



Academic CME/CPD in the United States and Canada

Results of the 2021 AAMC-SACME Harrison Survey

Association of American Medical Colleges





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FOREWORD

The results of the 2021 AAMC-SACME Harrison Survey show that CME/CPD unit leaders and staff continue to have many opportunities to advance in how they practice and respond to the numerous ongoing changes in health care.

The CME/CPD units affiliated with our medical schools and specialty societies are in a unique position to advance the education of physicians and other health professionals. During these critical times, the units' support of physicians' new and evolving professional development, skills acquisition, and well-being needs is particularly important. High priorities for these units, as reported in the survey, included distance learning and technology in CPD, wellness, diversity, and equity. We were also delighted to see that competency-based education (CBE) was an area of increased focus for 2021 survey respondents, especially for CME/CPD units affiliated with medical schools. Shifting our attention from process to outcomes metrics or competencies will expedite our achievement of the Institute for Healthcare Improvement's quadruple aim: improving the health of populations, enhancing the experience of care for individuals, reducing the per capita cost of health care, and ensuring health care professionals' well-being.

As we continue to navigate the new realities of remote and hybrid learning and of clinical quality improvement, we encourage ongoing collaborations between CME/CPD educators and their clinical, social science, and administrative colleagues within and outside the academic medical centers. We must all continue to work across the education continuum, across professions, and across communities to expand the use of evidence-based approaches to continuous learning and development, especially approaches related to the quadruple aim and the delivery of high-quality, timely, safe care informed by and for our patients and communities.

Thank you to all those who worked on this report, including our SACME partners and colleagues at CMSS, ACCME, and AFMC. We are grateful to Nancy Davis, PhD, AAMC CME/CPD consultant, for her dedication and service to this project. We are also indebted to the CME/CPD leaders who took the time to respond to the survey. Your ongoing commitment to advancing health care through education is vital to the mission of our academic institutions.

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The efforts of R. Van Harrison, PhD, University of Michigan Medical School, have provided a platform on which to build further analyses of activity and to track changes within the academic CME/CPD community. The naming of this survey pays tribute to his commitment to survey design and execution over many years and to the Society for Academic Continuing Medical Education.

ABBREVIATIONS

ABMS	American Board of Medical Specialties
ACCME	Accreditation Council for Continuing Medical Education
ACGME	Accreditation Council for Graduate Medical Education
AFMC	Association of Faculties of Medicine of Canada
АМС	academic medical center, the teaching hospital-medical school complex
CA\$	Canadian dollar
CACME	Committee on Accreditation for Continuing Medical Education
CanMEDS	Royal College of Physicians and Surgeons of Canada competencies for effective physicians
CBME	competency-based medical education
CME/CPD	continuing medical education and continuing professional development
CME/CPD unit	continuing medical education and continuing professional development offices and programs, including variations in unit names, such as continuing professional education, lifelong learning and professional development, and continuing education and improvement
COVID-19	coronavirus disease 2019, referring to the global pandemic of 2020-2021
CQI	continuous quality improvement
FTE	full-time equivalent
GME	graduate medical education or residency education; in Canada, this is referred to as postgraduate medical education (PGME)
IPCE	interprofessional continuing education
МОС	Maintenance of Certification
QI	quality improvement
QIPS	quality improvement and patient safety

EXECUTIVE SUMMARY

The ninth joint survey about the structure and function of continuing medical education and continuing professional development (CME/CPD) units at U.S. and Canadian medical schools and specialty societies documents an academic enterprise that displays several shifts toward competency-based continuing education, interprofessional practice, and a focus on diversity, equity, and inclusion (DEI), among other areas. This collaborative survey was the first to include data from medical specialty society participants. Responses were from 90 of 140 (64%) invited U.S. medical schools, 13 of 17 (77%) invited Canadian medical schools, and 17 of 40 (43%) U.S. medical specialty societies. This survey of the CME/CPD community is the 21st since 1982. It was unique because it was administered during a significant event for society, health care delivery, and medical education: the COVID-19 global pandemic.

Survey findings will benefit those in the CME/CPD field who can use them to assess and enhance the shape and scope of CME/CPD and who will share the information with deans, CEOs, and other leaders. Throughout this report, where possible, data from the last Harrison Survey, in 2018, are compared with responses to the 2021 survey for institutions that participated in both surveys. While there are many similarities between medical schools' and specialty societies' CME/CPD, there are important differences, too. Overall, the survey data suggest some identifiable trends in the CME/CPD responses to 1) supporting the health and well-being of clinicians, 2) addressing DEI, 3) shifting to online delivery of programs, 4) responding to the needs of the global pandemic, and 5) engaging in research and scholarship about CME/CPD.

An emphasis on the health and well-being of clinicians is evident in CME/CPD unit offerings. While wellness was one of the lowest-priority areas in 2018 for medical schools, the majority reported it as a high priority in 2021. Sixty-nine percent of medical schools and 93% of specialty societies reported provider wellness or burnout was a moderate or major focus of their CME/CPD educational programming during the initial pandemic year, 2020. Similarly, the majority of CME/CPD units within specialty societies (60%) and medical schools (64%) reported DEI as a moderate or major focus of their programming.

