



INDEPENDENT STUDENT  
ANALYSIS  
  
OF THE  
  
CUMMING SCHOOL OF MEDICINE  
DOCTOR OF MEDICINE (MD)  
PROGRAM  
  
UNIVERSITY OF CALGARY

Prepared by the ISA Working Group in partnership with the Calgary Medical Students' Association (CMSA)

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**Accreditation Visit**

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## 1. INTRODUCTION & BACKGROUND

The Cumming School of Medicine began preparation for the 2016 CACMS accreditation beginning June 2014. At that time a student accreditation committee was formed, student representatives were appointed to Faculty subcommittee and working groups, and the 2016 and 2017 Class Presidents were appointed as student co-leads of accreditation.

The student accreditation committee, lead by the 2016 & 2017 Presidents, included representatives from all Classes (2015-2018), as well as representatives from the Calgary Medical Students' Association (CMSA). This group was responsible for the preliminary discussion, pre-accreditation survey design, and broad oversight. A separate ISA survey and writing committee was formed with heavy representation from the Class of 2017. This group was involved in all aspects of producing the ISA, including preliminary discussion, survey design, data collection, analysis, evaluation, and report writing.

This report, while written by a working group, is representative of the opinions and perspectives of medical students across four years, the Class of 2015 (recent graduates), the Class of 2016 (clinical clerks), Class of 2017 (second year medical students), and Class of 2018 (first year medical students). To gather these data, the ISA student team and CMSA employed multiple tools (described in greater detail in the Methods section). In short, data was collected through a pre-accreditation survey, an accreditation survey, and sample surveys. The data was then compared to: past accreditation and interim accreditation student reports; University of Alberta, McGill, and UBC ISAs; CGQ and GQ data for University of Calgary 2010-2015; multiple external metrics; and academic literature.

The findings of our process, as outlined in this report, showcase that the Cumming School of Medicine has a comparable MD program to other Canadian Faculties of Medicine. The mandate of the student accreditation-working group was four-fold:

- To elucidate areas of both strengths and weaknesses in our program
- To assess compliance to CACMS standards
- To evaluate student and societal needs and assess the success of the program in addressing them
- To provide recommendations for implementation of deficits, improvements, and innovations, all within the lens of the Cumming School of Medicine (CSM) MD program founding goals, the CSM strategic plan, and University of Calgary's Eyes High strategic direction

On behalf of the student accreditation team we thank you in advance for your thorough and critical assessment of our program. We look forward to meeting with you during the accreditation site visit.

Regards,

Bradley Prince  
MD Program, Class of 2017  
CMSA President, Class of 2017  
Accreditation Student Co-lead

Franco A. Rizzuti  
Leaders in Medicine (MA/MD), Class of 2016  
CMSA President, Class of 2016  
Accreditation Student Co-lead

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## 2.2 LIST OF ABBREVIATIONS/ACRONYMS & COMMON TERMS:

**Table 1: List of Abbreviations/Acronyms used in the ISA**

<b>AHS</b>	Alberta Health Services
<b>AS</b>	Accreditation survey (conducted March 2015)
<b>CACMS</b>	Committee on Accreditation of Canadian Medical Schools
<b>CaRMS</b>	Canadian Residency Matching Service, referring to residency applications
<b>CC</b>	Clerkship Committee
<b>CFMS</b>	Canadian Federation of Medical Students
<b>CGQ/GQ</b>	Canadian Graduate Questionnaire/Graduate Questionnaire
<b>CMSA</b>	Calgary Medical Students' Association, official representative body of MD program students
<b>CoI</b>	Conflict of Interest
<b>CSM</b>	Cumming School of Medicine
<b>DCI</b>	Data Collection Instrument
<b>Eyes High</b>	The University of Calgary Strategic Vision
<b>ISA</b>	Independent Student Analysis
<b>IST</b>	Independent Study Time
<b>LiM</b>	Leaders in Medicine (MD/PhD or MD Plus program)



<b>MSS</b>	Medical School Self-study
<b>MSPR</b>	Medical Student Performance Record
<b>NCHA</b>	National College Health Assessment
<b>PCC</b>	Pre-Clerkship Committee
<b>PAS</b>	Pre-accreditation survey (conducted January 2015)
<b>SA</b>	Student Affairs
<b>SARC</b>	Students Academic & Review Committee
<b>SS</b>	Sample survey (conducted October 2015)
<b>ToR</b>	Terms of Reference
<b>UCalgary</b>	University of Calgary
<b>UME</b>	Undergraduate Medical Education, often referring to UME program office
<b>UMEC</b>	Undergraduate Medical Education Committee

**Table 2: Class Cypher**

<b>Class Year</b>	<b>Animal name</b>	<b>Year of Program at Time of Survey</b>	<b>Year of Program at Time of Report</b>	<b>Year of Program at Time of Site Visit</b>
<b>Class of 2018</b>	Goats	N/A	First	First
<b>Class of 2017</b>	Humus	First	Second	Third (starting clerkship)
<b>Class of 2016</b>	Narwhals	Third (started clerkship)	Third (clerkship)	Third (completing clerkship)
<b>Class of 2015</b>	Cows	Third (completing clerkship)	Graduated	Graduated

**Table 3: Academic Year Cypher**

<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>

<b>Year 1</b>
<b>Year 2</b>
<b>Year 3 (Clerkship)</b>

### 3. EXECUTIVE SUMMARY

The report writing process was designed to be broadly consultative and representative of the student body. The majority of students involved in the accreditation process and the writing of this report were students-at-large (outside the CMSA executive). This report aggregates the student perspective from the Classes of 2015 through to 2018, by integrating the following data:

- Accreditation survey data from the Classes of 2015, 2016, and 2017, for which we achieved an aggregate **90%** (range 77-100%) response rate
- CGQ/GQ data from the Classes of 2014 and 2015
- Sample survey data (25% response rate) from the Classes of 2016, 2017, and 2018

While referencing:

- Pre-accreditation survey (conducted in January 2015) which achieved a 36% response rate
- Interim accreditation data (from interim student survey of 2012)
- Previous ISA report (2008)
- External reference points and data sets
- Cumming School of Medicine key performance indicators and outcome measures
- Academic literature

In addition to the excellent survey response rate, the student accreditation preparation/ISA writing process directly engaged **64** students from the Classes of 2015 through 2018 (13% of student body, 68% of which were students-at-large) on committees, as analyzers, writers and reviewers. 100% of the student body (Classes of 2015 through 2018) was invited to peer review draft 6 of the ISA. The penultimate version of the ISA was distributed to **95** students (19% of the student body) prior to **unanimous approval** by CMSA council on November 17<sup>th</sup>, 2015.

The working group reviewed the CACMS accreditation standards, elements, and sub-elements as listed in the MSS template. We identified that students would be able to provide meaningful data and insight on 51 of the 95 elements. Using these elements as a reference, we objectively reviewed the data and identified four thematic areas. The group chose to list our findings in this report by these thematic areas rather than by a numerical list of elements.

This report is organized into the following four thematic sections:

- Curriculum
- Programmatic design & management
- Wellness & learner environment
- Career & academic advising

Within each section you will find, in order:

- A summary section highlighting strengths, critical areas of improvement, and recommendations for improvement
- A brief narrative when required
- A detailed analysis, listed numerically by relevant CACMS elements<sup>1</sup> where we:
  - Aggregate ISA, CGQ, sample survey/focus group, and reference data to identify strengths and areas of improvement
  - Provide an interpretation, and
  - Provide lower level recommendations (if necessary)

In summary, this report captures the opinions and perspectives of four classes from the Cumming School of Medicine, the Classes of 2015 through 2018. While there is inherent diversity of perspective amongst such a large data set, the working group took great care to objectively and critically assess the data. We are confident that the opinions expressed in this document accurately reflect the student body.

The Cumming School of Medicine MD Program has a strong presentation-based curriculum, which produces competent undifferentiated physicians ready to begin the residency program of their choice. This report aims to identify areas of strength, elucidate areas of student concerns, and where appropriate, provide recommendations to address them. The analysis and recommendations of this report are brought forward in the spirit of collaboration and partnership between the students and the program, in order to continue to enhance the Cumming School of Medicine MD Program and ensure an innovative edge.

In the subsequent pages of the Executive Summary, you will find:

- Programmatic Strengths broken down by thematic area
- Key Areas of Improvement broken down by thematic area
- Critical Recommendation broken down by thematic area
- Student generated heat map of CACMS elements

### 3.1 PROGRAMMATIC STRENGTHS

#### CURRICULUM

- Flipped Classroom, Cards (Curriculum Innovations), Podcasts (**Standard 7.1, 7.2, 7.4**)
- Communications Skills (**Standard 7.8**)
- Med Skills Course (**Standard 6.2**)
- Presentation-based systems (**Standard 7.1, 7.2, 7.4**)
- Resident Teaching (**Standard 3.1**)

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<sup>1</sup> *chart of thematic area elements can be found in Methodology section*

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## PROGRAMMATIC DESIGN & MANAGEMENT

- Accessible and Receptive Associate & Assistant Deans who understand student issues (**Element 8.5**)
- Multiple opportunities for student feedback and strong student representation on committees (**Element 8.5**)
- Clear conflict of interest disclosures (**Element 1.2**)
- Vast majority of students use learning objectives to guide their learning (**Element 6.1**)
- Students feel the feedback they receive is beneficial to their learning (**Elements 9.4, 9.5, 9.8**)

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## WELLNESS & LEARNER ENVIRONMENT

- Diversity (**Element 3.3**)
- Learning environment and professionalism (**Element 3.5**)
- Sufficiency of buildings and equipment (**Element 5.4**)
- Library Resources & Staff (**Element 5.8**)
- Study and relaxation space (**Element 5.11**)
- Quality of accepted applicants (**Element 10.4**)

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## CAREER & ACADEMIC ADVISING

- Special individual meetings with Student Affairs (**Element 11.2**)\*<sup>2</sup>
- UCLIC
- Interest Groups (**Element 11.2**)
- Panels/Mentorship by Upper Years (**Element 11.2**)

## 3.2 KEY AREAS OF IMPROVEMENT

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### CURRICULUM

- Community of Scholars/ Research Opportunities (**Element 3.2**)
- Insufficient IST (**Element 8.8**)
- Service-Learning opportunities and support (**Element 6.6**)

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### PROGRAMMATIC DESIGN & MANAGEMENT

- Lack of curriculum map/linkages between learning and program objectives (**Element 8.2**)
- Curricular management and oversight at levels of Curriculum Committees (UMEC, PCC, CC; **Element 8.3**)

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<sup>2</sup> \*Asterisk denotes a strength which may not address all sub-elements of an element

- Unclear promotion, advancement and graduation policies (**Element 9.9**)
- Perceived delayed responses to student feedback (**Element 8.5**)
- Lack of publicized delegation of authority framework for Cumming School of Medicine and UME (**Element 1.5**)
- The policy development and approval process

#### WELLNESS & LEARNER ENVIRONMENT

- Student Mistreatment (**Element 3.6**)
- Security, Student Safety, and Disaster Preparedness (**Element 5.7**)
- Comfort & Approachability UME/Student Affairs with Personal Problems (**Element 11.1**)
- Financial Aid/Debt Management Counselling/Student Educational Debt (**Element 12.1**)
- Burnout: Personal counseling/well-being programs (**Element 12.3**)

#### CAREER & ACADEMIC ADVISING

- Electives Timing and Opportunity (**Element 6.5**)
- Career Planning (**Element 11.2**)
- Early Career Planning (**Element 11.2**)
- Shadowing (**Element 11.2**)
- Academic Advising (**Element 11.1**)

### 3.3 CRITICAL RECOMMENDATIONS

#### CURRICULUM

- Create repository of research opportunities with available staff and appropriate time commitments for medical students.
- Expand awareness of LiM and establish appropriate access to resources for non-LiM students.
- Continue to support the work of the “Less is More” task force to ensure at minimum that 30% of scheduled time is Independent Study Time (IST) as per numerous CSM policies
- Integrate service-learning into population health/global health course which starts for Class of 2019

#### PROGRAMMATIC DESIGN & MANAGEMENT

- In the immediate term, the Undergraduate Medical Education office to hire a fixed term curriculum design expert to map the curriculum
  - Pre-clerkship & Clerkship Committee (PCC/CC) to then enhance program and learning objectives oversight

#### 14 | INDEPENDENT STUDENT ANALYSIS

- In the medium term, the Cumming School of Medicine to launch a program review process (2-year process, with implementation for Class of 2020 or 2021)
- Appoint temporary governance individual within UME/Cumming School of Medicine to help create policy manual and process, and to clearly delineate policies, procedures, and guidelines
  - Assure policies are connected to MD Program mission/objectives
  - Assure policies are compliant with central university standards & policies
- Separation of promotion/advancement/graduation requirements from SARC ToRs into separate policy, and subsequent revision of SARC ToRs

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## WELLNESS & LEARNER ENVIRONMENT

- Program to implement Mistreatment Task Force recommendations
- Ensure clarity of mistreatment policies
- Program to develop clear CoI processes for mistreatment
- Develop a centralized mistreatment website/page for all mistreatment concerns and policies
- Increase the financial support available to students
- Decrease workload where possible through reduction of redundant and extraneous material
- Implementation of more time off during clerkship
- Where workload cannot be reduced the students strongly suggest administration find ways to increase the student's sense of control and autonomy, specifically in clerkship when burnout is most prevalent. Students suggest this be accomplished through an increase in flexibility in regards to attendance and scheduling as well as any other forms in which more flexibility is possible without compromising the education of the learner.
- The program to continue with the exceptional efforts of Dr. Bailey within the Student Affairs office
- Emergency guidelines to be referenced in all course outlines
- Program to continue to monitor student accessibility and uptake of Student Affairs office, and work to break down any barriers, included perceived ones by students
- The program to provide students needing to take time off with remediation opportunities that don't require a student to take an entire year off

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## CAREER & ACADEMIC ADVISING

- Implement Recommendations of Career-Advising Task Force/Strategic Plan
- Launch process to explore options to revise Clerkship schedule
  - Begin clerkship in January, have 3 months/12 weeks/2 blocks of core rotations at start
  - Followed by core elective blocks (8 weeks)
- Revise shadowing policy to allow more flexibility
- Develop academic advising program

### 3.4 SUMMARY OF ISA ELEMENTS ASSESSMENT

Our report is broken into four key sections based upon student analysis of multiple data points. Within each section is a detailed analysis of accreditation elements.

The ISA writing team has reviewed the MSS elements and sub-elements and compiled this heat map of accreditation elements to summarize the student independent analysis of the program at the time this report was written.

**Table 4: Student derived heat map of element ratings.**

Standard	1	2	3	4	5	6	7	8	9	10	11	12
Element	<del>1.1</del>	<del>2.1</del>	<b>3.1*</b>	<del>4.1</del>	<del>5.1</del>	<b>6.1</b>	<b>7.1</b>	<b>8.1</b>	<del>9.1</del>	<del>10.1</del>	<b>11.1</b>	<b>12.1</b>
	<b>1.2</b>	<del>2.2</del>	<b>3.2</b>	<del>4.2</del>	<del>5.2</del>	<b>6.2</b>	<del>7.2</del>	<b>8.2</b>	<del>9.2</del>	<del>10.2</del>	<b>11.2</b>	<del>12.2</del>
	<del>1.3</del>	<del>2.3</del>	<b>3.3*</b>	<del>4.3</del>	<del>5.3</del>	<b>6.3</b>	<del>7.3</del>	<b>8.3</b>	<b>9.3</b>	<del>10.3</del>	<b>11.3</b>	<b>12.3</b>
	<del>1.4</del>	<del>2.4</del>	<b>3.4</b>	<del>4.4</del>	<b>5.4</b>	<b>6.4</b>	<del>7.4</del>	<del>8.4</del>	<b>9.4</b>	<b>10.4*</b>	<del>11.4</del>	<b>12.4</b>
	<b>1.5</b>	<del>2.5</del>	<b>3.5*</b>	<del>4.5</del>	<b>5.5</b>	<b>6.5</b>	<b>7.5</b>	<b>8.5</b>	<b>9.5</b>	<del>10.5</del>	<b>11.5</b>	<del>12.5</del>
	<del>1.6</del>	<del>2.6</del>	<b>3.6</b>	<del>4.6</del>	<b>5.6</b>	<b>6.6</b>	<del>7.6</del>	<b>8.6</b>	<del>9.6</del>	<del>10.6</del>	<b>11.6</b>	<b>12.6</b>
					<b>5.7</b>	<b>6.7</b>	<b>7.7</b>	<b>8.7</b>	<b>9.7</b>	<del>10.7</del>		<del>12.7</del>
					<b>5.8</b>	<del>6.8</del>	<b>7.8*</b>	<b>8.8</b>	<b>9.8</b>	<del>10.8</del>		<b>12.8</b>
					<b>5.9</b>		<b>7.9</b>		<b>9.9</b>	<del>10.9</del>		
					<del>5.10</del>					<del>10.10</del>		
					<b>5.11</b>					<del>10.11</del>		
					<del>5.12</del>							

#### Legend

Labeling Code	Color
Students Unable to Comment	<del>X.X</del>
Strength	<b>5*</b>
Satisfactory/Compliant	<b>28</b>
Compliant with monitoring	<b>11</b>
Non-compliant	<b>7</b>

Total Elements	95
Elements addressed in ISA	51



### 3.5 SUMMARY OF STUDENT SELF-IDENTIFIED STRENGTHS & AREAS OF IMPROVEMENT

As part of the accreditation process, students were asked to self identify the top three program strengths and areas for improvement in both the pre-accreditation survey (March 2015) and mini survey (October 2015).

The coded responses of respondents are shown graphically as a percentage of respondents per class identifying each in their top, in Appendix M & N.

Below are truncated graphs showing the most commonly reported strengths and areas of improvement.

This qualitative data was a reference lens for the ISA team when developing this report.

In summary, the top three program strengths self-identified by students are:

- Early clinical exposure (42-76% of respondents in each class identifying; mean 60%)
- Teacher and curricular quality (28-62% of respondents in each class identifying; mean 38%)
- Class composition, diversity, school culture & collegiality (26-42% of respondents in each class identifying; mean 33.1%)

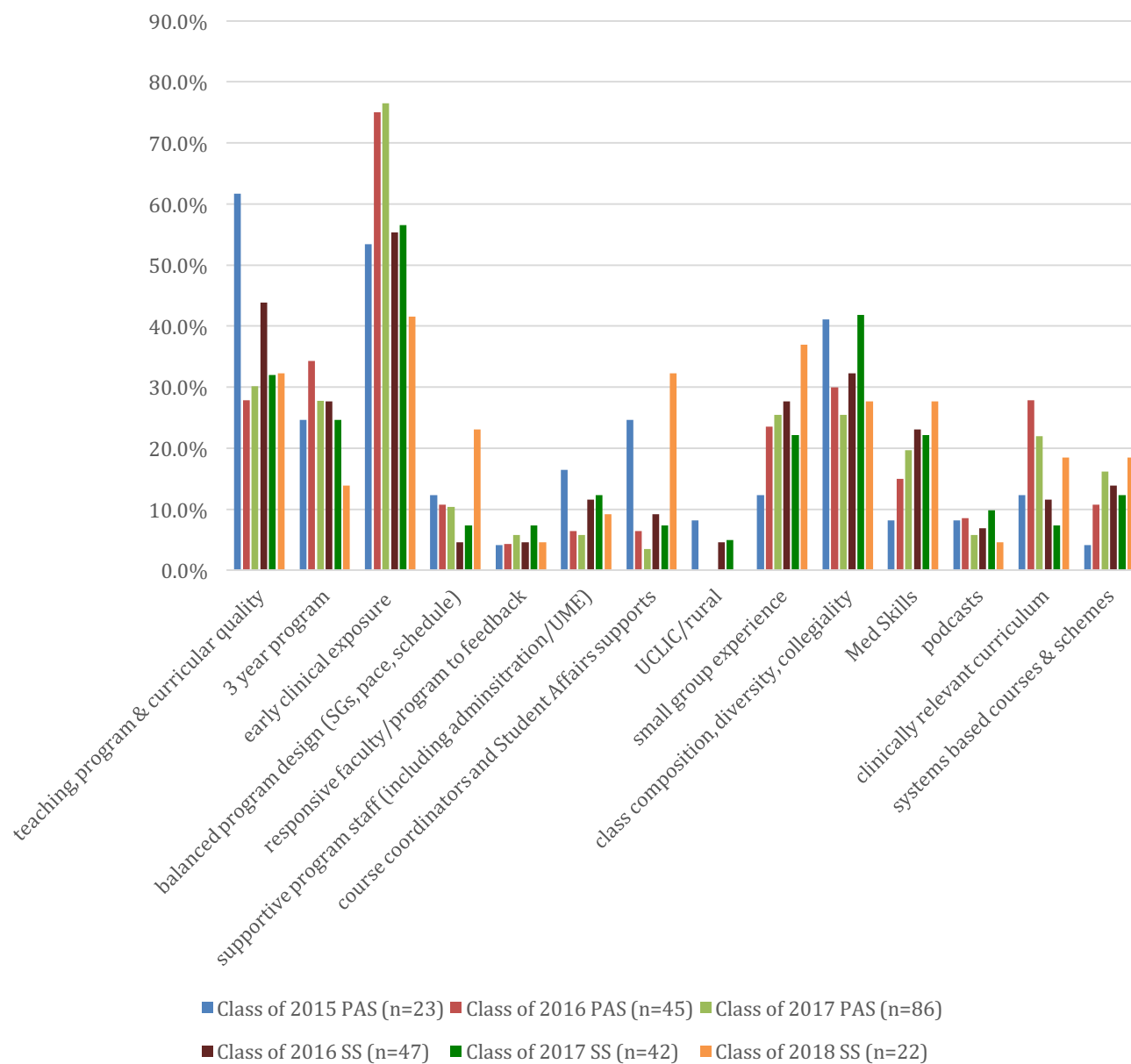
These are followed by: three-year program (mean 26%), small group experience (mean 25%), medical skills (including communications; mean 19%), and clinically relevant curriculum (17%).

In summary, the top three areas of program improvements self-identified by students are:

- Program design & curricular oversight (23-68% of respondents in each class identifying; mean 45%)
- Insufficient anatomy and/or pathology (22-42% of respondents in each class identifying; mean 33%)
- Insufficient Independent Study Time (IST) (8-67% of respondents in each class identifying; mean 28%)

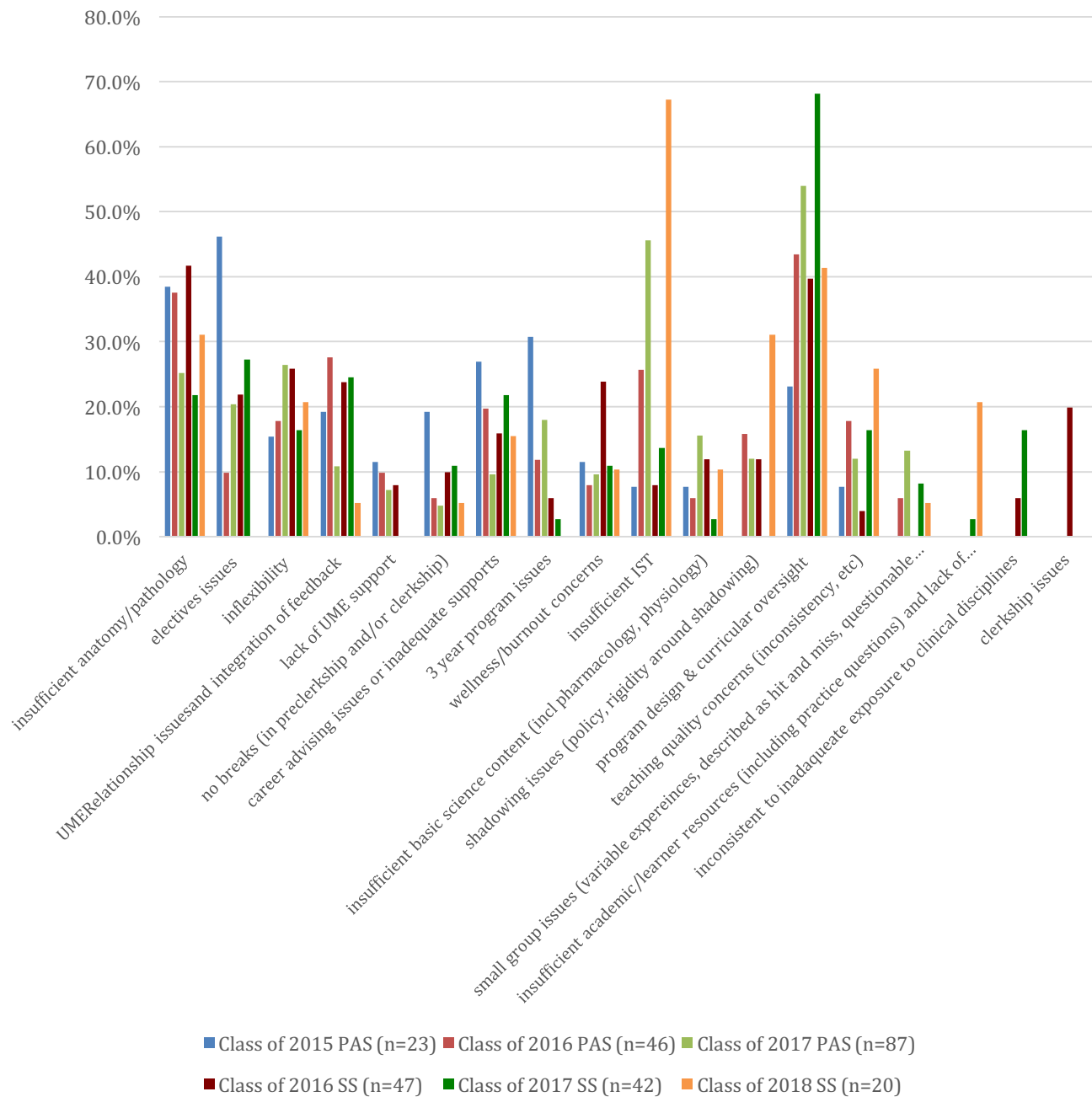
These are followed by: electives issues (mean 21%), inflexibility (mean 20%), UME relationship and/or feedback integration (mean 19%), career advising (mean 18%), and teaching quality concerns (including inconsistency; 14%).

## Top Program Strengths: As self-identified by students through open-ended Top 3 strengths question



**Figure 1:** Composition of coded Top Program strengths as self-identified by students in the pre-accreditation survey (PAS) and sample survey (SS). Horizontal axis lists coded category, and vertical axis depict proportion of students per class identifying.

## Top Program Weaknesses: As self-identified by students through open-ended Top 3 area of improvement question



**Figure 2:** Composition of coded Top Program areas of improvement as self-identified by students in the pre-accreditation survey (PAS) and sample survey (SS). Horizontal axis lists coded category, and vertical axis depict proportion of students per class identifying

## 4. STUDENT PARTICIPATION IN ACCREDITATION

Student participation in accreditation occurred in many ways. The Classes of 2015, 2016, and 2017 completed both the pre-accreditation surveys.

Students from the Classes of 2016, 2017, and 2018 were also instrumental through their participation in multiple focus groups, sample surveys, mock-accreditation, and the accreditation visits.

We would like to draw particular attention to students who contributed significantly through participation in various committees.

### 4.1 CUMMING SCHOOL OF MEDICINE & UNDERGRADUATE MEDICAL EDUCATION SUBCOMMITTEES

*Representatives from mainly the Class of 2016 served on various Cumming School of Medicine & Undergraduate Medical Education subcommittees, to advise and assist in populating the DCI and writing the MSS.*

#### **Equity & Diversity Subcommittee**

Helena Zakrewski & Xiao-Ru Yang, Student Professionalism Reps, Class of 2016  
Verlyn Cleopatra, Class of 2016 CMSA Rep

#### **CSM Academic Subcommittee**

Jaron Easterbrook, Class of 2015/2016 CMSA Rep

#### **CSM Non-academic Subcommittee**

Sara Porisky, Class of 2016

#### **UME Subcommittee**

Nina Samson & Kristine Woodward, Class of 2016 CMSA VP Academics  
Laura Senst & Ann Zalucky, Class of 2017 CMSA VP Academics

#### **Student Affairs & Admissions Subcommittee**

Mimi Tran, Class of 2016 CMSA VP Finance  
Kimia Ghavami, Class of 2016 CMSA VP Student Affairs  
Vanessa Di Palma, Class of 2016 Admissions Representative

### **MSS Review Committee**

Mike Arget, Class of 2016  
Nabeela Nathoo, Class of 2017

### **Ad Hoc Task Forces (established September 2015)**

#### **WELLNESS & BURNOUT**

Jacquelyn Gilbank, Student co-chair, Class of 2017  
Sabrina Dzafovic, Class of 2017 CFMS Wellness Rep  
Amanda Forsyth, Class of 2016 VP Student Affairs  
Vanessa Di Palma, Class of 2016 Admissions Rep  
Danielle Tougas, Class of 2018

#### **MISTREATMENT & PROFESSIONALISM**

Marguerite Heyns, Student co-chair, Class of 2017  
Mike Soutar, Class of 2017 Student Professionalism Rep  
Sara Porisky, Class of 2016  
Bruce Gao, Class of 2018  
Christopher Spence & Kelcie Lahey, Class of 2018 Student Professionalism Reps

#### **CAREER ADVISING**

Amanda Rohla, Student co-chair, Class of 2017 VP Student Affairs  
Stephanie Cote, Class of 2017 VP Student Affairs  
Kimia Ghavami, Class of 2016 VP Student Affairs  
Jen Chen, Class of 2016  
Ryan McGinn, Class of 2016  
Nilo Abdo, Class of 2018 VP Student Affairs  
Ruchika Sharma, Class of 2018 VP Student Affairs

## **4.2 STUDENT ACCREDITATION STEERING COMMITTEE**

*The student accreditation committee consisted of student representatives from the Class of 2015 through to Class of 2018.*

Franco A. Rizzuti, Accreditation student co-chair, and Class of 2016 CMSA President  
Bradley Prince, Accreditation student co-chair, and Class of 2017 CMSA President  
Dr. Robert Schultz, Class of 2015 CMSA President  
Bruce Gao, Class of 2018 CMSA President  
Jessica Clark, Class of 2016 CMSA Rep to accreditation

Dr. Mike Martyna, Class of 2015  
Megan Blades, Class of 2015/2016  
Christina Thornton, Class of 2016  
Mike Arget, Class of 2016

Alex Ragan, Class of 2016  
Emily Macphail, Class of 2017  
Bruce Gao, Class of 2018

#### 4.3 INDEPENDENT STUDENT ANALYSIS & WRITING

**Erin Auld**, Lead ISA writer, Co-lead of ISA survey design & data analysis  
**John Van Tuyl**, ISA Survey lead & co-lead ISA data analysis

**Franco A. Rizzuti & Bradley Prince**, Accreditation student co-leads

##### **Survey Design & Analysis Team**

Brett Shaw, Class of 2017  
Nabeela Nathoo, Class of 2017  
Kristen Rosler, Class of 2017  
Jason Bau, Class of 2017  
Alec Campbell, Class of 2017  
Emily Macphail, Class of 2017  
Carissa Kratchmer, Class of 2017  
Jamie Kees, Class of 2017

##### **Analysis & Writing Team**

Kayla Feragen, Class of 2017  
Jeffrey Lindgren, Class of 2017  
Alexandra Wilson, Class of 2017  
Courtney Philips, Class of 2017  
Elizabeth Williams, Class of 2017  
Sabrina Dzafovic, Class of 2017  
Alec Campbell, Class of 2017  
Nabeela Nathoo, Class of 2017  
Chelsea Morin, Class of 2017

##### **ISA Review Team**

Megan Blades, Class of 2015/16  
Jaron Easterbrook, Class of 2015/16  
Christina Thornton, Class of 2016  
Ceilidh Kinlin, Class of 2017  
John Van Tuyl, Class of 2017  
Bruce Gao, Class of 2018

##### **ISA Consultation Group** (prior to final approval)

All students involved in accreditation (64 across 3 classes)

CMSA Council (Classes of 2015, 2016, 2017 & 2018) Each Council has 13 members

**Peer Reviewers (self disclosed 15 students across 3 classes)**

## 5. METHODOLOGY

### Process

The student accreditation committee was formed in June 2014, initially with representation from the Classes of 2015 and 2016. It grew to include representation by the Classes of 2017 and 2018 as they commenced the program.

