



Academic CME in the United States and Canada: The 2013 AAMC/SACME Harrison Survey

*The Potential of Academic Continuing Education in Transforming
Health Care Systems*

Learn
Serve
Lead

Acknowledgments

The AAMC and SACME acknowledge the work of the survey writing group—Lois Colburn, University of Nebraska, chair; Ginny Jacobs, University of Minnesota; Jack Kues, University of Cincinnati; and Chitra Subramaniam, Duke University.

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The Potential of Academic Continuing Education in Transforming Health Care Systems

Executive Summary

The sixth annual AAMC/SACME Harrison Survey documents a robust academic enterprise increasingly integrated into the functions and mission of the academic medical centers and medical schools of the United States and Canada. Where possible, data from the 2012 Harrison Survey are used for comparative purposes.

While the self-reporting nature of the survey, a response rate just above 60 percent, and non-identical populations of respondents over a two-year period limit the interpretation of this survey to some degree, the survey generates broad but important findings for discussion and analysis in three areas:

STRUCTURAL ELEMENTS

- *Academic Medical Centers* (AMCs) continue to integrate their services and structures. This movement appears to be reflected in similar integration efforts in continuing medical education (CME) units, although to a lesser extent than their parent institutions.
- *The CME Committee*: While many examples of highly representative system-integrating CME advisory committees exist, there appears to be room for improvement in CME committee composition in many AMCs. With minimal cost and organizational restructuring, such committee structures can represent a more broad-based constituency for clinical quality, research, and educational enterprises.
- *Leadership*: AMC leadership is described as moderately supportive and understanding of the role of an integrated academic CME unit.
- *Finances*: It appears, at least in the perception of the CME providers, institutional support for CME activity and the operating budget has stabilized.

FUNCTION: RELATIONSHIPS AND REFORM

- *Readiness for Reform*: While AMCs have started to consider health care reform, CME units seem to have some difficulty accessing and utilizing health care data to plan and evaluate their programming. The situation appears slightly better when other, broader objective needs assessments are undertaken—such as annual hospital reports and other data on which to plan and develop CME programming.
- *Intra-institutional Relationships*: The pattern established over several years has repeated itself here, that is, strong cross-departmental collaboration with several extra CME units—namely faculty development, allied health professional programs, graduate medical education, and (at least in many centers) quality improvement. However, missed opportunities remain for the academic CME unit and the AMC in building collaborations with faculty practice plans, undergraduate medical education, hospital accreditation, electronic health records, health services research, and other areas.
- *Faculty Development*: CME programs appear highly engaged in educational activities for faculty, clinical affairs, research and regulatory matters, and educational methods.

- *Use of Evidence-based Educational Methods:* Academic CME units display widespread use of interactivity as one educational method to improve the adoption of best practices. In addition, they report the use of newer, more contextual or interventionist methods of learning, including social networking and academic detailing.

SCOPE, REACH, AND IMPACT

- *Participants:* CME participation in academic centers represents a mix of internal (i.e., AMC staff and full-time faculty) and external (i.e., community-based, outside the institution) participants. These individuals represent a mix of health professionals.
- *Internal and External Programming:* Academic CME units undertake a wide variety of educational methods tailored to their program goals and objectives. These include both traditional methods for an internal audience (e.g., Regularly Scheduled Series) and an external audience (e.g., visiting speaker programs and teleconferencing), as well as an increasing number of programs such as academic detailing, social networking, online learning programs, and other methods.
- *Faculty Development Impact:* These programs benefit roughly an equal mix of undergraduate, graduate, and continuing educational programs.
- *Outcomes Measurements:* Academic CME providers have moved beyond standard evaluation methods to include a large percentage using commitment-to-change models, and smaller but important efforts dedicated to competence and performance measurements, and even to patient and population health outcomes.
- *Research:* The report discloses a reasonably steady cohort of CME units committed to scholarship, contributing to the research enterprise in health professional learning and change. This activity appears to be the product of collaboration both within and across AMCs, and is supported by funding sources internal and external to the institution.
- *Quality Metrics:* Compared to the 2012 survey, this year's findings indicate an increasing linkage of the academic CME unit to the quality and performance improvement programs and initiatives of the hospital and health system. In particular, this is evidenced by the use of quality improvement metrics and objective data in needs assessment and planning.

Thus, academic CME demonstrates, despite external financial and regulatory pressures (and in some ways possibly because of them), several major changes from the 2012 Harrison Survey report. There is evidence of an increasing *integration* into the functions of the AMC, an uptake in the use of *effective educational methods*, a wide variety of outreach activities geared to the needs of the communities served by AMCs, and an impressive, if not yet widespread, record in scholarly activities and best practices. Many opportunities exist within the AMC and in the regions and populations they serve for further integration, collaboration, and improved patient care.

Background and Methods

Background

The sixth annual Harrison Survey is jointly sponsored by the Association of American Medical Colleges (AAMC) and the Society for Academic Continuing Medical Education (SACME), in collaboration with the Association of Faculties of Medicine of Canada (AFMC). It is based on previous surveys of academic continuing medical education (CME) providers conducted over the last two decades by SACME. Its name, “The Harrison Survey,” recognizes R. Van Harrison, Ph.D., of the University of Michigan, who led the society’s biennial CME survey efforts over this period.

The Harrison Survey reviews the organization of the CME unit in U.S. health care systems, U.S. and Canadian medical schools, and U.S. teaching hospital members of the Council of Teaching Hospitals (COTH). Additionally, the survey provides information about the academic CME structure and the academic medical center (AMC) in which it resides, the academic CME function, its size and scope, and the impact of continuing education on research and innovation. This survey describes several elements in the journey of academic CME from a passive resource (producing standard courses and lectures) to one that is dedicated to patient care, research, and AMC educational missions.

