DEPARTMENT OF
FAMILY MEDICINE

CALGARY

ANNUAL REPORT

2016-2017

HARMONIZATION OF THE CARE JOURNEY:

Patients, Families, Communities, and the Medical Home

Unless otherwise stated,
the work presented within this report occurred between
April 1, 2016, and March 31, 2017

INTRODUCTION

Welcome to the 2016 Department of Family Medicine Annual Report. This year we are pleased to present our accomplishments under the theme of “Harmonization of the Care Journey: Patients, Families, Communities, and the Medical Home”. As you will see, our academic and clinical endeavors over the past year continue to focus on building better medical homes for our patients that integrate with acute care services, communities, and the needs of our patients and their families. We continue to participate in the transformation and evolution of primary care in the province and are pleased to work together with our Primary Care Network partners to build better collaborations and integrated services that reflect our health care commitment to Albertans. Taking into account the diversity of environments in which family physicians practice, we strive to maintain a patient-focused family medicine perspective.

Like other departments, we are challenged with continuity of information and continuity of relationships in patient care, as well as sustainability of health care in an increasingly socially and technologically complex world. This requires innovative thinking, strong working relationships, and listening to those we work with and serve. To provide a strong primary care voice, our members are involved in many initiatives, and advocate for the medical home on many committees, including the Centralized Information System working group, the Primary Care Action Plan Council and Secretariat, and all of the provincial Strategic Clinical Networks.

We have highlighted the core Alberta Health Services values of compassion, accountability, respect, excellence, and safety, throughout the report and see them reflected daily in the work of our staff and physicians. We would like to acknowledge and thank all of you who support the work of the Department and provide clinical services to our 1.2 million Calgarians. We look with excitement to the future of health care in Calgary, and think you will see this reflected in this year’s report.

DR. CHARLES LEDUC
Academic Department Head,
Family Medicine, Calgary

DR. MICHAEL SPADY
Clinical Department Head,
Family Medicine, Calgary Zone

DR. SONYA LEE
Deputy Academic Department Head,
Family Medicine, Calgary

DR. ANN VAIDYA
Deputy Clinical Department Head,
Family Medicine, Calgary Zone

Contents

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The Department of Family Medicine (DFM) touches all milestones of the patient journey and all aspects of the Medical Home by including a broad range of clinical care services; Maternal Newborn Care, Medical Inpatient Care, Urgent Care, Palliative Care, Seniors Care, and Community Primary Care.

The clinical sections have a strong footprint within both community and acute care settings, and continue to build connections with our Primary Care Network (PCN) and acute care partners. The Academic Department provides strong primary care leadership in the province with the pillars of research, education, quality and informatics, finance, and clinical operations. We have three academic family medicine teaching clinics, through which our academic colleagues continue to deliver first class education, engage in primary care research, and support the evolution of primary care in Calgary and Alberta through innovative data management and Quality Improvement (QI) initiatives. Our broader community of clinical family physicians provides a high level of educational support to both the undergraduate and postgraduate medical education programs.

In this report, you will read about individual section accomplishments and highlights, QI and Quality Assurance (QA) projects, and future directions; the Department has described areas of focus, and also chosen to highlight practiced examples of the five Alberta Health Services (AHS) Core Values. Look for these highlights within each section's report.

Some of the broad highlights we would like to bring to your attention include: the development of an internal process to manage and respond to patient concerns that aligns with the AHS concerns process; a re-launch of the DFM website to better communicate with our members and support our leadership and administrative teams; a retreat in November to develop an approach to succession planning and leadership development; completion of the physician directory in collaboration with the Calgary Zone PCNs; and the collaboration with our Primary Care Council, specialty groups, and provincial partners to further develop and spread the specialist linkage successes.

The Canadian Resident Matching Service (CaRMS) match of Cumming School of Medicine graduates to Family Medicine remained steady at about 40%. Med Zero, Undergraduate Medical Education's primary family medicine information event, was again enormously popular with incoming students. Our academic teaching clinics continued to provide a medical home to over 27,000 patients with a wide range of generation diversity and have provided educational experiences to over 200 medical learners. Through their work, the academic clinics are revolutionizing how data is used and reported in primary care. The Strategic Quality and Informatics Dashboard (SQuID) is in development, and will centralize and automate standardized reporting throughout the Department, with secure online availability through a centralized dashboard. We expect this will revolutionize how patients, individual physicians, teams, and administrative staff will experience primary care delivery in the clinics, and are excited to be able to share this innovation across the primary care community as it evolves.

With the increased complexity and rapid rate of change in health care, we also face challenges to which we are called to respond. The prioritization and balancing of resources for the many initiatives within the Department requires steadfast effort. A focus on ensuring quality in initiatives that are completed means some other initiatives are put on hold. Retaining students with demonstrated interest in Family Medicine remains a challenge for the DFM; by promoting resident engagement and focusing on the resident experience and priorities driven by resident feedback through our three academic teaching clinics, we aim to address these challenges. Over the past year we have seen legislation requiring the implementation of supports for our patients requesting medical assistance in dying, a change in the physician workforce needs within Alberta, the impending legalization of marijuana in the next year, and an alarming increase in opioid-related concerns in this province. We know that the percentage of our population requiring senior-specific care will increase in the years ahead. We know that we can to do better in serving the needs of our indigenous population with a focus on the Truth and Reconciliation Report's Calls to Action, and moving to enhanced engagement with our indigenous partners. With a provincial focus on integration, and movement of resources and care into the community, the year ahead will require strong primary care involvement and active participation.

In the face of the challenges, we look forward to the year ahead to see many of our current initiatives come to fruition as we face new tasks and targets. Our goal is to create an interconnected system which ties back to a central Departmental strategy of advancing and promoting family medicine. We plan to create engagement across stakeholders through transparency, and our upcoming dashboard and web portal. Communication of our activities and achievements, and better outreach to our stakeholder groups including rural, urban, academic and clinical, will play an important role for the DFM looking forward. Transparency and dialogue in all directions is key to our success, and will serve to increase our capacity to support initiatives that improve and promote primary care.

We hope you find the following report interesting, educational, and inspiring, as we look back on a successful year and move forward to adapt, evolve, and succeed.

Vision

A community of Family Physicians and Primary Care Providers building collaborative, integrated, and innovative medical homes, responsive to the needs of our population.

Mission

To Serve Our Communities:

To promote best practice primary health care and family medicine
To enable our members to build and support patient-centred medical homes
To translate innovations in family medicine to our physicians and communities
To support medical education, credentialing, recruitment, and retention

OUR PHYSICIANS

1178 Clinical Privileges

942 Academic Appointments

Maternal Newborn Care

46% of birth admissions

Medical Inpatient Care

59% of Medical Inpatient admissions

Urgent Care

98,928 patient encounters

Palliative Care

4,715 patients seen by the Palliative Consult Service (46% Non-Cancer Diagnosis)

Seniors Care

7,601 Continuing Care beds

Community Primary Care

Average number of Family Physicians accepting **281** New Patients

Academic Teaching Clinics

provide a Medical Home to over

27,000 patients from Calgary & surrounding areas

98 Publications

221 Presentations

>$2.7 million Research Grants

60 Community parnters, organizations & collaborators engaged in community driven research

5/5 learners in the Undergraduate Family Medicine Education Research Development pilot program matched to family medicine residency programs (two in Calgary)

DEPARTMENTAL STRUCTURE & ORGANIZATION

Clinical DFM Executive Committee

Dr. Michael Spady - Zone Clinical Department Head
Dr. Ann Vaidya - Zone Clinical Deputy Department Head
Dr. Charles Leduc - Academic Department Head
Ms. Allison Mirotchnik - Zone Clinical Department Manager

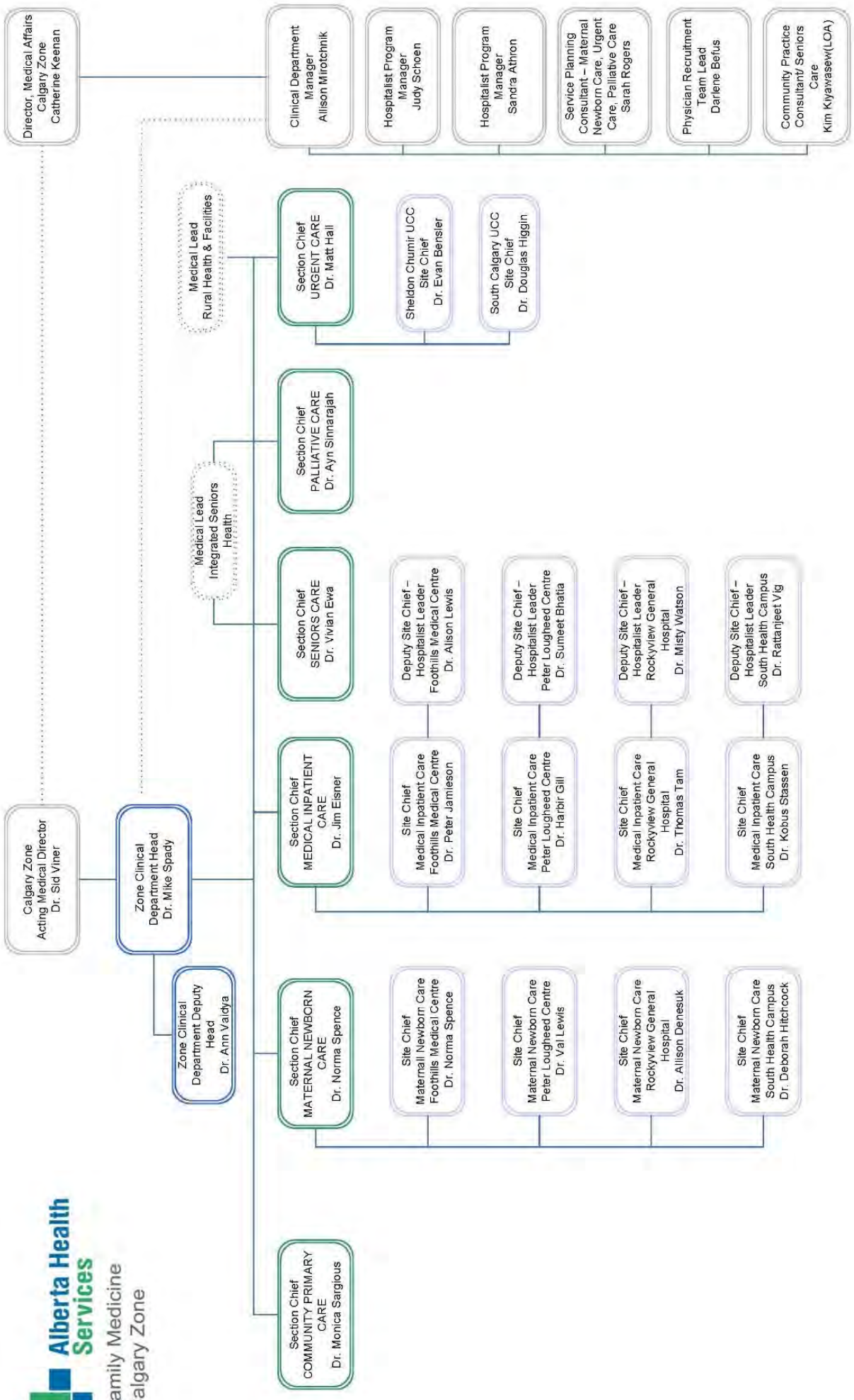
Dr. Norma Spence - Section Chief, Maternal Newborn Care
Dr. Jim Eisner - Section Chief, Medical Inpatient Care
Dr. Matthew Hall - Section Chief, Urgent Care
Dr. Ayn Sinnarajah - Section Chief, Palliative Care
Dr. Marie Patton - Section Chief, Seniors Care
Dr. Vivian Ewa - Section Chief, Seniors Care
Dr. Monica Sargious - Section Chief, Community Primary Care

Ms. Sandra Athron - Hospitalist Program Manager
Ms. Judy Schoen - Hospitalist Program Manager
Ms. Darlene Befus - Physician Recruitment Coordinator
Ms. Kim Kiyawasew - Community Practice Consultant
Ms. Sarah Rogers - Service Planning Consultant

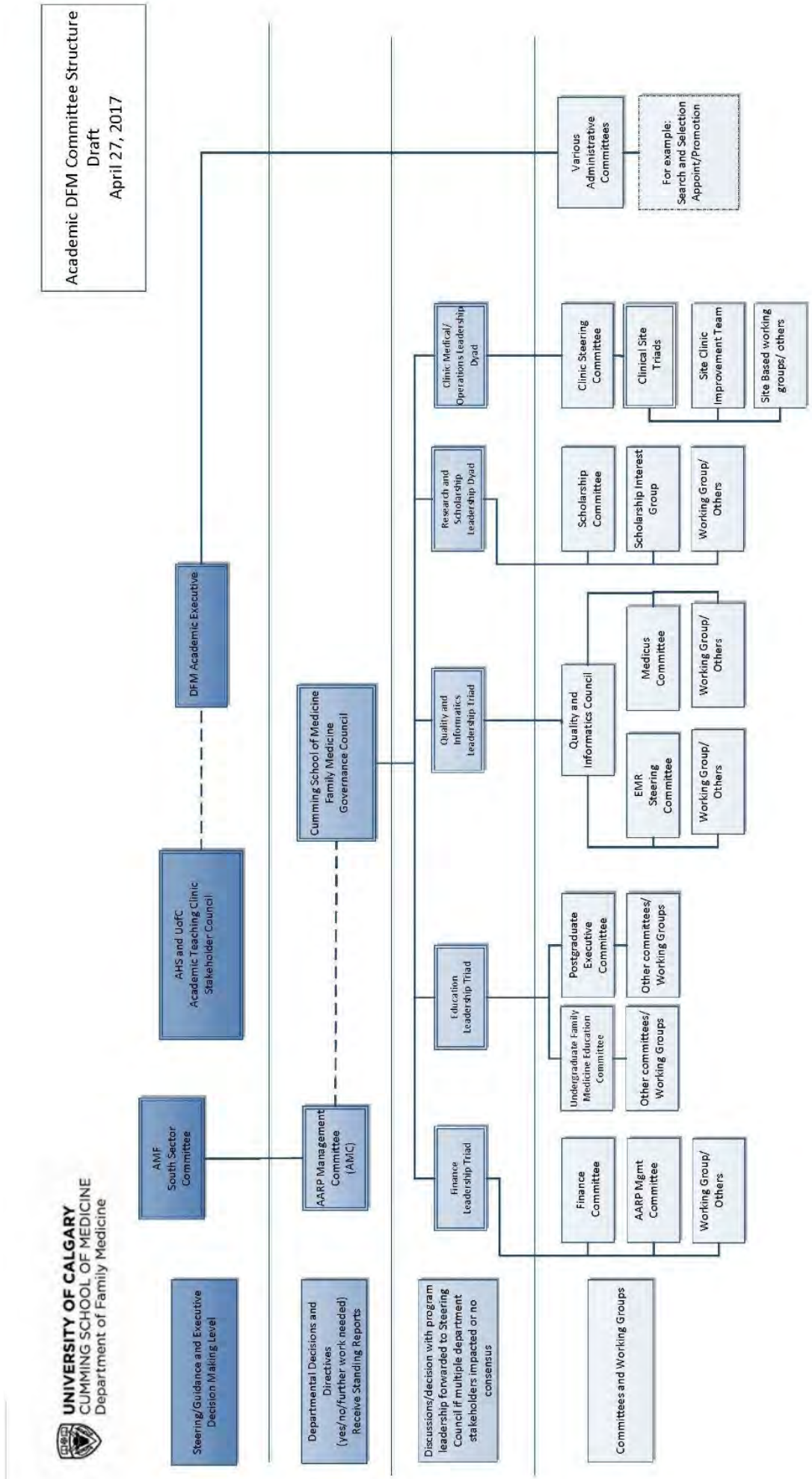
Cumming School of Medicine Family Medicine Governance Council

Dr. Charles Leduc - Academic Department Head
Dr. Sonya Lee - Academic Deputy Department Head
Ms. Allison Mirotchnik - Zone Clinical Department Manager

Mr. Jesse Walper - Senior Financial Analyst
Ms. Medina Dehatee - Business and Finance Consultant
Ms. Meghan Prevost - Communications and Events Coordinator
Dr. Keith Wycliffe-Jones - Postgraduate Program Director
Dr. Martina Kelly - Undergraduate Program Director
Ms. Jeanine Robinson - Education Manager
Dr. Wes Jackson - Advanced Technology and Infrastructure Medical Lead
Dr. Turin Chowdhury - Research Director
Ms. Agnes Dallison - Research Manager
Dr. Maeve O'Beirne - Patients' Medical Home and Quality Improvement Director
Mr. Dave Jackson - Quality and Informatics Team Lead
Dr. Kamran Zamanpour - Academic Clinics Medical Director
Dr. Michael Spady - Calgary Zone Clinical Department of Family Medicine Head
Dr. Ron Spice - Department of Rural Medicine Head / Academic Rural Director
Vacant - South Zone Representative



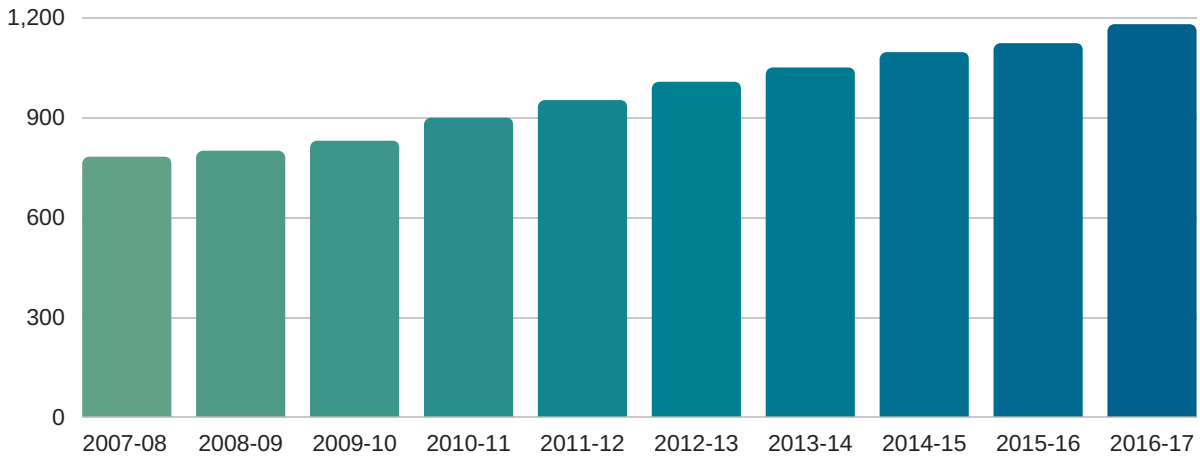
Alberta Health Services
Family Medicine
Calgary Zone


Academic DFM Committee Structure
Draft
April 27, 2017
UNIVERSITY OF CALGARY
CUMMING SCHOOL OF MEDICINE
Department of Family Medicine
Steering/Guidance and Executive Decision Making Level
Departmental Decisions and Directives (yes/no/further work needed) Receive Standing Reports
Discussions/decision with program leadership forwarded to Steering Council if multiple department stakeholders impacted or no consensus
Committees and Working Groups
AMF South Sector Committee
AAHRP Management Committee (AMC)
AHS and UofC Academic Teaching Clinic Stakeholder Council
DFM Academic Executive
Cumming School of Medicine Family Medicine Governance Council
Finance Leadership Triad
Education Leadership Triad
Quality and Informatics Leadership Triad
Research and Scholarship Leadership Dyad
Clinic Medical/ Operations Leadership Dyad
Finance Committee
AAHRP Mgmt Committee
Working Group/ Others
Undergraduate Family Medicine Education Committee
Other committees/ Working Groups
Postgraduate Executive Committee
Other committees/ Working Groups
Quality and Informatics Council
EMR Steering Committee
Working Group/ Others
Medicus Committee
Working Group/ Others
Scholarship Committee
Scholarship Interest Group
Working Group/ Others
Clinic Steering Committee
Clinical Site Triads
Site Clinic Improvement Team
Site Based working groups/ others
Various Administrative Committees
For example: Search and Selection Appoint/Promotion

MEMBERSHIP

Medical Staff Appointments

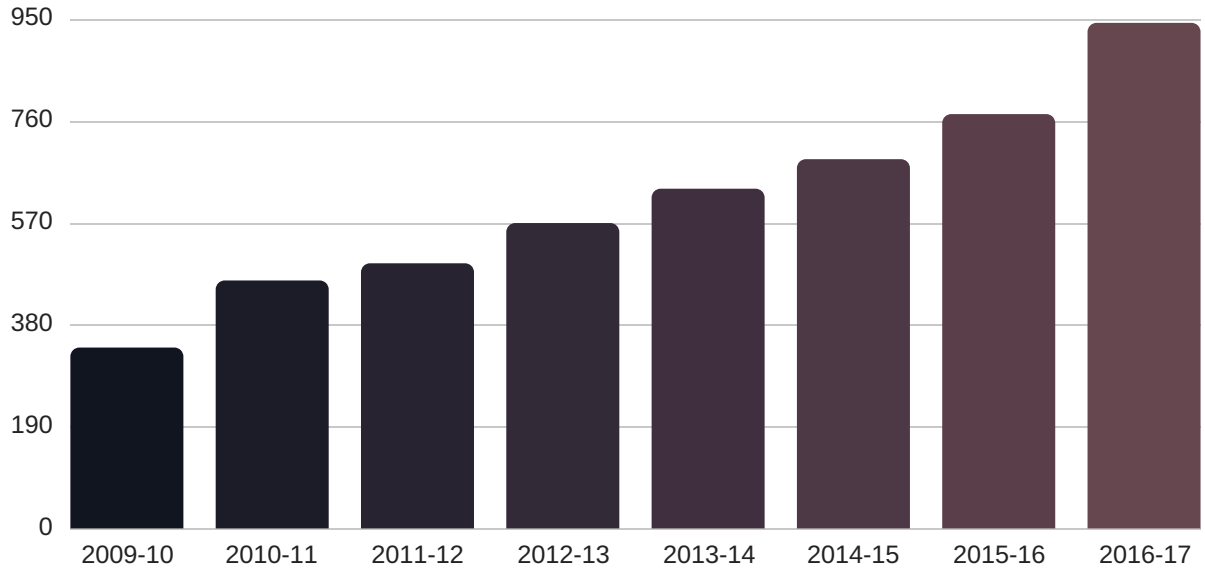
The DFM currently has **1178** privileged physicians. Of the 1178 privileged physicians, **1071** have their primary AHS appointment with the DFM while the remaining 107 physicians hold a primary appointment in another Department and a supplementary appointment with the DFM. The following chart outlines the growth in the DFM's membership over the past decade.