The first task of the committee was to review past student reports; this included the Interim accreditation of 2012 and the past accreditation of 2008 ISA. In addition, the accreditation co-leads met with the writers of the University of Alberta ISA. This work occurred between June and November 2014.

From this work, the ISA team decided to implement a two-survey data collection model. A pre-accreditation survey was developed to assess suspected weakness and strengths of the school based upon previous surveys, data sets, and assumptions by the program. This survey preceded the accreditation survey by four months.

The ISA survey team designed both surveys with input by the student accreditation committee and the CSM accreditation steering committee. There was deliberate effort to populate the ISA survey and analysis team with medical students with strong research, survey design, and data analysis backgrounds. Where possible, previously validated survey instruments were utilized.

To refresh the data and capture student opinions and additional information prior to submission of the ISA, a mini survey was sent out to the Classes in October 2015. This data was interpreted and considered as sample data. There are further details in the sample survey section.

### Surveys

All 3 surveys (pre-accreditation, accreditation & sample survey) were administered electronically using Qualtrics survey tool (<http://www.qualtrics.com>). Students were provided a three-week window to complete the pre-accreditation survey and a one-week window (for first and second year students) and dedicated half-day (for clerks) to complete the accreditation survey. Students were able to save the survey as they went; however, only one submission was allowed per IP address. The results were entirely anonymous. Results were stored outside the UME or CSM, and UME/CSM had no direct role in data analysis or interpretation.

The pre-accreditation survey contained 270 individual questions, and took about 30 minutes to complete. This survey was administered by email to students in mid-January 2015. Survey questions and results can be found in Appendix A.

The accreditation survey contained 109 questions sets, with multiple block questions, and took on average 20 minutes to complete. The survey contained a total of 255 Likert-type questions, as well as open text, yes-no, and multi-select questions. This survey was administered to the Class of 2015, who at that time were Clinical Clerks, on CaRMS Match Day, and to the Classes of 2016 and 2017 throughout March and early April 2015. Survey questions can be found in Appendix C1 and results in Appendix C2.

None of the questions, other than those about basic demographics, were mandatory in either survey to reduce errors and attrition due to form validation errors. As a result all means and percentages calculated are based off the number of students who responded to that question, not the total number of surveys completed.

At the request of the student accreditation co-leads, the UME provided student prizes as incentives to complete the survey. Neither the UME nor the CSM directly participated in distributing the prizes or advertising for the survey.

For the accreditation survey, the Class of 2015 (clerks at time of survey) was given a half-day off on match day and pizza lunch if they completed the survey that day. For the Classes of 2016 and 2017, a pizza lunch was provided to the class with the highest participation. In addition to this, participants in each class were entered into a draw to win an iPad mini 16 GB. The prize draw and distribution, as well as the pizza lunch, were coordinated by the student body.

In efforts to reduce survey fatigue at the end of term, the ISA survey included year-end questions that UME would normally send out in a separate survey. These questions were in a separate aspect of the survey with clear notation that they were UME questions. That data was sent directly to UME.

All recruitment and encouragement to complete the surveys were done by the Class Presidents. UME was completely removed from the survey.

## **Sample Survey**

A sample survey containing 14 question sets for clerks and 13 question sets for pre-clerks was developed in September 2015 after the mock accreditation visit. The purpose of this short five-minute survey was to re-evaluate critical areas for improvement or change, as well as to collect newer data, since the ISA survey was conducted in March 2015. This survey also allowed for data collection from the newest class, the Class of 2018.

The intention of this survey was to acquire sample size data from the three classes and to augment the core data of the ISA survey.

This sample survey focused upon the following broad areas:

- Safety

### **24 | INDEPENDENT STUDENT ANALYSIS**



- Academic Learner supports
- Academic learning environment
- Mistreatment & Burnout
- Career Advising
- Other student recommendations

The sample survey was analyzed in a similar fashion to the pre-accreditation and accreditation surveys, as described below.

### **Data Analysis**

Preliminary analysis involved sorting of the data, calculation of means, and review of data distribution on quantitative questions. This analysis was performed by the ISA survey team, writing leads, and accreditation co-leads. This preliminary assessment looked for:

- Questions/topics with large distributions, predominantly for bimodal distributions
- Questions/topics with very low or very high frequencies of affirmative data
- Review of areas of concern in previous surveys or ISAs
- Review of areas of interest to the accreditation steering committee

From this review, the team developed a preliminary presentation. This presentation was provided to the CSM accreditation steering committee on February 9<sup>th</sup>, 2015 (pre-accreditation data) and June 24<sup>th</sup>, 2015 (accreditation data). The copies of this presentation can be found in Appendices B and D, respectively.

The aggregate survey data from both the pre-accreditation and accreditation surveys was analyzed together in June through August of 2015 by the ISA analysis and writing team.

The analysis team was given the University of Alberta ISA as a template to construct broad categories for data grouping. The initial categories were:

- Learner Environment & Wellness
- Curriculum & Responsiveness
- Career Planning
- Mistreatment

This initial analysis by a group of 11 students was considered the raw elements of the ISA. This team analyzed the data without any external reference data. The student accreditation co-leads and ISA writing team then re-analyzed the data comparing it to external and historic reference data sets and with the awareness of discussions occurring at various MSS committees.

The student accreditation co-leads pulled data from previous student surveys at the University of Calgary, including 2008 ISA, 2012 Interim Accreditation student report, 2013-14 National College Health Assessment (in which the University of Calgary

participated), CGQ data from 2010-2015 (with a focus upon 2012-2015), as well as vast literature. These resources were used to frame the data, analysis, and recommendations found in this report. These documents can be found in Appendices E through H.

This review led to the development of classifying the data into four thematic areas:

- Curriculum
- Programmatic Design & Management
- Wellness & Learner Environment
- Career & Academic Advising

A preliminary draft of the ISA was developed and reviewed during the mock accreditation process. This process provided valuable feedback for the ISA team.

During the months of September and October 2015, the ISA underwent additional rounds of revision. The writing team chose to further analyze the data using CACMS elements and sub-elements. The writing team identified 51 elements, of the 95, that students had commented on and that we had data for. The group identified which elements fit into each thematic area (see Table 5).

**Table 5: Organization of 51 CACMS elements, students reported upon, into ISA sections**

	<b>Curriculum (6.1)</b>	<b>Programmatic Design &amp; Management (6.2)</b>	<b>Wellness &amp; Learner Environment (6.3)</b>	<b>Career &amp; Academic Advising (6.4)</b>
Elements	3.1; 3.2 6.2; 6.3; 6.4; 6.6 Standard 7 (7.1, 7.5; 7.7-7.9) 9.7	1.2; 1.5 6.1 8.1; 8.2; 8.3; 8.5; 8.6; 8.7; 8.8 9.3; 9.4; 9.5; 9.8; 9.9	3.3; 3.4; 3.5; 3.6 5.4; 5.5; 5.6; 5.7; 5.8; 5.9; 5.11 6.7 10.4 11.5; 11.6 12.1; 12.3; 12.4; 12.6; 12.8	6.5 11.1; 11.2; 11.3

### **Likert-type Questions**

The majority of questions (255) in the survey utilized a Likert-type scale with six possible options, as recommended by the CACMS Role of Students in Accreditation document<sup>3</sup>.

<sup>3</sup> guidelines outlined in CACMS Role of Students in Accreditation Appendix D

Likert-type questions used in our survey are based upon CGQ and AFMC GQ questions, as well as mandated questions as per the CACMS Role of Students in Accreditation document.

With permission, our question stems and options were based upon the University of Alberta ISA, as that group spent one year developing questions and validated the form through their ISA.

Our survey contains three variants of Likert-type questions:

- 1 = Very dissatisfied – Strongly disagree – Poor
- 2 = Dissatisfied – Disagree – Fair
- 3 = Neither dissatisfied nor satisfied – Neither disagree nor agree – Good
- 4 = Satisfied – Agree – Very good
- 5 = Very satisfied – Strongly agree – Excellent
- NA = Not applicable – No opportunity to assess – Did not use

When analyzing our data, the ‘NA’ selection was removed from the total, then a per question ‘n’ of the remaining options ‘1-5’ and percentage (%) of total for each was established. Tables (Appendix C1) were developed for each question, reporting ‘n’ and a percentage for each option by class.

To analyze the data we initially used similar criteria to that used in McGill University’s ISA<sup>4</sup>. For the purpose of this report, we felt it appropriate to consider a score of 3 or less as unsatisfactory, and only a score of 4 or 5 as satisfactory; therefore, the team identified strengths and weaknesses according to:

1. Area of strength:  $\geq 70\%$  of respondents selected a 4 or 5 weighted option
2. Area for improvement:  $\leq 60\%$  of respondents selected a 4 or 5 weighted option

After our initial analysis of areas of strengths and improvements, descriptive statistics were employed. Then the ISA team reviewed each question as part of the element/category it fell within and identified it as an area of strength or improvement after integrating multiple data points (when applicable).

The ISA team chose not to utilize complex statistical models, such as proportional odds, when analyzing and reporting Likert-type data.

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<sup>4</sup> McGill’s ISA Likert guidelines

- Area of strength:  $\geq 70\%$  “agree” or “strongly agree”
- Borderline area: 60-70% “agree” or “strongly agree”
- Area for improvement:  $\leq 60\%$  “agree” or “strongly agree”

These data were analyzed using descriptive statistics and visualization via graph or figure when required.

We avoided the use of means in our analysis, as Likert data is nominal, except when making:

- Gross temporal comparisons of identical questions, OR
- Gross comparison of rotations to identify rotations over/under-performing

### **Poor –Excellent Likert-type Questions**

74 of the 255 Likert-type questions utilize the poor-excellent Likert-type variant. When the survey and analysis protocol was developed in late 2014 and early 2015, the ISA team used the CACMS recommendations in question formatting, as mentioned above, and did not identify a systematic question flaw with the poor-excellent scale.

The question design of poor-fair-good-very good-excellent created an asymmetric Likert-type question. More concerning, it reinforced acquiescent bias, created positive skew in the responses, and did not afford students a ‘neutral’ option.

This flaw was identified *after* the survey data was collected, analyzed and near the deadline for submission; therefore, we could not change the question format. After consultation with Cumming School of Medicine statisticians that were completely independent from the UME and accreditation process, the ISA team decided to utilize the following approach for the 74 affected questions:

- Report and analyze the data via descriptive statistics
- Identify poor-excellent questions used in the ISA with a double asterisks (\*\*), and apply the following disclaimer-
  - *At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis, the data from these questions have been marked with a double asterisk. For further information, please see Poor-Excellent Likert-type Questions section in the methods*
- A new criteria of *≥20% non-affirmative response (poor & fair) was suggestive of an area of weakness* was employed and the data re-analyzed

### **Qualitative Data Analysis**

In addition to Likert-type, yes-no, multi-select, and report frequency question formats, open-text boxes were utilized in all three surveys.

This qualitative data was immensely useful to the ISA team, as it provided anecdotal experiences, provided rich descriptions of situations and opinions, and added details that would have otherwise been lost if we only collected quantitative data.

All comments were reviewed by members of the ISA team. Comments were analyzed from an educational research perspective and with qualitative research methods as outlined in Denzin & Lincoln (2008).

While no direct quotes are incorporated into the ISA, this data is incorporated into the ISA through mention as anecdotal evidence or by informing the narratives in each section.

In both the pre-accreditation survey and sample survey, students were asked to self identify program strengths and weakness/areas of improvements. These questions were asked immediately after demographic questions at the start of the survey to prevent survey bias, and were asked strengths first followed by areas of improvement. These data were analyzed and coded into categories by a member of the ISA team and the data reviewed by the ISA team. This data is reported graphically in the Executive Summary, and complete distribution of comments in Appendixes M & N.

### ISA Consultation & Review

The ISA writing team and student accreditation co-leads were committed to ensuring that the ISA was a transparent process, engaging both elected student leaders and students at large from all classes.

64 students from the Classes of 2015 through 2018 (13% of student body, 68% of which were students-at-large) were directly involved in aspects of writing, analyzing and/or reviewing the ISA. The penultimate version of the ISA was distributed to 95 students (19% of the student body) prior to unanimous approval by CMSA Council on November 17<sup>th</sup>, 2015.

The following multifaceted consultative process was undertaken:

- The ISA writing and analysis team included students not on university MSS subcommittees
- The initial analysis was performed by students on the writing team, without involvement of the student accreditation co-leads
- The initial analysis was performed in isolation, without external reference data
- ***100% of students at large from the Classes of 2015, 2016, 2017 & 2018 were invited (via multiple email and Facebook group invitations) to participate in peer review of the penultimate ISA draft (version 6)***
  - 15 students across the Classes of 2016-2018 self-disclosed interest in reviewing and provided feedback
- 5 ISA reviewers (two Class of 2017 & three Class of 2016) were appointed to critically review the penultimate ISA draft (version 6)
- All students involved with accreditation as well as the CMSA councils for the Classes of 2015, 2016, 2017, and 2018 peer reviewed the penultimate ISA draft
- In total **over a fifth** of the student body reviewed and provided feedback on the draft ISA
- The student co-leads made themselves available to meet with any students who wanted to discuss the ISA and/or provide verbal feedback
  - 8 meetings occurred, and student feedback integrated into the revised ISA

- The final ISA was approved by CMSA Council (Classes of 2016, 2017, and 2018) on November 17<sup>th</sup>, 2015 (before submission)
- The Final ISA and its appendices was made public and released to the entire student body (after submission to CACMS)

The ISA writing team and student accreditation co-leads were committed to ensuring a transparent process with the CSM accreditation team. The following strategies were utilized:

- The draft survey questions for both the pre-accreditation and accreditations surveys were circulated with the CSM accreditation steering committee, and that body was asked to provide feedback, which was incorporated into the final surveys
- We deliberately asked members of the CSM accreditation steering committee for questions to include in the survey to ensure all required data was collected
- We circulated the raw data from the pre-accreditation survey to the CSM accreditation steering committee in February 2015
- We circulated the raw data from the accreditation survey to the CSM accreditation steering committee in June 2015
- We presented the preliminary analysis of the data to the CSM accreditation steering committee
  - February 9<sup>th</sup>, 2015 (pre-accreditation data) and June 24<sup>th</sup>, 2015 (accreditation data).
- The initial draft (version 4) of the ISA, including all appendices, were forwarded to the CSM accreditation steering committee in advance of the mock accreditation
- The revised ISA (version 6), including all appendices, was sent to the CSM accreditation steering committee in early October to allow incorporation of its data into the MSS
- In early November Version 9 of the ISA went to the CSM accreditation steering committee prior to CMSA Council approval
- November 18<sup>th</sup>, 2015 the final ISA was submitted to CSM accreditation steering committee (post CMSA council approval)

### **Creation of CACMS Elements Heat Map**

As part of the final ISA, the student co-leads and ISA leads read the entire MSS and DCI as compiled by the school post mock-accreditation. This group identified which elements students could accurately comment, and developed the list of 51 (Table 4). This group then reviewed each of these elements, by sub-element with a group of approximately five students, and gave an initial grading. This group used the CACMS-like definition of compliant/satisfactory, compliant with monitoring, and non-compliant to assign a grade.

- Not Applicable
  - Students cannot provide commentary on multiple sub-elements or,
  - Student body does not have access to information required to provide assessment on multiple elements, or

- Student accreditation team lacks data to provide meaningful assessment, or
  - Element felt to be outside the purview of medical students
- Strength
  - Student data highlights this as an area of strength (>80% of students agree, or strongly agree), or
  - Student data suggests this is an area where the CSM is raising national bars
- Satisfactory/Compliant
  - Either all sub-elements are compliant, or
  - There are no student concerns (>60% agree or strongly agree on element specific questions), or
  - If student concerns exist, the underlying has been addressed and at the time of this report either data exists to support resolution or a simple change can be implemented within weeks to months to resolve the issue
- Satisfactory with Monitoring/Compliant with Monitoring (CM)
  - One or more sub-element is non-compliant, or
  - There are student concerns (<60% agree or strongly agree on element specific questions), or
  - A sub-element non-compliance or student concern has been addressed; however, there is insufficient data (administrative outcome data or student survey data) at the time of writing of this report to show resolution or improvement, and data will likely be available within six months to two years
- Unsatisfactory or Non-complaint (NC)
  - Multiple sub-elements are non-compliant, or
  - NC or CM elements from either the 2008 accreditation or interim accreditation remain unresolved, or
  - There are significant student concerns (<50% agree or strongly agree on element specific questions), or
  - There is significant student concern regarding current processes, which hold potential to negatively impact student experience within next accreditation cycle, or
  - A sub-element non-compliance or student concern has been addressed; however, there is insufficient data (administrative outcome data or student survey data) at the writing of this report to show resolution or improvement, and data is unlikely to be available within six months to two years, or
  - A sub-element non-compliance or student concern has been (partially) addressed or new process/policies implemented; however, there has been insufficient time to determine efficacy

Over the course of revisions to the ISA, this group continuously reassessed the 51 elements, based upon student analysis found in this report. The last step in writing the penultimate ISA was for the student co-leads and ISA lead to re-review the 5 elements

and re-grade. Sample survey data was considered recent data and was considered to promote items from NC to CM, or CM to compliant.

The student ISA reviewers and peer reviewers were provided with this draft heat map and asked to provide feedback and comments, using the same criteria (described above). Feedback was compiled and used to revise the heat map in the final document.

## Response Rates

**Table 6: Response Rate for pre-accreditation, accreditation and sample survey by Class.**

Class Year	Animal name	Year of Program at Time of Survey	Year of Program at Time of Report	Accreditation Survey Response Rate	Pre-Accreditation Survey Response Rate***	Sample Survey Response Rate***
Class of 2018	Goats	N/A	First	N/A	N/A	22/153 (14%)
Class of 2017	Humus	First	Second	165/165 (100%)	99/165 (63%)	46/165 (28%)
Class of 2016	Narwhals	Second (began clerkship)	Third	122/159 (77%)	50/159 (32%)	49/159 (31%)
Class of 2015	Cows	Third (completing clerkship)	Graduated	162/176 (92%)	28/176 (16%)	N/A
Average Completion Rate				449/500 (90%)	177/500 (36%)	117/477 (25%)

\*\*\* Note these surveys were conducted to acquire a pulse on student perspective, these data were utilized as guidelines and 'sample' data



## SECTION 6 RESULTS OF ACCREDITATION SURVEY

## STUDENT DEMOGRAPHICS

**Table 7: Age Distribution at time of graduation by gender by class.**

Age at time of program graduation (exact counts)												
	<24		25-27		28-30		31-34		35-38		>38	
	F	M	F	M	F	M	F	M	F	M	F	M
Class of 2017	11	10	38	16	29	12	22	9	6	8	4	1
Class of 2016	14	11	23	8	21	3	12	10	3	5	5	8
Class of 2015	10	11	43	37	17	16	7	5	1	5	4	5

**Table 8: Gender Distribution by Class.**

Gender (percentage)			
	Female	Male	Other
Class of 2017	65.7%	33.7%	0.6% <sup>5</sup>
Class of 2016	63.4%	36.6%	0.0%
Class of 2015	50.9%	49.1%	0.0%

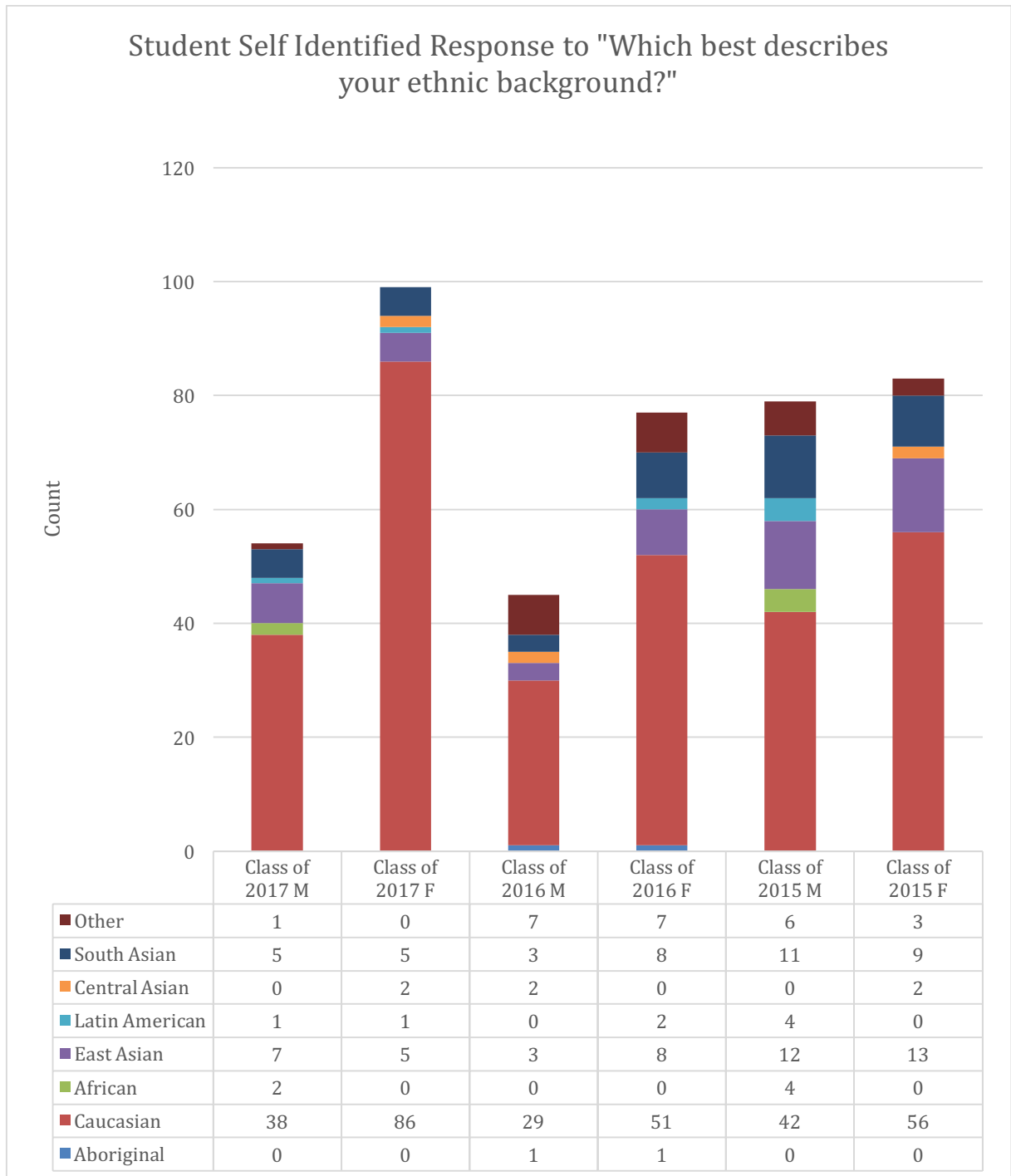
**Table 9: Leaders in Medicine proportions by Class.**

	Member of Leaders in Medicine (LiM) program (Percentage)				
	Yes MD/PhD	Yes MD/MSc	Yes MD/Other	Yes Affiliate	No
Class of 2017	6.7%	4.2%	1.2%	17.6%	70.3%
Class of 2016	3.3%	2.4%	1.6%	18.7%	74.0%
Class of 2015	1.9%	5.0%	0.0%	8.1%	85.1%

**Table 10: Leaders in Medicine enrolment (counts) by Class.**

	LiM enrolment (exact numbers)		
	MD+	Affiliate	Not
Class of 2017	20	29	116
Class of 2016	9	23	92
Class of 2015	11	13	137

<sup>5</sup> 1 student identifies as neither male nor female



**Figure 3:** Student self-identified ethnic background by gender by Class. Reporting options mirrored from CGQ. Exact counts are reported in the table below figure.

## 6.1 CURRICULUM

## Summary

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### STRENGTHS

- Flipped Classroom, Cards (Curriculum Innovations), Podcasts (**Elements 7.1, 7.2, 7.4**)
- Communications Skills (**Element 7.8**)
- Med Skills Course (**Element 6.2**)
- Presentation-based systems (**Elements 7.1, 7.2, 7.4**)
- Resident Teaching (**Element 3.1**)
- Robust Leaders in Medicine (LiM) program (**Element 3.2**)

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### WEAKNESSES & RECOMMENDATIONS

- Community of Scholars/ Research Opportunities (**Element 3.2**)  
Student Recommendations:
  - Create repository of research opportunities with available researchers and appropriate time commitments for medical students.
- Insufficient IST (**Element 6.3**)  
Student Recommendations:
  - Ensure at minimum that 30% of scheduled weekly time is Independent Study Time (IST) as per CSM MD program operating philosophy
- Service-Learning opportunities and support (**Element 6.6**)  
Student Recommendations:
  - Integrate service-learning into population health/global health course which starts for Class of 2019

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## Detailed Analysis

### Resident Participation in Medical Student Education (Element 3.1)

- a. Every medical student at each campus in the last three graduating classes worked with a resident in a healthcare setting in a required clinical learning experience of at least a four-week duration.**

*See Accreditation Survey question 54: c*

86-98% of students reported that the curriculum afforded them opportunities to learn and interact with residents. There is no obvious official avenue to validate that each student has the opportunity to interact with residents. With few exceptions, students felt they were able to learn and interact with resident physicians by the completion of their medical education.

*Summary: Students were able to work with residents in a healthcare setting.*

*Recommendations: None.*

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### Community of Scholars/Research Opportunities (Element 3.2)

- a. The medical school informs medical students about, and encourages them to participate in research and other scholarly activities of the faculty.**

*See CGQ 2015 question 25: a*

No survey data is available to address how well the school informs medical students; however, students from the Class of 2017 (second year) felt that they were not well informed as to opportunities to participate in research.

36% of the Class of 2015 (CGQ) agreed/strongly agreed that they had been encouraged to undertake a research project. No data is available for the first two years.

- b. The medical school supports medical student participation in research and other scholarly activities of the faculty (e.g. coordination of student placements, development of opportunities, or provision of financial support).**

*See CGQ 2015 question 25: a*

*See Accreditation Survey question 7*

As there was no survey question directly related to whether students felt supported in these activities, we used the following questions to address the sub-element:

- “There were opportunities available for me to undertake research” (CGQ 2015 question 25:a)
- and
- “I am participating/have participated in research and other scholarly activities with a faculty member while I was a student in the MD program” (Accreditation Survey question 7)

58% of the Class of 2015 felt there were opportunities available to undertake research. 69% of the Class of 2015 and 61% of the Class of 2016 have participated in research, while 32% of the Class of 2017 had participated in research at the time of the survey.

The 51% of the Class of 2017 that reported they were not participating in research or were not interested in research are concerning. 22% of the Class of 2017 responded that no opportunity was available to participate in research while 29% responded that they had not participated for other reasons. Other reasons were given in the comments section and were principally, “don’t know how to find an opportunity” or, “haven’t had time yet”.

Of note is that at the time of survey the classes of 2015 and 2016 had participated in the *Applied Evidence Based Medicine* (AEBM) course, while the Class of 2017 had not. This experience provides an opportunity for all students to be involved with research.

Also of note is that more resources are available to members of the *Leadership in Medicine* program (LiM) than to the general student body. While the LiM program is open to applications from any student, it is a multi-year commitment and should not be a prerequisite for support participating in research.

As the AEBM course is in second year, and overall it is unclear how much encouragement students feel (see sub-element a), the students feel that, particularly in first year, there is a lack of support for participation in research and other scholarly activities.