In 2013, the survey was redesigned to better understand the placement and alignment of the CME unit within the AMC. The revised scope of the survey allows for a better picture of where the CME unit has, or can have, impact within the institutional structure—on both the internal and external audience and the public community that it serves. In turn, this permits the CME unit to target and create a focused, integrated, and effective continuing education/professional development presence in the AMC. Reflecting this redesign, the survey report also was reorganized into three major headings: the structure of the AMC and the CME unit within it; the function of the CME unit; and its reach, products, and impact. We hope this will improve the reading, interpretation, and uptake of the survey for the academic CME community and AMC leadership.

Several reporting and naming conventions are used in the Harrison Survey. The term “CME unit” refers to continuing medical education offices and programs, and includes variations in unit names such as continuing professional development, lifelong learning and professional development, and continuing education and improvement. “AMC” refers to the academic medical center, the amalgam of the teaching hospital and medical school in which context the academic CME unit plays a role. Canadian and U.S. dollar figures, roughly equivalent throughout 2012 and 2013, are not reported separately. Finally, all percentages are rounded to the nearest full percentage point.

Methods

Questions from the 2011 and 2012 surveys were reviewed by the writing group named in this report, eliminating some questions already asked by the Accreditation Council for Continuing Medical Education (ACCME), and others considered less essential or unlikely to generate useful information on an annual basis. This process shortened the survey for most respondents by approximately 50 percent.

In summer 2013, an Internet search identified a total of 597 academic CME units, comprising 388 U.S. teaching hospitals/health care systems, 51 U.S. Department of Veterans Affairs medical centers, 17 Canadian medical schools, and 141 U.S. medical schools. Of that number, there were 461 for whom a defined CME office and/or institutional contact information could be identified, and/or in which a central national or regional CME office did not accredit the activities (e.g., VA hospitals). This list was matched with that of the ACCME, where possible, to confirm contact names, which generally is the CME director. When a director's name could not be identified, telephone calls were made to CME units and offices.

Thirty-nine academic CME units were located in U.S. medical schools, while 16 out of the 17 Canadian medical schools were represented by CME units. U.S. teaching hospitals and health care systems were represented by 85 CME units. An additional 119 U.S. CME units indicated that they provided CME services to both their medical school or teaching hospital *and* one or more additional medical schools, teaching hospitals, or health care systems (meaning these 119 CME units represent a total of 321 such institutions). In all, this generated a grand total of 259 academic CME units—16 Canadian medical schools, 39 U.S. medical schools, 85 teaching hospitals/health care systems, and 119 units with cross-representation in medical schools and teaching hospitals/health care systems, as indicated above (see Figure 1). Of the total contacts for the 259 CME units, 240 surveys were successfully delivered via email.

In early August 2013, an email was sent to each director to confirm his/her role and announce the upcoming survey. At the beginning of December, the survey was open for a six-week period, during which time three reminders were sent to non-responders, and was closed in mid-January 2014. This report summarizes data from active, accredited CME units whose data were available at the time of reporting. Although located in medical schools or teaching hospitals, the function of many CME units often encompassed activities across both institutions, making separate reporting problematic.

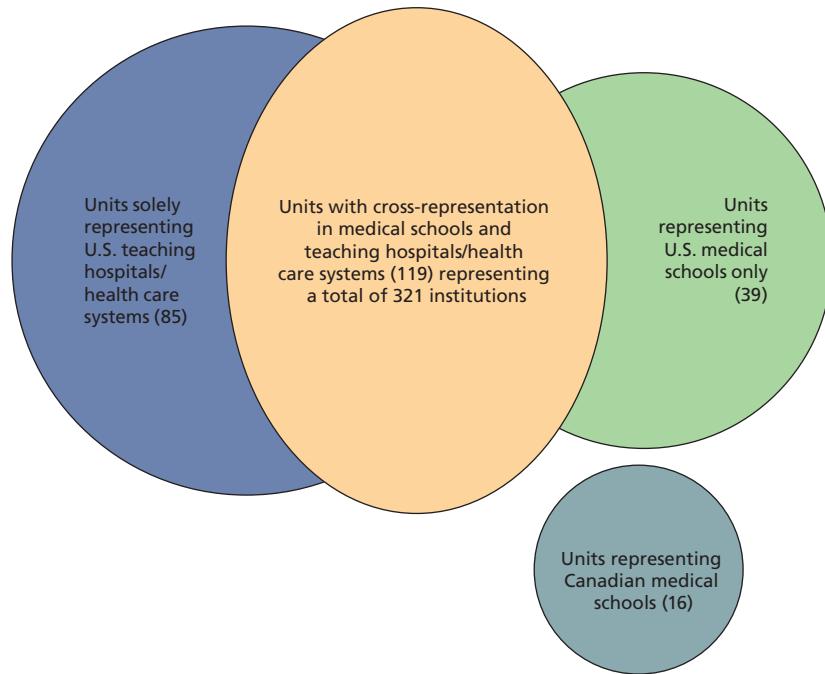


Figure 1: Grand Total of 259 Academic CME Units in the United States and Canada

The 2013 Harrison Survey report comprises six major sections:

1. Survey response rate and characteristics of respondents
2. The structure of academic CME units and the AMCs in which they are situated
3. The function (called relationships and readiness for reform) of academic CME units
4. The reach, scope, and impact of the academic CME unit both internal and external to the AMC
5. Discussion
6. Conclusions and implications

Of the 240 eligible academic CME units in U.S. health care systems, U.S. teaching hospitals, and U.S. and Canadian medical schools, 146 (61%) responded to the survey. Of these, roughly 95% were U.S.-based and 5% Canadian-based. One hundred and twelve (77% of all respondents) reported national accreditation in the United States by the ACCME and 26 (18%) by state accrediting agencies. All eight reporting Canadian schools (5% of the total) indicated accreditation by the Committee on Accreditation of Continuing Medical Education (CACME). See Table 1.