Academic Appointments

Family Physicians who are engaged in teaching at any level; undergraduate, clerkship, postgraduate, and/or enhanced skills are encouraged to have an academic appointment.

There are **942** family physicians who hold an academic appointment with the DFM.



DFM COMMUNICATIONS

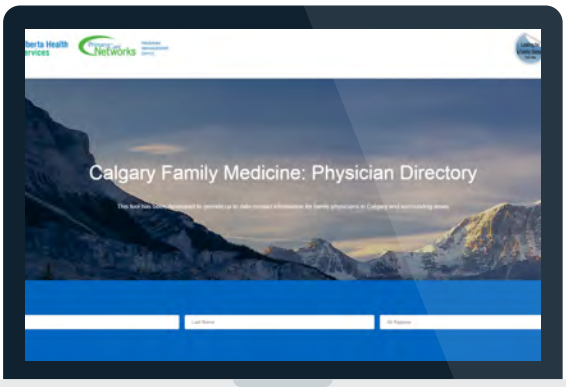
The DFM is in the process of establishing a Department-wide communications strategy. This plan will aim to address the current gaps in communication, while ensuring that departmental communications serve the overall mandate and mission for the Department. Below we highlight some of the current activity, and plans for the future.

DFM Newsletters

The HomePage is the DFM's Clinical bi-weekly e-newsletter that relaunched in January 2017. The goal of the newsletter is to share departmental communications and information from our community stakeholders and partners that is relevant for physicians practicing in the community and within AHS. The HomePage is sent to nearly 1400 people, including clinically privileged physicians and key stakeholders.

The DFM's Academic monthly newsletter, the Abstract, has historically focused on a more internal audience, providing updates on DFM events and projects, as well as research initiatives, awards and staff information. In the future, the Abstract's audience will be expanded to include all academically appointed physicians increasing subscribership to over 1000.

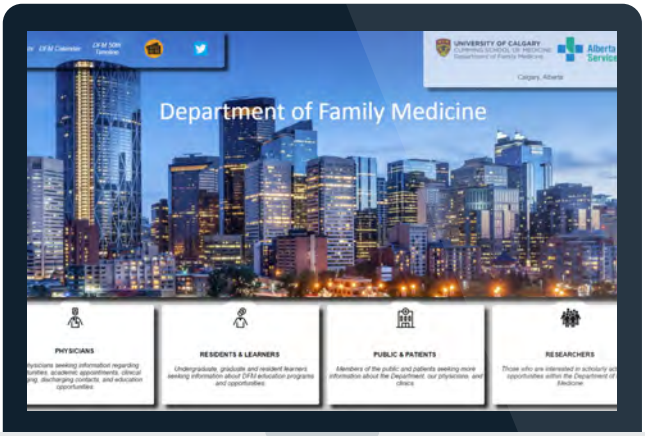
Physician Directory



http://calgaryfamilymedicine.ca/physician-directory/

The DFM Physician Directory was originally co-funded by the Calgary Zone PCNs through the Calgary Zone Primary Care Action Plan Committee (CZPCAP) and the DFM. The directory acts as a central list of all Calgary and area physicians to allow for the coordination of communication with community family physicians, facilitating discharge summaries, and other important patient information to reach the Patient Medical Home efficiently and securely. PCNs work directly with the DFM to keep the list up to date with membership and clinic information. The family physician directory was re-developed this year to better meet the needs of the users.

New DFM Website



www.calgaryfamilymedicine.ca

The DFM website has been redeveloped to incorporate all areas of Clinical and Academic Department activity. Existing content from previous websites was reviewed and transferred into a consistent and central format.
New functions and web applications have been integrated to improve overall user experience. Most of this work has been completed, but there continues to be updates as users frequent the site. Security has also been a major factor in the website upgrade. After monitoring the site traffic, DFM staff have dealt with a number of hacking attempts and cyber-attacks. This has been managed through the implementation of firewalls and other security protocols.

DFM continues to maintain basic functionality of both AHS and University of Calgary (U of C) websites.

Social Media

The DFM engages stakeholders through the use of its Twitter account, @UCalgaryFamMed which gained 126 followers in 2016-2017, for a current total of 501 followers. The DFM uses Twitter regularly to promote events, advocate for primary care, share success and awards, and engage with the wider primary care and medical community.

PHYSICIAN SERVICES

The Physician Services team enables physicians to fulfill their roles within AHS, the U of C, and the community. The team achieves this by:

- Assisting physicians who wish to practice in Calgary connect with job opportunities
- Helping physicians navigate a complex licensing and practice readiness process
- Recruiting preceptors to teach within the three family medicine teaching clinics, and facilitating the hiring, on-boarding, and orientation required for each physician
- Participating in and strategizing and reporting workforce planning in collaboration with zonal and provincial teams
- Collaborating with the Calgary Zone Medical Staff Office (MSO) to ensure timely and accurate privileges are processed
- Managing the collection of AIVA documents

Medical Staff Appointments

57 new applications were processed through the DFM this year, along with **265** change requests.

The physician services team worked with the Clinical sections to ensure privileges and related processes were appropriate for the section and align with the Medical Staff Bylaws.

The changes included:

- Adding Palliative Care procedures for Palliative Care Consultant physicians
- Ongoing collaboration with Medical Affairs and the MSO to implement appropriate privileges for physicians working with the Medical Assistance In Dying (MAID) team
- Developing a streamlined process to manage the large number of Community Primary Care periodic reviews

The team continues to work with physicians and the MSO to ensure that the privileging process is efficient, and recognize that physicians can be affected by the documentation requirements and time frames for processing privileges. The team is committed to adapting processes to manage the complex documentation and tracking required, and are working on guidelines to manage physicians not in compliance.

Academic Appointments

150 New appointments in progress
150 Upcoming reappointments

The team has been working towards electronic record keeping for all academic appointments. In addition, a new tracking process was developed for the re-appointment process of physicians with an academic appointment.

Physician Recruitment and Engagement

This year, the Physician Services Team focused on the following initiatives:

- Enabling an application and review process for the Maternal Newborn Care and Urgent Care sections. The Urgent Care method is a collaborative process between the urban and rural Urgent Care centres in the Calgary Zone and the Department of Rural Medicine
- Recruiting three physicians for the academic teaching clinics (two permanent and one locum)
- Hosting the 17th Annual Family Medicine Showcase
- Attending the 2016 Family Medicine Forum and the 2017 Annual Scientific Assembly

Photo: 17th Annual Family Medicine Showcase

CLINICAL

MATERNAL NEWBORN CARE

Section Chief – Dr. Norma Spence
FMC Site Lead – Dr. Norma Spence
PLC Site Lead – Dr. Valerie Lewis
RGH Site Lead – Dr. Nicola Chappell (until December 31, 2016)
Dr. Allison Denesuk (as of January 1, 2017)
SHC Site Lead – Dr. Deborah Hitchcock

The DFM Maternal Newborn Care section provides prenatal care to approximately 50% of Calgary patients, and is responsible for approximately 40% of the deliveries in the City of Calgary. Physicians work within a dynamic multidisciplinary care model with close interaction with Obstetrics, Anaesthesia, Nursing and Midwifery.
The Maternal Newborn Care section has a strong presence at all four adult hospitals providing antenatal, intrapartum and postpartum care.

Family Medicine admitted **46.1% (8580)**
Family Medicine delivered **33.2% (5991)**

Total births in Calgary in 2016= **18623** (Family Medicine, Obstetrics, and Midwifery)

Guideline Development

Collaborative Care

The newly revised *Maternity Care Team Collaborative Care* Guideline demonstrates commitment to a patient-first approach and culture of quality and safety. The guideline acknowledges complex situations and challenges that obstetrical providers may face, and provides recommendations about how work together to provide optimal patient care. The guideline will be implemented at each acute care site in Calgary over the coming year.

Frenotomy Procedure

As access to providers who perform procedures to release a tongue-tie (frenotomy) became increasingly available, the number of procedures performed to correct a tongue-tie has increased. The existing zonal guideline for tongue-tie treatment did not include information about feeding (both bottle and breast) or functional assessments. Updates to the guideline include tools required to assess and treat a tongue-tie. Following the final approval of this Guideline, the DFM will host a Frenotomy workshop at which Calgary providers will receive training for the assessment and treatment of a tongue-tie.

Venous Thromboembolism Prophylaxis in Pregnancy

The DFM is working to update the Venous Thromboembolism (VTE): Peri-natal Prevention and Treatment Policy and Procedure with other Obstetrical providers. These providers include Family Medicine, Internal Medicine, Obstetrics, and Midwifery. Provincially, there has been effort to standardize VTE Prophylaxis in Alberta facilities, and this work will align with the provincial strategy.

PLC Renovations

The Peter Lougheed Centre (PLC) began a renovation of the neonatal intensive care unit (NICU), post-partum unit, labour and delivery unit, antepartum unit, triage unit, and obstetrical operating rooms and recovery rooms in August. To ensure the safety of patients during the renovation, stakeholders at PLC have established monitoring processes to manage potential overcapacity times during the construction process. The renovations are expected to be completed in 2018.

Quality Improvement and Assurance

Antenatal Colostrum

The Maternal Newborn Care section is working to revise the existing patient information handout and implement a patient survey relating to the collection and use of antenatal colostrum. The goal is to have all low risk groups distribute the patient handout and survey going forward.

Intrapartum Examinations

At each of Calgary's acute care facilities, a data collection tool was introduced to count the number of examinations being performed. The inclusion criteria for this project included female patients who were admitted by a family physician, term pregnancies (> 37 Weeks, 0 days), and confirmed ruptured membranes (obvious rupture or ferning positive). The goal of this project was to identify if patients who received a higher number of intrapartum examinations were at an increased risk of fever or a NICU admission.

Adverse Event Monitoring and Reporting

Using secure data collection, the section collects information relating to adverse maternal-fetal events in low risk patients in Calgary. These events, or close calls, refer to events that could have resulted or did result in complications. These results are reviewed by Maternal Newborn QA Committee and are shared with obstetrical colleagues.

Lab testing in Pregnancy

The Maternal Newborn Care and Community Primary Care section leaders are reviewing strategies to reduce the number of unnecessary tests for women who are pregnant or planning pregnancy. Over the next year we will work together with the Physician Learning Program and Calgary Lab Services to create a standard of care for prenatal testing in otherwise healthy women.

accountability

Locum Hiring

To provide a transparent and streamlined application process for physicians to express interest in working within the section, a locum workforce group was established.

During the initial meeting between the low risk group leads and the DFM, the group reviewed current process and identified areas for further work and improvement. A new process was developed involving regular meetings through the year to review applicants and determine future needs for locum coverage.

This also includes engagement with the DFM Academic Education pillar to ensure a consistent message is being received by U of C residents around job availability.

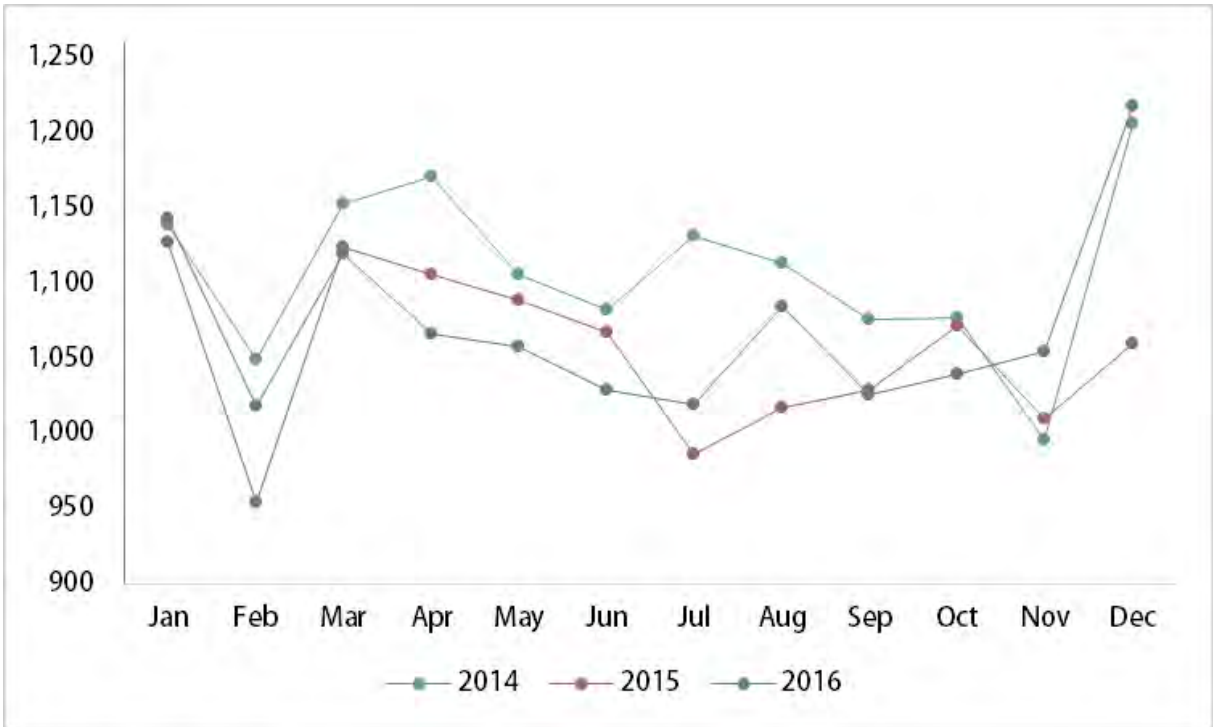
MEDICAL INPATIENT CARE

Section Chief - Dr. James Eisner
FMC Site Chief - Dr. Peter Jamieson
PLC Site Chief - Dr. Harbir Gill
RGH Site Chief - Dr. Thomas Tam
SHC Site Chief - Dr. Kobus Stassen

The Hospitalist Program provides high quality responsive and timely care for patients requiring admission to an acute care facility. As the Most Responsible Physician (MRP), hospitalist physicians play a valuable role in the delivery of family medicine level care to patients requiring hospitalization.

Hospitalists admitted **13299** patients in 2016 (excluding Rapid Access Unit [RAU]). This accounted for **96%** of admissions by Family Medicine and **59%** of total medical inpatient admissions.

Admissions by Hospitalist Physician



The Hospitalist program is comprised of two services. Patients under the hospitalist service are generally acutely ill and are receiving active medical care. Patients under the sub-acute service have completed the acute phase of care and are generally requiring an alternate level of care such as rehabilitative or long term care.

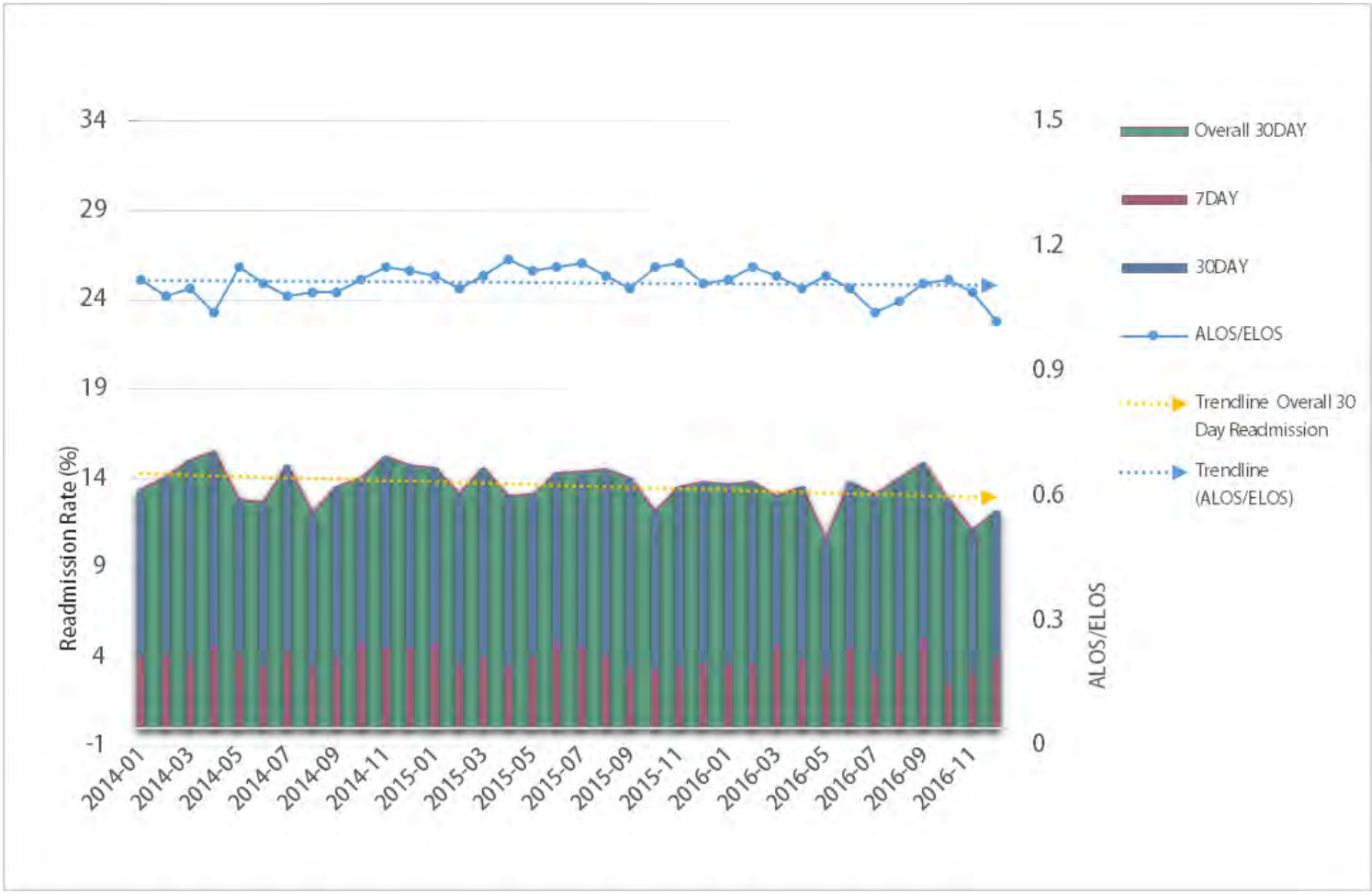
The hospitalist service had an average of 13795 patient care days a month while the sub-acute service had an average of 7464 patient care days a month in 2016. A total of 255,110 patient days of care were provided by the hospitalist service.

The Hospitalist program continues to be a major contributor to improving patient flow through the Emergency Department reflected by continued efforts to reach the target of 80% of consults having a disposition within two hours. Average median time in 2016 was 105 minutes, a slight increase from previous reporting periods but remaining well below the target of 120 minutes.

ALOS/ELOS ratio and Readmission rates

The section continues to track Length of Stay and readmission data in order to identify, recommend and/or implement system and individual strategies for improvement. The chart below reflects slightly decreased Actual Length of Stay/Estimated Length of Stay (ALOS/ELOS) ratios and readmission rates. Targeted review of charts with ALOS/ELOS ratios exceeding two are conducted to identify opportunities for improvement.

ALOS/ELOS and Readmission Rates 2014 - 2016



Hospitalist Physician Dashboard

The Hospitalist program created an individualized physician performance indicators report. Utilizing Tableau as a platform, the report enables physicians to reflect upon their own performance in relationship to their peers and AHS benchmarks.