In response to this concern, faculty and students have been working together to create a repository of “Medical Student Sized” research projects; however, the project is not yet complete so no data is available to evaluate its effectiveness.

**c. AAMC CGQ and AFMC GQ data show that respondents who wanted to participate in a research project with a faculty member had the opportunity to do so.**

*See CGQ 2015 question 25: a*

*See Accreditation Survey question 7*

Overall, the majority of students participate in research by their second and third years, with 61% and 69% having engaged in research with a faculty member and only 10% and 7% who would have liked to do research but did not have the opportunity, respectively. In the second and third year classes the lack of opportunity was not explored explicitly and may include reasons such as lack of time, inability to find research projects, or lack of qualification for research projects students were interested in.

*Summary: The number of students participating in research is acceptable. However, students feel that research is not well supported as noted in element 3.2(b), particularly for first year students.*

*Recommendations:*

- *Continue to develop and regularly update a list of medical student sized research projects (across disciplines and including basic science, medical education, quality improvement, translational, and clinical)*
- *Increase awareness and availability of LiM affiliates program and its resources*

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#### **Patient Safety in Clinical Encounters (Element 6.2)**

##### **d. The faculty expect that students have the majority of required patient encounters with real patients keeping in mind patient safety.**

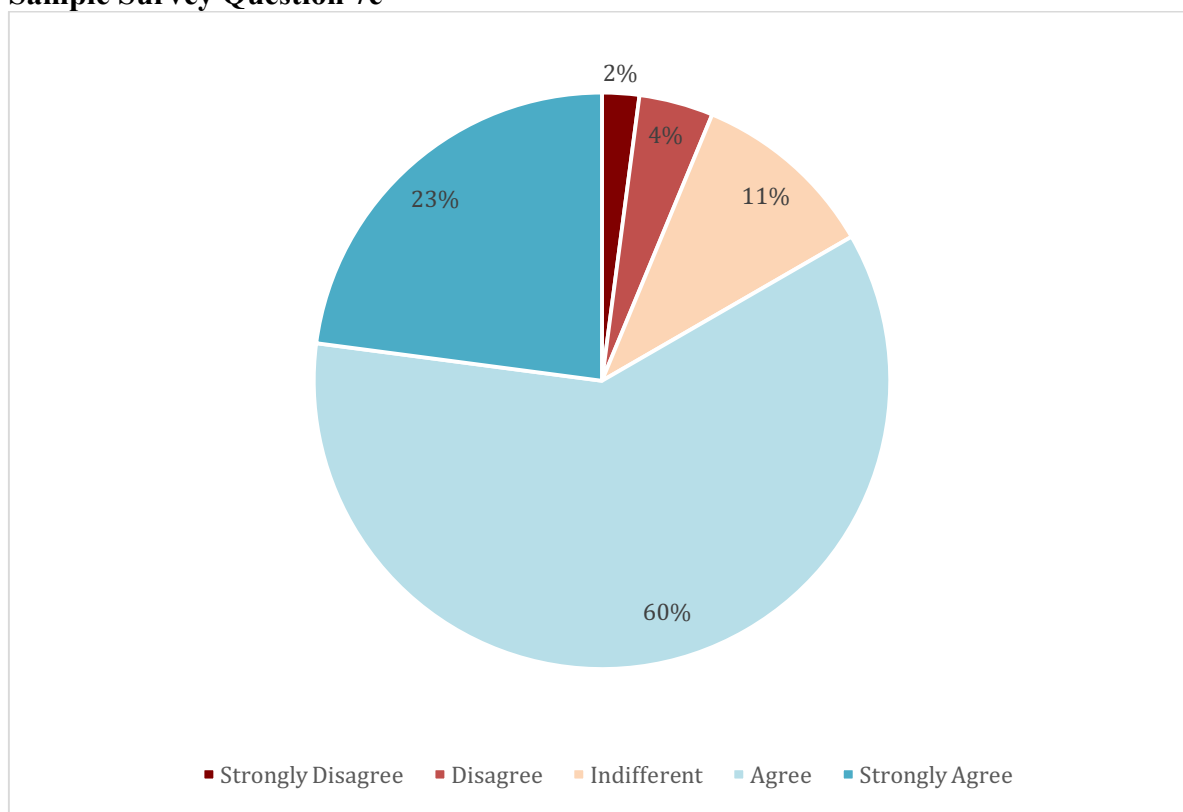
*See Sample Survey question 7:e*

No flags or concerns were identified in the pre-accreditation or accreditation surveys, however this was not specifically addressed.

To acquire data, we asked the following question in the mini sample survey data collected in October:

- "During clerkship the supervision I received ensured the safety of the patients for whom I provided care" (Sample Survey question 7:e)

#### **Sample Survey Question 7e**



**Figure 4:** Depicts clerks (Class of 2016, n=48) level of agreement with Sample survey: Question 7e "During clerkship the supervision I received ensured the safety of the patients for whom I provided care" using 5 point likert scale (5-strongly agree, 1-strongly disagree).



*Summary: This is not an area of concern for students.*  
*Recommendations: None.*

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**Independent Study Time & Life-long Learning (Element 6.3)**

- b. There is sufficient scheduled time in the first two years of the medical education program for self-directed learning sessions described in 6.3a, to allow students to develop the skills for self-directed learning**

*See Accreditation Survey question 74: a*

*See Pre-accreditation Survey question “How satisfied are you with the amount of IST?”*

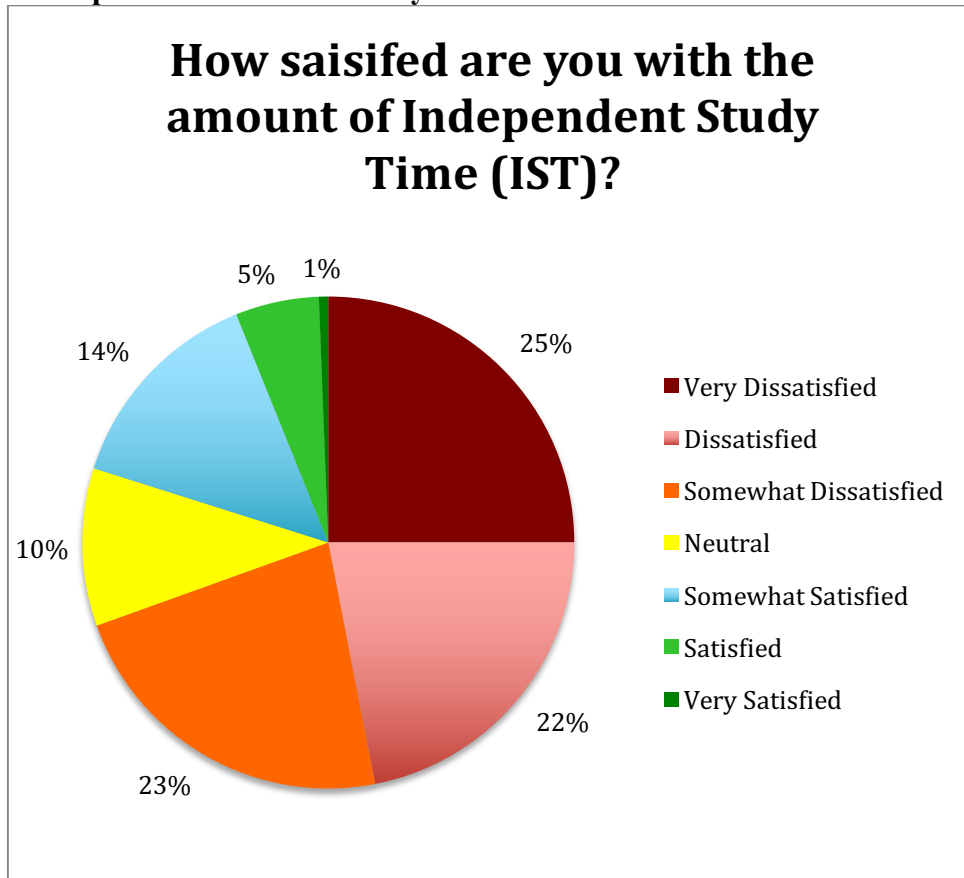
70% of students in the Pre-accreditation Survey felt there was insufficient Independent Study Time (IST). Approximately 31-35% of students in the Classes of 2016 and 2017 responding to the Accreditation Survey felt there was adequate balance of IST and scheduled learning events, compared to 70% in the Class of 2015. At the time of the accreditation survey, protected IST ranged from 21-26% of scheduled time. The program launched a review task force; at the time of this report writing, protected IST within pre-clerkship averages 28% of scheduled time<sup>6</sup>. CSM operating philosophy<sup>7</sup> and policies state requirement is 30% IST.

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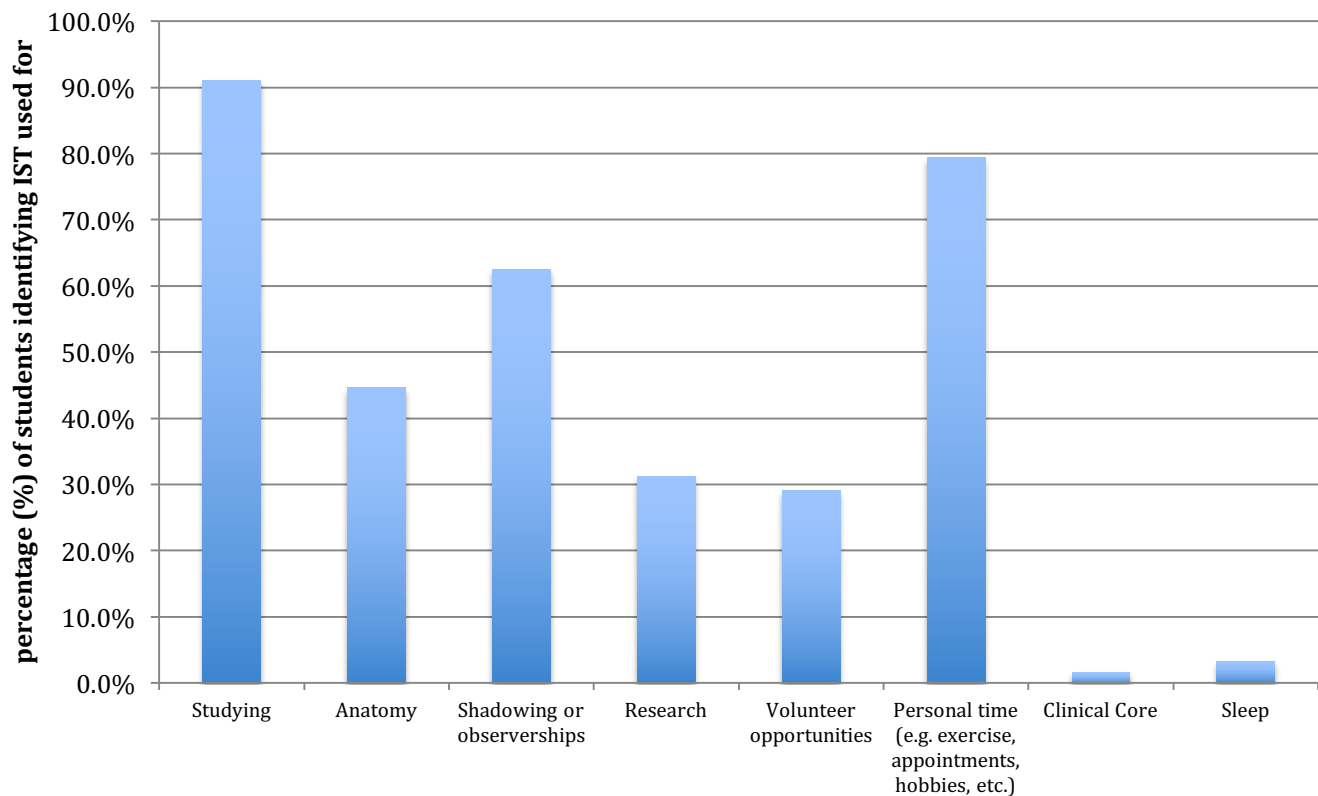
<sup>6</sup> As per MSS section 8.8h IST calculation

<sup>7</sup> CSM Operating Philosophy Standard 9 “Independent study time (IST) so that the student can actively process knowledge and construct their understanding. In order to facilitate this deeper approach to learning, scheduled IST, comprising 30% of weekly scheduled time, is organized within the pre clerkship curriculum.

From pre-accreditation survey



**Figure 5:** Pre-accreditation survey question “How satisfied are you with the amount of IST?” Aggregate data from the Classes of 2015, 2016 & 2017, n=164.



**Figure 6:** Pre-accreditation survey question multi-select question inquiring to use of Independent Study Time (IST). Student could choose as many options as they desired. Aggregate data showed for Classes of 2015, 2016 & 2017, n=164.

Rough working group hour calculations of UCalgary program as well as UAlberta, UBC & McGill<sup>8</sup>.

NOTE: these are rough programmatic hour calculations with account of statutory holidays, based upon 40hour school week, for pre-clerkship, 55 hour scheduled workload for electives, and 70 hour (average work-hours + call) for clerkship.

<sup>8</sup> comparisons determined through use of available online curriculum schema and discussion with student leaders at said schools

**Table 11: Student Calculations of program hours at UCalgary, UAlberta, UBC, & McGill by program Year.**

<b>CALGARY with 30% IST</b>	Number of weeks	weekly hours	Total hours	Pre-clerkship total (h)
Year one	32	28	896	
year two	39	28	1092	<b>1988</b>
electives	16	55	880	
clerkship I	44	70	3080	
clerkship II				
	<b>131</b>		<b>5948</b>	
<b>ALBERTA</b>	Number of weeks	weekly hours	Total hours	Pre-clerkship total (h)
Year one	32	25	800	
year two	36	25	900	<b>1700</b>
clerkship I	50	70	3500	
clerkship II	33	55	1815	
	<b>151</b>		<b>7015</b>	
<b>UBC</b>	Number of weeks	weekly hours	Total hours	Pre-clerkship total (h)
Year one	37	23	851	
year two	37	23	851	<b>1702</b>
clerkship I	53	70	3710	
clerkship II	27	55	1485	
	<b>154</b>		<b>6897</b>	
<b>McGILL</b>	Number of weeks	weekly hours	Total hours	Pre-clerkship total (h)
Year one	43	25	1075	
year two	44	25	1100	<b>2175</b>
clerkship I	48	70	3360	
clerkship II	36	55	1980	
	<b>171</b>		<b>7515</b>	

*Summary:*

*Current IST time is considered to be inadequate by many students from the Classes of 2016 and 2017 and does not meet the policy requirement of 30%.*

*Recommendations:*

- *Continue the work of the “Less is More” task force to ensure minimal 30% IST across first and second years of the curriculum, expand scope to include longitudinal courses*
  - *Program continue to work with students to identify ways to reduce scheduled learning events*
    - *Initiatives such as flipped classroom and cards are contributing to this movement*
  - *Launch a program review process (elaborated upon in Section 6.2)*
- 

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#### **Inpatient vs Outpatient exposure (Element 6.4)**

**The faculty of a medical school ensure that the medical curriculum includes clinical experiences in both outpatient and inpatient settings.**

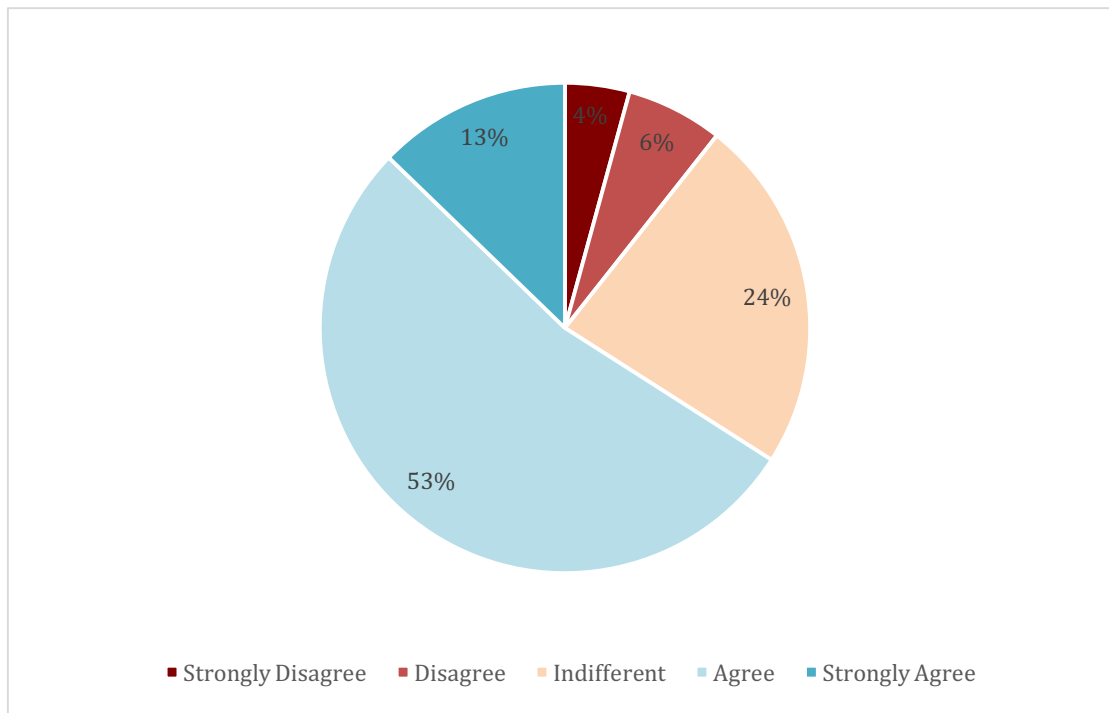
*See Sample Survey question 7: f*

66% of students in clerkship feel that there is an appropriate balance between inpatient and outpatient care.

*Summary: This is not an area of concern for students.*

*Recommendations: None.*

## Sample Survey Question 7f



**Figure 7:** Depicts clerks (Class of 2016, n=47) level of agreement with Sample survey: Question 7f "The balance between inpatient and outpatient care was appropriate" using 5 point Likert scale (5-strongly agree, 1-strongly disagree).

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### Service Learning (Element 6.6)

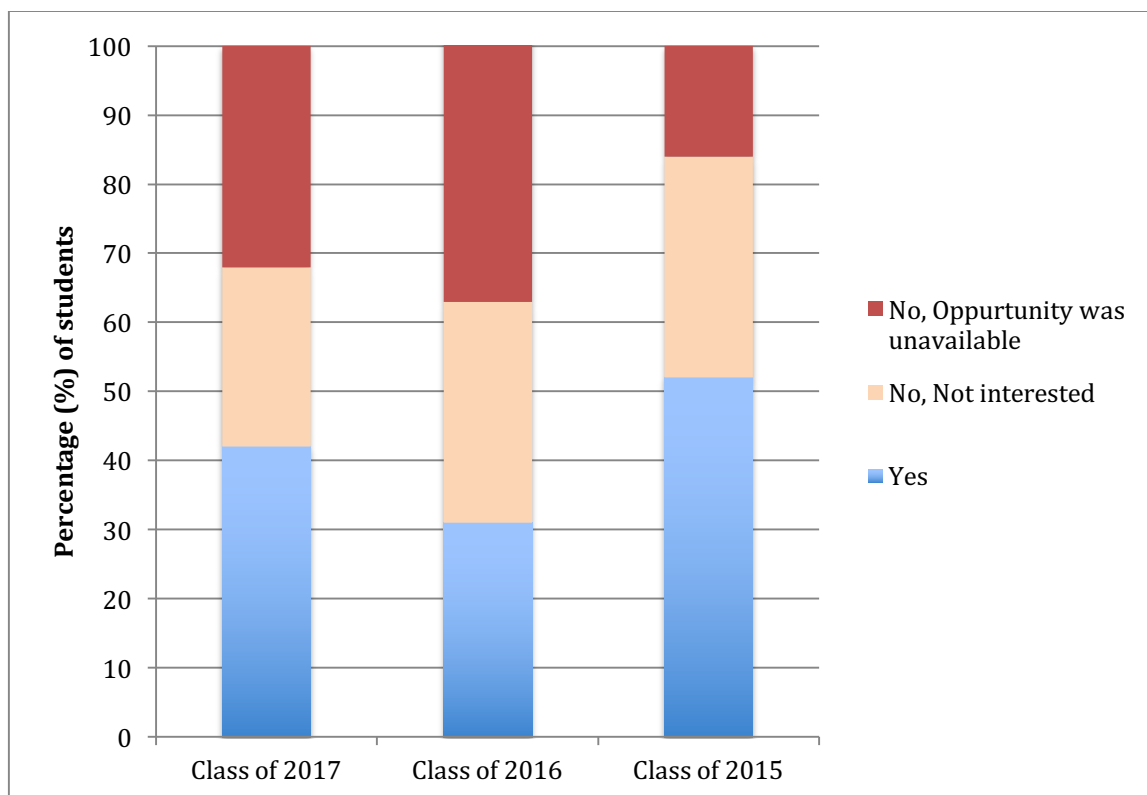
- a. There are opportunities for medical students to participate in service-learning and community service activities during their tenure as a student.**

*See Accreditation Survey question 97*

*See Accreditation Survey question 99*

Data from the Accreditation Survey show that the majority of medical respondents are satisfied/very satisfied with their access to opportunities to participate in service learning activities. 42% of students have participated in a service-learning event and 58-78% of students feel there are opportunities to participate in service learning.

Most of the opportunities for Service Learning are student organized events and initiatives (see Appendix K- Interest Groups and Clubs Handout for listing of Interest Groups available to students). Apart from those, students feel there are few opportunities for service learning provided by the school. Population Health sessions and the Population Health project are generally not considered significant opportunities for service learning by students. Nearly a third of first and second year students felt they had not participated in service learning because no opportunity was available, while at the time they were either participating in or had finished the population health courses.



**Figure 8:** Graphical representation of percentage of student involvement in service learning (ISA survey question 99). Students were able to select Yes, No-not interested, and No-Opportunity was unavailable.

- c. **The medical school informs medical students about service learning opportunities and encourages medical students to participate in service learning activities.**

*See Accreditation Survey question 98*

No survey data is available to comment on the medical school informing medical students about service learning opportunities.

65% of the Class of 2017, 51% of the Class of 2016, and 78% of the Class of 2015 agreed/strongly agreed that they felt “encouraged and/or supported by the Faculty to actively work within the community outside of curricular sessions”.

Students feel these numbers are low for first and second year students and therefore note this sub-element as a weakness.

- d. **The medical school supports student participation in service learning activities (e.g., coordination of student placements, development of opportunities in conjunction with community partnerships or provision of financial support).**

As the school does not coordinate placements, develop opportunities, or provision financial support, students feel a lack of support to participate in service learning.

*Summary: Students feel that there is room for more opportunity, encouragement, or support for service learning activities outside of student-led initiatives, and that the Population Health course is not sufficient in meeting service learning needs.*

*Recommendations:*

- *Program to develop a mechanism to integrate service learning into curriculum and provide diverse opportunities for students to participate in*
- *Enhance support to student groups who offer service learning opportunities*

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## **Curriculum (Standard 7, Elements 7.1, 7.5, 7.7-7.9)**

The medical curriculum taught at the Cumming School of Medicine provides a robust basis for training our medical students into becoming exceptional future physicians. This is largely accomplished through an emphasis on problem based learning, developing an awareness of cultural diversity and societal disparities, and employing an excellent program for the integration of communication skills in the clinical setting. As made evident by the current student body, it is clear that a number of strengths are championed at this school and can be summarized in the following:

### **7.1 Biomedical, Behavioral, Social Sciences**

**The faculty of a medical school ensure that the medical curriculum includes content from the biomedical, behavioral, and socioeconomic sciences to support medical students' mastery of contemporary scientific knowledge and concepts and the methods fundamental to applying them to health of individuals and populations.**

*See CGQ 2015 question 12*

*See CGQ 2015 question 13*

*See CGQ 2015 question 15: a*

Overwhelmingly, students graduating from the Cumming School of Medicine consistently rank the quality of their medical education favorably. In particular, areas of teaching relating to physiology, pathophysiology, and radiology have been identified as being exceptional in preparing students for required clinical experiences and electives.

In clerkship teaching, the quality of education in Emergency Medicine, Family Medicine, and Internal Medicine has been perceived as excellent by over 50% of the student body.

*Summary: This is not an area of concern for students.*

*Recommendation: None.*



## **Societal Problems (Element 7.5)**

**The faculty of a medical school ensure that the medical curriculum includes instruction in the diagnosis, prevention, appropriate reporting, and treatment of the medical consequences of common societal problems.**

### **Effects of societal problems & marginalized populations**

- a. The curriculum includes instruction and has relevant learning objectives in required learning experiences that address the diagnosis, prevention, appropriate reporting, and treatment of the medical consequences of domestic violence/abuse.**

*See Accreditation Survey question 102: a*

79% of the graduating class feels “the level of instruction in the diagnosis and treatment of the medical consequences of – Family and/or domestic violence” to be satisfactory or very satisfactory.

- b. The curriculum includes instruction and has relevant learning objectives in required learning experiences that address the diagnosis, prevention, appropriate reporting (if relevant), and treatment of the medical consequences of substance abuse.**

*See Accreditation Survey question 102: e*

83% of the graduating class feel “the level of instruction in the diagnosis and treatment of the medical consequences of – substance abuse” to be satisfactory or very Satisfactory.

*Summary: This is not an area of concern for students.*

*Recommendations: None.*

## **7.7 Medical Ethics**

**The faculty of a medical school ensure that the medical curriculum includes instruction for medical students in medical ethics and human values both prior to and during their participation in patient care activities and require its medical students to behave ethically in caring for patients and in relating to patients families and others involved in patient care. Students report that they can adequately identify ethical dilemmas in patient care and subsequently synthesize a plan of action to address it.**

*See Accreditation Survey question 103*

Students report that they can adequately identify ethical dilemmas in patient care and subsequently synthesize a plan of action to address it (92% in pre-clerkship, 82% and 96% in clerkship years agree).

*Summary: This is not an area of concern for students.*

*Recommendations: None.*

## 7.8 Communication Skills

**The faculty of a medical school ensure that the medical curriculum includes specific instruction in communication skills as they relate to communication with their patients and their families, colleagues, and other health professionals.**

*See Accreditation Survey questions 38: a-d*

*See Accreditation Survey question 40: b*

The majority of students consistently report exceptional training in helping them become effective communicators with patients and their families, colleagues, and other health professionals. 95% of students in pre-clerkship and 95% and 96% of students in the two clerkship years rank their patient communication training positively and found it to be effective. 73% of pre-clerkship students and 73% and 91% of clerkship students found they received adequate training to be effective communicators with other physicians. For the Class of 2017, communication with patients' families represents a potential area of improvement as only 50% of students find this form of communication training effective. However 83% and 85% of clerkship years found their training helped them, suggesting that once exposed to real clinical scenarios the training received may be more effective than pre-clerkship students initially imagined. There is a similar scenario when it comes to communication with other healthcare professionals as 48% of pre-clerkship students and 76% and 82% of clerkship students agree that their training was effective. Overall, the training and opportunities for development of essential communication skills are seen as a significant strength by students at graduation.

The Communication sessions are multifocal and not only help students awareness of sensitive situations and how best to approach them, but also allows for the opportunity to build on their knowledge base in determining appropriate investigations, diagnoses and patient management. The majority of students (88% in pre-clerkship, 79% and 81% in clerkship years) find these sessions helpful and effective.

*Summary: Students find the Communication course to be an asset in helping them communicate with patients and their families in real clinical scenarios. This is an area of strength.*

*Recommendations: None.*

## 7.9 Interprofessional Collaborative Skills

**The faculty of a medical school ensure that the core curriculum prepares medical students to function collaboratively on health care teams that include health professionals from other disciplines as they provide coordinated services to patients. These required curricular experiences include practitioners and/or students from the other health professions.**

- b. There are sufficient instances of required learning experiences where medical students are brought together with students or practitioners from other health professions to learn to function collaboratively on health care teams as they provide coordinated services to patients.*

*See Accreditation Survey question 28: d*

*See Accreditation Survey question 54: b*

Students feel that generally they are competent at interacting and communicating with other healthcare professionals; however, actual opportunities to interact with non-MD healthcare professionals appears to be deficit in the pre-clinical years, which is supported by the fact that 31% of the Class of 2017 and 47% of the class of 2016 felt the curriculum afforded them opportunities to learn and interact with non-MD healthcare professionals.

The students recognize there has been an increased focus on inter-professional education by UME and feel these sessions, particularly IPE Sims are effective tools to learn to function collaboratively on health care teams. The students encourage continued development of these programs.

*Summary: Overall, there has been improvement in creating opportunities for students to participate in inter-professional education.*

*Recommendations:*

*Continue to develop programs that utilize IPE.*

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*See Accreditation Survey question 115*

#### **SUMMARY:**

Most students (47%) did not require additional exposure to the basic sciences prior to beginning medical school. Approximately 1/3 would have liked podcasts.

#### **Educational Activities & Learning Experiences**

*See Accreditation Survey questions 107: a, c, d, g, h, j, & m*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

*Summary: Overall, students were satisfied with the quality and time spent in educational experiences, as well as the coordination/integration of the first and second years.*

*Recommendations: None.*

#### **Clinical Skills & Education**

*See Accreditation Survey questions 107: e & n*

Clinical skills instruction represents an area of strength. Students are very satisfied with the quality of clinical skills instruction in the first and second years of medical school. While overall students are satisfied with the adequacy of education in caring for patients from different backgrounds, 18% of first year students and 16% of second year students are dissatisfied.

