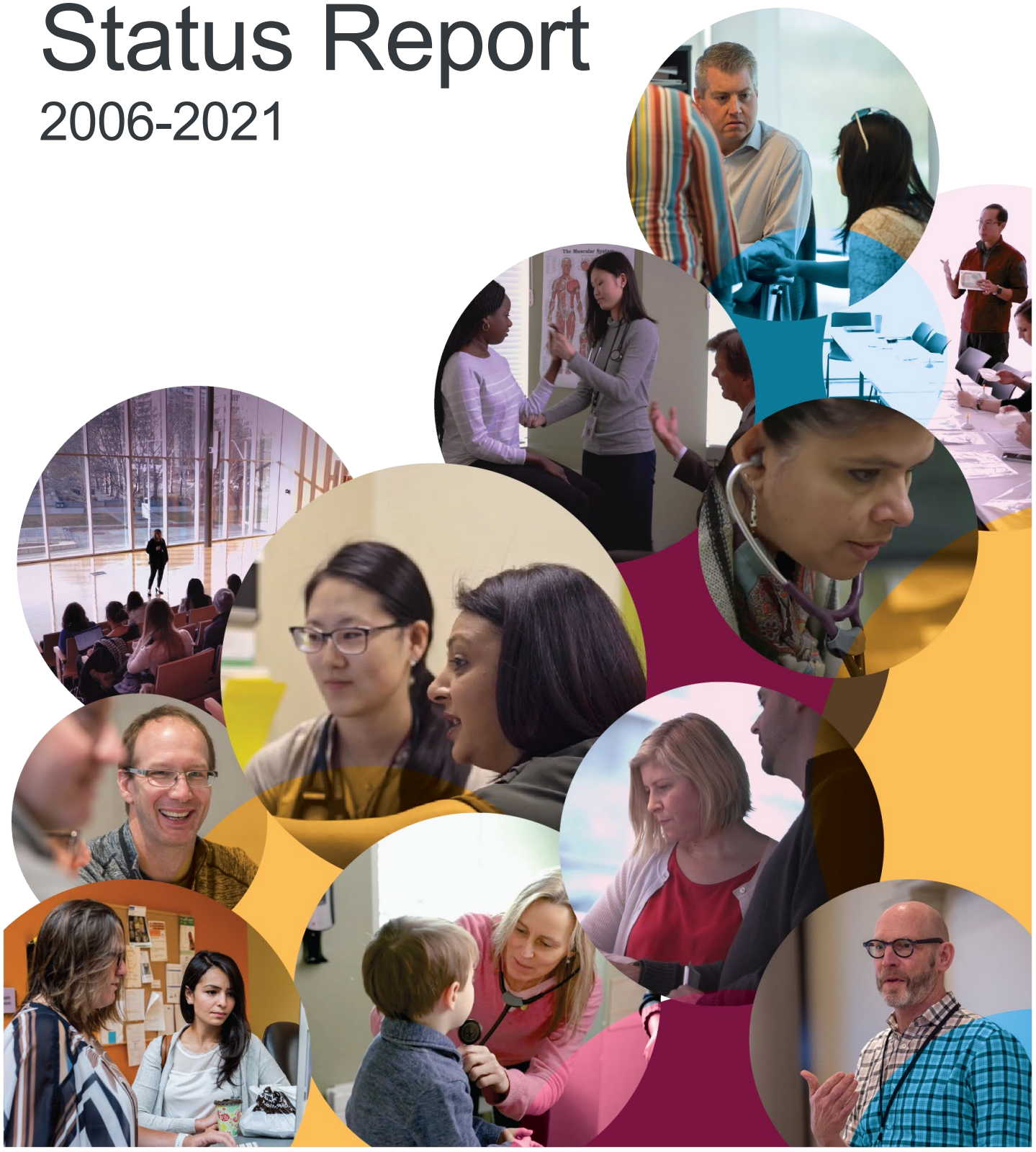
McMaster University | Family Medicine

# Status Report

## 2006-2021



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## Chair's summary

*Dr. David Price*

As I sit down to write the status report for the Department of Family Medicine, it is hard to believe that 15 years ago I was writing a cheque which led to the following quotes:

> "You can't buy a building."
> - CFO Faculty of Health Sciences
>
> "Who is this maverick David Price? And how dare he sign something in trust for McMaster University? Only the President can do that."
> - Peter George, President, McMaster University.

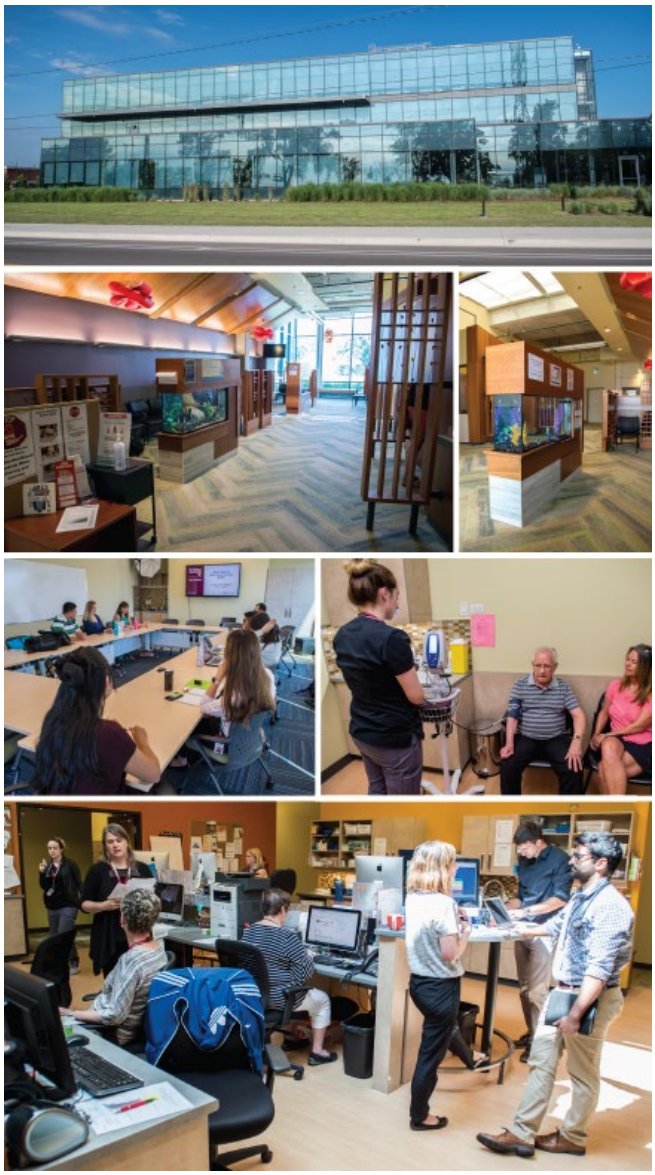
In 2005, our department was renowned for its educational innovations and leadership. We had excellent educators, committed clinicians and a very small, overworked administrative staff. Stonechurch was in a rented facility that was clearly not going to be fit for purpose for residency education and clinical care in 2006, let alone in 2010. Our department was strapped financially, in large part due to the vagaries of Ministry funding as well as the need to pay rent for some of our clinical operations to a for-profit company. With our first, small initial expansion, it seemed to me that we had a unique opportunity to begin to "own" our own destiny.

When I became chair in 2006, a priority for me was to create the kind of environment within the department that would attract the best and brightest family physicians, administrators, clinicians, family medicine residents and researchers. Investing in people has been my mantra for the last 15 years. To do so however, requires modern infrastructure, financial and other resources, opportunity for growth and job satisfaction not to mention a welcome and supportive environment and culture. While all of these elements, of course, existed to some degree at that time in the department, it was evident that if we were going to become one of the leading departments of family medicine in this country, worthy of the extraordinary educational leaders within the department, particular attention would need to be paid to all of these elements.

*Stonechurch Family Health Centre*

Buying and renovating the building and property that is known as the Stonechurch Family Health Centre was the first of these building blocks. Stonechurch relocated from its old, rented facilities into the brand-new,

purpose-built facility shortly after I became chair in 2006. Since that time, our department, under my leadership, has purchased, designed and built family practice teaching units in Halton, St. Catharines, and of course our downtown Hamilton David Braley Health Sciences Centre. Many of these facilities have won design awards and all are acknowledged to be not only "state of the art" primary care centres and beautiful aesthetically, but most importantly great places to both work and be cared for as a patient and to learn as a learner. One of our senior professors told me early in the building process of Stonechurch that there was concern that my proposal for this facility was "too nice for Hamilton." My response was that Hamiltonian's deserved the finest as did our McMaster community. The same professor told me a few years later that our commitment to quality in everything we did, including the design and construction of our buildings, contributed to a sense of pride in the department and also contributed to our ability to attract top family medicine residents, faculty and staff.



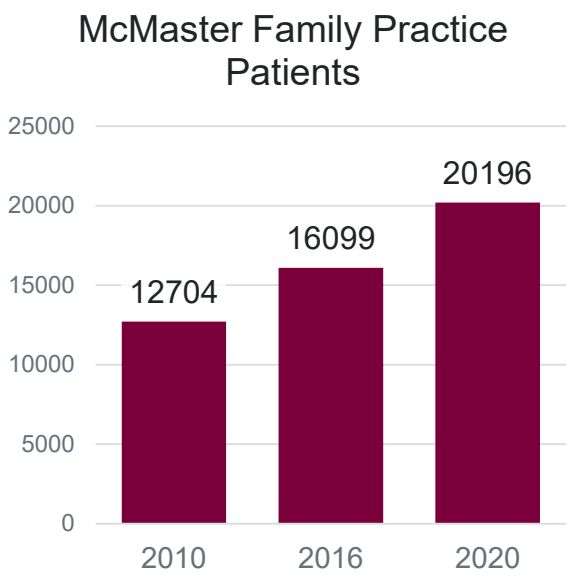
*Halton McMaster Family Health Centre*

The downtown Hamilton, David Braley Health Sciences Centre (DBHSC) was a vision led by our department in collaboration with the dean at the time, Dr. John Kelton. The vision was for a family practice clinic in the downtown core where care was most needed in this city. Additionally, the goal was to partner with the city of Hamilton's Department of Public Health such that we would co-locate in the same building. The mayor, board of health and city council all agreed with this vision (demonstrating the value of one-on-one meetings I had with many of the opinion leaders), contributing financial resources to enable this dream. As far as we are aware, we are the first academic department of family medicine in this country to co-locate with public health leadership and clinical care in the same site. The benefits of this close collaboration and partnership has been extraordinarily fruitful over the years: no more so than during the current pandemic. Then senator, Mr. Braley endorsed our vision, contributing $10 million towards this project. This project also contributed significantly (and many would argue principally) to the revitalization of downtown Hamilton.

Our department now manages $15 million worth of real estate (owned, of course, by the University on our behalf) and co-manages along with the University, the $85 million David Braley Health Sciences Centre. The DBHSC houses our administration, education and research offices along with our continuously expanding clinical operations.

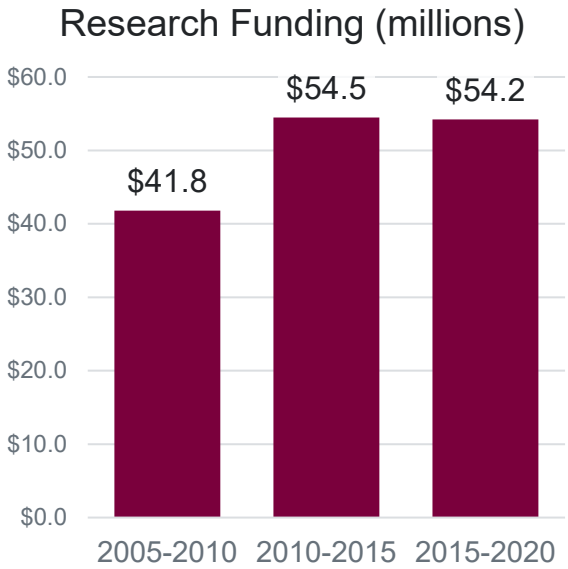

*David Braley Health Sciences Centre*

*McMaster Family Practice*



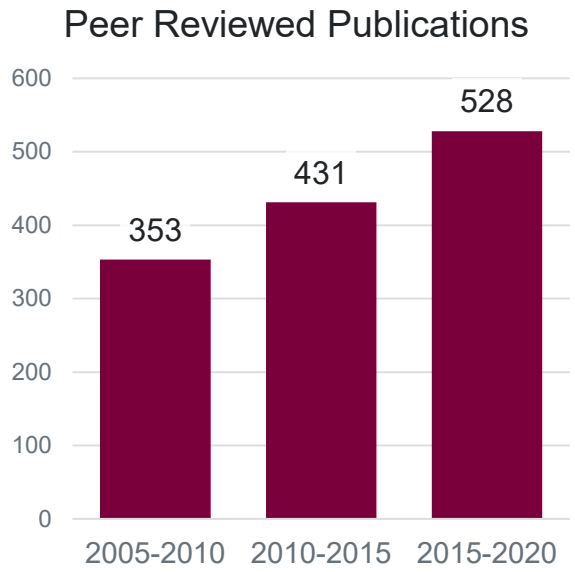

In 2012, I was the co-lead of a $15.5 million grant from "FedDev Ontario" of which $5.8 million came directly to our department. The goal behind this project was to build on the existing innovations in the EMR and IT space which was the brainchild of one of our department faculty members, Dr. David Chan. This major investment in our own department's ability to innovate and the OSCAR electronic medical record to the next level ultimately resulted in our department being able to license OSCAR to a commercial entity. I am proud of the fact that we have been able to maintain the highest ethical standards in what has now become a national EMR, safely guarding the health data of over 8 million Canadians. Our department benefits financially from this arrangement which contributes to our overall mission. Our department has also developed as a direct result of this and other grants and investments significant capacity in the IT landscape. As a direct result of this and other grants and investments, our department has also developed significant capacity in the IT landscape. We internally fund our own IT department and infrastructure, the value of which was highlighted during the current pandemic when we pivoted from almost all in-person administration and care to a virtual organization in a matter of hours. The education and clinical care we provide are of course, a blend of in person and virtual, as appropriate.

In 2006, our department had one full-time PhD researcher along with one Masters' student and one research administrative assistant. Unfortunately, the full-time researcher was recruited to another university shortly after I started (which I chose to believe at the time to be an unfortunate coincidence!). A search for a new director of research ensued and although we had a number of applicants there were two outstanding ones. In keeping with my mantra of never turning down an opportunity presented, we were able to create two positions.




In 2013, as a direct result of a number of submissions I and senior University leaders made to Health Canada, McMaster University was granted $6.5 million in the federal budget to "research/evaluate ways to achieve better health outcomes for patients and improve the use of medical teams." As a result of this funding, Health TAPESTRY was born.

During my tenure, our research department has grown exponentially, now with nine full-time PhD researchers, 30+ research assistants (many with a master's degree) and administrative staff. We now manage over $12 million of research grants annually and over the last five years have increased the number of annual publications to over 100. Our impact is international. Prior to 2006 we in family medicine had one endowed chair: the David Braley and Nancy Gordon Chair in Family Medicine. Since then, we have been able to create a second endowed chair in family medicine, as well as the Niagara Professorship in Family Medicine, funded by donors from the Niagara region, and the recently announced David Braley Primary Care Research Collaborative — a $4 million expendable endowment anchored by a gift of $1 million from David Braley.




Mr. Braley has been exceedingly generous to our department over the term of my chairship, also having contributed $1.5 million to the second phase of Health TAPESTRY. I was able to secure the other $1.5 M from the Government of Ontario contingent on a match from a philanthropic donor. The department and I are extremely grateful for the ongoing commitment and confidence that Mr. Braley has placed in our department.

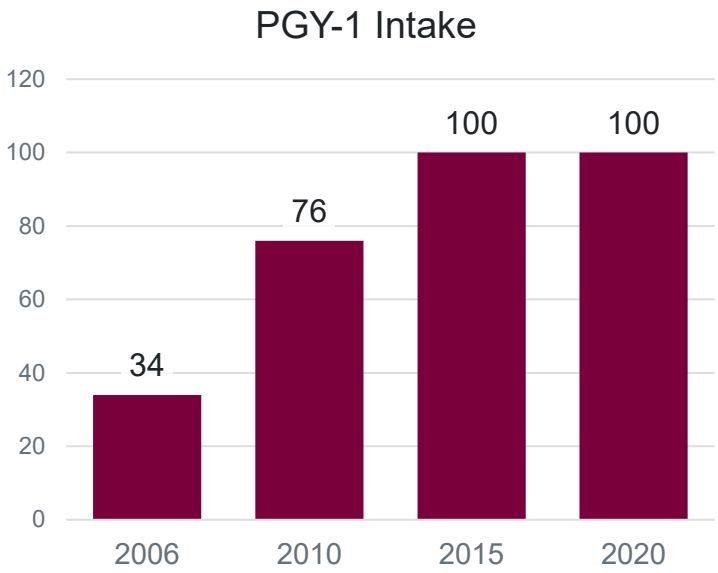
*David Braley*

Thanks to the incredible researchers we have recruited over the last 15 years, along with a commitment to scholarship from all members of the department, our department is recognized as one of the leading research departments in the country. Last year alone, our department contributed over 90 first author papers to the peer-reviewed literature on family medicine and primary care.

In the early-2000's, family medicine was at a crisis point in this country. A recognition of this crisis by provincial governments across the country resulted in significant expansion of family medicine programs. Over my tenure, we have increased our number of first year residents from 34 to 100. Partnering with extraordinary department postgraduate directors along with newly recruited PG site directors, we created brand new residency sites in Niagara, Halton, Brampton, Grand Erie Six Nations in addition to expanding our teaching units here in Hamilton and the existing Kitchener/Waterloo site.

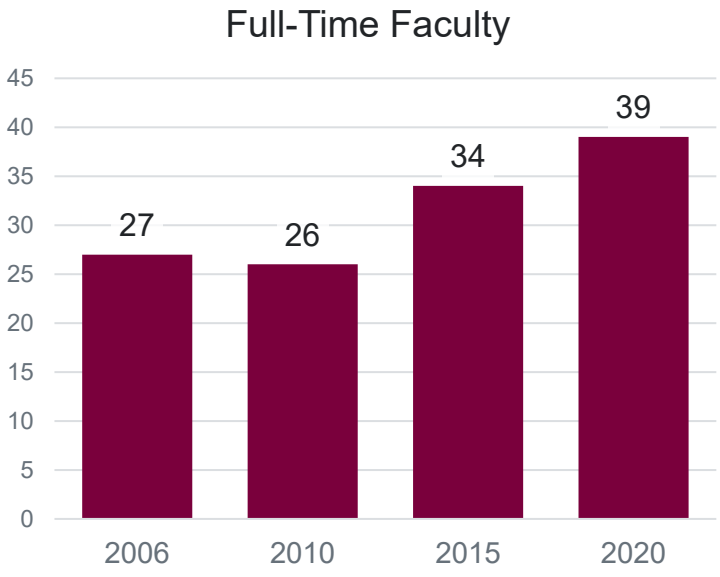
Naturally, increases of this magnitude in the number of the learners, required a commensurate increase in our full and part-time faculty as well as staff in the various administrative hubs.

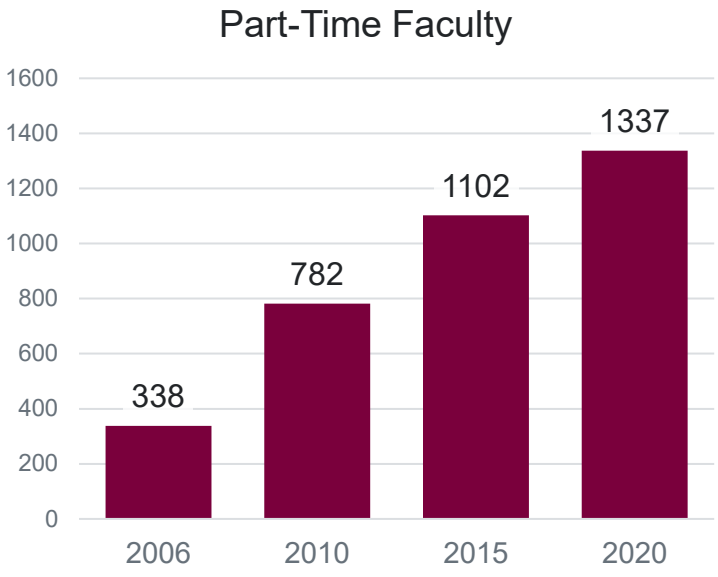
It was clear from the start that we would not be able to accomplish this kind of educational/business/financial transformation with, solely, physician leadership. Their focus should be on educational/clinical/research and scholarly work. During my term we have been extremely fortunate to have skilled and accomplished business managers join our department. Many of these managers have



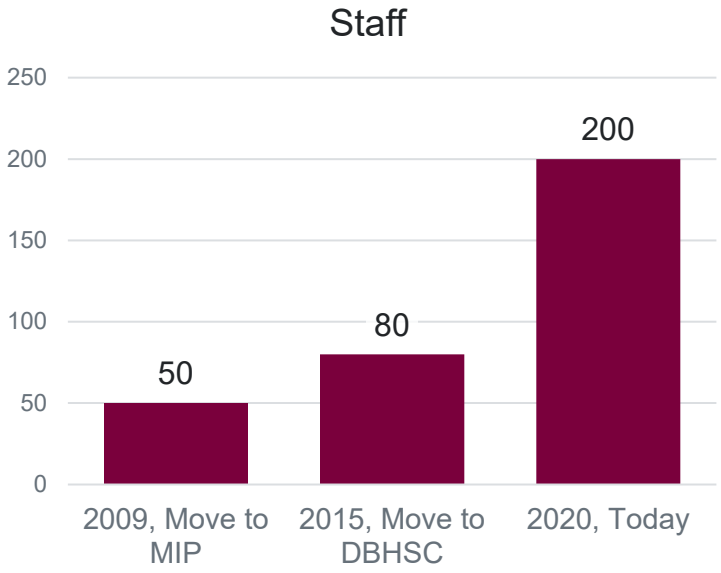

## Department of Family Medicine Sites

| 2006 | Today |
|---|---|
| 1. Hamilton/CBRT | 1. Hamilton/CBRT |
| 2. Rural | 2. Rural |
| 3. Kitchener-Waterloo | 3. Kitchener-Waterloo |
| | 4. Brampton |
| | 5. Grand Erie/Six Nations |
| | 6. Halton |
| | 7. Niagara |



both a healthcare background and business experience or higher degrees such as an MBA. Together, we have developed a professional class of managers in our department, the majority of whom had experience in the healthcare realm along with extra training and skills in management, administration, finance etc. We have also been extremely fortunate that we have been able recruit and retain a finance manager and staff who have their CA designation.




This administrative structure that we have jointly developed has permitted department leadership, including the chair, to operate at the proverbial 30,000-foot level, allowing for strategic development, engagement with donors, community leaders, politicians, and Ministry personnel etc.

The recent pandemic and challenge of the COVID-19 infection is illustrative. Our strong IT infrastructure and leaders permitted a virtually instantaneous pivot to virtual work. Across the department, the clinical education of our residents continued with barely a pause. Our clinics here in Hamilton have continued to care for our patients either virtually or in-person as appropriate. The real gift of the infrastructure developed, however, was our contribution to the pandemic response at the University, community and provincial levels. Many of our department leaders have assumed leadership roles in helping society respond to this crisis. It is important to recognize that our strong administrative and leadership infrastructure has enabled us to support our faculty, staff and learners in times of either public or personal crises.

With the increasingly strong reputation of the department, many of us have been "shoulder tapped" to contribute to policy development at both the provincial and national levels, whether that be in clinical care, education or research. This is a welcome development as it means that the voice of family medicine and primary care is being heard at the most senior levels of government. An advantage of our current size and structure, (with the generosity of colleagues and staff who tolerated and covered for frequent absences) allowed me and others to participate at provincial, national and international forums. For this I am extremely grateful.

Two other areas that I have particularly championed over my term have included commercialization and program innovations. Commercialization is featured later in the status report. Canada's truth and reconciliation report of 2015 highlighted the work that must be done to reconcile greater Canadian society with our Indigenous neighbours, friends and colleagues. Dr. Evan Adams presented his concept of "two eyed seeing" at

one of our department's annual Carl Moore lectures, and since then, building on the Art of Seeing program, the Indigenous Teaching Through Art (ITTA) program has been developed. This, too, is featured later in the status report but is a program that I have particularly championed and am extremely proud of. Over my tenure we have strengthened our department's relationship with the Indigenous community, hopefully exemplified by the fact that we now have two full-time Indigenous faculty and a number of part-time Indigenous faculty. We are now equally focused on anti-racism as part of our EDI response.

*Dr. Evan Adams*

This status report of the Department of Family Medicine at McMaster University is, as the reader will note, a compilation of reports from the leadership of the various streams within the department. While they are occasionally presented as being independent of one another, we are absolutely interdependent and overlap significantly in terms of individuals involved, programs/services delivered and administrative coordination.

I am proud of what we have collectively achieved over the last 15 years. Our department is fiscally strong. Many of our faculty and staff are deeply engaged in leadership roles in the fields of education, clinical care, research and healthcare policy at the local, provincial, national and international levels. Our faculty and students care for well over one million Ontarians annually in their clinical work, and our graduates from the last 15 years care for many millions of Ontarians and Canadians. Many of our staff have developed skills that have allowed them to go on and move into leadership roles within other departments in the University or in the community. We have become known as a good place to work, "an employer of choice" which is a testament I believe, to our attention of the environment that we provide for our staff, faculty and learners.

A word of thanks is appropriate here. The accomplishments featured in this report are a result of a committed team of administrative staff, clinical leaders, researchers, educators, clinicians all "pulling" in the same direction. In a complex, widely distributed large organization such as our department of family medicine, it would be impossible for one small group, let alone an individual to achieve the level of excellence that we have collectively attained. If I was to name one individual, I would have to name at least 1500 others — not to mention colleagues from Faculty of Health Sciences, across the University, and our ministry partners. This has truly been a team effort and I am honoured and privileged to have been able to play my part over the last 15 years as chair. Thank you to all present, past and future members of this wonderful department.

