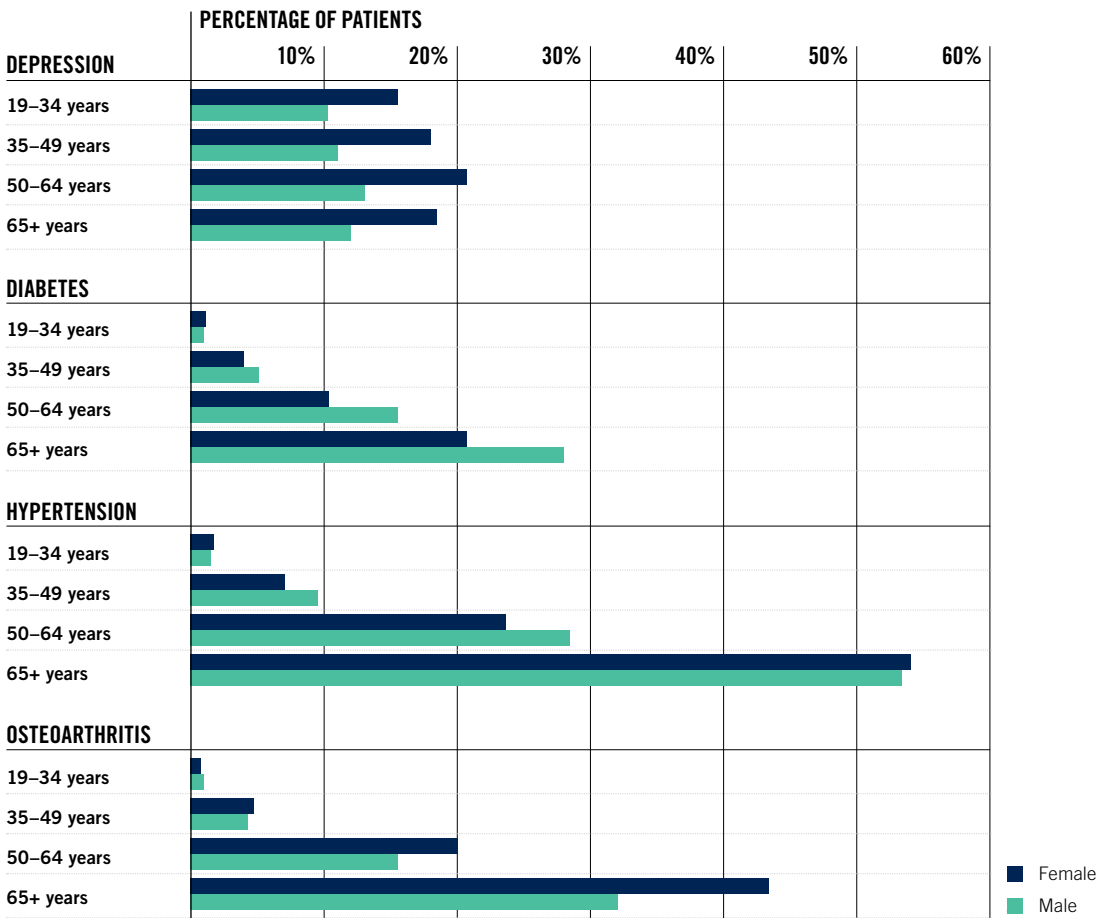
FIGURE 1: PERCENTAGE OF SELECTED CHRONIC DISEASES IN ADULTS*



*Based on 316,266 adult patients age 19 years and older

Chronic conditions were most common in older age groups; however, depression, diabetes and high blood pressure affects younger patients at significant rates (Figure 2).

FIGURE 2: PERCENTAGE OF SELECTED CHRONIC DISEASES BY AGE AND SEX*



*Based on 141,478 male and 174,788 female adult patients age 19 years and older

There are sex differences in the frequency of chronic conditions. Throughout their life, women have higher rates of depression, and osteoarthritis, while a higher percentage of men suffer from diabetes.

From the MyPractice Reports, the rate of hospital admittance for patients with asthma, chronic obstructive pulmonary disease (COPD), congestive heart failure, and diabetes overall was 4.5 per 1,000 patients. Readmission rates (for all diagnoses) averaged six percent at 30 days after discharge and 16 percent at one year among patients admitted to hospital. This data is consistent with reports from the Canadian Institute of Health Information (CIHI, 2014).

What does this mean?

Chronic disease is very common, requires ongoing care and is best provided by primary health care professionals. As the population ages, the burden of chronic disease is expected to increase, requiring significant investment in training future family doctors, but also patients and their families. Policy makers should pay particular attention to ensuring that family practices are adequately resourced to provide care for the expected rises in chronic diseases in the Canadian population.

Future research

Although this chapter provides a snapshot, it does not illustrate the burden of care associated with chronic diseases. The data also does not illustrate the magnitude of and impact on patients suffering from multiple chronic diseases. In the future, we aim to present an in-depth overview of the broad range of chronic disease that are treated by family doctors and be able to examine the relationship between chronic disease and patients' quality of life.

Dr. Ross Upshur is a Professor at the University of Toronto Department of Family and Community Medicine Dr. Ross Upshur is a Professor at the Department of Family and Community Medicine and the Head of the Division of Clinical Public Health at the Dalla Lana School of Public Health at the University of Toronto

When the Doctor Becomes the Patient

As a family doctor, Dr. Ross Upshur had prescribed medications and recommended lifestyle changes to his patients suffering from common chronic conditions for over 25 years. It wasn't until he found himself facing some of those very same conditions that he realized that following his own advice was harder than he thought.

"Suddenly I had to walk the walk," says Upshur, who was a family doctor at the Sunnybrook Health Sciences Centre from 1998 to 2013 and is now a Professor at the University of Toronto Department of Family and Community Medicine and the Head of the Division of Clinical Public Health at the Dalla Lana School of Public Health.

"You realize how hard it is to follow your own orders and make the changes you need to make to become healthier."

Now in his 60's, Upshur found himself dealing with high blood pressure and osteoarthritis, two of the most common chronic conditions in Canadians. Despite a history of ailments in his family (his mother dealt with high blood pressure), as well as treating patients and researching chronic diseases, like so many people, he found it difficult to change his habits.

"In my 30s and 40s I was a busy doctor, researcher, father, husband and had so many obligations that I wasn't taking care of myself as well as I should have," says Upshur. "I have had to transform my whole lifestyle to treat diseases that I knew I was at risk for."

He has started taking medications, eating healthier and exercising, losing over 25 pounds. His advice to patients? Take preventative action earlier in life.

"People are now starting to develop chronic disease earlier in life, in their 30s and 40s, which means we are dealing with it longer. So we need to start thinking about prevention earlier. I always tell people, no matter how busy you are and even if it's a short period of time, you need to take time to take care of yourself."



Upshur also emphasizes how important it is for patients with a chronic disease or diseases to have a family doctor they trust who will follow them long-term, as chronic diseases aren't curable and require both medical and lifestyle-related actions to address.

"Chronic diseases are becoming the bread and butter of family medicine, and that's okay," says Upshur. "Your family doctor is the best person to manage these conditions as they know you, your medical history and your lifestyle best."

For Upshur, these new life changes have made him a bit more reflective when researching or working with patients with chronic conditions.

"I think when you face the same conditions that many of your patients face, it can make you a more humble and forgiving doctor," says Upshur. "Even as a doctor, I don't adhere perfectly 100 percent of the time to my care plan, so I empathize with people dealing with these diseases and can talk to them more realistically about how best to treat these conditions. "



10

Treating the Body and Brain: Mental Illness and Addiction

AUTHORS:

DR. PETER SELBY, DANIELLE DAWSON AND DR. OSNAT MELAMED

Mental illness and addiction issues are common in all societies and are the source of significant individual, social, and economic burden. In any given year, one in five Canadians experiences a mental illness or addiction problem. Mental illness – through health care costs, low productivity and other expenses – costs the Canadian economy an estimated \$51 billion per year (Smetanin et al., 2011).

In Ontario alone, 1.3 million people have reported suffering from at least one mental and physical illness (Medical Psychiatry Alliance, 2018). However, this number is likely higher, given that patients with mental illness and addiction issues are less likely to seek help due to stigma (Clement et al., 2015, Durbin et al., 2016).

When these issues are undiagnosed, health care costs increase because of excess use of health services both at primary care, usually family doctor's offices, and acute health care settings, such as emergency rooms. For example, a patient that suffers from both diabetes and depression is four to five times more likely to visit a family doctor with physical complaints, including fatigue and feeling faint (Melek et al., 2014).

Mental illness and addiction can also impact a patient's physical health: compared with the general population, those with mental illness and addiction issues are also more likely to develop a chronic physical condition, such as heart disease and cancer. Conversely, those with chronic physical conditions are more likely to develop a mental illness (Durbin et al., 2016).

**1.3
Million**
**HAVE REPORTED SUFFERING
FROM AT LEAST ONE
MENTAL AND PHYSICAL
ILLNESS IN ONTARIO**

Medical Psychiatry Alliance, 2018

Why is this important to family medicine?

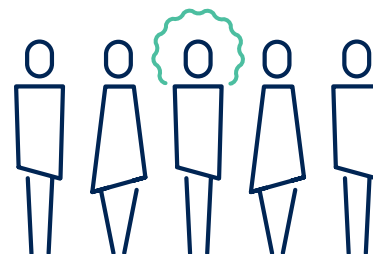
Canadians prefer to see their family doctor first for mental health concerns (Kates et al., 2011). Family doctors know their patients' medical histories, family histories, behaviours and medications use, and ensure that they have ongoing care and management of chronic diseases—a crucial component of caring for patients with mental illness and addiction. Patient preferences, coupled with the ongoing relationship and expertise, puts family doctors at an advantage to support the early detection, management, treatment, and referrals of patients and families affected by mental illness and addiction.

