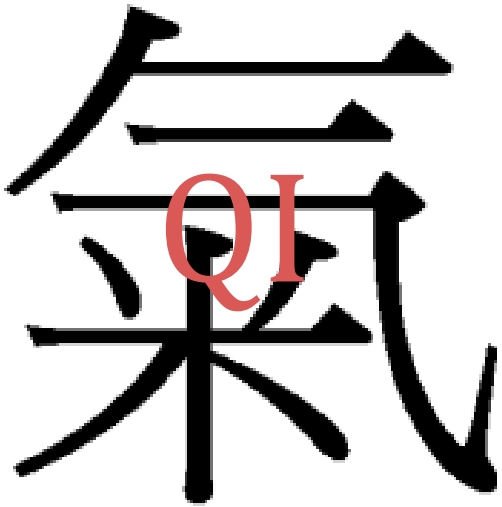
FAMILY MEDICINE
THE NEXT GENERATION



Cover Page

During the course of focus groups and interviews, notes taken were compiled and then coded. One tracking code was "ideas" – opinions expressed that we wanted to capture because of their salience, even though we did not always agree. These "ideas, insights and opinions" generated a large document of key messages about quality improvement in Family Medicine. With slight editing and the use of the internet based tool "Wordle" (www.wordle.net) this word cloud on the cover was created – a pictorial representation of the frequency of words in our ideas document, representing what people talked about most when talking about family medicine and quality improvement.

Behind the QI in the bottom right is the Chinese symbol for "qi" ("chi" pronounced "chee") meaning life force. It is our "play on words" reflecting our message that for a family physician, the essence of our medical life is the quality of care we provide to our population of patients – hence QI figuratively is our "essence of professional life."

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SECTION 1 - Background

The Department of Family and Community Medicine (DFCM) at the University of Toronto is North America's largest department of Family Medicine with over 900 faculty, 265 postgraduate trainees, 228 clinical clerks, 26 funded researchers and a broad array of fellows and elective students. Throughout its history the Department has demonstrated creativity and leadership in many areas - primary care renewal, emergency medicine, inner city medicine, palliative care, women's health, faculty development, knowledge translation and international health. The Department continues to be front and centre of many changes – primary care renewal and transformation to Academic Family Health Teams, growth and expansion across all educational programs, shifts to distributed medical education with new teaching sites, as well as major thrusts in interprofessional care and education.

Strategic Planning

In 2008, the DFCM completed a formal strategic planning process resulting in a Strategic Plan for 2009 to 2013: *Primary Connections: Linking Academic Excellence to High Quality Patient-Centred Care*. As a pillar in its strategic plan, the DFCM adopted the incorporation of quality improvement as a program within its academic mandate to join existing programs in education, research, and professional development. Quality improvement in healthcare is the delivery of optimal patient care and involves a patient focus, strategic leadership, empowered teams, and an emphasis on data to make improvements.

A Faculty Quality Lead was appointed by the Chair to advance this vital strategy: **Develop, disseminate and evaluate innovations and advancements in primary care practice.**

Specific goals of the strategy include:

- Developing and evaluating renewed and innovative models of primary care
- Facilitating the development and evaluation of tools and practice resources; strengthening knowledge transfer to support interprofessional primary care practice
- Fostering quality improvement across the DFCM
- Informing and contributing to primary care policy at regional, provincial, national and global forums
- Expanding global health presence and advancing practice through academic fellowships, faculty development and research collaboration

Quality Task Force

In May 2009, a Quality Task Force was struck to help implement this key strategy. Responsible to the Chair, DFCM and chaired by the DFCM's Faculty Quality Lead, the Task Force has been meeting regularly to oversee the development of a quality agenda for the Department.

Specific responsibilities of the Quality Task Force have included:

- Conducting internal and external environmental scans with respect to primary care and quality initiatives
- Conducting a faculty needs assessment with respect to quality in primary care
- Investigating potential linkages within the University of Toronto Faculty of Medicine, other faculties, and external agencies
- Liaise with the DFCM EMR Working Group to explore IT needs with regard to quality initiatives
- Exploring potential residency learning opportunities with respect to Quality Improvement (QI)
- Making recommendations regarding future faculty development initiatives in the area of QI
- Proposing a structure to support future QI initiatives in DFCM
- Exploring funding opportunities
- Preparing a Task Force report which summarizes recommendations to articulate a quality agenda and propose a quality improvement laboratory for DFCM

For the past several months through literature review, focus groups and expert interviews, the Quality Task Force has been determining the focus and scope of this program, intended to transform how academic clinical practice is delivered. The experts interviewed have welcomed this initiative, believing that family physicians do not have a background knowledge or expertise in the QI skill set or in leading transformative initiatives.

SECTION 2 - Rationale - "Y QI?"

To assess the proposals in this document, it may be worthwhile to briefly re-visit the rationale that led to the adoption of this strategic pillar in advancing quality. Factors that led to this determination included a need for improvement in effectiveness and efficiency in health care, opportunities in education and research in the primary care paradigm, and finally the perception that the time was right for this Quality initiative.

Opportunities in Health Care

Canada enjoys many core strengths in health care. First there is a national culture that identifies health care as a policy priority at both the federal and provincial levels. A national system of health insurance can centrally drive efficiencies and change management. We have a system of primary patient care built around family physicians as specialists in primary care, who are trained by academic programs dedicated to advancing the competencies needed to practice efficiently and effectively. Yet there is evidence that our overall system performance, whether based on an international comparison or through provincial indicators, leaves much to be desired.

Although some believe that the current challenges facing health care in Canada could be met more effectively through new resource investment, greater investment may not lead to improvement. Few countries on a world level dedicate resources to health care to the degree that Canada does.[i] Eastaugh demonstrates in an analysis of 15 western countries that Canada spends more per capita and as a percentage of GDP than all other countries evaluated except Germany and the United States, with the U.S. as a distant and very high outlier in its health spending. How does our system of care compare to others, given this relatively greater investment?

In 2007 the Commonwealth Fund released its survey that has been summarized by MacKinnon and Sanmartin (CFP).[ii] They reflected on the three areas that clearly represented poor performance by Canada in the survey –

1. **Access** and use of the primary care system;
2. Patient **safety**, and
3. The lack of **continuity of care** – while 91% of adults can identify a regular physician or places of care, only 48% report that these physicians or places of care are very or somewhat easy to contact by telephone, know their medical histories, and coordinate their care.

Schoen[iii] in a comparison of primary care physicians in seven countries demonstrated that Canadian physicians rank very low on **clinical information system functions**. Canadian physicians were either last or second last in:

- Use of electronic medical records
- Sharing health information with other physicians or health sectors
- Accessing health information when not in the office

- Ordering of tests or prescribing of medications electronically
- Receiving prompts that warn of the risk of adverse drug reactions
- Use of reminder notices for preventive or follow-up care
- Listing of patients by diagnosis or health risk, and
- Listing all medications taken by patients

The limitations were not only electronic. Canadian physicians surveyed felt they were the least able to provide optimal care for patients with **multiple chronic diseases**, and they were the least likely to provide instructions to patients with chronic diseases as to how to manage their **care at home** or use **allied health providers** to help manage chronic diseases. Finally Canadian physicians were the least likely to receive a timely discharge summary when a patient left hospital.