Table 1: Response Rate and Accreditation of CME Programs (146 respondents)

Institution Type	Total Invited	Total Responding	Response Rate	M.D. Accreditation			Accredited to provide continuing education for other health professions (choose all that apply)			
				CACME	ACCME	State Accrediting Body	No	Yes – ACPE*	Yes – ANCC*	Yes – Other*
Canadian	16	8	50%	8			7			1
United States	224	138	62%		110	26	106	12	14	20
Total	240	146	61%	8	136		143 (some with multiple responses)			

*Additionally, Table 1 lists those units reporting accreditation of non-M.D. health professionals. One hundred and six respondents (74%) indicated no such accreditation. The remainder indicated accreditation by the Accreditation Council for Pharmacy Education (ACPE) at 8%, the American Nurses Credentialing Center (ANCC) at 10%, and a wide variety of alternative accreditors. The last category included the Accreditation Commission for Health Care (ACHC), American Academy of Family Physicians (AAFP), American Psychiatric Association, Board of Behavioral Sciences, Certified Health Education Specialist (CHES), and many others.

For comparison to the 2012 AAMC/SACME Academic CME Survey, it is important to note that of the 146 total respondents to the 2013 CME Survey, 113 (77%) also responded to the 2012 CME Survey. Of the 138 U.S. CME units that responded in 2013, 106 (77%) also responded in 2012. Finally, of the eight Canadian medical school CME units that responded in 2013, seven (88%) responded in 2012. This should prove helpful when considering the degree of both change and consistency in the responses.

Throughout this report, the data are represented by a wide variety of CME unit responders in their size, scope, and mission. This includes varying degrees of staff, financing, structure, and placement within the institution.

SECTION 1: Survey Response Rate and Responder Characteristics

SECTION 2: The Structure of CME in the Academic Medical Center

Section 2 characterizes the environment in which academic CME units were situated in 2013, and the structure of the CME unit within that environment. The latter describes a variety of “structural” phenomena, including the degree of integration of academic and clinical CME enterprises, structure and role of the CME committee, and engagement and understanding of the system’s leadership with regards to an active and integrated CME presence. Such considerations are important in understanding the context of the role that academic CME units can play in their respective medical centers and the patient or health care populations served by these centers.

Integration of the AMC and Its CME Unit

Respondents were asked the question: How integrated is the medical school with the clinical enterprise (i.e., the teaching hospital, academic medical center, and/or health care system)? This question leads naturally to a discussion of those programs, offices, or units within the academic medical center (AMC) with which the CME unit can identify and meaningfully interact, and the ease (or difficulty) of doing so.



Total Medical School Integration with the Clinical Enterprise

One hundred and thirty-seven units replied using a seven-point scale, indicating a spectrum of AMC integration along a continuum ranging from no integration—a rating of ‘1’ in which the medical school and teaching hospital(s) were entirely separate (reflected by 11 respondents or 8%), to highly integrated—a rating of ‘7’ for a situation in which the medical school and teaching hospital were under common governance and ownership (35 respondents or 26%). The majority (84 respondents or 61%) indicated that they were moderately to highly integrated (i.e., choosing option ‘5’ = 61–80%, ‘6’ = 81–99%, or ‘7’ = 100%) reporting more than 60% integration of programs and facilities. See Figure 2 for further details.

A cohort of academic CME units displayed a moderate or greater degree (choosing option 5, 6, or 7) of integration across teaching hospital and medical school functions, somewhat less than the integration with the institutional clinical enterprise itself.

Medical School CME Unit Integration with the Clinical Enterprise

Equally important is the question of CME unit integration with the clinical enterprise CME. Here, respondents were asked about the degree of integration (using the same seven-point scale), ranging from ‘1’ (the CME unit is totally separate from clinical enterprise CME) to ‘7’ (the CME unit and clinical enterprise CME are totally integrated). Sixty-three units (47%) indicated 60% or greater integration of the units (choosing option ‘5’ = 61–80%, ‘6’ = 81–99%, or ‘7’ = 100%), which is less than the integration with the institutional clinical enterprise itself. See Figure 2.

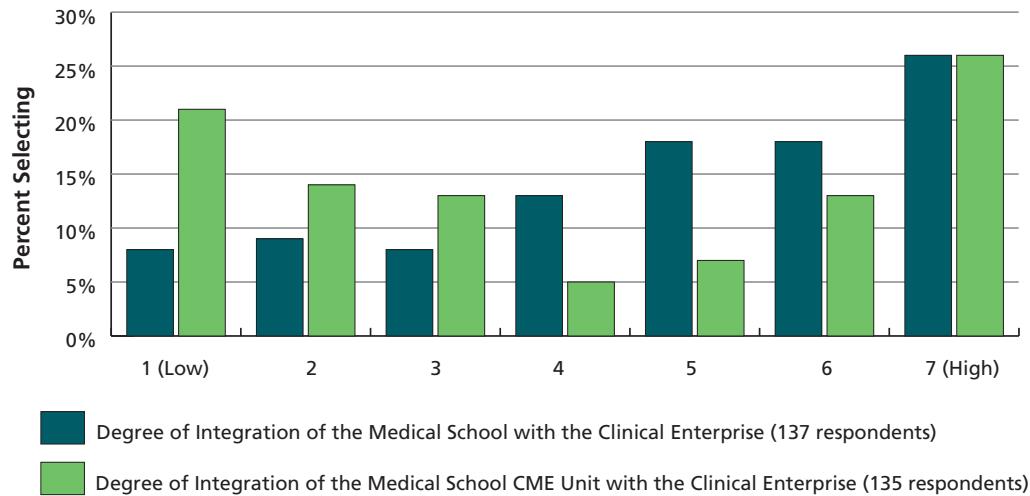
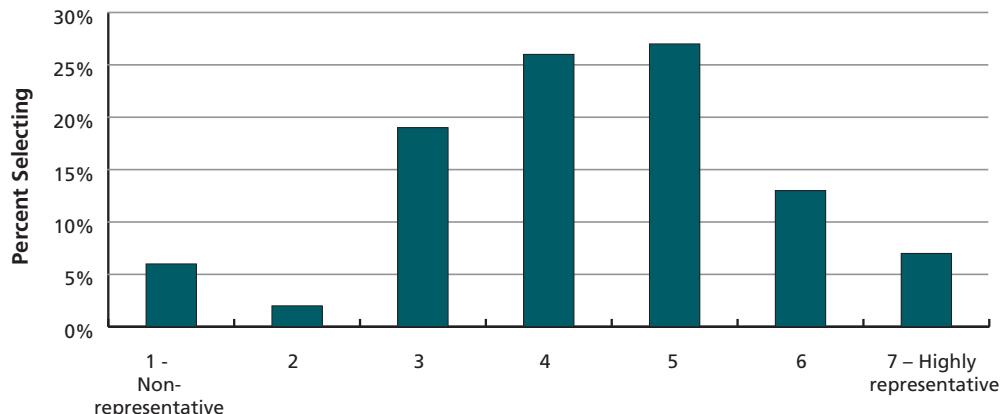