There are several hurdles to patients accessing mental health and addiction care within the current primary health care system in Ontario. For instance, some family doctors lack knowledge in treating these issues. While treating common and less serious mental illnesses is now a common family medicine practice, the entire spectrum across the lifespan was not stressed as part of family medicine until fairly recently. As well, at the health systems level, mental health and addictions experts (psychiatrists, counsellors, social workers, etc.) may not always be available. This prevents mental health experts and family doctors from establishing good working relationships and makes it difficult for family doctors to access appropriate referrals (Kates et al., 2011). Unfortunately, too many patients do not receive timely and adequate care (Kates et al., 2011).

Leading mental health experts in Ontario have been working on introducing more collaborative models of care to better integrate mental health and addictions professionals into the primary care system (Kates et al., 2011). For instance, the University of Toronto Department of Family and Community Medicine's "Working with Families" program is a long-term initiative that aims to increase the counselling skills of residents and practicing doctors. The Ontario College of Family Physician's collaborative mental health care program is another good example of an innovative model for collaborative care where a group of family doctors are paired with a psychiatrist mentor to discuss cases. Lastly, online consultations are another way that family doctors can get advice on patient management from a psychiatrist.

In addition, with support from the Medical Psychiatry Alliance, The Centre for Addiction and Mental Health has partnered with Family Health Teams in Ontario to expand tele-psychiatry and tele-education services. Tele-psychiatry is a "real-time consultation by a psychiatrist to a patient via secure video conferencing, allowing treatment to occur when the psychiatrist and patient live in different parts of the province" (The Institute for Clinical Evaluative Sciences, 2017). Since the advent of this initiative, the number of psychiatric consultations has increased by 13 percent in 2017 in participating Family Health Teams (Medical Psychiatry Alliance, 2018).

These types of initiatives show early successes at providing collaborative approaches to primary health care delivery, and should continue to be further explored and expanded.



**1 IN 5 CANADIANS EXPERIENCE
A MENTAL ILLNESS OR
ADDICTION PROBLEM**

Smetanin et al., 2011

**\$51
Billion**

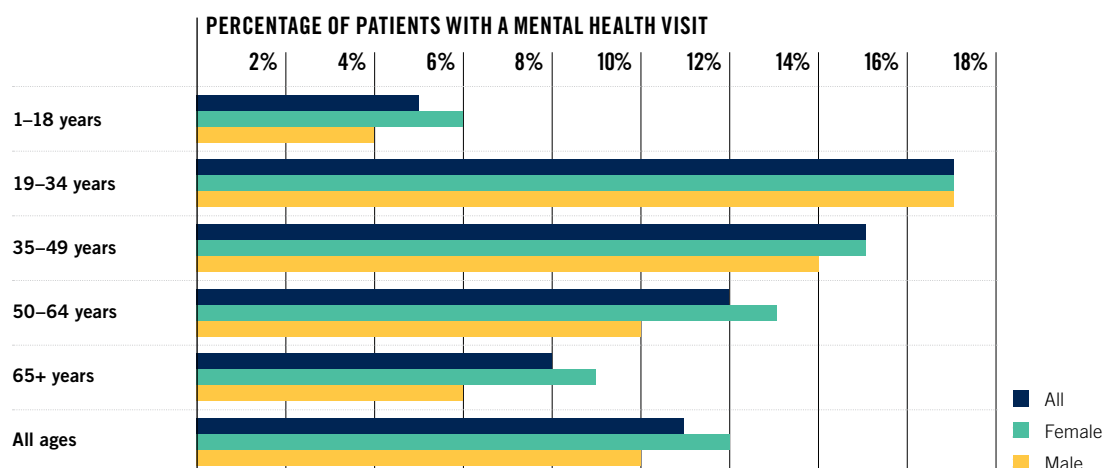
**ESTIMATED COST TO
CANADIAN ECONOMY
THROUGH COST OF HEALTH
CARE, LOW PRODUCTIVITY,
AND OTHER EXPENSES**

Smetanin et al., 2011

What the data shows

Using UTOPIAN data and previously developed methods to define mental health visits (Steele et. al., 2004), we found that 11 percent of patients in 2017 had a visit related to mental health. The data illustrates that overall, women had more mental health related visits than men, and that mental health related visits were the most common in the 19–34 age category for both men and women.

FIGURE 1: PERCENTAGE OF PATIENTS IN UTOPIAN WITH A MENTAL HEALTH VISIT IN 2017 OVERALL AND BY AGE AND SEX*



*Based on 114,156 male and 156,268 female patients' data, age 1 year and older, who received care in 2017.

Implications

Treating mental health and addictions in family medicine offices more often means patients will have better access to a broader range of relevant services. With increased data collection and analysis through UTOPIAN, doctors will have the opportunities to learn from each other, increase their own competencies, contribute to a stronger knowledge base, and experience an increase in their work satisfaction.

Dr. Peter Selby is a Professor at the University of Toronto Department of Family and Community Medicine and the Chief, Medicine in Psychiatry Division at the Centre for Addiction and Mental Health

Danielle Dawson is a Research Coordinator for the Nicotine Dependence Service at the Centre for Addiction and Mental Health

Dr. Osnat Melamed is a Clinical Fellow in Medical Psychiatry at the University of Toronto Department of Psychiatry and a family and addiction medicine doctor at the Centre for Addiction and Mental Health



Family Doctors at the Frontline of the Opioid Crisis

With the number of deaths relating to the misuse of opioids steadily increasing each year across Canada, the medical community has been grappling with how best to handle this new epidemic. It is not straightforward: the factors leading to the epidemic, including the over-prescribing of opioids and an increasingly toxic illicit drug supply, and the ways to overcome it, are complex. Thankfully, there are many health care professionals specializing in addictions medicine that are trying their best to give doctors, including family doctors, the skills they need to reduce their opioid prescribing and develop new ways of treating patients struggling with substance use disorders.

“It wasn’t that long ago that many family doctors felt that substance abuse should not be part of their practice – that treating people with addictions is not the role of the family doctor,” says Dr. Nikki Bozinoff, a family and addiction medicine doctor practicing in Toronto and program director of Enhanced Skills in the Addiction Medicine Program at the University of Toronto Department of Family and Community Medicine. That has changed over the past decade or so, she says, as addiction medicine has become part of the education offerings at medical schools, and as the science behind addiction medicine has become stronger.

“It’s the opioid crisis that’s pushed many family doctors to seek out further training in substance use disorders,” says Bozinoff. “Because the patients are now showing up in their practice. They are increasingly confronted with how to manage it.”

“In fact,” says Bozinoff, “family doctors are in many ways best positioned to offer first-line treatment of patients with substance use disorders, including those with opioid addictions.”

“Family doctors are the face of health care; they are the ones that are quite well placed to diagnose opioid use disorder and other substance use disorders in communities. They often get to know their patients because of their long-term relationship, so patients may trust their family doctors more than others.”

Through in-person and online training, Bozinoff and many of her colleagues are working to give family doctors and family doctors-in-training the tools and skills they need to feel confident in treating those with substance use disorders and managing first-line treatment, including prescribing medications like buprenorphine and methadone, both of which are long-acting opioid drugs used to stabilize and treat opioid addiction.



11

Care at the End-Of-Life: Palliative Care in Family Medicine

AUTHOR:
DR. JEFF MYERS

Many patients hope not to be a burden to loved ones as they approach the end of their lives. They hope to die with dignity and feel well cared for. Many also wish to spend their last few hours surrounded by loved ones.

Yet two-thirds of Canadians die in a hospital under conditions that are far from what was hoped for or imagined (Canadian Institute for Health Information, 2018). While many nearing death or in agonizing pain are able to access palliative care, there are still many Canadians who do not have access to this service.

Palliative care is about more than end-of-life care. The confusion between both terms is apparent in and out of the medical community. End-of-life care is one component of palliative care. Palliative care provides support for patients with illnesses that may negatively impact their quality of life, irrespective of their prognosis. Palliative care can be provided at any point along a patient's serious illness journey.

As a whole, palliative care is a discipline dedicated to understanding and addressing the physical, emotional and practical elements of a person's life-limiting illness. Serious illnesses are life-limiting and include heart failure, chronic obstructive pulmonary disorder (COPD), chronic kidney disease, cirrhosis, metastatic cancer, neurodegenerative diseases, dementia and frailty. Research clearly outlines the value of palliative care when provided from the time a terminal illness is diagnosed, throughout its journey and alongside disease-focused therapies.

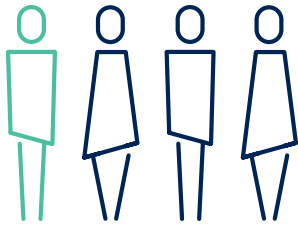
Patients who receive palliative care have better health outcomes: patients experience fewer physical and emotional

symptoms, a better quality of life and a greater understanding of their illness. For some, they live longer than those who are not provided palliative care. The caregiver burden and burnout is also reduced, and there are fewer ER visits and hospital admissions, which leads to a decrease in the cost of care (Canadian Hospice Palliative Care Association, 2015).

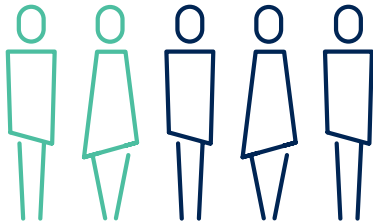
Challenges with palliative care in Ontario

People living with progressive and serious illnesses who have unmet care needs are a vulnerable population. In fact, life-limiting or serious illnesses are the underlying cause of death for approximately 100,000 Ontarians each year (Canadian Institute for Health Information, 2018, Health Quality Ontario, 2018). In Ontario, less than 25 percent of people have a home visit from a palliative care doctor in the month prior to their death and over 40 percent die without having received palliative care at all (Health Quality Ontario, 2018).

It is increasingly understood that the current number of palliative care doctors alone cannot address the unmet needs of this population.