In a related survey, adult patients also demonstrated significant Canadian **consumer dissatisfaction** with their health care system. Sixty percent of Canadian adults surveyed believed that "fundamental changes needed" represented their overall system opinion (the highest amongst Australia, Germany New Zealand, the Netherlands, UK and US).[iv]

The data goes beyond subjective perceptions. Fang assessed Canada's position globally with respect to overall life expectations. The conclusion was that Canada was in the middle of the pack and slipping compared to the 13 other countries assessed, particularly for women. The explanation was that there had been higher mortality rates from ischemic heart disease, cancer and respiratory system disease for all Canadians, with recently lower improvement rates in most mortality risks for Canadian women and in cancers and diabetes for Canadian men. Among other recommendations was that there be a **priority focus on enhanced chronic disease detection and management**.[v]

This briefly summarizes only a small amount of the data with respect to Canada's performance in health care on the international spectrum, demonstrating provider, patient, and researcher perceptions of needs for improvement. Hutchison[vi] chronicles the "gridlock" that existed in primary health care in Canada until approximately the turn of the century. However since then, both at the federal and provincial levels, there have been many initiatives toward improving health care driven by primary health care renewal. Whether it be in Quebec (Family Medicine Groups), Alberta (Primary Care Networks) or Ontario (a plurality of primary care models) there has been a shift from the traditional disease based model of care driven by the doctor-patient relationship with fee-for-service driven incentive, to patient/family models where teams/organizations manage care of defined populations with alternative payment incentives. Key to each of these initiatives has been a **focus on accountability and quality improvement**.

Opportunities for Research and Evaluation

Hutchison raises a number of questions with respect to performance measurement of these collaborative models that need to be answered through academic inquiry:

- "What are the effects of alternative government arrangements on team function and primary healthcare performance?
- What team composition is most appropriate (effective and efficient) for which population groups and geographic settings?
- How do group or network size and organization (e.g., dispersed network versus co-located group) affect performance?"

Hutchison goes on to highlight that stimulating further renewal requires "**investments in infrastructure including facilities, staffing, information technology and tools and facilitation to support quality improvement and quality of care**."

Barbara Starfield in a related commentary reflects on her earlier work that identified primary health care as the foundation for country health care performance overall.[vii] She highlights that the features of the Canadian system include the equitable distribution of resources and the centrally regulated health insurance system with low or no co-payments. However she goes on to comment on the difficulties in strengthening the Canadian primary care system:

> *"One reason for this lack of movement may be the **poor investment in primary care research and evaluation**. In this regard, Canada is probably at least 10 years behind. No government agency focuses on or takes responsibility for building a **knowledge base for primary care practice**. "*

The potential benefits of quality improvement initiatives are large, including:

- Enhanced clinical processes
- Improvement in care outcomes
- Reduction in costs
- Increased client satisfaction
- More effective teams
- Enhanced provider satisfaction
- Better regulatory compliance
- Improved efficiency – less waste and re-work, time savings
- Professional development
- Point of care decision making

To get these benefits requires systematic approaches incorporating evaluation and research. **Research that is context specific for primary care and thus develops evidence pertinent to the primary care environment, including strategies for best practice implementation, is specifically required**. Some of the research from our own department highlights potential benefits. Karen Tu has demonstrated the importance of developing primary care administrative databases to assess and improve

the management of a particular chronic disease, hypertension.[viii,ix,x,xi] Tara Kiran used data from the UK's Quality and Outcomes Framework to show that high quality primary care for cardiovascular disease can improve coronary heart disease outcomes and reduce related health inequalities. (Journal of Epidemiology and Community Health - In press)

It is not easy however to reconcile the process of research and the processes of quality of improvement, as to their relative effectiveness in introducing meaningful change to patient care.[xii] Evidence-based study forms the basis for guidelines, however the **uptake on guidelines in practice is poor**. Sometimes even when uptake is effective, their **"real world" application may result in unintended consequences**. For example, there are clear guidelines for the use of warfarin for secondary stroke prevention in the presence of atrial fibrillation. However since their implementation there has been epidemiological evidence of a rapid rise in incidence of hemorrhage stroke, not expected given the literature base in support of the guideline.[xiii]

Systems in support of implementation may not achieve the improvements expected based on experimental studies for a myriad of reasons, one of which being that many studies take place in academic hospital settings, not in the community. All of this points to the **need for meaningful research engaged with quality improvement that is community based**, to overcome significant gaps that currently exist in our literature.

Quality Improvement and a Competency-based Curriculum

As health care is transformed, what now are the implications for the training of future family physicians? Our national College of Family Physicians of Canada is defining a new academic competency based curriculum. CanMEDS-FM has just been published and is analogous to the roles and competencies developed by the Royal College of Physicians and Surgeons of Canada – the CanMeds 2005 Physician Competency Framework.[xiv] The CanMEDS-FM competencies require the development of roles, key and enabling competencies that are directly captured in the skills of quality improvement. The table in Appendix 1 documents only those roles and competencies as defined in CanMEDS-FM relating to QI. Of note, the emphasis on quality in the competencies is pervasive, with every role defining expectations within the QI realm. ***The themes of the competencies are those echoed elsewhere in this report and in total presents us with a new generation of family physician with new competencies – one that will be hard to attain without a dedicated quality curriculum. Family physicians will need to be as comfortable with the skills of quality improvement, management, and leading change, as they currently are now with their examination tools such as the stethoscope.***

In the United States the Accreditation Council for Graduate Medical Education (ACGME) have established six core competencies, three of which relate to quality improvement – Practice Based Learning and Improvement, Interpersonal and Communication Skills, and System-Based Practices. Hence there is now a push from medical educators throughout North America to develop new curriculum models in order for their trainees to achieve these competencies.[xv] [xvi]

The trend would therefore seem to be toward training physicians, including primary care physicians in **system based care** – demonstrating another opportunity for academic leadership from our department. Further, a DCFM residency initiative would support a University of Toronto wide program to update Faculty of Medicine curricula to align with CanMEDS Competencies.

Right Timing for a Quality Initiative

Hence the timing would seem to be right for this initiative given identified needs for system improvement, and current primary care model development and policies stimulating primary care practice. The message is to invest now in academic initiatives that focus on research and evaluation of these new models of care, and preparation of future family physicians.

In summary, while Canada enjoys much strength in health care there is a need for improvement. New models of primary care practice are now evolving. The role of the family physician within these models requires new skills training to align with CanMEDS competencies. New models and processes of care require performance management and evaluation. There has been significant investment and interest from governments in primary health care. On the grounds of both need and opportunity, the timing is right for our academic department to have adopted quality improvement as a key strategic pillar.

SECTION 3 - Strategic Foundation

Values and Principles

We affirm that this report is grounded in the following core values and principles:

- The increasing complexity of health care requires that family practices develop interprofessional teams and networks to optimize efficiency and effectiveness of care
- The primary motivator of family physicians' performance is their desire to optimize the health of their patient populations
- Family practices that establish a culture of continually seeking to improve the care delivered to the patients will be best prepared to adapt to the challenges of health care complexity, rapidly changing knowledge and processes, and expectations for accountability by their patients, peers, and governments
- Developing internal resources within the team is critical to the long term sustainability for quality initiatives in primary care; family physicians are well positioned through their education, scope of practice, and patient relationships to be prepared as the primary care team leaders
- There is a body of knowledge and skills for quality improvement and change management
- In order to establish a culture in family practices of continually seeking to improve the quality of care, the skills of quality improvement and change management needs to be embedded into the armamentarium of practicing family physicians
- The degree of change in how primary health care will be delivered will be transformative and to be successful requires strong and sustained leadership
- Public reporting, ensuring privacy of patient data while enabling family physicians and their teams to reflect upon and seek to improve their performance within the system, is central to quality improvement
- A quality improvement program will help fulfill our academic mandate to advance the discipline of Family Medicine through:
    - Supporting our teaching sites in developing new initiatives and systems of clinical care
    - Educating present and future family physicians so that they have the skills of quality improvement, change and knowledge management, and leadership, to effectively lead primary care teams
    - Elucidating questions and championing research initiatives that guide quality improvement into achieving change that is grounded in scholarly evidence
- The time is right in Ontario for this Department of Family and Community Medicine to lead a Quality Improvement agenda

Our vision establishes our direction building on these key elements:

- Family Physicians
- Leadership
- Improvement
- Primary health care

VISION

Family physicians leading improvement in primary health care

While the vision establishes direction, the mission defines how we are to get there. Our mission reflects our mandate in academic family medicine for advancing the discipline through improvement in care, education, and research.