This report is provided to all hospitalist physicians on a quarterly basis across the four acute care sites. Additional information related to Case Mix Groups for ALOS/ELOS greater than two on an individual and program wide basis provides the opportunity to identify educational and systemic opportunities for improvement.

Best Sedative and Antipsychotic Use for the Elderly

The Best Sedative and Antipsychotic Use for the Elderly (B-SAFE) project was designed to promote knowledge translation of guidelines and evidence into practice through the use of individualized and aggregate prescribing reports and educational interventions.

A reduction in the utilization of these agents was achieved demonstrating that individualized feedback on physician prescribing (supported by medical education) is an effective tool in changing prescribing behaviour.

Reduced Administration of Antipsychotics and Sedatives

- **15.7%** relative decrease in overall sedative prescribing.
- **18.8%** relative decrease in zoplicone prescribing.
- **34.7%** relative decrease in haloperidol prescribing.

Patient visits where both antipsychotic and sedative medications were given had a relative decrease of 38.9%.

Hospitalist Ward Call Night referral

There is a hospitalist ward physician scheduled for each acute care site to attend to patients requiring urgent reassessment, follow up on outstanding clinical issues and to provide medical direction to the multidisciplinary team after regular hours. A variety of methods have been employed to handover patients from the attending physician to the ward physician. Most rely on the attending physician remembering to relay pertinent information to the ward physician. In order to improve consistency and convenience, an electronic method was created utilizing Sunrise Clinical Manager (SCM). An electronic order “Hospitalist Ward Call Night Referral” was created and trialed by the PLC Hospitalist group.

This electronic handover is to improve efficiency, the quality of handover information, safety and comprehensiveness. Based on positive initial results, adoption of the electronic process is in the early stages of implementation for all acute sites.

Hospitalist Opioid Action Plan

In Alberta, between 2014 and 2016, 637,000 people received 3.7 million opioid dispensations. Of these people, approximately 12% had dispensations >200 morphine milligram equivalents (MME)/day, and 23% had dispensations >90 MME/day. A review of the Calgary Zone Inpatient Opioid Dosing Analysis dashboard revealed that 14% of Hospitalist inpatients received opioid doses exceeding the 90 MME/day threshold. Although this proportion is similar to other medicine services, as Calgary’s largest admitting service, this translates to over 5800 visits in the previous two years.

To facilitate appropriate use of these agents and create awareness throughout the Hospitalist program, a program wide education session “Opioid-Related Death: improving safety” was delivered by Drs. Lori Montgomery and Nicholas Etches.

A project plan has been developed to implement strategies targeting two elements set forth in Health Canada’s Opioid Action Plan:

1. Reducing the harms of opioid drugs, and
2. Better informing Canadians about the potential risk of opioids.

Discharge Summary Project

The RGH hospitalists lead a QI initiative to standardize and improve discharge summaries. Based on a literature and practice guideline review to better understand information and format that is required to create a discharge summary that supports safe, effective and efficient transfer of care into the community, a hospitalist discharge summary guideline document was created. A team of hospitalists compared the guidelines with the SCM discharge summary template currently in place. With further feedback from and collaboration with community stakeholders and leadership, the team has created a hospitalist discharge summary template that will become the standard for all four acute sites.

The template has been submitted to the SCM team for development and roll out is expected to occur in the fall of 2017.

SHC Early Discharge Project

The South Health Campus (SHC) Hospitalists worked with multidisciplinary team members to develop and implement a new discharge model. A number of improvement cycles were conducted to streamline the admission to discharge pathway to improve timely discharges and mitigate the challenges experienced as a result of high capacity.

Discharge planning education, launch of Discharge Education Resource Tool Kit and the Patient Discharge by 10am poster occurred and it is anticipated that these activities will result in increased numbers of patients discharged by 10am.

excellence

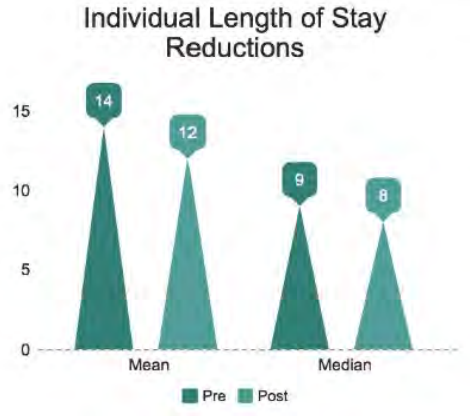
Glycemic Optimization (GO) Project

The aim of this project is to improve quality of patient care through glycemic optimization. Working closely with the Diabetes, Obesity and Nutrition SCN, interventions such as multidisciplinary education resources, revised order sets, improved diabetes tracking tools, Hospitalist diabetes data collection, and case studies were developed.

Background

- One in five patients admitted to medical inpatient units have diabetes
- Hyperglycemia is associated with morbidity and mortality
- Diabetic patients admitted to the hospitalist program were spending 35% of their admission days in a hyperglycemic state
- Diabetic patients have a length of stay two days longer than patients without diabetes
- Basal Bolus Insulin Therapy (BBIT) is recommended by best practice guidelines

Preliminary results include the statistically significant results of an increase of BBIT ordered from **27%** to **40%** and a decrease in hyperglycemia days > 14 from **35%** to **33%.** Patient's length of stay has seen an overall **14% reduction** since the implementation of the GO Project



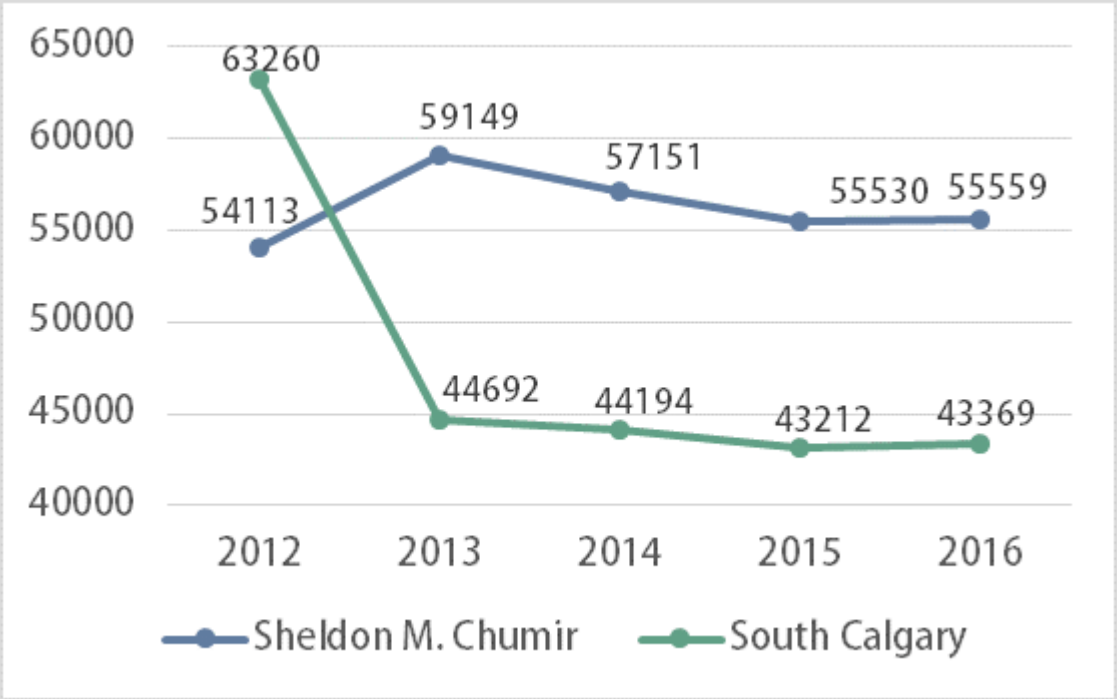
URGENT CARE

Section Chief - Dr. Matt Hall
Sheldon M. Chumir Urgent Care Site Lead - Dr. Evan Bensler
South Calgary Urgent Care Site Lead - Dr. Douglas Higgin

The Calgary Urgent Care section provides services for people who have unexpected but non-life-threatening health concerns that usually require same-day treatment. Urgent Care works together with its community partners and the acute care Emergency Departments to give patients options for care that reduce stress on our emergency rooms and support our community partners when clients have needs that require a different level of resource and support. Both the urban sites of Sheldon M. Chumir and South Calgary serve unique populations with a range of presenting issues. Patients are seen according to the level of urgency of their condition, using the triage criteria standardized and adopted across all Calgary emergency rooms and urgent cares. The section continues to investigate ways it can enhance the connections with referring groups and with emergency services in the city.

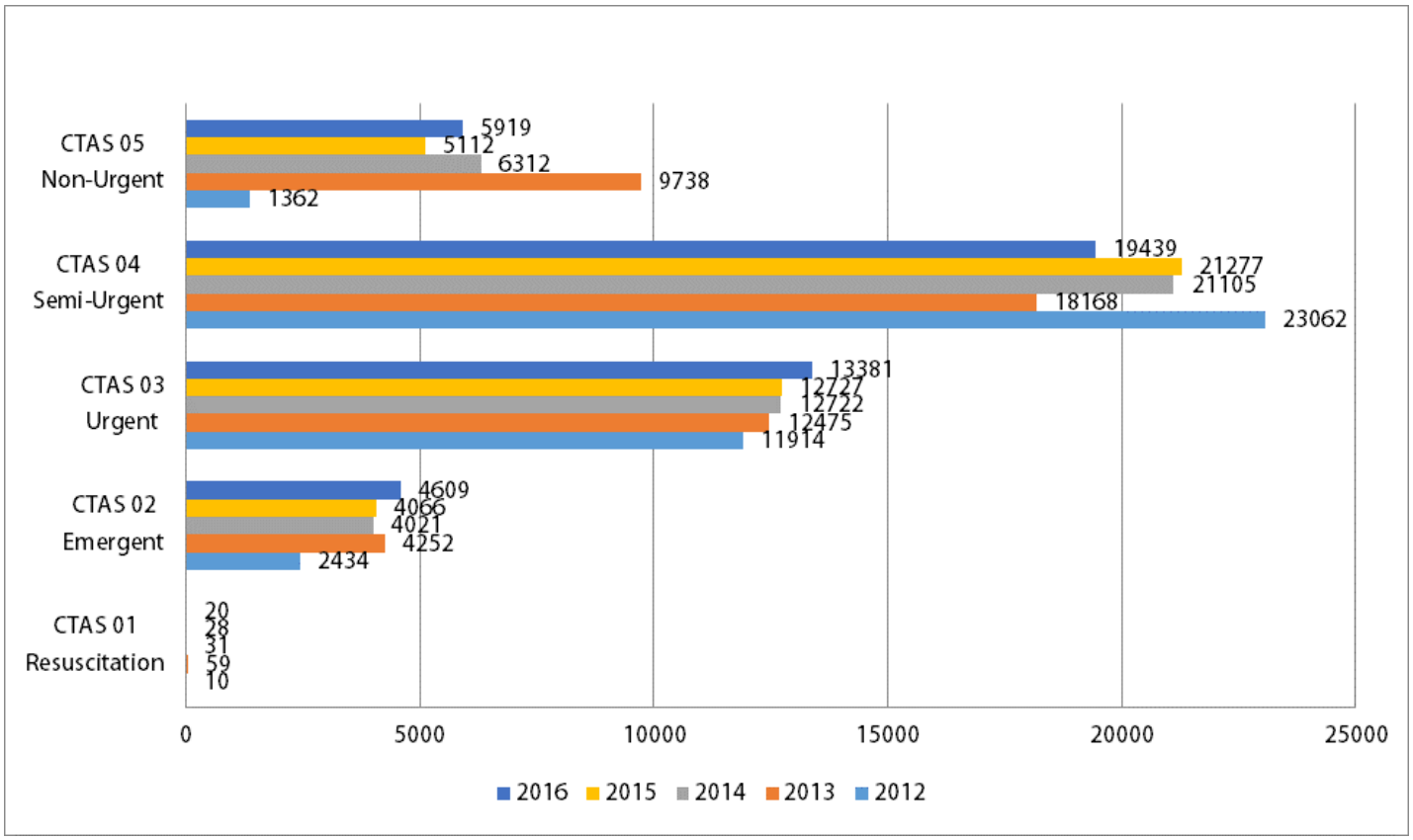
The AHS Urgent Care portfolio was restructured to bring the two urban urgent care sites under the Community Health portfolio, while the rural sites remain under the oversight of the Department of Rural Medicine. The section continues to have strong and stable physician leadership at both the South Calgary and Sheldon M. Chumir sites, supporting quality and patient-centered care, and all rural and urban sites retain very strong connections as they continue to work toward standardized care, workforce planning efficiencies, and the development of educational opportunities for their members.

Presentations to Calgary Urgent Care 2012-2016

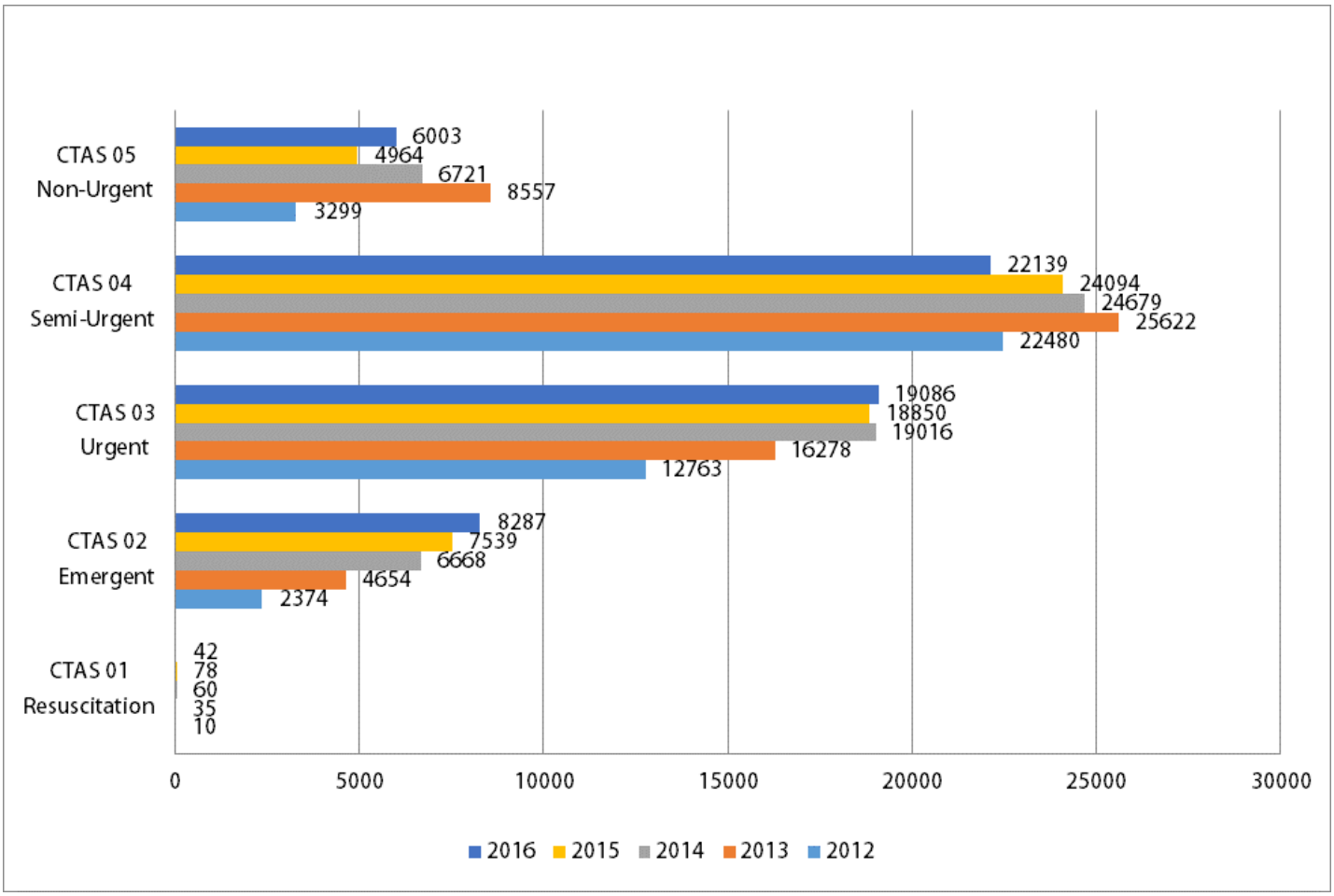


* South Health Campus opened in 2013

South Calgary Patient Presentations by CTAS



Sheldon M. Chumir Patient Presentations by CTAS



Sheldon M. Chumir Urgent Care

The Sheldon M. Chumir Health Centre Urgent Care Centre offers 24 hour urgent care services in downtown Calgary

Complex Integrated Care Plan

Spearheaded by the resident Social Worker Laura Deveraux, with participation from nursing and an Urgent Care physician, the team works to develop care plans for Sheldon M. Chumir's most complex clients. Care plans are built with input from the patient's family physician, Emergency Medical Services (EMS), Calgary Urban Project Society (CUPS), social work, medical specialists, and clients. In the last year, the care plans have been integrated into SCM. Additionally, if these clients present at an acute care ED in Calgary, the plan is available through Sunrise Emergency Care (SEC), a module within SCM used at all urban acute care sites, this ensures providers are informed of the patient's care plan which enables optimal patient-centered care. The work is gaining wider recognition for the value it offers patients, providers, and the health care system through the Calgary High Needs population steering committee.

RAAPID

With a goal of improving access and communication, the Sheldon Chumir Urgent Care Centre is initiating a trial of receiving referrals from Referral, Access, Advice, Placement, and Information and Destination (RAAPID) to Sheldon M. Chumir Urgent Care. This will provide an alternative destination to the ED for patients being referred in from community practices, and aims to increase connections with family doctors via improved communication.

Alpha House Detox

Sheldon M. Chumir Urgent Care Centre and Alpha House Detox have long recognized their shared demographic of patients, but appreciated the need for improved tools to communicate with their patients and provide for the treatment of alcohol withdrawal. Sheldon M. Chumir Urgent Care developed a referral process and communication tool that has helped address this gap in service.

Community Paramedic Program

Sheldon M. Chumir has realized a possible opportunity for community collaboration with the Community Paramedic Program, a mobile service that offers immediate and advanced assessment at the patient's location (i.e. respiratory, cardiac, and environmental) and onsite diagnostics such as specimen collection, electrocardiograms (ECG), blood glucose, oxygen saturations, and monitoring of carbon dioxide (CO_2) levels. There has been initial conversations about the possibility of working together to provide Intravenous antibiotic therapy to patients at shelters who would otherwise not qualify for Home Parenteral Therapy Program (HPTP).

South Calgary Urgent Care

The South Calgary Health Centre offers urgent care services from 8:00 am to 10:00 pm seven days a week

South Calgary Urgent Care focused on initiatives to improve flow and efficiency and have reviewed many of their protocols used to see if cost savings could be found. A QI committee was established and is currently looking at possible ways to partner with South Calgary PCN to improve care for the area residents. The physician group has remained very stable and continues to be community engaged, providing innumerable volunteer hours to both local and International organizations.

The QI Committee has been focusing on the following initiatives:

- Commitment to Comfort (management of pain in pediatric population with limb injuries), with improvements in percentage of pain scores documented at triage and earlier & more frequent administration of analgesic
- Mandatory staff meetings addressing effective communications
- Chart audit tool updated for use by designated Registered Nurse (RN) auditor
- RN rep on the Request for Proposal (RFP) committee of the provincial Clinical Information System (CIS) project

Urgent Care Conference

This conference was held in October 2016 for physicians, nurses and nurse practitioners working in Urgent Care Centres (UCC). This year's conference, "Urgent Care Vitals," focused on urgent presentations in children, adults and elderly, with hands-on skill stations available in small group sessions to enhance a practical approach to common patient presentations. The content provided participants with an update on the management of several urgent clinical conditions that could present at an Urgent Care Centre.

respect

Physician Workforce

Together with the Department of Rural Medicine, the DFM was successful in creating an application process for all physicians are interested in working within the Urgent Care section.

Within this process physicians submit an application, inclusive of a Curriculum Vitae (CV), to either Department where it is stored for one year. If within that year, any of the Calgary Zone Urgent Care sites requires additional physician workforce, they are encouraged to review the physicians who have applied for a position. At this time, those physicians who meet the criteria for the position are contacted for an interview.