Figure 2: Degree of Integration of the Medical School (137 respondents) and the Medical School CME Unit (135 respondents) with the Clinical Enterprise

The CME Committee: Composition and Role

One of the key structural components of the CME unit is its advisory committee, which potentially permits the unit to have a voice and advocacy throughout the AMC. The 2013 survey raised the question about CME committee composition at the CME unit's institution. Respondents were given a range of options, again using a seven-point scale, from a nominal CME committee (i.e., one in name only), through a number of increasingly engaged and active committee structures, to one that the survey described as highly representative and proactively functional—a category considered most desirable by the survey writing group. The seven-point scale details are listed under Figure 3. Thirty-four units (27%) selected option '1', '2', or '3', describing a nominal committee or one with relatively narrow representation. Sixty-seven units (53%) selected option '4' or '5', indicating broad representation of members appointed by deans or chairs, plus other committee members representing the clinical enterprise with individuals interested in and committed to CME improvements. A small number, 26 units (21%), described a committee structure representing the most highly evolved and committed category, represented by a '6' or '7' in the responses. See Figure 3 for results.





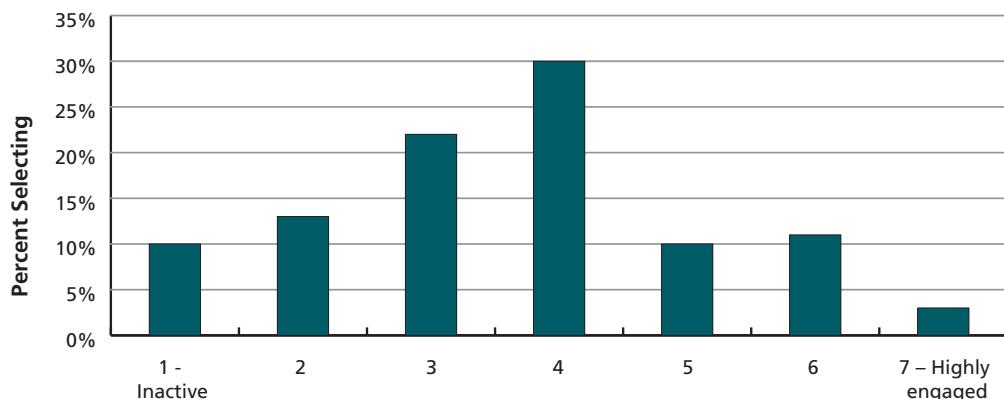
1 = NON-REPRESENTATIVE - A nominal committee (a committee in name only)
 2 = A small, ad hoc committee; members have no/little interest or commitment to CME
 3 = Committee with narrow representation appointed by some deans or chairs; members have minimal interest or commitment to CME
 4 = Committee with broad representation appointed by most deans or chairs; members are interested in and committed to CME
 5 = Committee with representation appointed by all deans or chairs; plus other members representing the clinical enterprise; members are interested in and committed to CME improvements
 6 = Committee with representation appointed by all deans or chairs; plus others representing quality improvement, electronic health records, and other elements of the clinical enterprise; members are interested in and committed to CME improvements
 7 = HIGHLY REPRESENTATIVE - Committee with strong representation appointed by all deans or chairs; plus leaders in quality improvement, electronic health records, and other elements of the clinical enterprise; strong, committed faculty members are interested in and committed to CME improvements

Figure 3: Representativeness of CME Committee Composition (127 respondents)

While approximately half of academic CME units reported being guided by moderately or highly representative CME committees (level '5' or above in Figure 4), less than a quarter reported equivalent functioning, engagement, and roles (level '5' or above in Figure 5).

Arguably more important than its structure, the Harrison Survey also studied the role and level of engagement of the CME committee. Respondents were asked to select from options ranging from an inactive committee, to one focused superficially on some issues such as course approval, to those that concentrated more on the improvement of the content, delivery, and impact of CME in the AMC. Finally, the survey described a best-case scenario in which the committee was “highly engaged,” (i.e., active in requiring CME integration into most quality and performance improvement programs), had integrated educational programs with other clinical elements (e.g., electronic health records, feedback from hospital data, etc.), and used quality data to plan and assess CME. The seven-point scale details are listed in Figure 4. Twenty-nine units (23%) indicated a nominal committee with little or no role or one that attended only superficially, to course approval and policies by selecting level '1' or '2'. Another 28 units (22%) had begun to focus on improvement activities relative to CME in course content or delivery, selecting level '3'. A further level of development (levels '4' and '5') was described by 51 units (41%), in which the role of the committee had advanced, or had begun to advance, to the consideration of health care outcomes and integration of CME into the clinical enterprise. Eighteen units (15%) selected level '6' or '7', indicating a “best-case scenario,” or one approximating it, which describes a more fully evolved and highly engaged CME committee. Such a committee had required, or began to require, CME integration into most quality and performance improvement

programs, the integration of educational programs with other clinical elements, and quality data to plan and assess CME programming. See Figure 4.