MISSION

The Quality Program of the Department of Family and Community Medicine will advance quality of care through improving care processes of interprofessional teams and networks, towards achieving better health outcomes for defined populations. It will enable the training of present and future family physicians in the knowledge and skills of quality improvement, change management and the leadership of teams. The Quality Improvement Program will identify new research questions and champion scholarly activity to ensure changes are grounded in best evidence.

As accountability is a key principle, we must support standard parameters of performance measurement to enable family physicians to appropriately reflect and plan change as necessary within the overall system of primary care. We therefore support the standard parameters adapted by the Ontario Health Council from the report from the Institute of Medicine.[xvii] The parameters identified below support the "point of care." The Ontario Quality Council has identified additional system indicators (appropriately resourced, integrated, and focused on population health) as part of its province wide system mandate, that we have not yet recommended adopting.[xviii]

QUALITY FRAMEWORK

Patient-centred

Ensuring that patient values, needs, and preferences guide clinical decisions

Equitability

Providing services to all in need without discrimination

Accessibility

The right care, at the right time, in the right setting, by the right health care provider

Effectiveness

Providing service that works based on the best evidence available

Safety

“Primum non nocere” (First, do no harm). No one should be harmed by health care

Efficiency

Avoiding the provision of services that waste and/or that are unlikely to benefit

With this foundation the Task Force now can report on its findings from the environmental scan.

SECTION 4 - Environmental Scan

This review encompasses perspectives from clinical practice, our academic department and faculty of medicine, and provincial, national and international initiatives. The methodology through which we gained these insights is detailed in Appendix 2. With focus groups of departmental leadership (12 participants), and expert interviews within our department (4), more broadly in our Faculty of Medicine (6), and the province (5) we were able to engage directly twenty-seven recognized leaders in Family Medicine, primary care, quality and patient safety. We validated our perceptions with surveys of a primary care expert panel developed through referrals from leaders within our department. We were also privileged to listen to the views of Canadian leaders and international representatives from the United States, New Zealand, Australia, Germany and the U.K. through participation at conferences in Toronto, Newfoundland and the United States, as well as a site visit to Edinburgh, Scotland. We supplemented these insights with literature from primary care and quality improvement, including foci on accreditation and standards, country comparisons and the development of academic curriculum.

DFCM Leadership - Focus Groups

At the outset there are significant questions and perceived barriers from the leadership of the department in launching a quality initiative, despite it already being adopted as a strategic pillar for DFCM. There is ambivalence about whether this is an appropriate direction for the DFCM to head, given the belief that there is an existing volume and diversity of activity in quality already ongoing and the lack of historical involvement in the academic department in this area. There were concerns about the demands on time and departmental resources, particularly for smaller divisions and teaching practices that have less nursing, allied health and infrastructure support. The current lack of implementation of electronic medical records will make implementation difficult, and even where implemented there is a lack of consistency between systems, lack of information standards, and there will be significant challenges in capturing some important contexts reflective of primary care. Individual sites were concerned about a possible “top-down” approach that did not appropriately respect local site needs.

Notwithstanding the above noted perception about the current volume of quality initiatives, with rare exception there are currently very limited real quality improvement initiatives in the department. A few sites have leveraged the family medicine residents’ quality projects to advance the quality agenda overall in their division; however even for those with a division commitment to the residents’ projects each year, there is almost no continuity or sustained improvements arising from the projects year over year. Some sites that are hospital-based have ongoing quality structures, often in place to meet a hospital-mandated requirement for quality assurance, not quality improvement. Some of the divisions of the department that are Family Health Teams participate in the Quality Improvement and Innovation Partnership’s “Learning Collaborative”; however initiatives to date seem more reflective of the work of individual champions than demonstrating spread through the site overall. One site has had experience piloting the McMaster Quality in Family Practice initiative that requires a “standards approach” of ongoing monitoring of a broad set of quality indicators. While there was an ability to compare

performance within the QIIP Learning Collaborative, there was otherwise no collaboration or integration of initiatives between sites.

While there are apparent barriers there were strong opinions about how to go about implementing a quality agenda, building on our department's strengths and taking advantage of growing opportunities in the field of QI. The University of Toronto enjoys significant credibility and this enables adoption of a new agenda. There is already academic expertise such as in interprofessional care models and knowledge translation. There has been significant research completed of elements of the quality agenda, with a view that community based data could open a new frontier in health services research, knowledge translation and testing of new models of care. It was felt that adoption of a quality initiative should be broad scope for the full academic agenda, whether education, research or professional development. It was recognized that quality of care is a prime driver for all of us in the field of health care and this will help to enable the scope of change required. New initiatives and financial incentives within the Family Health Teams and the current and evolving postgraduate education curriculum were seen to be foundation blocks of strengths to build from. There was an expectation that there will need to be wide engagement from faculty to enable transformative change. Training local site champions, support from quality facilitators, a staged approach for implementation, and a system of rewards and recognition would also be required to have a greater probability for sustainable success.

DFCM Leadership - Expert Interviews

While specific suggestions varied, there was evident agreement that there were opportunities for a quality program to interact with the existing departmental priorities of education, research and professional development. The agenda needs to be one that is academically driven, not one driven by government priorities of the day.

Time and funding (particularly for new infrastructure) were seen as the principle barriers. Initiating change management was seen as an issue, although there was some thought that family physicians were generally dissatisfied with current work demands and this may present an opportunity for change, the prime motivator for family physicians being improved outcomes for their patients. Rewards such as education credits could be motivators for physician engagement. Opinions were specifically expressed that a reward system should not be monetarily driven.

There were differing opinions as to the role of the Central DFCM driving the quality agenda, versus setting parameters with peripheral sites customizing programs to their own needs. There were concerns about actual implementation strategies and impact at peripheral sites. Specific concerns were expressed about the risk of conflict with the QIIP Learning Collaborative.

Faculty of Medicine - Expert Interviews

The main barriers centered on the challenge of developing the infrastructure needed to support quality initiatives including people to do the work, IT systems to enable data collection, and grant funding opportunities to enable related research. There was a perceived lack of willingness of family physicians to commit the time to enable quality

improvement and as there is a particular body of knowledge and skills for QI, the need for professional development would be significant. Finally there would be both physician and more broadly system inertia against a move towards newer QI driven models of care delivery.

There was consensus amongst the University of Toronto's Faculty of Medicine that the timing was right to pursue a quality agenda, with many opportunities available. There has already been a commitment from the Dean with the Faculty's Centre for Patient Safety, co-sponsored by Sunnybrook Health Sciences Centre and the Hospital for Sick Children. Health Policy, Management and Evaluation is home to international leaders in quality and patient safety. Faculty members are leaders in provincial organizations such as the Ontario Health Quality Council (Dr. Ben Chan - DFCM, Chief Executive Officer) Centre for Healthcare Quality Improvement (Paula Blackstien-Hirsch - HPME, Executive Director).

There is a perceived need for projects that enable system integration as it is felt that an area of focus on patient transitions between health sectors (e.g. discharge from hospital back to community) would be appropriate. There was a belief there were many issues of safety in primary care to be addressed, particularly around medication utilization. A particular area of focus of interest to different divisions was the role of interprofessional care teams in improving quality.

As to strategies for implementation, while implementing the quality agenda requires an interprofessional approach, engaging family physicians in an agenda that matters to their patient care is key to enabling change. While there was some support for focusing at the level of system wide metrics, the greater consensus was to initially focus at the interface of point of care. Selection of metrics (preferably process metrics) by the front line providers was recommended who then could develop small doable projects initially that would be most significant to those providers.