PALLIATIVE CARE

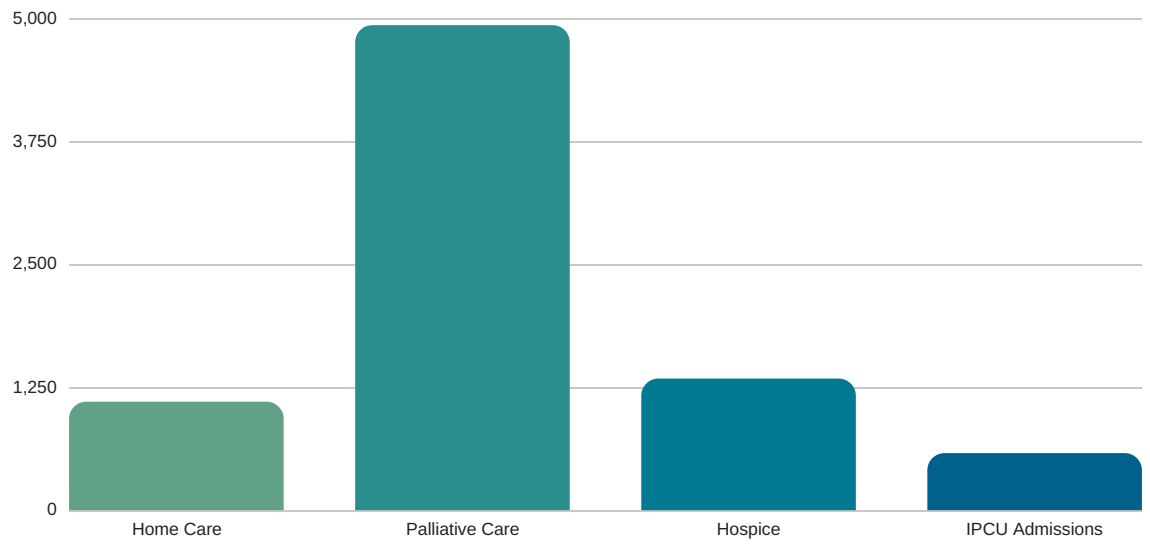
Section Chief – Dr. Aynharan Sinnarajah

Palliative Care services continue to grow as the demand increases in Calgary, especially within non-cancer diagnoses.

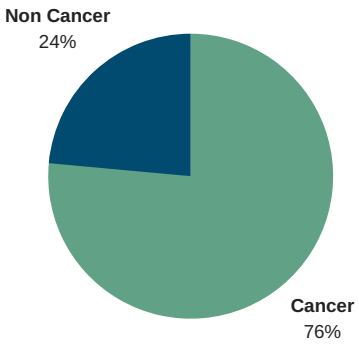
There are 32 palliative physician consultants, who provide consultative support to palliative patients across all service areas in the Calgary Zone. Palliative care physicians are also active members within the Division of Palliative Medicine, Department of Oncology. The section physicians are exceptionally active in their field, including travelling to present at national conferences, writing research papers, and providing expertise at both local and national committee levels.

The palliative section continues to focus on exploring ways to better support chronic disease clinical groups (i.e. advanced lung disease and advanced liver disease) to enhance delivery of primary and secondary palliative care. Expanding palliative care service capacity to see more patients will help with this. There is also renewed focus on certifying palliative care consultants to offer primary palliative care workshops through Pallium Canada's Learning Essential Approaches in Palliative Care (LEAP).

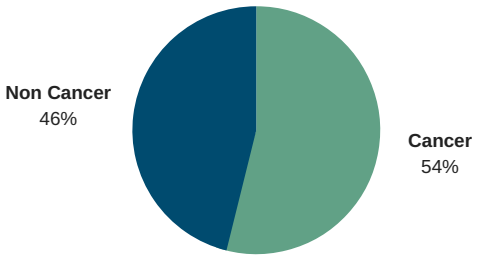
Utilization by Program



Hospice



Palliative Consult



Intensive Palliative Care Unit

DFM Physicians at the FMC Intensive Palliative Care Unit (IPCU) have been working to improve the patient and family experience through a number of new initiatives, including, implementation of a functional assessment tool called the Palliative Performance Scale and CoACT. The IPCU team also developed an educational brochure to enhance communication and aid understanding of the services that are provided to patients and families.

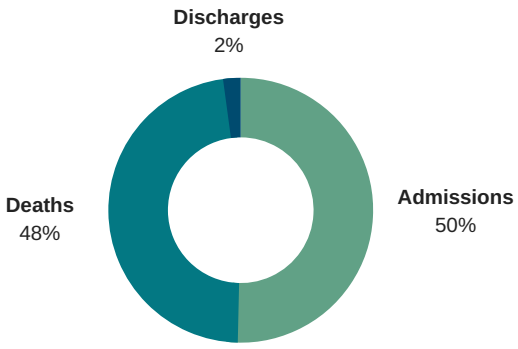
Postgraduate and Undergraduate Program

The current Palliative Medicine program, which historically has been a one year program conjointly accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC) and the College of Family Physicians of Canada (CFPC), will be discontinued on June 30, 2017 by both Colleges. As of July 2017, the DFM post-graduate program will offer a 12-month Enhanced Skills Residency Program in Palliative Care. The Program is fully accredited by the CFPC. Upon completion of the Program, the successful Resident is awarded a Certificate of Added Competence from the CFPC.

Hospice

The seven Calgary Zone hospices underwent audits for the Continuing Care Health Service Standards (CCHSS) through February and March 2017. Calgary Hospices were successful in passing their audits and feedback received from the auditing team was very positive; in fact, the care plan templates that were created by one of the local hospices in preparation for CCHSS are now being shared provincially.

Hospice Admissions, Deaths, and Discharges



Palliative Home Care

The Integrated Palliative Home Care (within city of Calgary) program is a 24/7 service intended to support patients and families, living in the community, through the end stage of an illness. The program provides holistic, inter-professional, patient centered care to patients, living with a variety of illnesses, including, cancer, chronic heart failure, dementia, chronic obstructive pulmonary disease, end stage renal disease, and ALS. On average, the program receives 90 new referrals per month. There are approximately 400 patients on the program at any point in time.

Palliative Home Care collaborated with EMS to implement phase two of the provincial initiative known as the Emergency Medical Services – Assess, Treat, Refer (EMS ATR) Program, to support patients experiencing palliative emergencies within the community setting. There were 62 EMS ATR activations, and the majority of patients (79%) were not transported to hospital.
Palliative Home Care also collaborated with the Calgary Mobile Palliative Outreach Program (CAMPP) in a pilot project with the goal of partnering to develop a sustainable palliative outreach program for the homeless and vulnerably housed population.

Ensuring timely access to Palliative Home Care remains a challenge across the Calgary Zone. Palliative Home Care is collaborating with palliative leaders in a research project (PaCES – Palliative Care Early and Systematic) anticipated to begin in summer 2017 to explore early palliative care interventions for patients with advanced colorectal cancer.

Palliative Care Consult Service

The Palliative Consult Service sees a varied client base, including patients in vulnerable situations, and clients with both cancer and non-cancer diagnoses.

The Palliative Care Consultant Service initiates and partners with many programs and services to enhance the care provided to those patients, including:

- CAMPP works with CUPS, Alpha House, and the Calgary Drop In centre
- Mobile Response Team
- No One Dies Alone program
- Alberta Parks
- Mount Royal University

compassion

Patient and Family Centered Care

Patient and Family Centered care is an embedded philosophy in the provision of palliative care that embodies the collaborative approach to delivering care. Many teams and providers within the PEOLC portfolio receive informal feedback from patients and families in varying ways. Strategies have also been used at times to seek feedback and input from patients and families regarding a number of program projects. The Calgary Zone PEOLC strategy is to develop a business plan for the upcoming year that addresses strategies in a formal and intentional manner.

The priorities identified are to seek input and feedback from patients and families regarding:

- Experience of our services
- Further development of program information that is provided to patients and families, including the program brochures and public website

SENIORS CARE

Section Chief
Dr. Marie Patton (until September 2016)
Dr. Vivian Ewa (as of September 2016)

Continuing Care for mature adults incorporates a variety of services from home care to supportive living or facility based care. Family Physicians provide this care in the community in partnership with interdisciplinary team members within PCNs and home care teams.

With an increase of 120 beds over the last year, current capacity is:

- Long Term Care beds = **5358**
- Supportive Living 3 beds = **1565**
- Secured Supportive Living 4 beds = **678**
- Total beds = **7601**

Including renovations and additions to current sites and the development of **10 new continuing care facilitie**s, the Calgary Zone looks to add **1407 beds by 2019**.

Photo: Maria Celis, Yasmin Majeed, Vivian Ewa, Bunmi Oyebanji and Marie Patton

Complex Geriatric Assessment Form for Home and Supportive Living

A new provincial Complex Geriatric Assessment form has been developed for home care and Supportive Living providers who complete complex geriatric patient assessments. This Complex Geriatric Assessment form is now is available to anyone who is able to access the Meditech electronic medical record system, and will be uploaded to Netcare. In the future, the group aims to make the form available to all providers.

Medication Reconciliation project

A pilot project aimed at reducing multiple versions of discharge medication lists and timely provision of discharge summaries with discharge prescriptions is being conducted by the Integrated and Supportive Living (ISFL) Pharmacy team and the SHC hospitalist group. Initial results from 20 charts evaluated post intervention showed that compared to baseline there was a decrease in the total and average number of discrepancies in discharge medication prescriptions. Results of this study will inform changes in the way discharge prescriptions for patients in Long Term Care facilities are processed.

Care of the Elderly Certification

The College of Family Physicians of Canada awarded its first Care of the Elderly (COE) certification to a number of family physicians in Calgary. These included family physicians who had completed the 3rd year Enhanced skills Care of the Elderly training in an accredited University program and those demonstrating excellence and leadership in providing care to the elderly population in their communities.

Nursing Home Sleep study

Given the high risk of falls in frail elderly patients on hypnotic-sedatives and the high prevalence of insomnia in continuing care facilities, a QI project is being conducted at The Brenda Strafford Wentworth Care Center to review the impact of a patient-centred staff education intervention on reducing sedative hypnotic use in long term care patients.

Dementia

There are ongoing discussions with Geriatric Mental Health Consultation Service leadership team in Integrated and Supportive Living to develop models of care to address increasing responsive behaviors in Long Term Care and Supportive Living facilities and across the continuum of care.

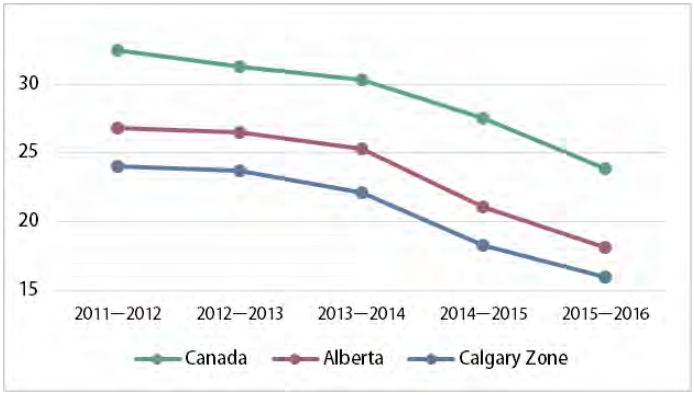
Quality Service Report

The Canadian Institute for Health Information (CIHI) report describes audit findings for the 2015-16. Identified areas of strengths throughout the Long Term Care stream included excellent rapport and strong communication with patients and families, and evidence of significant investment into QI programs and initiatives. Areas requiring improvement included care planning, managed risk agreements, infection prevention and control, medication management, oral care, and restraint management.

Some highlights of current best practice and areas for improvement noted in the report are identified below.

Appropriate use of Antipsychotics

Potentially Inappropriate Use of Antipsychotics in Long-Term Care



Calgary continues to show strong numbers with regards to the reduction in inappropriate use of antipsychotics in long term care facilities. Rates much lower than the provincial and national average at 16.0%. This work can also be linked to the Hospitalist program physician's B-SAFE project.

Pain Management

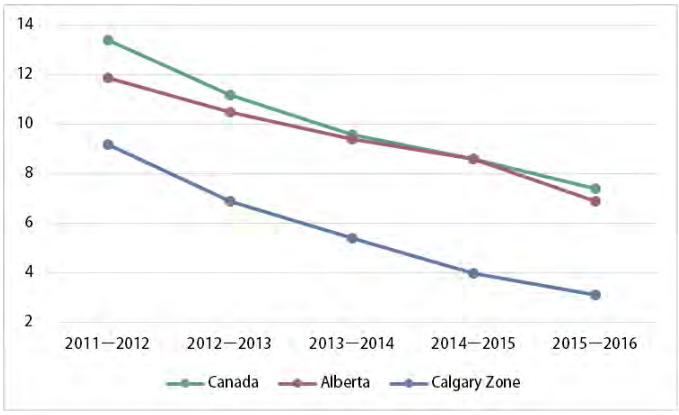
This is an opportunity for improvement in pain management within the seniors population, thus QI project has been developed to look at pain assessment tools in Long Term Care facilities.

Currently minimum data set (MDS) pain assessment tool is being used by most facilities. A QI project on the use of Pain Assessment in Advanced Dementia Scale (PAINAD) as an alternative is being explored at the McKenzie Towne Care Center and AgeCare Glenmore.

Environmental restraint in Long Term Care

The definition of an environmental restraint in the Calgary Zone remains unclear. For example, a secured unit for patients with dementia is currently classified as an environmental restraint. Patients with advanced end stage dementia are usually on these units given their care needs and therefore not physically restrained due to lack of mobility. Should a patient require environmental restraints, a physician order is required within 72 hours of admission to the unit. There is a real potential for this to impact discharge from acute care given the time line for orders. The Seniors Care section will work with Transition Services, Long Term Care physicians, and Supportive Living physicians to streamline processes. This work will include partnership with the provincial audit team in redefining environmental restraint and identifying patient characteristics.

Restraint use in Long Term Care



Restraints use continues to decline and are at an all-time low of 3.1%, significantly better than the provincial and national rates of 6.9% and 7.4% respectively.

COMMUNITY PRIMARY CARE

Section Chief – Dr. Monica Sargious

The Community Primary Care section aims to improve Primary Health Care delivery by:

- Collaborating with the Calgary Zone PCNs
- Advocating for, developing and implementing services which support family physicians and a Medical Home Model of primary care
- Enhancing communication among community-based family physicians and developing a better understanding of issues that affect them
- Ensuring that the family physicians' perspectives are included in the development and implementation of AHS programs and initiatives
- Supporting family physicians to enhance their practice and develop both professionally and clinically
- Advocating for patient safety in community primary care settings
- Overseeing privileging for Day Medicine, Surgical Assisting, and Specialized outpatient clinics such as the East Calgary Family Care Clinic, the Sexual & Reproductive Health Program and the Elbow River Healing Lodge

Primary Care – A Coming of Age for Family Medicine

Celebrating their 50th year, the DFM hosted an evening event featuring Dr. Mike Evans, creator of the worldwide YouTube sensation "23 ½ hours" which has been viewed by over five million people.

Following the keynote evening, the DFM held a full day program comprising of a variety of topics of interest to family physicians and members of their multidisciplinary teams.

Talks featured local expertise on such topics as:

- Type 2 Diabetes
- Chronic Obstructive Pulmonary Disease
- Chronic Pain
- Congestive Heart Failure
- Geriatric Assessment and Goal Setting
- Physician Assisted Death
- Refugee Health

Family Physician of the Year

As always, choosing only one in this field is a challenge. Quoting one of our winner's patients, "this doctor stands out among a peer group that is excellent to start with". Dr. Roger Thomas was awarded the Outstanding Family Physician of the Year for 2016 at this year's Mackid Symposium. Dr. Thomas has 33 years of teaching behind him and 132 peer-reviewed publications. He volunteers on a helpline for children with developmental issues. No wonder he has won a lifetime achievement award from the College of Family Physicians of Canada.

To quote another of his patients: "I believe awards would mean nothing to this man, but if this is an award that comes from the patients he sees everyday it would mean everything to him".

Photo: Dr. Mike Spady and Dr. Roger Thomas

Service Guidelines

The Site Medical Directors have agreed on a set of service guidelines to inform physician practice in Long Term Care facilities. Guidelines were adopted from the AHS Medical Staff Bylaws and Alberta Continuing Care standards. These guidelines will form part of an orientation package for physicians providing long term care services and guide feedback on physician performance and periodic reviews in long term care medicine.

Work is in progress to develop service guidelines for the section of Seniors Care within the DFM. Guidelines would reflect practice in various parts of the section and help define expectations for practice in these areas.

safety

Continuing Medical Education for Physicians

In order to provide ongoing Continuing Medical Education (CME) support to practitioners practicing in Long Term Care and Supportive Living sites, and to enhance Care of the Elderly practices, a U of C CME working group chaired by Dr. Heidi Schmaltz, Geriatrician has been established., Made up of family physicians with Long Term Care and Supportive Living clinical practices, platforms including e-learning and blended learning approaches are being explored.

Transfers

Many seniors with medical issues are transferred from community care facilities to acute care sites, often with conditions that might have been safely managed within the client's home. There are multiple factors that lead to the choice to send someone to an acute care site, and the section is actively looking at alternate ways to support patients in a more patient-centered manner. This includes exploration of potential interventions such as improved access to Geriatric Mental Health Care services, mobile response teams, and developing consultation models that build capacity at Long Term Care and Supportive Living sites.

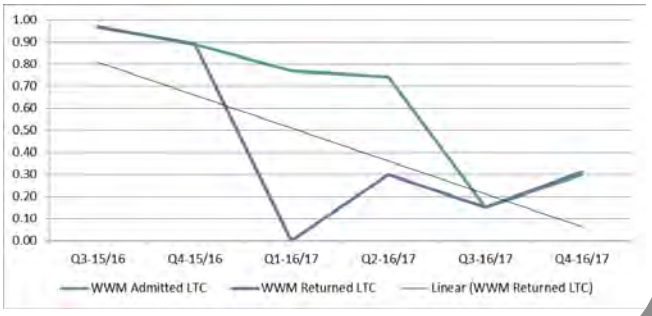
Reducing Unnecessary Hospital Transitions

The Brenda Strafford Foundation's Wentworth Manor implemented an initiative to reduce the number of "unnecessary" transfers to hospital. Unnecessary was defined as those events where a client was sent to the hospital but not admitted and sent back to the facility. The goal was to reduce unnecessary hospital transfers by 50%.

Looking only at long term care, reviewing the data prior to the QI initiative (two quarters) and post QI initiative (four quarters) the rates of returned residents from ED went from 83% to 18%. **This represents a reduction in unnecessary ED transfers of 65%.**
Interventions included:

- Completing a chart review and analysis of transfers in the quarter. The top two reasons for transfer for residents were pain assessment and management or concern of fracture
- Conducting a knowledge café with nurses to obtain their perspective on how to decrease hospital transfers
- Education and mentorship for nurses
- Creation of an algorithm of resources that can be used for hospital transfers to improve nurse awareness of available resources.

The Brenda Strafford Foundation's Wentworth Manor Averages for Total Number of Emergency Room Transfers Returned and Admitted per 1000 Resident Days



Multidisciplinary Team of the Year Awards

Each Calgary Zone PCN was given the option to nominate an individual or team to receive an award at the 50th Mackid Symposium.

The winners of Multidisciplinary Team of the Year award were:

Mosaic

Refugee Health Clinic

"During the Syrian Refugee Crisis of 2015, the team expanded and together demonstrated their dedication and commitment to this population by doing whatever was asked and going beyond what was expected to ensure that care was provided appropriately, compassionately and in a timely and effective manner"

Creekside

Medical Clinic

"I have seen the Calgary Foothills PCN team members display clear, effective communication, genuine commitment to work, and empathy/compassion to their patients. They never let the patients leave without having a goal and knowing what it is that they are trying to achieve with each PCN member"

Kari-Lynn

Barr

"Kari-Lynn is always volunteering to do extra tasks if others are struggling. She always addresses other team members in respectful manner, creating team atmosphere and demonstrates this to patients in South Calgary PCN"

Strathmore

PCN Clinic

"Strong interdisciplinary team who strives to put the Calgary Rural PCN patient first. The team has engaged in discharge planning from urban and Strathmore hospitals; Internal Medicine linkages; and ongoing chronic disease management"

Dason

Harker

"Takes the time to keep the doctors in the loop with patient care, stays late, works through lunch and provides extra care for patients in Highland PCN"

Calgary Zone Primary Care Action Plan Structure

The Calgary Zone Primary Care Action Plan (CZPCAP) was created in 2012 to accelerate primary care development by focusing on areas common to the seven Calgary Zone PCNs and AHS – Calgary Zone. This has resulted in a more coordinated effort, sustainable improvement, and the application of the quadruple aim framework to primary care discussions.

Following a comprehensive review process in June of 2016, CZPCAP stakeholders endorsed the following vision:

"To focus on what we can do better, together, to collaboratively achieve equities and efficiencies in the implementation of the Patient's Medical Home model through system-level integration at the Calgary Zone level."

After consultations with all stakeholders, the group decided to focus on system-level integration projects, and the two initial priority projects chosen were Specialty Integration and Mental Health.
In spite of the challenges, the CZPCAP committee has realized many successes as outlined on the following pages. Challenges continue to be the number of incoming requests to primary care; the need for prioritization due to limited funds and resources; the ongoing work on integration between AHS and PCN primary care activity; and the discussion and pending ratification vote on a proposed new PCN governance structure.

