

## 9.0 SUMMARY

In an organization that is committed to the training of health professionals, the best measure of success is the people in the organization. The School of Medicine at Queen's University is fortunate to have an excellent and highly motivated student body, expert and experienced faculty and committed and dedicated staff. Our students are a highly select group of individuals who bring a wealth of education and life experience to the school. They take a keen interest in their own learning and development and they participate actively in all aspects of the medical school.

Our students do well as measured by internal and external benchmarks. Our students are confident in the education they receive and feel comfortable moving on to the next phase of their training. They have great success in the CaRMS match and perform extremely well on the LMCC examination with performance in some sections that is above average for the nation.

The School of Medicine has a valuable resource in the dedicated faculty who design and implement our curriculum. Our most committed faculty are recognized locally, nationally and internationally. Our faculty have received awards at the highest levels in education and research. Many of our faculty are involved in teaching, research and administrative activities nationally and internationally. The curriculum delivered at Queen's University School of Medicine has all the necessary components. The curriculum results in good outcomes for our students and some components of the curriculum are done exceptionally well and can act as a model for developing excellence in other areas. Innovative teaching methodologies are being developed and implemented by our faculty within the curriculum. This is being assisted by our evolving electronic capabilities. The curriculum has evolved over the past decade and there is still opportunity for progressive change. It is desirable to continue to reduce the amount of scheduled learning and to introduce more opportunities for active learning. It will be important to leverage electronic tools and to develop appropriate physical space for this evolution in the curriculum.

There are two issues that are present in our environment continuously but sometimes go unrecognized. One is the increasing numbers of learners at all levels of medical training that has occurred over the past five years. The other is the relatively recent centralization of the curriculum in the undergraduate office and the presence of a very strong, historically-based departmental structure within the School of Medicine and Queen's University.

In the medical school alone we have seen an increase in the number of students from 300 to 400. At the same time there have been increases in the number of postgraduate trainees and international medical graduates at all levels of training such that the total number of learners has increased from 531 to 772 in the past 8 years. In spite of the increases that have happened so far, there is and will be further pressure to increase training positions further. This increase has put stress on the entire organization that is difficult to measure and it is difficult to estimate exactly at which point the increase will cause the system to not function effectively. Many people within the organization believe that we are nearing that point.

The historically-based departmental structure is taken for granted. Prior to fifteen years ago, the medical school curriculum was principally delivered using the departmental structure. As the medical curriculum evolved into a systems-based approach, responsibility of organization and delivery of the curriculum became a central function that was organized within the Office of Undergraduate Medical Education. Some of the problems that we see arising are because the undergraduate medical education curriculum does not have a strong and focused support system

based in departments. As an example, course chairs are asked to organize blocks or phases drawing on individuals from multiple departments. Although this is carried out by active and dedicated course chairs, it takes an inordinate amount of effort and time and is not always supported by appropriate resources. It is because of this dichotomy of authority that we are having problems deploying the appropriate faculty resources to delivery of the curriculum. This can be easily contrasted with the postgraduate training programs which are still very deeply entrenched in the departmental system. These programs receive active and ongoing departmental support with easily identifiable champions within each department for the training program.

There are four general themes that can be identified that need to be addressed to promote the positive evolution of our medical school as we strive for excellence in training of our future physicians. These four areas can be grouped into issues related to:

1. Curriculum renewal
2. Infrastructure including people, processes and physical plant
3. Delivery of the curriculum
4. Evaluation processes

The curriculum has been evolving since 1999. There have been modifications to courses and integration of various aspects of the curriculum and the clinical clerkship has been lengthened. However, it was identified in 1999 that major reform of the curriculum was to be anticipated and this has not occurred. The processes were put in place to study and do a major overhaul of the curriculum with the formation of the Curriculum Renewal Task Force. This issue is still relevant for the future but at the present time needs to be put on hold. As will be discussed, it would not be possible to constructively overhaul the curriculum until we address some of the other issues such as infrastructure, curriculum delivery and evaluation.

The infrastructure of the School of Medicine is stressed. Symptoms of this can be seen at various levels. As examples, putting together the data for the self-study has been challenging because of the lack of standard operating procedures, and the marked turnover in staff in the Undergraduate Medical Education Office is a symptom of an organization under stress. The areas that we need to address can be divided into people, processes and physical plant. There is a need to develop processes within the medical school that allow for standard procedures so that day to day activities are streamlined, data can be generated and this turned into valuable information for decision making. It will be absolutely essential to leverage electronic tools to assist in these processes. Our people in the organization need to be valued, trained and used to develop the processes that will be durable. There needs to be consideration given to the numbers of support staff and the necessary expertise for carrying out the tasks of day to day management as well as curriculum renewal.