1 = INACTIVE - Nominal CME committee with no/little role

2 = Committee is narrowly focused on administrative functions such as superficial approval of CME activities and policies

3 = Committee is focused on administrative functions such as approval of CME activities and policies; has begun to develop strategies for improving the content, integration, or delivery of CME

4 = Activities described in (3) above, plus committee is initiating strategies to improve the content or delivery of CME, and has begun to consider strategies for integrating CME with education and health care outcomes

5 = Activities described in (4) above, plus committee is active in requiring CME integration into some educational and clinical programs focused on health care outcomes

6 = Activities described in (5) above, plus committee is active in requiring CME integration into most educational and clinical programs focused on health care outcomes

7 = HIGHLY ENGAGED - Activities described in (6) above, plus committee is highly active in requiring CME integration into most quality and performance improvement programs, has integrated educational programs with other clinical elements (e.g., electronic health records, feedback from hospital data, etc.), and uses quality data to plan and assess CME programming

Figure 4: CME Committee Role and Level of Engagement (126 respondents)

Leadership Engagement

The role of AMC leadership with regards to the potential of the CME unit to improve health care delivery is arguably among the most important considerations addressed by the Harrison Survey. Respondents were asked the question: Which level best characterizes your institution's leadership (deans, associate deans, chief medical officers, quality improvement leaders, clinical, or faculty leaders) as champions for CME alignment and improvement? A range of possible answers were documented along a seven-point scale from '1' ABSENT—Institution leaders have no/little understanding of the potential for an integrated CME unit, to '7' PRESENT and ACTIVE—Leaders demonstrate excellent understanding and support for CME at all institution levels. The results, shown in Figure 5, indicate a skewing toward a more committed leadership. Twenty-one respondents (16%) indicated present and active leadership support, or '7', and nearly half (57 respondents or 44%) selected level '5' or



CME units reported widespread—but not yet entirely complete—leadership support for an aligned CME unit, focused on clinical and academic improvements.

'6', which describes a leadership moderately understanding and supportive of an effective and integrated academic CME unit. The remaining 53 respondents (40%) indicated room for improvement in leadership engagement (levels '1' through '4').

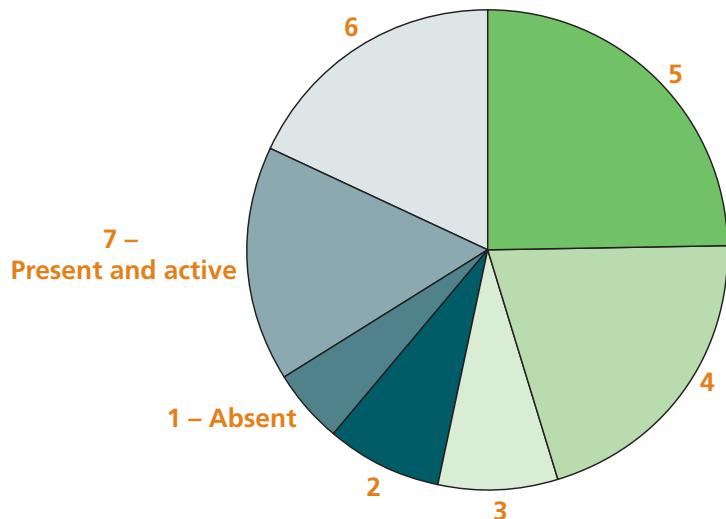


Figure 5: Leadership as Champions for Academic CME Alignment and Improvement (131 respondents)

Financing the CME Unit

The Harrison Survey analyzed relevant funding structures, focusing on the overall fixed CME unit operating budget and its support from institutional sources. CME units were queried about the degree to which their budgets were separate and identifiable. One hundred and seven of the 124 responses (86%) indicated this was possible. In contrast, 17 respondents (14%) indicated that their budgets were totally integrated with the institution or an organizational entity within it. Of the 107 positive responses, 102 respondents provided financial information.



Academic CME Budgets

For the 2013 calendar year, CME units were asked about the size of their total fixed operating budgets, reflecting a wide range of responses and budget sizes, especially among U.S. respondents—resulting in great variation of the budget figures reported. Less variability was noted among the eight reporting Canadian institutions, which indicated budgets with the following characteristics: a median of CA\$1.2 million, a maximum of CA\$2 million, and a minimum of CA\$845,000. In contrast, U.S. institutions reported a lower median budget figure of just over \$500,000, but greater

variability between the maximum of \$23 million and the minimum of \$5,000. See Table 2.

Table 2: Total CME Fixed Operating Budget and Total Revenue from Institution to CME Unit, by Institution Type (102 respondents)

Total CME Fixed Operating Budget, by Institution Type

Institution Type	Canadian \$	U.S. \$
Number of Respondents	8	94
Mean Budget	\$1,310,905	\$860,454
Median Budget	\$1,200,000	\$501,500
Maximum Budget	\$2,000,000	\$23,000,000
Minimum Budget	\$845,000	\$5,000

Total Revenue from Institution to CME Unit, by Institution Type

Institution Type	Canadian \$	U.S. \$
Number of Respondents	8	94
Mean Revenue	\$406,793	\$211,367
Median Revenue	\$357,500	\$163,864
Maximum Revenue	\$1,000,000	\$1,200,000
Minimum Revenue	\$0	\$0

Revenue from Institutional Sources

2013 Data

The 2013 Harrison Survey indicated median budgets of CA\$1.2 million for Canadian schools, and \$501,500 for U.S. institutions. An important figure to consider is the degree of institutional support (e.g., from the dean's office or hospital budgets). The median was CA\$357,500 for Canadian respondents, and \$163,864 for U.S. respondents, but there was significant variation. See Table 2 for full details.