Addictions and Mental Health

The CZPCAP Complex Disease Mental Health working group collaborates to identify gaps and areas of duplication, and to leverage resources to improve services and access for patients in primary care. The PCNs acknowledge a need for more mental health training/information for their multidisciplinary team members (MDT) who continue to see patients seeking assistance with various forms of mental health concerns. Given the demand on current mental health resources, the working group felt it was important to provide MDTs with the skills and knowledge necessary to ensure their patients are appropriately screened and referred to the appropriate level of intervention. It was also identified that clinical staff need to feel competent providing the necessary services for their patients within their PCN. MDT members were polled about the most challenging part of their jobs, with **97.17%** of survey respondents indicating mental health as somewhat or the most challenging part of their work

A CME event was hosted by the Mental Health Task Group in October 2016. Over 180 participants from the PCNs, CUPS, and the Alex attended. The morning was devoted to foundational topics, which were recorded for new staff orientation. The agenda included: Medical Mindfulness, Anxiety, Families and Relationships, Depression Screening and Approach, Cognitive-behavioral therapy (CBT) and Dialectical behavior therapy (DBT) principals, Motivational Interviewing, and Adverse Childhood Experiences.

Addictions and Mental Health Forum

An Addictions and Mental Health Forum was held in January 2017. The forum helped to guide the new Addictions and Mental Health Working Group to identify what areas need to be addressed to ensure consistent and timely access to primary care mental health resources across the zone. Approximately 50 participants were in attendance from all seven Calgary Zone PCNs, AHS, and the Community Mental Health Association. Discussions will continue with AHS Addictions and Mental Health, PCNs and Secretariat to further inform the priority area for the group.

Coordinated Attachment

Web Registry

South Calgary PCN operates and manages the Calgary and Area Find a Doctor website which coordinates patient connections to family physicians on behalf of Calgary zone PCNs. The website is a collaboration between the seven Calgary-area PCNs and AHS, and is updated regularly by each PCN. The site has received an average of 9812 sessions per month. The monthly average of physicians listed on the site was 1358, 281 of whom were accepting patients.

As part of the web registry, the unattached patient registry (UAR) allows a PCN to create and distribute lists of unattached patients, determined by nearest location, to physician clinics who can reach out to those patients to initiate attachment.

Calgary Zone Landing and Linking (Enhanced Discharge Hospital Program)

The program focuses on patient centered objectives which include enhanced and timely communication between acute care and primary care providers, safe landing of attached patients in the community post discharge, and seamless linking of unattached patients with a family physician and PCN.

Discharge coordinators located at FMC and RGH acute care sites notify primary care physicians when their patient is admitted to or discharged from the hospital. Program expansion is currently underway for both PLC and SHC acute care sites, which will facilitate standardized service and equitable access to patient information post discharge for physicians across acute care sites throughout the Calgary Zone.

excellence

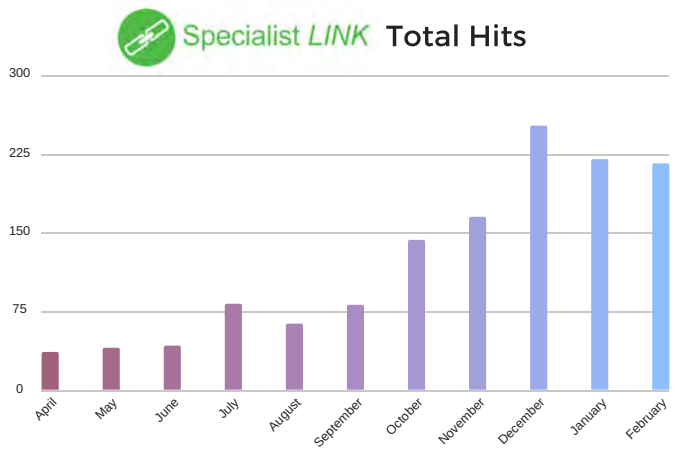
Specialist Integration

The CZPCAP Health System Supports Task group has continued to work with specialty groups in the zone to improve integration and communication between primary care and specialty care.

The task group includes medical and program leadership from PCN's, DFM, AHS, and various Departments.

Specialist Link has partnered with a total of six Departments (Endocrinology, Gastroenterology, Hepatology, Neurology, Pediatrics, Respirology, and Rheumatology) who are now providing real time phone advice to family physicians in the Calgary area, five days a week. Ongoing evaluation of this primary care support is showing improved care for patients in the Medical Home along with significant cost savings to the system when specialty referrals or ED visits are avoided.

The Specialist Link website contains program specific information including the number for Specialist Link and the links to specialty pathways.



East Calgary Family Care Clinic

The East Calgary Family Care Clinic provides care to nearly 8,000 patients. The fourth year of operation saw the continued maturation of clinic operations highlighted by the filling of the Medical Director role, improved integration with community partners, and a focus on increasing the structure and standardization of site clinical processes to better meet the needs of the complex high needs patient population in Northeast and Southeast Calgary.

- number of new patients = **487**
- percentage of visits by attached patients = **97%**
- percentage of patients seen by a provider other than a physician = **62%**

The East Calgary Family Care Clinic has worked to implement the following priority initiatives:

- HealthChange® Methodology: Implementing a patient-centered approach to care planning and promoting behavior change
- Collaboration for Change: Striving to engage patients differently with support from a collaborative of health care, citizen and patient engagement leaders from across Alberta
- Standardizing Clinical Pathways: Standardized processes and pathways completed or under development include: Case management, diabetes, chronic Pain, mental health, MAID guidelines and clinic emergency preparedness/response
- Standardizing panel management and clinical documentation
- Strategic Planning and redefining clinic purpose: Renewing clinic purpose and priority setting for the next one to five years

Partners for Better Health

Partners for Better Health (PBH) is a planning and service delivery initiative for residents in Calgary who have complex and high healthcare needs. It is anticipated that creating well-designed integrated healthcare services delivered in the community will result in improved patient experience and outcomes, while reducing demand on the most costly components of the healthcare system.

The initiative involves three components:

- identification of a complex high needs cohort
- engagement of patients alongside healthcare providers to co-create care plans
- delivering coordinated service though intensive case management

Current collaborations exist in the Calgary East Health Service Area between Mosaic PCN, AHS Primary Care, East Calgary FCC, AHS Mental Health and Homecare and the PLC. To date, we have reached over 230 individuals and are actively case managing around 150, and continues to explore opportunities to spread this work within the Calgary Zone.

Calgary Zone Opioid Prescribing Working Group

Improving the safety of opioid prescribing within the Calgary Zone is top of mind for many providers. The working group consists of the Office of the Medical Officer of Health, Calgary Chronic Pain Centre, Community Health Services, Calgary Zone Clinical QI, and Calgary Zone Primary Care. It uses a collaborative approach to assessing, planning, implementing and evaluating interventions to ensure safe opioid prescribing in AHS acute care facilities and in the transition to community care providers.

The initial focus of the working group was to define the problem. The group is engaged in conducting and evaluating a series of structured interviews with primary care physicians throughout all seven Calgary Zone PCNs, three U of C Academic Teaching Clinics, the Elbow River Healing Lodge, CUPS, the Alex, and the East Calgary Family Care Clinic to understand their individual needs and perspectives. The next phase of work will be to trial interventions with the goal of providing better support to patients throughout the transition-of-care, and to better equip community providers with the appropriate information, tools, and strategies to safely and effectively manage and treat patients who have been prescribed opioids.

ACADEMIC

EDUCATION

Dr. Martina Kelly - Director, Undergraduate Education
Dr. Keith Wycliffe-Jones - Director, Postgraduate Education
Ms. Jeanine Robinson - Education Manager

Dr. Keith Wycliffe-Jones – Director, Postgraduate Education
Dr. Ron Spice - Rural Academic Director
Dr. Brendan Miles (interim) - Director, Behavioural Medicine; Dr. Todd Hill is on sabbatical until July 1, 2017
Dr. Moné Palacios - Medical Education Specialist
Dr. Steve Mintsioulis - Urban Program Director
Dr. Peter Koegler - Rural Program Director
Dr. Ron Garnett (interim) - Enhanced Skills Program Director
Dr. Amy Tan - Clerkship Director

UNDERGRADUATE EDUCATION

The Canadian Resident Matching Service (CaRMS) match of Cumming School of Medicine graduates to family medicine remained steady at about 40%. Med Zero, UME's primary family medicine information tool, was enormously popular with incoming students.

Family physician faculty and community faculty contribute to medical student teaching in pre-clerkship and clerkship in a wide variety of ways though most teaching time occurs in the year one and two Family Medicine Clinical Experience, and other small group teaching.

Each spring and fall, clinical opportunities for approximately 160 students are necessary to deliver the highly valued one-on-one experience of the Family Medical Clinical Experience course.

Photo: UME learners at MedZero event

Two years ago, UME piloted the Family Medicine Research Development Program Elective in the Applied Evidence Based Medicine Course (MDCN 440) in year two. Five students completed the seven month program successfully and presented well thought-out research proposals to the DFM during Grand Rounds. All five students matched to family medicine programs and two matched to Calgary's residency training program.

The mandatory six-week family medicine clerkship rotation was launched in 2015 with a preceptor appreciation night. The Shared Decision Making project plan was implemented for the Class of 2017. In the coming year, 50% of the Class of 2018 clerks will be assigned to rural clinics.

The Family Medicine Interest Group delivers Resident Teaching Nights (four to six sessions each year), skills days to practice procedural skills outside of class time, a Diversity Night to learn more about the many family medicine practice options and a Family Medicine Panel night to hear about family medicine from some its national and provincial leaders.

Dr. Martina Kelly is leading the Disease Prevention and Health Promotion Curriculum Review in anticipation of changes to Medical Council of Canada Qualifying Examination Part I (MCCQE) in 2018.

Dr. Amy Tan is co-leading the review of the three-year curriculum for Palliative Care and End of life care. Undergraduate Family Medicine will continue to encourage students interested in family medicine as a career choice and advocate for generalism at the medical school by:

- practicing continuous QI and considering resource allocation to optimize value
- increasing understanding and ability to address the needs of preceptors in the community
- establishing a more comprehensive system of QI metrics that demonstrate accountability to DFM funders and Albertans

POSTGRADUATE EDUCATION

The two year Family Medicine program welcomed 73 Calgary based residents and 14 rural stream residents for the academic year 2016-2017. The Enhanced Skills program welcomed 19 residents in six specialty areas.

The Residency Programs in Family Medicine continue to build on past successes, streamline processes and overall enhance the learning experiences of residents and partnering clinics and teachers. Future initiatives for postgraduate programs in Family Medicine include developing and implementing:

- an innovative system of selection for incoming residents
- a Multi-Source Feedback (MSF) tool
- a Patient Satisfaction Questionnaire
- electronic tools to facilitate data collection
- an evaluation system to track long-term measures on graduate success

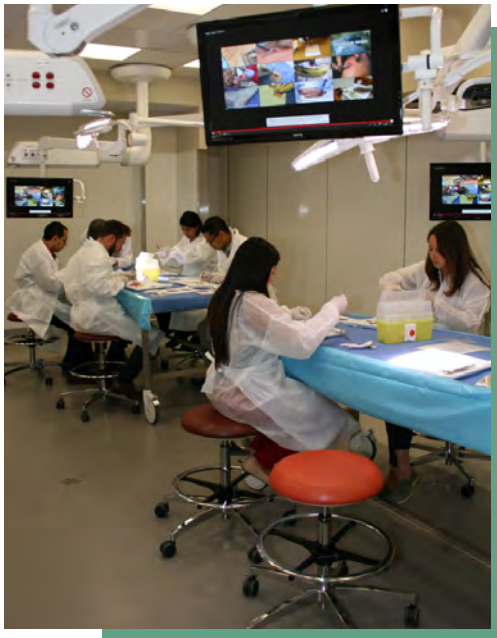


Photo: Residents in Procedural Skills session

Calgary-based Family Medicine Residency Program

The Calgary-based residency program introduced a revised curriculum July 1st including a longitudinal long-term care experience in Care of the Elderly, a focused two week low risk intrapartum care experience and a new family medicine Urgent Care block in second year.

Residency also introduced a new procedural skills training program and created new rotation specific objectives for musculoskeletal, urgent care, and long term care experiences.
Changes to the program in respect to resident assessment included expansion in the use of field notes, and the incorporation of an intrapartum field note log book. New direct observation video systems were installed throughout the three DFM teaching clinics along with incorporation of a Direct Observation of Procedures (DOPS) log book.

The Calgary-based Family Medicine program is excited to incorporate a selective rotation for second year residents wishing to focus on a specialized area of interest.
The program plans to add Lethbridge hospital as an immersion site for care of the elderly as well as a combined Public Health/Preventive Medicine and Family Medicine Residency program stream.

Rural-based Family Medicine Residency Program

The rural program initiated a new assessment program for residents in year one and implemented a new competency-based curriculum. The rural program has worked to ensure a successful transition from the Rural Physician Action Plan (RPAP) to AHS management in respect to establishing operational requirements (i.e. creation of procedures, recruitment of staff, finalization of budget, and comprehensiveness of communication).

Incorporation of a six-month second year rural family medicine rotation and an enhanced approach to faculty development, engagement, and support for rural preceptors is underway.

The rural family medicine program is working to update its website content and design to align with the main DFM website (calgaryfamilymedicine.ca).

Enhanced Skills in Family Medicine Program

The Enhanced Skills (ES) Program is comprised of nine individual programs. This year, the program welcomed 19 residents into six speciality areas.

An Accreditation Progress Review followed the 2015 CFPC Accreditation, with significant progress in all areas previously identified as concerns. In January 2017, the CFPC Residency Accreditation Committee approved the changes and will follow up at the next regular cycle review (2022).

The Maternal Newborn Program (MNB) developed a formal exit interview tool for residents completing the program, the data contributing to a systematic program evaluation. The Sport and Exercise Medicine Program (SEM) developed rotation specific objectives for all mandatory and elective rotations.

The evolution to a Category One Enhanced Skills (ES) Program as agreed by CFPC required all SEM programs to undergo CFPC re-accreditation in the spring of 2017. Global Health developed relationships with the U of C International Programs and Faculty members working in indigenous settings to ensure residents are working with U of C preceptors as much as possible. Examples of these programs include: Healthy Child Uganda, Global Family Med Foundation, Broken Earth, as well as specific preceptors in Canada's north.

Family Medicine ES Palliative Program will start in July 1st 2017 after the dissolution of the conjoint RCPSC and CFPC Palliative Program.

The MNB Program will be expanding to a six-block duration beginning July 2017, including mandatory rural blocks (two in Yellowknife and one in Brooks).

CONTINUING PROFESSIONAL DEVELOPMENT

The Continuing Professional Development (CPD) Program is grass roots driven. Groups or individuals within the DFM approach the CPD Team Lead with a request for professional development sessions and the CPD administrator coordinates the events.

The CPD Program has continued to deliver a number of programs over the last year and introduced two new ones for undergraduate education preceptors in 2016. Grand Rounds occurs monthly on the second Thursday of the month and offers videoconference connections to urban and rural primary residency teaching clinics and others on demand.

Fall Together, CPD's annual education faculty event was held on October 21, 2016. Approximately 75 attendees participated in presentations on teaching medical assistance in dying, palliative care, enhancing the learning environment for undergraduate learners, assessing the procedural skill level of residents and developing medical leadership.

Home Room Series, the popular CFPC-accredited faculty development program for residency program preceptors delivered three learning events in February, May, and October 2016 – the Resident in Difficulty, Critical Thinking Skills in Medical Education, and Assessment for Learning – making field notes and feedback work for you and your Resident.

In-Site Workshops, a new CPD program developed by the Undergraduate Family Medicine team, was launched this year. The Mainpro+ accredited workshops take place in community clinics and the curriculum focuses on the learning environment and the clerkship advanced care planning project. Three Multiple Choice Question Writing workshops were offered to faculty in January, February and March 2017. The clerkship examination requires constant question development and developing expertise in this area is considered a necessity.

Looking ahead, CPD plans to expand community In-Sites to include rural communities and continue to build linkages with those communities.

QUALITY & INFORMATICS

Dr. Maeve O'Beirne - Director, Patient Centered Medical Home and QI
Dave Jackson - Team Lead, Quality & Informatics
Dr. Wes Jackson, Medical Lead, Advanced Technology and Infrastructure

Medicus Project

The Medicus system is a central information database that serves multiple areas of the DFM. Medicus enables a systematic and automated approach to workflows and operations. Some highlights from this year include:

- Streamlined process and management of academic appointments
- Algorithmic and automatic generation of resident schedules
- Streamlined process and management of clinical privileging
- Consolidation and automated reporting on scholarly activities

Quarterly Reports

Reports cover a large variety of metrics from billings, continuity, panels, teaching, and are starting to include clinical metrics such as most frequent medications and diagnoses.
This year, an effort has been taken to gather direct feedback from physicians about current metrics and desired future metrics.

Collaboration with Vendors

Collaboration took place with both AHS Information Technology (AHS IT) and Telus to maximize tight resources and minimize duplication of efforts.

This included a pilot project with Telus Health was implemented to test possible replacement technologies for Sunray networks.

Resident Selection Surveys

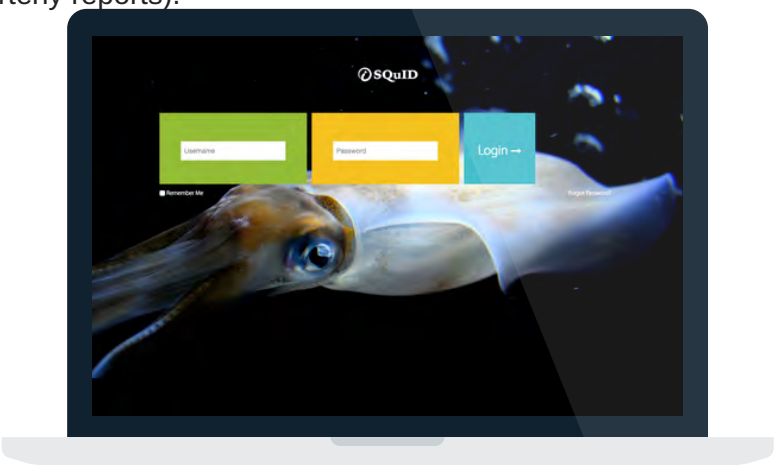
A custom built survey allowing for residents to select schedules for their upcoming year and rank the schedules using an intuitive drag and drop mechanism was implemented this year. Residents receive automated confirmation and reminder emails to ensure their selections are received by the program.

EMR Template & Feature Development

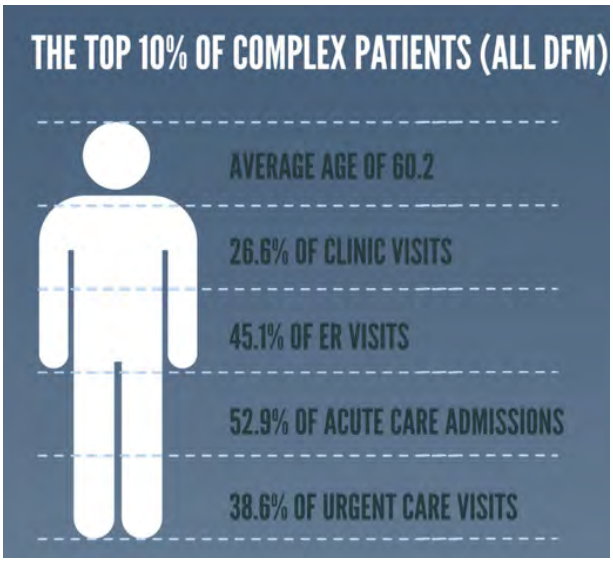
Many new templates and features were developed within the EMR, including numerous changes for ASaP, development of a new cardiovascular risk template and implementation of a graphical dashboard for physicians. Current initiatives include improvements to the Physical Health Exam (PHE) templates and development of a Diabetes Management template.

SQuID Project

The Strategic Quality and Informatics Dashboard (SQuID) centralizes and automates standardized reporting throughout the DFM. The data is available through a secure online, centralized dashboard (replacing the existing quarterly reports).



SQuID login screen



Example of Data Visualization generated by SQuID

Sunray Systems & Hardware

Support for Sunrays has stopped as of March 2017 and there no clear direction from Telus Health on a solution which would replicate the functionality the Sunrays provided. The team is partnering with the AHS IT team to identify a replacement. The goal of these discussions is to establish a stable hardware support mechanism for the future.

EMR Training & Support

The team provides EMR training for many learners and physicians. Over the last year, members of the technology team delivered training to new Alberta International Medical Graduates (AIMG), new residents, and to new physicians. Over 120 new users have been trained.

In addition, the team supports a network of super-users across the three core sites that support EMR users.