*Summary: Students are overall satisfied with clinical skills instruction, there may be some room for improvement in the education about caring for patients from different backgrounds.*

*Recommendations:*

- *Continue to enhance medical skills and incorporate additional scenarios of patients from diverse backgrounds*

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### **Performance Assessment (Element 9.7)**

*See Accreditation Survey questions 29: b, c, d, & g*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

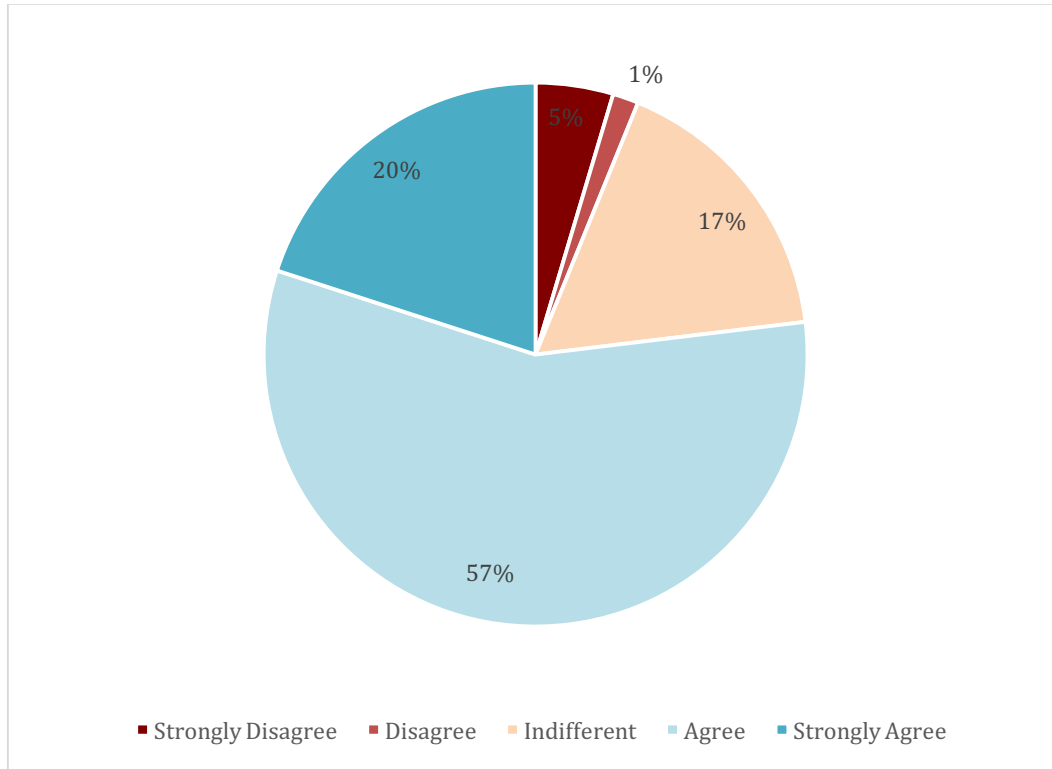
*See Accreditation Survey questions 107: f & o*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

### **Pre-clerkship Mid-point Feedback**

*See Sample Survey question 9: c*

### Sample Survey Question 9c

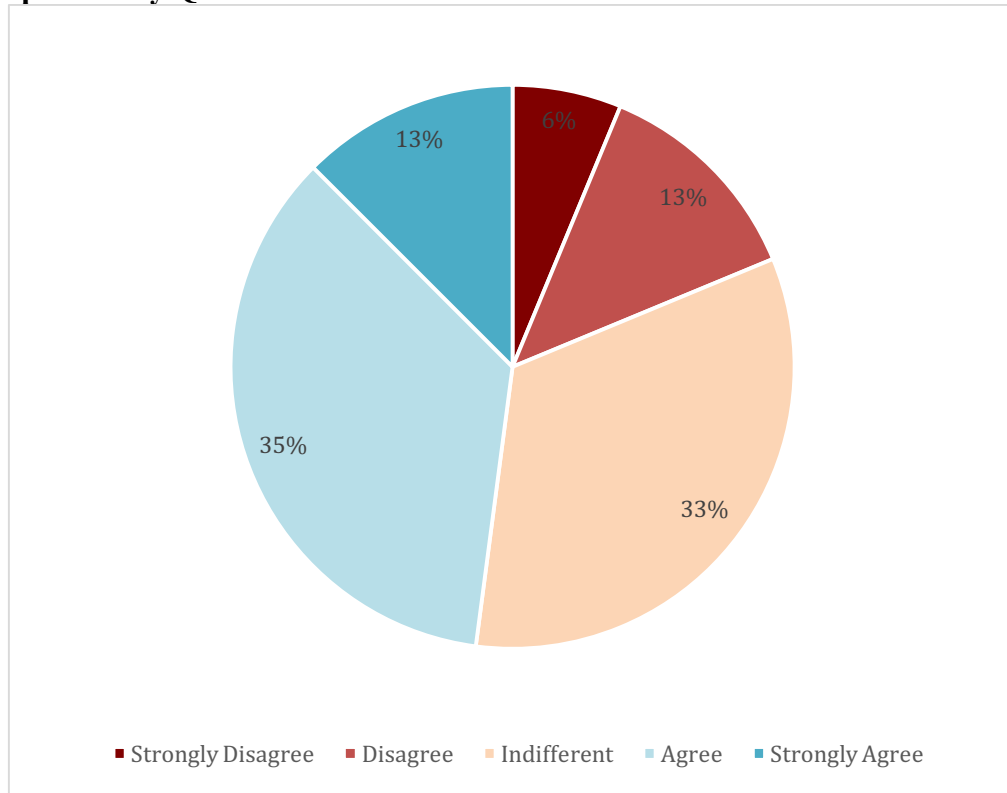


**Figure 9:** Depicts pre-clerks (Classes of 2017 & 2018, n=65) level of agreement with Sample survey, question 9c "I receive feedback early enough to allow me time to improve my performance " using 5 point Likert scale (5-strongly agree, 1-strongly disagree).

### Clerkship Rotations Feedback

In the accreditation survey, the majority of students agree that they received mid-point feedback in each of their clerkship rotations.

### Sample Survey Question 7c



**Figure 10:** Depicts Clerks (Class of 2016, n=48) level of agreement with Sample survey: question 7c "During Clerkship I received feedback early enough to allow me time to improve my performance " using 5 point Likert scale (5-strongly agree, 1-strongly disagree).

*Summary: Overall, students were satisfied with the methods and timeliness of assessments, as well as the amount/quality of formative feedback in their first and second years.*

*Recommendations: None.*

## 6.2 PROGRAM DESIGN & MANAGEMENT

## Summary

### STRENGTHS

- Accessible and Receptive Associate & Assistant Deans who understand student issues (Element 8.5)
- Multiple opportunities for student feedback and strong student representation on committees (Element 8.5)
- Course Chairs/course coordinator model
- Clear conflict of interest disclosures (Element 1.2)
- Vast majority of students use learning objectives to guide their learning (Element 6.1)
- Students feel the feedback they receive is beneficial to their learning (Elements 9.4, 9.5, 9.8)

### CRITICAL AREAS OF IMPROVEMENT

- Lack of curriculum map/linkages between learning and program objectives (Element 8.2)
- Student leadership concern about curricular management and oversight at levels of Curriculum Committees (UMEC, PCC, CC; Element 8.3)
- Unclear promotion, advancement, and graduation policies (Element 9.9)
- Student leadership concern over policy development and approval process

### OTHER AREAS OF WEAKNESS

- Majority of students (82-87%) in Classes of 2015 and 2016 are unaware of the Big 10 Program Objectives, and only 63% of students in Class of 2017 are aware of Big 10 (Element 6.1)
- 61% students in clerkship have worked more than policy allows (Element 8.8)
- Students do not feel the logbook is effective in ensuring students see mandatory presentations (Elements 8.6 and 9.3)

### CRITICAL RECOMMENDATION

- In the immediate term, the Undergraduate Medical Education office to hire a fixed term curriculum design expert to map the curriculum
  - Pre-clerkship & Clerkship Committee (PCC/CC) to then enhance program and learning objectives oversight
- In the medium term, the Cumming School of Medicine to launch a program review process (2-year process, with implementation for Class of 2020 or 2021)
  - to ensure core objectives taught and to reduce extraneous information
  - to ensure adequate IST in pre-clerkship and exam study time in clerkship
- Appoint temporary governance individual within UME/Cumming School of Medicine to help create policy manual and process, and to clearly delineate policies, procedures, and guidelines
  - Assure policies are connected to MD Program mission/objectives
  - Assure policies are compliant with central university standards & policies



- Separation of promotion/advancement/graduation requirements from SARC ToRs into separate policy, and subsequent revision of SARC ToRs

#### OTHER RECOMMENDATIONS

- Make available to students documents which show responsibility trees, and authorities of individuals and committees
- UME and student leadership to continue to work to enhance communication between program and student body
- Development of a student-preceptor conflict of interest process
- Development of a more effective and easier to use 'logbook' to track required presentations

### Narrative

This section of the ISA focuses upon program and curricular management, and aggregates three forms of data:

- Quantitative ISA survey data (March/April 2015)
- Quantitative and qualitative Sample Survey data (October 2015)
- Qualitative and narrative data from student leadership (CMSA VP Academics, VP Student Affairs, heavily involved students, ISA members, and Class Presidents) on oversight and committee functioning

Generally, this was a difficult section for the ISA writing team as the Classes of 2015 and 2016 had a markedly different perspective than the Class of 2017 and 2018. The Classes of 2015 and 2016 experienced many transitions within the UME program, and many of these transitions were completed by the time the Classes of 2017 and 2018 began. The classes of 2015 and 2016 were also in clerkship at the time of the survey. These factors make it difficult to determine which factors are being rated differently in light of the experience of clerkship and which are being rated differently because those classes experienced those aspects of the curriculum in a period of transition.

Through engagement of a diverse group of students and multiple data points, the ISA writing group feels the following are the most influential factors driving the student opinion regarding program design:

- The program has exceptional administration and resources, who collectively are working to steadily innovate the program, and ensure Calgary is a Top Five medical school in Canada
- Over the last two years the program has undergone a large turnover in administration
- Over the last two years the program has undergone a larger than normal amount of policy revisions and creation
- There has been a tremendous amount of change over the last two years, affecting mainly the Classes of 2015 and 2016. This is most likely the source of frustration

by students in these classes. In retrospection, it is possible that multiple changes that were foreseen to be small resulted in larger than anticipated consequences to students

- The MD program has strong graduation (program) objectives and equally strong learning objectives; however, it lacks a linkage between the 2 groups
- While UME administration is receptive to student feedback and keen to implement changes, somehow the implementation does not resonate with half of students
- There are concerns around policy development processes, and clarity of policies/regulations
  - many students are unaware of important policies and policy changes
- The MD program, and more generally the Cumming School of Medicine, was historically quite siloed from the University of Calgary proper, and relics of that persist today
- Significant positive change has occurred over the last two years, and has had a strong impact on the Classes of 2017 and 2018

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## Detailed Analysis

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### Conflict of Interest (Element 1.2)

**A medical school has in place and follows effective policies and procedures applicable to board members, faculty members, or any individuals with responsibility for the medical education program to avoid the impact of conflicts of conflicts of interest in the operation of the medical education program, its associated clinical facilities, and any related enterprises.**

In review of available (current) policies of the University of Calgary, Cumming School of Medicine, and Undergraduate Medical Education program, the ISA team found adequate conflict of interest (CoI) policies pertaining to:

- Research conflict of interest
- Industry conflict of interest
- Disclosure of CoI to students (via required lecture disclosure slides)
- Guidelines for management of CoI of current UME staff applying into the MD program

#### *Summary:*

*The students feel the conflict of interest policies and disclosure mechanisms in place are adequate for research and industry CoI and relevant disclosure.*

#### *Recommendation:*

*NONE*

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### Bylaws (Element 1.5)

**A medical school has and publicizes bylaws or similar policy documents that describe the responsibilities and privileges of its dean and those to whom he or she delegates authority (e.g., vice, associate, assistant deans), department heads, senior administrative staff, faculty, medical students, and committees.**

At the time of this report, and in review of publically available websites of the University of Calgary, Cumming School of Medicine, and Undergraduate Medical Education program, as well as the internal student portal (OSLER), the ISA team found:

- The Cumming School of Medicine Faculty Council Terms of Reference (ToR) are available online
- The Faculty Council Terms of Reference list standing committees of Faculty Council and the ToRs of the standing committees relevant to the MD program are also available online

The ISA team could not find a publically available explicit<sup>9</sup> delegation of authority document or organizational chart for the Cumming School of Medicine nor the MD program. Moreover, it was difficult for the ISA team to clearly identify duties, responsibilities, and authorities of members of administration within UME/MD program. An example of confusion is the role of the UMEC<sup>10</sup> defined as “broadly **advisory** to the Associate Dean, UME,” implying the Associate Dean has ultimate authority, which is cyclic being that policies need to be approved by UMEC.

Additionally, the ISA team found that a significant portion of UME policies have been revised in the year prior to this report, with many policies, procedures, and guidelines being approved and implemented at administrative committees.

The student leadership is concerned about the pace of policy development and revision (an example is the Student Evaluations: Reappraisals & Appeals Policy which has been revised 4 times since October 2014, and approved by a committee with no student representation). The current process of policies being presented and approved at the same committees meeting, often without a consultation period, makes it difficult for CMSA to adequately consult with the student body. The accelerated process, while flexible, makes it difficult to ensure broad student consultation.

Development of a policy creation or revision timeline would enable committees and student leaders to anticipate when policies are being approved and ensure adequate consultation. This would reduce student sense of minimal input into policy development.

Currently, communication of policy changes and development to students is not effective in ensuring students are aware of changes and new pertinent policies affecting important areas such as graduation promotion and attendance.

*Summary: The Cumming School of Medicine has publically available Terms of Reference for Faculty Council and its Standing Committees. However, while the Cumming School of*

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<sup>9</sup> Note: these documents may be available within the Cumming School of Medicine Intranet, however students do not have access to the intranet.

<sup>10</sup> UMEC ToRs approved at Faculty Council March 11 2015

<http://www.ucalgary.ca/mdprogram/files/mdprogram/terms-of-reference-undergraduate-medical-education-committee-umec.pdf>

*Medicine and UME have internal delegation of authority and organizational structure documents, these documents are not readily available to the student body. The lack of clear-delegated authority documents confuses students with respect to routing of concerns.*

*Recommendation:*

- *The students recommend that program develop a clear delegation of authority framework, which delineates responsibilities of committees versus deans.*
- *The students additionally recommend that the program publicize an organizational chart and delegation of authority framework either on the Cumming School of Medicine Administration webpage, MD program webpage, or within OSLER (if the school wishes it to remain an internal document).*
- *The students recommend that a new policy framework be implemented for UME which would include:*
  - *Clear communication of new policies/procedures OR policy/procedure changes to students*
  - *Ensure policies are reader-friendly to students*
  - *Ensure students are aware of pertinent policies and procedures*
  - *Grandfather-ing mechanisms*
  - *Ensure policy development follows University of Calgary policy process to allow student and other stakeholder consultation prior to approval <sup>11</sup>*
  - *Clear delineation of program regulation vs. policy vs. procedure vs. guideline*
  - *Creation of a complete MD program calendar entry*

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### **Program & Learning Objectives (Elements 6.1, 8.1, 8.2, 8.3)**

**6.1 The faculty of a medical school define its medical education program objectives in competency-based terms that reflect and support the continuum of medical education in Canada and allow the assessment of medical students' progress in developing the competencies for entry into residency and expected by the profession and the public of a physician. The medical school makes these medical education program objectives known to all medical students and faculty members with leadership roles in the medical education program, and others with substantial responsibility for medical student education and assessment. In addition, the medical school ensures that the learning objectives for each required learning experience are made known to all medical students and those faculty, residents, and others with teaching and assessment responsibilities in those required experiences.**

**8.1 The faculty of a medical school entrust authority and responsibility for the medical education program to a duly constituted faculty body, commonly called a**

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<sup>11</sup> recommend process similar to university policy development process  
<http://www.ucalgary.ca/policies/files/policies/process-flow.pdf> and  
<http://www.ucalgary.ca/policies/files/policies/policy-flow.pdf>

curriculum committee. This committee and its subcommittees or other structures that achieve the same functionality, oversee the curriculum as a whole and have responsibility for the overall design, management, integration, evaluation, and enhancement of a coherent and coordinated medical curriculum.

**8.2 The faculty of a medical school, through the curriculum committee, ensure that the formally adopted medical education program objectives are used to guide the selection of curriculum content, to review and revise the curriculum, and to establish the basis for evaluating program effectiveness. The learning objectives of each required learning experience are linked to the medical education program objectives.**

**8.3 The faculty of a medical school are responsible for the detailed development, design, and implementation of all components of the medical education program, including the medical education program objectives, the learning objectives for each required learning experience, and instructional and assessment methods appropriate for the achievement of those objectives.**

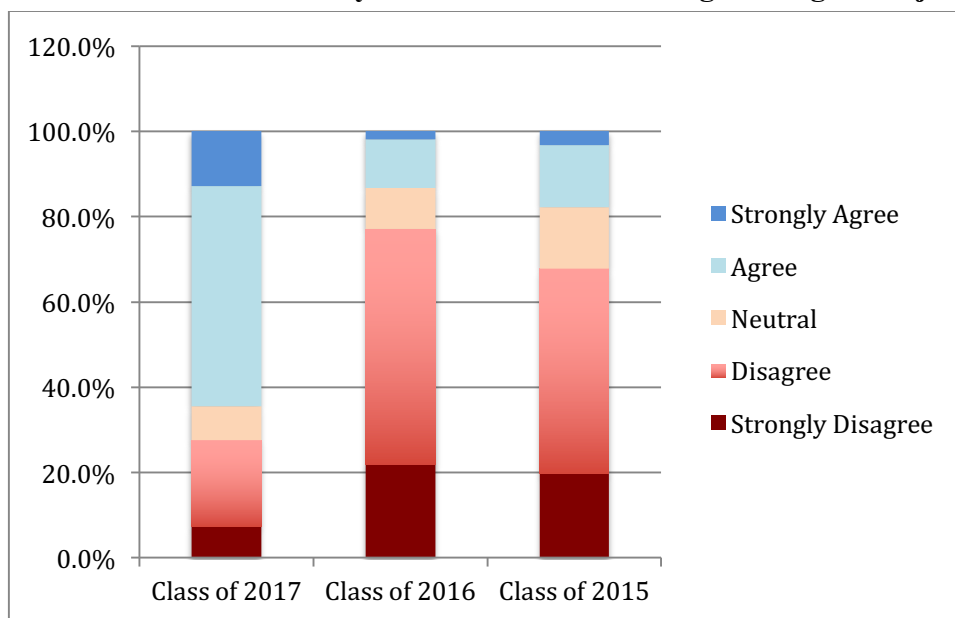
**The curriculum committee oversees content and content sequencing, ongoing review and updating of content, and evaluation of required learning experiences, and teacher quality.**

**The medical education program objectives, learning objectives, content, and instructional and assessment methods are subject to ongoing monitoring, review, and revision by the curriculum committee to ensure that the curriculum functions effectively as a whole such that medical students achieve the medical education program objectives.**

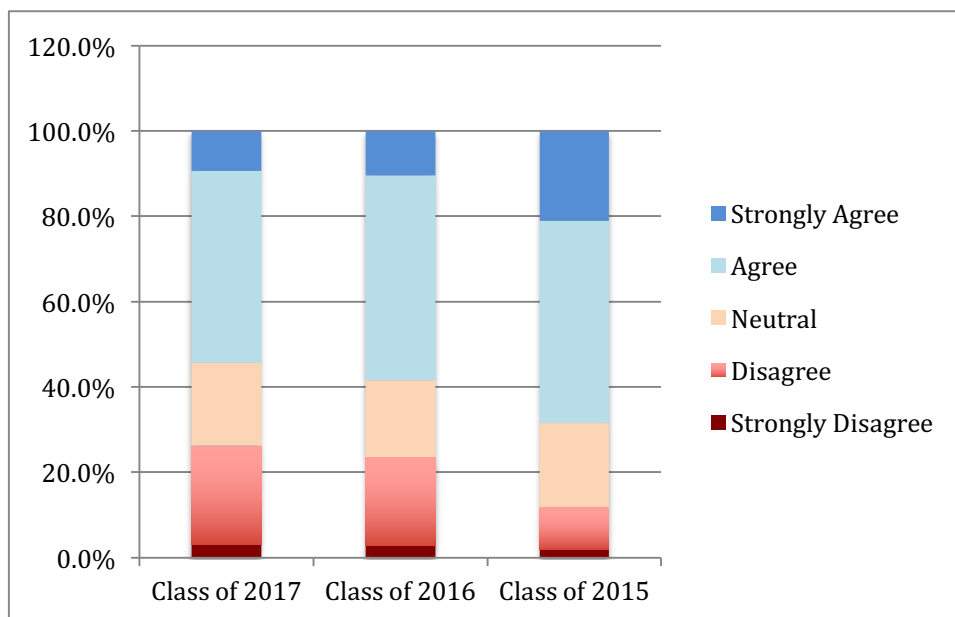
*See Accreditation Survey questions 29: a & f*

Students overwhelmingly feel that the learning objectives of required learning experiences (in first, second, and third years) helped to guide their learning. This represents an area of strength.

### From accreditation survey - Awareness of MD Program Big 10 Objectives



**Figure 11:** Student Level of Agreement with Accreditation survey question “I am aware of the MD Programs “Big 10” Graduation objectives” using 5 point Likert scale (5-strongly agree, 1-strongly disagree).



**Figure 12:** Student level of Agreement with Accreditation survey question “ I am aware of the competencies for entry into residency as formulated in the MD program objectives” using 5 point Likert scale (5-strongly agree, 1-strongly disagree).

Class of 2017 students are relatively aware (62% agree or strongly agree) of the Program Objectives; however, students in the Classes of 2016 and 2015 are grossly unaware of program objectives.

55% (Class of 2017) to 72% (Classes of 2015) of students are aware of residency entrance competencies (which are linked to the big 10 graduation objectives), suggesting that students do achieve graduation objectives, albeit they may be unaware of the connection to the program objectives.

The student rationale for this is that although the MD program has had the “Big 10 Graduation Objectives” since 1999, they were not publicized to students and not a significant component of teaching until Fall 2014. This enhanced emphasis on the Big 10 starting Fall 2014 explains why the Class of 2017 (which started Fall 2014) is well aware of the Big 10 objectives, while the prior classes were not.

It is also likely that the lack of direct linkage between Big 10 to the 120+/- clinical presentations to learning objectives makes it difficult for students to know that they are learning/acquiring Big 10 competencies.

### **ISA Review of Relevant documents**

The ISA team reviewed DCI & MSS components (including minutes of UMEC, PCC & Clerkship Committee) relevant to this standard and found that the program has strong program objectives (Big 10), links them well to CanMEDs competencies, and has good outcome measures for these graduation objectives. These objectives are reviewed somewhat regularly by UMEC. Similarly, the program has individual learning event (lecture, small group, clinical encounter) objectives, as well as course or block objectives, as an aggregate known as learning objectives. While PCC or Clerkship Committee broadly reviews these objectives annually, much of the learning events and course/block objectives appear to be determined at the level of the course chair/clerkship director. In consultation with student representatives on the aforementioned committees, it is perceived that PCC has clear reporting lines from course committee to PCC and mandates from UME/PCC are followed and implemented well. However, CC is not felt to run as smoothly, in that there can be difficulty in negotiation of program mandates with clerkships (directors, committees, rotations, etc), and that much authority is delegated to clerkship directors/committees.

In our review, the ISA team could not find up (from learning event-to-course/block-to-program level) or down (from program-to-course-to-learning event) linkages between objectives. Students are also not aware of direct linkages between learning objectives and the 120+/- clinical presentations that our curriculum is founded upon.

The Cumming School of Medicine MD program does not have a curriculum map<sup>12</sup>. Multiple studies have shown that curricular maps lead to reduction in topic

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<sup>12</sup> Reference curriculum maps include:

USaskatchewan <https://servicecentre.usask.ca/one45-kb/objectives/>

UToronto <http://cmap.med.utoronto.ca/>

duplication, which increases learner satisfaction and faculty engagement; IM residency (Wong & Roberts, 2007), in undergraduate medical education (Balzer et al., 2015), and in pharmacy program (Zelenitsky et al., 2014).

In addition to unlinked objectives and student lack of awareness of program objectives (Big 10), an average of 45% of students self-identified program design and curricular oversight as an area of weakness.

The program employed the “Less is More task force” over the last year to assess and reduce content redundancy in Courses 1-7. While a great initiative, the purpose of less is more was not to map objectives to clinical presentations and required a significant amount of resources and time from administrators. An external reviewer would reduce the strain on administration, decrease cost of the project compared to requiring administration to perform it, and increase the quality of medical education.

*Summary: Students across all classes utilize learning objectives to guide their learning in both pre-clerkship and clerkship. Students who began program prior to Fall 2014 lack awareness of the “Big 10” Graduation/Program Objectives.*

*The program as currently structured does not have clear linkages between learning objectives and program objectives, and learning objectives are strongly influenced and directed by course chairs/committees. The lack of a curriculum map/ objective linkage within the program is a concern for students, especially because students so strongly rely on learning objectives to guide their learning.*

*Recommendation: The students recommend that the program hire a limited term (1 year) curriculum design expert to lead the development of an interactive curriculum map for the entire program.<sup>13</sup> This map would link learning objectives to clinical presentations to program objectives. This interactive map could then be used as an enhanced study resource for students. As well, once this map is established, PCC and Clerkship committee can use it as the foundation for strengthening curriculum oversight/monitoring and work with the respective chairs to ensure that the appropriate objectives are being taught.*

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## **Use of Student Data in Program Improvement & Student Perception of Responsiveness (Element 8.5)**

**In evaluating medical education program quality, a medical school has formal processes in place to collect and consider medical student evaluations of their required learning experiences, teachers, and other relevant aspects of the medical education program.**

*See Accreditation Survey question 58*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been*

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<sup>13</sup> UCalgary Faculty of Veterinary Medicine DVM program in October 2015 placed a call for a Program Mapping Assistant (see pdf of role description Appendix O).



*marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

*See Accreditation Survey questions 59: a, b, c, & d*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

*See Accreditation Survey questions 60: a, b, c, & d*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

*See Accreditation Survey questions 46: a & b*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

A majority of students feel that there is appropriate accessibility to the Associate and Assistant Deans, and that they are aware of and respond to student concerns. All metrics within this area perform at a strength (Associate Dean) or borderline area (Assistant Deans), and when also looking at students who chose to rate the Associate and Assistant Deans as “good” (3 on the Likert scale\*\*), all groups perform very well.

The Associate and Assistant Deans have made themselves available through open-invite “Town Hall” sessions, at which students are welcomed to bring up any issues they have observed during medical school. This is an effective method for the deans to make themselves accessible to students. The program also provides many opportunities for student feedback (daily learning event surveys in pre-clerkship & Course 8 learning event surveys in Course 8, as well as end of course/block surveys throughout the program) and students are well represented on various committees. This provides a medium for the Associate and Assistant Deans to become aware of student issues.

The program has responded to student concerns and feedback as issues or suggestions arise.

There is a small proportion of students who do not feel the deans are accessible, aware, or responsive to student concerns. 3-10%\*\* of students rated the responsiveness of the Associate Dean and 13-29%\*\* rated the responsiveness of the Assistant Deans as poor or fair. Likewise, 4-17%\*\* and 8-23%\*\* rated the accessibility and awareness, respectively, of the Assistant Deans as poor or fair. Although these are not large numbers, we mention it because medical school is a stressful period; all students should feel able to access the individuals who have a significant impact on their medical school experience, whether to share personal or group concerns, and should feel that their feedback is being heard and responded to.

*Summary: Students feel that there are sufficient opportunities and modalities for individual student feedback, and that individuals within UME are aware of issues and receptive to feedback. However, there remains a small proportion of students who feel at a program level there is insufficient responsiveness to student feedback.*

*Recommendations:*

- *School to continue with robust multiple modalities to collect student feedback*
  - *The program to continue to work with student leadership to understand reasons behind perceived unresponsiveness to student feedback*
  - *The program to work with the student leadership to develop a more effective communication mechanism with students at large regarding program improvements*
- 

**Monitoring of Educational & Clinical Activities and Comparability of Learning Environment between sites (Elements 8.6/9.3, 8.7 & 8.8)**

**8.6 A medical school has in place a system with central oversight that monitors, remedies any gaps, and ensures completion of the required patient encounters, clinical conditions, skills and procedures to be performed by all medical students.**

**8.7 A medical school ensures that the medical curriculum includes comparable educational experiences and equivalent methods of assessment across all locations within a given required learning experience to ensure that all medical students achieve the same learning objectives.**

**8.8 The curriculum committee and the program's administration and leadership implement effective policies and procedures regarding the amount of time medical students spend in required activities, including the total number of hours medical students are required to spend in clinical and educational activities during required clinical learning experiences.**

**9.3 A medical school ensures that medical students in clinical learning situations involving patient care are appropriately supervised at all times in order to ensure patient and student safety, that the level of responsibility delegated to the student is appropriate to his or her level of training, and that the delegated activities supervised by the health professional are within his or her scope of practice.**

*See CGQ 2015 question 21*

*See Sample Survey question 7: g*

**Monitoring of Clinical Activities (Element 8.6 & 9.3)**

Reviewing CGQ data, the majority of students in most clinical experiences see the required presentations, with only Pediatrics and Surgery having lower ratings<sup>14</sup>. In

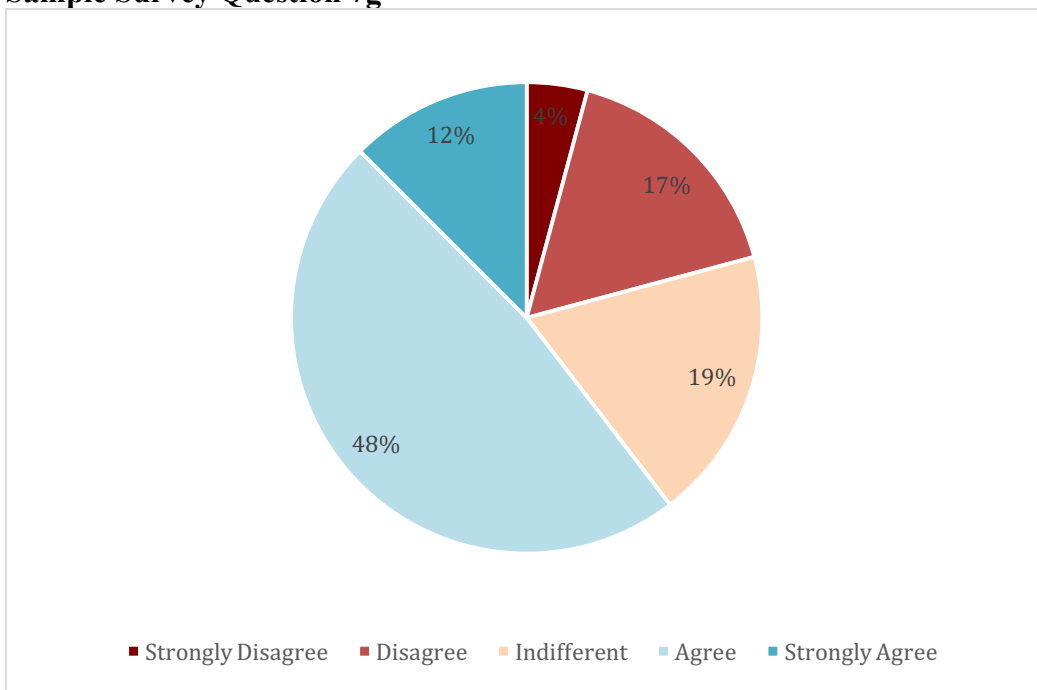
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<sup>14</sup> CGQ 2015 question 21 Pediatrics Mean 3.95, Surgery 3.88. All other experiences mean >4.1

conversations with current clerks there are anecdotes of students fabricating log entries and clerks completing rotations without having seen required presentations.