The shift from in-person to online program delivery between 2018 and 2021 was significant. Traditional, in-person CME/CPD conferences were canceled due to the pandemic and replaced with virtual, online delivery. This led to changes in educational formats as well. While use of the lecture format remained about the same, use of more interactive, small-group activities decreased. While their delivery methods had to change significantly, CME/CPD units responded to the call to disseminate new information and education amid the COVID-19 pandemic. The majority of survey respondents (86% of medical schools and 66% of specialty societies) cited COVID-19 diagnosis and management as either a major or moderate focus in the past year.

All reporting CME/CPD units were involved in some sort of education-related scholarly activities, with conference presentations the most frequently reported. Sole or joint authorship in peer-reviewed journals was reported by about one-third of respondents. There was a marked decrease in the presentation of quality improvement work from 2018 to 2021. Unfortunately, lack of funding for education research remained a barrier to that research.

Medical schools, specialty societies, and CME/CPD units residing within them are all facing rapid changes and challenges in health care. Many factors are affecting CME/CPD units and their educators, including the ongoing global COVID-19 pandemic, systemic and institutional racism, changes in health care delivery and practice, and worsening clinician well-being. The 2021 survey results document a CME/CPD enterprise that is increasingly integrated and responsive to the demands of its academic enterprise. Many opportunities continue to exist to innovate, collaborate, and research optimal methods to achieve high-quality, high-value health care for all patients.

1 | Background, Methods, and Respondent Characteristics

BACKGROUND

The AAMC and the Society for Academic Continuing Medical Education (SACME) jointly sponsored the 2021 administration of the Harrison Survey. This is the 21st administration of the survey, which documents characteristics of the academic continuing medical education and continuing professional development (CME/CPD) community, and the ninth that has been jointly administered by the two organizations since 2008. Its name recognizes R. Van Harrison, PhD, professor emeritus, University of Michigan Medical School, who provided the initial platform in 1985 for analyzing and tracking changes in educational activities within the academic medicine CME/CPD community.

Until this year, the survey was disseminated to medical schools in the United States and Canada. This year, to get a fuller picture of the current structure and function of academic CME/CPD, it was also sent to U.S. teaching hospitals and medical specialty societies.

METHODS

All questions from the 2018 survey were reviewed for relevance to the historic (U.S. and Canadian medical schools) and new (teaching hospitals and medical specialty societies) participant groups. Two volunteer representatives from each of the stakeholder groups were asked to review the 2018 survey and were then interviewed about the relevance of each item to their group, items they would eliminate, and new items they would recommend. As a result, no items were eliminated, response options were added to several to be inclusive of all groups, and several new items were added, with most addressing the response to the COVID-19 pandemic. AAMC experts in survey design and administration were consulted to ensure that items were appropriately clear and brief. The stakeholder representatives who had been interviewed reviewed the new survey to ensure the questions and response options were clear and relevant.

The survey was sent to the CME/CPD unit leaders at 140 U.S. and 17 Canadian medical schools accredited by the Liaison Committee on Medical Education (LCME®), 13 AAMC-identified teaching hospitals, and all 40 medical specialty societies that are members of the Council of Medical Specialty Societies (CMSS). (Medical schools without a CME/CPD unit were not included.) The AAMC's Chief Medical Officers' Group (CMOG) supplied the contact information for teaching hospitals that have CME/CPD units. This information was limited to the number of CMOG members who participated and resulted in 13 contacts. An email was sent to all CME/CPD unit leaders to confirm their role and announce the upcoming survey. The confirmed unit leaders received the survey via email in April 2021 and were encouraged to complete the survey within six weeks. Five email reminders were sent to nonrespondents during this period.

RESPONDENT CHARACTERISTICS

The 140 U.S. medical schools with academic CME/CPD units were contacted, and 90 (64%) responded to the survey. The 17 Canadian medical schools were contacted, of which 13 (77%) responded. Forty of the 45 Council of Medical Specialty Society members were contacted, and 17 (43%) responded to the survey. Although we attempted to also include a representative sample of independent U.S. teaching hospitals in this cycle, a very low number responded and were therefore excluded from analysis. Plans are underway to increase this group's representation in future survey administrations.

According to the respondents, several agencies provide accreditation of CME/CPD institutions or activities, the most prominent being the Accreditation Council for Continuing Medical Education (ACCME) in the United States and the Committee on Accreditation of Continuing Medical Education (CACME) in Canada.

Because the perspectives of medical schools and medical specialty societies are different in some areas and similar in others, the report shows side-by-side comparisons. It also shows trends between 2018 and 2021, when applicable, comparing the same medical school respondents for both years (n = 92).