Respectfully submitted,

David Price, MD, CCFP, FCFP
Professor and Chair

## Organizational structure and design

The Department of Family Medicine has a strong and cohesive identity but is comprised of many interdependent organizational and governance structures. Each is critical to the success and sustainability of the overall department; the absence of anyone would represent a substantial risk to our teaching, research and/or patient care.

**A. Core Governance and Resource Management Structures**

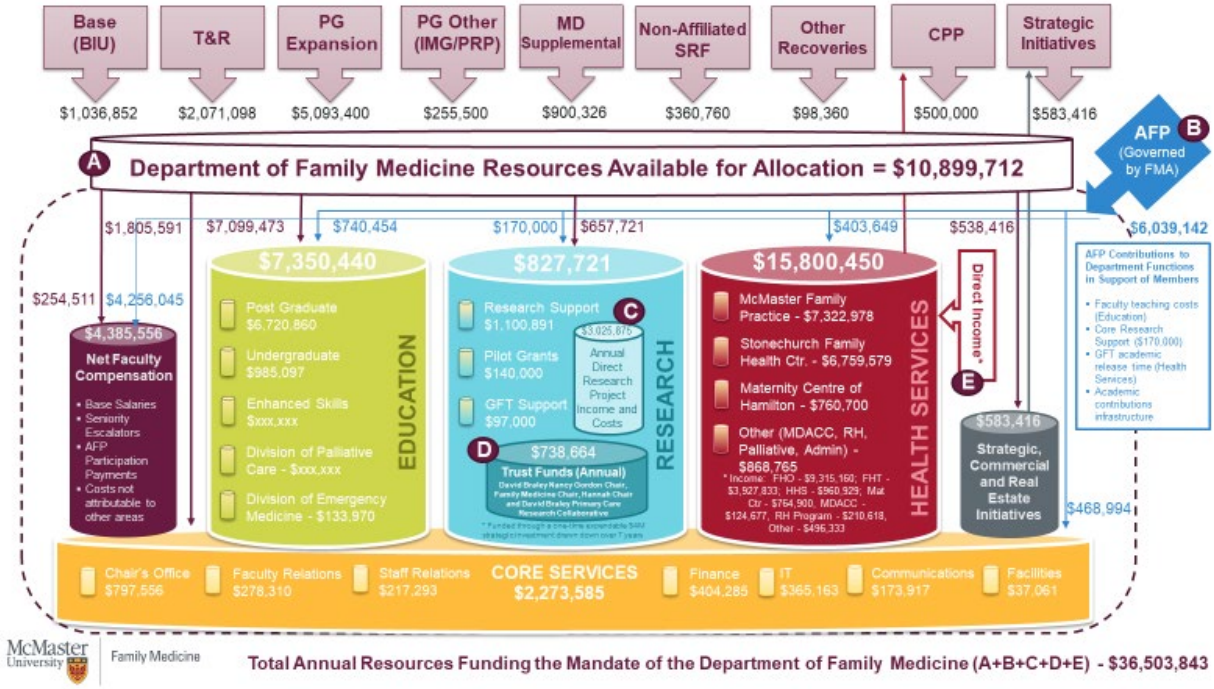
1) ***Department of Family Medicine*** within the Faculty of Health Sciences, McMaster University (legal entity being McMaster) – directly governs all resources received for its academic deliverables from the University (e.g. base funding, specifically-funded educational initiatives or research grants, etc.)

2) ***McMaster Family Health Organization Association*** ("McMaster FHO") – the association comprised of physicians who are signatories to the Family Health Organization agreement with the Ontario Ministry of Health with respect to the provision of patient care and corresponding remuneration.

3) **Family Medicine *Associates*** ("FMA") – the association comprised of physician members enrolled in the Alternative Funding Plan ("AFP") and responsible for governing the allocation of funding received per the distribution criteria determined by the Hamilton Academic Health Services Organization ("HAHSO") which has representatives from each department of McMaster's Faculty of Health Sciences who participate in any aspect of an AFP.

4) ***McMaster Family Health Team*** ("McMaster FHT") – a funding envelope and corresponding deliverables administered by McMaster University in accordance with the terms of the Memorandum of Understanding between McMaster University, Hamilton Health Sciences Corporation and McMaster FHO which governs the operation of the academic clinical teaching units ("CTU"), specifically McMaster Family Practice and Stonechurch Family Health Centre. The Maternity Centre of Hamilton is considered a specifically funded program of the McMaster FHT and receives a dedicated budget annually. All FHTs in Ontario are required to be not-for-profit and governed by a board. Given the relationship of the McMaster FHT to McMaster University, McMaster's Board is understood to satisfy that requirement, and the department's Health Services Operations Group fulfills the functional role of the FHT Board.

The inter-relationships between these structures, and their respective resource management responsibilities, is illustrated bellow.




## B. Operational Governance Structures

In 2016, the department adopted the acronym “REACH” to refer to the distinct operational units responsible for delivering on each aspect of its mandate – research, education, administration, commercialization and health services. Each operational unit is led by a leadership dyad or group comprised of faculty member(s) and professional management member(s) as follows:

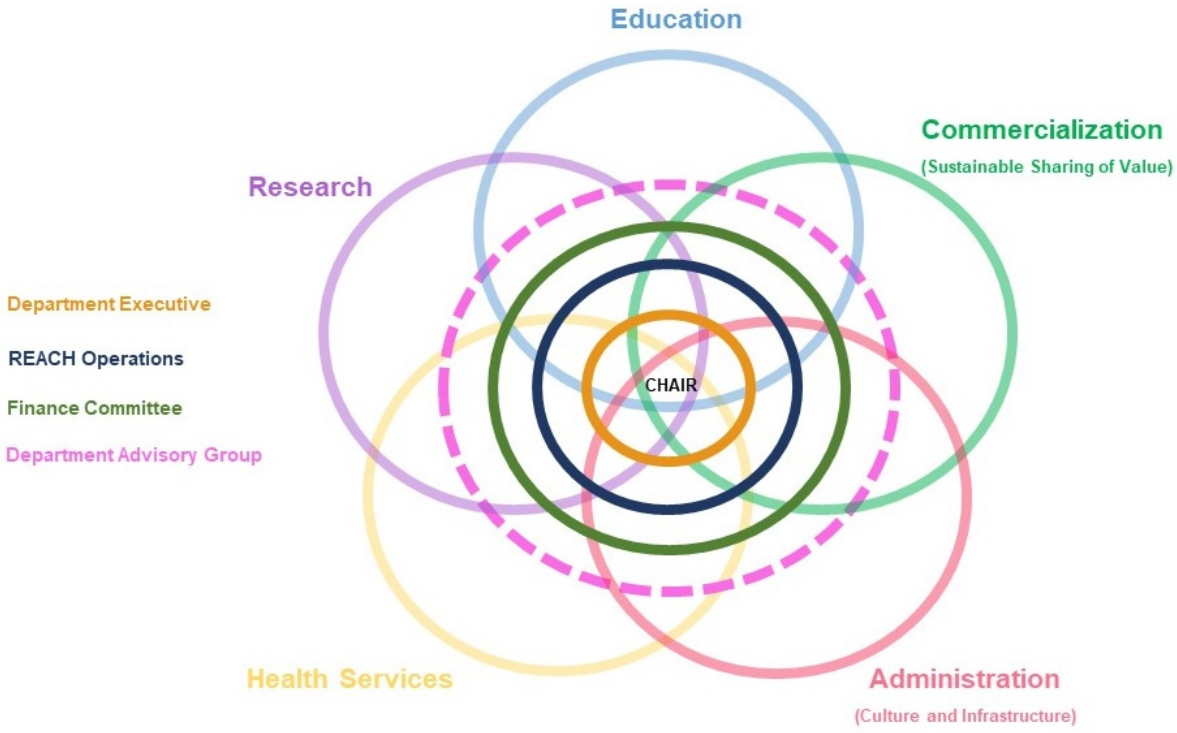
| Operational Unit | Faculty Lead(s) | Professional Manager(s) |
|---|---|---|
| Research | Associate Chair, Research | Managing Director, Research |
| Education | Associate Chair, Education<br>Post Graduate Director<br>Undergraduate Director<br>Enhanced Skills Director | Manager, Education Enterprise |
| Administration* (People and Infrastructure) | Chair<br>Vice Chair<br>Faculty Development Director | Executive Director<br>Finance Manager<br>Manager, Faculty Relations<br>Human Resources Manager<br>IT Manager |

| | | |
|---|---|---|
| Commercialization | Chair | Executive Director/Academic-Industry Liaison Lead<br>Health Services Business Development and Management Lead |
| Health Services | Vice Chair, Health Services<br>Medical Director, MFP<br>Medical Director, SFHC<br>Medical Director, MCH | Executive Director<br>MFP Clinic Director/co-Executive Director FHT<br>SFHC Clinic Director/co-Executive Director FHT<br>MCH Clinic Director |

**In 2019 we began to refer to this group as "Core Services" given "administration" is included in every area. Core Services includes chair's office, communications, IT, finance, faculty relations and human resources.*

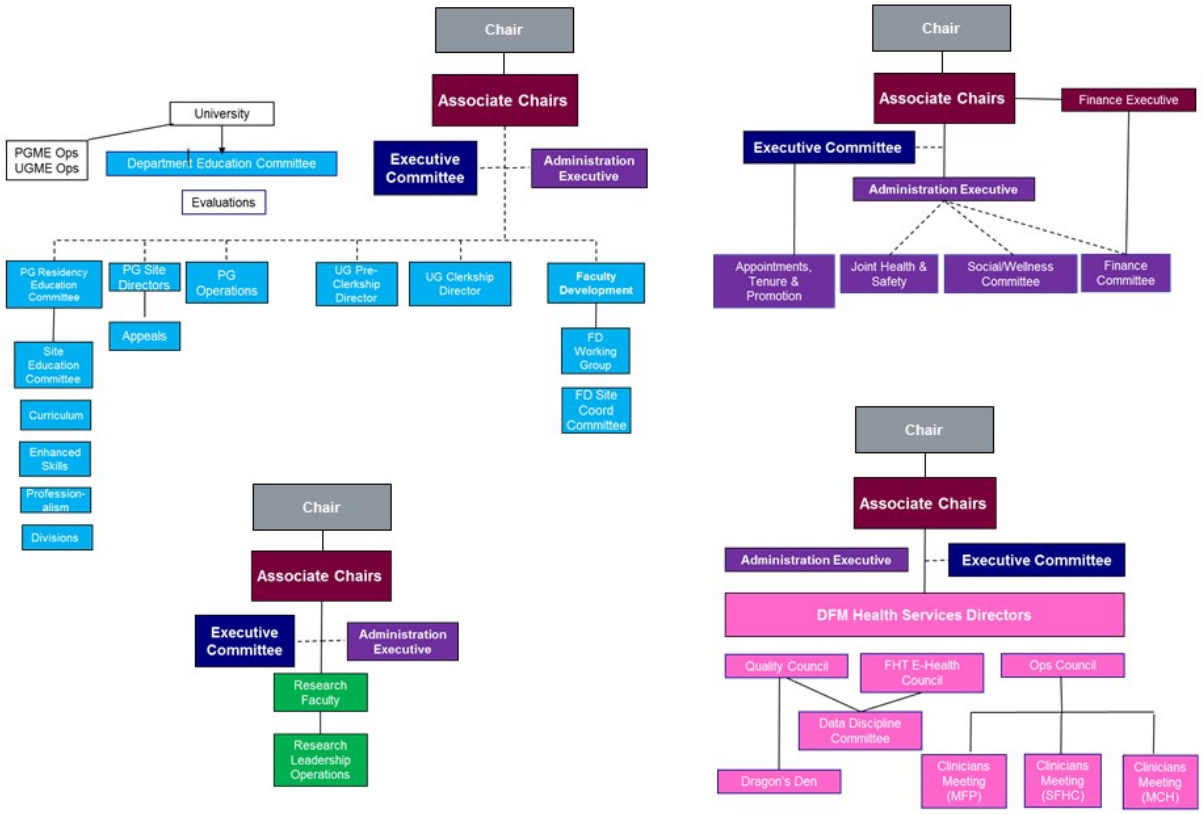
Each REACH unit has its own committee structure to oversee and direct strategy and operations which are further detailed in their respective sections of this report.

Cross-unit operations are governed by a few committees each with a specific focus as follows:



***Department Executive (also fulfills Finance Executive function)*** – comprised of the chair, vice chair, associate chairs, post-graduate director, executive director and finance manager and is the primary group informing decisions of the chair on behalf of the department.

DFM Governance Structure for Education, Research, Administration and Health Services




1) ***REACH Operations*** – comprised of the professional managers from across the department, responsible for overseeing and directing operations in accordance with departmental direction and strategic priorities and in alignment with all relevant University, hospital, legislative and/or regulatory requirements.
2) ***Finance Committee*** – comprised of the faculty and professional manager leads of each area, collectively responsible for ensuring accountability and compliance related to financial management and informing resource allocation decisions made by the chair and/or department executive.
3) ***Department Advisory Group*** – comprised of all faculty and managers in leadership roles across REACH, with the addition of the palliative care division director, emergency division director, Indigenous initiatives lead and a representative of site directors, with the purpose to create a space for cross-department dialogue regarding strategy, challenges, opportunities and ideas that then inform the actions and decisions of other groups as relevant.

**C. Organization Design of Relationships and Services**

Over the past decade, the department has strengthened the leadership and functioning of each REACH unit as well as the connections between them and

the department. It has also created centralized expert services in human resources, finance, faculty relations and information technology to best support our research, education and patient care. Highlights of key design decisions include:

1) ***Unified Health Services with Autonomous Units*** – moved from clinical teaching units operating with a loose affiliation with the department to a cohesive identity as "Health Services" with shared governance across the FHT overseeing equity, quality, digital health and resource allocation while preserving appropriate functional autonomy of each unit. Further, the department's vice chair and executive director are members of the governing group overseeing Health Services.
2) ***Creation of Wrap-Around People-Focused Services (Human Resources and Faculty Relations)*** – reorganized all functions related to recruitment, orientation, engagement and transition of faculty or staff into Faculty Relations and Human Resources portfolios respectively to reduce fragmentation of experience and improve support of individuals' navigation through our sometimes complex department.
3) ***Creation of Centralized Expert Financial Services*** – moved from distributed management of finance transactions to creation of a central expert team closely integrated with each REACH unit, a model that was recognized and replicated by the Faculty of Health Sciences due to its improved outcomes in reduced errors and increased efficiencies with high volumes.
4) ***Professionalization of Management Positions*** – moved from coordinator-level roles in core service areas of education, research and patient care to professional manager roles, most requiring relevant graduate-level education. There were two primary drivers of this shift:
    a. Operational complexities were increasing through expansion in all areas, and increased relationships with external partners, requiring higher-level skills to navigate successfully; and
    b. Faculty leadership roles charged with overseeing all aspects of operations were becoming a challenge to fill as the operational demands were consuming, leaving little time for meaningful academic-focused leadership. By matching professional manager with each faculty leadership role, faculty members were liberated to focus more on strategy and innovation in close partnership with the manager who could both inform strategy and ensure successful operational implementation.

The one area of organizational design that remains a priority to explore and refine is the relationship of the sites to the overall department. Originally created as teaching hubs as part of our post-graduate expansion, there is a desire to strengthen relationships with the sites in research and general department life. Many initiatives and efforts have been tried and are ongoing to build meaningful

connections beyond educational deliverables, but this remains an important priority to address.

## Commercialization

The department has demonstrated success in commercializing key initiatives in two streams of activity: research-to-impact and service-to-impact. In almost all cases, the product or service commercialized has first been a focus of research, attracting grant funding to develop, test and refine the work. In a few cases, the product or service has been created to serve ourselves, and the capacity developed internally has proven of value to those beyond the department. Thus, commercialization in our department has come to mean sharing things that have proven effective for us with others in a sustainable way. The following table summarizes these key initiatives:

| Product/Service | Partner(s) | Description/Highlights |
|---|---|---|
| **OSCAR** (electronic medical record) | Well Health Technologies Inc. | ▪ Achieved ISO 13485:2003 certification in 2011.<br>▪ Created not-for-profit organization to manage certifications; became one of top 3 EMRs adopted in Canada.<br>▪ Generated over $15M in grant funding over past decade (research and FedDev).<br>▪ Executed strategic alliance with Well Health Technologies Inc. in 2020 which includes an annual $120,000 contribution to the department.<br>▪ Leads –Dr. David Price and Tracey Carr, Dr. David Chan (retired), |
| **CP@Clinic** | ▪ Interdev<br>▪ PreHos | ▪ Clinical validated Community Paramedicine Program that has generated $2.5M in grant funding during its development and validation.<br>▪ Proven algorithms licensed to partners to incorporate into their respective technologies that are used by Paramedic Services for documentation, with a revenue-sharing component to the agreement intended to generate funding to sustain the department's leadership in community paramedicine innovation.<br>▪ Lead – Dr. Gina Agarwal |
| **kindredPHR** | ▪ CloudMD | ▪ Personal Health Record technology integrated with OSCAR with ability to integrate with other systems.<br>▪ Along with predecessor "MyOSCAR", generated over $3M in grant funding over past decade (research and FedDev). |

| | | |
|---|---|---|
| | | ▪ Stewardship license with Livecare (now CloudMD) entered in 2017 that provides for a 5-10% sharing of gross revenue generated.<br>▪ Leads – Dr. David Price and Tracey Carr (original creation of kindred was Dr. David Chan, retired) |
| **Know2Act** and **FAST** (Flu Automated Surveillance Tool)<br>  | ▪ Public Health Agency of Canada (PHAC) | ▪ A collaborative, self-governing, knowledge-sharing platform that features a variety of content posted by users (e.g. decision-supports, tools, forms, queries, etc.) that is integrated with OSCAR and can be integrated with other systems.<br>▪ Currently hosted and maintained by the department without a commercial partner, although interest from one potential partner is being pursued.<br>▪ Leveraged in collaboration with PHAC for automated surveillance of influenza-like illness in a 5-year contract commencing in 2020 for scaling nation-wide (net value to department of $70,000 over contract period).<br>▪ Leads – Dr. David Price, Tracey Carr |
| **TaperMD**<br>  | Data Based Medicine Americas Ltd. | ▪ A clinically validated tool and method for team-based deprescribing that has generated $1,236,237 (Canadian funds) and $840,940 (Australian funds) in grant funding during its development and validation.<br>▪ Currently in pre-commercialization stage but have executed a Memorandum of Understanding that provides for revenue sharing of any proceeds based on the doctrine of equitable contribution.<br>▪ Lead – Dr. Dee Mangin |
| **Turn-key Clinic Operations**<br>  | McMaster Downtown Ambulatory Care Centre (“MDACC”) | ▪ Expertise in clinic operations created the opportunity to partner with department of medicine in the creation of MDACC.<br>▪ As of July 1, 2020, our department is the sole operator and responsible party for MDACC, committed to a 5-year period during which to demonstrate success in creating a thriving, revenue-positive clinic offering specialty services that benefit our learners and patients as well as the broader community. |

## Real estate

The department's real estate interests are a testament to innovation, courage, collaboration and foresight. Stonechurch Family Health Centre's current location was the first investment driven by space constraints experienced by the clinic in its prior location. The architectural and functional design of the new clinic was recognized as a gold standard for team-based primary care and was the reference build for the department's subsequent clinic designs. The business model of "pay ourselves instead of another landlord" and "collective good" was also replicated and has proven to be one of the differentiating success factors in our department's continued financial sustainability compared to many other departments of family medicine across the country. Specifically:

- ***Pay ourselves instead of a landlord –*** by investing one-time capital in our buildings, our ongoing costs relate only to occupancy and lifecycle which, in the normal market, represent half of the cost that would be incurred if also paying rent. In all cases, the department captures that difference and reinvests the rent-equivalent into supporting its academic mission.
- ***Collective good*** – our GFT physician faculty receive a competitive clinical and academic income commensurate with community comparators, and all remaining income is managed in the collective Clinical Practice Plan. Although the actual overhead costs related to clinic facilities is less due to the absence of rent fees, this standardized approach to GFT physician compensation ensures the full benefit of the rent savings accrues to the department.

The majority of the department's existing real estate interests arose through a novel and collaborative approach to leveraging the capital dollars that accompanied post-graduate expansion. Specifically, the department pursued geographic expansion in accommodating 100 new residents each year, and in each site developed was able to attract local investment to create the physical infrastructure required. This local investment was predicated on residents trained locally staying local, with improvement in patient access to quality care. The following table captures additional details about current real estate interests.

| Building | Investment Source(s) | Department's Role |
|---|---|---|
| Stonechurch Family Health Centre | ▪ $1.5M expansion grant from Ontario Ministry of Health and $1.5M mortgage (paid over 10 years from department's Clinical Practice Plan) | ▪ Owner/operator – full responsibility for facilities management and costs |
| David Braley Health Sciences Centre | ▪ Department Clinical Practice Plan ($3M)<br>▪ Post-graduate expansion capital funding ($12M)<br>▪ David Braley donation ($10M)<br>▪ Attracted $20M from City of Hamilton on basis of increased patients served downtown and revitalizing the downtown core | ▪ Have first right of use of designated spaces for which pay only actual occupancy costs (no base rent given capital investment), however, if space not needed at some point, no right to sell or recoup capital investment as space reverts to Faculty of Health Sciences for reallocation.<br>▪ Building managed by Faculty of Health Sciences; department has representatives on the Building Operations Committee. |
| Halton McMaster Family Health Centre | ▪ Department Clinical Practice Plan ($4M)<br>▪ $3M targeted donation from Michael G. DeGroote to build a family medicine clinic in downtown Burlington | ▪ Established condominium structure co-owned and managed by McMaster University and Joseph Brant Hospital (JBH owns land leased to McMaster for 50 years on which the condominium structure has been built).<br>▪ Department covers occupancy costs for education space<br>▪ Agreement in place with Burlington Physician Group for operation of clinic with corresponding lease for use of premises, of which a portion is invested in a capital fund for use by clinic.<br>▪ Joint (50/50) interest in retail units with JBH. |
| Centre for Family Medicine (Kitchener Waterloo) | ▪ Leveraged local investment in creation of Waterloo regional campus of the McMaster School of Medicine; lease at $6.00/SF | ▪ Agreement in place with the Centre for Family Medicine Family Health Team for operation of clinic with corresponding lease for premises at market rate, of which a portion is invested in a capital fund used by the clinic.<br>▪ Difference between market rate and base lease rate enables the department to cover the base lease costs of the education space. |

| | | |
|---|---|---|
| Welland-McMaster Family Health Centre Teaching Unit | ▪ Receive annual grant of $81,000 from the City of Welland to cover department's costs for education space at the Centre | ▪ Agreement in place with the City of Welland. Rose City Medical Associates and the Welland-McMaster Family Health Team which provides a teaching hub for family medicine residents in Welland and covers the department's costs for education space.<br>▪ The department has no involvement in clinic operations. |
| McMaster Niagara Family Health Centre | ▪ Received space from the City of St. Catharines for $2.00/annum | ▪ Had similar arrangement to Kitchener-Waterloo with a physician group operating a clinic in the space, however, the group opted to relocate in 2019 ending the department's involvement as a landlord for the space. |

## Commitment to Truth and Reconciliation with Indigenous people

The leadership of the Department of Family Medicine has been open to learning and understanding our role and call in the critical process of Truth and Reconciliation with Indigenous Peoples for much of the past decade. That learning has taken many forms and turns, ups and downs, but has been able to continue in particular because of the deep commitment and resilience of two key members of our department – Dr. Karen Hill and Dr. Amy Montour. In turn, their perseverance has been encouraged by the openness of the department's leadership to really learning and walking alongside in the spirit and principles of the Two Row Wampum agreement.

More recently, this shared commitment has taken on the form of an experiential program we've entitled "Indigenous Teaching Through Art" or "ITTA". This program, co-developed by Indigenous and non-Indigenous department members in collaboration with an Indigenous art educator, was created for members of the department to learn about Indigenous history and experience of the residential school system in Southern Ontario and Canada as we work toward healing and strengthening relationships with Indigenous people and communities. We are committed to ensuring all aspects of our work are culturally safe, reflecting awareness of Indigenous history and experience, allowing us to better provide for, teach, and support Indigenous patients, students, and colleagues as well as facilitate our own personal growth. ITTA is a full day experience that takes makes use of the Woodland Cultural Centre, which is at the former Mohawk Institute in Brantford, one of the last remaining residential schools still standing in Canada. The program uses cultural knowledge, art creation and reflective practices to learn about the residential school system in Southern Ontario and Canada. To date 116 people have participated in the program and an evaluation of the program is underway. The department has confirmed its support to ensure every full-time faculty member and all staff participate in the ITTA, and to co-create and offer appropriate adaptation(s) for our part-time faculty and learners. Going forward, participation in the ITTA will be a core element of any orientation plan for each new department member. Further, our investment of heart and energy in this journey doesn't end with ITTA but, instead, is intended to continue to evolve in the same spirit of co-creation, informed by the truth that we continue to learn and share which we trust will then inform actions that move us forward in reconciliation.

*Dr. Amy Montour supervising an education session*

Concurrent to the creation of the ITTA, our department has also welcomed Dr. Amy Montour as a GFT faculty member, within which role she is also the Indigenous Health Consultant for our department, the Indigenous Health Lead for our Post-Graduate Program and curriculum, and the site director for Grand Erie Six Nations site. Dr. Montour's full-time faculty appointment commenced in October, 2019, its importance matched by the challenges encountered as we have bumped up against unintended misunderstandings and difficult experiences, and had to learn to see with "two eyes" the existing, colonial structures and ways of the academy and how they are experienced by an Indigenous person. Further, we continue in the process of exploring and imagining how to reflect the reality of the exponentially higher burden carried by an Indigenous person who is the first to step into the "western" academy in the expectations of her as a faculty member. This burden, deeply felt and often difficult to quantify, includes shouldering expectations and fears of her Indigenous community while meeting well-meaning but dominant-eyed structures and processes of an academic institution. This must remain a high priority on our journey together.