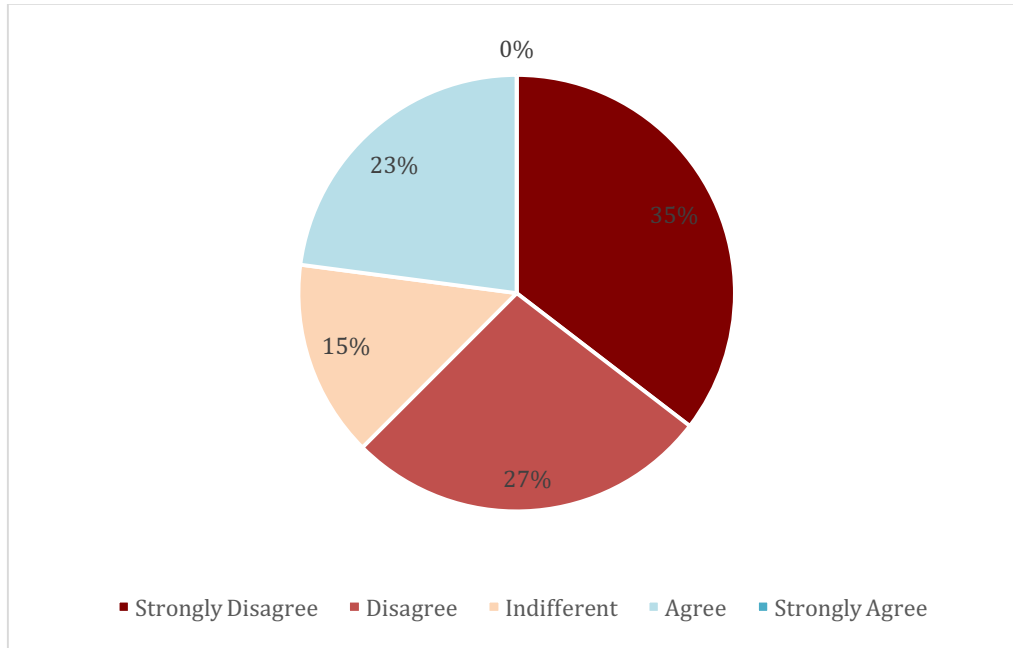
There were no questions asked about this in the ISA. However, Sample Survey data shows that 60% of current clerks (Class of 2016) agree that they are aware of required learning objectives. 23% of the Class of 2016 respondents agree that the logbook is an adequate tool to ensure they see required learning experiences.

#### Sample Survey Question 7g



**Figure 13:** Depicts Clerks (Class of 2016, n=48) level of agreement with Sample survey Question 7g "As a clerk I am aware of my required learning objectives for each block/rotation" using 5 point Likert scale (5-strongly agree, 1-strongly disagree).

### Sample Survey Question 7h



**Figure 14:** Depicts Clerks (Class of 2016, n=48) level of agreement with Sample survey Question 7h "As a clerk I feel the log book is an adequate tool to ensure I see required clinical presentations" using 5 point Likert scale (5-strongly agree, 1-strongly disagree).

#### *Summary:*

*60% of clerks agree that they are aware of learning objectives for each block/rotation.*

*CGQ 2015 data reveals an inconsistency between core clerkship rotations in student ability to see presentations, with Surgery & Pediatrics performing below other rotations.*

*The majority of clerks do not feel the logbook, which is the core tool to record and ensure required presentations are seen, is effective at doing so.*

#### *Recommendations:*

- Program to enhance consistency of exposure to required clinical presentations, perhaps with augmentation of core rotation settings/components to ensure students see required presentations*
- Program to ensure that preceptors are aware of clerk required presentations in core rotations*
- Program to develop a more effective and easier to use 'logbook' to track required presentations*

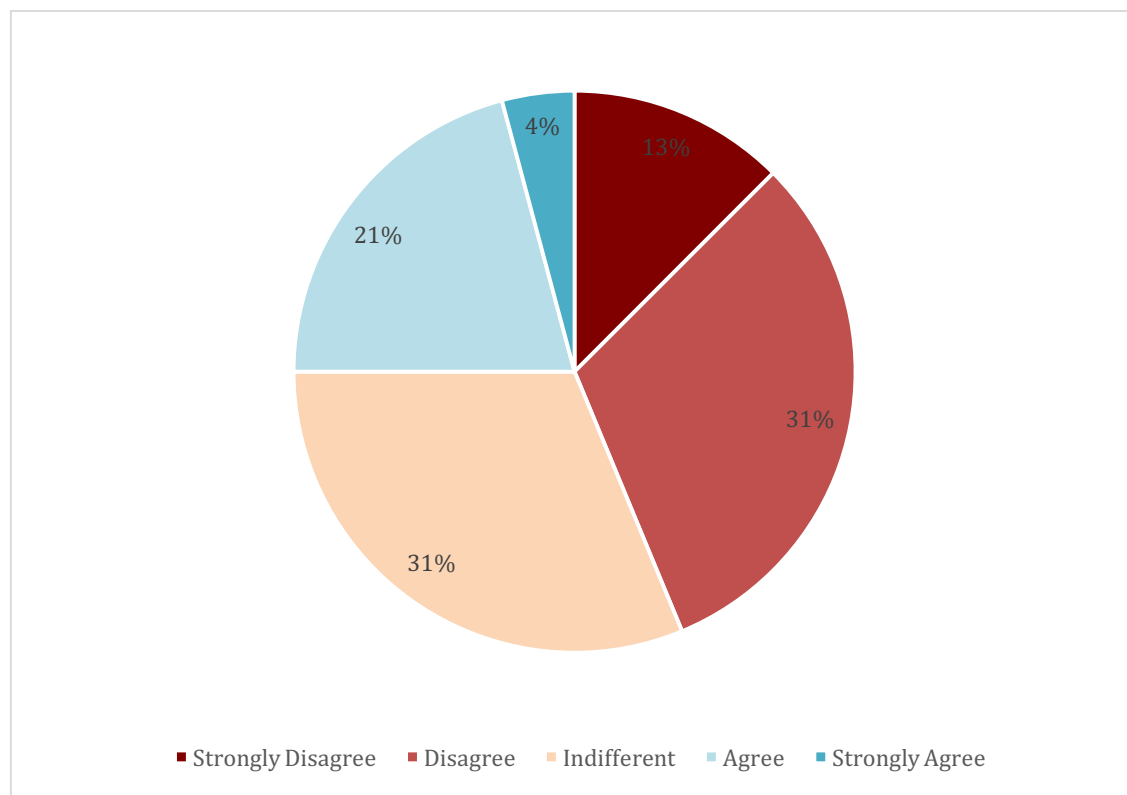
### Comparability of Learning Experiences amongst sites (Element 8.7)

**A medical school ensures that the medical curriculum includes comparable educational experiences and equivalent methods of assessment across all locations within a given required learning experience to ensure that all medical students achieve the same learning objectives.**

*See Sample Survey question 7: i*

Calgary does not have distributed sites. The majority of clerkship placements are within Calgary, amongst the 5 teaching hospitals: Foothills Medical Centre (FMC), Peter Lougheed Centre (PLC), Rockyview General Hospital (RGH), South Health Campus (SHC), and Alberta Children's Hospital (ACH).

### Sample Survey Question 7i



**Figure 15:** Depicts Clerks (Class of 2016, n=48) level of agreement with Sample survey Question 7i "As a clerk I feel that the learning experience is comparable between sites (i.e FMC vs PLC vs RGH vs SHC vs ACH vs distributed)" using 5 point Likert scale (5-strongly agree, 1-strongly disagree).

#### *Summary:*

*Sample survey data shows that 25% of the Class of 2016 feel the learning experiences are comparable between sites. We do not know the extent of variability of learning experiences between sites, nor if students perceive this as a benefit or hindrance.*

*Recommendations:*

- *Program to investigate differences between sites, and assess if further action is required*

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**Work Hours (Element 8.8)**

**The curriculum committee and the program’s administration and leadership implement effective policies and procedures regarding the amount of time medical students spend in required activities, including the total number of hours medical students are required to spend in clinical and educational activities during required clinical learning experiences.**

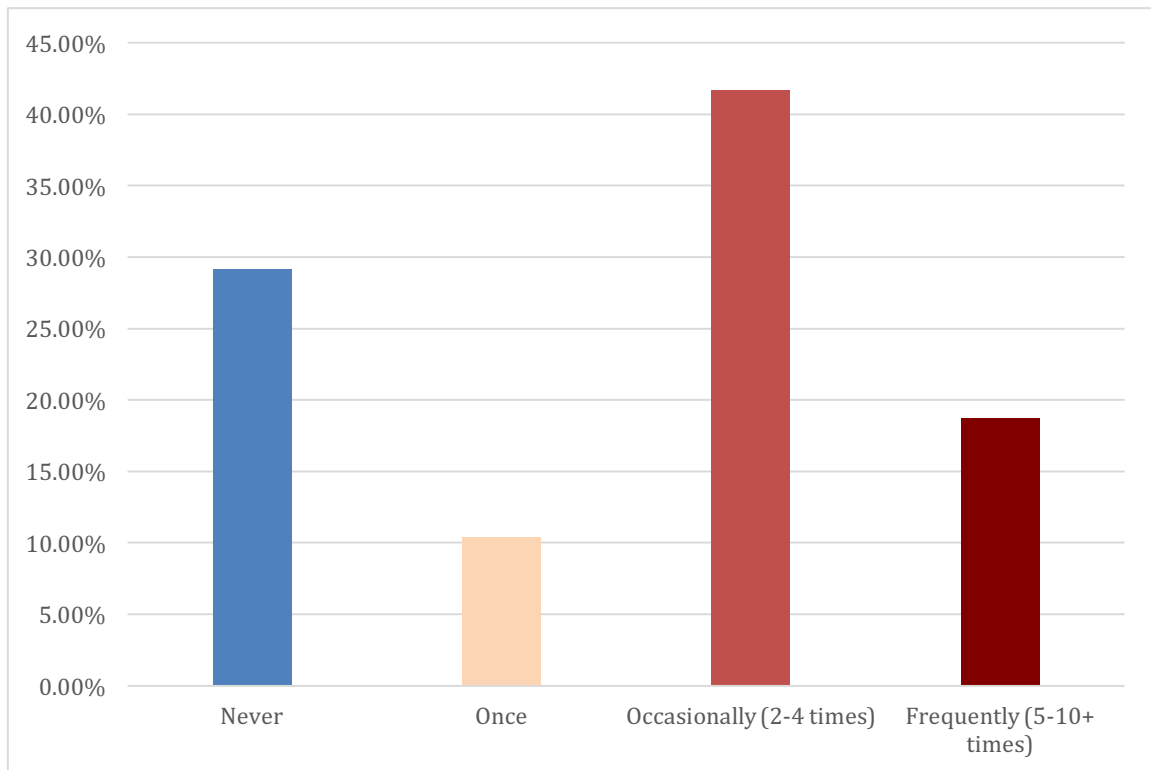
*See Sample Survey question 8: c*

In addition to increase in curricular content infringing on IST, which was discussed as part of Element 6.3 in Section 6.1, clerkship work hours are also a concern. The school implemented a clerkship work-hours policy in November 2014; however, there persists multiple anecdotes of students working in excess of the work hours policy. Reviewing CGQ 2015 data<sup>15</sup>, 13% of students in the last graduating class report working more hours than policy on Surgery rotations (mean 3.81), with Pediatrics and Internal Medicine also having lower means (4.13 & 4.12 respectively). Prior CGQ data shows a somewhat similar trend, which aligns with anecdotal student reports. Sample Survey data reveals that 19% and 42% of clerks frequently or occasionally, respectively, worked more hours than the work hours policy.

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<sup>15</sup> CGQ 2015 question 20, and CGQ 2014 question 9 (across clinical experiences)

### Sample Survey Question 8c



**Figure 16:** Depicts Clerks (Class of 2016, n=48) level of agreement with Sample survey question 8c "As a clerk I worked more hours than outline in the clerkship handbook/work hours policy" using 5 point Likert scale (5-strongly agree, 1-strongly disagree).

#### *Summary:*

*While the program has a work hours policy in place, the CGQ and Sample Survey data both confirm student narratives of working more hours than policy permits. The Sample Survey data reveals that 61% of clerks have worked more than policy allows on multiple occasions. We do not have Accreditation Survey data to comment on which rotations are troublesome for work hours, nor do we have data to comment upon remediation and the programs response. This is a significant concern for students.*

#### *Recommendations:*

- *Program to identify cause of violation of work hours policy*
- *Program to identify troublesome rotations*
- *Program to re-assess how it monitors and enforces work hours, and ensure compliance with policy*

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### Assessment & Feedback (Elements 9.4, 9.5. 9.8)

**9.4 A medical school ensures that, throughout its medical education program, there is a centralized system in place that employs a variety of measures (including direct observation) for the assessment of student achievement, including students' acquisition of the knowledge, core clinical skills (e.g., medical history-taking, physical examination), behaviors, and attitudes specified in medical education program objectives, and that ensures that all medical students achieve the same medical education program objectives.**

**9.5 A medical school ensures that a narrative description of a medical student's performance, including his or her non-cognitive achievement, is included as a component of the assessment in each required learning experience in the medical education program whenever teacher-student interaction permits this form of assessment.**

**9.8 A medical school has in place a system of fair and timely summative assessment of medical student achievement in each required learning experience of the medical education program. Final grades are available within six weeks after the end of a required learning experience.**

*See Accreditation Survey questions 29: b, c, d, & g*

*See Accreditation Survey questions 45: a, b, c, & d*

The Accreditation Survey revealed that students generally feel as though the assessment they receive as both preclinical students and clinical students has been beneficial to their learning. The majority of students also feel as though they are given opportunity for timely and effective feedback from preceptors and that their skills were assessed in a variety of ways.

The assessment system currently in place works well when students are achieving success, but does not strongly benefit students who are unsuccessful. Although the Accreditation Survey shows that the majority of students feel the assessment they receive is timely and adequate, the assessment system does not provide a proactive approach to assessment, which would allow students who are struggling to identify problem areas before experiencing academic setbacks.

*Summary: Students feel the assessments they receive are beneficial to their learning. However, the current system in place is not proactive in identifying students at risk of academic difficulty.*

*Recommendations:*

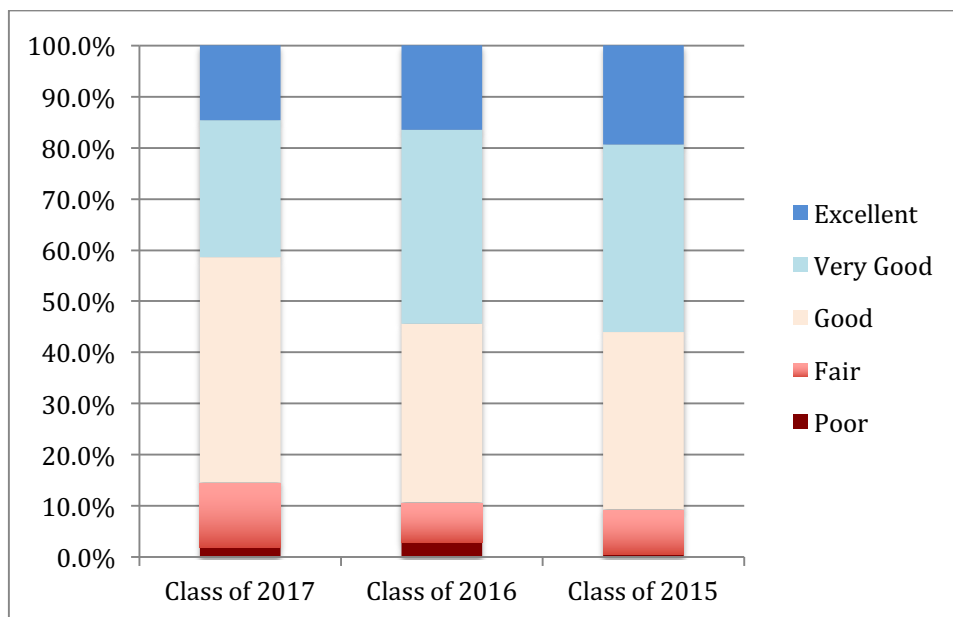
- *Develop proactive and preventative remediation plans for students who are struggling academically.*
- *Program to ensure that small group feedback occurs for all students.*



## Promotion & Graduation Policies (Element 9.9)

**A medical school ensures that the medical education program has a single standard for the promotion and graduation of medical students across all locations and a fair and formal process for taking any action that may affect the status of a medical student, including timely notice of the impending action, disclosure of the evidence on which the action would be based, an opportunity for the medical student to respond, and an opportunity to appeal any adverse decision related to promotion, graduation, or dismissal.**

*See Accreditation survey question 49*



**Figure 17:** Student agreement with the accreditation survey question “clarity of policies for advancement/graduation” using 5 point Likert scale (5-excellent, 1-poor).

Overall, students are grossly aware of the policies and procedures regarding academic assessment, promotion, discipline, and graduation; however, students (59% Class of 2017 to 44% Class of 2015) feel this policy lacks clarity. The ISA team feels this lack of clarity is due the following two reasons:

- That the promotion and graduation policy is imbedded within the Student Academic Review Committee (SARC) ToRs, and partially referenced in multiple documents
- The SARC ToRs are difficult to read and understand, and these ToRs were revised three times in the 2014-2015 academic year

*Summary: Students feel there is a lack of clarity in policies pertaining to academic assessment, promotion, discipline, and graduation.*

*Recommendation:*

- *The program to develop a separate promotion and advancement policy, and reformat SARC ToRs to address SARC procedural direction*
- *The program to develop a formal calendar entry with graduation requirements*
- *The program to work with student leadership to raise student understanding of promotion and graduation requirements and process*

## 6.3 WELLNESS & LEARNER ENVIRONMENT

## Summary

### STRENGTHS

- Diversity [**Element 3.3**]
- Learning environment and professionalism [**3.5**]
- Sufficiency of buildings and equipment [**5.4**]
- Library Resources & Staff [**5.8**]
- Study and relaxation space [**5.11**]
- Quality of accepted applicants [**10.4**]

### CRITICAL AREAS OF IMPROVEMENT

- Student Mistreatment [**3.6**]
- Security, Student Safety, and Disaster Preparedness [**5.7**]
- Comfort & Approachability UME/Student Affairs with Personal Problems [**11.1**]
- Financial Aid/Debt Management Counselling/Student Educational Debt [**12.1**]
- Burnout: Personal counseling/well-being programs [**12.3**]

### CRITICAL RECOMMENDATIONS

- The program to continue to explore the root causes for mistreatment and develop strategies to reduce frequency
- Program to implement Task Force recommendations
- Ensure clarity of mistreatment policies
- Program to develop clear CoI processes for mistreatment
- Emergency guidelines to be referenced in all course outlines
- Program to continue to monitor student accessibility and uptake of Student Affairs office, and work to break down any barriers, included perceived ones by students
- Student Affairs to have stronger presence at student events
- Increase the financial support available to students
  - Bursaries and grants
  - Revise eligibility criteria of differential tuition bursary so students without student loans are eligible
- Program and students to continue to explore causation of higher than national debt loads
- Continue to monitor mental health and student wellness, perhaps through a annual wellness survey
- Decrease workload where possible through reduction of redundant and extraneous material

- The program to implement more time off during clerkship
  - Scheduled 3 day long weekends between every second rotation/block
  - Scheduled 1 week off in October
  - additional flexibility for time off while working on CaRMS applications
- Where workload cannot be reduced the students strongly suggest administration find ways to increase the student's sense of control and autonomy, specifically in clerkship when burnout is most prevalent. Students suggest this be accomplished through an increase in flexibility in regards to attendance and scheduling as well as any other forms in which more flexibility is possible without compromising the education of the learner.
- The program to launch a standing task force on burnout and learner wellness
  - There may be a role for development of a resiliency or enhanced coping skills initiative dependent upon identification of root causes
- The program to continue with the exceptional efforts of Dr. Bailey within the Student Affairs office
- The program to provide students needing to take time off with remediation opportunities that don't require a student to take an entire year off

## **Narrative – Learner Environment**

The learner environment encompasses many elements, many of which the CSM MD program performs well on. However, there are certain areas of concerns, for which we propose recommendations below.

In addition to explicit elements addressed in this report, the students in review of the data identified a recurrent theme of less than ideal student/learner wellness affecting the student body, following a Gaussian distribution. According to the CGQ question 12 inquiring into “student overall quality rating of their medical education”<sup>16</sup>, the CSM performs below the national average (3.73 vs. 3.92  $p < 0.01$ ), despite strong individual component ratings which are at or above the national averages. We interpret this data as a surrogate marker for either student dissatisfaction with non-curricular components, or student burnout/fatigue/decreased wellness. While our data set does not have sufficient resolution to be able to clearly identify the root causes, it is likely multifactorial. Below, we list some of the potential contributors:

- High burnout rates (30-50%)
- Persistent mistreatment rates (25% at graduation)
- Lack of flexibility
- Increasing anxiety regarding career planning
- Less than ideal self-care
- Financial stressors

The program is cognizant of these issues and is actively taking steps to increase student wellness. There has also been a recent change of staff in the Office of Student Affairs.

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<sup>16</sup> CGQ 2015 question 12, previously question 19

This has been a very positive change anecdotally, but unfortunately at the time of report writing the ISA team does not have sufficient new data to replace the data collected by the survey and recent CGQ.

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## DETAILED ANALYSIS-Learner Environment

### Diversity/Pipeline Programs and Partnerships (Element 3.3)

**A medical school in accordance with its social accountability mission has effective policies and practices in place, and engages in ongoing, systematic, and focused recruitment and retention activities, to achieve mission-appropriate diversity outcomes among its students, faculty, senior academic and educational leadership, and other relevant members of its academic community. These activities include the appropriate use of effective policies and practices, programs or partnerships aimed at achieving diversity among qualified applicants for medical school admission and the evaluation of policy and practices, program or partnership outcomes.**

*See Accreditation Survey question 8*

*See Accreditation Survey questions 9: a, b, c, d, e, & f*

The majority of students agree that the learning environment is supportive of diversity and inclusion. 84-96% of students feel there is strong representation of diverse gender and sexual minorities, and 74-93% of students feel that there is strong representation of cultural minorities within their classes.

However, only approximately half of students feel that there is adequate representation of people with low socioeconomic status in their classes, less than 45% of students feel that there is adequate representation of First Nations, and less than 35% of students feel that there is adequate representation of people with disabilities. There is also a lack of diversity with respect to cultural and ethnic backgrounds represented in the UME and faculty leadership.

Achieving equal representation of individuals from low socioeconomic status, First Nations communities, and disabilities is something all medical schools struggle with. However, the Cumming School of Medicine is working to address this. They are achieving this by allowing applicants the freedom to focus on life-impacting experiences in their written statements and by weighting the MMI more heavily than other schools. Therefore, while there are still improvements to be made, we consider the area of diversity at the Cumming School of Medicine to be one of strength.

*Summary: Overall, students feel that the learning environment is supportive of diversity and inclusion. The Cumming School of Medicine has policies in place to promote the selection of diverse students into the medical school.*

*Recommendation: Continue to develop policies that promote inclusion of minorities through the process of application to medical school and in the hiring of UME staff.*

### **Learning Environment/Professionalism (Element 3.5)**

**A medical school ensures that the learning environment of its medical education program is conducive to the ongoing development of explicit and appropriate professional behaviors in its medical students, faculty, and staff at all locations and is one in which all individuals are treated with respect. The medical school and its clinical affiliates share the responsibility for periodic evaluation of the learning environment in order to identify positive and negative influences on the maintenance of professional standards; implement appropriate strategies to enhance positive and mitigate negative influences; and identify and promptly correct violations of professional standards.**

*See Accreditation Survey question 1*

*See Accreditation Survey question 8*

*See Accreditation Survey questions 92: j & k*

*See Accreditation Survey question 10*

91-96% of students agree that the school fosters an environment conducive to learning and professional development. Students view the learning environment at the Cumming School of medicine as conducive to learning, supportive of diversity/inclusion, and respectful. Students frequently commented on the professional and accepting culture of the Cumming School of Medicine, which is largely a student driven environment. This may suggest that the application process is successful in selecting students demonstrating characteristics deemed to be desirable in medical students and physicians.

However, in reference to 3.5e), there is currently no policy stating an accurate timeline or mechanism for when claims of mistreatment or unprofessionalism must be dealt with. Overall, this is an area of **strength**, with the caveat that mistreatment claims require an appropriate policy for students to follow.

*Summary: The majority of students feel the learning environment is supportive. This is overall an area of strength.*

*ent at the Cumming School of Medicine is inclusive and respectful.*

*Recommendation: None*

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### **Sufficiency of Buildings and Equipment (Element 5.4)**

**A medical school has, or is assured the use of, buildings and equipment sufficient to achieve its educational, clinical, and research missions.**

*See Accreditation Survey question 68: b*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

*See Accreditation Survey questions 72: b, c, d, e, f, & k*

90-96% of students feel the program offers sufficient small group teaching spaces throughout the Health Sciences campus. Furthermore, 90-95% claim adequate spaces are utilized for clinical skills teaching. The Cumming School of Medicine's physical setup is a clear strength of the school.

48-70% of students felt there was sufficient access to electrical outlets in this space. Electrical access is accessible in almost every seat in the lecture theaters utilized by the medical program, suggesting the dissatisfaction may be a result of the limited access in small group rooms. However, if the data for this question is re-analyzed including "good", or 3 on the likert scale, at least 80% of students in each class are satisfied with electrical outlet access.

Therefore, buildings and equipment are considered to be a strength of the medical school.

*Summary:*

*Overall students feel the buildings and facilities are sufficient for their learning needs.*

*Recommendation: None.*

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#### **Resources for Clinical Instruction (Element 5.5)**

**A medical school has, or is assured the use of, appropriate resources for the clinical instruction of its medical students in ambulatory and inpatient settings and has adequate numbers and types of patients (e.g., acuity, case mix, age, gender).**

*See Accreditation Survey questions 11: a & b*

75-91% and 85-93% of students feel there is adequate diversity in terms of acuity, case/mix, age, and gender among patients/actors in clinical scenarios in pre-clerkship and clerkship, respectively. Students agreed there is adequate diversity among standardized patients in communication and physical exam sessions.

*Summary: This is not an area of concern for students.*

*Recommendation: None*

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#### **Clinical Instructional Facilities/Information Resources (Element 5.6)**

**Each hospital or other clinical facility affiliated with a medical school that serves as a major location for required clinical learning experiences has sufficient information resources and instructional facilities for medical student education.**

*See Accreditation Survey question 69: f*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

*See Accreditation Survey questions 66: a, b, c, & d*



In terms of facilities evaluations, it should be noted that the class of 2016 is an outlier when evaluating anatomy and pathology resources and materials. Significant changes were made (switching anatomy lab and new faculty) while that class was studying anatomy, which resulted in disruptions to their learning.

As a result of this, the Class of 2015 has not experienced anatomy or pathology teaching with the new faculty and facilities, and the Class of 2017 has only experienced anatomy or pathology teaching with the new faculty and facilities.

The Class of 2017 rates these resources significantly higher than the other classes, which speaks to the quantity of work administration has put into integration of the new facilities and faculty into the curriculum.

In the comments section of the Accreditation Survey pertaining to strengths and weaknesses of the program, students from all classes commented that the school does not provide enough focus on anatomy teaching and that this becomes evident in clinical situations. However, this relates more to the curricular integration of anatomy teaching, rather than access to the anatomy facilities.

63-77% of students were satisfied with access to information resources (computers and internet access) at clinical facilities used for learning experiences. Most students agreed that the medical school has the appropriate resources and materials to teach procedural skills and simulations (79-87% and 80-93% respectively). Therefore, this is not an area of concern.