This section uses data about where the CME/CPD unit resided, its operations, the presence or absence of a CME/CPD committee, and affiliations with other units in the academic institution to characterize the structure of the academic CME/CPD units.

LOCATION OF THE CME/CPD UNIT

The CME/CPD unit was located in the dean's office in 41% of medical schools and in medical education in 34%. Most medical specialty societies (73%) reported their CME/CPD unit was housed in medical education.

OPERATIONS OF CME/CPD UNITS: TRENDING DATA

As it was in 2018, the most frequently reported function of the CME/CPD unit was approving activities for credit (Figure 1). While planning for meetings and conferences declined, ongoing maintenance of certification Part IV activities increased in all categories since 2018. Education research increased while ongoing professional practice evaluation (OPPE) activity decreased. U.S. medical specialty societies reported similar functions. Approving activities for credit, developing content, marketing CME/CPD activities, and meeting and conference planning were listed as the predominant activities.

SECTION 2 | INTEGRATION OF CME/CPD IN THE ACADEMIC MEDICAL CENTER



FIGURE 1. Operations of CME/CPD units in medical schools in 2018 and 2021 and U.S. medical specialty societies in 2021.

Note: Medical school data are only from schools that responded to the question in both 2018 and 2021. Total percentage exceeds 100% because respondents could select multiple responses. CBME, competency-based medical education; MOC, Maintenance of Certification program.

INSTITUTION-WIDE CME/CPD COMMITTEE

Respondents were asked whether an institution-wide CME/CPD committee existed and, if so, how often the committee met. All medical specialty society respondents reported having a CME/CPD committee. About three-fourths of the medical school respondents (72%) reported there was a committee. The most-reported frequency of committee meetings for both institution types was one to four times (69%) per year. A small proportion (7%) reported the committee did not meet.

OFFICES OR DEPARTMENTS WORKING WITH THE CME/CPD UNIT

Respondents were also asked, "How many times a year did the CME/CPD unit leader meet in person with different institutional leaders?" A list of institutional leaders and frequencies of formal meetings held annually is shown in Table 1. The most frequent in-person meetings for medical schools were with clinical departments, faculty development, and resident and fellow education. Specialty societies reported working regularly or frequently with the board of directors, resident and fellow education, and membership. New to the list of collaborators in the 2021 survey were those in diversity, equity, and inclusion (DEI). Eighty percent of medical specialty societies reported working regularly or occasionally with DEI, as did 82% of medical schools. Other frequencies are displayed in Table 1.

TABLE 1. Frequency of Meetings Between the CME/CPD Unit and Departments or Offices at Medical Schools and Medical Specialty Societies, 2021

	Number of Respondents		Percent Selecting Each Category							
Department or Office	Medical School	Medical Specialty Society	No	ne	Occas	ional	Regular or Frequent		Not Applicable	
Alumni affairs	100	15	30%	7%	61%	0%	3%	0%	6%	93%
Board of directors	99	15	63%	0%	10%	53%	2%	47%	25%	0%
Clinical departments	102	15	0%	0%	22%	13%	77%	7%	1%	80%
Compliance office (e.g., IRB, ethics committee)	100	15	30%	13%	59%	13%	6%	7%	5%	67%
Diversity, equity, and inclusion	102	15	15%	7%	56%	67%	26%	13%	3%	13%
Employee/staff development	100	15	29%	0%	43%	47%	26%	20%	2%	33%
Faculty development	100	15	4%	0%	39%	53%	57%	7%	0%	40%
Foundation/endowment funding/ funding development	101	15	59%	27%	35%	40%	3%	27%	3%	7%
Health care system accreditation	99	15	40%	7%	39%	7%	10%	20%	10%	67%
Health care system clinical delivery system	100	15	27%	7%	45%	0%	19%	7%	9%	87%
Health services research, implemen- tation science, and/or comparative effectiveness	101	15	46%	7%	39%	20%	10%	7%	6%	67%
Information technology/informatics (education technology, electronic health record)	101	15	28%	13%	56%	27%	14%	47%	2%	13%
Library	101	15	44%	20%	48%	0%	7%	0%	2%	80%
Medical student education	102	15	18%	7%	54%	53%	26%	20%	2%	20%
Membership (specialty society)	100	15	28%	7%	32%	27%	17%	53%	23%	13%
Patient and family advocacy	98	15	44%	33%	46%	27%	5%	7%	5%	33%
Public health education/community outreach	99	15	10%	40%	64%	20%	25%	13%	1%	27%
QIPS (quality improvement/patient safety)	100	15	22%	13%	54%	53%	20%	27%	4%	7%
Resident and fellow education	101	15	12%	7%	50%	27%	39%	67%	0%	0%
Simulation center	102	15	13%	0%	61%	27%	25%	20%	1%	53%

Note: Total percentage exceeds 100% because respondents could select multiple responses. Under column heads "None," "Occasional," "Regular or Frequent," and "Not Applicable," the first column (green) is medical school respondents, and the second column (blue) is medical specialty society respondents.

| Educational Offerings of the CME/CPD Unit

Academic CME/CPD units reported delivering a wide variety of teaching and learning offerings. They were queried about content supporting the aims of health care in these offerings, whether core competencies were included, what methods of teaching were used, and how impact was measured. The current survey included questions specific to the CME/CPD unit's response to the global COVID-19 pandemic.