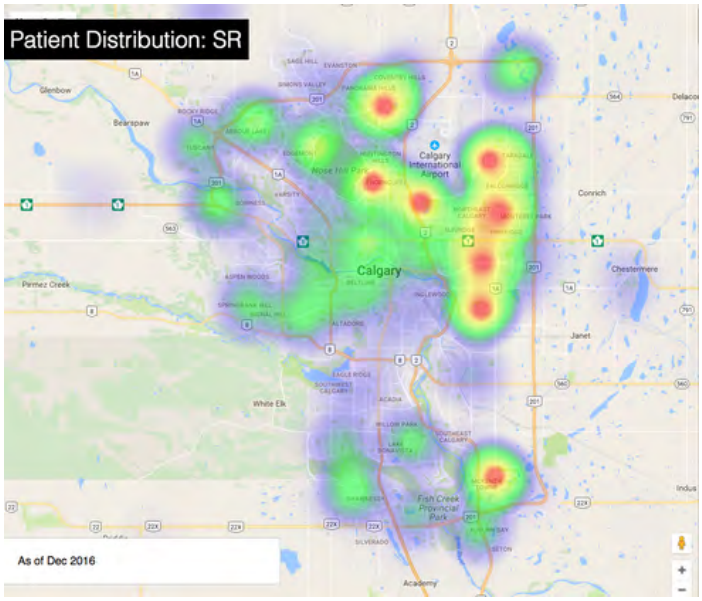
CLINICAL/MEDICAL OPERATIONS

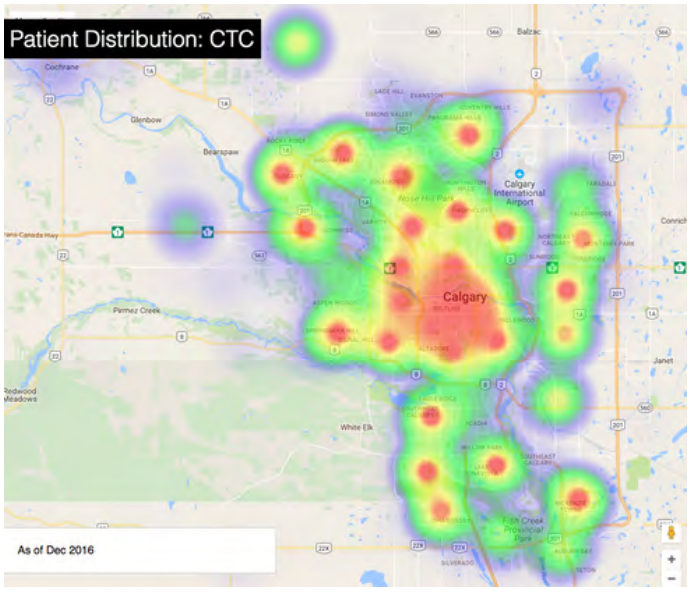
Dr. Kamran Zamanpour – Medical Director, Academic Clinics
Mr. Dave Jackson – Team Lead, Quality and Informatics

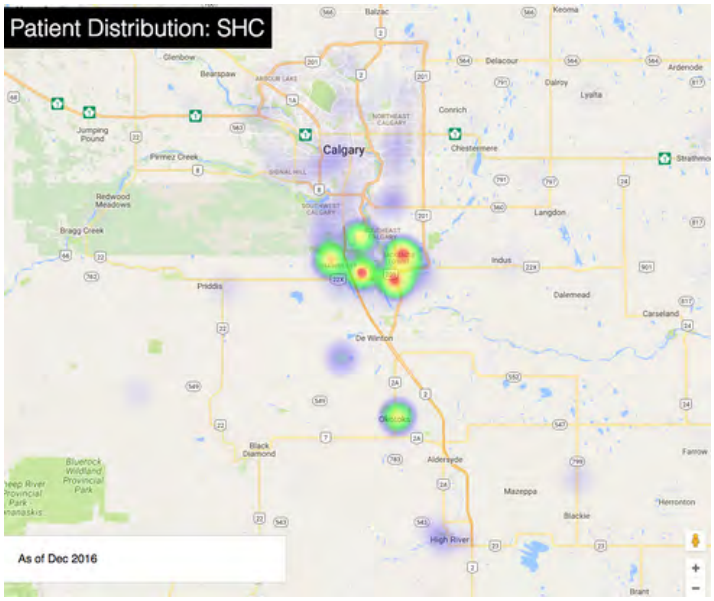
The Clinical/Medical Operations team continues to succeed and grow in both clinical and education services, with a commitment to DFM QI. Key areas of focus included:

- Continuing to maximize clinical services for both optimized patient and family service opportunities and enhanced education for learners within the clinical setting
- Redesign and implementation of the Quality and Informatics Council
- Implementation of a patient engagement survey and patient engagement discussion working group
- Enhancement to the Quarterly Report, with the creation of an electronic dashboard

The DFM has grown to provide a medical home to over 27,000 patients from Calgary and surrounding areas.







Heatmaps generated by the DFM Strategic Quality and Informatics Dashboard (SQuID) depict the geographic areas from which patients at the DFM teaching clinics are drawn.

DFM's teaching clinics continue to focus on the academic Patient Medical Home (PMH) and have provided educational experiences to over 200 learners through the three teaching clinics.

Alberta Screening & Prevention

Towards Optimized Practice (TOP) and the DFM informatics staff assisted with optimizing documentation at each clinic, providing training tools and resources to support the screening and prevention improvements through improvement facilitators to educate our clinics, and assisted with Electronic Medical Record (EMR) resources. The ASaP Screening Maneuver Menu for Adults helps to guide clinic recommendations for screening while balancing impact to the patient's clinical visit. All opportunistic screening workflows will be implemented by summer 2017.

Internal Procedures Referral Protocol

To enhance resident exposure to in-office medical procedures, the DFM has created a workflow that allows residents to identify a patient that requires an in-office procedure, and make an internal referral to another clinic preceptor (in the event the resident's primary preceptor does not routinely perform that procedure). The referring resident can follow the patient to the consultant physician, and can perform the procedure themselves.

Inter professional teams enhance the quality of patient care, lower costs, decrease patients' length of stay, and reduce medical errors. DFM has been working to integrate postgraduate pharmacy learners completing the experiential education portion of their program with medical residents and medical preceptors. The process has been overseen by the pharmacy preceptor that has responsibility for the pharmacy students.

Academic Teaching Clinic Highlights: QI Half Days

Clinic team half days were held with the goal to provide an organized approach to QI in an exciting and effective format. The half days encouraged collaboration among participants, and focused time to brainstorm and develop solutions to concerns that are shared in everyday work life.

CTC's QI Half Day focused on improvement on patient care in the Patient Medical Home. The session resulted in five clear, concise, action oriented goals to consider over the next 3-6 months:

1. Potential for email communication with patients for appointment reminders
2. Incorporate physician delivered telephone medicine into clinical time
3. To make "rooming" of patients in clinic a priority
4. Formalizing a single location to store documentation and communications that are important to all staff and stakeholders
5. Group visits for patients in our Medical Home with chronic conditions

Action plans designed around each of these improvement goals and next steps from this event have already been put in motion.

SHC's Half Day focused on Emotional Intelligence, where issues brainstormed were brought to the Clinic Improvement Team (CIT). The CIT provided information on the Plan-Do-Act-Study (PDSA) cycle, as it related to two clinic issues: shortage of sterilized instruments, and the benefits of using E-simulation in the teaching and management of anaphylaxis in the primary care setting.

The project demonstrated the importance of planning to coordinate care and treat emergencies in the primary care setting, that regular team education and E-simulation increases the knowledge and comfort in handling anaphylaxis.

This type of learning involves everyone, is non-threatening, safe, and demonstrates the importance of leadership, collaboration, and ongoing QI and QA.

Sunridge's QI Day reviewed patient time spent in the clinic. Through patient surveys and a room utilization study, it was determined patients were spending longer than their scheduled appointment time in the clinic. This data was used to determine areas for improvement, and the clinic has implemented several changes to clinic processes and workflows to improve the patient experience. Preliminary results show a 10% improvement in the amount of time patients wait in the clinic, as compared to the 2016 baseline study.

safety

RESEARCH & SCHOLARSHIP

Dr. Turin Chowdhury - Director, Research
Ms. Agnes Dallison - Manager, Research

The Research and Scholarship Office is responsible for reporting the scholarly output of the DFM. The DFM relied on the newly expanded QIC to build and refine a database that can display and report scholarly activity on our DFM website.

As a result of this modernization, DFM's publication data will be:

- A central resource for reporting
- Up to date, searchable, linkable
- Almost real-time
- Designed to be reproducible by other departments.

In addition, the Research and Scholarship website has been improved and redesigned to incorporate elements such as DFM's Twitter feed, faculty profiles, profiles of staff working within the research areas, and the Scholarly Activity Dashboard as mentioned above.

Grant/Research Support Team (GReST)

The DFM research office supports faculty through the Grant/Research Support Team (GReST).

PI: Primary Investigator
RSO - Research Services Office

National Spotlight on DFM Research

Several publications from DFM researchers have gained the attention of national media outlets, for their impact on population health and potential implications for practicing physicians.

Dr. Turin Chowdhury's study published in the Canadian Medical Association Journal, finding that First Nations populations are at higher risk to develop type two diabetes, was reported by multiple national news outlets including Global, CTV, and CBC, and was featured prominently in online, television, and radio news broadcasts.

Dr. Jim Dickinson's work regarding changes to PAP screening guidelines was also covered prominently several times through national and local news outlets across the country.
Dr. Dickinson's work with the TARRANT Viral Watch project gained coverage with regards to flu vaccine efficacy in Alberta versus other provinces where the flu shot was less effective this year.

This and other regular media coverage featuring DFM researchers highlights to colleagues and the general public that the DFM is producing high impact research, leading to physician changes in practice and valuable health information for patients nationwide.

Scholarly Output

In the 2016/17 academic year (Jul 1-Jun 30), with data reported to May 31, 2017, DFM faculty are credited with:

- 98 scholarly publications
- 221 total presentations, with 94 specific to research
- $2,749,961.50 in research grants awarded and administered through the DFM

For a complete list of publications from July 1, 2016 - May 30, 2017 including full citation information, see Appendix A. For a list of DFM presentations in 2016-2017, refer to Appendix B.

Dr. Turin Chowdhury & Dr. Roger Thomas

The Immigrant and Refugee Health Interest Group brings knowledge and compassion to Calgary's immigrant populations. The DFM's Research Director, Tanvir Chowdhury Turin, PhD, along with the Immigrant and Refugee Health Interest Group and the Bangladesh Canada Association of Calgary (BCAOC), are working together to bring valuable health information and support to this immigrant population.

Approximately 50 people attended the first in a series of free workshops to be conducted by the research group. This session, featuring Dr. Roger Thomas, a physician and researcher in the DFM, discussed childhood development and immigrant perspectives on parenting. Participants were able to take notes and ask questions on any topic – from ADHD symptoms to Tourette's syndrome and bedtime stories.

Immigrant populations faces distinct challenges that arise from navigating a new country, integrating cultures, and maintaining health. "It's important that we start working together," Tanvir Chowdhury Turin, PhD, stated to the men and women in the room, switching between English and Bengali. "We are pushing ourselves toward our own well-being."

Moving away from the child-rearing support they received in their home country, and often working long hours at more than one job, leaves far less time for parents to spend with their children when compared to life in their country of origin. Added challenges unique to immigrant populations incldue the stress of trying to stay in touch with their root-culture, while also adapting to Canadian norms and parenting styles.

By providing useful information, and linking the immigrant populations to support systems that can help maintain their health and ease their settlement into Canada, the research group hopes that tangible health benefits and improvements in care will result for Calgary's immigrant populations.

compassion

Picture: Mohammad Lasker, of the Bangladesh Canada Association of Calgary, second from left, with representatives from the Cumming School of Medicine: Tanvir Chowdhury Turin, Mahzabin Ferdous, Mashrur Kazi (practicum student), Roger Thomas, and Syed Walid. Photos by Tanvir Chowdhury Turin, Cumming School of Medicine.

FINANCE

Dr. Charles Leduc - Academic Department Head
Dr. Sonya Lee – Academic Deputy Department Head
Ms. Medina Dehatee – Business and Finance Consultant (as of September 2016)
Mr. Jesse Walper – Senior Financial Analyst (until October 2016)

Academic Family Medicine absorbed union related increases, specifically the Alberta Union of Provincial Employees General Support Services (AUPE GSS). Given the fiscal constraints in the province the DFM and several of its service partners have been under pressure to contain costs. In 2016-17, the Academic DFM has accommodated reductions in resources and services from partners while still increasing its care delivery and was able to achieve this through a proactive stance towards the economic environment.

Academic Family Medicine is funded by a complex series of grants, each with different caveats, stakeholders, and reporting requirements. This complexity, developed over years of new initiatives and stakeholder interests, was identified as a growing concern in 2013. While still required to report grants separately, in fiscal 2016-17 the Academic DFM completed its first full year cycle where it was able to show meaningful comparisons across its four main funding streams.

Challenges and Future Directions

The DFM has experienced increasing levels of fiscal constraints over the last three years. 2016-17 was particularly challenging and the DFM proactively implemented changes to adapt to the new environment. There is a major initiative at the provincial level for AARP's to transition to the Academic Medicine Framework (AMF). The DFM is in a strong position to implement the new AMF model.

APPENDIX

APPENDIX A

DFM Publications

Aghajafari F, Field CJ, Kaplan BJ, Maggiore JA, O'Beirne M, Hanley DA, Eliasziw M, Dewey D, Ross S, Rabi D; APrON Study Team. The High Prevalence of Vitamin D Insufficiency in Cord Blood in Calgary, Alberta (APrON-D Study). J Obstet Gynaecol Can. 2017 May; 39(5):347-353.

Aghajafari F, Field CJ, Kaplan BJ, Rabi DM, Maggiore JA, O'Beirne M, Hanley DA, Eliasziw M, Dewey D, Weinberg A, Ross SJ; APrON Study Team. The Current Recommended Vitamin D Intake Guideline for Diet and Supplements During Pregnancy Is Not Adequate to Achieve Vitamin D Sufficiency for Most Pregnant Women. PLoS One. 2016 Jul 1;11(7):e0157262.

Sauro K, Holroyd-Leduc J, Wiebe S, Quan H, Cooke L, Cross J, Mathern G, Armson H, Stromer J, Jetté N. Knowledge translation of an online tool to determine candidacy for epilepsy surgery evaluation. Neurol Clin Pract. 2016 Aug. 3;6(4):304-314.

Shaw E, Roder S, Leadbetter W, Armson H, Elmslie T, Wakefield J. Evaluation of a Novel Approach to Stimulate Review of Planned Practice Changes. Journal of Continuing Education in the Health Profession. 2016 August 01;36;(1):S52-53.

Turin TC, Okamura T, Rumana N, Afzal AR, Watanabe M, Higashiyama A, Nakao YM, Nakai M, Takegami M, Nishimura K, Kokubo Y, Okayama A, Miyamoto Y. Diabetes and lifetime risk of stroke and subtypes in an urban middle-aged population. J Diabetes Complications. 2017 May;31(5):831-835.

Mogi Y, Abedin T, Ahmed S, Gill G, Al Mamun M, Kanda H, Ishikawa Y, Turin TC. Social Networking Sites for Peer-Driven Health Communication: Diabetes Related Communities in Google+. Diabetol Int 2017.

Naugler C, Hemmelgarn B, Quan H, Clement F, Sajobi T, Thomas R, Turin TC, Hnydyk W, Chin A, Wesenberg J. Implementation of an intervention to reduce population-based screening for vitamin D deficiency: a cross-sectional study. CMAJ Open 2017 Jan-Mar;5(1):E36-E39.

Ohigashi A, Ahmed S, Afzal AR, Shigeta N, Tam-Tham H, Kanda H, Ishikawa Y, Turin TC. Breast cancer information communicated on a public online platform: an analysis of “Yahoo! Answer Japan”. J Prim Health Care. In Press 2017.

Barber J, Guo M, Nguyen L, Roger T, Turin TC, Vaska M, Christopher N. Sociodemographic correlates of clinical laboratory test expenditures in a major Canadian city. Am J Clin Pathol. In Press 2017.

Ahmed S, Lee S, Shommu S, Rumana N, Turin TC. Experiences of communication barriers between physicians and immigrant patients: A systematic review and thematic synthesis. Patient Exp J. 2007 Jan;4(1):122-140.

Wick JP, Turin TC, Faris PD, MacRae JM, Weaver RG, Tonelli C, Manns BJ, Hemmelgarn BR. A clinical risk prediction tool for six-month mortality after dialysis initiation among older adults. Am J Kidney Dis. 2017 May;69(5):568-575.

Quinn RR, Oliver MJ, Devoe D, Poinen K, Kabani R, Kamar F, Mysore P, Lewin AM, Hiremath S, MacRae J, James MT, Miller L, Hemmelgarn BR, Moist LM, Garg AX, Turin TC, Ravani P. The effect of predialysis fistula attempt on risk of all-cause and access-related death. J Am Soc Nephrol. Feb 2017;28(2):613-620.

Garg S, Garg D, Turin TC, Chowdhury MF. Web-based interventions for chronic back pain: a systematic review. J Med Internet Res. 2016 Jul;18(7):e139.

Ahmed S, Vaska M, Turin TC. Conducting a literature review in health research: basics of the approach, typology and methodology. JNHFB. 2016 Jul;5(2):44-51.

Renoux C, Dell'Aniello S, Khairy P, Marras C, Bugden S, Turin TC, Blais L, Tamim H, Evans C, Steele R, Dormuth C, Ernst P, and the Canadian Network for Observational Drug Effect Studies (CNODES) Investigators. Ventricular tachyarrhythmia and sudden cardiac death with domperidone use in Parkinson's Disease. Br J Clin Pharmacol. 2016 Aug;82(2):461-472.

Azoulay L, Filion KB, Platt RW, Dahl M. Dormuth CR, Clemens KK, Durand M, Hu N, Juurlink DN, Paterson JM, Targownik LE, Turin TC, Ernst P, and the Canadian Network for Observational Drug Effect Studies (CNODES) Investigators. Association Between Incretin-based Drugs and the Risk of Acute Pancreatitis. JAMA Intern Med. 2016 Oct; 176(10):1464-1473.

Mann MC, Exner DV, Hemmelgarn BR, Hanley DA, Turin TC, MacRae JM, Wheeler DC, Sola DY, Ramesh S, Ahmed SB. The VITAH Trial - Vitamin D supplementation and cardiac autonomic tone in patients with end-stage kidney disease on hemodialysis: a blinded, randomized controlled trial. Nutrients. 2016 Oct;8(10):E608.

Turin TC, Saad N, Jun M, Tonelli M, Ma Z, Barnabe CCM, Manns BJ, Hemmelgarn BR. Lifetime risk of diabetes for First Nations and Non-First Nations people. CMAJ. 2016 Nov;188(16):1147-1153.

Ahmed S, Haines-Saah RJ, Afzal AR, Tam-Tham H, Al Mamun M, Hemmelgarn BR, Turin TC. User-driven conversations about dialysis through Facebook: a qualitative thematic analysis. Nephrology. 2017 Apr;22(4):301-307.

Ohsawa M, Okamura T, Tanno K, Ogasawara K, Itai K, Yonekura Y, Konishi K, Omana S, Miyamatsu N, Turn TC, Moriono Y, Itoh T, Onoda T, Sakata K, Ishibashi Y, Makita S, Nakamura M, Tanaka F, Kuribayashi T, Ohta M, Okayama A. Risk of stroke and heart failure attributable to atrial fibrillation in middle-aged and elderly people: results from a five-year prospective cohort study of Japanese community dwellers. J Edidemiol. 2017 Apr 5.

Abedin T, Al Mamun M, Lasker MA, Ahmed SW, Shommu S, Rumana N, Turin TC. Social media as a platform for information on diabetes foot care: a study on Facebook groups. Can J Diabetes. 2017 Feb;41(1):97-101.

Shommu N, Chowdhury SR, Turin TC. Knowledge Translation in Health Care: bridging the gap between 'knowledge generation' and 'knowledge implementation'. JNHFB. Forthcoming 2017.
Tink WL, Tink W, Turin TC, Kelly MA. Adverse childhood experiences: survey of resident practice, knowledge and attitude. Fam Med. 2007 Jan;49(1):7-13.

Shigeta N, Ahmed S, Ahmed SW, Afzal AR, Qasqas M, Kanda H, Ishikawa Y, Turin TC. Content analysis of Canadian newspapers articles and readers' comments related to schizophrenia. Int J Cult Ment Health. In Press 2017.

Turin TC, Okamura T, Raheen Afzal A, Rumana N, Watanabe M, Higashiyama A, Nakao YM, Nakai M, Takegami M, Nishimura K, Kokubo Y, Okayama A, Miyamoto Y. Impact of hypertension on the lifetime risk of coronary heart disease. Hypertens Res. 2016 Jul;39(7):548-551.

Ahmed S, Shommu N, Rumana N, Barron G, Wicklum S, Turin TC. Barriers to access of primary healthcare by immigrant populations in Canada: a literature review. J Immigr Minor Health. 2016 Dec;18(6):1522-1540.

Spice R, Lau M, Perez G, Turley N, Turin TC. Hospice Care in Calgary: a survey of family physicians on their knowledge, experience, and attitudes. Can Fam Physician. 2016 Aug;62(8):e484-494.

Crowshoe L, Walker L, Calam B, Jacklin K, Green M, Henderson R, Han H. An Innovative Sequential Focus Group Method for Investigating Diabetes Care Experiences with Indigenous Peoples in Canada, Int J Qual Meth. 2016 Oct 26.

Jacklin KM, Henderson RI, Green ME, Walker LM, Calam B, Crowshoe LJ. Health care experiences of Indigenous people living with type 2 diabetes in Canada. CMAJ. 2017 Jan 23;189(3):E106-E112.