*Summary: Students are satisfied with access to instructional facilities and information resources.*

*Recommendations:*

*Continue to ensure students have access to the anatomy lab throughout courses and increased access near exams.*

*Continue to ensure students have internet access at clinical facilities.*

## **Security, Student Safety, and Disaster Preparedness (Element 5.7) and Student Exposure Policies/Procedures (Element 12.8)**

**5.7 A medical school ensures that adequate security systems are in place at all locations and publishes policies and procedures to ensure student safety and to address emergency and disaster preparedness.**

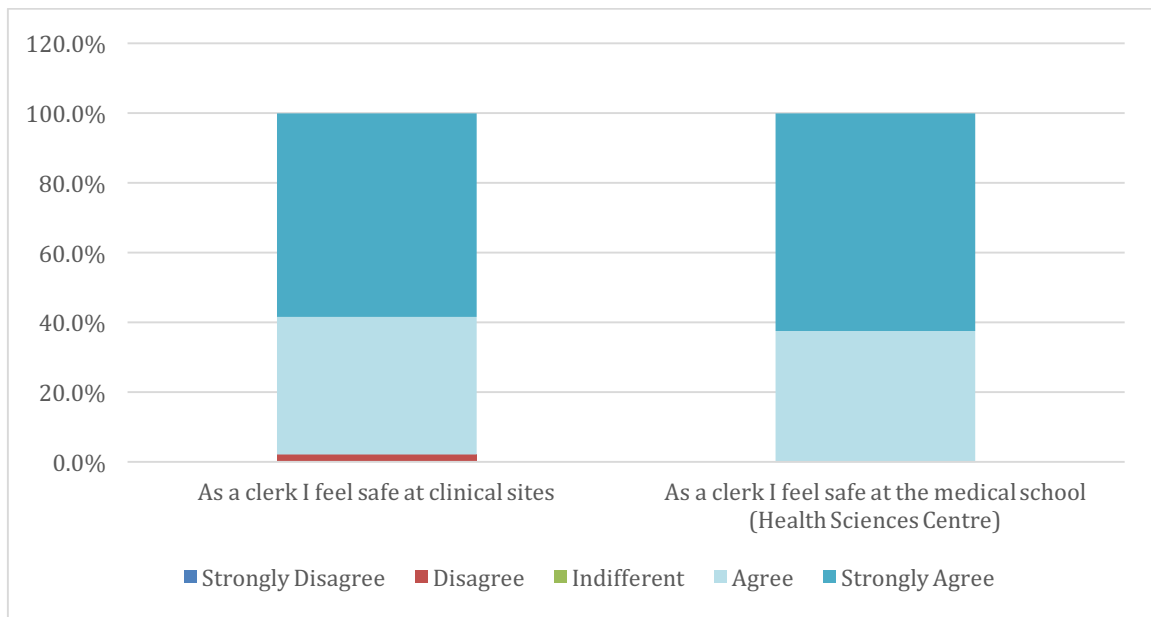
**12.8 A medical school has policies in place that effectively address medical student exposure to infectious and environmental hazards, including:**

- a) The education of medical students about methods of prevention.**
- b) The procedures for care and treatment after exposure, including a definition of financial responsibility.**
- c) The effects of infectious and environmental disease or disability on medical student learning activities.**

**All registered medical students (including visiting students) are informed of these policies before undertaking any educational activities that would place them at risk.**

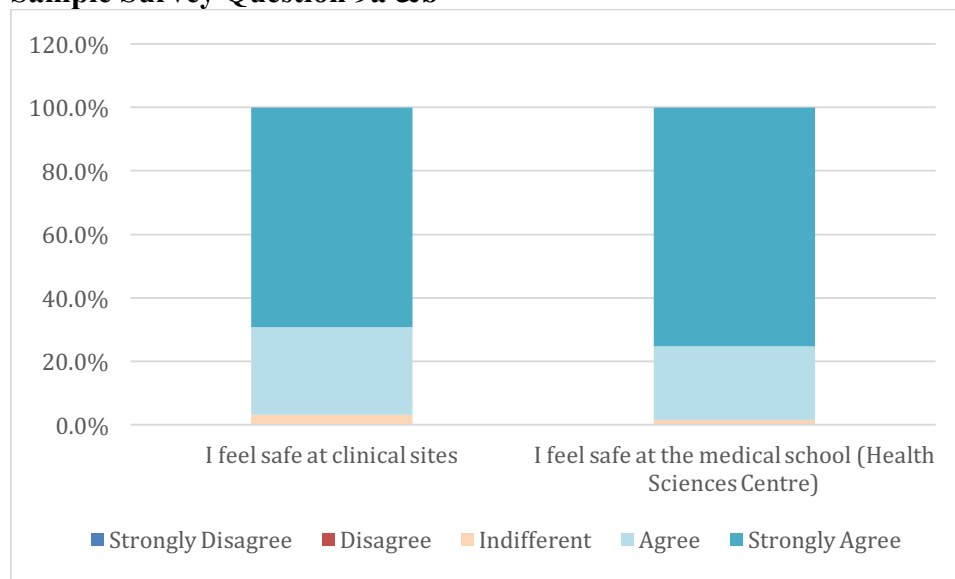
See Accreditation Survey questions 69: a & b  
 See Accreditation Survey question 72: a  
 See Accreditation Survey questions 92: i  
 See Sample Survey questions 7: a & b  
 See Sample Survey questions 9: a & b

### Sample Survey Question 7a &b



**Figure 18a:** Depicts Clerks (Class of 2016, n=48) level of agreement with Sample survey Questions 7a & 7b: Clerks perceived safety at clinical sites (left) and Health Sciences Centre (right)” using 5 point Likert scale (5-strongly agree, 1-strongly disagree).

### Sample Survey Question 9a &b



**Figure 18b:** Depicts Pre-clerks (Classes of 2017 & 2018, n=65) level of agreement with Sample survey Questions 9a & 9b: Clerks perceived safety at clinical sites (left) and Health Sciences Centre (right)” using 5 point Likert scale (5-strongly agree, 1-strongly disagree).

35-55% and 29-31% of students state their awareness/preparedness for emergency and disaster situations at the medical school and clinical learning sites, respectively, is very good or excellent<sup>17</sup>. This is an area of concern.

76-85% of students feel safe and secure at instructional sites.

Deficits in disaster preparedness are primarily issues that impact students in clerkship, as students in pre-clerkship are exposed to multiple practice emergency drills at the Health Sciences Center.

Approximately half of students feel there is adequate education about prevention and exposure to infectious diseases. The university has now linked an algorithm for exposure to infectious diseases to the “Red Button”.

*Summary: Students do not feel aware or prepared for emergency and disaster situations. This is a larger issue to students than what to do in the case of exposure to infectious diseases.*

*Recommendation:*

- *Integration of a session on hostile/dangerous patients into a Communications Session*

<sup>17</sup> These questions utilize a poor-excellent scale. These numbers represent inclusion of very good (4) and excellent (5) ONLY. If good(3) is included, the rates are:

Medical school disaster preparedness 72.3-80.4%

Clinical learning site disaster preparedness 63.0-65.6%

- *Emergency and Safety preparedness plans to be reviewed with students at the start of every new rotation*
- *Emergency guidelines to be referenced in all course outlines*
- *Enhance visibility of Red Button (plan in place to integrate into OSLER)*

---

### **Library Resources/Staff (Element 5.8)**

**A medical school ensures access to well-maintained library resources sufficient in breadth of holdings and technology to support its educational and other missions. Library services are supervised by a professional staff that is familiar with regional and national information resources and data systems and is responsive to the needs of the medical students, faculty members, and others associated with the medical school.**

*See Accreditation Survey questions 69: c, d, & e*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

72-88%\*\* of students are satisfied with the quality of library support and services. The Cumming School of Medicine Health Sciences library has many of the useful resources students may use, and is open to suggestions from students about appropriate resources that would benefit their learning.

*Summary: This is an area of strength.*

*Recommendation: none*

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### **Information Technology Resources/Staff (Element 5.9)**

**A medical school ensures access to well-maintained information technology resources sufficient in scope to support its educational and other missions. The information technology staff serving a medical education program has sufficient expertise to fulfill its responsibilities and is responsive to the needs of the medical students, faculty members, and others associated with the medical school.**

*See Accreditation Survey question 68: a & c*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods. .*

*See Accreditation Survey question 71: c*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

Only 32%\*\* of students felt at the time of survey that the wireless network was adequate in classrooms and study spaces at the medical school. As at the time of completion of this report the school has completed a significant upgrade of the wireless system, this is no longer an area of concern.

*Summary: This is no longer an area of concern for students.*

*Recommendation: None*

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### **Study/Lounge/Storage Space/Call Rooms (Element 5.11)**

**A medical school ensures that its medical students have, at each campus and affiliated clinical site, adequate study space, lounge areas, personal lockers or other secure storage facilities, and secure call rooms if students are required to participate in late night or overnight clinical learning experiences.**

*See Accreditation Survey questions 72: g, h, j, & i*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

*See Accreditation Survey questions 73: a & b*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

*See Sample Survey 7.2 and 9.2*

81-85%\*\* of students feel the study space at the medical school is adequate. Medical students are able to book out small study rooms in the library and throughout the rest of the Health Sciences Centre. This space is mainly shared with graduate students and Bachelor of Health Science students.

15-22%\*\* of students at the time of survey felt that there was adequate access to secure storage space at the medical school and at clinical teaching sites. In 2014-2015, there were multiple locker break-ins at the medical school. Since that time, the UME has implemented security cameras in the hallways near lockers, and there have not been any more break-ins. Recent data shows that 100% of surveyed clerks and 98% of surveyed pre-clerks Agree/Strongly Agree that they feel safe in the medical school.

17-21%\*\* of students feel that there is adequate secure storage space access at clinical teaching sites. These numbers roughly double when trying to account for the artifactual bias noted in the methods section. As secure storage does exist at clinical teaching sites, this dissonance in fact and perception may be attributed to lack of communication about where to store belongings. The UME has since communicated locker areas where students may keep belongings at clinical sites, which will hopefully improve this. No more recent data is available at this time.

With recent significant steps by the UME to improve the locker situation at the Health Sciences Center and at clinical sites, this is not an area of concern.

*Summary: This is not an area of concern for students.*

*Recommendation: None*

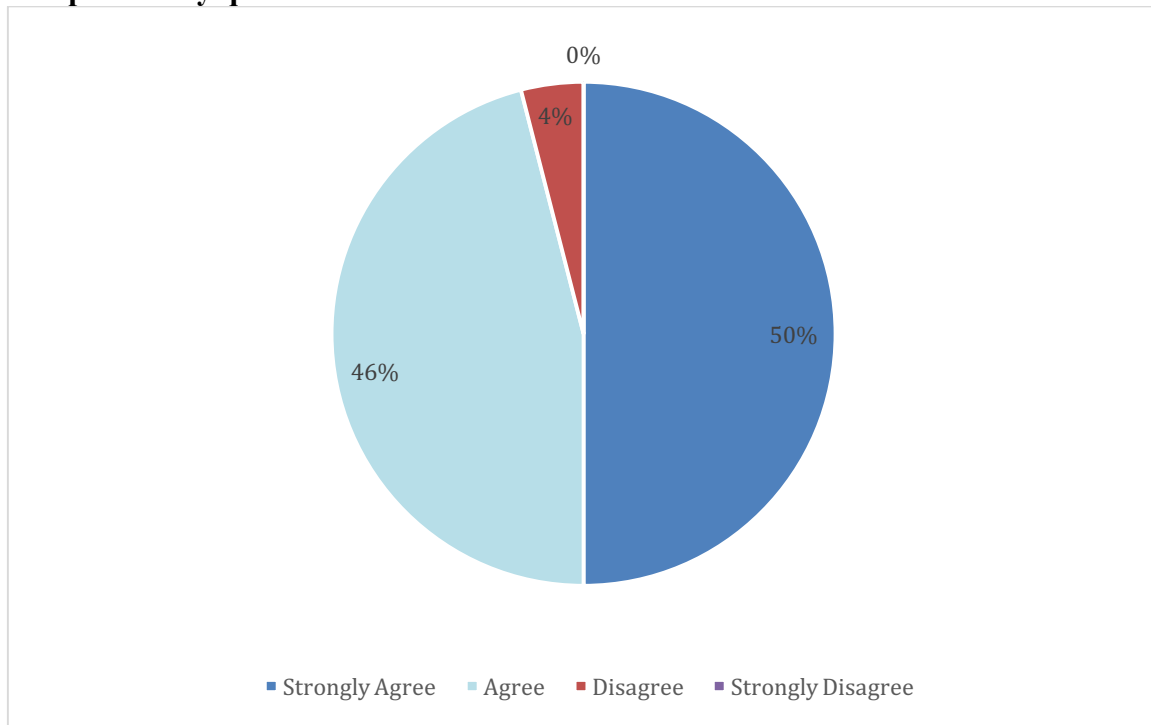
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#### **Characteristics of Accepted Applicants (Element 10.4)**

**A medical school selects applicants for admission who possess the intelligence, integrity, and personal and emotional characteristics necessary for them to become competent physicians.**

*See Sample Survey question 13*

#### **Sample Survey question 13**



**Figure 19:** Depicts all Classes (2016-2018, n=112) level of agreement with Sample survey Question 13 "I feel that the quality of applicants admitted to the Cumming School of Medicine MD program positively contributes to my learning and experience as a medical student" using a 4 point Likert scale (4-strongly agree, 1-strongly disagree).

Sample Survey data shows 96% of students agree that the applicants admitted positively benefit their learning. The school culture of collegiality and diversity amongst students is also identified by students as a program strength<sup>18</sup>.

*Summary: This is an area of strength and pride for the program.*

*Recommendations: None*

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<sup>18</sup> Reference to student self-identified Top 3 strength and Top 3 areas of improvements (see Executive Summary)

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### Confidentiality of Student Educational Records (Element 11.5)

**At a medical school, student educational records are confidential and available only to those members of the faculty and administration with a need to know, unless released by the student or as otherwise governed by relevant legislation. A medical school follows policy for the collection, storage, disclosure and retrieval of student records that is in compliance with relevant privacy legislation.**

*See Accreditation Survey question 89: a & b*

Qualitative data suggests that medical students do not clearly understand the delineation between Student Affairs files, the student academic file, and red file. They are unaware of what is permitted to be kept in their file. Additionally, some concern was identified by students about the confidentiality of student educational records as for a time they were kept in the same location as health records in the UME. The UME has now separated students' academic files, which are kept in the UME office, from their health files, now kept in the Student Affairs office. This has resolved the issue.

*Summary: This is no longer an area of concern for students*

*Recommendation: None*

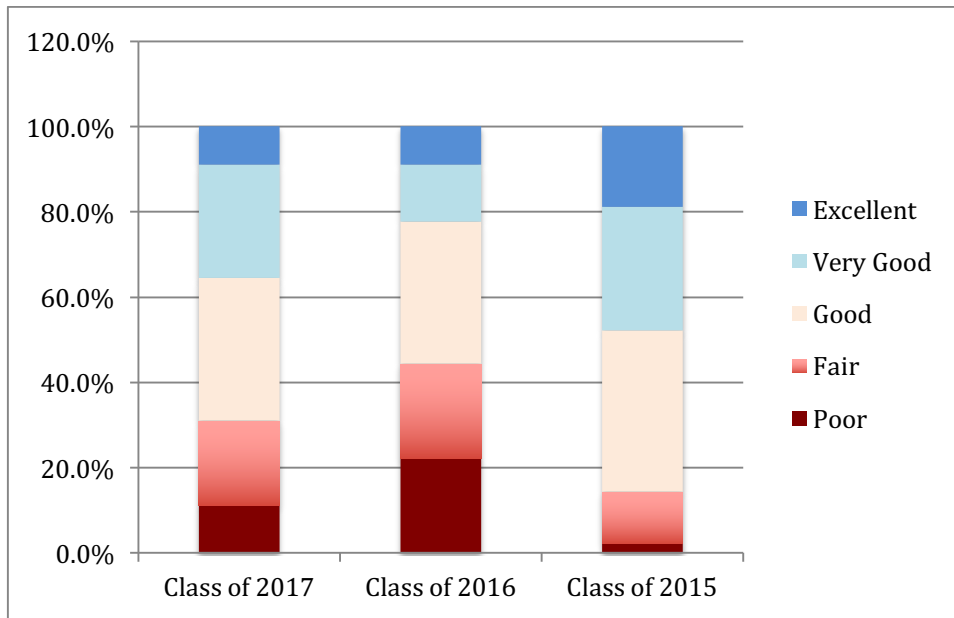
### Student Access to Educational Records (Element 11.6)

**A medical school has policies and procedures in place that permit a medical student to review and to challenge his or her educational records, including the Medical Student Performance Record, if he or she considers the information contained therein to be inaccurate, misleading, or inappropriate.**

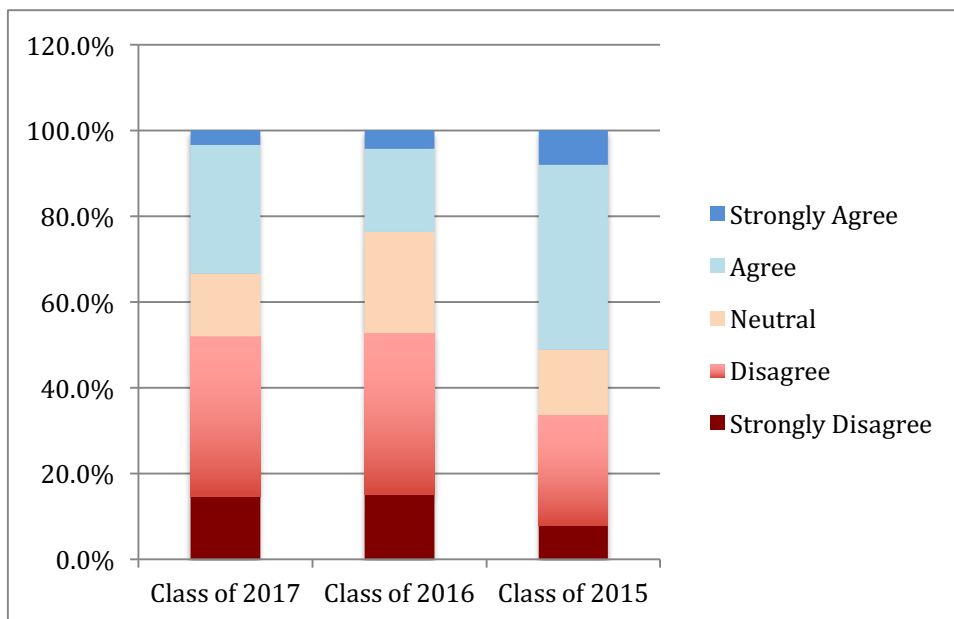
*See Accreditation Survey question 64*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

*See Accreditation Survey question 65*



**Figure 21:** Student response to accreditation survey question "Adequacy of student access to academic records" (ISA survey question 64) using 5 point Likert scale (5-excellent, 1-poor) by Class.



**Figure 22:** Student response to accreditation statement, "I am aware of the procedure to challenge my student record" (ISA survey question 65) using 5 point Likert scale (5-strongly agree, 1-strongly disagree) by Class.



4-44%\*\* of students find it difficult to access their academic records and 34-62% are unaware of the procedure to challenge them. Having clear and easy access to academic records may help students identify key areas to improve upon. All students have this right, and there is a policy explaining how students might be able to do so available on the school website. This suggests that the issue is less to do with the process for accessing academic records, but rather to do with communication with students the opportunity and policy for accessing student records.

*Summary: Students struggle with accessing and challenging their academic records, likely due to communication challenges.*

*Recommendation:*

*Enhance communication to students about student files including:*

- *Mentioning that students have the ability to access student files and where to find the policy in an introductory session at the beginning of medical school*
- *Reminding students of the opportunity and process for accessing student files in each course outline*

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#### **Financial Aid/Debt Management Counselling/Student Educational Debt (Element 12.1)**

**A medical school provides its medical students with effective financial aid and debt management counseling and has mechanisms in place to minimize the impact of direct educational expenses (i.e., tuition, fees, books, supplies) on medical student indebtedness.**

*See Accreditation Survey question 92: h*

*See CGQ 2015 question 67: b*

*See CGQ 2015 question 68: b*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

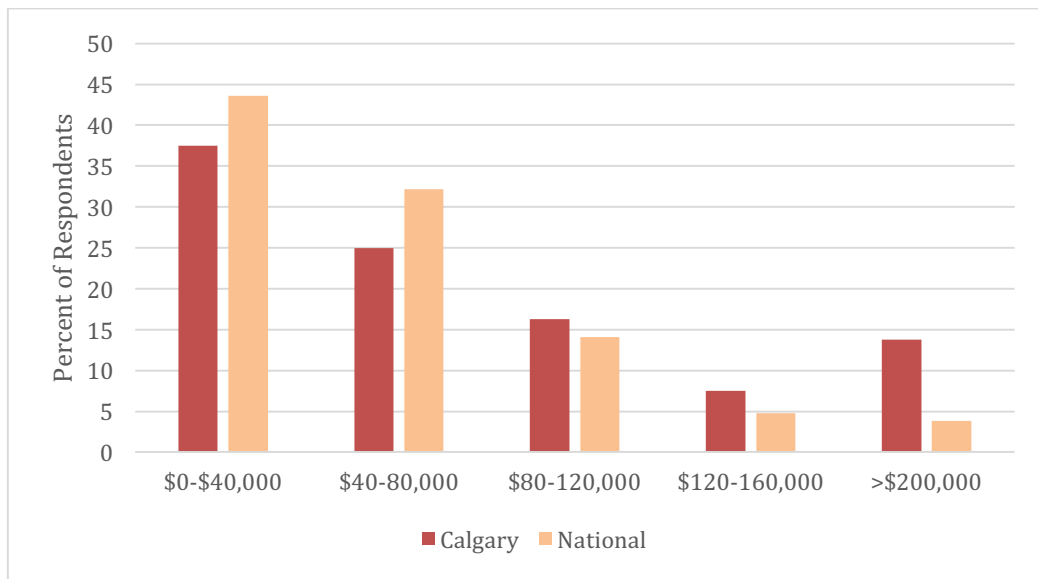
The majority of students feel that debt management counselling at the medical school is inadequate. Students receive minimal counselling on debt management early on, missing an opportunity for proactive management. Students are often referred to main campus for support. Therefore, this is an area of weakness.

Comparing Calgary CGQ to national data<sup>19</sup>, Calgary has a slightly lower proportion (14% vs. 16%) of students with >\$120 000 of educational debt; however, we have a higher proportions of students with \$40-80 000 of educational debt (43% compared to 29%). More strikingly, Calgary has much higher non-educational debt loads (Figure X.X), despite Calgary having a higher median of scholarship support (\$6000 vs.

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<sup>19</sup> CGQ 2015 question 67b

\$5000)<sup>20</sup>. This may in part be due to lower than Canadian median for bursary and grant support (\$6000 vs \$11 000)<sup>21</sup>.



**Figure 23:** Depiction of Calgary and National non-education debt loads at the time of graduation, as per CGQ 2015 question 68b. Calgary in blue (n=80) to National (n=1274).

Very concerning is that 33% of graduates in 2015, according to CGQ, and 24% to 38% (in 2010 through 2014, respectively), with a max of 44% in 2013, felt that the amount of financial assistance available **did not** meet their financial need. This value has over the last 5 years been consistently ~10% greater than the national average<sup>22</sup>.

Note:

- Calgary is a three-year program
- Calgary has lower tuition than other schools

*Summary: Students attending the Cumming School of Medicine have higher than national average levels of debt. Our survey questions were not able to elicit the specific reason for this.*

*Recommendation:*

- *Increase the financial support available to students*
  - *Bursaries and grants*
  - *Revise eligibility criteria of differential tuition bursary so students without student loans are eligible*

<sup>20</sup> CGQ 2015 question 70b

<sup>21</sup> CGQ 2015 question 71b

<sup>22</sup> CGQ 2015 question 72a, and 2014 question 32b

- *Program and students to continue to explore causation of higher than national debt loads*

### **Personal Counselling/Well-being programs (Element 12.3)**

**A medical school has in place an effective system of personal counseling for its medical students that includes programs to promote their well-being and to facilitate their adjustment to the physical and emotional demands of medical education.**

*See Accreditation Survey questions 92: b, c, & f*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

At the time of the accreditation survey ~20%\*\* of students felt the accessibility to personal counselling and well-being programs was not adequate. This data is confounded by nearly a quarter of students not utilizing these services. The distribution of respondents makes it difficult to fully ascertain whether the issue is awareness, accessibility/capacity, office hours and inability for students to schedule or attend appointments, comfort, or personnel/personality issues.

The Student Affairs office promotes both 24/7 crisis and resource lines, including the CPSA/AMA PFSP. There is also a group of peer mentors through the school's Peer Listening and Wellness Group (PLWG).

Since the Accreditation Survey was distributed and collected, an Associate Director of Student Wellness has been appointed (July 1<sup>st</sup>, 2015) in the Student Affairs office, and multiple new initiatives have been developed. Unfortunately, there is no new data to highlight these improvements.

In our survey we asked students identical questions to the National College Health Assessment (NCHA)<sup>23</sup>.

*Below are Accreditation Survey questions 96: a, b, c, d, e, f, g, h, i, j, & k*

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<sup>23</sup> NCHA is an American college wellness/student health question provided to all undergraduate students. Multiple Canadian schools participated in this inventory in 2013 providing us with a recent Alberta and Canadian mental health and wellness reference point. This was chosen as there currently exists no Canadian medical student mental health data set, and we felt that referencing an American, UK or European data set was inappropriate.

**Table 12: Composite of Calgary ISA survey question 96 in comparison to Alberta and National 2013 National College Health Assessment (NCHA) data. Percentage per temporal option shown (note multi-select permitted thus total can be greater than 100%)**

Please Answer the following:-Have you ever felt things were hopeless?						
	Never	Not in the last year	in the last year	in the last 30 days	in the last 2 weeks	Yes anytime within last 12 months
Class of 2017	42.4	23.6	18.8	8.5	6.7	34
Class of 2016	47.1	16	23.6	6.6	6.6	36.8
Class of 2015	45.2	13.5	23.6	8.11	9.5	41.21
Alberta NCHA	27	21.4	24.2	9.9	17.6	51.6
Canadian NCHA	27.7	18.5	23.2	10.1	20.5	53.8

Please Answer the following:-Have you ever felt overwhelmed by all you had to do?						
	Never	Not in the last year	in the last year	in the last 30 days	in the last 2 weeks	Yes anytime within last 12 months
Class of 2017	10.3	5.5	36.4	29.1	18.8	84.3
Class of 2016	8.6	4.8	33.3	17.1	36.2	86.6
Class of 2015	11.6	8.8	42.9	18.4	18.4	79.7
Alberta NCHA	5.5	4.6	21.1	17.8	50.9	89.8
Canadian NCHA	6.5	4.2	20	17.2	52.1	89.3

Please Answer the following:-Have you ever felt very lonely?						
	Never	Not in the last year	in the last year	in the last 30 days	in the last 2 weeks	Yes anytime within last 12 months
Class of 2017	27.3	18.2	29.1	14.6	10.9	54.6
Class of 2016	24.8	15.2	23.8	15.2	21	60
Class of 2015	35.1	16.9	31	12.8	14.2	58
Alberta NCHA	16.2	19.9	24.3	13.8	25.8	63.9
Canadian NCHA	17.7	18.4	23.3	14.1	26.5	63.9

Please Answer the following:-Have you ever felt very sad?						
	Never	Not in the last year	in the last year	in the last 30 days	in the last 2 weeks	Yes anytime within last 12 months
Class of 2017	24.2	20.6	26.7	13.9	14.6	55.2
Class of 2016	28.9	19.2	23.1	15.4	13.5	52
Class of 2015	27.7	14.2	31.1	12.8	14.2	58.1
Alberta NCHA	14.8	16.7	27.6	14.4	26.4	68.4
Canadian NCHA	15.5	15.9	25.8	15	27.7	68.5

Please Answer the following:-Have you ever felt so depressed it was difficult to function?						
	Never	Not in the last year	in the last year	in the last 30 days	in the last 2 weeks	Yes anytime within last 12 months
Class of 2017	54.3	22.6	13.4	6.7	3.1	23.2
Class of 2016	57.6	17.9	13.2	6.6	4.7	24.5
Class of 2015	56.8	16.2	14.9	4.7	7.4	27
Alberta NCHA	41.3	22.7	17.9	7	11.1	36
Canadian NCHA	41.4	21.1	17.4	7.3	12.8	37.5

Please Answer the following:-Have you ever felt overwhelming anxiety?						
	Never	Not in the last year	in the last year	in the last 30 days	in the last 2 weeks	Yes anytime within last 12 months
Class of 2017	37.6	20	21.8	13.9	6.7	42.4
Class of 2016	37.1	7.6	27.6	11.4	16.2	55.2
Class of 2015	39.2	10.8	26.4	12.8	10.8	50
Alberta NCHA	28.1	15	22.1	12.5	22.2	56.8
Canadian NCHA	29.5	14.1	21.2	12.3	22.9	56.4

Please Answer the following:-Have you ever felt overwhelming anger?						
	Never	Not in the last year	in the last year	in the last 30 days	in the last 2 weeks	Yes anytime within last 12 months
Class of 2017	59.4	20	11.5	6.7	2.4	20.6
Class of 2016	54.7	20.8	15.1	2.8	6.6	24.5
Class of 2015	6.8	16.2	16.9	6.8	3.4	27.1
Alberta NCHA	34.9	22.8	20.5	8.8	13.1	42.4
Canadian NCHA	35.8	22	19.7	9.2	13.3	42.2

Please Answer the following:-Have you ever intentionally cut, burned, bruised, or otherwise injured yourself?						
	Never	Not in the last year	in the last year	in the last 30 days	in the last 2 weeks	Yes anytime within last 12 months
Class of 2017	92.1	4.85	1.8	0.6	0.6	3
Class of 2016	91.5	4.7	0	0.9	2.8	3.7
Class of 2015	93.9	3.4	2	0.7	0	2.7
Alberta NCHA	79.6	14.8	3.5	0.9	1.2	5.6
Canadian NCHA	80.5	13	3.9	1	1.7	6.6

Please Answer the following:-Have you ever seriously considered suicide?						
	Never	Not in the last year	in the last year	in the last 30 days	in the last 2 weeks	Yes anytime within last 12 months
Class of 2017	87.2	9.2	2.4	0.6	0.6	3.6
Class of 2016	86.8	7.6	2.8	1.9	0.9	5.6
Class of 2015	88.5	5.4	5.4	0.7	0	6.1
Alberta NCHA	74.7	16.9	5.6	1.2	1.6	8.4
Canadian NCHA	76.2	14.3	5.9	1.5	2.1	9.5

Please Answer the following:-Have you ever attempted suicide?						
	Never	Not in the last year	in the last year	in the last 30 days	in the last 2 weeks	Yes anytime within last 12 months
Class of 2017	97.6	1.8	0.6	0	0	0.6
Class of 2016	96.2	3.8	0	0	0	0
Class of 2015	96.6	2.7	0.7	0	0	0.7
Alberta NCHA	90.6	8.3	0.8	0.2	0.1	1.1
Canadian NCHA	91.5	7.2	0.9	0.2	0.2	1.3

When comparing to NCHA data, the CSM mental health rates are below to at the provincial and national college/university student levels. While this is reassuring, it is known that physicians, residents, and medical students have higher than population burnout and addiction risk (Shanafelt et al., 2012; Gautam, 2000), and that medical professions often under report mental health (Dyrbye et al., 2008; Chew-Graham et al., 2003).