AIMS OF EDUCATIONAL OFFERINGS

Many aims of health care were reported as a high priority in the CME/CPD units' educational offerings. In the 2018 survey, respondents were asked to select up to four aims that represented the highest priority for the unit. The aim most frequently reported then was clinical knowledge updates followed by clinical skills training and quality improvement. In 2021, participants were asked to rank, from none to major, the extent to which the health care aims were a focus in their educational programming. Clinical knowledge updates and clinical skills training remained top priorities.

Some notable changes since the 2018 survey included the increased focus on provider wellness and burnout, with 73% of medical school and 61% of specialty society respondents citing it as a moderate or major focus of their programming. Diversity and inclusion was ranked as a moderate or major focus by 65% of medical school and 73% of specialty society respondents, and interprofessional practice (care) was cited as a moderate or major focus by 85% of medical school and 80% of specialty society respondents. The new areas of professionalism and leadership were cited as high priority in 2021. Patient experience and value-based delivery, including cost reduction, remained at the bottom of the focus priorities. As seen in Figure 2, medical schools and medical specialties societies agreed on their top two focus areas, clinical knowledge and interprofessional practice (care). Medical schools included clinical skills training, working in teams, and health care disparities, which rounded out the top five areas of focus. Medical specialty societies included health care disparities, diversity and inclusion, and quality improvement in their top five focus areas.



FIGURE 2. Priorities of educational offerings by CME/CPD units in medical schools and medical specialty societies in 2021.

Note: *Listed as top priorities by medical schools in 2018.

RESPONSE TO COVID-19 PANDEMIC

Respondents were asked, "In 2020, to what extent was each of the following a focus of your CME/CPD programming?"

- COVID-19 patient care: diagnosis and management (Figure 3)
- COVID-19 personal protection (Figure 4)
- Diversity and equity (Figure 5)
- Health care provider wellness and burnout (Figure 6)



FIGURE 3. Extent of focus on COVID-19 patient care: diagnosis and management in medical schools and medical specialty societies in 2020.



Percent selecting each category

FIGURE 4. Extent of focus on COVID-19 personal protection in medical schools and medical specialty societies in 2020.



FIGURE 5. Extent of focus on diversity and equity in medical schools and medical specialty societies in 2020.



Percent selecting each category

FIGURE 6. Extent of focus on health care provider wellness in medical schools and medical specialty societies in 2020.

CORE COMPETENCIES IN EDUCATIONAL PROGRAMMING: TRENDING DATA

The Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS) core competencies are essential components of educational programming. Respondents were asked the question, "What percent of the educational programming from your CME/CPD unit addresses the following core competencies?" Table 2 shows trends for medical schools from 2018 to 2021. Programming for all competency areas shifted to a higher percentage by 2021, and systems-based practice, interpersonal and communication skills, and practice-based learning all increased in the 76%-100% of programming category. The Canadian competency framework (CanMEDS) was added to the 2021 survey. Refer to Table 3 for more details.

			Percent Selecting Each Category					
Core Competency	Year	Number of Respondents	0%-25% of Programming	26%-50% of Programming	51%-75% of Programming	76%-100% of Programming		
Internetsonal and communication skills	2021	81	27%	33%	28%	11%		
	2018	81	43%	31%	20%	6%		
Madical knowledge	2021	86	1%	5%	31%	63%		
Medical knowledge	2018	86	2%	8%	16%	73%		
Detient core	2021	85	5%	11%	35%	49%		
Patient Care	2018	85	6%	24%	16%	54%		
Prostice based learning	2021	82	11%	34%	34%	21%		
Practice-based learning	2018	82	21%	32%	30%	17%		
Professionalism	2021	85	20%	44%	29%	7%		
FIOLESSIONALISIN	2018	85	38%	33%	22%	7%		
Sustance based are stice	2021	84	26%	33%	31%	10%		
systems-based practice	2018	84	31%	42%	24%	4%		

TABLE 2. Percentage of Educational Programming Type in Medical Schools by Core Competency, 2018 and 2021

Note: Data include only medical schools that responded to the questions in both 2018 and 2021. Each row reflects the percentage of responding units that selected the response and category. For example, in 2021, 63% of 86 responding units reported that "medical knowledge" was covered in 76%-100% of their programming.