Comparison of 2012 to 2013 data

While questions about the degree of institutional support have been asked in previous years, the question regarding the total budget figures and the manner in which the percentage of such support was calculated was introduced into the survey in 2012. In 2012, 128 units responded to this question; 102 responded in 2013. There was a 77% overlap in respondents. Comparing the two years, the total median budget for U.S. institutions remained essentially the same from 2012 to 2013 (from \$497,506 in 2012 to \$501,500 in 2013). However, the median institutional support amounts increased from \$141,461 in 2012 to \$163,864 in 2013.

Institutional support for academic CME units appears to have stabilized. Nearly two-thirds of respondents indicated similar year-to-year funding from this source, compared to slightly more than half the previous year.

When responding to the self-perceived issue of change in institutional support, 62% of respondents in 2013 indicated similar year-to-year support, compared to just more than half (54%) in 2012. A marginally smaller percentage of respondents (13%) noted an increase in support, compared to 16% in 2012. Twenty-five percent noted a decrease in support in 2013, and 30% reported a decrease 2012. See Figure 6.

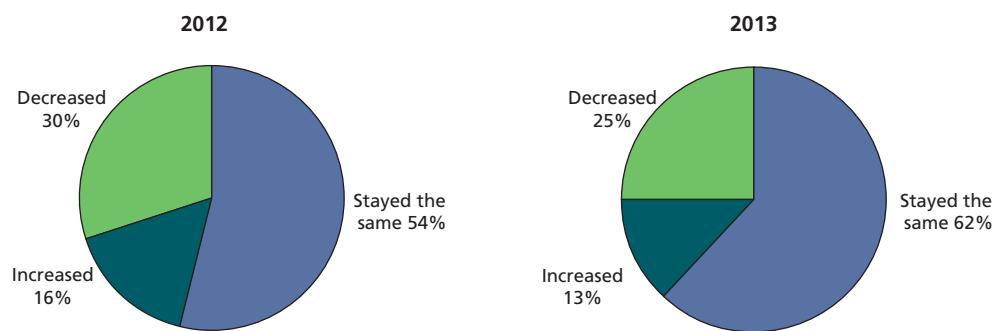


Figure 6: Percentage of Fixed CME Budget Institutional Support Compared to Previous Year as Perceived by Respondents (2012 = 138 respondents, 2013 = 110 respondents)

This section describes the function of the academic medical center (AMC) and the CME unit within it. This function has several non-programmatic components embedded in the context of the health system's (and thus CME's) preparation for health care transformation. These components include:

- “Readiness for Reform”—Preparing the center to cope with and even lead changes mandated by the Affordable Care Act, applying evidence-based practices in meeting other health care needs (e.g., those of an aging and diverse population), and reducing costs while maintaining quality. Relative to the role that CME might play in helping prepare the system for reform, the survey asked three questions regarding:
 1. Overall AMC readiness for reform
 2. The degree to which quality improvement data are available and accessible to the CME unit for planning purposes
 3. The degree to which needs assessments are based on objective data from the system itself (see Figure 7)

This section also includes references to findings from the survey regarding:

- Departmental or intra-institutional relationships, highlighting areas in which CME can play a meaningful, collaborative role
- Faculty development, or the degree to which academic CME units play a role in the training and professional development of faculty and staff
- The use of effective CME methods (i.e., the ability of the unit to deploy methods demonstrated to have an effect on health care professionals, and thus system performance)

SECTION 3: The Function of Academic CME in the Health Care System

Readiness for Reform

Respondents were asked which level best characterized the efforts of the AMC and the regional health care system at the institution to meet the needs of health care reform, using a seven-point scale from '1' LOW—No efforts toward integrating regional and local services or system changes to meet the needs of health care reform, to '7' HIGH—CME is fully integrated into regional and local efforts to meet the needs of health care reform indicating a high degree of readiness. One hundred and twenty-eight units responded.



A small number (16 units or 13%) indicated little or no visible changes in their systems, using '1' or '2' to indicate this state. The majority (78 units or 60%) indicated a moderate range of '3' to '5', while 34 units indicated their systems were moderately high or highly advanced ('6' or '7') in this regard. See Figure 7.

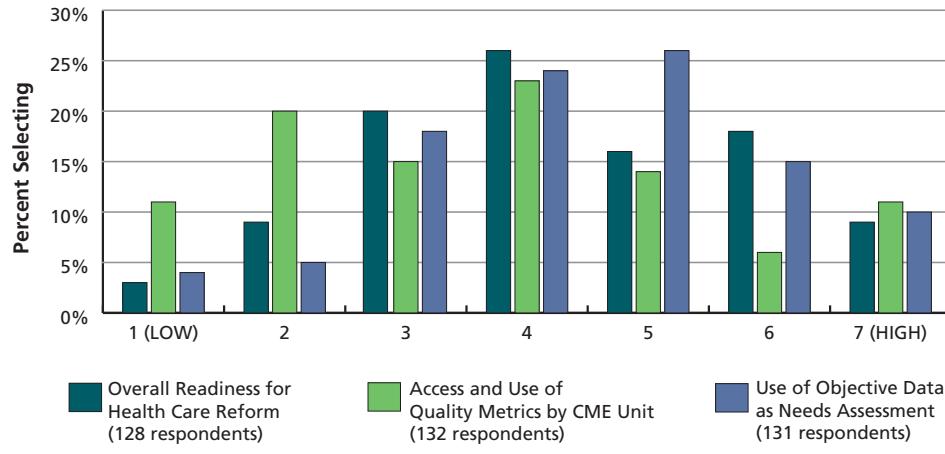
Two areas exemplify the process of CME unit integration with the mission of the AMC:

- Access to and the use of quality improvement and patient safety (QI/PS) data in planning CME activity
- The degree to which needs assessments had moved from an entirely subjective determination to one that used objective information such as systems data

One hundred and thirty-two units responded to the specific question of access to and use of quality metrics in planning. A relatively even distribution was noted along a seven-point scale from '1' LOW—Health care system does not collect QI/PS data or, if collected, the CME unit has no access to the data, to '7' HIGH—QI/PS data are readily available and used by the CME unit (i.e., full access and use). Roughly half of the academic CME units (62 respondents selecting level '4' through '7') had access to and employed QI/PS data to drive CME programming and interventions, with the other half (60 respondents) selecting levels at or below '3'.