As there were many academic related opportunities, e.g. in education, research and professional development, there were strong expressions of interest for collaboration with DFCM by those interviewed.

Provincial Experts

The experts interviewed represented a diversity of interests within the quality improvement paradigm, making it difficult to identify specific themes from their comments. All the experts agreed there was interest in collaboration around projects. Opinions varied as to opportunities around specific projects.

In addition to the barriers already identified above, two additional were emphasized. The current fragmentation of primary care in Ontario has made it difficult to launch projects that require integration and collaboration. To that end, quality initiatives, with their linkages along the care path continuum were seen as a driver towards improving system integration. A constraint against an academic program driving a quality initiative was the inherent difference in quality improvement processes (particularly rapid cycle change) from traditional research processes.

Other academic centres shared the DFCM experience of lack of sustainable impact from existing quality initiatives, particularly including resident projects.
There was significant support for standardized province wide indicators that would enable comparison on a province wide basis. To that end, there appeared to be general endorsement of the Institute of Medicine's quality parameters of:

- Accessibility
- Effectiveness
- Efficiency
- Equitability
- Patient-centredness
- Safety

Many reported personal experience with initiatives that incorporated roles of practice facilitators (quality coaches), particularly at start-up, and endorsed this a key role requirement to enable practice change. These reported initiatives were time framed research initiatives that had funding support for individuals in this role. It was recognized that there would not likely be funding available for this role as a new and sustainable professional role within health care.

International Perspectives

We heard presentations from international representatives where jurisdictions pursued quality on an "assurance" basis rather than continuous quality improvement. In New Zealand, Australia, Germany and the U.K., standards development was being incorporated into primary care, from voluntary through to regulatory enablers. These approaches informed McMaster's development and piloting of a quality assurance tool that has been tested in practice environments in Ontario (www.qualityinfamilypractice.com). McMaster is looking to partner with other academic sites to pilot this further. The utility of the quality assurance (ensuring a regulatory standard) approach generates considerable debate amongst practitioners as to its effectiveness as a strategy to enable change.

The United Kingdom has endorsed widespread adoption of quality indicators in primary care through the provision of financial incentives for practitioners to measure and report – the Quality Outcomes Framework (QoF). At a site visit to a teaching practice in Edinburgh, Scotland, the Chair of the Task Force was able to observe first hand a variety of impacts QoF has had on primary care practice. Recognizing that the British primary care system already has a history of early adoption of electronic technology and system supports for geographically localized practices, there were some interesting observations at this practice site, where family physicians, although in this instance they were paid on salary, were committed and expected to participate fully in the QoF framework:

- Practice processes had been incorporated to ensure comprehensive capturing of QoF data –
    - The QoF data required although comprehensive was certainly not all the data necessary to be maintained in family practice; however the mandated

QoF data requirements were what drove data collection, not specifically patient or practitioner need.

- A full time "chart extractor" was employed in the practice, whose job was to review medical records, investigation and consultation reports, and ensure data that supported the QoF indicators was entered into the health record system.
- At least yearly, prior to the QoF reporting requirements, through separate and additional systemic processes, patient data was reviewed and updated at visits and by health record review to ensure data was captured and recognized.
- Practitioners were concerned that the need for acquiring QoF data was negatively impacting the physician-patient relationship and the flow of the visit.
- Practitioners did find it stimulating to see how their practice "measured up" in comparison to regional reporting.
- Researchers were finding the large data sets generated through QoF to be supportive of the research process, although there were significant regulatory hurdles in place to ensure the protection of patient confidentiality. These health care data sets were presenting new opportunities in examining broader determinants of health and equity issues, as they could be examined in concert with equally large data sets from census, education and social services data.
- Training of practitioners did not incorporate skills development in quality improvement. The QoF framework is a government established set of indicators that practitioners, enabled by information technology, reported. Most efforts at compliance were through specialized initiatives (e.g. chart extractors) rather than changes in the system of care. The only training feature identified was the requirement that medical students were expected to take a four-hour exam in patient safety prior to beginning their residencies.

DFCM Faculty Surveys

Two surveys were completed of an identified expert panel recommended by site leaders from DFCM. The purpose of the surveys was to sample further faculty opinion as to commitment to a quality initiative and further needs assessment and opinions as to strategy for implementation. Given the preponderance of full time faculty at the teaching sites, and these sites being affiliated as Family Health Teams, the findings are representative to those jurisdictions and not necessarily representative of the over 900 individuals with appointments in the DFCM. Specifically those respondents who participated were proportionately higher:

- eHealth users
- in utilization of team processes
- in affiliation with QIIP initiatives

Notwithstanding these biases, the surveys demonstrated strong support for QI initiatives, (2/3 recognizing it as important; 76% in total felt it was important for DFCM to enhance clinical quality and innovation in primary care; 2/3 expecting to increase QI initiatives in the next year).

Top themes as to quality foci were:

- Chronic disease management, particularly diabetes
- Indicators for screening and early detection of disease
- Access
- Safety, particularly with respect to medications and care of the elderly

Top goals for a quality program were:

- Centralized role in facilitation for sites' development of QI initiatives, the establishment of a quality framework and indicator standards
- Training and development, with the primary foci being the residency program and the professional development of faculty
- Enabling the implementation and integration of IT

Respondents favored a staged approach, leveraging existing initiatives and seeking collaboration with other organizations. There was recognition that this initiative as already adopted by the department and the resource base for its implementation should come from both existing and new resources, although there was not consensus as to where resources should be sought out.

Priority allocation of resources in the new program in the respondents opinions were as follows:

a. **IM/IT person**(s) to support data management – 90% with 53% in strong agreement.
b. **Quality Program Director** for leadership, support and guidance – 79% including almost 50% in strong agreement.
c. **Education of residents** in the skills of QI and change management – 74% including 42% in strong agreement (NB – this was weighted higher than the priority below due to the 42% in strong agreement).
d. **Training and support of site champions** in QI and change management –79% including 37% in strong agreement.
e. **Education of faculty** in the skills of QI and change management – 70% with 47% in strong agreement.
f. **Facilitator(s)** to assist in development of QI throughout department – 67% with 42% in strong agreement.

g. **Development and reporting of data repository** of central defined indicators of quality –69%

h. **Seed grants** in support of innovation –69%

i. **Communications mechanisms** in support of collaboration –69%

j. **Educator(s)** to develop and oversee the implementation of quality curricula – 64%

k. **Support for local sites** in identifying and managing site defined indicators – 63%

l. **Education of students** in the skills of QI –59%

m. **Oversight Steering Committee** to define and guide priorities –58%

n. **Training of sites** in team building – 53%

o. **Fellowships** in Family Medicine QI – 52%

p. Fostering the **development of communities of practice** – 50%

q. **Events to celebrate** and support innovations in QI – 48%

SECTION 5 - Discussion and Recommendations

GOVERNANCE

Transformative change requires leadership, and the quality program will require leadership through multiple roles from both the central department as well as the sites, if it is to be effective. We also heard that effective change management requires a role that is both educational (program and curriculum development) as well as facilitative (quality coaching). Many of the experts interviewed spoke to the necessity in their projects for the role of a professional to support the sites in the development of their quality processes. We envision these skill sets to be incorporated by family physicians, as we do not anticipate the development of a new separate professional role in practice. We do see the requirement centrally for a professional role not currently incorporated to the central team – an executive director of quality. This person will promote and oversee the development of the necessary educational curricula centrally as well as supporting and guiding the change management at teaching sites. Teaching sites require physician quality champions to serve a role in central governance and knowledge transformation – both at their sites and within communities of practice. Physician quality champions would mentor other faculty and health professionals to develop these skills and move as well into leadership roles.