TABLE 3. Percentage of Educational Programming 7	ype in Medical Schools and Medical Specialty Sc	ocieties
During the Past Year by Core Competency, 2021		

Core Competency	Unit Institution	0%-25% of Programming	26%-50% of Programming	51%-75% of Programming	76%-100% of Programming
	Medical School (n = 86)	73%	7%	6%	14%
CANMEDS	Medical Specialty Society (n = 12)	92%	0%	0%	8%
Interpersonal and	Medical School (n = 94)	26%	33%	29%	13%
communication skills	Medical Specialty Society (n = 15)	53%	33%	13%	0%
Medical knowledge	Medical School (n = 99)	1%	5%	29%	65%
	Medical Specialty Society (n = 15)	7%	0%	13%	80%
Patient care	Medical School (n = 99)	5%	11%	34%	49%
	Medical Specialty Society (n = 15)	7%	7%	20%	67%
Dractice based learning	Medical School (n = 98)	10%	32%	40%	18%
Practice-based learning	Medical Specialty Society (n = 14)	21%	36%	36%	7%
Drofossionalism	Medical School (n = 98)	19%	42%	29%	9%
Protessionalism	Medical Specialty Society (n = 15)	27%	40%	33%	0%
Systems-based practice	Medical School (n = 97)	24%	33%	33%	10%
	Medical Specialty Society (n = 15)	33%	40%	20%	7%

Note: Each row reflects the percentage of responding units that selected the response and category. For example, 65% of 99 responding units in medical schools reported that "Medical knowledge" was covered in 76%-100% of their programming.

EDUCATIONAL METHODS USED IN CME/CPD ACTIVITIES: TRENDING DATA

Respondents were asked, "In the last year, how often were the following methods used in your CME/CPD activities?" Fourteen methods were provided, and lecture remained the most frequently reported teaching method (Table 4). Methods that increased among medical school respondents included flipped classroom, panel discussion, and video/digital presentation. Several methods were used less frequently, including debate format, peer observation and feedback, self-reflection, simulation, small-group or paired interactions, and team-based learning. Table 4 includes the medical specialty societies' responses in 2021. They reported comparable uses of lecture, panel discussion, and video/digital as their medical school colleagues but much less frequent uses of audience response system, clinical case conference, and team-based learning.

TABLE 4. Teaching and Learning Methods Used in CME/CPD Offerings in Medical Schools and Medical Specialty Societies, 2018 and 2021

				Percent Selecting Each Category				
Learning Method	Unit Institution	Year	Number of Respondents	Zero (0) Times	1-2 Times	3-4 Times	≥5 Times	
	Medical School	2021	83	11%	18%	19%	52%	
Audience response system		2018	83	2%	24%	23%	51%	
	Medical Specialty Society	2021	14	7%	29%	29%	36%	
	Medical School	2021	85	2%	9%	13%	75%	
Clinical case conference		2018	85	5%	4%	14%	78%	
	Medical Specialty Society	2021	13	31%	8%	23%	38%	
	Medical School	2021	84	12%	49%	20%	19%	
Coaching and mentoring		2018	84	24%	32%	20%	24%	
	Medical Specialty Society	2021	14	21%	36%	36%	7%	
	Medical School	2021	80	33%	39%	19%	10%	
Debate format		2018	80	26%	29%	25%	20%	
	Medical Specialty Society	2021	13	31%	23%	31%	15%	
	Medical School	2021	83	19%	35%	23%	23%	
Flipped classroom		2018	83	31%	31%	19%	18%	
	Medical Specialty Society	2021	14	21%	14%	29%	36%	
	Medical School	2021	83	65%	17%	6%	12%	
Internet point of care		2018	(not asked)	-	-	-	-	
	Medical Specialty Society	2021	14	93%	0%	0%	7%	
Lecture	Medical School	2021	87	0%	0%	3%	97%	
		2018	87	0%	0%	2%	98%	
	Medical Specialty Society	2021	14	0%	0%	14%	86%	
	Medical School	2021	87	1%	8%	15%	76%	
Panel discussion		2018	87	0%	10%	18%	71%	
	Medical Specialty Society	2021	14	0%	0%	14%	86%	
	Medical School	2021	80	49%	40%	9%	3%	
Patient-led activity		2018	80	45%	41%	9%	5%	
	Medical Specialty Society	2021	14	86%	14%	0%	0%	
Peer observation and	Medical School	2021	83	25%	41%	25%	8%	
feedback		2018	83	34%	34%	17%	16%	
	Medical Specialty Society	2021	14	64%	21%	7%	7%	
	Medical School	2021	83	12%	33%	24%	31%	
Self-reflection		2018	83	22%	19%	17%	42%	
	Medical Specialty Society	2021	14	14%	43%	7%	36%	
	Medical School	2021	86	20%	31%	24%	24%	
Simulation		2018	86	10%	16%	26%	48%	
	Medical Specialty Society	2021	13	62%	23%	15%	0%	
Small-group or paired	Medical School	2021	86	3%	27%	29%	41%	
interactions		2018	86	3%	24%	21%	51%	
	Medical Specialty Society	2021	13	8%	31%	31%	31%	
	Medical School	2021	86	13%	29%	20%	38%	
leam-based learning		2018	86	12%	20%	24%	44%	
	Medical Specialty Society	2021	13	23%	38%	31%	8%	
	Medical School	2021	85	1%	4%	5%	91%	
Video/digital presentation		2018	85	6%	20%	15%	59%	
	Medical Specialty Society	2021	14	0%	0	7%	93%	



FIGURE 7. Boxplot of percent reporting use of online CME/CPD programming before the COVID-19 pandemic and currently in medical schools and medical specialty societies in 2018 and 2021.