*Dr. Karen Hill*

Similarly, we formalized the role of Indigenous Health Initiative Liaison with a corresponding leadership stipend for Dr. Karen Hill. As we stepped forward in our journey with the ITTA, the Faculty of Health Sciences – led by Dr. Bernice Downey with strong support from Dr. Karen Hill and Dr. Amy Montour as well as elders and members of the local Indigenous communities – created the "Indigenous Health Initiative" ("IHI") with purposeful focus across all areas of the academy (education, research, administration, practice). It is the department's intention to continue our specific work of the ITTA and its evolution while ensuring alignment with, and support of, the FHS IHI, and we have entrusted leadership of that intention to Dr. Hill. We have begun to explore an expansion of Dr. Hill's role within our department in collaboration with the Faculty of Health Sciences, including the potential of creating a corresponding GFT position. (Note: Dr Hill will join the dept as a GFT on Nov 1, 2020, in partnership with FHS). Together with Drs. Montour and Hill, we are also learning about and exploring needs and opportunities related to advocacy and action for health system improvements in Indigenous peoples' access to, and experience of, health services.

Recognizing the critical function of skilled and appropriate support for the work of any faculty member, and in particular for faculty members who are helping us to find and create uncharted paths, the department has also invested in specific administrative support for the roles Drs. Montour and Hill are fulfilling. Specifically, the senior education associate for the Grand Erie Six Nations site also supports Dr. Montour in her role as Indigenous health lead for the curriculum. In addition, the department has funded 0.4 FTE of an administrative position in collaboration with the Faculty of Health Sciences Indigenous Health Initiatives Office which will support our ITTA work and help facilitate alignment of our work with the IHI with direction from Drs. Montour and Hill.

*Dr. Cathy Risdon*

Finally, our department is excited to be a partner in the Indigenous-led proposal for the Biindigen Wellbeing Centre in the McQuesten neighbourhood in northeast Hamilton, a new community centre of integrated health, family, social and housing services and supports. Main partners and supporters at this stage include: De dwa da dehs nye>s Aboriginal Health Centre (DAHC), Niwasa Kendaaswin Teg, Ontario Aboriginal Housing Services, McMaster University Department of Family Medicine, McQuesten Community Planning Team, the City of Hamilton and the Hamilton Community Foundation. An array of other Indigenous and non-Indigenous organizations are active supporters intending to lend their programs and networks to making the Biindigen Wellbeing Centre a true and comprehensive hub. Each partner has come to this circle to collaborate with the rest to increase meaningful access to culturally relevant programs and services for Indigenous people in Hamilton. Biindigen Wellbeing Centre will be a culturally safe centre where Indigenous people can access coordinated services for their family in *one* location. Through the involvement of our department, it will also provide health services for non-Indigenous residents in the community. The centre will honour diverse cultures and languages, and provide a place with room for meeting health and social needs while simultaneously creating a sense of belonging, connection and healing through the land. The concept of co-location provides the opportunity for partners to work with a continuum of Indigenous and non-Indigenous service providers to meet the needs of the community. All services and programs will be informed by meaningful integration of Indigenous and non-Indigenous approaches to health and well-being. Once established, the Biindigen Wellbeing Centre will feature a distinct and forward-thinking Indigenous-led model of collaborative care.

## Expanding the circle to address racism experienced by others

Throughout our journey together, Drs. Montour and Hill have reinforced that it is critical to listen and learn about the unique history and experience of Indigenous people in Canada, and to walk together on the path of truth and reconciliation, but that the benefit of that work and path will not be contained to only Indigenous people. Indeed, we have seen that truth affirmed in the recent experience of seeing, hearing and learning more about Black Lives Matter, with so many members of our department referencing their learning through ITTA as the path they desire to travel in relation to learning more about

the experience of Black people in the world and in our shared work, that desire extending to include all People of Colour. Thus, while we remain committed to our journey of truth and reconciliation with Indigenous people, we are expanding that circle with leadership and wisdom shared from our Indigenous colleagues to include all who experience racism – systemic and personal – in our work, workplace and communities.

## Values identity and purpose

The Department of Family Medicine has experienced growth and transformation in every area of its work during the tenure of Dr. David Price as chair (2006-present). The organization has evolved from a small group of faculty and staff, most of whom could fit into a single room and all be directly involved in important decisions, to over 39 full-time faculty, 200+ staff and 1,300 part-time faculty across a geographically distributed learning network. The majority of this growth was related to post-graduate expansion between 2008-14, however, research and clinical operations have grown substantially in recent years.

In response, and with a desire to build on our strengths while attending to the areas we needed to improve, in 2018 our department engaged Credence & Co., an external organization with expertise in helping groups define and create their desired culture and workplace experience. Their mandate was two-fold: 1) establish a sense of the current state of the department and its people, recognizing a full external review was not done in 2015, and 2) help us refine/define our values, identity and purpose, to respond to the expressed thirst for clarity about our forward direction and priorities. They conducted an anonymous survey offered to all faculty and staff (199 responses) and offered the opportunity for confidential interviews to any survey respondent who wanted to share more (54). The results refined and affirmed similar findings from 2016, captured important emerging polarities for attention and offered greater insights into opportunities to pursue.

**McMaster FHO: *Patient Statistics***

| | FHO rostered patients | FHO non-rostered patients | Total # of patients |
|---|---|---|---|
| 2017-18 | 33,867 | 5,211 | 39,078 |
| 2018-19 | 33,867 | 4,486 | 38,353 |
| 2019-20 | 35,146 | 4,889 | 40,035 |

Survey and Interview Results: OVERARCHING

**Emerging Polarities at the DFM** (each can be answered with both-and or either-or)

- Innovate or focus?
- Flat & self-directed or hierarchical?
- Relationship first or accountability first?
- Share more information or less?
- Decision-making based on wide range of voices or limited to fewer?
- Wide horizon for innovation or constrained?
- Compassionate care for patients & learners or colleagues?
- Narrow range of focus or broad?

The resulting report noted that our department's experience of growth and its corresponding challenges were normal and common, including shifts in:

- Identity (Who are we?)
- Decision-making (What do we prioritize?)

- Org. structure (How we organize our changed environment?)
- Interpersonal relationships (How do we relate to one another in the changed environment?)

It also noted important differences between small and large organizational dynamics which helped to orient and understand some of the felt stress and discomfort expressed by some, recognizing we were still in the process of putting into place what is needed in large organizations for a sense of belonging, inclusion in decisions and shared accountability:

| Small Organizations | Large Organizations |
|---|---|
| ▪ Belonging based on tight family feel | ▪ Belonging based on adherence to common vision |
| ▪ Decisions, communication, roles, responsibilities & structure = informal | ▪ Decision, communication, roles, responsibilities and structure = more formal (to ensure diverse voices heard, people's work is honoured) |
| ▪ Accountability through personal connection | ▪ Accountability through adherence to agreed-upon policies, procedures |

The report's recommendations for further attention and action were:

1. Engage in a VIP exercise to identify the DFM's VIP.
2. Review existing patterns / structures of communication; develop a communication strategy to ensure timely, effective communication with attention to diverse needs.
3. Review existing organizational structure and decision-making procedures – clarifying, strengthening and modifying the structure as needed, and embedding values into structure.
4. Strengthen communication skills and people management at leadership level (giving & receiving feedback, tackling tough conversations, providing recognition, creating an engaging and collaborative environment, etc.)

## Communications faculty relations summary

### *Regular communications*

See examples in text links and Appendix A: Communications materials (Weekly Announcements, Chair's Corner, Who We Are)

| | | |
|---|---|---|
| Weekly Announcements | Weekly on Wednesdays | An email newsletter, prepared through MailChimp, sent through the DFM Communications email address. Which sections are included is flexible based on the content received from areas of the department. Structure focuses on stories about people (e.g., awards) and significant/most-timely news (e.g., pilot funding calls) first. More routine information follows. |
| Chair's Corner | Approximately bi-monthly | An email message written by the chair, sharing thoughts about a topic of their choice relevant to primary care and the department. Generally, around 700 words long. |
| Who We Are | Bi-weekly | A featured section of the weekly announcements to highlight the people across DFM. Full profile is approximately 400 words, plus photographs. |
| Impact Report | Annual | Document to highlight stories from across the department and the year's outcomes from research (publications, grants), education (e.g., number of residents, applications to program) and health services (number of patients, number of programs). Emphasis is on visualization (infographics) of the lives DFM touches. |

### *Irregular and continuous communications*

| | |
|---|---|
| Video/YouTube | • Faculty Profile Videos<br>• Primary Care Research Update (video abstracts of new publications)<br>• David Braley Primary Care Research Collaborative Launch video and Impact Stories<br>• Other videos (e.g., lectures, promotional videos) |
| Websites | • Department of Family Medicine<br>• McMaster Family Health Team<br>• McMaster Family Practice<br>• Stonechurch Family Health Centre<br>• Maternity Centre of Hamilton |

| | |
|---|---|
| | • Prospective Residents |
| Social Media | • Twitter<br>  ○ Department of Family Medicine<br>  ○ McMaster Family Practice<br>  ○ Research projects (Health TAPESTRY, CP@Clinic)<br>• Facebook<br>  ○ McMaster Family Practice<br>  ○ Stonechurch Family Health Centre |

## Faculty relations

In July 2018, the Faculty Relations Team was formed. Given the significant increase in our part-time faculty numbers over the last decade as well as the recruitment of many junior GFTs, the department realized that in order to fully serve our members in all ways, we needed a team dedicated solely to them. The team consists of associate chair, education, faculty development director, manager, faculty relations, T&P coordinator and administrative assistants (T&P). The team's focus is on customer service, faculty engagement and relationship management.

Our mission:

- To create a welcoming and supportive environment
- To support faculty in their academic role(s) as clinician-educator, researcher, educational leader
- To support career development and ongoing professional development
- To create a seamless faculty onboarding and promotion experience

This consolidated team provides service to both full- and part-time faculty in the areas of appointment, reappointment, faculty leaves, promotion & tenure, recruitment and faculty development. Our dedicated email address is monitored by two members of the team at all times and allows our team to provide excellent customer service and support to our faculty.

### Faculty development

Our faculty development program continues to thrive and grow. We have decentralized faculty development support from our central team and, within the last 5-7 years, have created the role of faculty development site coordinators. Reporting to Dr. Joyce Zazulak, faculty development director, coordinators are charged with assessing the needs within their individual sites and seeking to provide programming that meets those needs. The faculty development director has full oversight of the entire program, including the sites, and meets bi-monthly with this group to review faculty development offerings. Our faculty development site coordinators group acts as a community of practice, sharing best practices as well as providing opportunities for all to join in faculty development sessions at any particular site. Sessions are recorded as well as offered through WebEx.

We hold an annual Spring Retreat for all faculty which is well attended. Numbers have continued to grow over the last number of years, with representation from across all of our teaching sites. Workshop offerings fall within different learning tracks: Role as Educator, Research & Scholarship, Leadership, and Resilience & Wellness. These workshops are created and presented by our own faculty members and all have received excellent evaluation from the attendees. (Brochures and marketing materials from the last two retreats are provided in Appendix B: Faculty Development). Due to the onset of Covid-19, we were required to cancel this year's in-person retreat. We were, however, able to translate our sessions into virtual offerings beginning September 2020.


McMaster University | Family Medicine
Michael G. DeGroote School of Medicine

**Department of Family Medicine Annual Faculty Development Spring Retreat**

Please join us April 3-4, 2020 at Hockley Valley Resort, Orangeville for our Annual Faculty Development Spring Retreat. This year's retreat will include a keynote address, as well as workshops that focus on specific areas, including education, research and scholarship, leadership, and wellness and resilience.

Keynote Speaker
**Dr. Nancy Fowler**
MD CCFP FCFP
Professor, Department of Family Medicine
McMaster University

Keynote Address
**Educating for generalist practice in a world of increasing specialization**
How do we understand our role and professional identity as generalists in an increasingly specialty-oriented health care system? What do we offer that is distinctive and helpful to the health and well-being of patients and communities? It is easy and intuitive to see how we (in family practice) depend on other specialists but how do they depend on us? There is a resurgence of interest in generalism as we approach health care challenges of complexity, chronicity, co-morbidity and increasing fragmentation along with a desire to increase public participation in care and to focus on 'what really matters.

How do we set up our educational programs to deliver on the 'lessons' of generalism?

*The presentation will explore these questions, offering reflections and examining emerging research to inform educational practice in family medicine.*

**Registration opens in January 2020**

The department has recently mandated all full-time faculty have CVs entered into MacFacts. To that end, we have offered two large group faculty development training sessions on MacFacts and have provided toolkits and additional supports to all full-time faculty.

Faculty Roadshows occur annually, with members of the faculty relations, research and education teams (Jennifer Gough, faculty relations manager; Dr. Joyce Zazulak, faculty development director; Nancy Devlin, education manager; Dr. Sarah Kinzie, postgraduate program director; Dr. Dee Mangin, associate chair research and Pam Forsyth, managing director research) and the department (Dr. David Price, chair; Dr. Cathy Risdon, vice chair; Tracey Carr, executive director) visiting the eight teaching sites to discuss topics of interest to that particular site. This is a chance to enhance relationships as well as to provide information on new initiatives etc.

This coming academic year will see the role out of our Faculty Mentorship and Faculty Orientation programs

*Faculty Orientation* – New part-time and full-time faculty will receive a comprehensive orientation to both their role and to the department. Resource documents will be provided on our Faculty Portal (more information below) and faculty will be directed to that location for e-module training, additional resource documentation etc.

*Faculty Mentorship* – This will be multi-layered with offers for ad hoc mentorship, formal mentorship, one-on-one buddy, check in with leadership etc., depending on the individual faculty member's expressed needs and interest. There will be purposeful connection points and formal meetings offered to all faculty. This mentorship program will provide assistance to faculty at all stages of their careers, offering advice to those new in their role, but also to folks who are looking to transition out of roles or find a leadership career path.

## Faculty portal

In an effort to address the needs of both our centrally located and distributed faculty, and in response to a needs assessment by this same group, the Faculty Portal was created, under the direction of Dr. Joyce Zazulak, faculty development director. The portal is a central place where faculty can access information they need – whether it be resources to help them in their teaching role, e-modules on specific topics, information on department timelines for promotion, promotion toolkits or simply just to register for the next department event.

The portal serves three main purposes:

1. *Manage relationship*s with our distributed faculty
2. *Manage content* delivered to our faculty
3. *Manage the faculty journey*, from orientation onwards

### Relationship management

- Ability to share consistent information from one place
- Ability to connect with faculty from one place
- Becomes the virtual "home" for faculty from across our sites

### Content management

- Ability to store content in one place
  - Learning content (e-modules)
  - Static content
- Ability to share consistent content

The portal is available to all faculty and requires a Mac ID and password to access the information. The Faculty Portal is the result of three years of planning and was launched in November 2019 with great success. The portal has been well-received with over 1900 site visits since its launch.

*Dr. Michael Lee-Poy*

## Faculty database

The Faculty Relations team has worked with Medsis as well as internal stakeholders for the last two years on the creation of a Faculty Database. This was created as a relationship management tool, but also consolidates all information pertaining to faculty members in one spot and is accessible by administrative members of the department. Once again, this is another vehicle to help us provide excellent customer service to our faculty. We track awards information, practice and academic information, contacts/engagement with faculty; all designed to help us serve our faculty and answer their questions at a moment's notice.

After having conversations with FHS administrators this past year, our department has been shown to be unique in this regard. While others are working on similar items, we are the only department to have completed and launched a relationship management tool. There has been interest from the other departments and to that end, our faculty relations manager and executive director presented to the FHS administrators group;

which resulted considerable interest as well as a plan to work together with other groups to find a solution that works well for all groups within the Faculty of Health Sciences.

## Awards

Our department members prove to be very prolific in winning local, national and international awards. Of note is that award winners span the department, with significant representation from our teaching sites. It is evident that we have a strong group of faculty members who are doing great work!

Since 2006, we have had:

| | |
|---|---|
| **47** | **Awards of Excellence through the College of Family Physicians** |
| **8** | **Regional Family Physicians of the Year** |
| **1** | **National Family Physician of the Year**<br>Dr. Michael Lee-Poy (2017) |
| **4** | ***Ian McWhinney Awards (national)***<br>The award honours excellence in family medicine education and is presented to a teacher deemed by their peers to have made a unique and innovative contribution that has had a substantial national impact on the development of family medicine education in Canada. Over the last 20 years we have had 4 Ian McWhinney award winners, this is a testament to the educational excellence and national influence developed by the education leaders in our department.<br>Drs. Elizabeth Shaw (2020), Nancy Fowler (2015), Allyn Walsh (2006), and Jacqui Wakefield (2000) |
| **1** | ***Jean-Pierre Despins Awards (national)***<br>This award honours a family physician CFPC member identified as an outstanding advocate and public spokesperson for family medicine, family physicians, and their patients.<br>Drs. David Price (2018) and Cheryl Levitt (2006) |
| **1** | ***Donald I Rice Award (national)***<br>This award recognizes an outstanding CFPC family physician member for their contributions to teaching and leadership in the discipline of family medicine.<br>Dr. Dee Mangin (2018) |
| **1** | **NAPCRG Mid-Career Researcher Award**<br>Dr. Gina Agarwal 2019 |

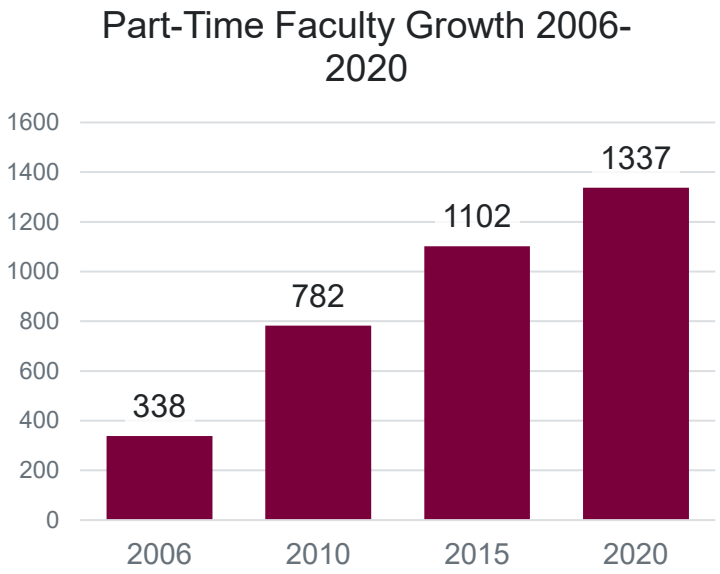
| | |
|---|---|
| **2** | ***Geeta Gupta Equity and Diversity Award (national)***<br>This award recognizes the achievements of an outstanding family physician for their leadership and advanced awareness working in practice and community to foster respect and understanding of a minority or under serviced population.<br>Drs. Neil Arya (2009) and Dale Guenter (2008) |
| **2** | ***CFPC Lifetime Achievement Awards in Family Medicine Research (national)***<br>Drs. John Sellors (2012), Doug Wilson (2012) |
| **1** | ***Association of Faculties of Medicine of Canada, Award for Outstanding Contribution to Faculty Development in Canada (national)***<br>Dr. Allyn Walsh (2017) |
| **1** | ***Canadian Society of Hospital Medicine, Award for Outstanding Service in Hospital Medicine (national)***<br>Dr. Puneet Seth (2017) |
| **4** | ***CAME Certificate of Merit***<br>Drs. Elizabeth Shaw (2020), Meredith Vanstone (2020), Lawrence Grierson (2019), and Joyce Zazulak (2019) |
| **1** | ***Meridith Marks Award (national)***<br>This award, named in honour of Dr. Meridith Marks, recognizes individuals in the first full time phase of their educational professional career who have made a significant contribution to medical education.<br>Dr. Meredith Vanstone (2020) |
| **1** | ***Keith Award (Society of Rural Physicians of Canada) (national)***<br>This award is given to the Canadian postgraduate program that has excelled in producing rural doctors. Awarded in 2012. |
| **5** | ***John C. Sibley Award for Excellence in Education in Part-Time Faculty***<br>Dr. Amanda Bell (2015), Dr. Karl Stobbe (2010), Dr. Alan Taniguchi (2008), Linda Hilts (NP) (2006), and Dr. Denise Marshall (2004) |
| **2** | ***Clinical Pearl Award, North American Primary Care Research Group (International)***<br>The NAPCRG Pearls are the top research studies presented at the NAPCRG Annual Meeting each year that will impact clinical practice.<br>Dr. Dee Mangin (two in 2015) |

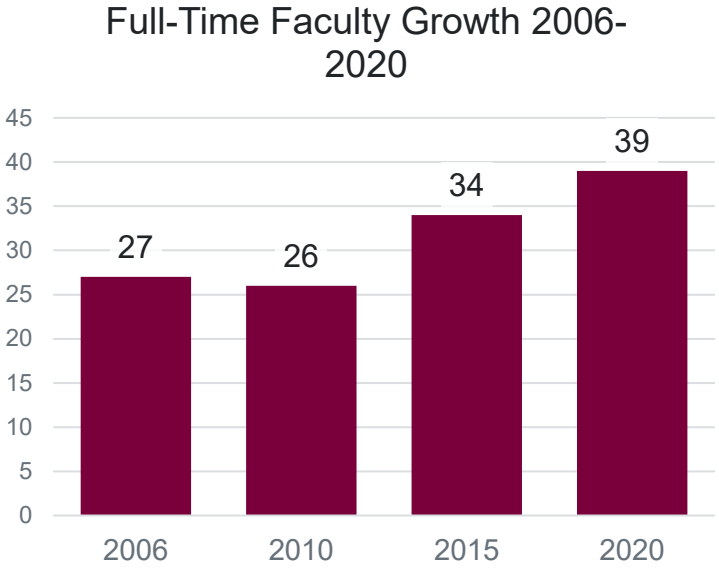
| | |
|---|---|
| 1 | **Academy of Communication in Healthcare Fellowship**<br>Dr. Cathy Risdon (2020) |
| 1 | **OCFP Family Practice of the Year**<br>McMaster Family Health Team (2014) |

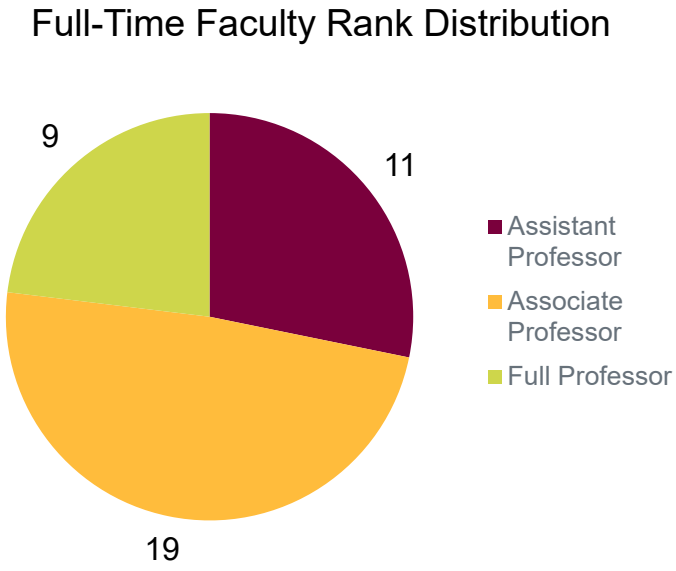
## Faculty growth

Our faculty numbers have continued to grow over the last 15 years. We have seen huge growth in our part-time faculty, growing from 338 in 2006 to 1337 in 2020! Our full-time numbers have grown from 26 to 39 in that same time frame.

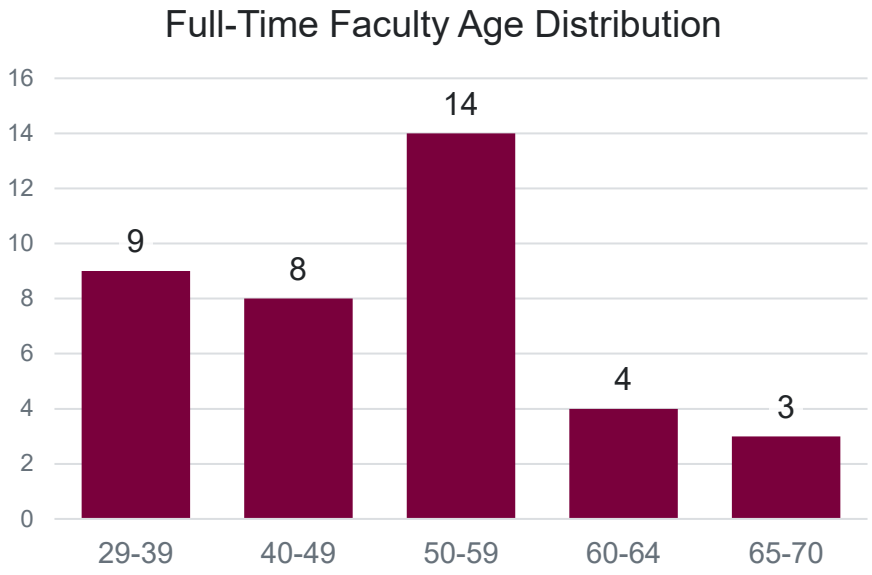
Of our 39 full-time faculty, 9 are at the rank of professor, 19 are associate professor and 11 are assistant professor, with more planned promotions occurring over the next three years.

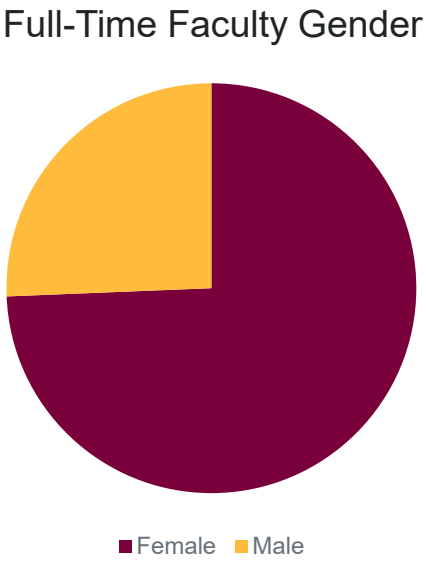



In an attempt to ensure adequate resources for the department as our faculty age, we have been purposeful in recruiting faculty at both the early and mid-career levels. We continue to mentor our more junior faculty so they feel enabled to take on leadership roles as their careers mature. The chart below summarizes the age distribution of our faculty.