#### *Summary:*

*While the CSM students have comparable rates of diagnosed/disclosed mental health concerns, we feel that there is a chronic sub-acute wellness concern, as suggested by high burnout rates (end of this section) as well as student self-identification of wellness as a concern. For this reason, as well as the absence of new data to show improved student perceptions, we feel this is an area of weakness.*

*Recommendation:*

- *Continue to reduce stigma of mental health, and expand program/service offerings*
- *Re-trial contact-based educational interventions<sup>24</sup>*
- *Continue to monitor mental health and student wellness, perhaps through a annual wellness survey*

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**Student Access to Healthcare Services (Element 12.4)**

**A medical school facilitates medical students' timely access to needed diagnostic, preventive, and therapeutic health services at sites in reasonable proximity to the locations of their required learning experiences and has policies and procedures in place that permit students to be excused from these experiences to seek needed care.**

*See Accreditation Survey question 91*

*See Accreditation Survey questions 92: a, d, & e*

Across all programs, the accessibility of student diagnostic, preventative, and therapeutic health services is borderline adequate to inadequate. Similar ratings are reported with regards to sufficient access to a family doctor. This is an area of concern for students.

Identified causes for students' difficulty accessing health services are likely attributed to lack of time and scheduling conflicts, and geography (SU Wellness Centre is on main campus opened business hours). Anecdotally, students have provided insight that an additional reason is difficulty getting time off/away from program, mainly at the preceptor level in clerkship.

Many mental and student health services, as well as family doctor offices, are open during regular office hours when students are in class. Recently, the University of Calgary increased the hours of mental health services so that students may access them in the late evening after class. This is one step, which will hopefully improve access for medical students. Additionally, the program has implemented flex days for both pre-clerkships and clerkship students; however, there is insufficient data at this time for the students to be able to comment on the impact of these changes.

*Summary: Student access to healthcare services is an area of concern.*

*Recommendations:*

- *Continue to provide extended counselling hours for medical students.*
- *The program to work with students to understand the reason for difficult access and possible barrier*
- *The program to work to further reduce barriers for students taking time to seek medical/counselling/personal supports*

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<sup>24</sup> Previously trialed as part of Course V in early 2010s. Details found in Papish et al (2013)



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### **Student Access to Health and Disability Insurance (Element 12.6)**

**A medical school ensures that health insurance is available to each medical student and his or her dependents and that each medical student has access to disability insurance.**

*See Accreditation Survey questions 92: j & k*

Access to healthcare services through standard student insurance plans is rated as acceptable. Availability of disability insurance was rated as acceptable similarly across all classes; however, it is somewhat lower than we would like for Years 1 and 2.

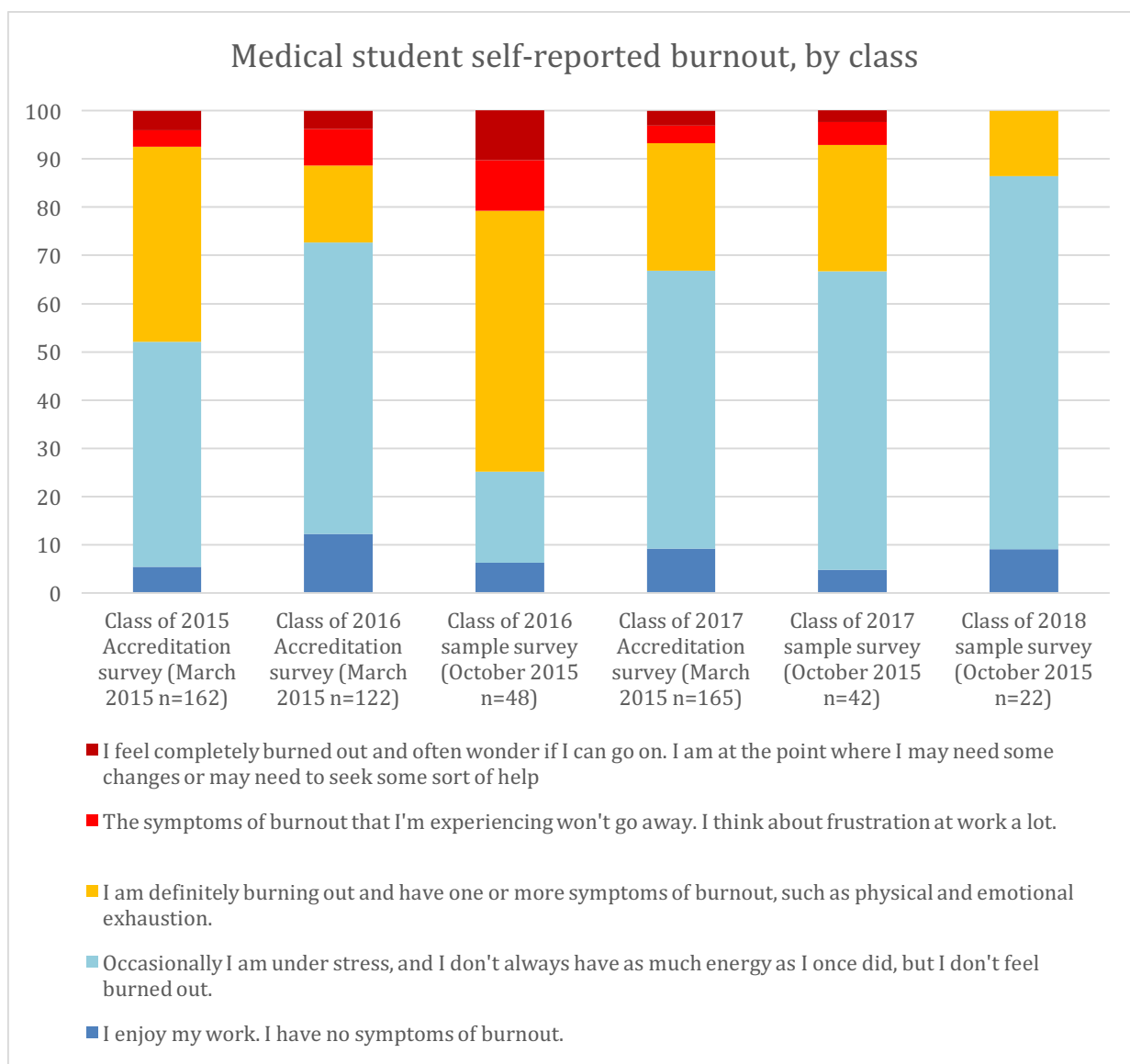
*Summary: This is an area that can be improved.*

*Recommendations:*

- *Deeper inquiry into the source of increasing dissatisfaction with current standard health coverage*
- *Program and students to advocate to Students' Union for enhanced third party health and dental plan to meet needs of older student population*
- *Maintain adequate insurance for students*
- *Program and student leaders to work to raise awareness of disability insurance offerings in pre-clerkship years*

## General Wellness & Burnout

### Burnout



**Figure 24:** Composite of self-identified student burnout, using modified Maslach Burnout Index. Single question to identify emotional burnout, which is well correlated to systemic burnout. Figure shows data from accreditation survey and sample survey. Options “I feel completely burned out...”, “The symptoms of burnout...” and “I am definitely...” are positive burnout indicators.

The data shown above utilizes a modified Maslach burnout index for emotional exhaustion, which has been positively correlated to the emotional exhaustion aspect of burn-out (Rohlans et al., 2004). Students were identified as displaying symptoms of burnout with a response of “I am definitely burning out...” or worse. Our data indicates

burnout levels progressively increase throughout medical school with a particular increase during clerkship.

5-12% of students indicated that they felt no symptoms of burnout at all while in program. 3-4% of students feel so overwhelmed that they do not feel they can continue with medical school, again across all three years.

Suñer-soler et al.(2014) summarized the health concerns of burnout:

*“As far as the consequences are concerned, burnout can affect health, giving rise to both physical and psychosomatic problems as well as depression, anxiety, low self-esteem, guilt feelings, and low tolerance of frustration (Honkonen et al., 2006, Maslach et al., 2001 and Schulz et al., 2011). Work-related consequences can include dissatisfaction with the work (Shanafelt et al., 2009 and Soler et al., 2008), reduction in the quality of care (Shanafelt, Bradley, Wipf, & Back, 2002), mistakes in the healthcare provided (West et al., 2006 and Shanafelt et al., 2010), unjustified absenteeism (Borritz et al., 2006, Duijts et al., 2007, Maslach et al., 2001 and Soler et al., 2008), intention of giving up the job, and abandonment (Leiter and Maslach, 2009, Maslach et al., 2001 and Soler et al., 2008). Finally, the impact on the environment of the workers includes family problems, work-home conflict, and reduction in the quality of life (Dyrbye et al., 2011 and van der Heijden et al., 2008).”*

The high levels of burnout among medical students are multifactorial. Research pioneered by Maslach (2003) and Leiter & Maslach (2003) in occupational burnout identified manageable workload, job control, reward, community, fairness, and values to be the largest contributors to burnout. There has been a significant quantity of research in this field over the last 30 years due to the high personal and organizational costs associated with the consequences of burnout.

More recent research conducted specifically with health care workers suggest workload and job control to be significant factors influencing burnout (Portoghese et al., 2014).

In terms of intervention for healthcare professionals, Portoghese et al. (2014) suggested:

*“To reduce the risk of burnout, intervention programs should be aimed at reducing worker's experience of stressors and, subsequently, should be directed toward both individuals and organizations [42]. Following Leiter and Maslach's [14] approach, in controlling the risk of burnout, **health care managers should devise strategies aimed at reducing workers' workload and increasing their sense of control.** First, reducing workers' workload when job resources are limited can pose major challenges to health care managers. However, in instances where it is difficult to hire new employees due to economic and regulatory constraints, **managers can provisionally reduce the workload by providing employees with a flexible schedule**, such as a floating workforce (primarily applicable to nurses). Health care managers may improve workers' sense of control by promoting their autonomy in the*

*workplace. In fact, job autonomy is considered an important coping strategy in decreasing job strain [19,43].” (emphasis added)*

They also stated:

*“... job control seems to protect workers from exhaustion when workload increases. Our findings showed that a high workload does not pose major concerns when workers have sufficient job control.”*

While significant research remains to be done on the effectiveness of specific burnout interventions, the causes and consequences of burnout have been well established. System level interventions are considered primary reduction strategies, while individual interventions are considered secondary. Attempts to improve burnout in individuals in which burnout has become an issue are considered tertiary interventions and are least effective. Widespread consensus is that “preventing burnout is a better strategy than waiting to treat it after it becomes a problem“ (Maslach, 2011), and that the best way to prevent burnout is at a system level.

Based on the research, the students suggest that workload and job control/autonomy should be a significant focus of the interventions implemented in the future.

A change in the workload of pre-clerkship in Medical School has been attempted by reduction of duplicate and extraneous material in the curriculum. Administration has begun this process with the “less-is-more” task force; preliminary results show a moderate decrease in curricular size. Students encourage, as noted previously, the formation of a curricular map to aid in this process.

Flexibility in pre-clerkship has been addressed by numerous changes in the attendance policy, which have been received positively by students. Students suggest removal of the restrictions on shadowing during non-mandatory sessions and adding excused absences for attendance of conferences would assure job control/flexibility in pre-clerkship. As the level of burnout in students increases significantly during clerkship, students feel this is a priority.

Workload in clerkship remains an issue due to quantity of hours worked per week and quantity of time off in third year. From January of second year to January of third year, students have two weeks of vacation at Christmas time, and two weeks for the three weeks of CaRMS tour. There is currently no reserved time off between rotations.

The number of hours per week has been attempted to be addressed through the clerkship work hours policy. Despite this policy, 61% of students still report working more than the maximum number of hours per week. The students suggest further inquiry be done to ascertain the cause of students working beyond the maximum number of hours and adjustments to the current system be made accordingly.

Although the program offers students three flex days to be utilized throughout clerkship, there are many negative stressors that predispose students to burnout. These factors include:

- Increased work load from pre-clerkship
  - 55h/week + call + studying
- 60 weeks straight of clerkship (56 scheduled weeks, two week break at Christmas, two weeks for CaRMS interview tour)

- No break or time off in clerkship
- No time off/break between rotations
- Little flexibility
- No allocated remediation and rewrite time
- Very difficult and convoluted process to take time off
- Discomfort/fear of reprisal for being absent

While the students feel job control/ flexibility and workload are two areas where significant interventions can decrease burnout rates, students also recognize the efforts of UME to address the other four critical areas influencing burnout: reward, community, fairness, and values. Community and values are addressed through the newly formed wellness committee, fairness through the school's efforts to address mistreatment, and reward by reminding students of the sizable income they will have after graduation from their residency program.

*Summary: Overall, students from each class feel some degree of burnout. Burnout seems to progress through each year of medical school, with students towards the middle and end of clerkship feeling greater burnout than those just starting medical school. A review of the literature on burnout in the workplace and healthcare suggests preventing burnout is more effective than treating it (Maslach, 2011), and workload and job control are prominent factors in the development of burnout (Portoghese et al., 2014).*

**At the time of writing this report, the Wellness Task Force (co-chaired by a student and Dr. Bailey in Student Affairs) had not yet submitted its final report, thus recommendations were not included into this document.**

*Recommendations:*

- *Decrease workload where possible through reduction of redundant and extraneous material (which students suggest be accomplished by a curricular map which would be used for analysis of the relevance of session objectives to overall program objectives)*
- *The program to implement more time off during clerkship*
  - *Scheduled 3 day long weekends between every second rotation/block*
  - *Scheduled 1 week off in October*
  - *additional flexibility for time off while working on CaRMS applications*
- *Where workload cannot be reduced, the students strongly suggest administration find ways to increase the students' sense of control and autonomy, specifically in clerkship when burnout is most prevalent. Students suggest this be accomplished through an increase in flexibility in regards to attendance and scheduling as well as any other forms in which more flexibility is possible without compromising the education of the learner.*
- *The program to launch a standing task force on burnout and learner wellness*
  - *There may be a role for development of a resiliency or enhanced coping skills initiative dependent upon identification of root causes*

- *The program to continue with the exceptional efforts of Dr. Bailey within the Student Affairs office*
- *The program to provide students needing to take time off with remediation opportunities that do not require a student to take an entire year off*

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## Detailed Analysis: Mistreatment

Related standards:

### Anti-Discrimination Policy (Element 3.4)

**A medical school and its clinical affiliates do not discriminate on any grounds as specified by law including, but not limited to, age, creed, gender identity, national origin, race, sex, or sexual orientation. The medical school and its clinical affiliates foster an environment in which all individuals are treated with respect and take steps to prevent discrimination, including the provision of a safe mechanism for reporting incidents of known or apparent breaches, fair and timely investigation of allegations, and prompt resolution of documented incidents with a view to preventing their repetition.**

*See Accreditation Survey questions 19: f, g, h, l, m, & p*

There were several incidences of discrimination occurring to medical students in all classes at various stages of medical school. Although the numbers of discrimination are small, we feel that any amount of discrimination is unacceptable for a medical school. Students should be free from all discrimination in order to feel safe and respected. Students felt discriminated by gender, race, ethnicity, and religion. Some were subjected to offensive remarks based on race, ethnicity, or sexual orientation.

*Summary:*

*While policies and programs are in place, discrimination and denial of opportunities have persisted over time<sup>25</sup>, albeit at relatively low rates, and have not decreased. This is an area of weakness, requiring monitoring as well as possible policy revisions.*

*Recommendation:*

- *Increase opportunities for students to report discrimination*
- *Review policies and implementation strategies to ensure they are effective*
- *Develop clear policies for disciplining individuals partaking in discriminatory behavior towards students*
- *Raise student awareness of processes*

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<sup>25</sup> according to CGQ Mistreatment section 2015 53-60b, and comparable sections in CGQ 2013-2014, and in comparison of ISA survey to interim ISA data

- *Create a system for discrimination complaints external to the medical school, to include all health professionals within AHS.*
- 

### **Student Mistreatment (Element 3.6)**

**A medical school defines and publicizes its code of conduct for the faculty-student relationship in its medical education program, develops effective written policies that address violations of the code, has effective mechanisms in place for a prompt response to any complaints, and supports educational activities aimed at preventing inappropriate behaviors. Mechanisms for reporting violations of the code of conduct (e.g., incidents of harassment or abuse) are understood by students and ensure that any violations can be registered and investigated without fear of retaliation.**

Student code of conduct:

Most students (Mean >3.7) are aware of the content in the student code of conduct and how to report violations of the code. The majority of students have confidence in the investigation process as well; however, 12-16% of students feel that investigation of violations of the code of conduct may result in retaliation/repercussions. As a potentially significant portion of students does not trust the investigation process, this is an area for improvement.

*See Accreditation Survey question 2*

*See Accreditation Survey questions 4: a & b*

*See Accreditation Survey questions 16: a & b*

*See Accreditation Survey questions 19: a-r*

*See Accreditation Survey questions 20: a-k*

*See Accreditation Survey question 21*

*See Accreditation Survey questions 24: a-f*

Types of personal mistreatment organized from most to least common:

- **40 people said they personally experienced public embarrassment**
  - 67.5% were Class of 2015
- **31 people said they personally experienced public humiliation**
  - 71.0% were Class of 2015
- 12 people said they were subjected to racially or ethnically offensive remarks
- 11 people said they were subjected to sexually offensive remarks
- 11 people said they were denied opportunities or rewards based on gender
- 7 people said they were subjected to unwanted sexual advances
- 6 people said they experienced being required to perform personal services
- 6 people said they received lower evaluations or grades solely based on gender
- 5 people said they were subjected to offensive remarks/names based on sexual orientation
- 2 people said they were denied opportunities for training or rewards based solely on race, ethnicity, or religion
- 1 person said they personally experienced threat of physical harm
- 1 person said they received lower evaluations or grades based on sexual orientation
- No one said that they received lower evaluations based on race, ethnicity or religion
- No one said that they were denied opportunities for training or rewards based solely on sexual orientation
- No one said they personally experienced physical harm
- No one was asked to exchange sexual favours for grades or other rewards
- Note: 6 people said they were mistreated in some other way

Who mistreated them, from most to least common:

- **39 cases by clerkship faculty (in clinical settings)**
- **18 cases by preclerkship faculty**
- **17 cases by residents (in clinical settings)**
- **13 cases by nurses**
- 7 cases by students
- 6 cases by patients
- 5 cases by administrators
- 3 cases by residents (in the classroom)
- 1 cases by clerkship faculty (in the classroom)
- 1 cases by another institution employee
- Note: 3 cases by someone else not listed



Reasons given for not reporting mistreatment, from most to least common:

- They did not think anything would be done about it (30 people)
- Fear of reprisal (30 people)
- The incident did not seem important enough to report (17 people)
- They resolved the issue themselves (13 people)
- They did not know what to do (7 people)
- Other reasons (4 people)

#### WITNESSED MISTREATMENT

*See Accreditation Survey question 16: b*

*See Accreditation Survey question 28: a, b, c, d, e, f, & g*

*See CGQ 2015 questions 53-60: b*

Reasons for not reporting the witnessed event, from most to least common:

- They thought nothing would be done about it (26 people)
- The incident did not seem important enough to report (25 people)
- The student involved resolved the issue (23 people)
- Fear of reprisal (17 people)
- The student involved asked that it not be reported (8 people)
- They did not know what to do (8 people)
- Other reasons (6 people)

#### Overall mistreatment:

Mistreatment was a notable issue identified by the University of Calgary medical students, with 6-25% of students stating that they personally experienced mistreatment and another 10-35% of students witnessing others being mistreated. The percentage of mistreatment increased across the years and was consistently more represented by female students. Out of those who experienced mistreatment, public embarrassment and public humiliation were the most common forms of mistreatment identified, followed by racially, ethnically, and sexually offensive remarks. Notably, 7 people stated that they were subjected to unwanted sexual advances.

Out of those who experienced mistreatment, most stated that they were mistreated by clerkship faculty, residents, and nurses in a clinical setting or by pre-clerkship faculty.

Furthermore, 86% of students that experienced mistreatment did not report it. Of this 86%, 55% of students stated that they did not report the mistreatment because they

felt that nothing would be done or because of fear of reprisal. The mistreatment of medical students and lack of a safe mechanism for reporting mistreatment are significant areas of weakness.

When comparing our survey data to CGQ 2015 data<sup>26</sup>, we find the data sets broadly corroborate each other. Although Calgary's mistreatment rates are close to the national average, the students have flagged this as a concern due to persistence. The literature supports that mistreatment, harassment, and discrimination rates remain high in medical training (Fnais et al., 2014), and students are highly aware what appropriate behaviour looks like.

At the interim accreditation in 2012, the student report identified learner mistreatment as an area of concern, with ~20-25% of students personally experiencing mistreatment by the end of the program and 60% of students not reporting mistreatment. At that time dedicated resources including staff, policy changes, and mandate to correct mistreatment were implemented. Unfortunately, despite this dedication of resources and efforts, the 2015 accreditation data reveals that our mistreatment rates have not improved. Most concerning, however, is that today 90% of students do not report mistreatment. The two prominent reasons for students failing to disclose mistreatment are fear of reprisal or feeling that nothing will be done. In focus groups, we have learned that students do not trust the current reporting system and find it difficult to navigate. They also feel there is an absence of process, policy, and transparency with respect to how mistreatment is investigated and disciplined. Due to this lack of process, and the real or perceived risks of reprisal and reputational harm, students do not report mistreatment.

A student co-led task force was launched in early fall of 2015 to better understand the cause of mistreatment and develop an action plan to combat it. At the time of writing the ISA, the report from this task force was recently completed.

**Please see Mistreatment task force report, revised flow chart, recommendations and student presentation in Appendix I.**

Linked to mistreatment and discrimination, in review of current documentations-the ISA team found the program does not have a formal policy, process, or guideline for addressing and managing conflicts of interest between student and preceptors, evaluators, or administration should they arise during the course of the program. Some terms of reference for committees have mentions of CoI procedures, however this is inconsistent.

*Summary: Mistreatment is an area of concern for students, with 6-25% having personally experienced mistreatment and 10-35% having witnessed mistreatment towards other students. Many students fail to report mistreatment, largely out of fear of reprisal or the feeling that nothing will be done about it. In fall of 2015, a student-led task force was created to understand the cause of mistreatment and develop an action*

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<sup>26</sup> CGQ 2015 Mistreatment section questions 53-60b

*plan. This task force has developed excellent recommendations to Dean Meddings, however at the time of this report these recommendations have not been implemented, thus this element remains not-compliant from the student perspective.*

*Recommendations:*

- *The program to continue to explore the root causes for mistreatment and develop strategies to reduce frequency<sup>27</sup>*
- *The program to explore the possible impact of mistreatment on student wellness<sup>28</sup>*
- *Program to implement Task Force recommendations*
  - *centralize reporting of mistreatment*
  - *hire and establish Ombudspersons for mistreatment*
  - *develop mandatory mistreatment training module for all preceptors (including residents)*
  - *strengthen mistreatment presentations in Orientation*
  - *enhanced preceptor-student conflict resolution training for students*
- *Ensure clarity of mistreatment policies*
  - *Protecting students from reprisal for reporting mistreatment*
  - *A clear procedure for disciplining individuals that partake in mistreatment*
  - *Clear timeline and expectations for all involved*
- *Promote a culture of support amongst the UME and Student Affairs for medical students facing mistreatment*
- *The program develop and implement a conflict of interest policy for student-preceptor and student-administration CoI should it arise during the course of student's study in the program.*

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<sup>27</sup> Mavis et al (2014) propose analysis of CGQ mistreatment data to identify root causes and then build a program around these issues

<sup>28</sup> Cook et al (2014) show association between frequent mistreatment and burnout.

## 6.4 CAREER & ACADEMIC ADVISING

## Summary

### STRENGTHS

- Special individual meetings with Student Affairs
- UCLIC
- Interest Groups
- Panels/Mentorship by Upper Years

### CRITICAL AREAS OF IMPROVEMENT

- Electives timing and opportunity (**Element 6.5**)
- Career Planning (**Element 11.2**)
  - Early Career Planning
  - Electives coordination & selection
- Shadowing (**Element 11.2**)
- Remediation timing (**Element 11.1**)

### OTHER AREAS OF WEAKNESS

- Mentorship (**Element 11.2**)
- MSPR (**Element 11.2**)
- CaRMS timeline (**Element 11.2**)
  - Lack of time to prepare application
  - 2 weeks for 3 week of interviews
- Minimal preventative academic advising (**Element 11.1**)

### CRITICAL RECOMMENDATIONS

- Implement Recommendations of Career-Advising Task Force/Strategic Plan (**Element 11.2**)
- Launch process to explore options to revise Clerkship schedule (**Element 6.5**)
  - Begin clerkship in January, have 3 months/12 weeks/2 blocks of core rotations at start
  - Followed by core elective blocks (8 weeks)
  - Efforts made to enhance elective equity
- Revise shadowing policy to allow more flexibility (**Element 11.2**)
- Develop academic advising program (**Element 11.1**)
- Develop built in remediation time in the schedule, which does not require struggling students to have to manage 2 courses/rotations simultaneously (**Element 11.1**)

#### Other Areas of Concern & Recommendations:

- Re-envision mentorship program
  - Dr. Cusano currently working on this

- The amount of elective time students get is a concern for students when choosing their residency disciplines (**Element 6.5**).
- The amount of elective time students get is a concern for students when applying to CaRMS (**Element 11.2**).
- The effectiveness of guidance on choosing and coordinating electives is a concern for students (**Element 6.5**).
- The faculty mentor program is not as effective at providing career guidance as it could be (**Element 11.2**).
- The majority of students feel pressured to decide residency disciplines early (**Element 11.2**).
- The impact of attending a 3-year school on CaRMS success is a significant concern for students (**Element 11.2**).

## Narrative

The Cumming School of Medicine is aware of student concerns surrounding career advising, electives, shadowing, and academic advising; it has been working to address them over the last 8 years and aggressively so over the last 6 months. New staff started in the Office of Student Affairs on July 1<sup>st</sup>, 2015. This team has begun to revamp many program offerings and implement new initiatives.

The program has also launched a student-faculty co-led Career Advising task force to develop a strategic plan for the office. This task force has developed a comprehensive report, attached as Appendix J.

Although major progress has been made on career advising, at the time of writing this report insufficient time had passed to assess the efficacy of these initiatives. Therefore, the writing team has identified career advising (11.2) as non-compliant. The writing team feels that close monitoring of student satisfaction with career advising, through internal survey and CGQ data, as well as match results in the forthcoming years, will be adequate outcome markers to track program success.

Electives, inflexibility of the shadowing policy, and development of preventative academic advising are also areas of concerns for students. At the time of this report, there are no current plans to address these concerns; these areas have also been identified as non-compliant.

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## Detailed Analysis

### Elective Opportunities (Element 6.5)

**The faculty of a medical school ensure that the medical curriculum includes elective opportunities that supplement required learning experiences and that permit**

medical students to gain exposure to and deepen their understanding of medical specialties reflecting their career interests and to pursue their individual academic interests.

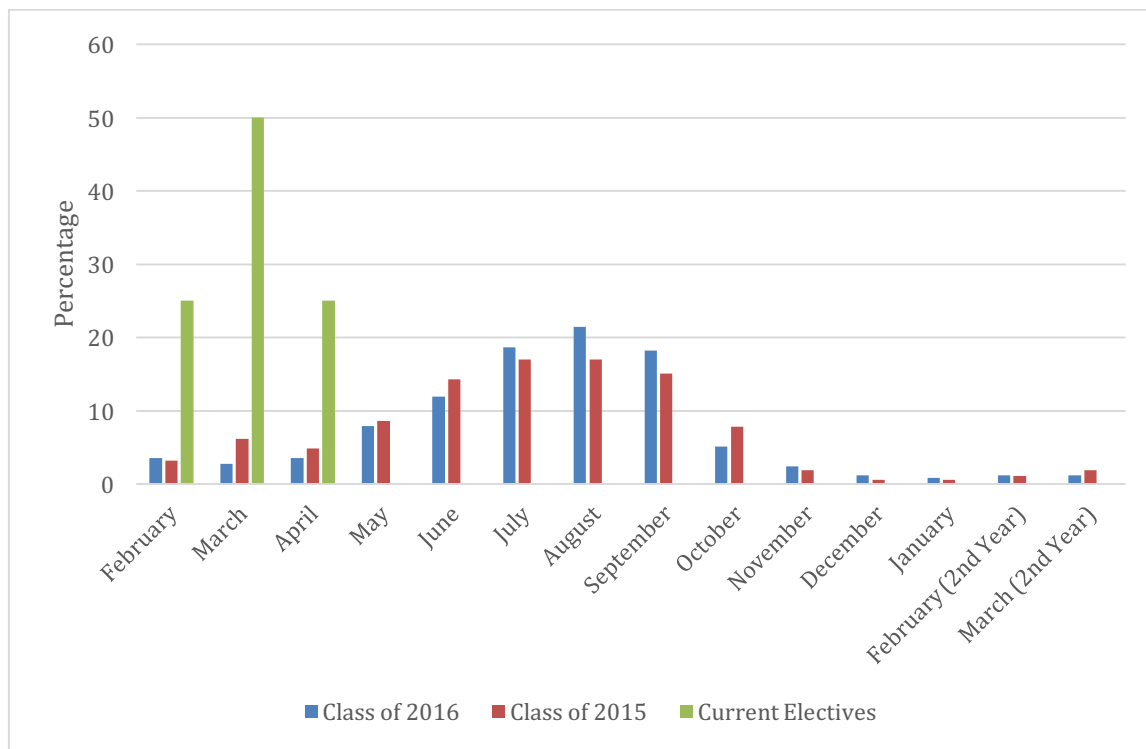
*See Accreditation Survey question 77: 3*

*See Accreditation Survey questions 81: a, b, c, & d*

*See Accreditation Survey questions 83: b & c*

*See Accreditation Survey question 84: f*

Clerkship Dates: Where do you think electives should be?