New funding is flowing into primary care. Family Health Teams in particular are funded with expectations for accountability that this work is to be done. The Chair is being asked to support a considerable increase in infrastructure to support the program (and thus the divisional sites). Thus budgetary support for the role of divisional representatives would be from the teaching sites, subject to size and academic and other global funding support. The estimated time commitment is one-half to one day per week.

1. Recommendation - Governance

1.1. The Chair shall appoint a **Quality Program Faculty Director** as leader of the Quality program, accountable for delivering on the recommendations in this report

1.2. The program shall incorporate a role for an **Executive Director of Quality**, who will enable the development of educational curricula, support practice sites in the incorporation of a quality framework, develop grant proposals for related projects to support the goals of program scholarship and efficiency, develop a set of tools for program evaluation and provide project management as required. This role may be engaged on contract during program start-up and subsequently defined and resourced as the program is established.

1.3. Sites will appoint representatives to a **Quality Program Committee** (QPC). These “quality champions” will represent their divisions on the committee, provide local site leadership in quality, and will each individually provide leadership for “communities of practice” to be defined by the committee. These may include the six dimensions of quality, research, chronic disease management, screening and prevention, interprofessional teams, practice models (family health teams, community health centres, family health groups,

teaching practices family physicians) etc. Where the expertise in these communities of practice may not reside within the group of divisional representatives, the Faculty Director of the Quality Program may engage outside experts to sit “ex officio”.

1.4. To enable the rapid assimilation of a knowledge base for quality improvement, the DFCM will enable the training of these site champions through assisting with financial sponsorship in appropriate educational activities.

1.5. The Quality Program Committee will establish mechanisms of program evaluation and reporting appropriate to academic requirements, and enable overall program improvement.

INFRASTRUCTURE

All agreed that a key barrier towards successful implementation of quality improvement is the challenge of appropriate infrastructure support, specifically:

- People to provide leadership and those with new skill sets that currently do not exist in the central department
- Space from which they can operate
- Information technology, and
- Administrative support personnel

While the following recommendation addresses central requirements, it is expected that divisional sites will also assist the effective function of their site representatives with support for both central and site administrative and informatics support for a successful program.

During the review process it was evident that even where electronic information systems were being implemented, divisions were struggling in defining their data requirements. Vendors lacked knowledge of the specificity of academic program requirements. Furthermore, there was a lack of coordination and integration amongst sites that were using the same information system. Finally, hospital-based divisions have been frustrated with the support provided by hospitals, which are geared to hospital requirements.

Finally, to enable resource acquisition for the necessary infrastructure, it is recognized that elements of infrastructure would be acquired in a staged manner over the initial three years of the program. (Appendix 3 – Work Plan).

2. Recommendation - Central Infrastructure

2.1. The Chair will provide for the program administrative support of a **Quality Administrative Assistant**, in support of the Faculty Director and Executive Director, proportional to their time commitments.

2.2. By the third year, the Chair will recruit a “**Health Informatics Specialist**” who will lead and support the establishment of a quality data repository, support sites in their data management requirements, as well as supporting Research and other central programs with similar requirements.

2.3. The Chair will provide appropriate **space, information technology, video conferencing, and materials** towards the effective implementation of the program.

The remaining recommendations give guidance to the Quality Program Committee as to its work plan for the next three years. The first three years would focus on developing QI in the fully affiliated teaching sites, and then by the third year plans for enabling spread to teaching practices would be developed. At that time governance and infrastructure needs would be reassessed.

EDUCATION

As noted previously with the case for quality improvement and the transformation to a competency based curriculum enabled by the CanMEDS-FM framework, a dedicated teaching program in QI at the residency program will be required for the next generation of family physicians. While there are initiatives towards introducing concepts at the undergraduate level, the strong consensus from our environmental scan was that the residency program should be the initial priority, given the opportunity to immediately apply the science of quality improvement in practice. Finally, given the core element of residency training at the practice sites, beginning with the residency program will have the secondary benefit of enabling spread of QI at practice sites through project applications that engage other health professionals. A project practicum should have as its core requirement the leadership of an interprofessional quality task group whenever feasible. These projects will thus evolve QI at the sites, as well as incorporating requirements for quality assurance specific to the division. Site based champions would be accountable for oversight, continuity and sustainability of the projects, as well as enabling the spread of QI competencies to others including nursing and allied professionals who could go on to lead subsequent project teams. The Faculty of Medicine should know of curriculum developments, as this project may be generalized to other medical disciplines in support of the development of the competencies within the CanMEDS Manager Role for all medical disciplines.

3. Recommendation – Residency Curriculum Development

3.1. The Quality Program Committee and the Executive Director for Quality will collaborate with the Postgraduate Program in the development of a competency based curriculum for quality improvement and change management (Appendix 1). It is recommended that the curriculum incorporate initially block teaching of the body of knowledge for QI, leadership of teams and change management, as well as a following project practicum at their home divisions.

PROFESSIONAL DEVELOPMENT

Considerations for QI Curricula (Appendix 1) include a number of current opportunities for self-directed faculty members to begin increasing their capacity for the application of the skills of quality improvement. We believe that given the needs of family physicians specifically, and expectations from the competencies for quality improvement as CanMEDS-FM becomes established, there is a need for curricula and continuing education opportunities specifically for family physicians in the quality improvement paradigm. There is already considerable expertise locally that would facilitate the acquisition of skills by each site's champion as well as faculty and outside family

physicians in general. These new opportunities could be linked to support the acquisition of required MainPro study credits from the College of Family Physicians of Canada. Some options may include a five-weekend program in leadership of QI, MainPro C workshops, webinars and podcasts, other online teaching modules, short courses and conferences.

4. Recommendation - Professional Development

4.1. The Quality Program Committee and the Executive Director for Quality will collaborate with the Professional Development Program in the development of a catalogue of educational opportunities and materials that addresses the specific needs of family physicians.

MEASUREMENT FOR IMPROVEMENT

Quality enables system integration, particularly with the support of information technology. There was ambivalence from some interviewees however about the sharing of data from sites to a central organization. Some supported the concept – those who were engaged in the QIIP Learning Collaborative for example cited the opportunity to "know where they stood" in performance measures such as in chronic disease management. Others saw the possible collection and centralization of data as analogous to "big brother watching" over them. The survey suggested that a blended approach with some centrally defined indicators with support for sites defining their own indicators otherwise as being satisfactory. The Task Force takes a firmer position as reflected in its earlier values and principles. Recall:

- "Public reporting, ensuring privacy of patient data while enabling family physicians and their teams to reflect upon and improve their performance within the system, is central to quality improvement."

Those aspects of poor performance of our health care system as measured in international review, will only (at best) sluggishly improve if we do not measure, report, and then act to improve. At the same time, we favour a rigorous process of indicator selection where there is evidence that attention to the selected indicator will improve health care. We are concerned in some jurisdictions where attention to indicators becomes addictive, without apparent care improvement, and other challenging aspects of health care are left unattended.

5. Recommendation - Measurement for Improvement

5.1. The Quality Program Committee will initially support and assist sites in defining their local data management requirements for their quality programs.

5.2. As more sites evolve, particularly with the implementation of information technology, the Quality Program Committee will begin to coordinate and support the development of a critically appraised core data set for each of the dimensions of quality in the quality framework, to support and enable the development of a central data repository.

5.3. The Quality Program Committee will collaborate with research groups to establish projects that will enable the development of a data repository,

managed and evolved with the Chair's engagement of a Health Informatics Specialist for the Central Department.

5.4. The Quality Program Committee will report internally and externally on departmental performance measures for those sites that contribute to the maintenance of the data set, while otherwise ensuring confidentiality of the source.