## Faculty development

### Indigenous Teaching Through Art

The McMaster University Department of Family Medicine is committed to healing and strengthening our relationship with Indigenous people and communities and to ensuring all aspects of our work are culturally safe by increasing our awareness of Indigenous history and experience. In 2018, in accordance with the core principle of “nothing about us without us”, we introduced the *Indigenous Teaching Through* Art (ITTA) program. This experience-based program has been co-created by Indigenous and non-Indigenous members of our department and the Woodland Cultural Centre as a way to provide an opportunity to deepen our understanding of Indigenous people, culture and experience as the critical first step in reconciliation. The ITTA program is a unique, *full day* workshop which takes place at the Woodland Cultural Center (Brantford), using visual art and cultural knowledge to learn about the residential school system in Southern Ontario and Canada. The ultimate goal of the program has been to allow the Department of Family Medicine to better provide for, teach, and support Indigenous patients, students, and colleagues.

Since November 2018, all of our full-time faculty, clinicians and staff have attended ITTA program. The feedback has been extremely positive. This has been an important first step for our department focused on offering a beginning awareness of the truth about Indigenous history and experience in Southern Ontario and Canada. As an important second step in this journey aimed at increasing our knowledge, part 2 was piloted this past February with the DAG leadership group. In Part 2, our faculty and staff will have the chance meet two Residential School Survivors who are willing to courageously share their stories, answer questions, and to educate us about the legacy of residential schools by giving us a glimpse inside the day to day life of a child at the “Mush Hole”. They will speak about their experience as way to spread awareness and healing, and through their stories of trauma and survival we will see, hear and feel their remarkable strength and resilience. The focus of Part 2 will be about the incredible survival,

resilience and courage of Indigenous people in the face of deep trauma experienced through colonization.

*Dr. Joyce Zazulak, Dr. Amy Montour, Lorrie Gallant*

## The Art of Seeing

Recent research has shown that trainees' levels of empathy reach their lowest levels during residency. There is mounting evidence that empathy and compassion can be nurtured by placing learners in the art gallery. The *Art of Seeing*™*,* developed in collaboration with the McMaster Museum of Art, uses art as a basis for learning how to look with greater accuracy. In addition to "learning to look," the program incorporates descriptive, reflective writing to nurture and build skills of empathy and awareness of ourselves and others. The positive effect of the *Art of Seeing*™ on the empathetic response in medical learners has been studied and has resulted in the publication of three peer-reviewed papers. Our program has also been featured in MacLean's Magazine, The Hamilton Spectator, The Globe & Mail and on the CBC. The *Art of Seeing*™ continues to demonstrate success beyond our residency program and the greater McMaster community. The *Art of Seeing*™ workshops have been presented to the City of Hamilton Public Health, Hamilton Wentworth Board of Education, and the Hamilton Public Library and is now offered as part McMaster's Continuing Education Programs and the Hamilton Health Sciences Centre for People Development.

## Creating Space

The Department of Family Medicine hosted the 2019 Creating Space IX Conference. *Creating Space* is an international Health Humanities conference which has grown out of the desire to create space amidst a dominant biomedical culture for those passionate about the importance of the humanities in health education and medical practice. The theme of the conference *was "Cultural Humility and Contemporary Medical Practice:*

*(How) Can the Humanities Help?"*. The conference drew participants from all over the globe and featured three important keynote addresses from Dr. Amy Montour, an Indigenous faculty from our department, Dr. Lawrence Hill, a well-known Canadian author, and Dr. Andrea Charise, a health humanities scholar. The conference program also included a number of high-quality research papers, panels, performances and workshops.

# Human resources

## Engagement

### Employee engagement committee

Engagement initiatives are planned through our employee engagement committee, comprised of staff members across different areas, focusing on fundraising initiatives and social events to facilitate team building and engagement. The fundraising events are structured to help support the charitable organizations in our surrounding community and are tied into the social events that are planned. Affiliates have been Good Shepherd, Living Rock Youth Resources, 541 Eatery and Exchange, United Way, Canadian Cancer Society, Hamilton Food Share, Hamilton Interval House, Heart & Stroke Foundation, Salvation Army, Wesley Urban Ministries, amongst others. Fundraising events include bake sales, clothing collections, food drives, shoe box drives during the holiday season, etc. Social events include treat trolleys, themed breakfasts and lunches, dessert raffles, pumpkin decorating, winter carnival, soupfest, potlucks, and more.

Part of our engagement strategy also includes staff appreciation week within each unit which includes initiatives such as ice cream day as well as unit specific appreciation and team building events.

Our engagement strategy should focus on continuing to monitor employee engagement by allowing opportunity for feedback, to plan initiatives that the members of the department are interested in and respond to, as well as continuing to engage with our surrounding community.

### Take our kids to work day

Take Our Kids to Work Day, which is open to Grade 9 children of McMaster staff and faculty (Full and part-time), includes a morning of activities hosted by the University, including a team building exercise and workshop.

In addition to the University's morning program, the Department of Family Medicine offers an afternoon program at the David Braley Health Sciences Centre. The department's program is open to all staff and faculty with a Grade 9 child (e.g. McMaster, Hamilton Health Sciences) from any of our department locations.

On average we have ten Grade 9 students participate in our afternoon portion of Take Our Kids to Work Day. We plan various activities which involve our interdisciplinary teams for experiential learning activities and senior leadership members for welcoming and closing remarks.

We have hosted workshops facilitated by our allied health team, including occupational therapists, physiotherapists, and mental health teams where they would discuss a topic relevant to Grade 9's. We have also hosted experiential learning activities such as going to our clinic and checking blood pressure, weight, practicing with suturing kits, as well as research activities with the Infant and Child Health Lab (INCH Lab). We have also hosted creative activities such as team building games and bracelet-making.

## Good Food Box

The Good Food Box is a non-profit project run by Environment Hamilton in partnership with David Braley Health Sciences Centre. Environment Hamilton's Good Food Box Program works to make affordable fresh local produce accessible to all Hamilton residents, including vulnerable neighbourhoods. Partnering with local farms, the Good Food Box is a bag of fresh and affordable seasonal produce available for pickup on the third Wednesday of every month. The produce varies seasonally, but typically features a heavy concentration on root vegetables, heads of lettuce, and a variety of fruit. The cost is $10 or $15, and the contributions can go towards either buying a bag for yourself or to donate a bag for a family in need. Orders are made to Good Food Box ambassadors in each area and we are up to an average of 32 bags per month. The program highlights our commitment to wellness, community involvement and sustainability.


## Wellness

The department has organized programs and initiatives that provide opportunity for improved work-life balance, improved workplace safety, and promotion of health and wellness.

### Ergonomics assessments

The Human Resources team offers ergonomics assessments as part of the new employee orientation program, including a 2-week follow up, as well as ergonomics assessments to any other employees who request one. The goal is to provide proactive office workstation ergonomics assessments in order to improve comfort and reduce the likelihood of musculoskeletal disorders.

### Flexible working schedules

A flexible working schedule allows employees and supervisors to develop a working schedule according to the demands of the job and their personal needs. All

arrangements are made between the supervisor and employee and captured in writing and are reviewed, at a minimum, once per year.

With the flex time option, employees can take off one day out of every ten days or work 30 minutes less every day by taking a 30-minute lunch instead of an hour lunch.

Under the flexible schedule system, the working day is divided into “Core Time”, when all employees must be at work, and “Flexible Time”, where an employee may make arrangements with their supervisor to take a flexible schedule. To ensure that the work gets done, the system requires cooperation and a sense of responsibility within the work units.

The Flexible working schedule, where possible, provides employees opportunity for improved work-life balance.

### Physical activity programs

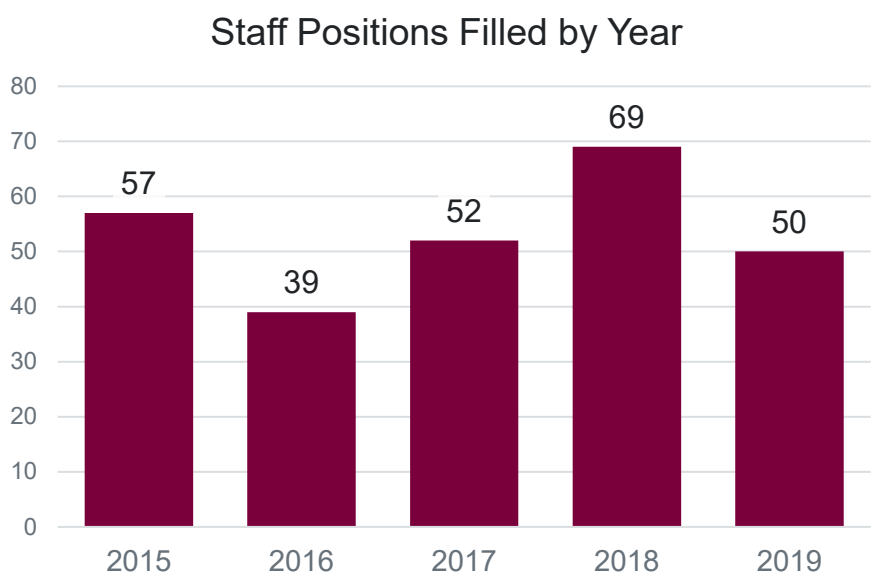
We have previously hosted on-site Yoga, Dance groups, and Walking groups to promote physical activity and wellness. We have hosted Learn to Move, level 1 and 2, in which we invited a trainer from Momentum Fitness to conduct a physical activity program for 6 – 8 weeks.

### Pecha Kucha presentation series

Pecha Kucha is a presentation format where presenters show 20 images for 20 seconds each while telling their story. It’s a creative and inspiring way of sharing ideas, experiences, projects, adventures, hobbies, etc. in a fun and safe environment. We have previously hosted a Pecha Kucha presentation series for staff to create and share their own stories, ideas, and experiences.

## Staff movement and growth

Focused recruitment of staff positions that centre around Equity, Diversity and Inclusion to ensure our hiring and onboarding practices align with EDI principles will guide our future hiring processes.



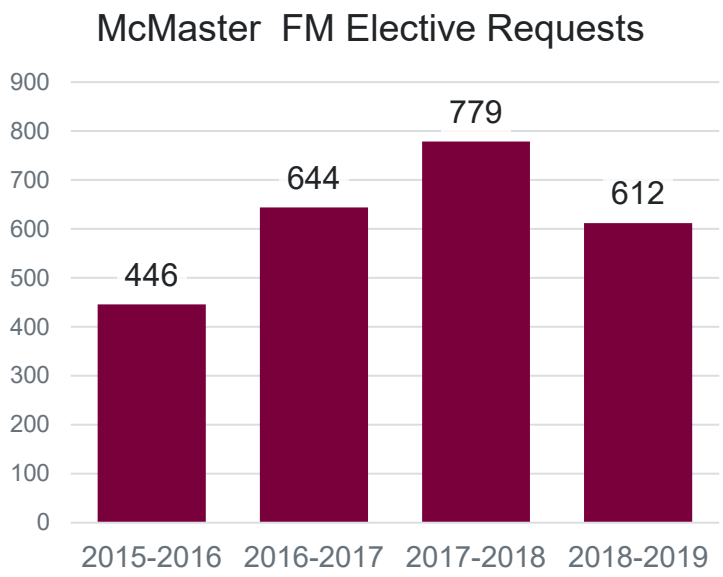

## Professional development

**Department of Family Medicine is committed to professional development for staff. The ways in which we promote professional development include:**

- Individual development: Employees are able to create individual development plans with their managers to identify areas of interest and development and are provided with opportunities and resources for development.
- Inspiring from Within: McMaster hosts the annual Inspiring from Within Employee Development Conference where employees are given the opportunity for professional development and networking. Our department supports and funds ten people from our department to attend each year where funded spots are distributed equitably across the department.
- Continuing education: The department provides staff with encouragement and time away from work to complete programs, workshops and courses offered through CCE. Our staff regularly attend workshops through the Essentials programs, leadership development programs, as well as enrolling in CCE Certificate & Diploma Programs.

## Education enterprise

The Education Enterprise hosts in excess of 200 undergraduate medical students and is home to 200 family medicine residents each year, trained within a thriving and evolving network that includes 12 sites, engages over 1,200 family physician preceptors and operates in close collaboration with respective cities/municipalities that have invested in the local delivery of the Family Medicine Residency Program, both clinically and academically. The educational enterprise also includes the Division of Palliative Care, the Division of Emergency Medicine, and enhanced skills (PGY3) programs.




Our high-quality faculty teachers are highlighted through the various awards as demonstrated in the faculty relations section of the report.

*Department postgraduate directors: Drs. Jacqui Wakefield, Nancy Fowler, Allyn Walsh, Liz Shaw, Sarah Kinzie*

### Undergraduate programs

We experience a steady increase in the request for family medicine electives from medical students.

In 2015, we expanded the UG leadership with the addition of a pre-clerkship coordinator who builds capacity in our preceptors and offerings, as well, mentors the Family Medicine Interest Group (FMIG). We successfully support two events annually for the FMIG group with FM faculty and resident presenters on relevant topics of the student body choice. There are typically 60 – 80 medical students in attendance.

In 2019, we introduced an alternate to a block clinical elective experience. The Family Medicine “Passport to Clerkship” Post-MF4 Elective (bootcamp) was developed primarily to increase elective capacity within Family Medicine. FM Bootcamp facilitates connections and teaching opportunities for residents (particularly those who are not Hamilton – or CTU-based), and for students at distributed medical school campuses. The content of the bootcamp is applicable to clerkship on the whole, with topics and themes unique to family medicine. It is intended to provide hands-on, problem-based learning and not be a primarily didactic-based lecture series. This week can accommodate up to 30 students. An outcome of the FM bootcamp is enhanced student preparedness and confidence when entering FM clerkship, while increasing interest in and exposure to Family Medicine as a specialty choice.

*Dr. Keyna Bracken*

In 2015 a new clerkship tutorial topic was introduced with a focus on the social determents of health and vulnerable populations. More recently in 2019, clerkship curriculum in FM underwent a redesign with both asynchronous and synchronous components based on adult learning theory and educational psychology, subject to a medical education research project. The delivery approach of the clerkship tutorials was adapted to meet the diverse needs of our student population and distributed nature of our department. Curriculum content was created as e-modules which is discussed in group format and over webcast with a Maestro (aka Tutor). There was a positive financial outcome to these changes as well.

These most recent changes to our clerkship curriculum have had an impact on other specialties due to the novel design and have increased integration with those specialties across the Faculty of Health Sciences. In addition, we have grown our partnerships across regional campuses and clinical education campuses allowing opportunities for sharing and learning.

The clerkship key feature exam was renewed with a focus on the most important information or concept that allows for appropriate clinical decision making. The exam is administered electronically using ‘Examsoft’ where students are able to see the correct responses to any question they had incorrectly answered, which happens immediately upon completion.

Notably, over the past decade, we have seen a large increase to FM faculty holding leadership roles with the Michael G. DeGroote Medical School.

| MD Program Leadership Roles Held by FM Faculty |
|---|
| Chair, Admissions |
| Chair, Clinical Skills |
| Chair, Diversity & Inclusion |
| Chair, Program Quality |
| Coordinator, Family Medicine Experience |
| Curriculum Developer (s) |
| Director, Learning |
| Director, Student Assessment - Clinical |
| MF 3 Tutors |
| Planner Longitudinal Disciplines - Compementary & Alternative Medicine |
| Planner Longitudinal Disciplines - Palliative & End of Life Care |
| Planner, Professional Competencies Domain - Health Equity & Determinants of Health |
| Planner, Professional Competencies Domain - Interprofessional Practice |
| Remedial Tutor |

Further, with the role of the manager of Education Enterprise introduced in 2010, who acts as serving both UG and PG programs, offering insights to potential challenges and highlighting collaboration opportunities, walls between UG and PG have been broken down.

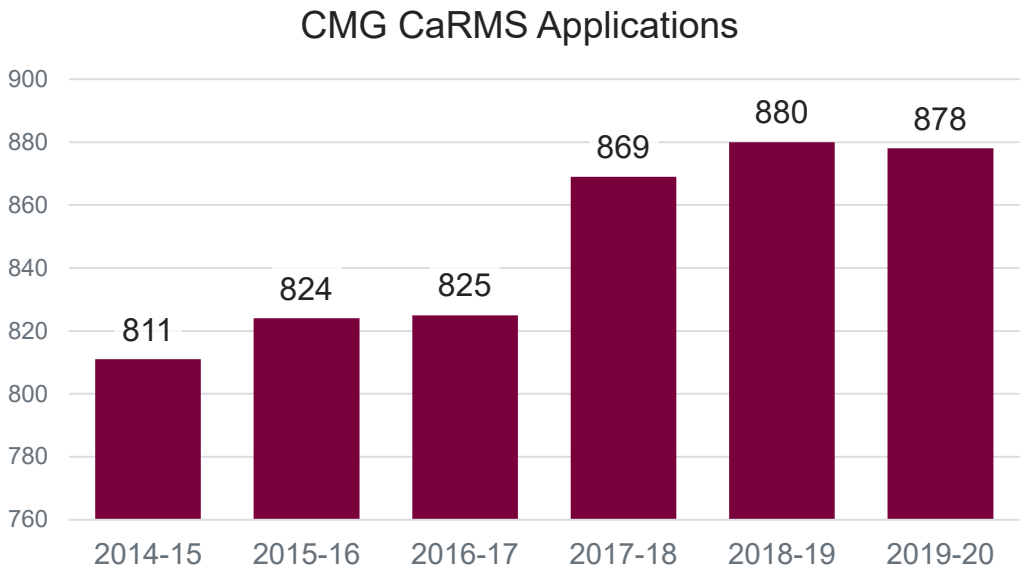
## Postgraduate program

Our expansion was complete in 2013 and we continue to enjoy outstanding leadership at our established training sites. site directors are listed below:

- Hamilton – Dr. Heather Waters
- Rural Stream Sites – Dr. Wade Mitchell
    - Collingwood
    - Fergus
    - Grimsby
    - Mount Forest
    - Owen Sound
    - Simcoe
- Kitchener-Waterloo – Dr. Marc Sawyer
- Brampton – Dr. Jobin Varughese
- Niagara – Dr. Karl Stobbe
- Halton – Dr. Susan Borden
- Grand Erie Six Nations – Dr. Amy Montour

Our postgraduate program director is Dr. Sarah Kinzie (2015), former site director for Hamilton.

Over the past decade we have seen a significant increase to applications to our program. We attract solid candidates from a variety of areas across the country. In 2018 and 2019, we received 880 Canadian Medical Graduate applications for 87 positions.




We maintain 1000+ International Medical Graduate applications for just 12 positions.

A considerable amount of energy and time in the recent years has been focused on admissions to the Residency Program. We moved to a new and exciting format for our CaRMS interviews called a Modified Personal Interview (MPI) in 2017. The MPI consists of four separate interview stations with four separate interviewers; two residents; two faculty. This approach is intended to better get to know applicants as well as assess their interest and suitability for Family Medicine. We remain the only FM residency program across the Country to use this format. In order to support this interviewing format, we invested in a new electronic platform called “Plank”. Plank houses our file review scoring rubric, applicant files and acts as a communication portal to interviewers and applicants. Interview scoring is completed directly in the system and at completion of interviews, the system produces a rank list by site. Next steps are to utilize the data to perform a scoring analysis.

There has been an incredible amount of work in the area of curriculum enhancements to our existing programming. Our Academic Half Day (AHD) seminar series is a 2-year curriculum which is primarily focused on the CFPC 99 Priority Topics. The AHD series has been designed to supplement clinical experiences and also serves as one of the ways to facilitate preparation for residents for the CFPC Certification Exam.

When the Common Rotation Schedule shifted Province wide from 12 months to 13 blocks, we capitalized on the opportunity to introduce “Block 7.” Block 7 is a program-wide concentrated academic block during which residents participate in both central and site-specific offerings, with a focus on procedural skills, practice management and ‘hot topics’ in family medicine. Sessions are facilitated by local experts and in collaboration with our Division of Emergency trainees and faculty. Simulation based learning has expanded significantly and is now a focus at many of the sites. This time also offers wellness and team building activities for residents. We are continually adapting the offerings based on resident feedback and CFPC requirements.

A large-scale review of our Quality Assurance and Evidence-Based Medicine curricula began a few years ago. Ultimately, this resulted in a re-envisioning of these key elements into an integrated InQuiry (IQ) Curriculum, intended to develop residents’ skills as both knowledge users and knowledge contributors, as well as integrating broader concepts pertaining to research, scholarship and transition to practice, through a progressive 2-year curriculum. The curriculum was piloted in Hamilton and adopted by remaining sites the year following. Curriculum is delivered in part through e-modules housed on McMaster’s trainee portal, Medportal.


Mental Health and Behavioural Sciences (formerly Behavioural Sciences) remains a highly innovative and unique curriculum in design and delivery for McMaster, Family Medicine. During the Mental Health and Behavioural Science tutorials, residents learn by completing presentations of audiovisual tapes of patient encounters, role-plays, case discussions, topic presentations, or narratives. The sessions aim to be interactive rather than didactic. Recent years have seen the expansion of our MHBS ‘enrichment’ block, which exposes residents to humanities experiences such as ‘Art of Seeing’ or ‘Photovoice’.

With the many curriculum enhancements and developments, we reviewed our governance and leadership structure of the program, and in the process, created two new important leadership roles, curriculum director and assessment director. These roles are integral to our continued implementation of a competency-based approach, including development and implementation of fulsome curriculum map, and ongoing

evolution of an overall resident assessment strategy including e-portfolio and competency committees. We were pleased to welcome Dr. Amie Davis as the inaugural curriculum director and Dr. Joe Lee as the inaugural assessment director in 2018. Our review also shaped our committee memberships and reinforced our reporting (see Governance Structure slide).

We continue to explore new partnerships and opportunities for resident learning. Some highlights include a formalized connection with Family Medicine in Inuvik, NWT, established in 2016. We have introduced new bursaries to support residents to access remote training opportunities.

Last year we embarked on a formalized relationship with Pallium Canada, allowing us to provide all residents with the full LEAP curriculum integrated over their two years of training. LEAP is a series of courses that provides health care professionals with an in-depth learning experience on essential skills and competencies of the palliative care approach. LEAP promotes teamwork and supports interprofessional collaboration.

Indigenous health teaching is a priority area for our program. We are fortunate that one of our core teaching sites is centred on a collaboration – Grand Erie Six Nations. Since that sites creation several Indigenous physicians have trained there, and now practice in the region. In 2019 we welcomed Dr. Amy Montour as that site's director – Amy, an alumnus of McMaster Family Medicine is leading that site, and our whole program, in strengthening our understanding of Indigenous communities and consequences of colonization.

## Enhanced skills programs

Our enhanced skills program offerings are meant to prepare family physicians who are responsive to the needs of their community through access to additional training beyond their two-year Family Medicine Residency. Our current enhanced skills director is Dr. Erich Hanel. We have five Category One accredited programs:

- Emergency medicine, program director is Dr. Erich Hanel – we maintain a highly competitive application pool with a steady increase to applications. Over the past decade, a variety of partnerships have been created, resulting in additional position offerings in underserviced areas, funded through hospital stakeholders. Our EM trainees give back through teaching to our FM Residents by way of lectures, simulation and procedural skills sessions. Our EM Program has positions in Hamilton, Kitchener-Waterloo and Niagara.
- Palliative care, program director is Dr. Anne Boyle – our palliative care program receives the second highest number of applications per year compared to our other programs. The philosophy of the program is to provide a broad and inclusive experience in Palliative Care.

- Family practice anesthesia, program director is Dr. Jesse Guscott – this program is primarily based out of Collingwood with some core rotations taking place in Hamilton in collaboration with the RCPSC Anesthesia Program.
- Sports medicine, program director is Dr. Wade Elliott – this program provides candidates with skills to effectively manage injuries and medical conditions related to exercise and sport.
- Care of the elderly, program director is Dr. Henry Siu – trainees will work closely with the RCPSC Geriatrics Program with rotations in family medicine clinics, long term care settings and hospital.

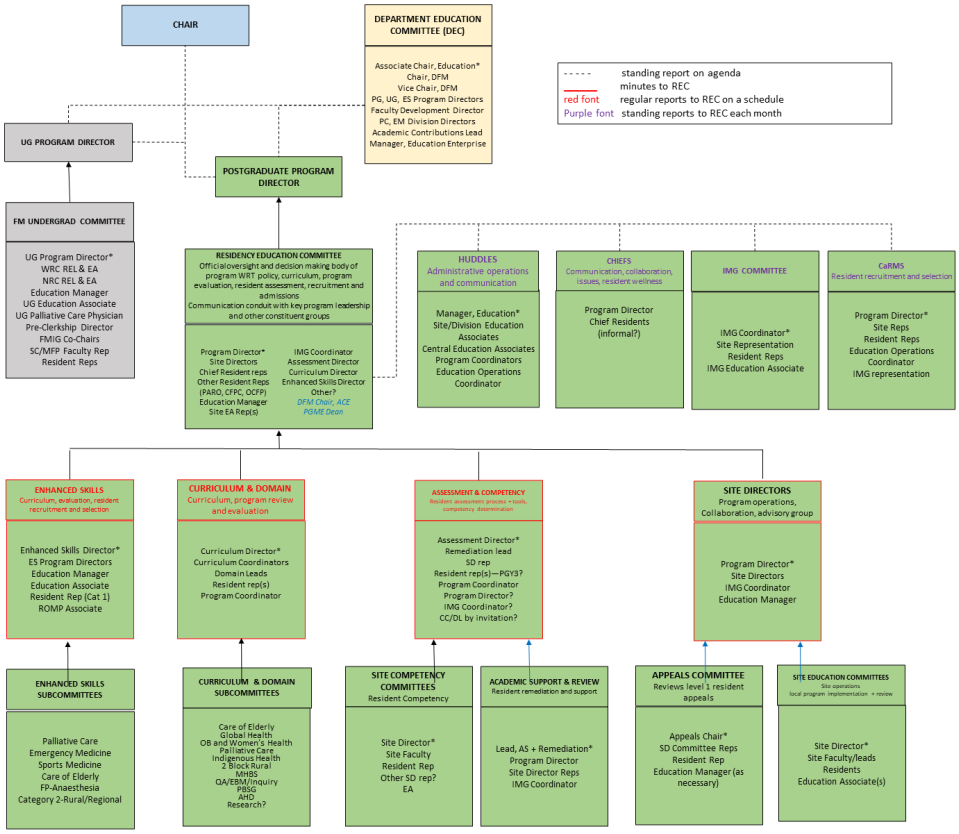
Our Category Two Programming recently shifted from urban or rural to a combined funding and program offering now known as Rural/Regional Self Designed. The program director for our Category Two Programs is Dr. Peter Wells. As with many of our other offerings, we are proud to offer programming in both urban and rural communities.