The physical plant is stretched to capacity given our current volume of learners and faculty and support staff. This is being addressed but it will be critical that the spaces are appropriately developed and time allotment for specific activities is appropriately deployed. This change in the physical plant will need to be carried out before any further expansion in the number of learners can be accommodated.

The issue around delivery of our current curriculum needs to be addressed before we can consider any significant changes or expansion of our curriculum. There are many factors that affect the appropriate deployment of the clinical faculty to teach in the undergraduate curriculum. Faculty engaged in the curriculum need to have sufficient time and administrative support to carry out their responsibilities. An accountability framework that specifically identifies the expected commitment to the undergraduate curriculum, particularly the pre-clerkship curriculum,

is vital to address this issue. This is impacted by the impending retirement of a significant number of senior faculty who will need to be replaced. Symptomatic of the issues is the problem with recruiting faculty to deliver small group teaching such as clinical skills and PBL.

The role of distributed education and our regional partners is critical to curriculum delivery in the future. This aspect of the School of Medicine is actively being developed and will need further nurturing for growth, recognition and support for our newly appointed adjunct faculty and assurance that the curriculum is delivered with the same high quality in all centres.

Evaluation of our students, faculty, courses and curriculum is currently taking place. Some aspects of the processes of evaluation within the medical school are superb and can be used as models to improve other aspects. There is opportunity to improve the form and rigor of student assessment and specifically to improve the formative aspects of this process. The evaluation of our faculty, courses and curriculum is an area that needs particular attention. Some courses (eg. Clinical Skills) have an extremely well-developed and effective evaluation system that allow for self-reflection and improvement. Other aspects of the curriculum are challenged to produce similar data and there are weaknesses in the ability to process this information centrally. The ability to improve many of the evaluation processes is dependent on efforts to build the infrastructure as discussed earlier.

Our school has a strong tradition with excellent people. The short-term goals should be to improve the infrastructure and processes that support the curriculum. A longer term goal, over the next few years, should be to plan for and then subsequently implement curriculum reform. The nature of this curriculum reform is yet to be determined but the critical components should address: 1) course content, 2) length of the clinical clerkship and 3) opportunities for active learning.

## **10.0 RECOMMENDATIONS:**

### **1. Organization and Management of Administrative Infrastructure**

A process to develop systems planning within the Office of Undergraduate Medical Education must be developed. This will need to address:

- a) The number and functions of the support staff
- b) The central reporting mechanisms within the Undergraduate Office
- c) The use of electronic information management to assist in day-to-day processes
- d) The role, time allotment, authority and accountability of the position of Associate Dean, Undergraduate Medical Education

### **2. Curriculum Management**

There is an opportunity to improve the management of the curriculum by putting processes in place to establish regular curriculum review and revision. This will include defining the authority of the individuals and committees responsible for overseeing and directing the undergraduate curriculum.

We should build on the work of the Curriculum Renewal Task Force to institute curriculum renewal and educational reform but only after the issues in recommendation #1 are addressed. The number of medical students should remain stable during this process.

### **3. Evaluation**

Evaluation processes throughout the undergraduate program should be standardized. Improving the processes for evaluation of individual teaching and overall program effectiveness will allow a more constructive manner of curriculum maintenance. There should be further development of student evaluation and feedback and this would be facilitated by enhancing the expertise of the faculty and staff in assessment and evaluation.

### **4. Facilities and Infrastructure**

The current plan for building and redeveloping physical space within the School of Medicine needs to be pursued and completed. Appropriate space for large group, small group, clinical skills and ambulatory patient teaching are essential to ongoing curriculum enhancements.

### **5. Development and Deployment of Faculty**

The recruitment and retention of faculty with an interest in the delivery of the MD curriculum would be enhanced by a process that provides orientation, mentorship, support and recognition to such individuals. This process should also assist faculty in the acquisition of new teaching methods and the use of educational resources. Such a system should be aimed at our affiliated regional preceptors in addition to local faculty.

To ensure that appropriate faculty resources are applied to delivery of the curriculum will require the implementation of recommendations of the O'Connor report with follow through by SEAMO.