Respondents were asked about online delivery of programming before and during the COVID-19 pandemic. They were asked to enter estimates between 0% and 100% for two questions: "What percentage of your CME/CPD programming is *currently* offered online?" "Immediately prior to the pandemic, what percentage of your CME/CPD programming was offered online?" As shown in Figure 7, there was a significant shift to online delivery by respondents, with few outliers, by 2021.

QUALITY IMPROVEMENT: TRENDING DATA

As in 2018, about half the respondents reported having access to clinical quality improvement (QI) data. When the data were available, CME/CPD units used them for assessment of needs, educational activity content development, and assessment of outcomes. Needs assessment remained the most-often-cited use of QI data (Figure 8). Almost all respondents in 2021 reported using QI data when it was available.



FIGURE 8. Percent reporting use of clinical quality improvement data when available to CME/CPD units in medical schools and medical specialty societies in 2021 (n = 58).

FACULTY SUPPORT AND LEADERSHIP DEVELOPMENT

Faculty support is essential for enhancing the skills of educators across the continuum of medical education. For this reason, the following question was asked: "In which of the following content areas does your CME/CPD unit provide support for faculty?"

Responses varied across institution types, but over 50% of all respondents reported support for curriculum design, instructional methodology, leadership development, maintenance of certification, and program evaluation. Competency-based medical education (CBME), research skills, and wellness content were more frequently reported by medical schools than by specialty societies (Figure 9).



FIGURE 9. CME/CPD unit support for faculty in medical schools and medical specialty societies by type of support in 2021.

MEASURING IMPACT OF EDUCATIONAL OFFERINGS: TRENDING DATA

Respondents were asked to select outcomes or metrics their CME/CPD unit tracked to evaluate the impact of their educational offerings. In both 2018 and 2021, the two most common tracked outcomes reported by medical school respondents were knowledge gained and intent-to-change (Figure 10). Performance-change metrics were used less in 2021 than in 2018 among medical schools that responded in both years. However, the use of population health metrics increased slightly by 2021.

The majority of all respondents in 2021 identified measuring intent-to-change, knowledge gained, and performance changes. About one-third reported using patient outcomes as an outcome metric.



FIGURE 10. Outcomes tracked to measure the impact of medical school CME/CPD offerings in 2018 and 2021.

Note: Data include only medical school CME/CPD units responding to this question in both 2018 and 2021. Respondents could select multiple responses.

4 | Personnel of the CME/CPD Unit

A thoughtful review of personnel who served in CME/CPD units adds clarity to common structures and functions of the teams that supported continuing education and development. Respondents were asked questions about the leadership and staff within their local unit.

CME/CPD LEADER

While a senior leader for CME/CPD was identified at nearly all the respondents' institutions, the titles varied. Associate dean was the most frequently cited title (n = 33). Assistant dean (n = 6) and director (n = 6) were the next most frequently cited. Titles of dean, vice dean, vice president, and chief learning officer were reported by a small number of respondents (n = 2-3).

Respondents were asked what percentage of a full-time equivalent (FTE) the senior leader whose job description stipulates that a portion of their time be dedicated to CME/CPD spends on CME/CPD work. Of the 102 participants who answered this question, the numbers were wide-ranging, from 0.05 to 1.0 FTE, and they varied depending on institutional type (Figure 11). Medical schools reported a range of 0.05 to 1.0 FTE, with most of them reporting a range of 0.2 to 0.5 FTE. Medical specialty societies reported that most CME/CPD leaders' dedicated time ranged from 0.6 to 1.0 FTE.



FIGURE 11. Boxplot of the time, in terms of a full-time equivalent (FTE), the senior leader whose job stipulates a percentage of their time be dedicated to CME/CPD spent on CME/CPD work at medical schools and medical specialty societies in 2021 (n = 111).

STAFF

In addition to the CME/CPD senior leader, staff in the unit consisted of program managers, event planners, accounting and financial support staff, and administrative assistants. The total number of full-time staff members employed in CME/CPD units during the most recent budget year ranged widely (Figure 12). A comparison between 2018 and 2021 (n = 84) showed staff numbers remained rather static. CME/CPD staff size varied between medical schools and specialty societies. For example, 15% of medical specialty societies and 6% of medical schools reported CME/CPD staff sizes of 20 or more.



FIGURE 12. CME/CPG staff size in medical schools and medical specialty societies in 2021.