Most recently we have welcomed a physician from Makerere University in Uganda for fellowship training in family medicine care of the elderly.

Along with our Research Enterprise leadership, we are in the midst of developing a program outline with the main goal being to support resident(s) in development of expertise and skills pertaining to research and scholarly work.

We are looking to better house and utilize data related to how enhanced skills training informed residents practice profiles.

### Education governance structure




## Division of Emergency Medicine

The Division of Emergency Medicine has 28 members. It is very active in teaching with strengths in simulation and bedside US. There is a strong core of educators led by the program director, Erich Hanel. Currently, there are six PGY-3 residents in the CCFP(EM) training pro-gram. Clinically, it is a diverse group at the Hamilton Health Sciences and St. Joseph's. Its output in educational and ultrasound fields is increasing. Our first GFT was just appointed.

The Division also has strong regional connections with Kitchener-Waterloo, Niagara, Brampton, Burlington, Brantford and collaborates with MacCARES and ROMP. Residents are rotated to KW and Niagara on a regular basis and electively to many other sites. We are establishing a re-search collaboration with our regional partners. We enjoy strong support from the Department of Family Medicine and collaborate on many projects and committees.

## Division of Palliative Care

The Division of Palliative Care is an academic entity with a mission of advancing palliative care across the whole Faculty of Health Sciences through education, research and quality improvement. It has 67 members, including 49 physicians with CFPC certification, 4 FRCP physicians with Division cross appointments, 8 nurses, 2 social workers, a chaplain and a PhD researcher. Members are primarily clinicians who work in

various settings (home and community, hospitals, hospices, cancer centres and long-term care) across Hamilton and many communities across the health region. This diversity provides the Division unique opportunities for scholarly work across many care settings and professions. The Division is also recognized for its efforts in advancing primary-level palliative care. It has done this largely by providing consultation and share care support clinically in the Hamilton region and through interprofessional education initiatives targeting family physicians and other primary care providers, and health professionals in hospitals and LTC

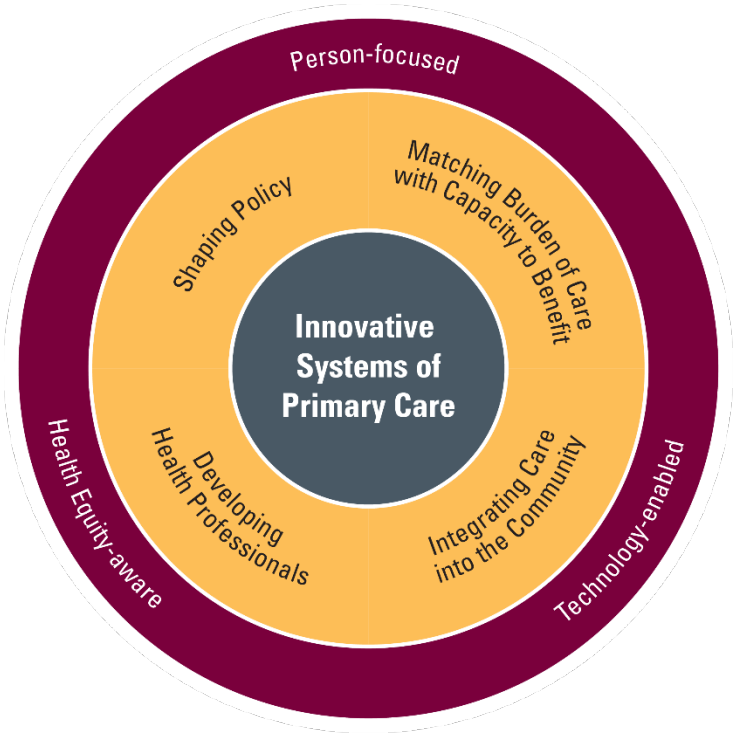
The Division has robust scholarship portfolios in education, research and quality improvement. Several members are recognized nationally and internationally for their work and have served on multiple provincial, national and international initiatives. Three have also served as provincial palliative care leaders. Several members have led the development and deployment of curricula in undergraduate, postgraduate and CPD education. A new research strategic plan is being activated with funding support from the department (research coordinator and research assistant) and the Division AFP. This plan, built on past successes and current expertise in the division, includes streams related to advancing primary-level palliative care and a public health approach to palliative care. The Joshua Shadd McMaster Pallium Canada Research Hub was established in 2019 to advance palliative care education research. From July 2019 to September 2020 Division members have supervised 81 and 180 block electives to undergraduate and postgraduate learners respectively, taught 1349 learners (453 physicians and 896 non-physicians) in CPD/CME activities (including though Pallium Canada's LEAP courseware), hosted two conferences (3-Days in-depth, and Innovations in Palliative Care), and published 26 papers in peer-reviewed journals. Members have given 26 keynote, workshop and other presentations (invited or through abstract submission) at regional, national and international conferences and there have been 27 radio and TV appearances by members.

# Research enterprise

## Research enterprise: an ongoing strategic investment

Building on achievements 2010-2015, the department made a strategic investment in 2015 to further develop our Research Enterprise with the hiring of a managing director. In 2017 a new associate chair for research was chosen and the research council, chaired by the department chair, was re-established. The associate chair, managing director and council identified the key research and innovation themes of the department and sought feedback and input from all faculty. The associate chair for research and the managing director, in consultation with the research faculty, developed a three to five-year strategic plan (Appendix C: Primary Care Research Strategic Plan) which was subsequently supported by a commitment of core funding from the department. The focus of the strategic plan was, and continues to be, on building the department's capacity for research, focused on these key research themes of innovative systems of primary care; our strategic plan sets the direction and highlights core areas of research that fit into the following themes: integrating care into the community, matching burden of care with capacity to benefit, shaping policy and developing health professionals.

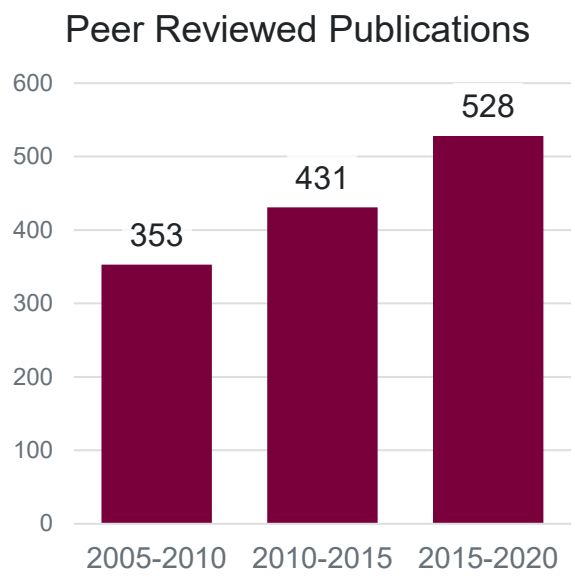
## DFM research enterprise framework




The past five years has been a journey from smaller, project-specific, loosely aligned research — with limited dedicated departmental support — to a cohesive, strategic, and specifically-funded Research Enterprise that is now one of the strongest family medicine research units in North America. Currently the department has over 25 full-time and 17 part-time faculty actively engaged in research. Over the past five years the department has consistently managed over 10 million in concurrent research funding with an all-time high of over 19 million in 2018-2019.

We have continuously increased our staff, students and volunteers with current numbers reaching over 70. These individuals are currently working to support 84 research projects in primary care. On staff, we have six individuals with PhD's and over 25 with graduate degrees. We have faculty positions for three endowed chairs: The David Braley and Nancy Gordon Chair in Family Medicine, the Hannah Chair in the History of Medicine and the McMaster Family Medicine Research Chair. We are currently recruiting for a McMaster Niagara Family Medicine Professorship, which will be announced October 5, 2020.

The results and impact of our collective expertise is seen in an annual average of 105 publications (Appendix D: Publications 2015 to 2020) with a five-year total of 528 publications and 16 book chapters.




In addition to awarded funds, publications and book chapters, our faculty have won numerous national and international awards: putting McMaster's Department of Family Medicine at the forefront of primary care research nationally and internationally.

The department now has several large research programs driving innovative systems of primary care and primary care system policy change. These include care models linking volunteers with primary health teams, preventive approaches to care in multimorbidity and polypharmacy, rational and safe use of medicines, and outreach provision of primary care of chronic disease to underserved and hard to reach populations. There are a number of research programs that focus on vulnerable groups with different health needs or perspectives on health, including Indigenous health, in prison populations, homeless populations and people with addiction. In line with our mandate to educate the best possible primary care physicians, we have a strong program in education research, constantly building and assessing education initiatives as well as understanding and improving the experience of learners. The breadth of generalist primary care is reflected in research on maternal and newborn care and child development, advanced care planning, a growing palliative care research program, research on medical assistance in dying, primary care policy and the history of medicine. Underpinning these projects are the core values of health equity, person-focused care and matching the burden of care to the individual's capacity to benefit. A more detailed summary of research programs is appended for review (Appendix E: Current research projects and Appendix F: Recently completed research projects).

## Practice-based research network: MUSIC

As part of the development of research infrastructure, we initiated a practice-based research network, the McMaster University Sentinel and Information Collaboration (MUSIC). This provides both a de-identified dataset of electronic medical records for epidemiological research on primary care as well as a group of practitioners who can participate in research that involves trial and evaluation of innovations in primary care. MUSIC contributes data to represent the Southern Ontario region to the national platform for primary care epidemiology, Canadian Primary Care Sentinel Surveillance Network (CPCSSN). The MUSIC dataset now contains 100,000 patient records and is actively growing.

*Dr. Dee Mangin*

## National and international presence

We have partners and collaborators who share our commitment and interest in primary care from across the country and internationally. Our international presence is growing, with DFM faculty participating on international advisory boards, collaborating in primary care research with international academic institutions, accepting visiting fellowship awards and speaking at international conferences and events. For example, Gina Agarwal is involved in research projects in the Philippines, Indonesia, Thailand, Nepal, India, Iran, the United Kingdom and Australia. Dee Mangin is working on research projects with partners in Australia, New Zealand, the United Kingdom, Denmark, the USA and Ireland. Both are well-recognized as experts in their respective fields of study.

## Capacity development initiatives

Building a high-functioning Research Enterprise that produces high-quality research requires an infrastructure and technical expertise that can support and lead capacity development for both staff and faculty. The associate chair and managing director have been champions of ongoing capacity development for both staff and faculty and we are seeing results. The number of clinical faculty actively involved in research has increased, and there are 19 faculty shifting their academic focus to research and who are becoming more involved in research in primary care.

- Annual pilot funding of $40,000 supports eight pilot projects that are led by full- and part-time family medicine faculty. Answering questions specific to primary care, these faculty are encouraged, mentored, and administratively supported by the Research Enterprise infrastructure, the associate chair and faculty and staff with methodological expertise. By committing $20,000 of the pilot funding to family physicians working in the community, the department is broadening its reach to support research knowledge and skill development beyond full-time

faculty. Many of these pilot-funded projects have gone on to secure additional funds from granting agencies such as CIHR, have presented at national and international conferences and have published their findings. It is an investment that builds on the reputation of McMaster Family Medicine as a leader in primary care research.

- Monthly Medical Education Research and Clinical/Health Services Research rounds are led by research faculty. This is an opportunity for faculty to discuss recent and evolving topics in primary care. It is also an opportunity for faculty who are more and less experienced in the world of research to gain feedback regarding their research questions, pilot funding projects, work in progress etc. In addition to monthly rounds, there is a regular weekly writing opportunity for faculty to come together to write. The focus of individuals could be on the preparation of manuscripts, grant proposals or any other writing that would benefit from having dedicated time and feedback from colleagues with expertise.
- Research Knowledge and Skill Builders (RKSB) are available monthly to all staff, full- and part-time faculty. These sessions are open to all department of family medicine sites and are recorded. All are posted on the Department of Family Medicine website for future access. Topics include research methods and design; qualitative and quantitative data collection methods and analysis; recruitment; types of literature reviews; database management; and project management, as well as other topics. In the past five years we have held 42 RKSBs.
- The Faculty Spring Retreat has, for the past three years, included a learning track specific to research and scholarship. Content is tailored to address identified research learning needs. Workshop topics have included pilot funding and feasibility studies, medical education research in primary care, qualitative research methods and literature searching.

## Visiting scholar program

DFM research now hosts 1-2 invited international visiting scholars annually. These scholars have research expertise that has deepened the knowledge and enriched the research conducted by DFM. Leading primary care researchers such as Professor Stewart Mercer and Professor Joanne Reeve have visited and added value to the work being done at McMaster as well as providing the basis for ongoing international collaborations. We have also noticed an increasing number of requests to visit McMaster DFM from researchers in other countries who are keen to see and learn from the work of the DFM Research Enterprise. Visitors from Ireland (Frank Moriarty and Heather Barry) and South Africa (Leon Geffen) have engaged with DFM during this past term along with a delegation from China.

## External partners and collaborators (local, national, global)

Over the last five years, we have developed and increased our range of national and international collaborations. We have partnered with non-governmental organizations; national commercial and professional organizations; and academic institutions within Canada and internationally. Examples include working with the Ateneo de Zamboanga

University in the Philippines to implement and evaluate the Cardiovascular Health Awareness Program (CHAP); partnering with the Canadian Red Cross for the implementation of Health TAPESTRY; collaborating with Data Based Medicine, an international independent drug safety organization; and working with the American Association of Consultant Pharmacists.

## Knowledge translation

Increasing the awareness and uptake of DFM's primary care research findings has been a key priority for the department. To that end, we have employed knowledge translation specialists who work not only with our Research Enterprise but across the department to share our learnings in ways that will resonate with intended audiences (family medicine physicians, residents, clerks, community members, decision makers). We use both traditional and social media and actively track the reach and impact of these strategies using available metrics. As an example, following the release of any key publication in a peer reviewed journal, we produce a 45 second video that translates the published research findings into key messages that are readily accessible. These videos are posted on our website, tweeted out to our followers and strategically sent directly to key stakeholders and decision makers. We also prepare media releases for study findings that have significant community and public interest. Our faculty are often asked to comment on important local national and international issues in lay media.


Most faculty have a professionally produced two-minute profile video (Appendix G: Faculty profile video) hat highlights their research interests. Collectively, these videos demonstrate the scope and breadth of primary care research at DFM. The videos are a valuable tool for engaging potential collaborators (locally, nationally, and internationally), recruiting future faculty, attracting future residents, and securing grant funding.

## Leadership and mentorship

As leaders in primary care, we are actively involved in various working groups and committees locally, nationally, and internationally. DFM faculty are active members with the CFPC Section of Researchers, sit on the CFPC Research Council, sit on CIHR and HAHSO grant review committees. Gina Agarwal represents Canada on the Royal College of General Practitioners in the United Kingdom.

We believe that as leaders in primary care, it is our responsibility to engage and excite the next generation of learners and researchers. Our faculty provide mentorship to many students at all levels of their academic career. DFM Faculty supervise both PhD and

master's students. The department often has practicum students from a range of programs such as Master of Public Health programs, Social Work, Global Health and others. We match interested undergraduate medical students and family medicine residents with research programs and, on average, place eight to ten students in active research projects each year. We also provide peer to peer mentorship between faculty.

## The future: David Braley Primary Care Research Collaborative

Having built a foundation for primary care research at McMaster, our final key objective in the Strategic Plan was to create a primary care research collaborative launched on September 30, 2020. We know the strongest evidence for improving health outcomes in the population is by strengthening primary care systems. Our vision is to create a primary care research collaborative that will advance primary care knowledge and enhance its impact through creative, relevant and practice-based research that is wisely implemented and scaled to improve the health of individuals, families and communities.

We believe the collaborative has tremendous potential and is the focus of our current strategic plan development and will remain a focus for the next seven to ten years. To support the growth of the collaborative, we have secured $4 million: $3 million as an expendable endowment with an additional $1 million for matching funds.

Initial goals include:

- To build a stronger cadre of primary care researchers through innovative and accessible capacity building strategies that can engage primary care practitioners and consumers locally, nationally, and internationally to answer clinically relevant questions
- To contribute to and advance the foundation of primary care evidence that informs the development of efficient and effective primary care practice, policy and programs that can help to improve the health of individuals and populations
- To operationalize a learning environment at the McMaster Family Health Teams clinics and the McMaster family medicine education program, where new evidence is put into practice and adopted as a new norm
- To share new knowledge with others who are well-positioned to facilitate the integration of this evidence into future policy and practice change in primary care
- To collaborate with key decision makers interested in, and responsible for, health system change where primary care is recognized as a key component of the whole health system

# Clinics

**McMaster Family Health Organization**

**Stonechurch Family Health Centre**

**•SFHC Rostered Patients**

| | |
|---|---|
| 2015-16: | 16,385 |
| 2016-17: | 17,300 |
| 2017-18: | 17,191 |
| 2018-19: | 16,640 |
| 2019-20: | 17,994 |

**•SFHC Non-rostered patients**

| | |
|---|---|
| 2015-16: | 2,369 |
| 2016-17: | 2,999 |
| 2017-18: | 2,447 |
| 2018-19: | 1,985 |
| 2019-20: | 1,838 |

**Total SFHC Patients 2019/20= 19,832**

**SFHC CLINIC VISITS**

Total clinic visits = 63,794
(Physician + Allied Health)

| | |
|---|---|
| Total HHS Visits: | 113 |
| Total # Physician visits: | 48,051 |
| Total # Allied Health visits: | 15,743 |
| Total all other visits: | 688 |
| Total Staff Physicians: | 18 |

**McMaster Family Health Organization**

**McMaster Family Practice**

**MFP PATIENTS**

**•Rostered Patients**

| | |
|---|---|
| 2015-16: | 13,874 |
| 2016-17: | 14,475 |
| 2017-18: | 16,676 |
| 2018-19: | 17,227 |
| 2019-20: | 17,152 |

**•Non-rostered Patients**

| | |
|---|---|
| 2015-16: | 2,211 |
| 2016-17: | 2,151 |
| 2017-18: | 2,764 |
| 2018-19: | 2,501 |
| 2019-20: | 3,051 |

**Total MFP Patients 2019/20: 20203**

**MFP CLINIC VISITS**

Total clinic visits = 60,107
(Physician + Allied Health)

| | |
|---|---|
| Total HHS Visits: | 227 |
| Total # Physician visits: | 45,388 |
| Total # Allied Health visits: | 14,719 |
| Total all other visits: | 531 |
| Total Staff Physicians: | 19 |

## FHT groups and programs:

In recent years many of our groups, program and individual services have been made available to all rostered and non-rostered patients of the FHT, and to the broader community in Hamilton. We have worked with our primary care partners to establish cross referring systems for unique programs each organization may provide in hopes of minimizing duplication of programming and the best efficiency of Allied Health and Nursing resources in the city. Groups and programs include:

- Mental Health – Anxiety, Depression, Emotional regulation and distress
- Rehabilitation – Exercise is Medicine, Chronic Pain, Persistent Pain, Torticollis and Breastfeeding — our physio is also a lactation consultant and she partners with local hospitals and midwives to provide this service.
- Dietician – Eat Well to Live Well, Mediterranean Diet
- Broad Interdisciplinary – Healthy Aging Series, Sleep Disorders, INR, Smoking Cessation, Legal Health*
- *Legal Health is one of only 2 primary care practices in Ontario partnering with Legal Aid Ontario and Community Legal Clinics to provide screening and consultations in clinic to facilitate improved social determinants of health with a direct impact on improved health
- Programs of care for vulnerable populations in our practice and for the community includes our work with legal aid, HIV/AIDS, transgender populations, addictions, mental health and those living with precarious social determinants of health situations, MAID, Memory Clinics and palliative care.
- Women's Health – IUD clinics, medical abortion services
- MCH: PrOSPR program – Combined prenatal care and treatment for substance use disorder in pregnancy.

## Partnerships

Partnerships with key community stakeholders are always evolving. We currently have over 30 city partners engaged in a variety of different ways. This may include taking on their orphaned patients, providing specific programs of care, our referrals to them or partnered programming. The most impactful partnership in the past year includes our participation in the initial Hamilton Health Team work to change the provision of

healthcare in the City and area. Breaking down barriers to better continuum of health and improving social determinants are key goals of this work for the community at large.

### Other partnerships of note include:

Partner representing primary care at the Hamilton Health Team table, involved in a variety of levels of leadership and participation in this group.

The first primary care practice (non CHC) in Hamilton to embedded Home and Community Care Coordinators into our practice.

Indigenous Populations engagement: We are committed to the truth and reconciliation efforts in our FHT. Over the past year, every clinician and staff member has been sponsored to spend a day at the Woodlands Cultural Centre in Brantford, ON to learn more about the history of and way forward with our Indigenous community. This work and education will be ongoing with a second wave of purposeful engagement with our physicians and staff this coming year. We hope by fostering such understanding and collaborating with Six Nations our care of and relationships with these populations will be improved.

We meet regularly with our primary care partners in Hamilton (CHCs, FHTs, independent practices, De dwa da dehs nye s Aboriginal Health Centre, Centre de Sante Francophone Health Centre, etc.) to share knowledge, resources and extend programming where needed to the broader community. Examples of this work include the Syrian Refugee influx to Hamilton in 2016, City wide TB clinic, variety of mental health, COPD, diabetes and rehabilitation programs with open referring systems.

Public Health co-location of clinics at the downtown site with ongoing collaboration for program such as sexual health clinics and smoking cessation partnerships. Regular opportunities to meet with PH and MFHT staff made available (co lead by leadership from both organizations). We represent primary care and participate in meetings held by Public Health regarding service planning for the community, this has included concussions and dental health for seniors, emergency planning, breastfeeding initiatives etc.

We are committed to serving all individuals at the MFHT. This includes regular educational opportunities to better understand how to provide care in an equitable way. In recent years all staff and clinicians working at the FHT have been provided with Diversity training, Allies in Action training and the Indigenous educational initiative described above.

### IT

Currently the MFHT is the pilot organization for primary care's move to participate in Integrated Decision Support (IDS) which is sponsored by Health Links funding through the LHIN. The MFHT will assist the LHIN in creating the primary care data set to be rolled out provincially.

Another avenue we are using to provide integrity and cleaning of our EMR data is through the MUSIC (McMaster University Sentinel Information and Collaboration) project. The first data validated extract was sent off to CPCSSN Central, representing a 2010-2015 data extract from OSCAR's MFP and SFHC EMRs. Next steps include receiving a practitioner-patient focused report from CPCSSN Central's data analyses, as

well as performing our own analyses to guide some data improvement initiatives focused on data completion within OSCAR. Our hope is to back-code the Disease Registry and use it as a launch point toward encouraging consistent use of the Disease Registry tagging by clinicians. The gap in Disease Registry coding will also be used to demonstrate the opportunity to better engineer how the Disease Registry coding is captured by clinicians, by making a more groomed and intuitively named pick list of conditions that could possibly be preselected based on other data captured in the patient record.

Primary care data sharing (PCDS) is a time-limited, small-scale regional initiative as part of the cSWO Program to explore the value, challenges and feasibility of sharing a pre-defined dataset from primary care electronic medical records (EMRs) to be shared amongst health service providers within the patients' circle of care through the electronic health record (EHR). This proof of concept will inform the evolving provincial primary care data sharing strategy. MFHT was the first primary care partner to contribute to this data set.

## MCH: Maternity Centre of Hamilton

*Dr. Tejal Patel*

In response to the challenges of retaining as well as training family physicians taking up full care obstetrics, Drs. Cheryl Levitt (Family Medicine) and Karyn Kaufman (Midwifery), along with colleagues in nursing, described a vision and obtained funding to start the development of a "Maternity Centre." The operationalization of this vision was assigned to David Price and Debbie Sheehan, a Public Health nurse leader. A series of consultations across the city, with relevant stakeholders, along with a review of models from across the country was then undertaken. From this, the actual physical Maternity Centre was created. The vision was of a collaborative interprofessional team, building on the strengths of family physicians committed to full care obstetrics. The current model, partnered with McMaster's Family Health Team and physically located at the McMaster Family Practice in our downtown centre, has evolved into a clinical and research hub for the provision of full care obstetrics and training of medical students, family medicine residents and other health professionals in both the art and clinical care of pregnant women. Highlights have included:

- Started as pilot project in 2001. Has advanced other novel models of maternity care across the country ---tandem work with OB in hospital, team centred approach
- 24/7 coverage for patients, full obstetrical care or shared care with primary care clinician
- Social workers from hospital seconded from SJHC until SW was too stretched. 2008 Negotiated funding for SW ongoing into contract
- GBS study published 2006, used internationally. No doubt set the stage for patient directed care and self swabbing. 2017 started self swab for chlamydia and gonorrhoea-

based findings translated from GBS study over a decade before. Citation: Journal of Obstetrics and Gynaecology Canada, Volume 28, Issue12, December 2006, Pages 1083-1088

- co-location and collaboration with midwifery in 2007
- Focus care for vulnerable populations, Social work part time ongoing
- 2011 consultation provided for the Thunder Bay Maternity Centre with hands on training and mentoring of administration and clinical NP staff
- program for substance use in pregnancy (PROSPR) started in 2014 PROSPR continues to date.
- Spectator article May 2017
- learner program change in 2018 – now all Family med PGY1 do their maternal child rotation through the Maternity centre. Both clinic and on call.
- co-location with MFP and the DFM 2015
- primary maternity care knitted with tertiary care: Clinicians at MC are members of regional committees: Safe transitions committee (SJHC), SOMCHN- Southern Ontario Maternal Child Network, SOGC working committees (society of obstetrics and gynecology)

# Appendices

## Appendix A: Communications materials (Weekly Announcements, Chair's Corner, Who We Are)

### Weekly Announcements

Excerpted header example:


See a sample edition of the weekly announcements

### Chair's Corner

*April 8, 2019*

Good afternoon,

Many of you will have heard the story of my cousin who died of ALS a couple of years ago. He was buried in the family plot on Mount Royal in Montréal on a blustery rainy fall day, which even so did not dampen the beauty of the autumn colours of the cemetery. While there, I had a chance to look at the other inscriptions and graves of our family plot that date back to the mid-1800s. One name stood out for me, and that was of my younger brother whom I never met. I was about 15 months old when he died, a week

after his birth. My mother contracted measles while pregnant and he died a few days after birth due to complications of the measles virus.