One hundred and thirty-one units responded to the question of needs assessment using more general objective data (health system annual reports or other population health data), as opposed to the subjective needs expressed by participants or faculty. Responses were recorded on a similar seven-point scale from '1' LOW—Based entirely on subjective needs of participants or faculty, to '7' HIGH—Based entirely on objective quality metrics. Here, nearly 75% (97 respondents) indicated moderate to high usage (level '4' through '7') of objective data for needs assessment, while fewer respondents indicated little or no objective data use (34 respondents or 27%), selecting level '3' or below. See Figure 7.

While academic medical centers moved to prepare for health care reform, roughly half of the academic CME units had access to and employed QI/PS metrics to drive CME programming and interventions. Additionally, three-fourths reported use of more general objective needs assessment data over the smaller number that still base CME programming on subjective participant needs.


Scale:
Preparation for Health Care Reform:

Low = No efforts toward integrating regional and local services or system changes to meet the needs of health care reform
 High = CME is fully integrated in regional and local efforts to meet the needs of health care reform

QI Data Access:

Low = Health care system does not collect QI data or, if collected, CME unit has no access to the data
 High = QI and patient safety data are readily available and used by the CME unit

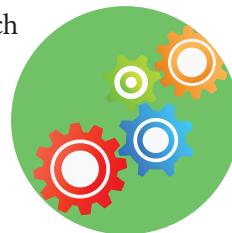
Objective Needs Assessment:

Low = Based entirely on subjective needs of participants or faculty
 High = Based entirely on objective quality metrics

Figure 7: AMC Readiness for Reform, Quality Metrics Data Access, and Objective Needs (128 to 132 respondents)

Departmental and Intra-institutional Relationships

In previous surveys, respondents were asked about the degree to which they interact with other AMC programs or departments. Given the heavy emphasis on quality data usage in other areas of the survey, this point was removed from the list of program interaction areas in the 2013 survey. To explore the question of the relationship with other departments or divisions in more detail, the 2013 Harrison Survey asked more specifically about the degree of interaction with the selected program using a five-point scale. The scale used '1' to indicate no involvement, '2' to indicate the provision of accreditation services only, '3' to indicate accreditation plus logistical assistance, '4' to indicate all prior elements in addition to partial planning, and '5' to indicate a high degree of involvement (i.e., includes all prior elements plus full assistance in planning and development of programs). See Figure 8.



As in past years, respondents indicated some interaction with continuing education programs for other health professionals and faculty development activities.

Approximately 90% of respondents indicated some degree of involvement with

these two programs. Between 75 and 80% of respondents indicated a relationship with conflict of interest policy-setting initiatives, simulation units, graduate medical education (GME) programs, and staff/employee development programs. When asked in more detail about the degree of interactions, 65 of 123 respondents (slightly more than half) selected a '4' or '5' in the area of faculty development, and 62 of 122 respondents (51%) indicated a '4' or '5' in interactions with programs for other health professionals. Interaction with graduate medical education represented a more even distribution across the five-point scale, with some programs (52 or 40%) indicating a '3', '4', or '5', and a higher percentage (32%) indicated no involvement. This lower level of interaction was especially true in undergraduate medical education, in which 63 of 125 respondents (50%) indicated no involvement. Similar low levels of interaction were noted in patient or public education, faculty practice plans, hospital accreditation, implementation, and similar research enterprises. See Figure 8.