Barnabe C, Jones CA, Bernatsky S, Peschken CA, Voaklander D, Homik J, Crowshoe L, Esdaile JM, El-Gabalawy H, Hemmelgarn B. Inflammatory Arthritis Prevalence and Health Services Use in the First Nations and non-First Nations of Alberta. Arthritis Care Res. 2017 Apr; 69(4): 467-474.

O'Beirne M, Dickinson JA, The state of quality improvement work in primary care. Quality Matters. 2016 Oct 1; 34-41.

Dickinson JA, Ogilvie G, Van Niekerk D, Popadiuk C. Evidence that supports policies to delay cervical screening until after age 25 years. CMAJ. 2017 March 13;189:E380-1.

Dickinson JA. Lesser-spotted Zebras, Their care and feeding. Canadian Family Physician. 2016 August;62:620-1.

Skowronski DM, Chambers C, De Serres G, Sabaiduc S, Winter A, Dickinson JA, Gubbay JB, Forseca K, Drews SJ, Charest H, Martineau C, Krajden M, Petric M, Bastien N, Li Y, Smith DJ. Serial vaccination and the antigenic distance hypothesis: effects on influenza vaccine effectiveness during A(H3N2) epidemics in Canada, 2010-11 to 2014-15. The Journal of Infectious Diseases, 2017 Feb 09.

Skowronski DM, Chambers C, Sabaiduc S, Dickinson JA, Winter A, De Serres G, Drews SJ, Jassem A, Gubbay JB, Charest H, Balshaw R, Bastien N, Li Y, Krajden M. Interim estimates of 2016/2017 vaccine effectiveness against influenza A(H3N2) Canada, January 2017. Euro Surveillance. 2017 Feb;09;22(6):pii=30460.

Sikdar KC, Dickinson J, Winget M. Factors associated with mode of colorectal cancer detection and time to diagnosis: a population level study. BMC Health Services Research. 2017 17:7.

McCaul, KA, Lawrence-Brown M, Dickinson JA, Norman PE. Long-term Outcomes of the Western Australian Trail of Screening for Abdominal Aortic aneurysms Secondary Analysis of a Randomized Clinical Trail. JAMA Internal Medicine. 2016 Dec 1;176(12):1761-1767.

Garnett RT, Bowman J, Ganton J. Patient and Citizen Innovation Council in family practice. Can Fam Physician. 2017 Feb 03;63(2):e102-e106.

Hill T, AHS Department of Cardiology. Psychosocial Interventions for Patients living with ICDs. Authored patient hand-out. Calgary, AB; 2016.

Jackson W. Dr. Gadget - "Do I need a medical calculator?". Alberta Doctors' Digest [Internet]. 2016 Jul-Aug;41(4):22-23. Available from: https://www.albertadoctors.org/services/media-publications/publications/digest/digest-archive

Jackson W. Dr. Gadget - "Made in Alberta medical resources". Alberta Doctors' Digest [Internet]. 2016 Sept-Oct;41(5):20-21. Available from: https://www.albertadoctors.org/services/media-publications/publications/digest/digest-archive

Jackson W. Dr. Gadget - "The power of the whiteboard". Alberta Doctors' Digest [Internet]. 2016 Nov-Dec;41(6):26-27. Available from: https://www.albertadoctors.org/services/media-publications/publications/digest/digest-archive

Jackson W. Dr. Gadget - "Is there a good app for that?". Alberta Doctors' Digest [Internet]. 2017 Jan-Feb;42(1):16-17. Available from: https://www.albertadoctors.org/services/media-publications/publications/digest/digest-archive

Jackson W. Dr. Gadget - "Let's consider how technology affects our relationships". Alberta Doctors' Digest [Internet]. 2017 Mar-Apr;42(2):20-21. Available from: https://www.albertadoctors.org/services/media-publications/publications/digest

Worley P, Couper I, Strasser R, Graves L, Cummings BA, Woodman R, Stagg P, Hirsh D; Consortium of Longitudinal Integrated Clerkships (CLIC) Research Collaborative. A typology of longitudinal integrated clerkships. Med Educ. 2016 Sep;50(9):922-32.

Donald M, McBrien K, Jackson W, Manns BJ, Tonelli M, King-Shier K, Jindal K, Lewanczuk RZ, Scott-Douglas N, Braun T, Straus SE, Naugler C, Elliott MJ, Jun M, Hemmelgarn BR. Development and implementation of an online clinical pathway for adult chronic kidney disease in primary care: a mixed methods study. BMC Med Inform Decis Mak. 2016 Aug 17;16:109.

Dornan T, Kelly M. What use is qualitative research? Medical Education. 2016 December;51(1):7-9.

Tink W, Tink J, Chowdhury T, Kelly M. Adverse Childhood Experiences: Survey of Resident Practice, Knowledge and Attitude. Family Medicine. 2017 Jan; 49(1):7-13.

Kelly M, Everard K, Nixon L, Chessman A. Untapped Potential: Performance of Procedural Skills in the Family Medicine Clerkship. Family Medicine. 2017 Jun 30.

Addington D, Lesage A, Andersen E, Kelly M, Summerville C. Canadian Guidelines on Comprehensive Community Treatment for Schizophrenia and Schizophrenia Spectrum Disorders. Canadian Journal of Psychiatry. 2017 Jun 30.

Kelly M, de Vries-Erich J, Helmich E, Dornan T, King N. Embodied Reflexivity in Qualitative Analysis: A Role for Selfies. Forum: Qualitative Social Research; 2017;18(2).

Kelly M, Nixon L, McClurg C, Scherpbier A, King N, Dornan T. Experience of touch in healthcare: a meta-ethnography across the healthcare professions. Qualitative Health Research. 2017 May 11.

Lee S, Ahmed S, Turin T. Towards Understanding Chaperone Use: A Scoping Review of the Literature. Canadian Family Physician, February 2017;63(2): S39.

Lee S. Gynecologic Health: Challenging Conditions. Foundation for Medical Practice Education, PBLP Education Module. 2017 Jun 30.

Nixon L, Burns V, Drummond N. Peter Coyle Place: A Case Study of an Innovative Supportive Housing Approach for Older Adults. International Journal of Qualitative Methods. 2017 Jan 30;16(1).

Salvalaggio G, Dong K, Hyshka E, Nixon L, Lavergne K, Nichols J, Lewis M, Lockerbie SL, Bristowe M, Leske J, Rosychukh R, Mrklas K, Surood S, Wilde C. Enhanced Multidisciplinary Care for Inner City Patients with High Acute Care Use: Study Protocol. Canadian Journal of Addiction. 2016 Sep 01;7(3):34-41.

Jensen A, Williamson T, Ronksley P, Fabreau G, Drummond N, Polachek A, Cheung A, McBrien K. Who are the medically complex patients in Canadian primary care? A comparative assessment of measures of multi-morbidity. SGIM Annual Meeting: "Resilience & Grit: Pursuing Organizational Change & Preventing Burnout in GIM". Washington, DC. April 19-22, 2017.

Coward S, Kuenzig ME, Hazlewood G, Clement F, McBrien K, Holmes R, Panaccione R, Ghosh S, Seow CH, Rezaie A, Kaplan GG. Comparative Effectiveness of Mesalamine, Sulfasalazine, Corticosteroids, and Budesonide for the Induction of Remission in Crohn's Disease: a Bayesian Network Meta-analysis. Inflamm Bowel Dis. 2017 Mar; 23(3):461-472.

Souri S, Symonds N, Rouhi A, Lethebe B, Garies S, Ronksley P, Williamson T, Fabreau G, Birtwhistle R, Quan H, McBrien K. Identification of validated case definitions for chronic disease using electronic medical records: a systematic review protocol. Systematic Reviews. In Press 2017.

Donald M, McBrien K, Jackson W, Manns BJ, Tonelli M, King-Shier K, Jindal K, Lewanczuk RZ, Scott-Douglas N, Braun T, Straus SE, Naugler C, Elliott MJ, Jun M, Hemmelgarn BR. Development and Implementation of an Online Clinical Pathway for Adult Chronic Kidney Disease in Primary Care: a mixed methods study. BMC Medical Informatics and Decision Making. 2016 Aug 17;16(109).

Pereles R, Jackson R, Rosental T, Nixon L. Listening with a narrative ear: Insights from a study of fall stories in older adults. Can Fam Physician. 2017 Jan;63(1)e44-50.

Kassam A, Sharma N, Harvie M, O'Beirne M, Topps M. Patient Safety Principals in Family Medicine Residency Accreditation Standards and Curriculum Objectives: Implications for Primary Care. Canadian Family Physician.2016 Dec 1;62(12):E731-E739.

Aghajafari F, Field CJ, Kaplan BJ, Rabi DM, Maggorie JA, O'Beirne M, Hanley DA, Eliasziw M, Dewey D, Weinberg A, Ross SJ, APrON Study Team. The Current Recommended Vitamin D intake Guideline for Diet and Supplements During Pregnancy is not Adequate to Achieve Vitamin D Sufficiency for Most Pregnant Women. PLoS ONE (Electronic Resource).2016 Jul 1;11(7):e0157262.

Skeith L, Rydz N, O'Beirne M, Goodyear D, Li H, Poon M. Pregnancy loss in women with non Willebrand Disease: a single-centre pilot study. Blood Coagul Fibrinolysis. 2017 Feb 1.

Slade S, Lawrence K, Oandasan I, Palacios M, Archibald D, Ross S. Extended Family Medicine Training: Measuring training flows at a time of significant pedagogical change. Canadian Family Physician. 2016 Jul 01.

Tan, A. I Wished I had the Conversation. http://theconversationproject.org/your-stories/14483 April 2017.

Keegan DA, Scott I, Sylvester M, Tan A, Horrey K, Weston WW. Shared Canadian Curriculum in Family Medicine (SHARC-FM): Creating a national consensus on relevant and practical training for medical students. Can Fam Physician. 2017 Apr 03;63(4):e223-e231.

Howard M, Bernard C, Elston D, Klein D, Tan A, Slaven M, Barwich D, You J, Heyland K. Barriers to and enablers of advance care planning with patients in primary care: a survey of healthcare providers. Canadian Family Physician. 2017 Jun 30.

Howard M, Bernard C, Klein D, Tan A, Slaven M, Barwich D, You J, Asselin G, Simon J, Heyland K. Older Patient Engagement in Advanced Care Planning in Canadian Primary Care Practices: Results of a multi-site survey. Canadian Family Physician. 2017 Jun 30.

Pringhsheim T, Andrade B, Goldade R, & Thomas RE. Oppositional and Aggressive Behaviour in Children and Youth. Development of a CPD Program: The College of Family Physicians of Canada. 2016 Sep 01.

Thomas RE. Yellow fever vaccine-associated viscerotropic disease: current perspectives. Drug Design, Development and Therapy. 2016 Jul 20;9(2):150-158.

Thomas RE, Alves J, Vaska MM, Magalhães R. SCAT2 and SCAT3 scores at baseline and after sports-related mild brain injury/concussion: qualitative synthesis with weighted means. BMJ Open Sport Exerc Med. 2016 Oct 19;2(1):e000095.

Kreptul D, Thomas RE. Family medicine resident OSCEs: a systematic review. Educ Prim Care. 2016 Nov;27(6):471-477. PMID 27412296

Donald M, King-Shier K, Tsuyuki RT, Al Hamarneh YN, Jones CA, Manns B, Tonelli M, Tink W, Scott-Douglas N, Hemmelgarn BR. Patient, family physician and community pharmacist perspectives on expanded pharmacy scope of practice: a qualitative study. CMAJ Open. 2017 Mar 6;5(1):E205-E212.

Harris P, Bhanji F, Topps M, Ross Lieberman S, Dath D, Sherbina J. Assessment in a Competency Based World. Medical Teacher. 2017 Jun 01.

Ellaway R, Topps D, Topps M. Where do physicians start and end? Medical Education. 2016 Dec 01;50:1224-1226.

Topps M, Dubinsky I, Kanofsky S, Bell D, Beiko D, Sanchez-Mendiola M, Wooster E, Graham S. Accountability – An Indispensable Component of Leadership in Residency Education. Sanokondu [Internet]. 2016 Sep 27 [cited 2017 May 29]. Available from: https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxzYW5va29uZHV8Z3g6M2I3Y2VlNmYyZTFkNzQxOA

Wicklum S, Wiart S. A Holistic Health and Lifestyle Program for Aboriginal Women: Lloydminster, AB. Fighting for Healthy Communities. 2017 Jan 01.

Book Chapters

Kelly M, O'Flynn S, Bennett D. The Art of Assessment. In: Peterkin A, Brett-MacLean P, editors. Keeping Reflection Fresh: A Practical Guide for Clinical Educators. Kent, Ohio: The Kent State University Press; 2017.

Kelly M, Dornan T. Sutured Care. In: Travis S, Lewis T, editors. Pedagogies in the Flesh: Case Studies on the Embodiment of Sociocultural Differences in Education. Palgrave Macmillan.

APPENDIX B

DFM Presentations

Djurkovic A, Turin TC. Health Care Provider Strategies on the Barriers in Health Care for Refugee Patients. Published abstract presented at: Global Health Symposium; 2016 Aug 27; Calgary, Alberta.

Thompson A, Turin TC. Awareness of Immigrant Health Issues Among Youth in Calgary High Schools. Published abstract presented at: Global Health Symposium: 2016 Aug 27; Calgary, Alberta.

Gill G, Turin TC. Resettlement NGOs' knowledge on strategies to mitigate the barriers in facilitating health care access for refugee patients. Published abstract presented at: Global Health Symposium; 2016 Aug 27; Calgary, Alberta.

Lee S, Ahmed S, Turin TC. Toward Understanding Chaperone Use During Intimate Clinical Examinations: a scoping review of the literature. Published abstract presented to: Family Medicine Forum 2016 / Forum en médecine familiale; 2016 Nov 9-12; Vancouver, British Columbia.

Ferdous M, Ahmed S, Rumana N, Turin TC. Barriers to Breast Cancer Screening Among Immigrant Populations: a scoping review. Published abstract presented at: Family Medicine Forum 2016 / Forum en médecine familiale: 2016 Nov 9-12; Vancouver, British Columbia.

Ahmed SW, Ahmed S, Rumana N, Turin TC. Substance Abuse Among Immigrant Youths: a review of literature. Published abstract presented at: Family Medicine Forum 2016 / Forum en médecine familiale 2016; 2016 Nov 9-12; Vancouver, British Columbia.

Turin TC, Yeasmin F, Rumana N. Research Productivity in Refugee Research: bibliometrics analysis of worldwide publications. Published abstract presented at: 44th North American Primary Care Research Group (NAPCRG) Annual Meeting 2016; 2016 Nov 12-16; Colorado Springs, Colorado.

Turin TC, Ferdous M, Ahmed S, Rumana N. Barriers to Cervical Cancer Screening Faced by Immigrant Populations: a systematic scoping review. Published abstract presented at: 44th North American Primary Care Research Group (NAPCRG) Annual Meeting: 2016 Nov 12-16; Colorado Springs, Colorado.

Lee S, Ahmed S, Turin TC. Towards Understanding Chaperone Use During Intimate Clinical Examinations: a scoping review of the literature. Paper presented at: 44th North American Primary Care Research Group (NAPCRG) Annual Meeting: 2016 Nov 12-16; Colorado Springs, Colorado.

Ahmed SB, Mann MC, Hemmelgarn B, Hanley DA, Turin TC, MacRae JM, Wheeler DC, Ramesh S, Sola DY, Exner D. Vitamin D and Cardiac Autonomic Tone in End-Stage Kidney Disease: a blinded, randomized controlled trial. Published abstract presented at: American Society of Nephrology Kidney Week 2015 Annual Meeting; 2015 Nov 3-8, San Diego, California.

Jun M, Perkovic V, Woodward M, Lambers-Heerspink HJ, Turin TC, Chalmers JP, Jardine MJ, Manns BJ, Tonelli M, Hemmelgarn B. The Association Between Changes in Albuminuria and Clinical Outcomes in the ADVANCE (Action in Diabetes and Vascular Disease: PreterAx and DiamicroN MR Controlled Evaluation) Trial. Published abstract presented at: American Society of Nephrology Kidney Week 2015 Annual Meeting; 2015 Nov 3-8; San Diego, California.

Wick J, Turin TC, Faris PD, MacRae JM, Weaver RG, Hemmelgarn B. Development of a Clinical Risk Prediction Tool for Six-Month Mortality After Dialysis Initiation Among Older Adults. Published abstract presented at: American Society of Nephrology Kidney Week 2015 Annual Meeting; 2015 Nov 3-8, San Diego, California.

McCorry D, Liaw WR, Bazemore A, Weidner AKH, Ewigman BG, Dovey S, Turin TC. Can departmental family medicine research be evaluated in a manner which is meaningful, applicable, and sustainable? Published abstract presented at: 50th Anniversary STFM Annual Spring Conference: 2017 May 5-9; San Diego, California.

Turin TC, Ferdous M, Ahmed S, Rumana N. Barriers to Breast Cancer Screening Faced by Immigrant Populations: a systematic scoping review. Published abstract presented at: 44th North American Primary Care Research Group (NAPCRG) Annual Meeting: 2016 Nov 12-16; Colorado Springs, Colorado.

Turin TC, Yeasmin F, Rumana N. Research Productivity in Refugee Research: Bibliometrics Analysis of Worldwide Publications. Published abstract presented at: 44th North American Primary Care Research Group (NAPCRG) Annual Meeting: 2016 Nov 12-16; Colorado Springs, Colorado.

Turin TC, Yeasmin F, Rumana N. Research Productivity in Refugee Research: Bibliometrics Analysis of Worldwide Publications. Published abstract presented at: 44th North American Primary Care Research Group (NAPCRG) Annual Meeting: 2016 Nov 12-16; Colorado Springs, Colorado.

Ward R, Thurston WE, Henderson R, Crowshoe L. Social accountability of medical schools to Indigenous students: Developing a framework for recruitment and retention. Institute of Aboriginal People's Health, Research poster presentation. National Gathering of Graduate Students. University of Ottawa, 2016 June. Ottawa, Ontario, Canada.

Ward R, Thurston WE, Henderson R, Crowshoe L. Social accountability of medical schools to Indigenous students: Developing a framework for recruitment and retention. Research poster presentation. Young Investigator's Forum, Clinician Investigator Trainee Association of Canada. University of Toronto, 2016. Toronto, Ontario, Canada.

Henderson R, Crowshoe L, Green M, Jacklin K, Walker L, Han H, Calam, B. Development of the Educating for Equity Care Framework for Improving Diabetes Care for Indigenous People. Research poster presentation. .He Huliau Indigenous health conference, 2016 October, Honolulu, Hawai'i.

Crowshoe L, Green M, Jacklin K, Calam B, Walker L, Henderson R, Han H. Shifting patient, provider and clinical outcomes through medical education E4E Canada Project, Research oral presentation symposium. Pacific Rim Indigenous Doctors Congress, 2016 November. Auckland NZ.

Jones R, Crowshoe L, Ewen S. Educating for Indigenous Health Equity: A Consensus Statement, Research oral presentation symposium, Pacific Rim Indigenous Doctors Congress, 2016 November. Auckland, NZ.

Loyola-Sanchez A, Crowshoe L, White T, Lacaille D, Barnabe C. There Are Still a Lot of Things that I Need: A Qualitative Study Exploring Opportunities to Improve the Health Outcomes of First Nations People with Arthritis seen at an On-reserve Outreach Rheumatology Clinic. Poster presentation. American College of Rheumatology Annual Meeting 2016.

Loyola-Sánchez A, Barnabe B, Crowshoe L, Kleissen T, Hull P, Hazlewood G. Qualitative Inquiry on Treatment Preferences for Rheumatoid Arthritis Pharmacotherapy: An Indigenous Patient Perspective, Research poster presentation. Canadian Rheumatology Association National Conference, February 2017, Ottawa, ON.

Crowshoe L, Williams K, Henderson R, Loyolas-Sanchez A, Barnabe C, Cooke L. Truth, Reconciliation, and Medical Education: A Critical Collaborative Consensus-Building Approach for Medical School Response. Research poster presentation. Canadian Conference on Medical Education (CCME), 2017 April 30, Winnipeg, MB.

Crowshoe L, Henderson R, Green M, Han H, Jacklin K, Calam B, Walker L. Impact of E4E-CME Workshop on Primary Healthcare Providers' Understandings of Factors Related to Indigenous Diabetes, Oral research presentation. Canadian Conference on Medical Education (CCME), 2017 May 1, Winnipeg, MB.

Loyola-Sanchez A, Crowshoe L, White T, Lacaille D, Barnabe C. There are still a lot of things I need: A Qualitative Study Exploring Opportunities to Improve Health Outcomes of First Nations People with Arthritis Seen at an On-Reserve Outreach Rheumatology Clinic, Oral research presentation,Group for Research with Indigenous Peoples Forum, Cumming School of Medicine, 2017 May 19, Calgary, AB.