That experience probably explains why one of my earliest memories of visiting a physician is going to the doctors' office for a sugar cube treat on which the nurse had put a drop of quite bitter tasting liquid. The Sabin oral vaccine for polio was introduced in Canada in 1962, and my mother ensured that my sister and I were amongst the first recipients of this new vaccine in Vancouver.

When I worked as a pediatric resident at the Children's Hospital of Eastern Ontario in the summer of 1989, the city experienced a small Haemophilus Influenza B (HIB) outbreak. I can vividly recall the three nights on call over 9 days and caring for a number of infants and toddlers with this terrible infection. Some of them survived, but on each of the three nights I had to tell young parents that their child had died in spite of our best efforts to resuscitate them. Those experiences had a profound impact on me as no doubt did the death of my little brother to my mother, although hardly of the same magnitude.

I think that is why, as a young newly fledged family physician in Vancouver, I phoned every single one of my infant's parents the week before we received the HIB vaccine to encourage them to attend at my office, pay for the vaccine and give it to their child. Having delivered many of these children, I did not want them to suffer the same fate that my patients in Ottawa a few short years prior had experienced.

So for me, I have a lived experience of infectious disease in the pre-vaccination era for a specific disease and understand the consequences of non-vaccination all too well. And I guess that is why I find the recent measles outbreak here in Canada and worldwide so puzzling and upsetting. How is it that we have lost that shared, horrible lived experience and been unable to pass those experiences on to our current generation of parents? What is it that we as a medical profession must do to stamp out the misguided belief of the "anti-vaxxers" and educate those with vaccine hesitancy? Worldwide eradication of smallpox was enabled in part because of intimate knowledge of that terrible infection.

There have been some beneficial stories in the media recently both in print and on television. Invariably however, a photo of a child crying when they receive a needle is featured both in the newspaper and on television. There is a mixed message being given to parents: your child might get this terrible illness that you and your peers have no personal experience of, or you can inflict pain on your child immediately? Our journalist colleagues have a moral duty to stop presenting the story in this fashion, and we must implore them to never show a video or photograph of a child crying while receiving the vaccination. Rather, they have a duty to present the consequences of not vaccinating.

We in the medical profession also have a moral duty to highlight to our patients the irreversible consequences of these easily preventable infectious diseases. It is up to us as healthcare providers to understand what drives each individual patient in their decision-making process, and to do our utmost to convince each patient/parent of the necessity of vaccination. While this is a paternalistic comment, this is indeed a public health crisis as illustrated by the WHO declaring vaccine hesitancy as one of the top 10 threats to Global Health in 2019. Those of us that are old enough to remember the awful stories need to tell those stories. We need to encourage our politicians and our public

health officials to enact mandatory vaccinations to protect every single one of us. Our laws require adults to wear helmets while riding a motorcycle. How an earth is it that we do not protect our most vulnerable from completely preventable infectious diseases?

One of the initiatives that we have undertaken in our FHO/FHT is to use our electronic medical record (OSCAR) to track our vaccination statistics. We report on how well we are doing with childhood vaccinations, but I am not sure that we have as vigorous a proactive program in place to ensure that none of our patients are falling through the cracks. We must get as close to a 100% vaccination rate not only in our children, but in adults as well. Perhaps we need to have a “Vaccination Officer/Vaccinator” in each clinic who actively screens every single patient prior to seeing a healthcare provider in the clinic. Perhaps "Vaccinator" needs to enter our lexicon as the preventable disease "Terminator".

Okay, perhaps a “Vaccinator” is unrealistic. What is attainable now, is a personal health record (PHR) that is owned and coordinated by the patient. Furthermore, we already have enough “artificial intelligence” within our existing platform to alert patients when they or their loved ones, children for example, are overdue for a vaccination. Let’s make it a shared responsibility for us all to protect not only each of us as individuals but society as a whole. Working collaboratively with policymakers, citizens and healthcare providers. I believe achieving “herd immunity” for all of our preventable infectious diseases is achievable within five years. This should be a priority for all of us.

David

## Who We Are

*Dr. Shane Neilson*

ACP (Adjunct)

Guelph, Ontario


”I want to expand the idea of what a physician could be, modeling a vulnerable physician who is part of the community, not just a clinician and not just in hospitals.”

“You heard no witness tend to you, they tended the targets in your brain.”
– from *On shaving off his face,* by Dr. Shane Neilson.

**From alienation to healing**
Dr. Shane Neilson hopes his award-winning poetry about mental illness will help doctors understand mental health conditions like the one that almost claimed his own life.

He was diagnosed with bi-polar disorder after finishing medical school at Dalhousie University in 2000, but he traces its oscillating highs and lows to age 8.

“Disability has been my whole life,” says Shane, 43. “If I were the person who talked to God in the hallways, they might have paid attention. Instead I presented as a jerk. They finally paid attention when I jumped off a building.”

That was 16 years ago. He recovered fully to control the condition therapeutically and went on to a career in family medicine. He’s a doctor in Student Health Services at the University of Guelph, raising three children with his wife Janet, who is a veterinarian.

He writes prolifically, including poetry collections like *Dysphoria*, which won the Hamilton Literary Award for Poetry for a raw portrayal of how doctors approach the disabled, and *Call Me Doctor*, about his personal experience with manic-depression.

In 2015, he won the Vanier Canada Graduate Scholarship, a prize of $150,000, and in December 2018, completed a doctorate at McMaster University in English and Cultural Studies. Again, he was right on theme: his thesis was on representations of pain in literature.

Shane believes physicians can alleviate a lot of suffering by detecting mental health conditions in their daily work.

“All those years, I thought I was a bad person. I went through medical school labelled as a badly behaving student, disordered, antagonistic. I was overly energetic and yet there were many times when I could barely get out of bed in the morning.”

The medical system can train doctors to better identify those at risk, he adds. “Conventional wisdom in medicine seeks to improve our empathy by engaging us in case studies, whereas I regard art as a transformative experience that protects against burnout and allows people to learn empathy.”

He hopes to form a working group of nurses, doctors and others to tap that potential empathy. “Medicine is sorely in need of critique by the humanities,” he says

**Who We Are**
*Dr. Karl Stobbe*

Niagara Site Director

Clinical Professor (PT)

"Always my agenda is the same: teach doctors to help all Canadians, not just the ones in cities."

**Country doctor works to attract more MDs to rural communities**
Dr. Karl Stobbe has devoted his career to training country doctors.
As a family doctor in Beamsville in the 1990s, he needed help for his practice, but doctors didn't apply for his openings and family medicine residents didn't stay. "They all said the same thing: 'It's great here but I'm not trained to do all this.'"

When Karl took the problem to the Department of Family Medicine at McMaster University, the school offered to establish a rural training program for family doctors – and asked him to lead it.

The program would offer extra training in delivering babies, assisting at surgery, emergency medicine, and hospital care, among other skills that become important when medical specialists are few or absent.

After five years, McMaster expanded the initiative to include all medical specialties, called Mac Care, and asked Karl to lead the effort. When they subsequently established the Niagara campus of the Michael G. DeGroote School of Medicine, based in St. Catharines, he was named its first assistant dean. He now serves as site director for the Niagara teaching site of the Department of Family Medicine in a three-year term ending in 2021.

"Always my agenda is the same: teach family doctors to help all Canadians, not just the ones in cities."

He's still in Beamsville, where he raised a family with wife Julie and, while he's not sure what comes next, he says it will probably involve helping people either here or abroad.

**'You can help people'**
His desire to help can probably be traced to a beloved grandmother, Maria Stobbe, who led four children out of war-torn Ukraine in 1944 after losing everything, including her husband.

After a harrowing journey on foot, they boarded a ship bound for Halifax, Canada. Karl's father, Maria's eldest son Ewald, never forgot what Canada did for them, and all of the

grandchildren grew up in loving awe of Maria.
Maria set Karl on the course to medical school, which he completed at Western University in 1982, followed by residency at Queens University.

“She wasn’t one to give advice. But she was one of those people who believed anything can be accomplished with kindness. She was the guiding light of our family. And one day she looked me in the eye and she said ‘Karl, you can help people.’ And I said ‘okay, Oma.’ And I’ve been doing it ever since.”

**A page from Oma’s book**
Karl ‘s family didn’t have a lot of money, but they focused on the good things. That much was clear after medical school, when Karl trained for an extra year of residency to qualify for a remote posting in Goose Bay, Labrador, only to have his application disappear in a clerical error. He never went, but set about using the training elsewhere, without bitterness.

“In my family culture, anger over something like that would be seen as prideful, and maybe even a bit entitled, because they accept that things go wrong in life. You see, they had known true hardship. My grandfather was killed and the family farm was taken from them. And I’m going to be mad because I can’t work in Goose Bay? No. Gratitude is a family value.”

## Appendix B: Faculty Development

McMaster University | Family Medicine

Michael G. DeGroote SCHOOL OF MEDICINE

### Department of Family Medicine Annual Faculty Development Spring Retreat

Please join us April 3-4, 2020 at Hockley Valley Resort, Orangeville for our Annual Faculty Development Spring Retreat. This year's retreat will include a keynote address, as well as workshops that focus on specific areas, including education, research and scholarship, leadership, and wellness and resilience.

Keynote Speaker
**Dr. Nancy Fowler**
MD CCFP FCFP
Professor, Department of Family Medicine
McMaster University

Keynote Address
**Educating for generalist practice in a world of increasing specialization**

How do we understand our role and professional identity as generalists in an increasingly specialty-oriented health care system? What do we offer that is distinctive and helpful to the health and well-being of patients and communities? It is easy and intuitive to see how we (in family practice) depend on other specialists but how do they depend on us? There is a resurgence of interest in generalism as we approach health care challenges of complexity, chronicity, co-morbidity and increasing fragmentation along with a desire to increase public participation in care and to focus on 'what really matters.

How do we set up our educational programs to deliver on the 'lessons' of generalism?

*The presentation will explore these questions, offering reflections and examining emerging research to inform educational practice in family medicine.*

**Registration opens in January 2020**

**2020 Faculty Development Spring Retreat**
**April 3-4, 2020**
**Hockley Valley Resort**

Family Medicine | McMaster University

**Day 1: Friday, April 3, 2020**

| | | | |
|---|---|---|---|
| 2:15-3:00pm | Nutrition Break—Coffee/Tea/Cold Drinks/ Snacks | | Foyer |
| 3:00-3:15pm | Welcome and Introduction | | Montclair AB |
| **Time** | **Session** | **Speaker** | **Room** |
| 3:15-4:30pm (includes 15 min Q&A) | Planning Simulation for your Office | Jesse Guscott and Paul Cano | Montclair AB |
| 3:15-4:30pm (includes 15 min Q&A) | Enhancing Engagement and Learning with PowerPoint | Rebecca Taylor | Montclair Db |
| 3:15-4:30pm (includes 15 min Q&A) | The Positive Learning Environment: Creating a "Just Culture" | Keyna Bracken, Liz Shaw and Joyce Zazulak | Montclair C |
| 4:30-4:45pm | Break | | Foyer |
| 4:45-6:00pm (includes 15 min Q&A) | Moving your research from idea to action: a hands-on exercise to map out a pilot study | Michelle Howard and Dee Mangin | Montclair C |
| 4:45-6:00pm (includes 15 min Q&A) | Peer Observation of Teaching: Peer Coaching | Jon Miklea | Montclair AB |
| 4:45-6:00pm (includes 15 min Q&A) | Incorporating Allied Health Professionals in your teaching | Lynn Dykeman and Erin Gallagher | Montclair Db |
| 6:30-7:00pm | Cocktails | | Foyer |
| 7:00-8:30pm | Dinner | | Montclair AB |
| 8:30pm | Social Networking | | |

McMaster University | Family Medicine

Michael G. DeGroote SCHOOL OF MEDICINE

# Department of Family Medicine Annual Faculty Development Spring Retreat

Please join us on April 26th and 27th, 2019 at Hockley Valley Resort, Orangeville for our annual faculty development retreat. This year's program will include a keynote speaker as well as workshops along specific learning tracks in the areas of education, research and scholarship, leadership, and wellness and resilience.

Keynote Speaker

## Dr. Allyn Walsh

MD CCFP FCFP
Professor Emeritus, Department of Family Medicine
McMaster University

Keynote Address

## You, Me, and Them: Our Work as Teachers

Our understanding of medical education has advanced by leaps and bounds over the last decade or two, informed by research into both how we learn, and what elements are effective in preparing both teachers and medical learners for their roles.

Amidst all of this information, what is actually new and surprising? What confirms our longstanding views? And, most importantly, what actually makes a difference to learners?

This talk will focus on the practical aspects of teaching, including a personal perspective of what we should keep doing; what we should start or do more of; and what we should do less of or stop; Concluding with some things to consider.

**Registration opens January 2019**

**2020 Faculty Development Spring Retreat**
**April 3-4, 2020**
**Hockley Valley Resort**

Family Medicine | McMaster University

**Day 2: Saturday April 4, 2020**

| | | | |
|---|---|---|---|
| 7:00-8:00am | Yoga<br>Mindful Walk | | Aida II/III |
| 9:00-10:00am<br>(includes 15 min Q&A) | Keynote Address: Educating for generalist practice in a world of increasing specialization | Nancy Fowler | Montclair AB |
| 10:00-10:20am | Break | | Foyer |
| 10:20am-11:30am<br>(includes 15 min Q&A) | You have a Learner in Difficulty...Now what! | Danielle O'Toole | Montclair C |
| 10:20am-11:30am<br>(includes 15 min Q&A) | Collecting Wisdom: Tiny take-away techniques to fuel com-passion for we and they | Dale Guenter, Keyna Bracken, Liz Shaw and Joyce Zazulak | Montclair AB |
| 10:20am-11:30am<br>(includes 15 min Q&A) | Field Note Challenge | Nathalie Desbois and Cindy Donaldson | Montclair Db |
| 11:40am-12:50pm<br>(includes 15 min Q&A) | Thematic Analysis Techniques for Qualitative Research | Larkin Lamarche | Montclair Db |
| 11:40am-12:50pm<br>(includes 15 min Q&A) | Train-the-trainer: supporting family medicine faculty in their supervision of residents caring for patients with substance use disorders | Robin Lennox, Gabrielle Inglis, Justin Weresch and Elizabeth Shaw | Montclair C |
| 11:40am-12:50pm<br>(includes 15 min Q&A) | Cultivating an Interpersonal Green Thumb | Cathy Risdon | Montclair AB |
| 12:50-1:10pm | Wrap Up/Evaluations | | Montclair AB |
| 1:15pm | Lunch | | Restaurant 85 |

## 2019 Faculty Development Spring Retreat

Family Medicine

McMaster University

**April 26 to 27, 2019**
**Hockley Valley Resort**

### Day 1: Friday April 26, 2019

| | | | | |
|---|---|---|---|---|
| 2:15-3:00 | Nutrition Break—Coffee/Tea/Cold Drinks/ Snacks | | | Foyer |
| 3:00-3:15 | Welcome | | | Montclair AB |
| **Time** | **Learning Track** | **Session** | **Speaker** | **Room** |
| 3:15-4:30pm (includes 15 minute Q&A) | Role as Educator | IQ Part 1: Launching New In-Quiry Curriculum for Scholar-ship for 2019 | Dale Guenter and Michael Lee-Poy | Montclair AB |
| 3:15-4:30pm (includes 15 minute Q&A) | Research and Schol-arship | Medical Education in the Context of Family Medicine | Lawrence Grierson, Alison Baker, and Catherine Tong | Montclair C |
| 3:15-4:30pm (includes 15 minute Q&A) | Leadership | When you Care Enough to Speak Up | Cathy Risdon | Montclair DB |
| 3:15-4:30pm (includes 15 minute Q&A) | Resilience and Well-ness | Is Medical Education Synony-mous with Burnout? Is Com-passion Fatigue the New Nor-mal? | Keyna Bracken | Montclair DA |
| **3:15-6:00pm (includes Q&A)** | **3 Hour Workshop** | The Psychology of Focused Attention | Joe Kim | Don Carlos Room |
| 4:30-4:45pm | Break | | | Foyer |
| 4:45-6:00pm (includes 15 mi-nute Q&A) | Role as Educator | IQ Part 2: There's a Crack in Everything, That's How the Light Gets In | Dale Guenter and Michael Lee-Poy | Montclair AB |
| 4:45-6:00pm (includes 15 mi-nute Q&A) | Research and Schol-arship | Qualitative Research Meth-ods & Literature Searching | Meredith Vanstone and Jennifer Lawson | Montclair C |
| 4:45-6:00pm (includes 15 mi-nute Q&A) | Leadership | Peer Mentorship: Increasing our Capacity to Mentor Each Other and Nurture Resilience. | Liz Shaw and Joyce Zazulak | Montclair DB |
| 4:45-6:00pm (includes 15 mi-nute Q&A) | Resilience and Well-ness | The Parallel Chart: Promote Wellness in our Learner | Cindy Donaldson | Montclair DA |

## Appendix C: Primary Care Research Strategic Plan

# Research Enterprise Strategic Plan

**Department of Family Medicine, McMaster University**

**2017-2020**

## Context

The Department of Family Medicine, Research Enterprise (DFM RE) has been experiencing change over the past two-three years.

In early 2017, the Research Enterprise (RE) had just emerged from a structural budget deficit and significant staff losses, including project funding related losses due to lack of bridging ability; Research lost 12 staff at this time. Staff concerns raised in 2015 and a survey in early 2016 indicated poor morale, poor communication, a sense of fear and patterns of discourteous behaviour.

There have been staffing changes, a change in leadership and a change in infrastructural support. Beyond the specific changes in primary care research at McMaster, there have been and continue to be a significant number of retirements of primary care senior researchers across the country. These shifts coupled with the positive policy signals around primary care development place the DFM RE in a strong position to make a meaningful contribution to primary care research in Canada and internationally.

The morale, communication, and patterns of behaviour within the DFM RE have shifted in a positive direction, enabling staff, management and faculty the opportunity to develop a strong culture of team that draws on and maximizes the knowledge, skills, expertise and spirit of all members. With a relatively young cadre of staff and faculty who find their work meaningful and who are able to contribute to the academic work of the RE, and with a budget that is now balanced, the DFM RE is in a healthy position to consolidate its ‘brand’, reputation and skills while actively expanding to take advantage of the current opportunity provided by both gaps in primary care research and workforce changes across Canada.

## Governance of the DFM RE

DFM RE is led by an Associate Chair, Research and a Managing Director, Research Enterprise. They are advised by a research council consisting of full time faculty, DFM RE and the Chair of the Department. The full time faculty members include representations of both full time research staff, and clinical research staff from both clinics at DFM as well as education researchers. The governance group meet monthly and provide the chair, associate chair and managing director with advice on strategic direction as well as fiscal, operational and productivity issues.

## Guiding Principles of DFM RE

- To be collaborative, engage in, and strengthen partnerships with those individuals and organisations who share a common vision

- To attract and retain high quality family medicine researchers and staff, aligned with our research mission and themes, providing a broad base of methodological and disciplinary expertise
- To actively support advancement of the discipline of family medicine
- To maintain a sustainable funding model, seeking funding from traditional and nontraditional sources.

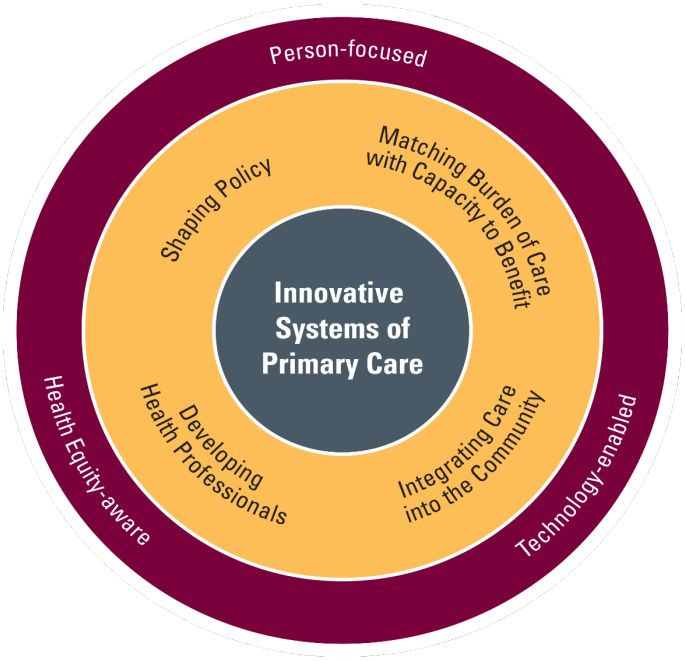
## DFM RE vision, mission and framework

Following small group discussions with faculty and staff from research and across the wider department, a framework that captures the current work and future direction for research at DFM evolved. A vision and mission statement were also created.

**Vision:** is to inform and support a system of primary care that best supports individuals' health so they may engage in a life worth living on their terms.

**Mission:** to provide research on Innovative Systems of Primary Care that support this vision for research and the Department.

**DFM Research Enterprise Framework**




***The centre of the RE Framework:***

As articulated above in the vision and mission statements, the DFM RE's ultimate commitment is to contribute to and lead research that informs innovative systems of primary care. As such, "Innovative systems of primary care" is situated at the centre of the DFM RE framework.

***Research clusters within the RE framework:***

There are four research clusters within the framework that together reflect the focus of the primary care research currently being conducted by the DFM RE but also reflect the vision for the future.

*1. Integrating Care into the Community across the Lifespan*

We have a focus on delivering care to patients where they need it most which is often in the community. This might mean meeting patients where they are, whether this is elderly people at home, low income populations in subsidized housing, or incarcerated populations. It also means considering how the needs of individuals shift and change as they age: we consider the range of needs that matches or reflects the range of our primary care population, from the very young to the very old.

*2. Matching Burden of Care with Capacity to Benefit*

Often times, established health system practices may not demonstrate optimal use of resources for patients or for the system. Many of our researchers are considering particular scenarios that see a potentially high burden of care for a relatively low treatment benefit. This may include scenarios involving over diagnosis, multimorbidity/polypharmacy etc., or focused on particular populations (long term care, older adults, vulnerable groups).

*3. Policy*

How can our research shape policy? Where are policies, explicitly considered in our research work? This may include David Price's work with provincial, national, international policy-makers. It also includes work that focuses on health human resource concerns. Clinical and organizational policies affect care delivery, e.g. in palliative care. Education policy, such as the Triple C curriculum is considered in terms of optimal implementation but also for the "side effects" or impacts.

*4. Health Professional Development*

Education and the development of health trainees is an important part of DFM work and several faculty are involved in researching how to do this better, or more effectively. Research also considers the development of the practicing health care professional, for instance through mindfulness and narrative based projects.

**Cross-Cutting Values within the RE Wheel**

Reaching for and achieving the mission and vision articulated in this strategic plan is guided by three cross-cutting values placed at the outer rim of the DFM RE framework. The location of these values i.e., surrounding the framework's four clusters and centre, reflects DFM RE's commitment that primary care research done by DFM RE will be informed by three value statements.

1. *Person-focused "What matters to you?"*

   Patient, family, and health care provider are the 'person' at the centre of the work we do with particular attunement to patient priorities and preferences in clinical domains of work.

2. *Technology-enabled*

   Technology both supports and catalyzes our research. Whether it's the personal health record, electronic medical record, or the technologies we use to conduct and communicate our research, IT is essential to our work. We value IT where form follows function rather than driving it.

3. *Health Equity-aware Attentive to needs of vulnerable populations*

   a. Our researchers work to understand and alleviate health inequities across many different types of groups who are sensitive to vulnerability. (Examples include but are not limited to, children, those at the end of life, those in supportive housing, International Medical Graduates, prison populations.)

   b. Just as we are attentive to different needs across the lifespan, we also consider unique vulnerabilities that may emerge at these different stages in life, from early childhood to older age.

## Current Issues/challenges for consideration moving forward

In preparing the 2017-2021 strategic plan, we realized there were gaps and/or challenges that needed to be named and that plans needed to be put in place to mitigate each challenge and/or gap.

1. There are major gaps in senior research staff with two full time senior researchers moving to the University of Toronto. This presents a major challenge for research

productivity, grant fund generation and publications. There is an ongoing search to fill the gap in senior research staff; the RE is increasing GFT awareness of the resources available to support grant writing and in addition to these resources, the RE is helping to build writing capacity by hosting writing workshop and facilitating writing groups.

2. The connection between the Research Enterprise and other domains across the department such as education and Health Services is not as strong as it could be. The linkages are strengthening but more work needs to done. In the past 100% of all GFTs were engaged in research; however, for some time there has been a low level of engagement of “clinical” GFTs in research and the research activity by clinical GFTs mirrors the current Department structure (for example, among clinical GFTs there are approximately 30 education leadership positions, 1 research and 1 within education that supports research within residency.
3. Historically research staff provided valuable, high-quality mentoring and support to clinical faculty interested in moving scholarly work forward. In more recent years there have been reports of clinicians not getting the help they needed from Research when they asked for help or support to develop scholarly work e.g., negotiate grant proposals, prepare ethics applications, etc. This is unfortunate given there was unspent funding for this type of support in the research budget. However, there was also an unfortunate mismatch between clinician/departmental expectations regarding the amount of support the clinicians could get and the actual resources available. When combined, these two issues resulted in disengagement and disinterest of the clinical GFT population in research. In order address this issue and re-engage clinicians, a tangible investment on the part of Research through staffing and the department through funding will be required. Encouraging and mentoring / supporting clinical faculty in scholarly work will be an important part in increasing productivity and critical mass in research.
4. There is a need for a sustainable committed core funding stream to research from the Department. This had just reached a minimally sustainable level when fiscal restraints had to be imposed. A budget based upon this stream has been agreed to in financial reporting, which assists in understanding efficiencies gained.
5. The Department’s difficulty in recruiting GFT academic staff means that three appointments vacated by staff retiring or moving have been filled by three ‘Junior GFTs’ who are skilled individuals but are very early career, internal candidates from within the McMaster residency training system who have had no research training or exposure. Most of what they have seen modelled as the GFT scholarly role is centred on education not research. The goal is to engage these knew faculty in scholarly work.