5 | Budgets of the Medical School CME/CPD Unit

Respondents were asked to share details about the overall fixed operating budget of the CME/CPD unit and its support from institutional sources. Revenues came from a variety of sources, such as fees for activity registrations and educational grants. Total expenses included salaries and benefits, information technology, telephones, office rent, and expendable supplies.

SEPARATE VERSUS INTEGRATED BUDGETS

CME/CPD units were questioned about the degree to which their budgets were separate and identifiable rather than combined with another office in the institution. A large majority of respondents (75%) from both institution types indicated the budget was separate (n = 114).

TOTAL EXPENSES FOR MEDICAL SCHOOL CME/CPD UNITS

Respondents were asked what the total expenses of their CME/CPD unit were in the most recently completed budget year. Examples of expenses included salaries of staff and benefits, information technology, phones, and rent for the CME/CPD unit. The median expenses total for each CME/CPD unit in the past budget year was \$601,458 for U.S. medical schools and CA\$1,700,000 for Canadian medical schools.

FINANCIAL SUPPORT FROM THE INSTITUTION: MEDICAL SCHOOL

Institutional support came from the university, hospital, faculty practice plan, or medical school. The respondents were asked the following question: "Over the past two years, what was the general change within your CME/CPD unit in terms of the amount of institutional support as a percentage of your fixed budget?" For medical schools responding in both 2018 and 2021 (n = 65), 68% of respondents reported the institutional support in 2021 stayed the same over the past two years, 17% reported it decreased, and 15% reported it increased (Figure 13). In 2018, 66% of respondents reported support stayed the same over the past two years, 20% reported it decreased, and 14% reported it increased.





CME/CPD UNIT IDENTIFIED AS A REVENUE SOURCE: TRENDING DATA

Respondents were asked, "During the past two years has your CME/CPD unit been identified by your organization's leadership as either a value source or revenue source?" In 2018 and 2021, over half the respondents from medical schools indicated their CME/CPD unit was primarily perceived as a value source (Figure 14).



FIGURE 14. Percentage of medical schools reporting the CME/CPD unit was identified as a value versus a revenue source in 2018 and 2021.

6 | Scholarship in the CME/CPD Unit

Respondents were asked, "During the *past two years*, in which of the following education-related scholarly activities did members of your CME/CPD unit participate as part of their CME/CPD role?" and were encouraged to select all that applied. Scholarly efforts are shown in Figure 15, and presentation at a national or international conference was the most frequently cited activity by the majority of respondents.



FIGURE 15. Education-related scholarly activities of CME/CPD professionals in medical schools and medical specialty societies, 2019-2020.

Comparing 2018 and 2021 medical school data shows participation in all areas stayed the same or decreased except for authorship in non-peer-reviewed journals (Figure 16). Presentation of QI projects for an internal/institution audience decreased markedly during that time, from 37% in 2018 to 25% in 2021.



FIGURE 16. Education-related scholarly activities of CME/CPD professionals in medical schools in 2018 and 2021.

A majority of medical school respondents (88%) continued to report minimal grant funding for education research, indicating no change since 2018. The sources of funding for these specific education grants were not generalizable from the survey responses. No medical specialty society respondents reported receiving any education research grant funding. Examples of research topics related to education are academic detailing, physician assessment and feedback, continuous quality improvement (CQI) in rural health care, and interprofessional continuing education.

IMPORTANT AREAS OF CME/CPD STUDY

For the first time, participants were asked to rate the importance of several CME/CPD research questions in the 2021 survey. The areas for research, in order of most to least important, were:

- 1. How does learning in CME/CPD prompt movement from commitment to change to implementing change in practice?
- 2. How can CME/CPD support effective practice-based learning?
- 3. How can data drive individual assessment and program evaluation to improve performance and inform policy in CME/CPD?
- 4. How can team-based learning be incorporated into CME/CPD?
- 5. How can CME/CPD instructional design advance CME/CPD outcomes?
- 6. How can CME/CPD support the use of artificial intelligence and big data in clinical practice?

Respondents were invited to list areas where CME/CPD is needed that were not included in the list above. They named topics such as diversity, equity, and inclusion (DEI); public health; increasing CPD leadership; implementation science; increasing the value of CME/CPD; and accreditation.

When asked in an open-response question about needed support for scholarship in CME/CPD, the overwhelming response was funding. Additional staff, including staff with specific expertise, was also cited.

7 | Priorities in the Next Year

Respondents were asked to select up to four areas considered to be their highest priorities in the next year, 2021-2022. The highest-ranked priority for medical schools was distance and virtual learning strategies, with 61% (n = 98) citing this in their top four priorities. Accreditation issues continued to be a high priority, with 50% ranking new accreditation criteria within their top four. Interprofessional continuing education and promotion of the value of CME/CPD programs were also included in the overall top four. Sequenced longitudinal CME/CPD and education research were rated the lowest priority.

When comparing medical school and medical specialty societies, some differences emerge in their future priorities (Figure 17). Medical schools assigned higher priority than specialty societies to the areas of interprofessional continuing education, new accreditation criteria, team-based education, and promotion of the value of CME/CPD. Medical specialty societies assigned higher priority to the areas of active learning; conflict of interest; outcomes measurement; sequenced, longitudinal, curriculum-based CME/CPD; and technology in CME/CPD.