LESS THAN 25% OF PEOPLE HAVE A HOME VISIT FROM A PALLIATIVE CARE DOCTOR IN THE MONTH PRIOR TO THEIR DEATH



OVER 40% DIE WITHOUT HAVING RECEIVED PALLIATIVE CARE AT ALL

Health Quality Ontario, 2016

In 2015, an Ontario-wide survey examined the extent to which palliative and end-of-life care was provided by family doctors (Walton, 2015). It was found in family medicine practices that:

- 78 percent have doctors who provide home visits for end-of-life care
- 15 percent have doctors who provide end-of-life care for patients in residential hospices or palliative care units
- 19 percent maintain a palliative care registry
- 14 percent do not have access to palliative care experts
- 8 percent do not have a doctor who provides any form of palliative care

Health care leaders now face an imperative to integrate palliative care delivery into various settings. Meeting the needs of seriously ill populations could be achieved if all doctors attain and maintain *primary level palliative care* competence. For family doctors, this means they should receive basic training in palliative care as part of their family medicine.

Training family doctors in palliative care

Primary level palliative care is the basic or core palliative care delivered by all health care professionals. This would include assessing and managing symptoms, speaking with patients and their loved ones, and discussing potential plans as a disease progresses.

Luckily, multiple studies confirm that family doctors consider palliative care to be an inherent and important part of the family doctor role. As well, most family doctors in Ontario view themselves as potentially providing palliative care with adequate knowledge, skills and confidence along with timely access to specialized palliative care mentors (Walton, 2015).

Preparing family doctors for the future of care

The University of Toronto Department of Family and Community Medicine prepares future family doctors for comprehensive primary care, which includes providing palliative care for patients and their families. We are positioned to be an important and socially responsible partner in addressing palliative care by ensuring future generations of family doctors are skilled and confident to provide primary level palliative care.

Currently, the department is focusing on activities that will advance palliative care education, such as integrating end-of-life care within training programs for students and residents. Educators also hope to increase the competency and comfort of doctors to address the range of end-of-life care options and contexts.

With the aid of UTOPIAN, we hope to increase research in palliative care. Future research should include palliative care access among marginalized and vulnerable populations, understanding and improving on person-centred decision-making, and improving transitions in care settings.

As the population continues to age, palliative care will become one of the most important public health and social accountability issues within our health care system, and the University of Toronto Department of Family and Community Medicine is well equipped to educate a new generation of doctors to provide palliative care.

Dr. Jeff Myers is an Associate Professor at the University of Toronto Department of Family and Community Medicine and a palliative care doctor at Sinai Health System – Bridgepoint Health



Dr. Naheed Dosani

Family Doctor Creates Change in Palliative Care Delivery to Toronto's Homeless

The average life expectancy for homeless populations is significantly lower than the average Canadian's, at 34 to 47 years. Compared to the general population, homeless people are also four times more likely to have cancer, five times more likely to have heart disease and 28 times more likely to have hepatitis C.

These discrepancies highlight the disconnect between the homeless and the health care system. Many homeless people experience barriers to accessing care, resulting in their health being significantly compromised.

Dr. Naheed Dosani, a faculty member in the University of Toronto Department of Family and Community Medicine and palliative care doctor with Inner City Health Associates, is helping to improve the homeless population's access to health care by leading the Palliative Education and Care for the Homeless program. He founded the PEACH program to meet the needs of homeless and vulnerably-housed patients with life-limiting illnesses. It operates as a mobile unit, going directly to communities and shelters to meet with patients and their existing care team to provide specialized care.

"Palliative care is about addressing total suffering, and sometimes that suffering includes financial loss and social isolation. These can be mitigated by good primary care,"

says Dr. Dosani. "Research has shown that when palliative care begins early, it has the potential to improve quality of life and, in some cases, even prolong life. That seems counterintuitive, but reveals the importance of palliative care's timely integration into medical treatment."

Overall, the Inner City Health Associates currently offers palliative care in over 50 shelters, drop-ins and community sites in Toronto, and continues to expand their network by recruiting patients who may benefit from their program.

Recognizing the need for residential hospice care, Inner City Health Associates launched Journey Home Hospice in partnership with Hospice Toronto and the Saint Elizabeth Foundation. The Hospice provides homeless patients with access to high-quality palliative care in a safe environment for their end-of-life journey. Journey Home Hospice opened four beds in May, 2018 in a temporary downtown Toronto facility. Planning and fundraising are underway for a permanent ten-bed hospice to serve approximately 100 individuals annually when fully operational within the next two years.

"There's a growing recognition of the limits of how we deliver health care to marginalized populations. The programs are examples of how collaboration between different sectors can work well to address complex problems," says Dr. Dosani.

12

Health for All: Addressing Social Determinants of Health

AUTHOR:
DR. ANDREW PINTO

While the health of Canadians has improved over the past century – life expectancy at birth in Canada was 57 years in 1921 and rose to 82 by 2011 – not everyone has benefited equally (Decady and Greenberg, 2014). Some people are much more likely to become sick, remain unwell, and experience more severe illnesses than others due to social factors.

These “social determinants of health” are the daily conditions in which we are born, live, work and play, which strongly influence who stays healthy and who becomes sick (Commission on the Social Determinants of Health, 2008). These include resources required for health, including having enough food, safe and affordable housing, and sufficient income. But the social determinants of health also include how we are seen and treated by others, based on our sex, race, and level of education, and whether we have people to support us. Research has found these social factors account for at least 50 percent of what makes people sick (Canadian Medical Association, 2012 and 2013) and can even predict who will end up in hospital (Fitzpatrick et al., 2015).

The role of social determinants of health in family medicine

Family medicine is holistic and considers the whole person, including the social factors patients’ face. Family doctors are well positioned to address the multitude of factors that impact their patients’ health (Pinto and Bloch, 2017). When talking to their patients, family doctors often hear and observe how social factors significantly impact the health of patients and their families. Family doctors also have long-term, trusting relationships with patients that can position them to work with patients on their social needs, which often require time and effort to improve (Andermann, 2016). Family doctors and other primary care workers also often work with social services and usually have some understanding of resources available in communities, such as employment agencies, housing supports and schools.

Many health organizations have called for action on social determinants of health (British Medical Association, 2011, Canadian Medical Association, 2012 and 2013, Daniel et al., 2018). In Canada, the College of Family Physicians of Canada has played a particularly important role in letting its members and the public know that part of the duties of primary care includes thinking about and addressing social determinants of health (The College of Family Physicians of Canada, 2015).

Collecting better data on social determinants of health

Most electronic medical records lack data on specific patients' social determinants of health as most doctors—with some exceptions (Pinto et al., 2016)—do not routinely collect data outside of what is listed on patients' OHIP card. From postal codes, we know what sort of neighbourhood a patient lives in, which provides doctors and researchers with some information on a patient's social circumstance (Glazier, Agha et al., 2009, Glazier et al., 2009). For example, the available data suggests that about 17 percent of patients in UTOPIAN are living in the lowest average income neighbourhoods (Table 1).

TABLE 1: PERCENTAGE OF PATIENTS LIVING IN NEIGHBOURHOODS WITH THE LOWEST TO HIGHEST INCOME LEVELS

NEIGHBOURHOOD INCOME LEVEL	PERCENTAGE OF PATIENTS
1–20% (lowest income)	17
21–40%	16
41–60%	17
61–80%	21
81–100% (highest income)	29
Missing*	13

*Based on 335,000 patients with valid postal codes that were successfully mapped to income quintiles (provided by Statistics Canada).

The data also shows us that about 14 percent of patients in UTOPIAN are living in the most deprived neighbourhoods (Table 2). Material deprivation is defined as “the inability for individuals and communities to access and attain basic material needs” (Matheson, 2018).

TABLE 2: PERCENTAGE OF PEOPLE LIVING IN NEIGHBORHOODS DEFINED BY PARTICULAR MATERIAL DEPRIVATION

	PERCENTAGE OF PATIENTS
Q5 (most deprived quintile)	14
Q4	16
Q3	20
Q2	25
Q1 (least deprived quintile)	25
Missing*	12

*Based on 334,513 patients with postal codes that were successfully mapped to material deprivation quintiles (provided by the Canadian Institute for Health Information).

A one million dollar grant was awarded by the Canadian Institutes of Health Research (CIHR) to support collecting more data on patients' social determinants of health. The SPARK (Screening for Poverty And Related social determinants and intervening to improve Knowledge of and links to resources) study will engage several hospitals in Toronto to develop a standard way of collecting and inputting data on patients' social determinants of health into electronic medical records. This information will be used to meet the needs of patients and tailor care to their social circumstances (Lofters et.al, 2017).

Future plans

In the future, UTOPIAN could collect information on patients' social determinants of health and lead the world in illustrating the link between social determinants of health and health outcomes in real time. This could potentially be linked to community-level information that creates a fulsome picture of patients in Toronto, how social factors influence access to care and health outcomes, and whether interventions to tackle social determinants of health make a difference. Sharing findings from this work would impact how health and social care intersect in Canada and beyond, contributing to the ongoing evolution of family medicine and primary care globally.

Dr. Andrew Pinto is an Assistant Professor at the University of Toronto Department of Family and Community Medicine and a family doctor at St. Michael's Hospital

Addressing Health Inequality Through Family Medicine

The University of Toronto Department of Family and Community Medicine is home to a number of examples of innovative work to address social determinants of health:

- At the St. Michael's Hospital Academic Family Health Team, a specific Social Determinants of Health Committee helps to provide support to several interrelated initiatives (Pinto and Bloch, 2017). These initiatives include an Income Security Health Promotion service where two staff members assist patients with increasing their income, reducing their expenses and building financial literacy (Jones et al., 2017). A recent evaluation of the service found that it was very helpful to patients, as more than half of surveyed patients reported an increase in their income after they were discharged (Pinto et al., 2018). St. Michael's is also home to a medical-legal partnership, where patients can be referred to an on-site lawyer for support, who often assists with concerns such as preventing evictions, appealing financial benefit rulings and helping patients address issues around employment or immigration (Drozdal, in press).
- The Health Team at North York General Hospital has tested an innovative approach using postal codes and in-person screening by doctors for poverty. The patients identified are referred to a social worker who assists with financial strain (Nasser, 2016).
- The Upstream Lab, housed at St. Michael's Hospital, is a research team led by family doctors that has evaluated many of these initiatives and piloted others, for example, initiatives to address precarious employment or housing conditions (Pinto et al., 2018). Increasingly, projects have engaged sites across UTOPIAN (Aery et al., 2017).