6. There is not a clear structure for career progression for junior or mid-level researchers.

## Goals and aims of the DFM RE plan

Goal 1:

To be a highly productive, effective primary care research unit, that is known as a leading Family Medicine Research Unit in Canada and internationally.

Aims

- To optimise the capacity for, engagement in and leadership of primary care research in GFTs, staff and the wider DFM McMaster network.
- To ensure effective knowledge translation and dissemination of research to inform clinical practice, education and policy.
- To increase the visibility of DFM research and the research enterprise nationally and internationally

Goal 2:

To nurture and support a working climate that is a source of pride and reputation: collaborative, creative, inclusive, collegial, and an integrated part of all aspects of the Department.

Aims

- To continue to improve the climate within the DFM RE
- To improve the visibility and integration of research across the Department
- To attract local, national and international visitors who will enrich the experience in the department

Goal 3:

To work towards a McMaster Primary Care Research Centre infrastructure to enhance research productivity and funding success within DFM. It is envisaged this will house and attract researchers from a variety of disciplines in a collaborative environment, and increase visibility and reach of DFM.

Aims

- To draft a plan for a McMaster Primary Care Research Centre
- To seek funding for a McMaster Primary Care Research Centre
- To develop expertise and training for primary care researchers from across Canada and internationally in innovative models of primary care, and in research in primary care.

**Financial Model**

The Department currently funds the DFM RE by allocating funds from the AFP and CoP funding envelopes. Ideally going forward, the DFM RE will have a base budget drawing on funds from the AFP and CoP funds. To add to the base, the DFM RE will be seeking additional funds to support the indirect costs associated with running the enterprise in proportion to the research grant load. A committed funding stream from the department is essential for sustainability (see challenges) and as an enabler of reaching the departments potential in primary care research.

In addition, the DFM RE will actively extend income through traditional and non-traditional sources by seeking contract research, donor funding, and external strategic research partnerships consistent with the mission of DFM RE and the Department. These approaches will be evaluated to determine cost/benefit. Opportunities for commercialization and subsequent revenue generation will also be explored.

Current close budgetary review processes will continue with finance committee.

**Staffing**

The RE core staff include a Managing Director, Research, a Research Operations

Coordinator, a part time Knowledge Translation expert who also provides services to the wider department, a part time Business Analyst and administrative support. Infrastructural support includes DFM IT and the McMaster University Sentinel and Information Collaboration (MUSIC) which currently houses and cleans a dataset of participating clinicians (currently only those using OSCAR) and forms the basis of a practice based research network for a range of activities.

**Conflict of Interest Statement**

We welcome collaborative research projects that will have direct benefit for our patients, community and primary care. We are committed to research that will provide sound evidence for rational medical and public health practice. We believe it is important that such research should be, and be seen to be, impartial. Our research is free of any funding which may prejudice these goals. We accept no funding for research from pharmaceutical companies or other for-profit organisations either directly or indirectly (eg 'unrestricted educational grants'/fellowships) that may create a conflict of interest in our work.

We show respect for confidentiality and intellectual property of ideas and research shared among and with the group, consistent with McMaster University’s and other relevant organisations’ policies on intellectual property and copyright.

## Appendix D: Publications 2015 to 2020

### 2015/2016

*Journal articles*

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# Appendix E: Current research projects

## Current Research Projects

## Cardiovascular Health Awareness Program (CHAP)

Hypertension now affects more than six million Canadians and is one of the most significant risk factors driving death and disability. High blood pressure is estimated to account for over 10% of total Canadian healthcare spending, with an anticipated cost of $20.5 billion by 2020. The treatment and control of high blood pressure (hypertension) has significantly improved in Canada. However, Canada has not been as successful in preventing or delaying the onset of high blood pressure.

The Cardiovascular Health Awareness Program (CHAP) is a low cost, patient-centred, community-led cardiovascular disease prevention and management program for adults. CHAP addresses common risk factors, including high blood pressure, tobacco use, physical activity, and dietary habits. The program is currently running in the following Ontario communities: Paris, Oxford County, Huron Perth and Napanee.

In CHAP, free risk assessment and information-providing sessions are held in places where people work, live and gather. These may include pharmacies, community health centers, primary care practices, places of worship, shopping centers, workplaces, community events, service group facilities, or other easily accessible locations.

At these sessions, trained volunteer health educators assist with blood pressure measurement, using automated devices recommended by Hypertension Canada. They can link participants to health promotion programs and resources in the community, based on established health risk profiles. Where applicable, they also provide participants with education materials.

CHAP is interdisciplinary. It partners primary care providers, other healthcare professionals, public health agencies, volunteer health educators, and community organizations.

Since 2000, CHAP has evolved and continues to lead research on an international scale. The CHAP Philippines (CHAP-P) Program of Research is a separately funded study looking at the scale up of CHAP in the Philippines and other Low- and Middle-Income Countries (LMICs). CHAP research contributes to the body of evidence on community led health interventions, cardiometabolic diseases, hypertension detection and management and associated risk factors.

### Project Investigators

- Gina Agarwal, McMaster University
- Janusz Kaczorowski, Centre de recherche du CHUM and University of Montreal
- Lisa Dolovich, McMaster University and University of Toronto
- Tamara Daly, York University
- Marie-Thérèse Lussier, Centre intégré de santé et services sociaux de Laval and University of Montreal

## Community Health Assessment Program in the Philippines (CHAP-P)

Diabetes is increasing dramatically in low- to middle-income countries (LMICs), much more than it is in high-income countries. It has reached epic proportions and poses a huge burden on healthcare systems worldwide. Effective interventions need to be developed to address this issue.

The Community Health Assessment Program in the Philippines (CHAP-P) adapted the Cardiovascular Health Awareness Program (CHAP), a Canadian program, to an LMIC setting, with the inclusion of a community diabetes prevention and early detection component. This intervention was trialled in the Philippines through a 5-year study and is currently being scaled up in one large region of the country. The adaptability to similar LMIC settings is also being explored.

The CHAP-P intervention is a drop-in diabetes and cardiovascular risk assessment, health promotion, and disease prevention program. Like the Canadian CHAP, CHAP-P community-based, primary care-centred, volunteer-led, and free of charge for participants. In CHAP-P, lay community health workers assess residents attending the program in community-based locations. The assessment uses a digital questionnaire, validated tools, and an automated blood pressure device. Residents at risk of developing diabetes or with elevated blood pressure are given health education, access to community resources, or referrals to local health offices to help decrease their risk factors and detect the presence of diabetes and hypertension early.

A multi-phased study (2014-2021) to adapt the intervention to the local context and evaluate its effectiveness started with understanding the adaptation to the Philippines setting through a qualitative research approach bringing in varied stakeholders. This work was followed by a series of pilot studies testing individual elements of the intervention and culminated in a 26-community cluster randomized controlled trial testing the effectiveness of the intervention and its cost-effectiveness. Results will be shared soon through publications and presentations.

The current Scale-Up study (2019-2025) aims to spread CHAP-P throughout the entire Zamboanga Peninsula, Philippines (with a population of 3.6 million), with the intervention aimed at early detection and risk management of diabetes and hypertension for adults aged 40+. We will evaluate scale-up outcomes using an implementation approach, and also include a nested trial of selected communities to see whether CHAP-P is still effective as it scales up.

CHAP-P is based on a formal partnership between the McMaster University Department of Family Medicine and the Ateneo de Zamboanga University School of Medicine (Philippines), with guidance from a Project Advisory Group of international collaborators and researchers.

### Nominated Principal Investigators

- Gina Agarwal, McMaster University
- Fortunato Cristobal, Ateneo de Zamboanga University, Philippines

### Principal Investigators

- Ricardo Angeles, McMaster University
- Lisa Dolovich, McMaster University

- Janusz Kaczorowski, University of Montreal

Co-Investigators

- Rosemarie Arciaga, Zamboanga Medical Research Foundation
- Jerome Barrera, Ateneo de Zamboanga University
- Elgie Gregorio, Ateneo de Zamboanga University
- Dale Guenter, McMaster University
- Servando Halili Jr., Ateneo de Zamboanga University
- Norvie Jalani, Department of Health, Zamboanga Peninsula
- Hilton Lam, University of the Philippines Manila
- Daria O'Reilly (Health Economics), McMaster University
- Karl Stobbe, McMaster University
- Lehana Thabane (Statistics), McMaster University

Project Advisory Group

- Ichsan, Syiah Kuala University, Banda Aceh, Indonesia
- Faiçal Jarraya, Faculté de Médecine de Sfax, Sfax, Tunisia
- Nusaraporn Kessomboon, Khon Kaen University, Thailand
- Pattapong Kessomboon, Khon Kaen University, Thailand
- Germán Málaga, Universidad Peruana Cayetano Heredia, Lima, Perú
- Lynda Redwood-Campbell, McMaster University

Partner Organizations

- Ateneo de Zamboanga University – School of Medicine; Graduate School
- Global Alliance for Chronic Disease
- Khon Kaen University
- McMaster University – Department of Family Medicine; Department of Health Research Methods, Evidence, and Impact
- Republic of the Philippines Department of Health
- Zamboanga City Health Office
- Zamboanga Medical Research Foundation

## Community Paramedicine at Clinic (CP@clinic)

Older adults are more at risk of developing cardiovascular disease, diabetes and experiencing falls which can lead to 911 emergency calls resulting in expensive emergency room visits. Community-based health screening programs that link with a person's primary care team and promote the health of older adults may reduce the need for 911 calls.

In the Community Paramedicine at Clinic (CP@clinic) research program, paramedics hold drop-in sessions at subsidized housing buildings. At these sessions, they conduct evidence-based health risk assessments using validated tools to assess building residents' health risks. Decision-based algorithms guide paramedics in providing participants with tailored health education and referrals to primary care and community resources. Dr Gina Agarwal and the McMaster Community Paramedicine Research Team are actively researching its adaptations: contexts, population, and delivery systems.

**Development of the Evidence Based CP@clinic Program:**

In 2010, a team of highly experienced clinicians and researchers at McMaster University Department of Family Medicine, began to recognize the surge of 911 calls from subsidized housing buildings in Hamilton, Ontario. These escalated call volumes were confirmed by our partners - Paramedic Services, Public Health and City Housing.

CP@clinic began as a pilot study in the City of Hamilton with the McMaster University Department of Family Medicine, Hamilton Paramedic Services and City Housing Hamilton. From there it expanded to a randomized control trial (RCT) in Hamilton, Guelph-Wellington County, York Region, Greater Sudbury and County of Simcoe. Other CP@Clinic research expansion sites are listed below

**Current Status:**

In April 2019, Dr. Gina Agarwal was awarded Health Care Policy Contribution Program (HCPCP) funding by Health Canada to expand the innovative CP@clinic program with paramedic services across Canada. CP@clinic expansion is being guided by collaborating paramedic representatives on the CP@clinic Executive and Advisory Committees. These committees will assist with the scientific development and operational implementation of CP@clinic, including program materials, website, paramedic training and CP@clinic toolkit.

Visit the CP@clinic website for more details.

### Investigators

#### Principal Investigator

- Gina Agarwal

#### Co-Investigators

- Ricardo Angeles
- Brent McLeod
- Lehana Thabane

## Partner Organizations

- Paramedic Partners
- Brant Brantford County
- Chatham-Kent EMS
- Cochrane District EMS
- Essex-Windsor EMS
- Guelph-Wellington Paramedic Services
- Frontenac Paramedic Services
- Grey County Paramedic Services
- Halton Region Paramedic Services
- Hamilton Paramedic Services
- Hastings-Quinte Paramedic Services
- Norfolk County EMS
- Oxford County Paramedic Services
- Peel Regional Paramedic Services
- United Counties of Prescott and Russell Paramedic Services
- Simcoe Paramedic Services
- Greater Sudbury Paramedic Services
- Weeneebayko Area Health Authority Paramedic Service
- York Region Paramedic Services

## Housing Partners:

- Kingston & Frontenac Housing Corporation
- City Housing Hamilton
- Social Housing Haldimand & Norfolk
- Greater Sudbury Housing Corporation
- Cochrane District Social Services Administration Board
- Grey County
- The Corporation of the County of Wellington
- Region of Peel
- County of Simcoe
- Housing York Inc.

## National Organizations:

- Ontario Association of Paramedic Chiefs
- Paramedic Chiefs of Canada

## Technology Partners:

- Interdev Technologies
- PreHos Inc.

## Coordination and Activity Tracking in Children (CATCH)

The Coordination and Activity Tracking in Children (CATCH) Study is looking at the motor coordination and physical fitness abilities of children from early to mid-childhood.

Motor coordination is an important component of a child's development. Children with low motor coordination are more likely to be overweight and unfit by the time they are teenagers, which can lead to further health problems in adulthood. To help understand how to help these children, we are following a group of children and looking at how their motor coordination, physical activity, and fitness relate to each other and how these factors change over time.

Families participating in the CATCH study take part in a two-hour appointment held at our study offices. In these sessions, children are guided through a series of activities that look at motor skill coordination and their level of physical fitness. While the children complete these activities, their parents are interviewed and asked to complete surveys. Children are then sent home with an activity monitor to wear for one week. Families are asked to come once a year for four years.

### Investigators

### Principal Investigators

- John Cairney
- Cheryl Missiuna
- Brian Timmons

### Co-investigators

- Michelle Howard
- Matthew Kwan
- David Price
- Lisa Rivard
- Scott Veldhuizen
- Terrance Wade
- Gita Wahi

### Partner Organization

- CanChild Centre for Childhood Disability Research

## Health TAPESTRY (Health Teams Advancing Patient Experience: Strengthening Quality)

Health TAPESTRY is a community-based program, led by primary care teams, that connects trained health care volunteers, interprofessional health care teams, technology, and community engagement through improved system navigation. Based on the needs and goals of individual clients, the program works to enhance the timeliness and quality of care people receive — to help them stay healthier for longer in the places where they live. Right now, the Health TAPESTRY team is working with partners across Canada to bring this approach to more communities and evaluate the effectiveness of the programs in different environments.

Health TAPESTRY brings together people, communities and health care teams.

In our program, trained volunteers visit people where they live. During these visits, volunteers learn about what matters most to that person and about their health and life goals. This information is passed on from clients to volunteers and then sent to the client's primary health care team using special technology. This helps the team learn more about how they can help that person stay healthy longer. The health care team also connects with community organizations to help the person access activities and resources in their community.

A person's health care team can include members from primary, community, specialist or hospital care. It can also include the trained Health TAPESTRY volunteers and anyone else who helps a person stay healthy.

### Principal Investigator

- Dee Mangin (Evaluation Lead)

### Co-Investigators

- David Price (Executive Academic Lead)
- Doug Oliver (Practice Model Lead)
- Larkin Lamarche
- Cathy Risdon
- Ruta Valaitis

### Additional Governance Committee members

- Tracey Carr
- Lisa Dolovich
- Pam Forsyth
- Samina Talat
- Julie Datta

### Partner Organizations

- McMaster Family Health Team
- Stonechurch Family Health Centre,
- McMaster Family Practice
- McMaster University
- Canadian Red Cross
- Dufferin Area Family Health Team
- Harrow Health Centre
- Niagara North Family Health Team
- Superior Family Health Team
- Windsor-Essex Compassion Care Community
- Windsor Family Health Team

## iCAN-ACP

Many older patients with serious illness want to maintain quality of life rather than prolong it. However, wishes about medical treatment preferences are often unknown or unheeded resulting in unwanted or non-beneficial invasive treatments during the last days of life.

The iCAN-ACP study, funded by the Canadian Frailty Network, is a 3-year national study that aims to improve this situation by introducing and evaluating advance care planning tools that we hope will result in more, earlier and better conversations between older adults, families and the health care team. Advance care planning involves thinking about and communicating your preferences for care in a way that expresses your values. It also includes choosing someone to be your Substitute Decision Maker, someone who could speak for you and honour your wishes if you can't speak for yourself.

The iCAN-ACP study is being conducted in family doctor's offices in Alberta, British Columbia and Ontario. Building on the longstanding relationships between patients and their family physician, which can facilitate advance care planning (ACP) discussions, the primary care working group is examining a pathway supported by the Serious Illness Conversation Guide (SICG) www.ariadnelabs.org, patient-facing ACP tools and participation of allied health professionals, to improve ACP conversations in family medicine.

In this study, patients over age 60 with serious health conditions and their substitute decision-maker are invited to two ACP appointments. The first is with a nurse or social worker for ACP orientation and to begin the serious illness conversation, complete a values clarification tool, and share the information with the physician. The second visit is with the physician, using the SICG to discuss the patient's specific health issues and illness trajectory, followed by completion of appropriate provincial documents.

We are evaluating patients' ACP engagement using a validated survey before and after the process. Outcome measures include changes in confidence and readiness to undertake specific ACP behaviours. We are also evaluating the patients' experience with the conversations in family practice (e.g. changes in illness understanding, feeling of control over medical decisions, sense of peacefulness).

We expect that a stepwise pathway incorporating the SICG and a values clarification tool, and supported by allied health professionals will increase patients' engagement in ACP in family medicine practices, improving the quality their experiences and outcomes.

### Principal Investigators:

- John You, McMaster University (Project Leader)
- Michelle Howard, McMaster University (Deputy Project Leader)
- Doris Barwich, University of British Columbia
- Gloria Gutman, Simon Fraser University
- Dev Jayarama, McGill University
- Sharon Kaasalainen, McMaster University
- Daniel Kobewka, University of Ottawa
- Jessica Simon, University of Calgary
- Amy Tan, University of Calgary
- Tamara Sussman, McGill University

- Robin Urquhart, Dalhousie University

## Partner Organizations:

- Dundas Family Medical Group (ON)
- Queen Square Family Health Team (ON)
- New Westminster Family Practice (BC)
- Sunridge Family Medicine Teaching Centre (AB)
- B.C. Centre for Palliative Care (BC)

## Improving Advance Care Planning in General Practice (i-GAP)

If a person has communicated their end-of-life wishes with their health care providers and family members they are more likely to receive medical care that reflects their values and to be satisfied with the care they receive at that time. Thinking and talking about your values and wishes for what will happen if you are unable to make health care decisions for yourself is called Advance Care Planning (ACP).

A team of researchers in the Department of Family Medicine at McMaster University is trying to get more Canadians talking about ACP, especially with their family doctor. A survey taking place in family doctor offices across Alberta, British Columbia and Ontario found that 53 percent of Canadians had discussed ACP with someone, but only 18 percent had discussed it with their family doctor. When asked what makes it difficult to talk to their family doctor about ACP, patients responded that it is their doctor's responsibility but acknowledge insufficient time, as well as concerns about having difficult conversations with their doctor as barriers. Doctors also report insufficient time to talk with patients about ACP, skepticism about transportability of ACP documentation, and insufficient tools and resources needed as barriers to ACP discussions with patients.

i-GAP tested the efficacy of seven online or paper Advance Care Planning tools as a way to help people, families and health care professionals have these important discussions. Findings show that ACP tools increase ACP engagement by 18%, particularly in knowledge and contemplation. Most tools also show modest improvements in patient's readiness to do ACP. More recently, i-GAP tested a novel web site tool called the Plan Well Guide™, which is intended to help patients and their substitute decision maker (SDMs) prepare for in the moment decision making during a medical emergency. The primary outcome is ACP Engagement among SDMs. Findings will be available soon.

### Investigators

#### Principal Investigators

- Michelle Howard, McMaster University
- Daren Heyland, Queen's University

#### Co-Investigators

- Carrie Bernard, Queen Square Family Health Team
- Marissa Slaven, Juravinski Cancer Centre
- John You, Hamilton Health Sciences
- Doug Klein, University of Alberta
- Amy Tan, University of Calgary
- Jessica Simon, Alberta Health Services
- Doris Barwich, British Columbia Centre for Palliative Care
- Rebecca Sudore, University of California at San Francisco

#### Project Partners

- Canadian Hospice Palliative Care Association (CHPCA)
- Louise Hanvey, National Manager, Advance Care Planning
- Nanci Corrigan, Communications
- Sharon Baxter, Executive Director

## Longitudinal appraisal of medical educational metrics: Developing big education data platforms

Before becoming a physician, a person will have prepared applications, completed numerous assessments in medical training programs, and written accreditation exams. This generates a large amount of data that can be used to assess the factors that influence physician success with regards to both admissions to medical school and in-program training of medical students.

DFM Faculty member, Lawrence Grierson, is working to connect these data points together across training institutions and certification, credentialing, and regulatory bodies. This allows for statistical modelling of a learner's progress from entrance to medical school through to professional practice.

This research is being done in collaboration with the Undergraduate Medical Education Program at McMaster University. The first part of the study will assess the influence of factors related to medical student success within McMaster's medical program. The second part of the study is being done in collaboration with five other medical schools in Ontario and the Medical Council of Canada. This will allow us to better understand how admissions and in-program training factors influence physician success in a province-wide manner.

### Investigators

- Lawrence Grierson
- Meredith Vanstone
- Margo Mountjoy

### Project Partners

- The University of Toronto Medical School
- Queen's University Medical School
- The University of Ottawa Medical School
- Western University Medical School
- Northern Ontario School of Medicine (NOSM)
- The Medical Council of Canada (MCC)
- The Ontario Physician Human Resource Data Centre (OPHRDC)

## MUSIC Primary Care Research Network (McMaster University Sentinel and Information Collaboration)

Primary care is an under-studied area of health and medicine, yet has the strongest evidence for links with improved population health outcomes. Clinician-led research that takes advantage of routinely collected patient data has the potential to rapidly and efficiently provide important insights into best delivery of healthcare. The McMaster University Sentinel and Information Collaboration (MUSIC) is a practice-based research network composed of clinicians from Hamilton and surrounding areas and is supported with staff from the Department of Family Medicine

MUSIC facilitates high quality research on topics that are important to primary care and the patients it serves. MUSIC regularly extracts de-identified data from electronic medical records to create a research-ready data repository for observational research. The MUSIC network also supports studies and interventions that require new data collection.

We are committed to scientifically sound and impartial projects. For more information, please refer to the MUSIC Conflict of Interest Statement. To engage with MUSIC, please refer to the Request to MUSIC for Research Support, Participation or Data Form or contact MUSIC@FamMedMcMaster.ca for more information.

To learn about the MUSIC's oversight, please see details related to the MUSIC Governance Committee.

### Investigator

- Dee Mangin

### Project Partners

- MUSIC is a member of the national collective called the Canadian Primary Care Sentinel Surveillance Network (CPCSSN).

## Prison Health Research

Our Department has a program of research on the health of people who experience imprisonment in Canada. Our work in this area involves collaboration and consultation with governmental and non-governmental stakeholders, as well as researchers in other disciplines at McMaster and in other institutions.

In this program of research, we focus on the prevention of imprisonment, improving health care in prisons, and supporting continuity of health care on release. In prior research, our group has found that this population in Ontario has high rates of illness and a high risk of death.

Currently, we are using correctional and health administrative data to describe health status and health care utilization for almost 50,000 people released from provincial prison in Ontario in 2010. Specific projects include:

- Describing the use of health care in prison and in the community after release, including use of primary care and participation in primary care models, use of emergency departments, and hospitalization. This project is funded by the Physicians' Services Incorporated Foundation and the College of Family Physicians of Canada.
- Defining the prevalence of developmental disabilities in this population and health care utilization for this population. This project is funded by the Ontario Ministry of Community and Social Services.
- Examining the HIV care cascade for people in provincial prison. This project is funded by the Ontario HIV Treatment Network.
- Defining the prevalence of adverse maternal and infant outcomes. This project is funded by the Regional Medical Associates of Hamilton.

We are also conducting other projects to explore important aspects of health status:

- A qualitative study on barriers to continuity of care at the time of release from prison in Hamilton and opportunities to improve continuity of care, with funding from the Department of Family Medicine.
- A systematic review and meta-analysis of experiences of child abuse in people in prison in Canada.
- A qualitative study on pregnancy and contraception in women who experience imprisonment in Hamilton, with funding from the Regional Medical Associates of Hamilton.

## Program Lead

Fiona Kouyoumdjian

## Team Approach to Polypharmacy Evaluation and Reduction (TAPER)

Primary care is an under-studied area of health and medicine, yet has the strongest evidence for links with improved population health outcomes. When the burden of treatment outweighs a patient's capacity to benefit, the negative effects from taking too many drugs can impact the patient's quality of life and waste healthcare dollars. At the same time, patient preferences and priorities for medications are often not communicated and considered in decisions. Through the Team Approach to Polypharmacy Evaluation and Reduction (TAPER) program, we are assessing a structured and collaborative way to reduce the number of unnecessary medications a patient takes.

The collaborative approach involves the patient, their family doctor, a pharmacist and an online tool (TaperMD), to record information and identify possible inappropriate drugs to "pause and monitor." TaperMD is the electronic clinical pathway for this process – it is used to record patient priorities and other information and automatically screen the medication list to flag potentially problematic medications. It provides guidance on tapering and monitoring during the "pause and monitor" phase to help the pharmacist and family doctor identify possible inappropriate drugs to 'pause and monitor' and records information at each step.

TAPER involves three steps:

1. Gathering information from the patient to identify their preferences, priorities, and goals for treatment and their thoughts and opinion on medications and medical treatments. Outcome measures are also collected on quality of life, physical activity, sleep, pain, treatment burden, cognitive ability.
2. An appointment with a pharmacist to review these, and begin developing a plan to reduce the dose and/or number of medications
3. An appointment with the family doctor to adjust the plan and finalize how the medications will be monitored.

In Canada the impact of TAPER is being assessed by having one group of patients receive the program, and a second group receive usual care – this is decided randomly. A total of 360 people from three Canadian provinces who are 70 years of age or older and on 5 or more long-term medications are involved. Health outcomes such as quality of life, mobility, disease and treatment burden, nutrition, pain and sleep are assessed at the start and 6 months later to determine if (and how) outcomes have changed. We are also tracking the number and dose of medications. Interviews are being used to help us understand what the intervention is like for all participants.

TAPER is also being adapted and tested in long-term care centres, community pharmacies, and hospitals in Canada and Australia.