FIGURE 17. Priorities of CME/CPD in the next year in medical schools and medical specialty societies, 2021-2022.

8 | Discussion

This ninth collaborative Harrison Survey was the first to include data from medical specialty society participants. Responses were from 90 of 140 (64%) invited U.S. medical schools, 13 of 17 (77%) invited Canadian medical schools, and 17 of 40 (43%) U.S. medical specialty societies. This is the 21st survey of the CME/CPD community since 1982. The 2021 survey was unique in that it was administered during a significant event for U.S. society, health care delivery, and medical education: the COVID-19 global pandemic.

This descriptive report shows data, including trends when applicable, from participating U.S. and Canadian medical schools and specialty societies. While there are many similarities between these types of CME/CPD providers, there are important unique characteristics as well. Overall, the survey data suggest some identifiable trends in the CME/CPD responses to 1) supporting clinicians' health and well-being, 2) addressing DEI, 3) shifting to online delivery, 4) responding to the needs of the global pandemic, and 5) engaging in research and scholarship about CME/CPD.

SUPPORTING CLINICIANS' HEALTH AND WELL-BEING

An emphasis on the health and well-being of clinicians is evident in CME/CPD unit offerings and priorities. This was especially true during 2020, according to respondents, when 69% of medical schools and 93% of specialty societies named provider wellness/burnout a moderate or major focus of their CME/CPD educational programming. Clinician burnout has risen since the beginning of the COVID-19 pandemic, and health care professionals are at a higher-than-average risk for the negative effects of chronic stress. These unprecedented times call for CME/CPD units to collaborate across their systems of health care, academic institutions, or organizations to support clinicians' well-being.

ADDRESSING DIVERSITY, EQUITY, AND INCLUSION

Health care disparities along with DEI ranked as high-focus areas for the vast majority of medical schools and specialty societies. The ongoing pandemic of racism in health care has been brought to new light over the past 18 months and is an area for all educators to focus attention on. DEI, and anti-racism are inherent in all aspects of academic medicine, and CME/CPD units should continue to prioritize efforts to improve in those areas. Respondents reported collaborating with their DEI colleagues and should be encouraged to continue to improve their own practices and policies to support equitable, inclusive, and just CME/CPD offerings.

SHIFTING TO ONLINE DELIVERY

The shift to online delivery between 2018 to 2021 was significant. Traditional, in-person CME/CPD conferences were canceled due to the pandemic, causing the need for virtual, online delivery. This led to changes in educational formats as well. While the lecture format remained stable, the more interactive, small-group activities decreased. Those showing substantial decreases included simulation, small-group discussions, and peer observation and feedback. As everyone continues to adapt to this new virtual environment, CME/CPD units and educators are encouraged not

to default to passive learning methods but to be creative, implement interactive virtual methods, and conduct research on optimal teaching, learning, and development approaches for clinicians in online and hybrid environments.

RESPONDING TO NEEDS OF THE GLOBAL PANDEMIC

CME/CPD units responded to the call for action to disseminate new information and education amid the COVID-19 pandemic by changing their delivery methods significantly. The majority of respondents cited COVID-19 diagnosis and management as either a major or moderate focus in the past year. We commend these units and educators for their ability to pivot to a different approach in support of clinicians and their patients when they needed flexible, high-quality educational programming.

ENGAGING IN RESEARCH AND SCHOLARSHIP ABOUT CME/CPD

The majority of CME/CPD units were involved in a variety of education-related scholarly activities, with conference presentations being the most frequently reported activity. Sole or joint authorship in peer-reviewed journals was reported by about one-third of all respondents. There was a marked decrease in presentation of quality improvement work from 2018 to 2021. Unfortunately, lack of funding for education research remained a barrier. The events of the past two years call attention to several areas in need of further research, including the best ways to translate CME/CPD learnings into changes in clinical practice; use data to improve learning and yield equitable health outcomes; assess learning and evaluate programs; and use team-based CME/CPD to increase patient safety. More time and resources, including funding, continue to be needed to support educational scholarship in the field of CME/CPD.

CONCLUSION

Medical schools and specialty societies and their CME/CPD units are all facing rapid changes and challenges in health care. Many factors are affecting CME/CPD units and their educators, including the ongoing global COVID-19 pandemic, systemic and institutional racism, changes in health care delivery and practice, and worsening clinician well-being. This Harrison Survey report is a descriptive analysis of the current work and future priorities of academic CME/CPD units in medical schools and medical specialty societies. We hope this information sparks ideas and questions that lead to advances in how learning and change in the field of CME and CPD are supported and facilitated. The ongoing study of CME/CPD unit efforts, rapid assessment of needs, and design and delivery of quality educational interventions are important to improving and supporting the growth and development of health care professionals.



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