13

Indigenous Health

AUTHORS:

HELENA MEDEIROS, DR. KATHERINE ROULEAU, SARA WOLFE, CHERYLLEE BOURGEOIS, DR. JANET SMYLIE

Although Canada ranks as one of the healthiest countries in the world (O'Brien, Laliberte et al., 2018), First Nations, Inuit and Metis peoples experience persistent and striking inequities in health status and determinants (Richmond, 2016). The roots of these disparities can be found in historic and ongoing colonial policies, including but not limited to dislocation from traditional territories, outlawing of cultural practices, and family disruption through the residential school and child welfare systems (The Truth and Reconciliation Commission of Canada, 2015). While research has been undertaken to better understand the health of Indigenous people, there is still a lack of comprehensive and inclusive health information for Indigenous populations in Canada (Firestone, Maddox et al., 2018).

The Well Living House is a unique research entity housed at the Centre for Urban Health Solutions (CUHS), part of Unity Health Toronto. Built on Indigenous community relationships and a commitment to respect and apply Indigenous knowledge and practice, Well Living House brings together Indigenous health researchers, health practitioners and community grandparents. Together they conduct cutting edge, Indigenous-led, community-partnered, applied health research with the goal of nurturing places and spaces where Indigenous children, youth, adults, and elders can find peace, love, and joy.

To address health information gaps among Indigenous peoples living in cities, the Well Living House has been working in partnership with Indigenous service providers across Ontario since 2008 on a series of urban Indigenous health assessment and database development research projects, collectively known as Our Health Counts (OHC).

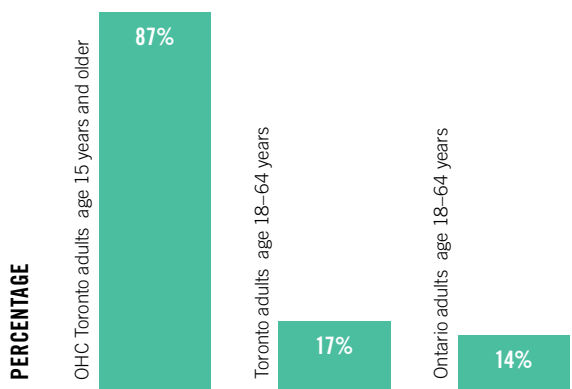
This chapter draws on information from the Our Health Counts (OHC) Toronto arm of the project that collected data from 918 Indigenous adults and 254 Indigenous children between 2014 and 2018. The lead community partner in the Our Health Counts (OHC) Toronto study was Seventh Generation Midwives Toronto, an Indigenous-focused midwifery practice. Seventh Generation Midwives Toronto co-led the study design and implementation and acts as the custodian of study data.

Key facts - indigenous population health in toronto:

- There are between 45,000 to 60,000 Indigenous adults who live in Toronto – this is four times higher than the 15,650 estimated by Statistics Canada (Statistics Canada, 2011).
- There are between 10,000 to 14,000 Indigenous children who live in Toronto (Firestone, M., Xavier et al, 2018); this is three to four times more than the 3,620 estimated by the 2011 Census (Statistics Canada, 2011).
- Of Indigenous adults, 86 percent identified as First Nations, 14 percent identified as Métis, 0.4 percent identified as Inuit and 0.5 percent identified as First Nations and Metis (Firestone, Xavier et al, 2018).
- 81 percent of First Nations adults had federal Indian Status and 19 percent were non-status (Firestone, Xavier et al, 2018).
- 93 percent of Indigenous children in Toronto were identified as First Nations by their caregivers (Firestone, Xavier et al, 2018).

The Low-Income Cut-Off (LICO) is used by Statistics Canada to measure when families spend 20 percent more than the average family on their after-tax income on food, shelter, and clothing (Statistics Canada, 2015). The OHC survey found that 87 percent of Indigenous adults were below the before tax LICO (Figure 1) and that 92 percent of Indigenous children live in households that fall below or at the before tax LICO (Firestone, Xavier et al., 2018). In addition, 35 percent of Indigenous adults were precariously housed or experiencing homelessness, compared to 4 percent of Canadian adults (Firestone, O'Brien et al., 2018).

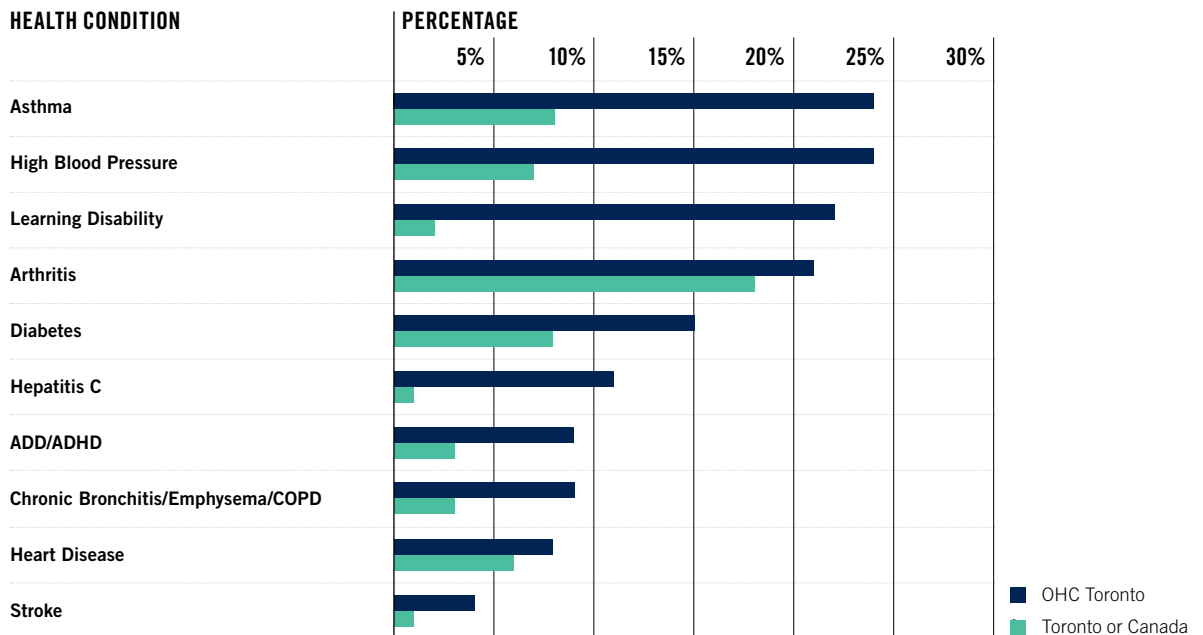
FIGURE 1: PERCENTAGE OF ADULTS BELOW THE BEFORE TAX LOW-INCOME CUT-OFF*



*Source: *Our Health Counts Toronto*

The survey also provides comprehensive and troubling data on the disproportionate burden of chronic health conditions experienced by Indigenous peoples living in Toronto (Figure 2). Common chronic health conditions are two to ten times higher than the general population in Toronto or Canada (Xavier, O'Brien, Kitching et al., 2018).

FIGURE 2: PERCENTAGE OF CHRONIC HEALTH CONDITIONS AMONG INDIGENOUS PEOPLES IN TORONTO COMPARED TO THE GENERAL TORONTO OR CANADIAN POPULATION*



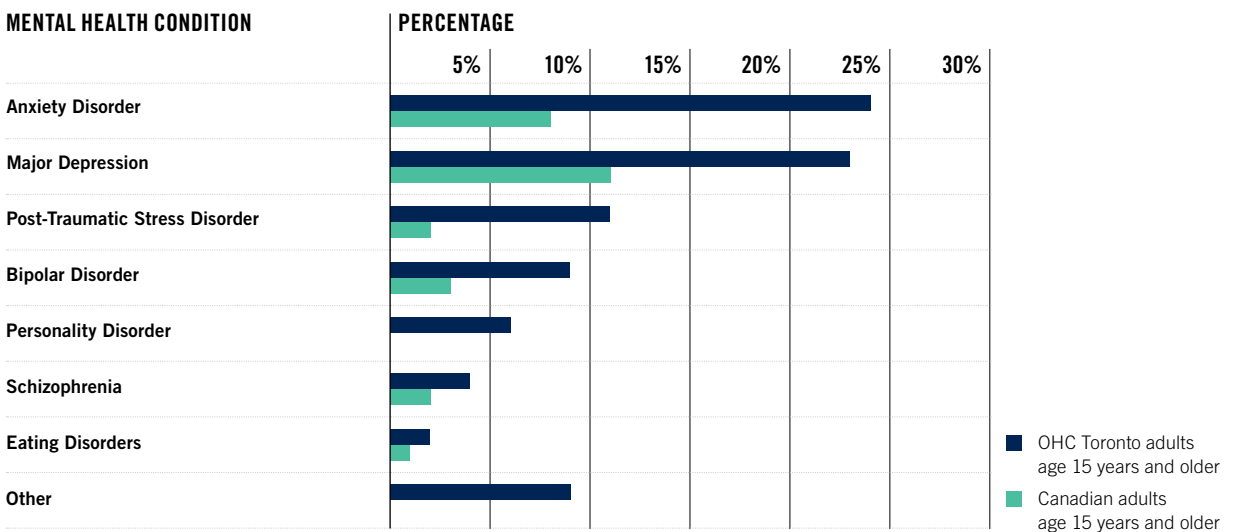
The rate of learning disabilities was **11x higher** among Indigenous adults in Toronto than the overall Canadian population.