REWARDS AND RECOGNITION

During focus groups and expert interviews we heard repeatedly that family physicians and others respond to comparatively simple processes of recognition – the "plaque on the wall". While a small recognition for family physicians, we believe it is a larger message to their patients of their commitment to their care.

6. Recommendation - Rewards and Recognition

6.1. The Quality Program Committee shall establish opportunities for rewards and recognition for those who commit to quality improvement, including although not limited to:

6.1.1.1. A departmental Quality Day for the presentation and celebration of quality innovations and demonstration of projects;

6.1.1.2. A system of recognition scaled to the level of quality involvement achievement e.g. gold, silver and bronze awards;

6.1.1.3. Developing explicit quality related criteria that would support faculty promotion.

COLLABORATION FOR INNOVATION AND INTEGRATION

During the course of the expert interviews we were impressed by the support from not only within the Faculty of Medicine but also throughout the province overall, for the DFCM to be taking on this priority. Not only was it welcome, comments were received as to specific proposals for ongoing collaboration. These in particular provide opportunities for research into the advancement of quality in primary care, for example:

- **Ontario Health Quality Council** – interest in developing a patient satisfaction survey (defining the patient experience) on a province wide level
- **Centre for Healthcare Quality Improvement** – organization change through leadership development in quality
- **McMaster's Quality into Practice Tool** – collaboration for pilot site and ongoing development
- **Centre for Patient Safety University of Toronto** – research into transitions in care (e.g. hospital to community) and medication safety
- **Centre for Effective Practice** – developing tools to advance the implementation of best practices
- **Quality Improvement and Innovation Partnership (QIIP)**
- **Other University of Toronto health professional faculties, etc**

The Task Force particularly notes that as most of the academic divisions are Family Health Teams, the Quality Improvement and Innovation Partnership has a mandate for enabling quality improvement initiatives in Family Health Teams. The QIIP Learning Collaborative is already reporting back on initiatives within the Family Health Team environments that have demonstrated significant gains in the care of their patient populations. The Task Force is however puzzled by the lack of uptake and spread of initiatives in academic Family Health Teams in the DFCM, and sees this as not taking full advantage of an opportunity for the academic Teams to draw on the considerable resources and expertise within QIIP. The Task Force sees an overall opportunity for the Quality Program to assist in addressing some of the issues that perhaps has delayed uptake in the academic Family Health Teams such as physician training and engagement, and data management.

7. Recommendation – Collaboration for Innovation and Integration

7.1. The Quality Program Committee should enable collaboration on projects with mutual interest between the Department of Family and Community Medicine and stakeholder groups both within and external to the University.

COMMUNICATION

Developing systems of communication within the DFCM and to external stakeholders will be important required elements, particularly for a start-up program.

8. Recommendation - Communication

8.1. The Quality Program Committee shall establish communication mechanisms for ensuring proper coordination of activities, raising awareness internally and externally, stimulating and recognizing new initiatives in quality, and assisting program evaluation and reporting

SECTION 6 - Final Thoughts

What can happen with the delivery of these recommendations? Over the next three years, as a result of this University of Toronto Department of Family and Community Medicine program:

1. The discipline of Family Medicine will be enhanced through new models of care delivery at our core divisional teaching sites.
2. Graduating family physicians and faculty will have a new skill set as part of their professional armamentarium -
    a. All graduating residents of the University of Toronto's Department of Family and Community Medicine will be able to effectively lead interprofessional teams that will understand and adopt the principles, processes and tools of Quality Improvement in order to improve care processes and achieve better outcomes.
    b. Divisional teaching sites will have a knowledgeable engaged site champion and teams that include nursing and allied professionals, each of whom will learn to lead and sustain Quality Improvement initiatives within each clinical practice.
    c. The University of Toronto's DFCM faculty will understand, adopt and model QI applications within their teaching and clinical practice.
3. The Department of Family and Community Medicine, with new infrastructure enhancing data management capability centrally and at its divisions, will become a laboratory and leader for innovation in quality improvement.

After three years, the spread of QI would move to our affiliated teaching practices and beyond, through taking advantage of opportunities with other academic programs, organizations, and agencies. This is truly an opportunity for the leadership of our academic programs to lead change in primary health care on a scale that could be transformative – certainly within the DFCM and with collaboration and innovation, throughout Ontario.

APPENDIX 1 - Considerations for QI Education

Structure of a Block Teaching Program

- **QI Overview**
  - What is QI? – purposeful change to improve process or outcome
    - Quality Action Plans/Circles
  - What is it not? (e.g. NOT quality assurance – measure against a standard to "assure" quality is present)
- **Criteria for Project Selection – Feasibility, Impact, Interest**
- **Rapid Cycle Improvement** – PDSA (Plan/Do/Study/Act, DMAIC – Define/Measure/Analyze/Improve /Control
- **Data Management**
- **Tools of QI**
  - Ishikawa (fishbone) diagrams
  - Pareto Charts
  - Run Charts
  - Control Charts, Statistical Process Control
  - Cluster/Scatter diagrams
  - Process mapping, process re-design
  - Root cause analysis
- **Leadership Skills Development**
  - Change Management
  - Conflict resolution
  - Team Leadership
  - Emotional Intelligence

Extracted Competencies from CanMEDS Framework that relate to QI http://www.cfpc.ca/English/cfpc/education/CanMEDS/default.asp?s=1

Role	Key Competency	Enabling Competencies
Family Medicine Expert	Integrate all the CanMEDS-FM roles in order to function effectively as a generalist	* Demonstrate an awareness of the role of the family physician in situations other than patient care, such as participation in health care management, policy development and planning * Consider issues of patient safety and ethical dimensions in the provision of care and other professional responsibilities
	Establish and maintain clinical knowledge skills and attitudes required to meet the needs of the practice and patient population served	* Contribute to the enhancement of quality of care in their practice, integrating the available best evidence and best practices
	Demonstrate proficient assessment and management of patients using the patient-centered clinical method	* Manage time and resources effectively
	Provide comprehensive and continuing care throughout the life cycle incorporating appropriate preventive, diagnostic and therapeutic interventions	* Provide preventive care through application of current standards for the practice population * Utilize diagnostic and therapeutic interventions meeting the needs of the patient according to available evidence, balancing risks, benefits and costs

Role	Key Competency	Enabling Competencies
	Attend to complex situations in Family Medicine effectively	* Make clinical decisions informed by best available evidence, past experience and the patient's perspective
Manager	Participate in activities that contribute to the effectiveness of their own practice, healthcare organizations and systems	* Participate in systemic quality process evaluation and improvement such as patient safety initiatives * Participate in continuous quality improvement activities within their own practice environment, such as practice audit
	Manage their practice and career effectively	* Implement processes to ensure continuous quality improvement in a practice * Employ information technology, including electronic medical records to plan appropriately for patient care
	Allocate finite healthcare resources appropriately	* Apply evidence and management processes for cost-appropriate care * Judiciously manage access to scarce community resources and referral sources
	Serve in administration and leadership roles, as appropriate	* Lead or implement a change in health care practice
Communicator	Accurately convey needed information and explanations to patients and families, colleagues and other professionals	* Disclose error / adverse events in and effective manner
Health Advocate	Respond to individual patient health needs and issues as part of patient care	* Implement health promotion and disease prevention policies and interventions for individual patients and the patient population served
Collaborator	Participate in a collaborative team-based model and with consulting health professionals in the care of patients	* Work with others to assess, plan, provide and integrate care of individual patients or groups of patients
Scholar	Maintain and enhance professional activities through ongoing self-directed learning based on reflective practice	* Recognize and reflect learning issues in practice * Conduct a personal practice audit * Formulate a learning question * Identify sources of knowledge appropriate to the question * Access and interpret the relevant evidence * Integrate new learning into practice * Evaluate the impact of any change in practice * Document the learning process
Professional	Demonstrate a commitment to their patients, profession, and society through ethical practice	* Demonstrate a commitment to delivering the highest quality care and maintenance of competence