**Figure 25:** Depiction of student-voted opportune elective timing, Class of 2016 blue, Class of 2015 red. Response to accreditation survey question “where do you think that electives should be?” and allowed to identify only 1 month. Overlaid in green is current start of clerkship (8 week) elective distribution (2 weeks (25%) in February, all of March (4 weeks, 50%) and 2 weeks in April (25%). Note students have 4 remaining week of electives through remainder of clerkship, the timing is variable by tract.

**\*\*** It should be noted, that the Class of 2016 had a change in elective schedules.

Prior classes (including Class of 2015) had 6 weeks of pre-clerkship electives in 2<sup>nd</sup> year, 6 weeks of electives at the start of clerkship, and 4 weeks of electives throughout clerkship. Starting for the Class of 2016, students had 4 weeks of pre-clerkship electives, 8 weeks of electives at the start of clerkship, and 4 weeks throughout.

**Table 13:** Elective time at various Canadian medical schools (source CFMS Presidents' Round Table).

University	Total number of elective weeks	# of weeks post CaRMS applications	Additional Notes
Queens	16 weeks	2 weeks	6 students have 18 weeks due to rotation structure
U of S	13 weeks	All before CaRMS	2.5 years and 1.5 years of clerkship
Manitoba	14 weeks	Selectives available post CaRMS	12 consecutive weeks before Christmas break in 4 <sup>th</sup> year and 2 weeks after. Electives must be in three different CaRMS residency positions
Dalhousie	8 weeks pre-interview		
UBC	22 weeks pre-CaRMS	8 weeks post CarMS interviews	
U of A	18 weeks of electives	4-10 weeks, 6-7 weeks starting Academic Year 2016-2017	6 weeks of elective in 3 <sup>rd</sup> year and 12 weeks of elective in 4 <sup>th</sup> year
Toronto	12 weeks		Elective Time is exclusively in 4 <sup>th</sup> year
Western	16 weeks		
McGill	16 weeks	All before CaRMS	

The survey revealed that there is room for improvement in different aspects of elective opportunities. Areas of weakness include: career guidance, ability to sample



career opportunities in pre-clerkship, guidance on choosing and coordinating electives, and too little elective time. Specifically, only 50% of students felt they were adequately able to sample career opportunities during pre-clerkship. Additionally, more than half of first and second year medical students felt that there was inadequate guidance on choosing and coordinating electives. Almost 70% of students felt that more elective time is required for students to be successful in their application to CaRMS.

Of significant use in career guidance are the numerous student run interest groups. These interest groups coordinate with the specialty departments, offices within CSM and UME/Student affairs, to put on “career days”, where staff in each discipline present to students at lunch about their specialties.

Also helpful in electives selection is a panel comprised of third year students, which present to second year students regarding electives selection, strategy, and general clerkship advice.

The program states that students have 16 weeks of electives, or 8 blocks; however, two of these blocks are pre-clerkship electives, which cannot be used in the MSPR or CaRMS process. The strong majority of students felt four-week pre-clerkship summer elective blocks were a program strength.

As well, 16 of 24 clerkship tracts have one elective block, and 4 of 24 tracts have two elective blocks, post MSPR submission date, meaning for these students they have 8 or 10 weeks (4 or 5 blocks respectively) of elective time (Appendix P clerkship tracts) that will show up on the MSPR.

The majority of second and third year students would like to have clerkship electives placed in June to September of third year, prior to the Dean’s Letter deadline, but after the completion of the first set of core rotations. Currently, electives are scheduled in February to April, at the beginning of clerkship. Moving electives to a period later in clerkship would allow students to develop skills which would help them be competitive with medical students from other schools. This would also provide students the opportunity to do electives at schools that require students to complete core rotations in the requested elective specialties before attending electives. Therefore, this represents a potential area for improvement.

The current elective model performed well historically. However, with increasing restrictions on visiting electives, anticipated decreases in residency spots, older cohorts of medical students and students with restricted geographical flexibility at the Cumming School of Medicine, this model most likely needs some revision. Recent match data revealed the poorest performance by Cumming School of Medicine students in over a decade. This single data point, while unable to determine a trajectory, is alarming and worrisome to the student body.

*Summary: Students revealed guidance on choosing and coordinating electives, the quantity of elective time, and the current placement of electives in the clerkship schedule to be areas of weakness. Of additional concern is that not all students get 12 weeks of electives before MSPR deadlines, or even before CaRMS interviews, depending on their individual clerkship schedules.*

*Recommendations:*

- *The program to explore the option of reorganizing clerkship year*
  - *To enhance the equity of elective numbers prior to MSPR submission*
  - *To allow students to experience some core clerkship rotations prior to electives*

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## **Comfort & Approachability UME/Student Affairs with Personal Problems AND Academic Advising (Element 11.1)**

**A medical school has an effective system of academic advising in place for medical students that integrates the efforts of faculty members, course and clerkship directors, and student affairs staff with its counseling and tutorial services and ensures that medical students can obtain academic counseling from individuals who have no role in making assessment or promotion decisions about them.**

*See Accreditation Survey question 64*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

*See Accreditation Survey question 92: i*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

*See CGQ 2015 survey questions 47: a & b*

*See CGQ 2014 survey question 29*

*See sample survey question 12*

34-44% of students felt that academic advising and counselling services were sufficient. This proportion increases to 71-85% if including “good”, or 3 on the Likert scale, into this group.

Currently, the primary proactive process for students concerned about their academic success is peer tutoring. However, few students sign up as tutors (only five students in one of the classes), and are rarely utilized. There is more opportunity for academic advising for students who have failed an exam, and noteworthy advising for students who have to repeat a year due to academic difficulty. This is a concern for the students, as a more proactive approach to academic advising could prevent students from facing repercussions of academic difficulty.

An additional concern for students is the remediation process. Currently students requiring remediation in pre-clerkship must prepare for a rewrite while continuing with course work. There is no scheduled dedicated remediation time. In clerkship, remediation is variable amongst rotations, however generally a student must remediate time missed (greater than 3 days per core rotation) before able to write the rotation exam. If a student is unable to remediate this time, they must defer the exam and remediation until the end of clerkship (April). This deferral requires these students remediate and write a final while preparing for MCCQE1. Students who fail a clerkship exam and are

required to rewrite typically need to study and rewrite (the failed exam) while continuing in clerkship activities.

*Summary: Given the significant consequences of falling behind in course work, as there are few breaks in which students can catch up, the lack of a proactive approach to helping students struggling academically, and no dedicated remediation time, students feel this is a significant weakness.*

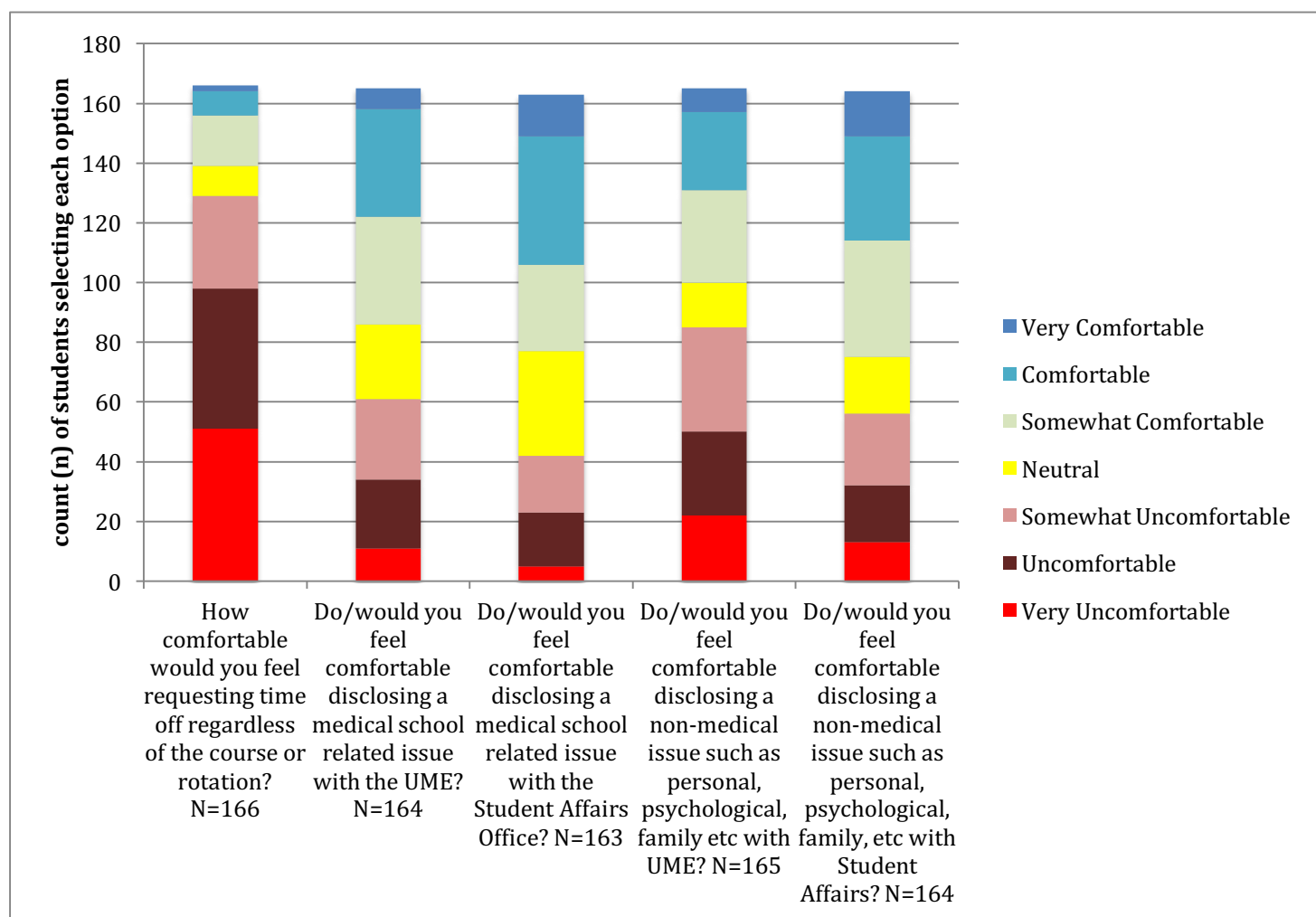
*Recommendations:*

- *Program to enhance student awareness of academic advising resources*
- *Program to develop additional academic learner supports, with a specific focus upon preventative resources*
- *Program to develop built in remediation time in the schedule, which does not require struggling students to have to manage 2 courses/rotations simultaneously*

*See Accreditation Survey question 62*

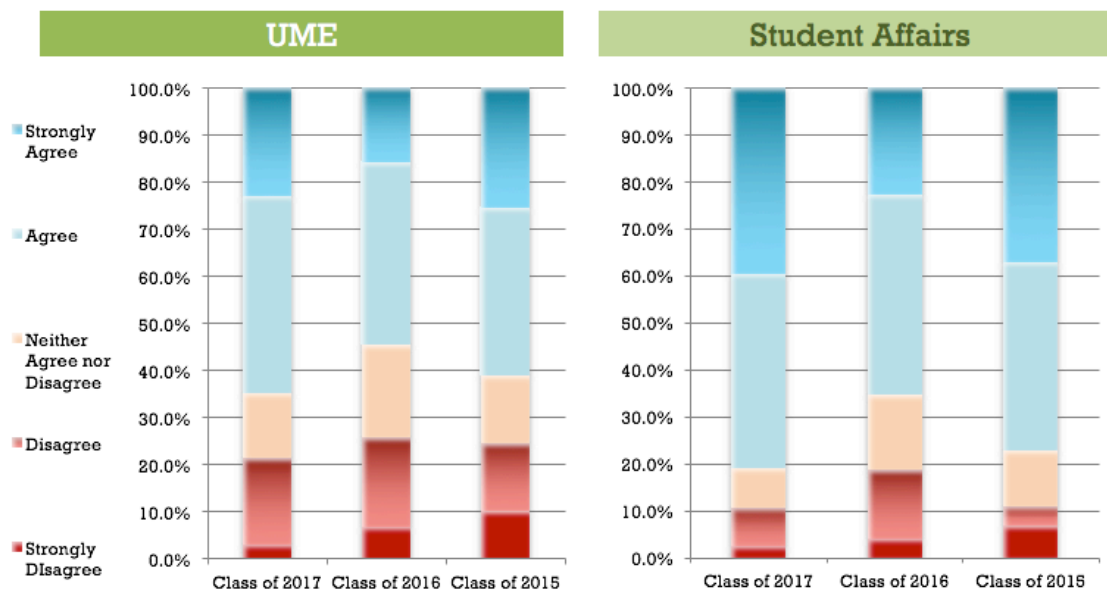
*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

*See Accreditation Survey question 94: a & b*



**Figure 20a:** Pre-accreditation survey composite of student (aggregate of Classes of 2015-2017) perceived comfort accessing various services/offices (horizontal axis) and count.

## + When I have a personal problem or concern, I feel comfortable and safe approaching:



**Figure 20b:** Student response to accreditation survey question “When I have a problem or concern, I feel comfortable and safe approaching UME (left) Student Affairs (Right)” using 5 point Likert scale (5-strongly agree, 1-strongly disagree). Reported as percentage of students selecting each by class.

The Cumming School of Medicine MD program has purposely established a student affairs office, arms-length from the UME program office, whose mandate is to support students. Through the student affairs office, medical students may access assistance from individuals who are not engaged in student assessment. Overall, students rated the student affairs office as excellent. Across all classes, the majority of medical students rated accessibility and willingness to use these services as above average. Approximately 91%\*\* of the medical students agree that the student affairs office is aware of student problems and concerns; 88%\*\* are satisfied with the office’s responsiveness to those problems.

ISA data shows that 54.4-64.8%\*\* of students feel comfortable approaching UME with personal concerns, and 65.4-80.9%\*\* of students feel comfortable approaching Student Affairs with a personal concern. Students ease and comfort with Student Affairs over UME is expected. However, the writers of this report feel the threshold for comfort/safety

approaching student affairs and/or UME should be almost 100% across classes. Our data does not provide the reasons for over 20% of students feeling uncomfortable or unsafe approaching these offices.

*Summary: There is a subset of students who are not comfortable approaching Student Affairs or UME with personal problems. This is an area that students feel requires monitoring.*

*Recommendation:*

- *Program to continue to monitor student accessibility and uptake of Student Affairs office, and work to break down any barriers, included perceived ones by students*
  - *Student Affairs to have stronger presence at student events*
- 

### **Career Advising (Element 11.2)**

**A medical school has an effective and where appropriate confidential career advising system in place that integrates the efforts of faculty members, clerkship directors, and student affairs staff to assist medical students in choosing elective courses, evaluating career options, and applying to residency programs.**

*See Accreditation Survey question 77: e*

*See Accreditation Survey question 78: a*

*See Accreditation Survey questions 83: a & d*

*At the time of administration this question was rated using an asymmetrical Likert scale, which results in difficulty interpreting the results. When used in the analysis the data from these questions have been marked with a double asterisk. For further information please see Poor-Excellent Likert-type Questions section in the methods.*

*See Accreditation Survey questions 84: a, b, c, d, e, & f*

*See Accreditation Survey question 85*

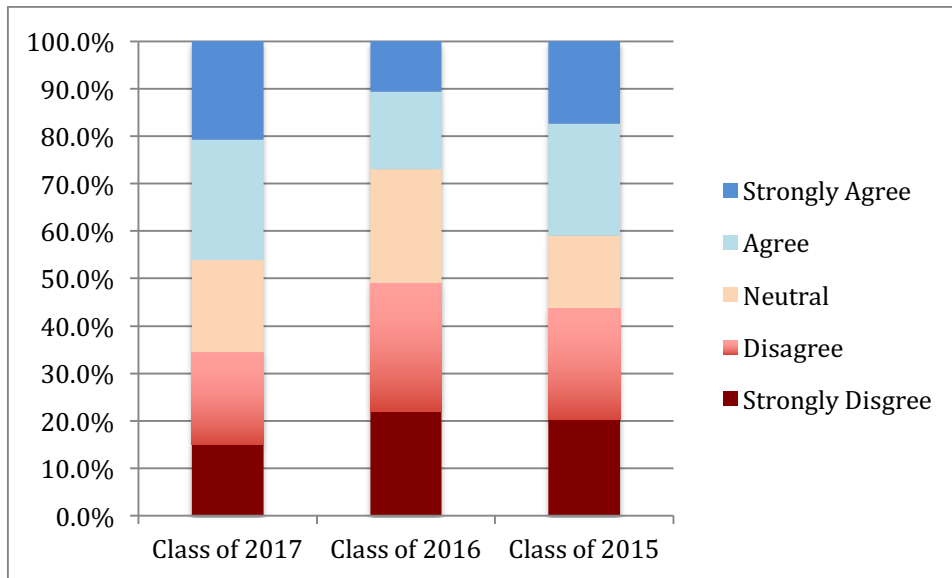
*See Accreditation Survey question 86: a, b, c, d, & e*

*See Accreditation Survey question 88*

*See CGQ 2015 survey question 66*

*See CGQ 2015 survey question 49: a & b*

*See sample survey question 11*



**Figure 26:** Student response to accreditation statement, “the Faculty mentor program was beneficial to me” (accreditation survey question 85) using 5 point Likert scale (5-strongly agree, 1-strongly disagree) by Class.

Accreditation Survey data identified many aspects of career planning, including early career decision making, career advising, through to residency application as poor or fair by over 40% of students, in each class. Also reported was that 40% of students in the Classes of 2015 and 2016 have not used Student Affairs for career planning. One of the bigger issues with career and CaRMS advising was that 88% of students felt pressured to decide residency disciplines early. Greater than 70% of second and third year medical students worried that attending a three year program would disadvantage them in CaRMS.

An area of strength was that the majority of third year medical students were able to attend the CaRMS interviews in clerkship that they wanted to.

Students were also asked about what they thought would be the most beneficial and effective means of career planning. The strong majority of students felt that increased shadowing opportunities, one-to-one counselling, and vocational specialists would be helpful.

Less than half of medical students felt that the faculty mentor program was beneficial. When asked about specific barriers faced in the faculty mentor program, students identified infrequent correspondence with their faculty mentors as the largest issue.

The ISA team consulted broadly to better understand root causes of dissatisfaction with career advising, despite significant efforts and initiatives by the program over the last eight years. There is tremendous variability amongst students; however, common themes were/are:

- Restrictive shadowing policy
- Pressure to decide career trajectory and interests early

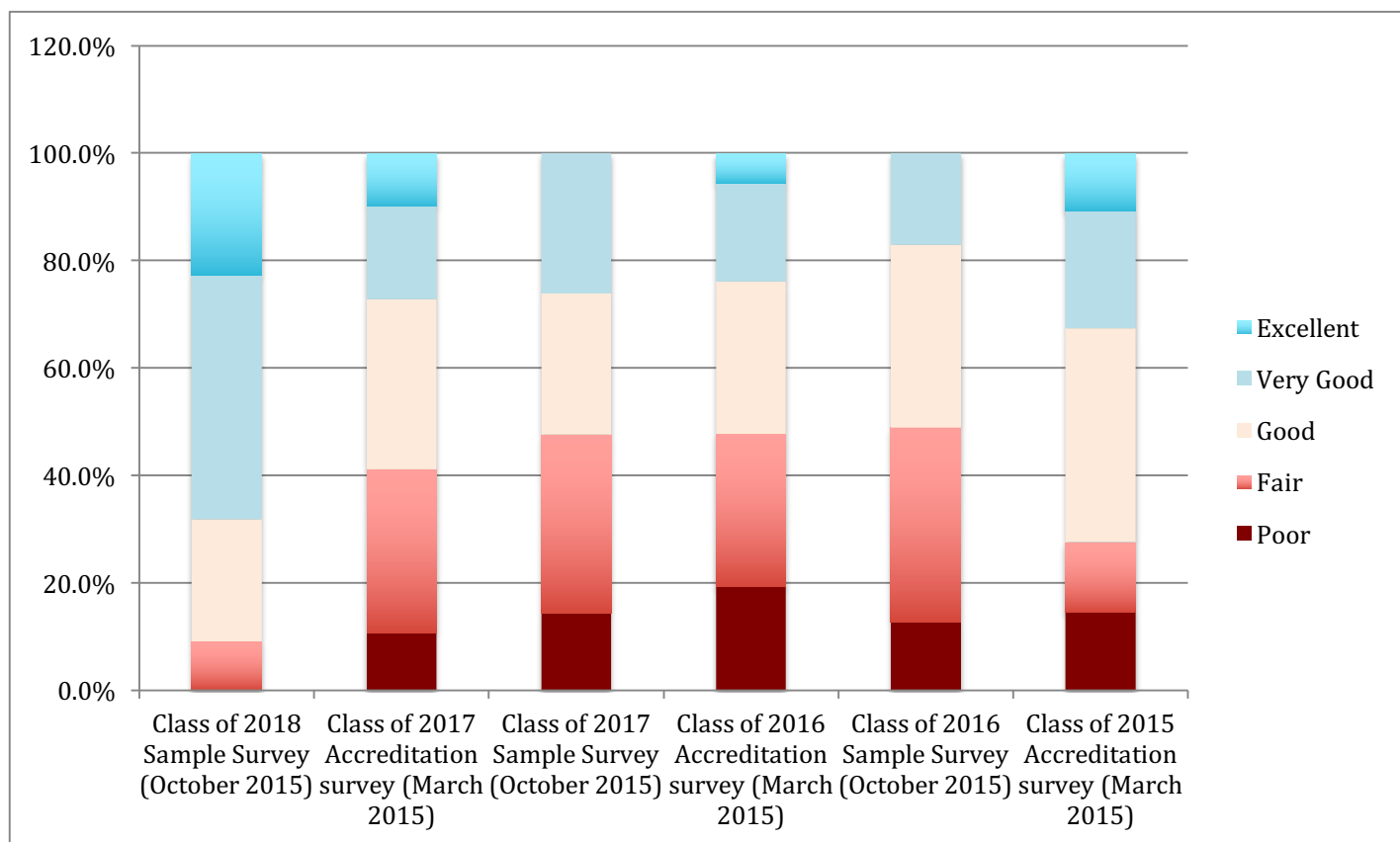
- Ill-timed calendar of career advising events (events/sessions are often a few months too late)
- Elective timing issues (addressed above)
- Communication and awareness issues
- Personnel issues
- Students felt pressured to choose Family Medicine

Since the collection of survey data, 2015 March results were released, with Calgary having 9 unmatched first round students, and 6/7 unmatched in round two. While an outlier year this has caused some concern for current clerks (Class of 2016).

Also since the time of the survey, the Student Affairs office has a new Director, and additional associate director (wellness). The new director has revamped many aspects of the career-advising program. In September 2015 a Career Advising Task Force was launched. This task force was co-chaired by a student (Class of 2017) and the Student Affairs Director. The task force has developed a strategic plan/direction for career advising, as well as revamped the career-advising calendar (Appendix J).

To assess for changes in student satisfaction with Career Advising, we specifically asked students about career advising in the Sample Survey. Figure 27 shows the results of the comparison of the question asking students to rate the quality of Career advising.





**Figure 27:** Composite of ISA question 83 and SS question asking students “Adequacy of Career Advising” using a 5 point Likert scale (5-excellent, 1-poor) by Class.

**Table 14: Mean determinations for student satisfaction with Career-advising, data from accreditation survey & sample survey, by Class.**

	Mean
Class of 2018 Sample Survey (October 2015) n=22	3.82
Class of 2017 Accreditation survey (March 2015) n=151	2.85
Class of 2017 Sample Survey (October 2015) n=42	2.64
Class of 2016 Accreditation survey (March 2015) n=88	2.63
Class of 2016 Sample Survey (October 2015) n=47	2.55
Class of 2015 Accreditation survey (March 2015) n=138	3.01

The means of Classes of 2015-2017 in ISA survey (March 2015) was 2.83, and the mean of Classes 2016-2018 in the sample survey (October 2015) is 2.84.

*Summary:*

*Career advising continues to be an area of concern by students. Many initiatives and changes have been made in the career-advising program over the last eight years, as well as over the last six months. Unfortunately, insufficient time has passed to see the effect of these changes on student satisfaction and experience with career advising. This is an area which remains of concern for students.*

*Recommendations:*

- **Refer to Task Force recommendations for complete details (Appendix J)**
    - Addition of a Vocational specialist within Student Affairs
    - Revised Career Advising Calendar, with programming beginning in year 1
    - Student Affairs Tab within OSLE
    - Enhanced Residency Application support
    - Optional mock-residency interviews
    - Revise shadowing policy to allow for enhanced flexibility
    - Launch of residency shadowing initiative
- 

**Oversight of Extramural activities (Element 11.3)**

**If a medical student at a medical school is permitted to take an elective under the auspices of another medical school, institution, or organization, a centralized system exists in the dean's office at the home school to review the proposed extramural elective prior to approval and to ensure the return of a performance assessment of the student and an evaluation of the elective by the student. Information about such issues as the following are available, as appropriate, to the student and the medical school in order to inform the student's and the school's review of the experience prior to its approval:**

- a) Potential risks to the health and safety of patients, students, and the community;**
- b) The availability of emergency care;**
- c) The possibility of natural disasters, political instability, and exposure to disease;**
- d) The need for additional preparation prior to, support during, and follow-up after the elective;**
- e) The level and quality of supervision; and**
- f) Any potential challenges to the code of medical ethics adopted by the home school.**

The CSM MD program has robust oversight over extramural activities and has a good pre and post-departure training program for students participating in global/international exchanges.

*Summary: This is not an area of concern for students.*

*Recommendations: None.*

## 7. GENERAL CONCLUSIONS

Upon extensive review of student data, pre-accreditation and accreditation, comparison to previous and external data sets, and review of Cumming School of Medicine key performance indicators and outcome measures, the ISA working group has identified the strengths and weaknesses of the MD program as described above.

The Cumming School of Medicine produces skilled undifferentiated physicians ready to pursue the residency program of their choosing. In the most recent CGQ, the Class of 2015 mean rating of overall program quality was 3.73\* (national mean 3.92 \* statistically different,  $p < 0.01$ ) and the mean student rating in the sample survey was 3.78.

This intention of this report is to be a critical objective student assessment of the Medical Doctor (MD) program at the Cumming School of Medicine. We assessed element by element to highlight areas of strength, elucidate areas where performance can be improved, and recommend strategies to accomplish said improvement. All members of the ISA working group are proud to be students in the Cumming School of Medicine. It is a critical Faculty at the University of Calgary; an academic and research engine for the university. Our hope in producing this report is to contribute to the success of the Faculty's strategic plan, the University's Eyes High vision, and to produce the best physicians, physician-scientists, and physician-leaders possible.

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## 9. APPENDIX LIST

APPENDIX A: PRE-ACCREDITATION SURVEY RAW DATA

APPENDIX B: PRE-ACCREDITATION SURVEY PRELIMINARY ANALYSIS PRESENTATION TO CSM ACCREDITATION STEERING COMMITTEE, FEBRUARY 9<sup>TH</sup>, 2015

APPENDIX C1: ACCREDITATION SURVEY ISA TABLES

APPENDIX C2-C4: CLASSES RAW DATA

APPENDIX D: ACCREDITATION SURVEY PRELIMINARY DATA ANALYSIS PRESENTATION TO CSM ACCREDITATION STEERING COMMITTEE, JUNE 24<sup>TH</sup>, 2015

APPENDIX E: INTERIM ACCREDITATION (2012) STUDENT REPORT

APPENDIX F: INTERIM ACCREDITATION (2012) RAW DATA

APPENDIX G: 2008 ACCREDITATION ISA

APPENDIX H1-H4: NCHA 2013 ALBERTA & CANADIAN DATA

APPENDIX I: MISTREATMENT TASK FORCE REPORT

APPENDIX J: CAREER ADVISING TASK FORCE REPORT & CALENDARS

APPENDIX K: 2015 INTEREST GROUPS OFFERINGS

APPENDIX L: MINI/SAMPLE SURVEY REPORT, OCTOBER 23<sup>RD</sup> 2015

APPENDIX M: CODED QUALITATIVE ANALYSIS OF STUDENT IDENTIFIED PROGRAM STRENGTHS

APPENDIX N: CODED QUALITATIVE ANALYSIS OF STUDENT IDENTIFIED PROGRAM AREAS OF IMPROVEMENT

APPENDIX O: DVM CURRICULUM MAPPING ASSISTANT POSITION DESCRIPTION

APPENDIX P: CLERKSHIP TRACTS