*Source: *Our Health Counts Toronto : Adult Chronic Health Conditions Fact Sheet* (Xavier, O'Brien, Kitching et al., 2018)

Indigenous people have higher rates of mental health conditions than the overall Canadian adult population. Figure 3 lists the percentage of mental health conditions of Indigenous peoples in Toronto compared to the general Canadian population (O'Brien, Xavier et al., 2018). For Indigenous adults:

- 23 percent have been diagnosed with major depression
- 87 percent live below the low-income cut-off
- 71 percent were unemployed
- For suicide:
 - 36 percent have attempted suicide
 - 50 percent have thought about dying or suicide – compared to 20 percent in Ontario
 - 50 percent had a close friend or family member die by suicide
 - 45 percent of adults have harmed themselves on purpose

FIGURE 3: PERCENTAGE OF MENTAL HEALTH CONDITIONS AMONG INDIGENOUS PEOPLES IN TORONTO COMPARED TO THE GENERAL CANADIAN POPULATION*



*Source: *Our Health Counts Toronto*

Indigenous resilience in the city: strong community networks, language and culture

The Our Health Counts studies reveal significant Indigenous community strengths. The success of the study sampling methodology, which builds on Indigenous community social networks, shows that Indigenous people in Ontario cities are extremely well connected with each other. A key study finding is that Indigenous peoples living in Toronto overall have a strong sense of their cultural identity.

High rates of Indigenous language use has repeatedly been found along with a strong desire to pass this on to children, demonstrating the remarkable resilience of Indigenous peoples in the face of colonial policies that worked to actively undermine our languages for hundreds of years. Our Health Counts Toronto also found high rates of access and use of traditional foods, medicines, and ceremonies with a widespread desire for more access among the Indigenous population in Toronto.

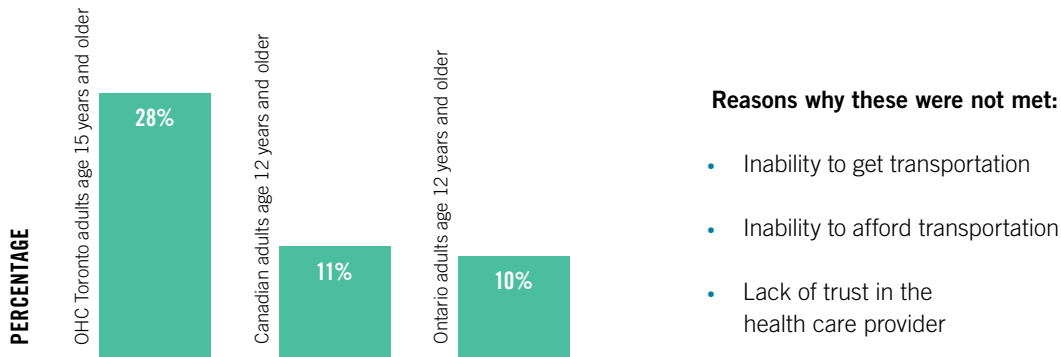
Family medicine and Indigenous health

Though advances have been made, family medicine can play a more significant role in addressing the health and wellbeing of Indigenous peoples across Canada. In particular, we know that lack of access to a regular doctor or nurse practitioner, and experiences of discrimination, are key barriers that contribute to unfairness in accessing health services for Indigenous people (Allan and Smylie, 2015).

The Our Health Counts survey data showed that despite the geographic proximity to health facilities and primary care services there are striking disparities in health service access for the large population of Indigenous peoples living right here in Toronto. For example, only 63 percent of Indigenous adults living in Toronto have a regular family doctor or nurse practitioner compared to 90 percent of the general population of Toronto adults. Not surprisingly, the survey found that 28 percent of Indigenous adults reported having unmet needs compared to 11 percent in Canadian adults and 10 percent in Ontario adults (Figure 4) (Xavier, O'Brien, Wolfe et al., 2018). Additionally, there is a higher use of emergency based care, with 46 percent of Indigenous adults living in Toronto who reported accessing emergency care over the past year compared to 19 percent of Ontarians. Of the Indigenous people who had accessed ER care, 42 percent of people rated the quality of care as fair or poor (Xavier, O'Brien, Wolfe et al., 2018).

FIGURE 4: ACCESS TO PRIMARY HEALTH CARE AMONG INDIGENOUS ADULTS IN TORONTO COMPARED TO THE GENERAL CANADIAN AND ONTARIO POPULATION*

OVER 1 IN 4 INDIGENOUS ADULTS IN TORONTO HAD UNMET HEALTH NEED IN THE PAST 12 MONTHS



*Source: *Our Health Counts Toronto*

In February 2016, the College of Family Physicians of Canada’s Indigenous Health Working Group and the Indigenous Physicians Association of Canada released a fact sheet on systemic racism with insights and recommendations specifically for family doctors. The fact sheet provides ways that family doctors can get more involved with Indigenous health in their clinics, communities and training institutions (The College of Family Physicians Canada 2016).

The suggestions include providing a Culturally Safe Environment in clinics by ensuring a patient’s ways of knowing and decision-making process are respected and building partnerships with local Indigenous organizations. Family medicine educators should also introduce Trauma-Informed Care into medical curricula. This care “acknowledges and teaches about the Indigenous-specific effects of colonial policies and how they are linked to historic and current medical services for Indigenous peoples” (The College of Family Physicians of Canada, 2016).

The University of Toronto Department of Family and Community Medicine has set the goal of becoming the family medicine residency program of choice for Indigenous post-graduate learners across Canada. To achieve this, the department is currently examining how to increase the number of Indigenous faculty and post-graduate learners and ensure they are learning and teaching in a supportive and culturally safe environment. We are also supporting the development of Indigenous leadership within our department and providing faculty, post-graduate learners, students and staff with opportunities to enhance their knowledge and understanding of Indigenous culture and health.

The Department is doing meaningful and impactful work toward improving the health outcomes for this nation’s Indigenous communities, in urban, rural and remote locations, but there is still much more we can and need to do.

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Dr. Katherine Rouleau is Vice-Chair, Global Health and Social Accountability at the University of Toronto Department of Family and Community Medicine and a family doctor at St. Michael’s Hospital.

Sara Wolfe is an Indigenous Registered Midwife with Seventh Generation Midwives Toronto and Community Partner Lead on the Our Health Counts Toronto study

Cheryllée Bourgeois is a Metis Exemption Midwife with Seventh Generation Midwives Toronto.

Dr. Janet Smylie is a family doctor and research scientist in Aboriginal health at St. Michael’s Hospital, Centre for Research on Inner City Health (CRICH), where she directs the Well Living House Applied Research Centre for Indigenous Infant, Child and Family Health

The Truth and Reconciliation Commission

The Truth and Reconciliation Commission of Canada was established on June 2, 2008 with the purpose of documenting the history and lasting impacts of the Canadian Indian residential school system on Indigenous students and their families. The final report of the Commission was released in June 2015 and published 94 calls to action, seven of which deal directly with health care including the following actions (ordered according to original document):

18. We call upon the federal, provincial, territorial, and Aboriginal governments to acknowledge that the current state of Aboriginal health in Canada is a direct result of previous Canadian government policies, including residential schools, and to recognize and implement the health-care rights of Aboriginal people as identified in international law, constitutional law, and under the Treaties.
19. We call upon the federal government, in consultation with Aboriginal peoples, to establish measurable goals to identify and close the gaps in health outcomes between Aboriginal and non-Aboriginal communities, and to publish annual progress reports and assess long-term trends.
20. In order to address the jurisdictional disputes concerning Aboriginal people who do not reside on reserves, we call upon the federal government to recognize, respect, and address the distinct health needs of the Métis, Inuit, and off-reserve Aboriginal peoples.
21. We call upon the federal government to provide sustainable funding for existing and new Aboriginal healing centres to address the physical, mental, emotional, and spiritual harms caused by residential schools, and to ensure that the funding of healing centres in Nunavut and the Northwest Territories is a priority.
22. We call upon those who can effect change within the Canadian health-care system to recognize the value of Aboriginal healing practices and use them in the treatment of Aboriginal patients in collaboration with Aboriginal healers and Elders where requested by Aboriginal patients.
23. We call upon all levels of government to: increase the number of Aboriginal professionals working in the health-care field, ensure the retention of Aboriginal health-care providers in Aboriginal communities and provide cultural competency training for all health-care professionals.
24. We call upon medical and nursing schools in Canada to require all students to take a course dealing with Aboriginal health issues, including the history and legacy of residential schools, the United Nations Declaration on the Rights of Indigenous Peoples, Treaties and Aboriginal rights, and Indigenous teachings and practices.

14

Caring for Refugees

AUTHORS:

DR. MEB RASHID AND DR. VANESSA REDDITT

The world is facing an unprecedented migration crisis with an estimated 68.5 million people forcibly displaced worldwide in 2017 as a result of persecution, conflict, violence, and human rights violations. Among them, 25 million were refugees (UNHCR, 2017). These are the highest numbers ever recorded and, given current global events, there is little optimism that these numbers will decline soon. Although the vast majority of refugees settle in less developed countries, there has been increased pressures on many industrialized countries to resettle more refugees. Unfortunately, many have responded by fortifying borders and becoming less welcoming to asylum seekers. Canada, with its long-standing tradition of resettling refugees, has been an exception.

The health care needs of refugee newcomers often differ from those of Canadian-born patients and non-refugee immigrants. Many are exposed to infectious disease and the vast majority have been exposed to pre-migration trauma that often includes atrocities such as torture, forcible confinement and sexual violence. Many struggle with culture shock upon arrival in Canada and for refugee claimants, the uncertainty of an undetermined future while navigating the refugee process often causes tremendous stress. Not surprisingly, the rates of post-traumatic stress disorder and depression are high in refugee populations.

After resettlement in Canada, refugees often continue to face significant barriers to accessing appropriate health care due to language barriers, difficulty navigating the unfamiliar Canadian health care system, competing resettlement priorities, complex trauma and mental illness, differing perspectives on health and illness, health insurance challenges, and other obstacles (Barnes, 2013, Evans et al., 2014, McKeary et al., 2010, Campbell et al., 2014, Gagnon et al., 2013, Newbold et al., 2013, Rousseau et al., 2013, Kuile et al., 2007).