Current Opportunities for Professional Development

There are already a number of educational opportunities to learn the skills of quality improvement for those who wish to start immediately, and that will be present as future resources as the program matures. Some include

The Institute of Healthcare Improvement (IHI) offers ongoing courses and programs in support of quality improvement. While the cost can be significant it has recently developed a free online teaching program for quality improvement, leadership and patient safety that is suitable of health professionals seeking a beginning set of skills. The IHI Open School is free and can be accessed at http://www.ihi.org/IHI/Programs/IHIOpenSchool/

The Center for Patient Safety offers a once monthly half-day program with the awarding of a Certificate in Patient Safety and Quality. Registration is $2,000 which is substantially less than for comparable IHI programs. The course is new and the attendees are more commonly from hospital environments. http://www.utpsychiatry.ca/News10/may/May-10-UofT-safety-qi.pdf

Two provincial organizations offer guidance and materials to support quality improvement. The Quality Improvement and Innovations Partnership is building a virtual program of support for quality improvement. http://www.qiip.ca/mandate.php
The Ontario Health Quality Council offers guides to those groups looking to begin their quality improvement journey. http://www.ohqc.ca/en/supporting_qi.php

APPENDIX 2 - Methodology

Under the direction of DFCM's Quality Lead, a number of initiatives have been undertaken to gather data, perspectives and information regarding national, provincial, and local quality initiatives. This timely and relevant information was analyzed and synthesized to provide key themes needed to inform recommendations for policy and programming to be undertaken by the Department in the development of its Quality Agenda. Specific Methods included:

1. Conducting a *DFCM Faculty Needs Assessment* with respect to quality in primary care, using qualitative methods and a semi-structure interview template to gain an understanding of how members of the DFCM experience and conceptualize quality improvement: Several initiatives of the Faculty Needs Assessment included:
    a. Conducting face-to-face focus groups with DFCM's Leadership including Family Medicine Chiefs and Teaching Practice and Rural Residency Programs.
    b. Conducting expert interviews with leaders within DFCMs Programs Research, Postgraduate Education and Faculty Development, as well as DFCM's Leads of the EMR Task Force, Academic Leadership Task Force and Information and Technology Advisory Committee
    c. Completing a two-step internet based survey in a Delphi process of an identified 45 participant expert panel to sample further faculty opinion as to the commitment to a quality initiative, needs assessment and opinions regarding a strategy for implementation:
        - The first survey results were analyzed according to quality foci, participant priorities for quality improvement and top goals for the DFCM
        - A second survey was conducted with the same expert panel probing for more specific input based on the results of the first survey

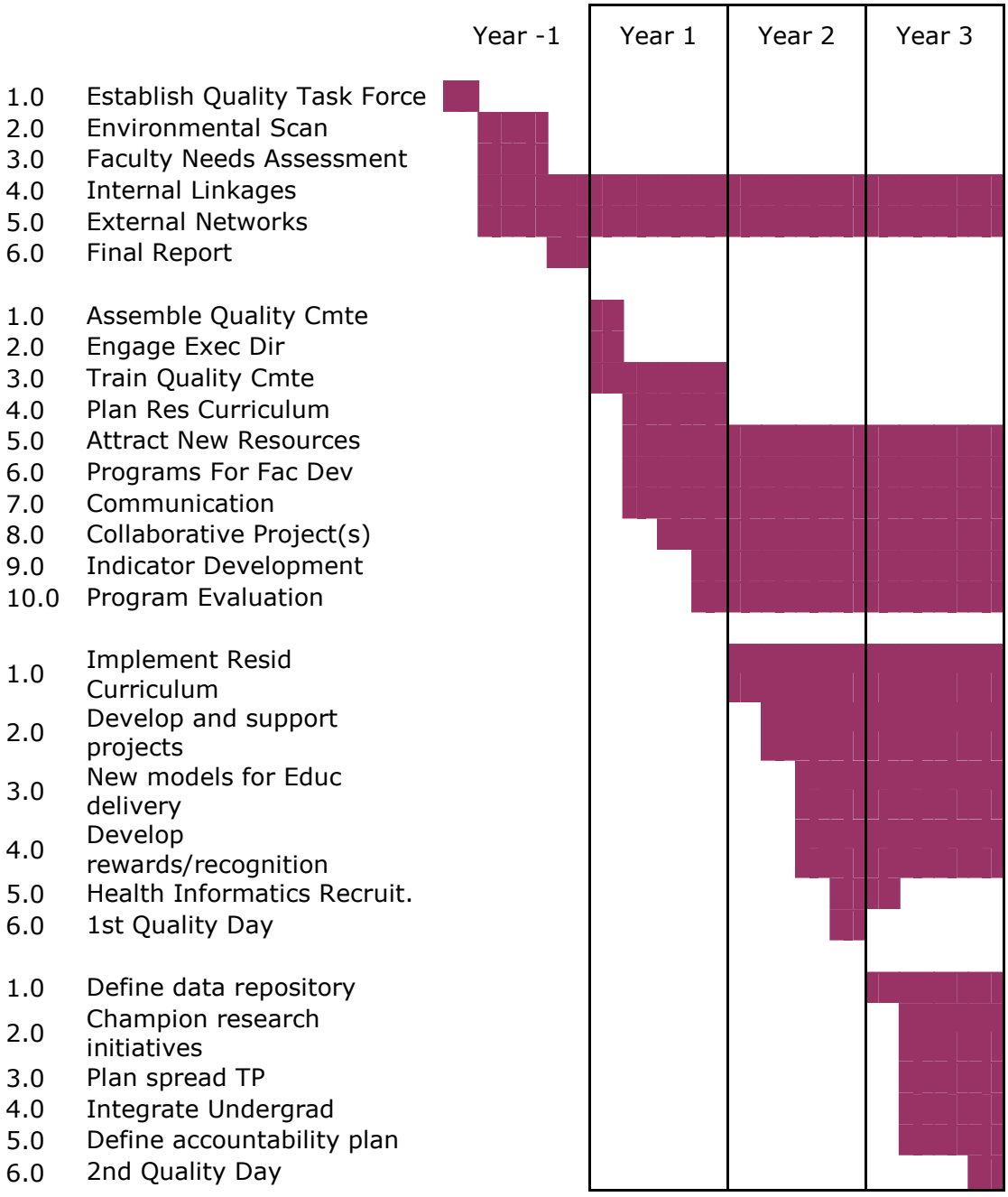
2. Completing an *Environmental Scan* with respect to primary care and quality initiatives through:
    a. Conducting expert interviews with recognized leaders in quality improvement within the Faculty of Medicine and within the province
    b. Reviewing relevant literature in international, national and local publications and websites
    c. Participating in international, national and local conferences to gain information and insights into views and perspectives on primary care and quality improvement
    d. Conducting a site visit to a teaching practice in Edinburgh, Scotland to observe a primary care practice and the impact of the United Kingdom's adoption of quality indicators in primary care.

3. For the focus groups and expert interviews, notes were compiled by two note takers into a single record, the content of which was validated as necessary with an audio record of the interviews, and offered back to the interviewees for approval. This final single source document was then coded (utilizing the software “HyperReseach”) by the facilitator, from which themes were developed. The themes were reviewed by the note takers to ensure that they appeared consistent with the discussion at the focus groups and interviews.