### Investigators

- Dee Mangin

### Co-Investigators

- Gina Agarwal
- Alan Cassels
- Kiska Colwill
- Lisa Dolovich
- Barb Farrell
- Kristina Frizzle

- Scott Garrison
- James Gillett
- Peter Goetzsche
- Gordon Guyatt
- Lauren Griffith
- Joanne Ho (and Co-PI on GeriMedRick-TaperMD)
- Anne Holbrook
- Jane Jurcic-Vrataric
- James McCormack
- Daria O'Reilly
- Parminder Raina
- Julie Richardson
- Cathy Risdon
- Mat Savelli
- Diana Sherifali
- Henry Siu
- Lehana Thabane
- Johanna Trimble
- Jobin Varughese

### Collaborators

- Larkin Lamarche
- Sayem Borhan
- Steve Dragos
- Kathryn Nicholson
- Alison Ross
- OPEN (the Ontario Pharmacy Network)

### AUSTRALIAN TEAM

### Principal Investigators

- Gillian Caughey
- Rhonda Clifford
- Deidre Criddle
- Christopher Etherton-Beer
- Elizabeth Geelhoed
- Parker Magin
- Dee Mangin
- Vasi Naganathan
- Amy Page
- Lynne Parkinson
- Julie Redfern
- George Somers

Co-investigator

- Andrew McLachlan

## The Art of Seeing

The Art of Seeing™ is a visual literacy program developed through the collaboration between the Department of Family Medicine and the McMaster Museum of Art for our Family Medicine residents. This was developed in response to what we know about the importance of developing reflective healthcare professionals who are able to provide compassionate, caring and empathetic care. There is mounting evidence that these traits can be nurtured and taught in the art gallery. This is of particular interest as recent research has shown that trainee's levels of empathy drop during training and reach their lowest levels during residency. Finding new ways to nourish this domain on professional development is a paramount importance.

- The Art of Seeing™ is an experience that uses visual art to transform individuals through a deeper understanding of themselves and others. The program develops skills to enhance professional growth while also promoting self-care. Through facilitated discussions and evidence-based looking, individuals will interact with each other and selected works of art. Through these interactions, participants will improve their individual and collective abilities to find deeper meaning in their professional and personal journeys.
- The Art of Seeing™ is designed to make us better observers by developing greater skills in non-verbal and visual communication, observation and reflection by developing skills formal analysis and visual literacy training using works of art. The Art of Seeing™ follows McMaster University Faculty of Medicine's model of problem-based experiential learning combined with art object-based learning and applied to learning opportunities outside of medicine.

We are encouraged by the positive impact on empathy on our healthcare professional trainees (see references). Since it's inception on 2010, The Art of Seeing™ has now expanded its reach beyond the residency training. We have now partnered with Centre for Continuing Education at McMaster and are part of the Community Engagement and Strategic Leadership programs.

### Investigators

- Joyce Zazulak
- Nicole Knibb
- Lawrence Grierson

### Project Partners

- McMaster Museum of Art
- Centre for Continuing Education at McMaster

# Appendix F: Recently completed research projects

## Recently Completed Research Projects

## Colic Relief Initiative (CRI) Study: Effect of Human Milk Oligosaccharide on Colic and Crying and Fussing Behaviour in Infants

Colic affects up to 20% of babies in the first 3 months of life, yet the cause of colic isn't known. The Colic Relief Initiative (CRI) Study is testing a new baby formula to see if it will help improve fussing and crying in babies with colic who are already *only* being fed formula).

This study involves feeding babies with colic one of two formulas for 6 weeks to see if it helps improve their crying and fussing. Parents are asked to take part in up to five, 30-minute appointments, which can be done in home or at our study offices. They also fill out a few surveys about their baby's crying, feeding, and stool patterns, and are asked to complete a few brief telephone interviews.

### Principal Investigators

- John Cairney
- Robert Issenman
- John Bienenstock
- David Price

### Project Partners

- Abbott Nutrition

## Drug Safety and Effectiveness Cross-Disciplinary Training (DSECT)

New approaches in molecular pharmacology, nanotechnology, biomarkers, biotherapeutics, pharmacogenetics and other areas are quickly changing the way drugs are discovered and used. At the same time, drugs are becoming more costly and more personalized, and drug decision-makers face new challenges.

The Drug Safety and Effectiveness Cross-Disciplinary Training (DSECT) program trains researchers to understand and address these new issues. These researchers work to guide better drug treatments, practices and policies for post-market drug safety and effectiveness.

Effective solutions to post-market medication issues are more likely to be generated when looking through a broad lens. In DSECT, trainees from different areas of research learn together and from each other. This training program brings together clinical therapeutics, active surveillance, administrative datasets, research methods, health services and policy, pharmaceutical policy, meta-analysis, and knowledge translation to better understand choosing, using, and losing medications within the context of drug safety and effectiveness.

www.safeandeffectiverx.com

*Investigators*

### Nominated Principal Investigator

- Lisa Dolovich

### Co-Principal Investigators

- Sasha Bernatsky
- Joseph Beyene
- Suzanne Cadarette
- Bruce Carleton
- Colin Dormuth
- Richard Kim
- Mitchell Levine
- Lehana Thabane

### Co-Investigators

- Michal Abrahamowicz
- Gina Agarwal
- Wasem Alsabbagh
- Michael Beazely
- Lisa Bjerre
- Eric Brown
- Barbara Farrell
- Marc-André Gagnon
- John-Michael Gamble
- Certina Ho
- Anne Holbrook
- Janusz Kaczorowski
- Kaarina Kowalec
- Dee Mangin
- Mark Oremus
- Alexandra Papaioannou
- Robert Platt
- Parminder Raina
- Michael Rieder
- Ingrid Sketris
- Roderick Slavcev
- Jean-Eric Tarride
- Kednapa Thavorn
- Andrea Tricco

## Early Developmental Surveillance Initiative

Early childhood is an exciting and important time for child development. At this young age, children build skills to move, speak, learn, and manage their feelings. Sometimes, children may have delays in one or more of these areas. Identifying whether there is a delay as soon as possible can give families support and can help address or manage the delay.

To help identify children (age 18 months to six years) who would benefit from developmental support, we have created a short and easy to use tool called the Developmental Temperature Taking tool (or DTT), that can be used to identify any concerns that a parent or educator has about the child's development. Just like taking a child's temperature, the tool provides a signal that something needs attention but does not diagnose.

Right now, we are testing the DTT in the places it will be used to see how accurate it is and how usable it is in those settings. The DTT was created for educators in child-focussed, community-based settings, like Ontario Early Years Centres (OEYCs) or licensed childcare centres. These places work well for testing the tool because educators are trained in child development and they see the child regularly. Staff also have relationships with the parents and can offer support and suggestions in a helpful and respectful way.

We are asking parents and educators to each complete the tool with the child and are looking at their ratings of concern and comparing this to a validated, standardized measure that is used to identify delay. Our goal is to create a useful tool that can help children across Ontario.

### Investigators

#### Principal Investigator

- John Cairney

#### Co-investigator

- J. Clinton
- C. Rodriguez
- S. Veldhuizen
- C. Missiuna
- W. Campbell
- K. Nair
- H. Clark
- Levinson
- D. Streiner

### Partner Organizations

Funded by the Ontario Ministry of Children and Youth Services as part of the Special Needs Strategy.

## The eDosette Study: Optimizing medication use and safety in community dwelling seniors

The eDosette was created to make it easier and safer for seniors to take their medications. The eDosette is an electronically enhanced pill dosette that can be linked to a personal health record (PHR) to monitor medication administration and report drug side effect. The eDosette's software and hardware is designed to take serial pictures of a dosette or blister pack, convert these images into an electronic file, send these files over WiFi internet to a PHR, and then convert this electronic file into an individualized medication administration record (MAR). The MAR will be shared between the patient and their health care providers via the PHR. In each clinic, the clinical pharmacists will work with family doctors and the participants to better tailor medication to their medication taking habits. This study will hopefully show that the eDosette can be used successfully to assist a small group of seniors in taking their medications more appropriately, and therefore reduce medication side effects.

### *Investigators*

#### Principal Investigator

- Henry Siu

#### Co-Investigators

- David Chan
- Dee Mangin
- Michelle Howard
- David Price

#### Collaborator

- Qiyin Fang

## e-Legal Health Check-up Program (e-LHP)

The e-Legal Health Check-up Program (e-LHP), is looking for ways to help people with legal problems that may be harmful to their health. e-LHP is working to help prevent people from moving into or deeper into poverty. It is also looking at decreasing illnesses that are a result of stress or poverty.

In this study, participants complete the e-Legal Health Check-Up questionnaire while in the McMaster Family Practice waiting room. This questionnaire is intended to identify people that may benefit from additional system navigation support or the help of a lawyer. Two lawyers come to the clinic for half day clinics, one from Hamilton Community Legal Clinic and one from Legal Aid Ontario. These clinics can help with employment, housing, workers compensation, human rights, family, refugee, and criminal law as well as providing advice in other areas.

Those people that may benefit from legal help are offered a meeting with a lawyer in the McMaster Family Practice clinic. This consultation is intended to help sort out potential solutions and next steps to the legal issues that person faces. Through these legal screening and legal consult services, e-LHP is working to help patient be able to access better housing, employment and income assistance.

### *Investigators*

- Gina Agarwal (Physican, Principal Investigator)
- Dan Edwards (MFP System Navigator, Co-Investegator)
- Jayne Mallin (Lawyer, Director of legal services at Legal Aid Ontario Rexdale Clinic)
- Hugh Tye (Lawyer, Executive Director: Hamilton Community Legal Clinic)

### *Partner Organizations*

- Hamilton Community Legal Clinic
- Legal Aid Ontario, Hamilton
- Funded by the Local Poverty Reduction Fund

## Family Activity and Determinants Study (FADS)

Young inactive children are at an increased risk of physical, psychological and social health problems. Parental perceptions of their child's ability to move and play can impact how that child moves, plays, and behaves, as does sibling behaviours. The Family Activity and Determinants Study (FADS) will investigate the different factors that support preschool aged children's activity, examining the support and behaviours from parents and siblings within a duel-parent family. The FADS study is a longitudinal cohort study with 22 families.

### *Investigators*

- Matthew Kwan
- Chloe Bedard
- John Cairney

## Health TAPESTRY Health Connectors for Diabetes Management (HC-DM)

Health TAPESTRY with Health Connectors for Diabetes Management (HC-DM) is a project to support people in self-managing chronic disease. The project does this by strengthening connections between clients in their homes and their primary health care team.

In Health TAPESTRY-HC-DM, individuals with diabetes and hypertension complete the online Health TAPESTRY Healthy Lifestyle App on their own or with the help of volunteer Health Connectors. The Healthy Lifestyle App collects information about a person's health and life goals and needs for their interprofessional health care team. The App also provides education in the form of tips and resources for clients, based on their responses.

Health Connectors regularly communicate with clients and provide a motivational role in helping clients with health behaviour change. They also help clients get more connected with community services.With the help of the Health Connectors and the Healthy Lifestyle App, a person's health care team has additional tools to support these clients in self-managing their hypertension and diabetes.

*Health TAPESTRY with Health Connectors for Diabetes Management (HC-DM) is part of the larger Health TAPESTRY approach to primary care. Health TAPESTRY connects primary care teams with people where they live through trained volunteers, interprofessional health care teams, technology and community engagement.*

### *Investigators*

#### Co-leads

- Gina Agarwal, MBBS MRCGP CCFP FCFP PhD
- Lisa Dolovich, PharmD MSc

- Lori Letts, PhD, OT Reg. (Ont.)
- Clare Liddy, MD MSc CCFP FCFP
- Dee Mangin, MBChB DPH FRNZCGP
- Doug Oliver, MSc, MD, CCFP
- Daria O'Reilly MSc, PhD
- Jenny Ploeg, MScN PhD
- Graham Reid, PhD
- Julie Richardson, MA, PhD
- Bridget Ryan, PhD
- Ruta Valaitis, MHSc PhD

### *Partner Organization*

- McMaster Family Health Team (Stonechurch Family Health Centre and McMaster Family Practice)
- McMaster University including the School of Nursing, School of Rehabilitation Sciences, and Department of Clinical Epidemiology & Biostatistics within the Faculty of Health Sciences
- Volunteer Hamilton, Information Hamilton
- University of Western Ontario
- Bruyère Research Institute

## Health TAPESTRY Older Adults (OA)

Age is linked to many chronic conditions and older adults tend to use the health care system more than younger people do. This study brings the Health TAPESTRY approach to a group of older adults living in Hamilton as a way to help provide better health care and reduce health care costs.

In Health TAPESTRY-OA, volunteers visit older adults where they live to collect information about their lives, including information about the client's health risks, and health and life goals. This information is collected by the volunteers using the Health TAPESTRY Application (TAP-App). The information they collect in the home is sent electronically to the client's interprofessional health care team, which then develops a care plan to support the client's goals and address any health risks.

In this year-long randomized control trial, 316 study participants 70 years of age or older either received Health TAPESTRY from the beginning, or starting after six months.

*Health TAPESTRY Older Adults (OA) is part of the larger Health TAPESTRY approach to primary care. Health TAPESTRY connects primary care teams with people where they live through trained volunteers, interprofessional health care teams, technology and community engagement.*

### *Investigators*

### Co-Leads

- Lisa Dolovich
- Doug Oliver
- David Price

- Larkin Lamarche
- Gina Agarwal
- Tracey Carr
- David Chan
- Laura Cleghorn
- Lauren Griffith
- Dena Javadi
- Monika Kastner
- Jennifer Longaphy
- Dee Mangin
-

- Alexandra Papaioannou
- Jenny Ploeg
- Parminder Raina
- Julie Richardson
- Cathy Risdon
- P. Lina Santaguida
- Sharon Straus
- Lehana Thabane
- Ruta Valaitis

### Partner Organizations

- McMaster Family Health Team (McMaster Family Practice, Stonechurch Family Health Centre)
- Shalom Village
- Health Canada
- Government of Ontario, Ministry of Health and Longterm Care
- Labarge Optimal Aging Initiati

## Health TAPESTRY-TRIAGE

Older adults who participated in the Health TAPESTRY OA study were recruited for the TRIAGE initiative. TAPESTRY-TRIAGE targets people over 70-years-old that were considered at-risk for frailty because of their mobility, nutrition, physical activity, or social isolation.

A registered kinesiologist, with the assistance of trained volunteers, offers home-based support, coaching for nutrition, exercise, and community and social engagement and referral to a pharmacist for structured medication review. The researchers believe that by providing early intervention and support, this group of Health TAPESTRY adults will be best supported to maintain independence, improve quality of life and prevent or slow the onset of frailty.

*Health TAPESTRY-TRIAGE is part of the larger Health TAPESTRY approach to primary care. Health TAPESTRY connects primary care teams with people where they live through trained volunteers, interprofessional health care teams, technology and community engagement.*

### *Investigators*

- Alexandra Papaioannou (lead)
- Lisa Dolovich
- Dee Mangin
- Doug Oliver
- Courtney Kennedy
- George Ioannidis
- Larkin Lamarche

### *Partner Organizations*

- McMaster Family Health Team
- GERAS Centre (gerascentre.ca)

## Move 2 Learn

In early childhood, children begin to develop motor skills like kicking and running. At the same time, children are beginning to develop pre-literacy skills, like print awareness. These skills are important because they are the basis of more complex movement and language skills that develop later in life. Building these skills at a young age will help prepare children for school.

The Move 2 Learn program – formerly called Play and pre-Literacy Among Young children (PLAY) – is looking at the effect of an evidence-based motor and pre-literacy program for 3- to 4-year-old children to help them build these skills.

In Move 2 Learn, children work on their movement and early reading skills. The program focuses on parental involvement, giving parents the tools to practice these skills at home with their children. Children benefit from teaching and guidance in developing these skills.

The Move 2 Learn program is currently being used and evaluated at four sites in Middlesex County

### *Investigators*

- John Cairney
- Chloe Bedard
- Emily Bremer
- Wenonah Campbell

## MovingU Study: Understanding Behavioural and Environmental Contexts of Young Adults Transitioning into Young Adulthood

The MovingU study is looking at the changes in sport and physical activity as adolescents graduate from high school. Researchers are working to identify key factors related to behaviour change during this time.

The MovingU study has two phases. The first phase will follow a group of high school students beginning during their final year at high school and one-year following their graduation. Participants will be asked to complete a battery of measures including their confidence and intentions towards physical activity, and to wear an activity monitor, approximately every 24 weeks. The second phase of the study will focus only on the post-transition period (i.e., first-year university students), and will use a new research method called Ecological Momentary Assessment, which participants will complete up to 7 brief questionnaires each day to get real-time information about what, where, and whom they are with, as well as their feeling states and intentions to be active in the coming hours.

By combining information about a person's physical moment from the accelerometer with information about their environment and feelings, MovingU hopes to help create better strategies to address inactivity at a time in many people's lives when they are becoming less active.

### *Investigators*

- Matthew Kwan
- John Cairney

## OPEN: Ontario Pharmacy Evidence Network

OPEN, The Ontario Pharmacy Evidence Network was formed to support pharmacy practice and medication management research in Ontario. Multiple OPEN projects are being run by researchers across the province.

OPEN at McMaster is creating an evaluation framework for the pharmacy services patients receive. These guidelines will help give policy-makers a widely accepted set of measures to base their decisions on. OPEN at McMaster is also working on projects such as systematic reviews of the use of technology to follow up with patients after they have started a new medication, evaluating whether more expanded pharmacist services are provided to people who have undergone blood pressure, diabetes risk or atrial fibrillation assessment in pharmacies and TAPER

To learn more about OPEN and all the projects running to improve the delivery of pharmacy services in Ontario, please see the OPEN website.

### *McMaster Investigators*

- Lisa Dolovich
- Dee Mangin

### *Partner Organizations*

- University of Waterloo
- University of Toronto
- Bruyere Research Institute
- Women’s College Hospital
- Concordia University
- Centre for Addiction and Mental Health

## Predictors of IMG success

To register as a doctor in Canada, a person must first complete medical school, then residency training (also called post-graduate training) and finally pass a set of certification exams. More than ever, people who complete medical school outside of Canada or the US are doing their residency training in Canada. These residents are called International Medical Graduates (IMGs) and they are less likely to pass the certification exams after residency on their first attempt than people that complete medical school in Canada or the US.

The Predictors of Canadian Certification Success among International Medical School Graduates study is looking at the ways Ontario universities can help IMGs be successful on their certification exams. Researchers are doing this by exploring the relationship between information about IMGs that is available at the time of their applications to residency programs and their success on the certification exams.

This is an important topic that will contribute to more efficient medical training and a stronger physician workforce in Ontario.

### *Investigators*

- Lawrence Grierson (PI; McMaster University)
- Mathew Mercuri (McMaster University)
- Inge Schabort (McMaster University)
- Mark Walton (McMaster University)
- Glen Bandiera (University of Toronto)
- Caroline Abrahams (University of Toronto)
- Susan Philips (Queen's University)
- Doug Archibald (University of Ottawa)
- Glenna Stirrett (Northern Ontario School of Medicine)
- Eric Wong (Western University)
- Gary Cole (The Royal College of Physicians and Surgeons of Canada)
- Carlos Brailovsky (The College of Family Physicians Canada)

### *Partner Organizations*

- McMaster University
- University of Toronto
- Queen's University
- Northern Ontario School of Medicine
- University of Ottawa
- Western University
- The College of Family Physicians Canada
- The Royal College of Physicians and Surgeons of Canada
- Ontario Physician Human Resource Data Centre

## Social Connections and Place: Perceptions of Healthy Aging in Niagara-area Residents

The activities that people do, the people they interact with, and the places they go all influence their health. The Social Connections & Place Project is examining how behavioural and environmental factors relate to the way people living in high-priority areas in the Niagara region age.

Most research on healthy aging has focused only on people in retirement homes. However, most older adults in Canada live independently in the community. We are examining the factors, influencers and processes that contribute to healthy aging for older adults living independently by using a multi-method approach.

Healthy aging is modifiable and this study will give us more information about the supports and barriers people face in healthy aging. Knowing more about Niagara residents age 55 and over's thoughts on healthy aging can inform policy makers to help support the ways people can age successfully.

### *Investigators*

- Diane Mack
- Phillip Wilson
- Matthew Kwan

### *Partner Organization*

- Niagara Region Public Health

### Optimal Prescribing to Enhance Mobility Among Seniors: A GeriMedRisk-TaperMD collaboration

Multiple diseases, multiple medications, and age predispose seniors to drug toxicity, which increases the risk of mortality, and impairs mobility and cognition. GeriMedRisk-TaperMD is a comprehensive, multilevel approach to polypharmacy that integrates a geriatric pharmacology consultation service and a clinical pathway for systematic medication reduction. This pathway incorporates teamwork between patients, pharmacists and physicians. It integrates patient priorities, electronic screening for potentially harmful medicines, supporting evidence, tools and a monitoring pathway to support medication reduction. This project will:

- Examine the feasibility of GeriMedRisk-TaperMD in the long-term care setting.
- Assess GeriMedRisk-TaperMD's potential to decrease drug-related hospital visits and falls.
- Assess the potential for reversal of polypharmacy-associated mobility impairment following deprescribing using the TaperMD clinical pathway.

Dee Mangin, Julie Richardson, Joanne Ho and Jobin Varugese are leading the assessment of the detailed effects of the TaperMD-GeriMedRisk clinical pathway on mobility outcomes.

*Investigators*

Co-Principal Investigators:

- Dee Mangin
- Joanne Ho

Co-Investigators:

- Julie Richardson
- Andrew Costa
- Gordon Guyatt
- Anne Holbrook
- Reza Mirza
- Justin Lee
- Lehana Thabane
- Jobin Varughese

*Partner Organizations*

- Data Based Medicine Americas (RxISK.org)

## Understanding the Gender Gap in Physical Literacy

There is a rising public health concern surrounding the health, fitness, and physical activity levels of children and youth. Research has shown that as girls and boys get older and move through adolescence there tends to be a drop in physical activity. As well, when comparing boys to girls in this age range, girls tend to feel less confident about their ability to engage in physical activity. One reason for these findings could relate to physical literacy. Physical literacy involves confidence, competence, knowledge and motivation to take part in physical activity.

In this study, we will engage with after school programs in Ontario to understand physical literacy levels of girls and boys, and also get their impressions of what could be done to support girls to feel more confident in their abilities. Finally, we will make recommendations and test whether these make a difference in physical literacy scores in peri-adolescent children. A summary of these 3 phases of work is noted below:

- Phase 1 –Trained assessors will complete the PLAYFun Tool to assess physical literacy of all children in the after school programs.
- Phase 2 – All children from Phase 1 will be invited to take part in focus groups using a modified persona-scenario method. Groups will start with a description of a child (persona) who is at a similar physical literacy level as the participants in the group. The persona will be used to spark discussion about physical activity engagement of boys and girls as well as suggestions to help improve the confidence of girls. All children will be asked to wear a pedometer, which measures the number of steps they take, for 5 days.
- Phase 3 – A randomized controlled design will be used where 3-5 after school programs will receive recommendations to support girls' participation in physical activity and another 3-5 sites will use their usual programming. PLAYFun assessments will take place at the beginning and end of the study time, and program fidelity checks will also take place over the 12-week duration of the program.

### *Investigators*

#### Principal Investigator

- Dr. John Cairney

#### Co-investigators

- Dr. K. Nair
- Dr. J. Graham
- C. Rodriguez

#### Partner Organizations

- Ministry of Tourism, Culture, and Sport
- Canadian Sport for Life
- Ophea

## Usability and Acceptability of the EU-GENIE Online Tool within Health TAPESTRY and Health Links

In Hamilton, Health TAPESTRY is using a new online tool from the United Kingdom called EU-GENIE. EU-GENIE helps clients connect with community resources.

With this tool, a client creates a profile with their location, interests and needs. Based on this information, EU-GENIE creates a personalized list of community resources that are close to the client and can support them in their life and health goals.

In EU-GENIE, clients can also create a diagram of their social network to get a better idea of the resources (people and groups) in their "personal community."

By showing clients the community resources and social connections around them, EU-GENIE aims to help them better understand the supports for their health that are available in their community. The client can share this information with their health care team through a system such as kindredPHR.

*Usability and Acceptability of the EU-GENIE Online Tool within Health TAPESTRY and Health Links is part of the larger Health TAPESTRY approach to primary care. Health TAPESTRY connects primary care teams with people where they live through trained volunteers, interprofessional health care teams, technology and community engagement.*

### *Investigators*

- Ruta Valaitis (lead)
- Lisa Dolovich
- Doug Oliver
- Jenny Ploeg
- Cathy Risdon
- Gina Agarwal
- Dee Mangin
- Laura Cleghorn
- Jessica Peter
- Fiona Parascandalo
- Nola Fuller

### *Partner Organizations*

- Information Hamilton
- University of Southampton

# Appendix G: Faculty profile videos

## Our Researchers VIDEOS

Researchers at the McMaster University Department of Family Medicine are developing the future of primary care.

Through this link or QR code, you can hear some of our faculty talk about their work.

**bit.ly/DFMresearchers**

**Gina Agarwal**
Professor
Innovative community health programs

**Keyna Bracken**
Associate Professor
Training resilient physicians and addressing burnout

**Lawrence Grierson**
Associate Professor
Preparing learners for uncertainty

**Dale Guenter**
Associate Professor
Not just cures: wellness and quality of life

**Michelle Howard**
Associate Professor
Helping people with serious illnesses get the care they want

**Fiona Kouyoumdjian**
Assistant Professor
Improving the health of people who experience imprisonment

**Matt Kwan**
Assistant Professor
Healthy, active lives for children and youth

**Robin Lennox**
Assistant Professor
Compassionate care in addiction medicine

**Dee Mangin**
Research Chair and Professor
Matching the burden of care and the capacity to benefit

**Doug Oliver**
Associate Professor
Defining health care by how we treat the most vulnerable

**Tejal Patel**
Associate Professor
Care from cradle-to-grave

**David Price**
Chair and Professor
Building stronger, more integrated systems of care

**Cathy Risdon**
Vice-Chair and Professor
Effective communication and relationships in healthcare

**Henry Siu**
Assistant Professor
Bringing clients wishes and values forward in long-term-care

**Meredith Vanstone**
Associate Professor
Addressing the "dark side" of medical education

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