The role of family medicine in the care of refugees

Many family doctors care for refugees and can help them deal with issues such as screening for diseases and navigating the health care system. The development of trusting relationships between family doctors and their patients becomes critical in creating an environment where refugees, when needed, can share their concerns and mental health challenges.

Addressing the nuanced health issues of refugees can be a challenge for health care workers. Despite the steady flow of refugees to Canada, there are few guides to working with this population. The rates of specific health conditions for different waves of refugees are often unknown. In response to the lack of data, Canadian guidelines were developed and published in 2011 to address twenty of the most common issues confronting the health of immigrants and refugees. These guidelines were driven by primary care providers across the country, who prioritized a list of preventable and treatable health conditions for newly arriving migrants for review (Swinkels et al., 2011). While there are common threads in addressing the health of refugee newcomers, these guidelines also emphasize the importance of considering an individual's age, region or country of origin, migration history, refugee status, income, language, and personal preferences, among other factors, to ensure appropriate patient-centered care (Pottie et al., 2011).

Although these guidelines provided much-needed direction to clinicians, there exists an obvious need to better document the unique health issues confronting different refugee groups in Canada.

The Crossroads Clinic at Women's College Hospital

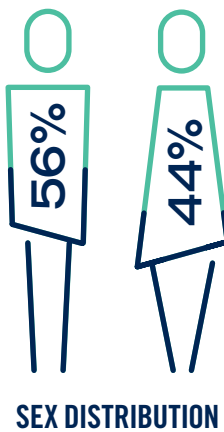
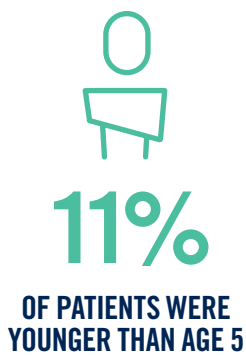
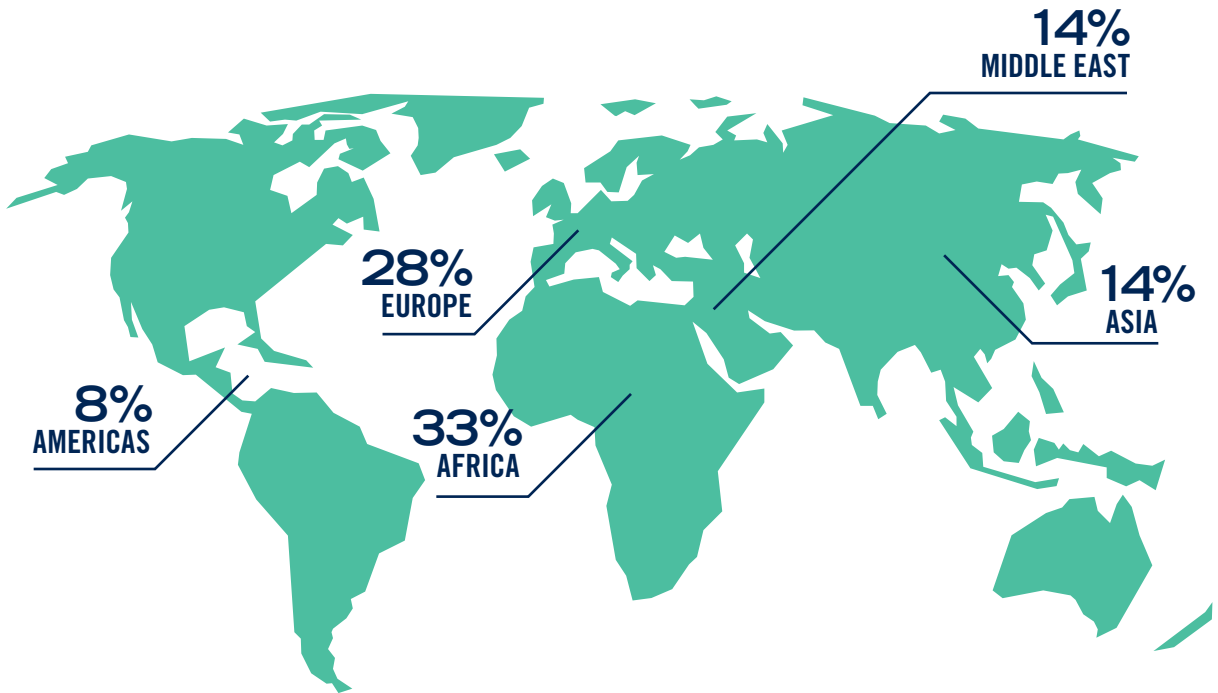
The Crossroads Clinic at Women's College Hospital opened its doors at the end of 2011 with an aim to provide high quality, comprehensive primary care to refugees and refugee claimants during their first few years in the Toronto-area. The refugees seen at the Crossroads Clinic come from around the world, are relatively young and the slight majority are male (Figure 1).

The team has grown to include three family doctors, two nurse practitioners, two registered practical nurses, one social worker, two medical receptionists, and one research assistant, and it works in close collaboration with a wide network of community-based service providers. It has strong relationships with many of the consultant staff at Women's College Hospital; for example, a significant proportion of pregnancy care is provided by an existing family practice obstetrical group based at Women's College Hospital. In addition to direct clinical care, the Crossroads Clinic has provided teaching to hundreds of medical students and residents and has advocated for the rights of refugees to access health care, for policy and systems improvements, and for research to better inform the care for refugees.

Given that the Crossroads Clinic is the only clinic in Toronto that exclusively serves refugee populations, sharing the experiences of the clinic with the hope of guiding other doctors and health professionals serving refugees has also been a priority. To this end, an overview of the health issues of the first 1,063 refugees that presented to the Crossroads Clinic was published in 2015 (Redditt, et al, 2015).

FIGURE 1: PATIENT DEMOGRAPHICS AT CROSSROADS CLINIC (DEC 2011–JUNE 2014)

PATIENTS WERE BORN IN DIFFERENT COUNTRIES **87**



(Redditt et al., 2015)

Further research needs

Further research is required to better understand and respond to the health care needs of refugees. Ongoing investigation of the health issues that confront refugee populations is critical. Issues such as access to care and how refugees use health services are also poorly understood and require further study. Efforts are underway to create a national research network of refugee health care clinics across the country, in which we plan to pool data to gain a more comprehensive view of the health conditions of refugee claimants, government-assisted refugees, and privately-sponsored refugees across Canada.

We also aim to study a wider variety of health conditions, including other chronic diseases and mental health. Additionally, we are interested in exploring how refugee newcomers access the health care system and their long-term health outcomes. Overall, this research aims to enhance the quality and accessibility of health care for refugee newcomers to improve their overall wellbeing and longer-term integration in their new home in Canada. Through these efforts, health professionals will have more information that will help them better serve refugee populations.

Dr. Meb Rashid is an Associate Professor at the University of Toronto Department of Family and Community Medicine and a family doctor and Medical Director of the Crossroads Clinic at Women's College Hospital

Dr. Vanessa Redditt is a Lecturer at the University of Toronto Department of Family and Community Medicine and a family doctor at the Crossroads Clinic at Women's College Hospital

Refugees Like Muna Need Comprehensive Care

*Muna arrived in Canada after a harrowing journey. She fled from her home one night when government officials came looking for her: she was a human rights lawyer who bravely spoke publicly about the human rights abuses suffered in her country. Out of desperation, Muna paid a human trafficker to take her and her young daughter across the border at night to a neighbouring country where she lived without any legal status for years and with the daily risk of being caught and returned to her home country where she would certainly be imprisoned.

She eventually made her way to Canada. As with many refugees arriving in Canada, she had very little access to health care in her country of origin and had never seen a health care worker for preventive care, such as cervical cancer screening.

The refugee shelter where she was staying directed her to the Crossroads Clinic in downtown Toronto, where Muna was soon diagnosed with chronic hepatitis B and began the process of evaluation and monitoring for complications

from liver failure and liver cancer. Her daughter had an estimated ten percent chance of contracting the infection from her mother without intervention. Through the Crossroads Clinic, Muna's daughter received hepatitis B testing and was vaccinated against the virus and, as a result, will never contract the disease. Muna was also diagnosed with a pre-cancerous lesion of the cervix, which was quickly treated.

It was after multiple visits that Muna began to speak about the sexual violence and torture she had endured during multiple incarcerations in her home country. She continued to have nightmares and would often be afraid to leave her home. With time, support, and counselling, she has slowly improved and is now beginning to feel a sense of safety in her new home in Canada.

**Muna's name has been changed for privacy and any identifying information removed for this report*

15

Global Health: Sharing Knowledge Around the World

AUTHOR:
DR. KATHERINE ROULEAU

Half of the world’s population has no access to primary care (World Health Organization, 2017) and 22 percent of women deliver without any help from a trained birth attendant (UNICEF, 2018). In many countries, family medicine is still in its very early stages, with many still working to develop a strong model of family medicine that can serve their populations well.

Yet family medicine has been linked to better health outcomes, improved cost-efficiency and enhanced health equity when it is established as a central component of a health care system. The World Health Organization has recognized family medicine as “the most inclusive, effective and efficient approach to enhance people’s physical and mental health, as well as social wellbeing” (WHO/UNICEF 2018). It also stated that the family doctor, “a trained specialist in comprehensive, generalized, whole-person care, can support the primary care team in addressing a range of health issues” (WHO/UNICEF, 2018).

Family medicine and primary care save lives and improve health

In the United States, an increase of one family doctor per 10,000 people has been shown to result in 127,617 fewer deaths per year (Starfield et al., 2005). In a more recent study, the number of primary care providers and family doctors in a given area had a larger effect on reducing death than any individual specialty, except cardiology (Basu et al., 2019).