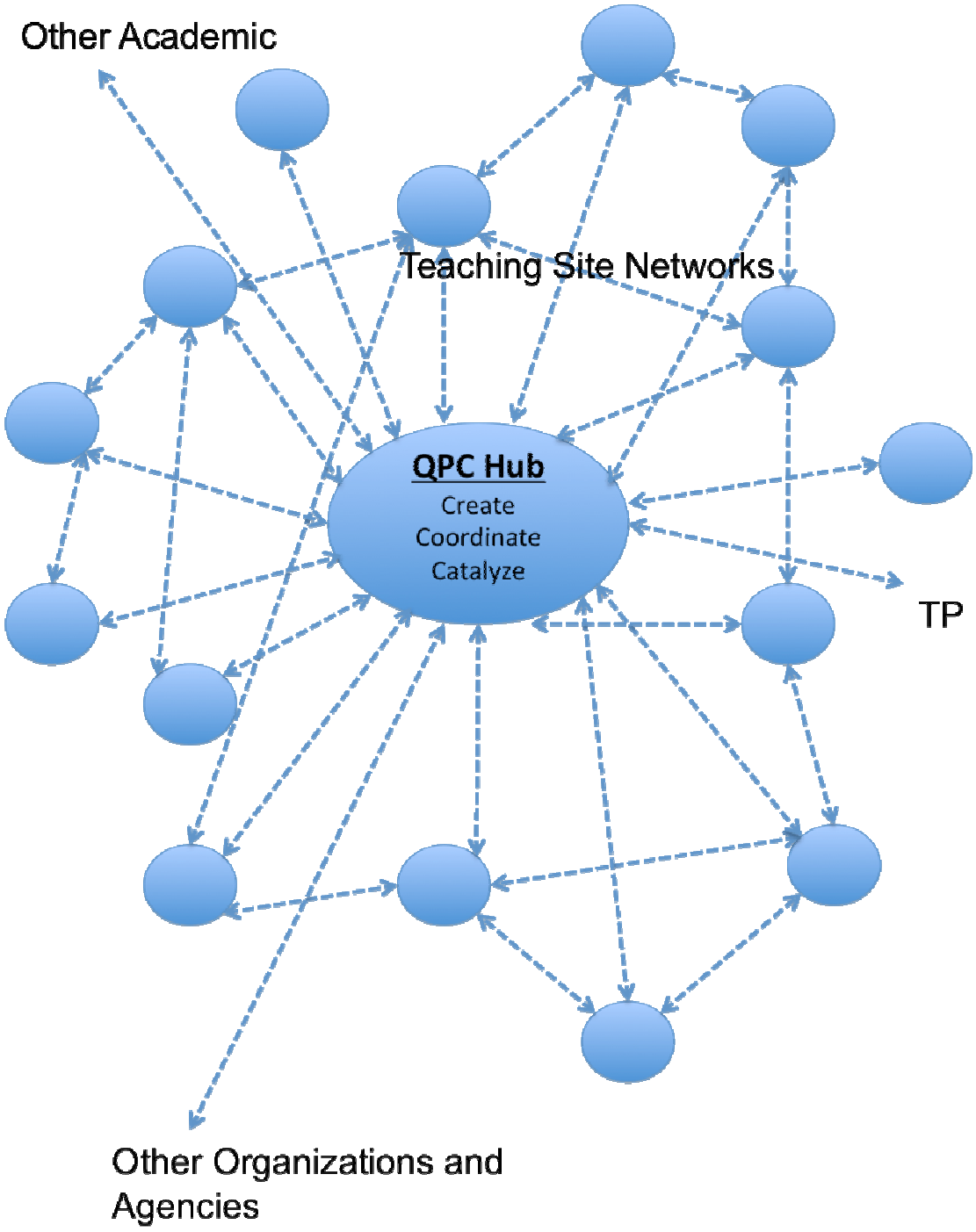
    a. Codes
        i. Strengths
        ii. Weaknesses
        iii. Opportunities
        iv. Threats
        v. Barriers
        vi. Needs
        vii. IM-IT
        viii. Critical Success Factor
        ix. Ideas
        x. People
        xi. Policies
        xii. Procedures
        xiii. Strategies
        xiv. Governance

APPENDIX 3 - Quality Program 3-Year Work Plan

Quality Program - Work Plan

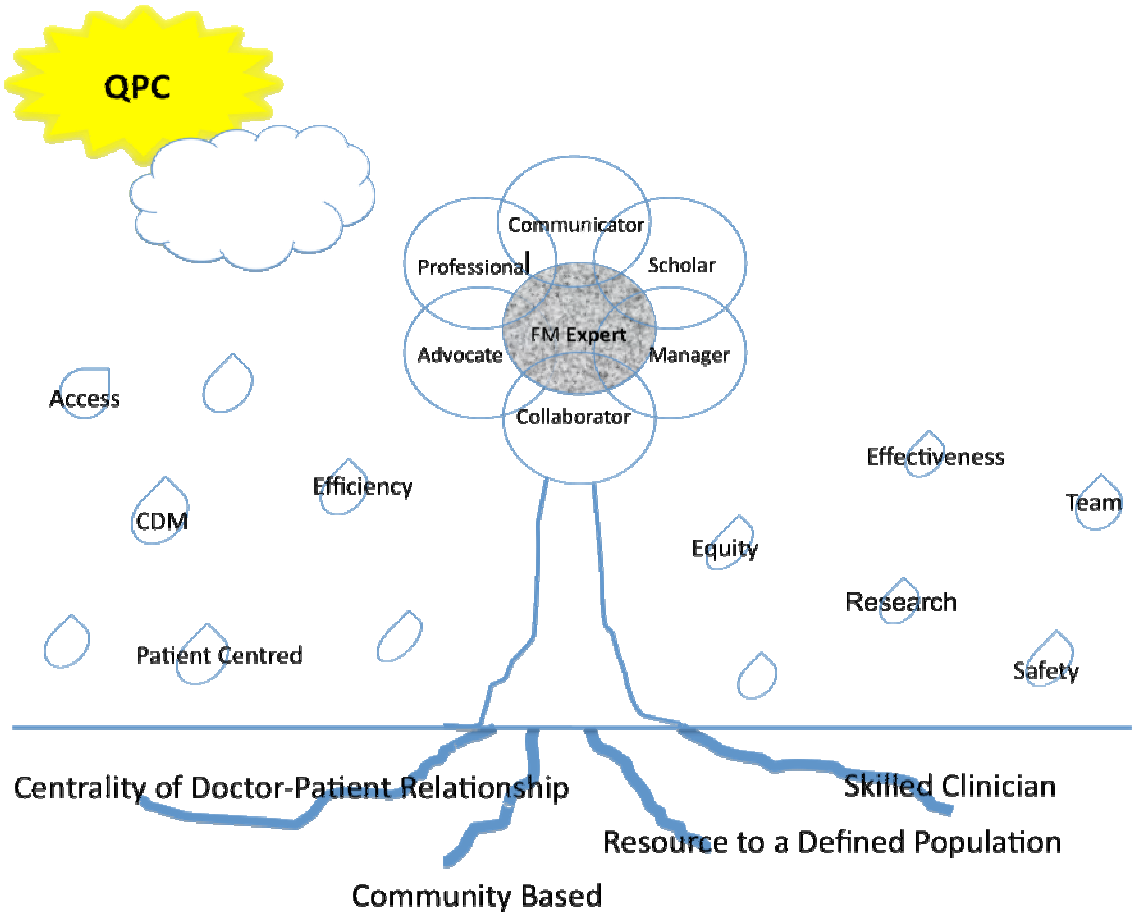


APPENDIX 4 - Organigraph – Quality Program



APPENDIX 5 - Relationship between the QI Program, 4 Principles and CanMEDS-FM

Providing the nutrients to grow the CanMEDS-FM Roles, which are rooted in the Four Principles of Family Medicine[1]



[1] The source for the CanMEDS-FM "tree" and 4 Principles of Family Medicine "roots" was Dr. David Tannenbaum and the national committee of the CFPC that developed CanMEDS-FM. We added the QI nutrients!

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