Henderson R, Wiart S, Crowshoe L, Wicklum S. Rise Up Mighty Warrior: Indigenous Women and Stakeholder Engagement for Meaningful Health Promotion, Oral research presentation, Group for Research with Indigenous Peoples Forum, Cumming School of Medicine, 2017 May 19, Calgary, AB.

Crowshoe L, Williams K, Henderson R, Loyolas-Sanchez A, Barnabe C, Cooke L. Truth, Reconciliation, and Medical Education: A Critical Collaborative Consensus-Building Approach for Medical School Response, Research poster presentation. Group for Research with Indigenous Peoples Forum, Cumming School of Medicine, 2017 May 19, Calgary, AB.

Ward R, Thurston WE, Henderson R, Crowshoe L, Cooke L. Social accountability of medical schools to Indigenous students: Developing a framework for recruitment and retention. Research poster presentation, Innovations in Medical Education. Keck School of Medicine, University of Southern California, 2017, Los Angeles, California, United States of America.

Goetz V, Kendrick D, Douglas E, Dickinson J. Positive Predictive Value (PPV) of Clinical Factors Associated with Pandemic Influenza: An Alberta Based Sentinel Network Study from 2009-2016. Poster session presented at: ACFP, Annual Scientific Assembly; 2017 March 3-5; Banff, Alberta.

Topstad D, Dickinson JA. An Escalating Thyroid Cancer Epidemic in Canada 1970-2012. Paper presented at: Preventing Overdiagnosis Conference; 2016 September 20-22; Barcelona, Spain.

Bell N, Dickinson JA, Kretschmer K. Using 1,000-Person Infographics to Improve Risk Communication With Patients in Preventive Health Screening. Paper presented at: Family Medicine Forum; 2016 November 9-12; Vancouver, BC.

Dickinson J, Topstad D. Alberta Thyroid Cancer Epidemic from Over-diagnosis. Presented at: ACFP, Annual Scientific Assembly; 2017 March 3-5; Banff, Alberta. Won: What's Up Doc? Research Showcase Reviewers' Choice Award - Oral Presentation 1st Place.

Parsons B, Freedman SB, Zie J, Nettel-Aguirre A, Lee B, Chui L, Pant XL, Zhou R, Dickinson JA, Danderkooi O, Ali S, Osterreicher L, Lowerison K, Tarr PI. Enteropathogen Detection in Children with Acute Gastroenteritis: A Comparison of Rectal Flocked Swabs and Stool Specimens. Paper presented at: Annual 2017 Canadian Association for Clinical Microbiology and Infectious Disease; 2017 May 3-6; Toronto, Ontario. Winner of: Dr Susan King Pediatric Abstract Award 2017.

Freedman SB, Xie J, Nettel-Aguirre A, Lee B, Chui L, Pant XL, Zhou R, Parsons B, Dickinson JA, Vanderkooi OG, Ali S, Osterreicher L, Lowerison K, Tarr PI. Poster session presented at: Enteropathogen Detection in Children with Diarrhea and/or Vomiting: A Comparison of Rectal Flocked Swabs and Stool Specimens. Pediatric Academic Societies Meeting; 2017 May 6-9; San Francisco, USA.

Dickinson JA. Poster Presentation at: HPV Self-Sampling Symposium; 2016 October 14; Toronto, ON.

Dickinson JA. Over 75% of Thyroid Cancer in Canada is Overdiagnosed and Over-treated. Presentation at: Innovative Approaches to Optimal Cancer Care in Canada conference; 2017 April 7-8; Toronto, ON.

Webb J, Dickinson JA. Difficulties in Insurability Caused by Screening Tests. Presentation at: Innovative Approaches to Optimal Cancer Care in Canada conference; 2017 April 7-8; Toronto, ON.

Yuan Y, Dickinson JA. Quality Assurance Process Affects Breast Cancer Screening Performance. 2017 CAHSPR Conference, Toronto, ON. 2016 May 24-26.

Rizvi SK, Hebert M, Thomas B, Dickinson JA. Identifying barriers to cervical cancer screening among South Asian Muslim immigrant women. 2017 CAHSPR Conference, Toronto, ON. 2017 May 24-26.

Sayed SA, Dickinson JA. Socio-demographic correlates of PAP tests for cervical cancer screening in Calgary, Alberta. ARCC Canadian Centre for Applied Research in Cancer Control Conference 2017; 2017 May 24-26; Toronto, Ontario.

Gillespie H, King N, Gormley GJ, Gilliland AEW, Kelly M, Dornan T. What does it mean to be caring? Phenomenological primary research using the novel Pictor technique. Paper presented at: AMEE Research Report; 2016 August 27-31; Barcelona Spain.

Kelly M. A qualitative evidence synthesis of humanism in healthcare. Oral presentation: Gold Foundation Research Institute Mapping The Landscape, Journeying Together; 2017 May 7-9; Chicago, IL.

Pearson S, Kelly M. Oops - Can I write about that? Ethics in Autoethnography. Poster presentation at: Creating Space VI; 2017 April 15-16; Montreal, QC.

Keller D, Kelly M. What are the benefits and risks of domperidone in breastfeeding? A scoping study. Oral presentation at: Alberta Scientific Assembly; 2017 March 3-5; Banff, AB.

Svreck C, Kelly M. Hands on or hands off? Interpreting touch in clinical practice. Oral presentation at: Alberta Scientific Assembly; 2017 March 3-5; Banff, AB.

Kelly M, Pringsheim T. Mental Health Plus: A qualitative Study of Quetiapine use by Family Physicians. Oral presentation at: Alberta Scientific Assembly; 2017 March 3-5.

Kelly M, Freeman L. Nostalgia or Evidence-Based? A qualitative study of physical examination by family physicians. Oral presentation at: Alberta Scientific Assembly; 2017 March 3-5.

McKinney M, Smith KE, Dong KA, Babenko O, Ross S, Kelly MA, Salvalaggio G. Development and validation of the Inner City Attitudinal Assessment Tool (ICAAT). Poster presented at: Alberta Scientific Assembly; 2017 March 3-5.

Lee S, Chowdhury T, Ahmed S. Towards Understanding Chaperone Use During Intimate Examinations: A Scoping Review of the Literature. Poster Presentation at: North American Primary Care Research Group Annual Meeting; 2016 Nov 15; Colorado Springs, CO.

Lee S, Chowdhury T, Ahmed S. Towards Understanding Chaperone Use During Intimate Examinations: A Scoping Review of the Literature. Oral Presentation at: Family Medicine Forum Research Day; 2016 Nov 9; Vancouver, BC.

Lee S. Chaperone Use During Intimate Examinations: Family Physicians' Practices and Perspectives. Oral Presentation at: Family Medicine Grand Rounds, University of Calgary; 2017 Jan 12; Calgary, AB.

Lee S, Chowdhury T, Ahmed S. Towards Understanding Chaperone Use During Intimate Examinations: A Scoping Review of the Literature. Oral Presentation at: 62nd Annual Scientific Assembly, Alberta College of Family Physicians; 2017 Mar 3; Banff, AB.

Lee S, Obeirne M, Finlay J. Family Physicians' Use of Chaperones During Intimate Examinations. Oral Presentation at: 62nd Annual Scientific Assembly, Alberta College of Family Physicians; 2017 Mar 3; Banff, AB.

McBrien K, Tonelli M, Hemmelgarn B, Weaver R, Edwards A, Ivers N, Rabi D, Lewanczuk R, Braun T, Naugler C, Campbell D, Saad N, Manns B. The Association Between Primary Care Attachment and Poor Glycemic Control in Diabetes. Paper presented at: Family Medicine Forum; 2016 Nov 9; Vancouver, British Columbia.

McBrien K, Tonelli M, Hemmelgarn B, Weaver R, Edwards A, Ivers N, Rabi D, Lewanczuk R, Braun T, Naugler C, Campbell D, Saad N, Manns B. The Association Between Primary Care Attachment and Poor Glycemic Control in Diabetes. Paper presented at: North American Primary Care Research Group Annual Meeting; 2016 Nov 12-16; Colorado Springs, Colorado.

McBrien K, Nguyen V, Lang E, Musto R, Cheung A, Polachek A, Ghali W, Tang K, Webb J, Ronksley P, Williamson T, Fabreau G. Coordinated Care Team for Vulnerable Patients with Complex Care Needs. Poster session presented at: North American Primary Care Research Group Annual Meeting; 2016 Nov 12-16; Colorado Springs, Colorado.

Williamson T, McBrien K, Fabreau G, Drummond N, Polachek A, Cheung A, Garies S, Aponte-Hao S, Ronksley P. Characterizing High System Use Across the Primary-Tertiary Care Continuum: parallel analyses of select Canadian health datasets. Poster session presented at: North American Primary Care Research Group Annual Meeting; 2016 Nov 12-16; Colorado Springs, Colorado.

Zeng M, Nicholas D, Au L, Mladenovic A, Marlinga J, Manns B, Naugler C, Edwards A, McBrien K. Barriers and Facilitators to Diabetes Care in Patients with Diabetes: a qualitative study. Poster session presented at: Family Medicine Forum, 2016 Nov 9; Vancouver, British Columbia.

Williamson T, McBrien K, Fabreau G, Aponte-Hao A, Drummond N, Polachek A, Cheung A, Garies S, Ronksley P. Defining and describing high system use in primary care. Paper presentation at: Canadian Association for Health Services and Policy Research Conference; 2017 May 24-26; Toronto, Ontario.

Souri S, Symonds N, Williamson T, Fabreau G, Lethebe B, Rouhi A, Garies S, Birtwhistle R, Quan H, Ronksley P, McBrien K. Identification of validated case definitions for chronic disease using electronic medical records: A systematic review. Paper presented at: Canadian Association for Health Services and Policy Research Conference; 2017 May 24-26; Toronto, Ontario.

Garies S, Ronksley P, Lethebe C, McBrien K, Drummond N, Quan H, Williamson T. Validated case definitions using linked electronic medical record and administrative databases: a systematic review. Paper presented at: Canadian Association for Health Services and Policy Research Conference; 2017 May 24-26, Toronto, Ontario.

Jensen A, Williamson T, Ronksley P, Fabreau G, Drummond N, Polachek A, Cheung A, McBrien K. Who are the Medically Complex Patients in Canadian Primary Care?: a comparative assessment of measures of multi-morbidity. Poster session presented at: Society of General Internal Medicine Annual Meeting; 2017 Apr 19-22; Washington DC.

Jensen A, Williamson T, Ronksley P, Fabreau G, Drummond N, Polachek A, Cheung A, McBrien K. Who are the Medically Complex Patients in Canadian Primary Care?: a comparative assessment of measures of multi-morbidity. Poster session presented at: Alberta College of Family Physicians Annual Scientific Assembly; 2017 Mar 3-5; Banff Alberta.

McBrien K, Williamson T, Fabreau G, Aponte-Hao A, Drummond N, Polachek A, Cheung A, Garies S, Ronksley P. Characterizing high-system use in primary care. Paper presented at: Alberta College of Family Physicians Annual Scientific Assembly; 2017 Mar 3-5; Banff Alberta.

Nguyen V, McBrien K, Fabreau G, Ryan E, Wilson E. CUPS Coordinated Care Team: transitional support for vulnerable Calgarians with complex needs. Accelerating Primary Care Conference; 2016 Mar 17-18; Edmonton, Alberta.

Weaver C, McBrien K, Sajobi T, Ronksley P, Lethebe B, Williamson T. Using primary care electronic medical record data and machine learning to predict acute care use. Poster presentation presented at: Alberta SPOR SUPPORT Unit: Summer Institute; 2017 Jun 25-27; Edmonton, AB.

Weaver C, McBrien K, Sajobi T, Ronksley P, Lethebe B, Williamson T. Using primary care electronic medical record data and machine learning to predict acute care use. Oral presentation: Canadian Society for Epidemiology and Biostatistics Biennial Conference; 2017 May 30-June 2; Banff, AB.

Garies S, Quan H, Williamson T, Lethebe BC, Ronksley P, McBrien K. Validated Case Definitions using Linked Electronic Medical Record (EMR) and Administrative Databases: a systematic review. Oral presentation at: CAHSPR Conference; 2017 May 24-26; Toronto, Ontario.

Garies S, Quan H, Williamson T, Lethebe BC, Ronksley P, McBrien K, Birtwhistle B, Fabreau G, Symonds N. Identification of validated case definitions for chronic disease using electronic medical records (EMRs): a systematic review. Oral presentation at: CAHSPR Conference; 2017 May 24-26; Toronto, Ontario.

Williamson T, Ronksley P, McBrien K, Fabreau G, Cheung A, Polachek A, Jensen A, Hao S. Defining and describing high system use in primary care. Oral presentation at: CAHSPR Conference; 2017 May 24-26; Toronto, Ontario.

Ronksley P, McBrien K, Dahal KA, Cunningham C, Walker R. Association Between Primary Care Access and Acute Care Utilization for Hypertension: a systematic review. Poster presentation at: ISPOR 22nd Annual International Meeting; 2017 May 20-24; Boston, MA.

Williamson T, Gersbach B, Gersbach B, Ronksley P, McBrien K, Fabreau G, Drummond N, Lindeman C. Engaging patients in big-data methods research: practical approaches to meaningfully engage patients in health research. Oral presentation at: SPOR Summer Institute: a Spotlight on Patient-Oriented Research; 2017 Jun 25-27; Edmonton, AB.

Singer A, Halas G, Katz A, McBrien K, Fabreau GE, Aponte-Hao S, Drummond N, Polachek AJ, Cheung A, Garies S, Ronksley P, Williamson T. Characterizing High System Use in Primary Care. Presented at: CRINGe Speaker Series; 2017 Apr 20; Winnipeg, MB.

Myhre D, Bajaj S, Woloschuk W. Practice Locations of Longitudinal Integrated Clerkship Graduates: A Matched Cohort Study. Poster presented at: Consortium of Longitudinal Integrated Clerkships Conference; 2016 Oct 16-19; Toronto, ON.

Hyshka, E, Morris, H, Lockerbie SL, Anderson-Baron J, Kassam, S, Dong K, Salvalaggio, G. "The Addiction Recovery and Community Health (ARCH) Team: Patient, hospital and community stakeholder perspectives". Joint ISAM and CSAM-SMCA XXVII Annual Meeting and Scientific Conference; 2016 Oct 20-22; Montreal, QC.

Kelly M, Nixon L, "Beyond Thematic Analysis: how researchers can use qualitative methodologies to investigate the complexity and uncertainty of relationship-centred care". Workshop Presentation at: NAPCRG; 2016 Nov; Denver, CO.

Kelly M, Nixon L, Harvey A, Crowshoe L, Rosenal T. King N, Dornan T. "Experiencing touch: co-operative inquiry in medicine" Oral Presentation at: British Medical Sociology group, University of York; 2015 Sep; York, UK.

O'Beirne M, Mirotchnik A, Jackson D, Vlach L, Lee L. Implementing Quarterly Clinical Metrics in the Department of Family Medicine. Poster session presented at:APCC; 2017 Nov 28; Edmonton, Alberta.

Miorsthiel H, Tibbles A, Jacobs C, Bodnar P, O'Beirne M, Funabashi M, Vohra S. An Analysis of the Clinical Encounters of Interns at the Canadian Memorial Chiropractic College. Poster session presented at: WFC-ACC Education Conference 2016 Nov 20; Montreal, Quebec.

Lindman C, Soos B, Pham A, Miyagishima R, Noseworthy T, Musto R, Johnson D, Oddie S, Rowe B, Green l, and Drummond N.AB SPOR PIHCIN Patient Engagement Strategy: Families Panel. Poster session presented at: ASA Conference, 2017 Mar 3; Banff, Alberta.

Palacios Mackay M, Oddone Paolucci E, Kassam A. Generalizability Theory (G-theory) for beginners: A practical approach to examining the reliability of assessment scores within the context of competency-based medical education (CBME). Workshop presented at: Canadian Conference on Medical Education; 2017 Apr 29-May 2; Winnipeg, MB.

Palacios Mackay M, Leduc C, Pereira J. Are Canadian Undergraduate Curricula Providing Future Physicians Sufficient Clinical Experience in Palliative Care? Poster presentation at: Canadian Conference on Medical Education; 2017 Apr 29-May 2; Winnipeg, MB.

Palacios Mackay M, Pereira J, Leduc C. Are we providing our future physicians enough exposure to Palliative and End-of-Life Care in undergraduate medical education? Poster presented at: AMEE International Conference; 2016 Aug 29; Barcelona, Spain.

Palacios Mackay M, Crutcher R, Leduc C, Woloschuk W, Szafran O. No change in rates of perceived intimidation, harassment and discrimination in family medicine residents in Alberta (Canada) over a 10-year period. Poster presented at: AMEE International Conference; 2016 Aug 29; Barcelona, Spain.

Palacios Mackay M, Wycliffe-Jones K, Mintsioulis S, Laurin D. Trustworthiness of field notes in Family Medicine residency training: does field note content provide evidence to support the validity of our decisions about residents' competence? Poster presented at: Canadian Conference on Medical Education; 2017 Apr 29-May 2; Winnipeg, MB.

Mawhinney JA, Mounsey CA, Hartmann SE, Pon C, Moraga FA, Soza D, Lopez I, Furian M, Lichtblau M, Muralt L, Bader P, Rawling JM, Ulrich S, Bloch KE, Frise MC, Poulin MJ, Robbins P. Effect of dexamethasone on cerebrovascular hemodynamics in lowlanders with COPD travelling to 3200m: randomized placebo-controlled trial. Abstract presented at: The 20th International Hypoxia Symposium; 2017 February 7-12; Lake Louise, AB, Canada.

Bader P, Moraga F, Soza D, Lopez I, Rawling JM, Ulrich S, Bloch KE, Giesbrecht B, Poulin MJ. Cognitive effects of acute exposure to high altitude in altitude-experienced workers. Abstract presented at: The 20th International Hypoxia Symposium; 2017 February 7-12; Lake Louise, AB, Canada.

Ulrich S, Bader PR, Lichtblau M, Furian M, Muralt L, Hartmann SE, Rawling JM, Poulin MJ, Bloch KE. Extravascular lung water in healthy lowlanders during repeated high altitude exposure. Abstract presented at: The 20th International Hypoxia Symposium; 2017 February 7-12; Lake Louise, AB, Canada.

Lichtblau M, Bader PR, Furian M, Muralt L, Hartmann SE, Rawling JM, Poulin MJ, Bloch KE, Ulrich S. Effect of acute and subacute exposure and re-exposure to high altitude on pulmonary artery pressure in healthy lowlanders. Abstract presented at: The 20th International Hypoxia Symposium; 2017 February 7-12; Lake Louise, AB, Canada.

Heard A, Hart JM, Burles F, Hartmann SE, Furian M, Lichtblau M, Muralt L, Bader PR, Ulrich S, Bloch KE, Rawling JM, Pexman PM, Poulin MJ, Protzner AB. Tracking altitude-related changes in processing capacity with brain signal variability. Abstract presented at: The 20th International Hypoxia Symposium; 2017 February 7-12; Lake Louise, AB, Canada.

Hartmann SE, Furian M, Dyck AM, L. Muralt, Lichtblau M, Bader PR, Drogos LL, Rawling JM, Ulrich S, Bloch KE, Poulin MJ. Effect of acute, subacute and repeated high altitude exposure on psychomotor vigilance. Abstract presented at: The 20th International Hypoxia Symposium; 2017 February 7-12; Lake Louise, AB, Canada.

Furian M, Hartmann SE, Muralt L, Lichtblau M, Bader PR, Rawling JM, Ulrich S, Poulin MJ, Bloch KE. Effect of repeated exposure to very high altitude on lung function in healthy lowlanders. Abstract presented at: The 20th International Hypoxia Symposium; 2017 February 7-12; Lake Louise, AB, Canada.

Furian M, Hartmann SE, Muralt L, Lichtblau M, Bader PR, Rawling JM, Ulrich S, Poulin MJ, Bloch KE. Effect of repeated altitude exposure on nocturnal breathing disturbances in lowlanders. Abstract presented at: The 20th International Hypoxia Symposium; 2017 February 7-12; Lake Louise, AB, Canada.

Bettauer KM, Hall SE, Drogos LL, Hartmann SE, Furian M, Dyck AM, Muralt L, Lichtblau M, Bader PR, Rawling JM, Ulrich S, Bloch KE, Giesbrecht B, Poulin MJ. Effect on cognition of acute, subacute and repeated exposures to high altitude. Abstract presented at: The 20th International Hypoxia Symposium; 2017 February 7-12; Lake Louise, AB, Canada.

Topps M, Kelly K, Kassam A, Burton C. Testing a rational explanation model in General Practice as a method to enhance communication with patients when explaining symptoms. Oral poster presented at: International Association for Medical Education Conference; 2016 Aug 20; Barcelona, Spain.

www.calgaryfamilymedicine.ca

Department of Family Medicine Calgary
8th floor, Sheldon M. Chumir Health Centre
1213 4th Street SW
Calgary, Alberta T2R 0X7

Alberta Health Services
Family Medicine
Calgary Zone

UNIVERSITY OF CALGARY
CUMMING SCHOOL OF MEDICINE
Department of Family Medicine