Family medicine and primary care expansion have played a role in the following achievements:

- Oman lowered its under-five mortality by 94 percent and Thailand by 32 percent (Vapattanawong et al., 2007)
- Portugal lowered its maternal mortality by 96 percent (World Health Organization, 2008)
- Brazil lowered hospitalizations for cardiovascular disease, stroke and asthma by 13 percent (Macinko et al., 2010)

These are only a few examples.

World Health Organization Collaborating Centre on Family Medicine and Primary Care

In 2018 the World Health Organization designated the Department of Family and Community Medicine as the World Health Organization Collaborating Centre on Family Medicine and Primary Care. The Centre is the first of its kind in the world to have a specific focus on family medicine, and one of few in the world with a focus on primary care and primary health care.

The Collaborating Centre will assist in researching, evaluating and strengthening family medicine and primary care at a global level and in countries around the world.

Through this Centre we will build on our department's work in areas such as quality improvement, team-based care, community and patient engagement, and family medicine training, to name a few, to work together with Canadian and international partners in finding more effective and efficient ways to deliver excellent primary care for all, especially the world's most vulnerable people.

Addressing health inequities at home and abroad: why Toronto must be a global leader in strengthening family medicine

Global health at the University of Toronto Department of Family and Community Medicine is an area of research, education and clinical services that seeks to understand and address disparities in health both in Canada and around the world.

Our researchers know that some people need more than others to become and to stay healthy and recognize that, as one of the largest departments of family medicine in the world, we have a responsibility to be leaders in addressing the health issues of those most in need, both locally and globally. In addition to the many examples of activities focused on vulnerable populations in the Canadian context presented throughout this report, our department has also engaged in addressing health inequity globally through strengthening family medicine.

In Canada, we strive to equip family doctors to advocate for, design and provide excellent and responsive care to people facing barriers to bettering their health. Globally, we work with international partners to strengthen family medicine and primary care in their setting. Working at both of these levels allows us to apply innovations developed for one setting or country and adapt it to improve things in another.

Dr. Katherine Rouleau is Vice-Chair, Global Health and Social Accountability at the University of Toronto Department of Family and Community Medicine, Director of the World Health Organization Collaborating Centre on Family Medicine and Primary Care, and a family doctor at St. Michael's Hospital

Highlights of International Collaborations and Programs Aimed at Strengthening Family Medicine

Toronto International Program to Advance Family Medicine:

Every year, emerging family medicine leaders from around the world come to the University of Toronto Department of Family and Community Medicine for two weeks to learn how we structure, teach and conduct research in family medicine. These international leaders also share with us and each other some of the key successes of family medicine in their country. Over the past six years, 58 participants from 13 countries have participated in this program, creating a “learning network” of family medicine champions eager to innovate and strengthen family medicine for their communities.

Family Medicine at Addis Ababa University, Ethiopia: Family medicine did not exist in Ethiopia until 2013. Part of an overall partnership with the University of Toronto, we supported our visionary colleagues at Addis Ababa University to establish Ethiopia’s first training program in family medicine.

Developing Family Medicine Curriculum Globally: Department educators have worked with colleagues from a range of countries, including Oman, Thailand and Brazil to support the development of state-of-the-art family medicine curricula that will ultimately strengthen family medicine in those settings.

Collaboration with Mirin Hospital Network, Japan: A group of doctors from Japan are collaborating with experts in caring for vulnerable populations in Toronto. Through exchanges, conferences and mutual visits between Japan and Toronto, doctors from both countries are discovering new ways to deliver care for those most vulnerable.

Growing Family Medicine Leadership in Pudong, China: For the past five years, our department has hosted young family medicine leaders from the Pudong Area of China to learn about family medicine leadership and the foundations of strong family medicine. Participants are then expected to return to their country to transform and adapt the lessons they learned to better address the needs of the population they serve. Seventy-three family medicine leaders have participated in this program.

Primary Care Program, Chile: Every year, between 12 and 30 Chilean health professionals including nurses, dentists, midwives and others come to the Department of Family and Community Medicine for five weeks to learn how we organize and deliver quality primary care through teams. While in Toronto, they also share some of their new ideas and innovations to improve team-based primary care through teams in their settings. Since 2005, a total of 166 Chilean primary care providers have participated in an intensive five-week training program.



TAAAC-FM residents and faculty after completing the INTAPT Faculty Development Course

Growing Family Medicine in Ethiopia

Until fairly recently, family medicine was virtually nonexistent in Ethiopia, and many people in the country depended on referrals to secondary and tertiary sites to see the majority of doctors. In 2013, to address this gap, the first family medicine training program was developed in the country. The Toronto Addis Ababa Academic Collaboration in Family Medicine (TAAAC-FM) is a partnership between Addis Ababa University School of Medicine in Ethiopia, the University of Toronto Department of Family and Community Medicine and the Department of Family Medicine at the University of Wisconsin. The program aims to support the training of family doctors for the Ethiopian health care system and to develop faculty and leaders who will broaden the scope of family medicine in Ethiopia to improve the quality and accessibility of care in the country.

Since its creation, 18 Ethiopian family doctors have graduated from the program and are now moving the discipline of family medicine forward in the country.

“The hope is that growing this group of family doctors who can now teach others at their respective institutions or at other hospitals will help to strengthen the primary care system that is growing there,” says Dr. Praseedha Janakiram, co-lead of the TAAAC-FM program.

To assist with training residents, faculty travel to Ethiopia three times per year for approximately four weeks at a time as visiting faculty. This results in a reciprocal learning process, where Canadian and Ethiopian faculty learn from each other while pioneering a family medicine program and specialty in Ethiopia.

“In asking faculty in Toronto to go to Ethiopia for a month as volunteers, I’m always surprised by how willing people are,” says Dr. Abbas Ghavam-Rassoul, co-lead of the TAAAC-FM program. “The willingness of people to offer their time and expertise is something we are very grateful for.”

Newer programs have also emerged over time. For instance, cervical cancer is a major cause of death of women in the country. Prior to TAAAC-FM, cervical cancer often was not diagnosed until it was very advanced and already deadly, but a new screening service is facilitating health professionals in expanding early detection programs for the disease.

While many strides have been taken in family medicine in Ethiopia, there is still work left to be done. As interest in the residency program increases, faculty and staff must find ways to grow the capacity of the training program, whether through new training sites or collaborations with other specialties and hospitals. As the next cohort of graduates completes their training, the focus will now be on continued education for graduates and faculty who need to continue upgrading their own skills so that they can meet the needs of their country’s population and their trainees.

The Department of Family and Community Medicine will continue to support remarkable Ethiopian colleagues and champions in the development of family medicine in Ethiopia and is committed to the long-term partnership of the TAAAC-FM program, which has become an exemplary model for collaboration in global health.



16

Providing Better Care: Improving Quality and Encouraging Innovation in Medicine

AUTHOR:

DR. TARA KIRAN AND TRISH O'BRIEN

Improving the quality of care means providing care that is available when you need it; meets patients' specific needs and preferences; is based on the best research evidence; is safe and does not accidentally harm someone; does not waste scarce health care resources; and, finally, helps everyone achieve excellent health regardless of their background or circumstances.

Quality improvement methods – how we often go about improving care—were originally developed by engineers to improve manufacturing processes but are now adapted to health care. These methods encourage teams to test small changes in the way they do things with the knowledge that steady, incremental change can often lead to big improvements. To do this, we:

- Teach approaches to get at the root cause of what may seem like a difficult to solve health care problem.
- Guide teams to use measurement to understand whether the changes they are testing have really made things better.
- Encourage working with patients to design solutions that ultimately meet their needs.

Quality improvement is more than just a method, it is a culture and an attitude: a desire by everyone involved in a health care team to continuously assess the work they do and find ways to improve.

The University of Toronto Department of Family and Community Medicine is the first family medicine department in Canada to formally integrate quality improvement teaching into our residency training. Our curriculum includes both formal in-class learning, as well as a six-month project practicum. Since 2011, over 500 resident quality improvement projects tackled issues like safer prescribing of opioid medications, cancer screening among patients living with a low income, the efficiency of preventive care visits, waits for booked appointments, and shared decision-making when discussing treatment for chronic conditions. Residents graduate from our program with the clinical knowledge they need to be excellent doctors, but also with the skills to continuously measure and improve the care they provide.

Advancing patient safety in family medicine

In 2016, the department convened a Patient Safety Task Force to explore how we could advance safety in family medicine. A patient safety incident is an event or circumstance that could have resulted, or did result, in unnecessary harm to a patient. It can be a reportable circumstance, a near miss, a no harm incident, or a harmful incident (adverse event). In family medicine clinics, patient safety issues are most commonly related to missed or delayed diagnoses, medication management, or transitions in care from one part of the health care system to another (hospitals to nursing homes).

Our academic teaching hospitals each identified a patient safety project and an inter-professional team that could commit to leading the work. The learning collaborative teams chose to tackle a variety of issues ranging from a focus on clinical aspects of care, such as medication prescribing, to analyzing safety incidents and introducing education on patient safety improvement to resident learners.

We are building on this success through a new partnership with UTOPIAN to reduce the burden of medications in elderly patients. Many elderly people receive prescriptions for ten or more different medications in a single year and some of these medications likely do more harm than good and could be stopped – but stopping medications can sometimes be hard for patients and counterintuitive to doctors. SPIDER, the Structured Process Informed by Data, Evidence and Research, will test how clinicians and patients can have thoughtful conversations about medication choice to improve care for elderly people taking multiple medications.

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Barrie and community family health team -Royal Victoria Regional Health Centre

Even Small Quality Improvement Measures Can Have Big Rewards

When Dr. Melissa Witty, the quality improvement lead at the Department of Family and Community Medicine at the Royal Victoria Regional Health Centre in Barrie, wanted to find out how patients felt about the care delivered by their family health team, she gave out a survey to patients of the teams' five family doctors.

Initially, Dr. Witty was concerned that patients would feel they were not receiving adequate access to care; however, most patients felt satisfied with their level of access, partly because of the team-based approach: the five doctors within the team always had a back-up doctor available and a nurse practitioner also sees patients.

The survey did reveal that patients would like to receive more information on new announcements and health-related news. To address this communication gap, Dr. Witty and her colleagues placed a "patient education monitor" in the waiting room that patients could watch while waiting for their appointment. A website is also currently being developed with information, links to reputable resources and updates on practice information. So far, feedback on the communication initiative has been positive.

"It's interesting how sometimes just a small change can raise the satisfaction of patients," says Dr. Witty. "These things don't always take a lot of time and money to implement, but they have big gains."

Dr. Witty and her colleagues are also part of the University of Toronto Department of Family and Community Medicine Patient Safety Task Force that is assisting its members to better identify and address incidents that could have resulted, or did result, in unnecessary harm to a patient.

"What's really been helpful about the experience is gaining access to expertise from other doctors who are established in patient safety initiatives to see what has gained the best results for them," says Dr. Witty.

So far, family doctors and staff at the Royal Victoria Regional Health Centre have formed a patient safety committee to identify patient safety issues and analyze patient safety incidents. The committee analyzes each event, provides feedback to the staff involved, and recommends changes to prevent such events from happening in the future. They have also implemented 'Do it Better' rounds where the event is presented to other staff members for further feedback.

"It's a major step to developing a culture of openness around addressing what is working well, what's not working and what we can improve for our patients," says Dr. Witty. "If we don't recognize what we're doing wrong, we won't be able to make anything better."

17

Next Steps: Using Research in Family Medicine to Find the Best Way to Provide Care

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Family doctors play a large part in Canadians' health care. People usually call their family doctor first when feeling unwell or for regular check-ups. The family doctor will then see and examine each patient, discuss options for treatment, coordinate further care if needed (including tests or referrals to specialists) and organize follow up. Having a family doctor or nurse practitioner who knows you well and cares for you over time is good for people's health.

Research is vital to finding out what is working and for whom in Canada's family practices. However, there is not enough research done in family medicine when compared to more specialized areas of health care.

The University of Toronto Department of Family and Community Medicine aims to change this. We host the largest family medicine research program in Canada and one of the largest in the world. There are 30 faculty members who receive funding from the department to protect their time to do research; awards for research studies have increased from a total of over \$14 million in 2012 to over \$21 million in 2017 (Table 1). The number of peer-reviewed publications has also increased from 226 in 2012 to 483 in 2017 (Table 2).

Family medicine researchers are conducting studies about some of the most important areas of people's health and lives. These include:

- Confirming the link between the flu and heart attacks (Kwong et al., 2018)
- Increasing preventive services for chronic diseases such as heart disease, diabetes and cancer (Grunfeld et al., 2013)
- Helping family doctors decrease the number of medications older people take by focusing on drugs that are less necessary
- Addressing and reducing poverty for patients seen in family practices

Several projects have been awarded \$1 million or more and researchers in the department are leading and taking part in several national and international collaborations.

TABLE 1: UNIVERSITY OF TORONTO DEPARTMENT OF FAMILY AND COMMUNITY MEDICINE GRANTS AND CAREER AWARDS

GRANTS	2012	2013	2014	2016	2017
PRINCIPAL OR CO-PRINCIPAL INVESTIGATOR GRANTS					
Number of peer-reviewed and non peer-reviewed grants	68	50	126	173	141
Amount of peer and non peer-reviewed grants	\$14,765,659	\$9,604,534	\$17,353,611	\$40,848,971	\$21,109,793
CO-INVESTIGATOR GRANTS*					
Number of peer-reviewed and non peer-reviewed grants	69	36	113	155	160
Amount of peer and non peer-reviewed grants	\$9,422,537	\$5,437,933	\$45,990,347	\$33,318,482	\$44,875,099
CAREER AWARDS					
Number of awards	6	6	8	33	26
Amount of awards	n/a	n/a	\$727,000	\$997,263	\$1,215,500

*Includes grants where the principle or co-principle investigators are not Department of Family and Community Medicine faculty members

n/a=not available

TABLE 2: PUBLICATIONS BY FACULTY MEMBERS AT THE UNIVERSITY OF TORONTO DEPARTMENT OF FAMILY AND COMMUNITY MEDICINE

	2012	2013	2014	2016	2017
PUBLICATIONS					
Number of peer-reviewed publications	226	222	331	451	483
Number of non peer-reviewed publications	95	80	50	98	42

UTOPIAN: A state-of-the-art living laboratory

UTOPIAN was established in 2013 to increase research done in family practices. It is a living laboratory that brings together researchers and practicing family doctors to answer important health care questions and translate findings into practice. UTOPIAN includes over 1,700 family doctors in practices throughout the Greater Toronto Area and beyond.

UTOPIAN aims to:

- Conduct and support high-quality research to better serve patients, family doctors and the health care that serves their patients and community
- Improve the quality and cost-effectiveness of health services
- Secure lasting improvements to health nationally and internationally

The information stored in UTOPIAN is being used by researchers at the University of Toronto to answer questions about patient's health and their care in family practices. Examples include:

- Asking people about whether they smoke tobacco: before family doctors can help people quit, they need to know their smoking status. About two thirds of adults have information about tobacco in their chart but younger adults are less likely to be asked (Griever et al., 2015).
- Walkability: Does living in a neighbourhood where you can walk to get groceries matter? People that live in car-centric neighbourhoods are more likely to be obese, especially if they are younger (Loo et al., 2017).

Moving forward: what's next in family medicine research

The University of Toronto Family Medicine Report is our first overview of family medicine in the Greater Toronto Area and beyond. It aims to provide insights into the type of work family doctors are doing every day and the contributions they are making to patients, communities and the health care system.

As this report shows, family doctors are critical to a fully functioning, efficient and effective health care system that puts patients first. From encouraging a patient to adopt a healthy lifestyle, screening for a disease, treating a short-term illness or chronic condition, providing mental health treatment or care at the end-of-life, research shows that when family medicine is the basis of a health care system, the health and wellbeing of patients and communities improves.

It is nearly impossible to fully cover the breadth of what family doctors do in one report. With so many potential subjects and issues to cover, this report is just the beginning of this process, with more iterations to come. As UTOPIAN grows and more family doctors provide their electronic medical record data, we hope to provide further in-depth analysis of the topics covered in this edition and include more complex issues that family doctors are grappling with every day in future editions.

Over the next several years we also hope to increase awareness and support for family medicine research amongst family doctors, policy-makers, other health care researchers, patients and others. With more data and information on the patients family doctors are treating, how they are treating them and the outcomes of this care, we will be able to provide better care for our patients.

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Dr. Karen Tu is Associate Director of the UTOPIAN Data Safe Haven, Professor at the Department of Family and Community Medicine and a family doctor at the University Health Network's Toronto Western Hospital

Appendix

LIMITATIONS OF THE DATA

UTOPIAN: Limitations of electronic medical record data

Electronic medical records are an excellent source of detailed clinical information which was not previously available when family doctors used paper charts. Examples of the type of information recorded include: disease diagnosis, medications, tobacco use, blood pressure, height and weight. This information must be recorded in a way that can be analyzed. For example, some diseases have a variety of abbreviated names or acronyms or they can be misspelled, which means they may be missed when data is analyzed. Capturing the full depth of information contained in electronic medical records is also dependent on the treating doctor or other health care practitioner entering information on prescriptions and billing codes, and ensuring that patient records are being kept accurate and up-to-date at each patient visit.

Some information is also more easily analyzed. Some chronic diseases, like diabetes, have specific laboratory tests or medications that indicate that a patient has the disease; these are more easily identified than diseases that often do not have readily analysed types of tests or specific medications, like osteoarthritis. Furthermore, some diseases and conditions may be detected and managed by other specialists or other health care providers, and may not be adequately recorded in the patient's electronic medical record at their family practice.

Laboratory tests and prescriptions written by family doctors are well captured in electronic medical records; however, tests ordered and prescriptions written by other specialists are not necessarily captured in the patient's electronic medical record held at their family practice.

Similarly, over-the-counter medications obtained directly from pharmacies and supermarkets are not usually consistently recorded. On the other side, family doctors may record prescriptions written by other doctors in their patient's record, which may make it seem that the original prescription was written by the family doctor. This can lead to confusion when data are analyzed.

Lastly, we know that some patients do not always take the medications they have been prescribed. For example, patients might have been advised to only take a medication if their symptoms do not improve or if tests come back

that are positive for an illness. Medications can also cause side-effects that may result in the patient not continuing to take a prescribed medication.

MyPractice Reports: Limitations of administrative data

Administrative data is excellent for following patients throughout the whole health care system but misses some activities that are carried out. For example, in hospital-based family medicine clinics that use a hospital laboratory for tests, these tests are billed to the hospital's budget and not to the Ontario Health Insurance Plan database. For this reason, we believe that tests, such as pap smears and fecal occult blood testing, may be under-captured in this data. Like electronic medical record data, administrative data also misses some preventive health activities, such as immunizations that have taken place at a pharmacy or have been administered by a public health nurse. The data also misses the detailed information about what occurred in the family doctor's office as typically only one reason for each visit is captured in billing data, whereas many patients will discuss several health concerns in one visit with their family doctor.

Administrative data in Ontario for medications only captures medications dispensed at pharmacies for patients age 65 and over and low income patients that have qualified for provincial drug funding plans. Administrative data does not capture prescriptions that are not filled out by patients, medications dispensed to adults and only recently capture medications dispensed to children. Administrative data only captures tests and visits to doctors that actually occurred. It does not capture information such as tests ordered, referrals made, symptom onset, disease severity, physical exam findings or the detailed results of diagnostic tests.

Additionally, a billing code for a visit does not necessarily mean the patient has the particular disease as doctors can bill a reason for a visit when they are counselling about risks for developing a disease or doing investigations to rule in or out a disease.

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Acknowledgments

We would like to thank all of the participating family doctors who are contributing data to UTOPIAN, the chapter authors for their contributions, as well as the many University of Toronto Department of Family and Community Medicine faculty and staff for their assistance in the completion of this report.

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