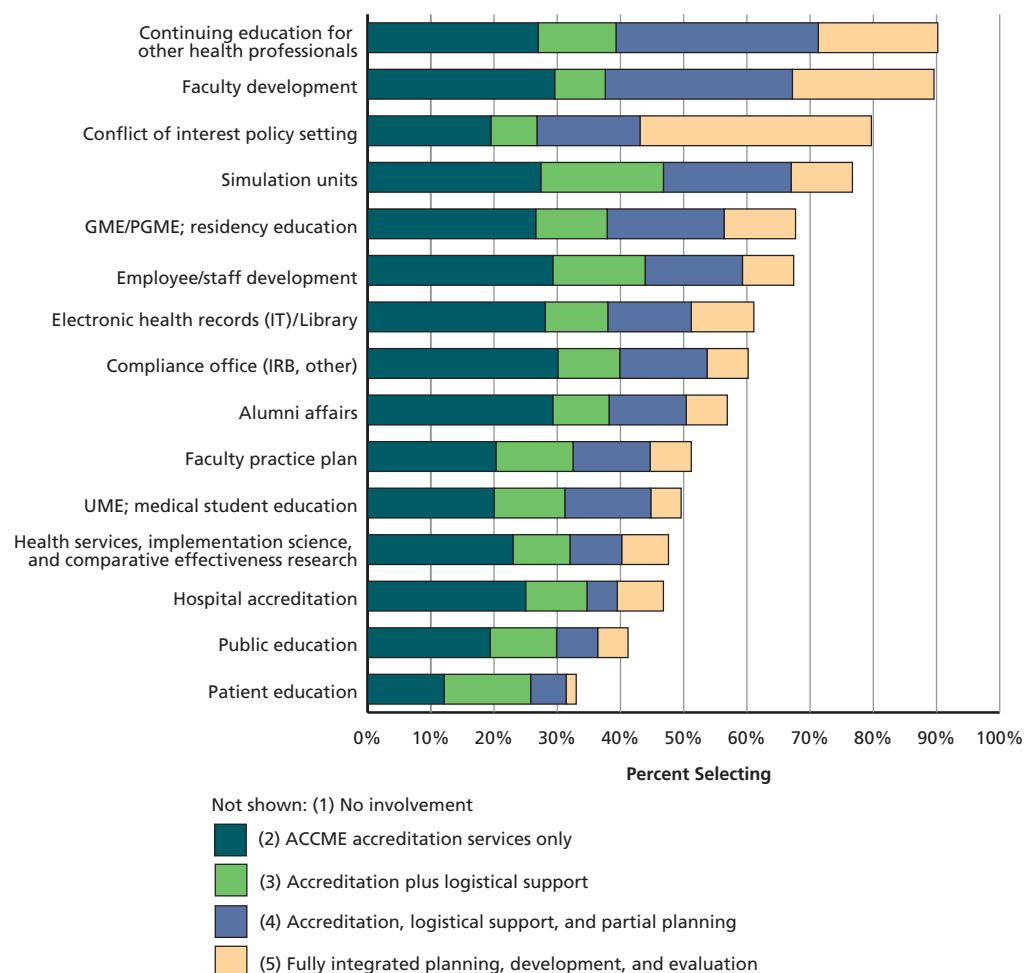


Figure 8: Intra-institutional Relationships with the CME Unit and the AMC (2 through 5 shown above, 121 to 125 respondents)

Although there were slight differences in how the questions related to intra-institutional relationships were asked in 2012, compared to 2013, there are significant data to allow for comparisons. In brief, all areas of CME unit collaboration within the AMC increased in the past year. It is of interest that interaction with simulation units increased from just below 40% in 2012 to more than 75% in 2013; employee and staff development increased from 42% in 2012 to more than 65% in 2013; electronic health records and other IT uses grew from just below 30% in 2012 to more than 60% in 2013; and, while still low, interaction in the collaborative process for patient education increased from 12% in 2012 to nearly 35% in 2013. Less interaction was noted with patient and public education programs, UME programs, health services research, and hospital accreditation processes.

Faculty Development and CME



To explore the question of the extent and nature of CME units' interaction with and support of faculty development at the programmatic level, the Harrison Survey asked several questions related to the presence of such interaction, the content of such programming, and the beneficiaries or targets of such activity.

As illustrated in Figure 8, three-quarters of respondents (90 out of 125) indicated attention to aspects of faculty development. Detailed below in Figure 9, these include improvement in lecturing/teaching skills (93%) and leadership skills development (90%). Fewer percentages of involvement were noted in the development of other educational methods (e.g., small group tutoring), team training, and regulatory issues, among others. See Figure 9.

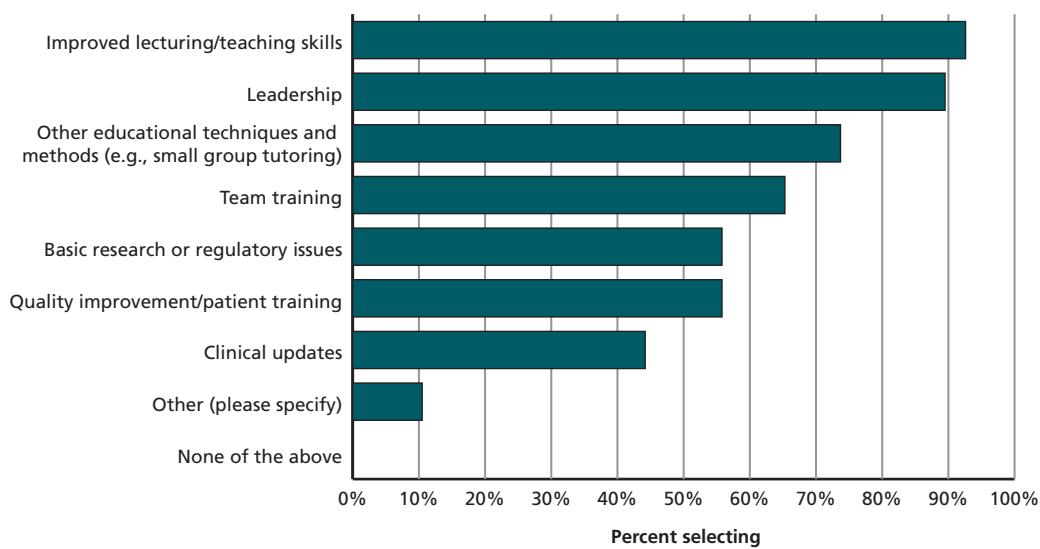


Figure 9: Content Areas Addressed by Faculty Development CME Activities (95 respondents)

Roughly 90% of academic CME units indicated a relatively high degree of interaction with faculty development and allied health professional programs, along with approximately 80% involved in conflict of interest and simulation. Less interaction (and room for growth) was noted in patient and public education programs, undergraduate medical education programs, health services research, and hospital accreditation processes; all are below 50%.

Faculty development and CME interactions reported by half to three-quarters of respondents have covered a wide variety of content areas and have benefited UME, GME, clinical, leadership, and research programs.

Effective CME Methods



The increase in the use of interactivity as an effective CME tool has been described extensively in the literature and past Harrison Surveys. Defined as the use of such interactive methods and techniques (case discussion, hands-on workshops, simulations, and other methods) for 25% or more of a program (i.e., for each activity, at least one-quarter of that activity utilized an interactive method), respondents were asked to what extent these interactive methods were incorporated across all programs produced by the unit. Responses were reported across the range from 10% or less to 100%. See Figure 10.

One hundred and twenty-six units responded. Representing lower usage, 17 respondents (14%) employed such techniques in less than one-quarter of their CME offerings. In contrast, 30 units (24%) used such techniques in their programming more extensively in three-quarters or more of their programs. See Figure 10.

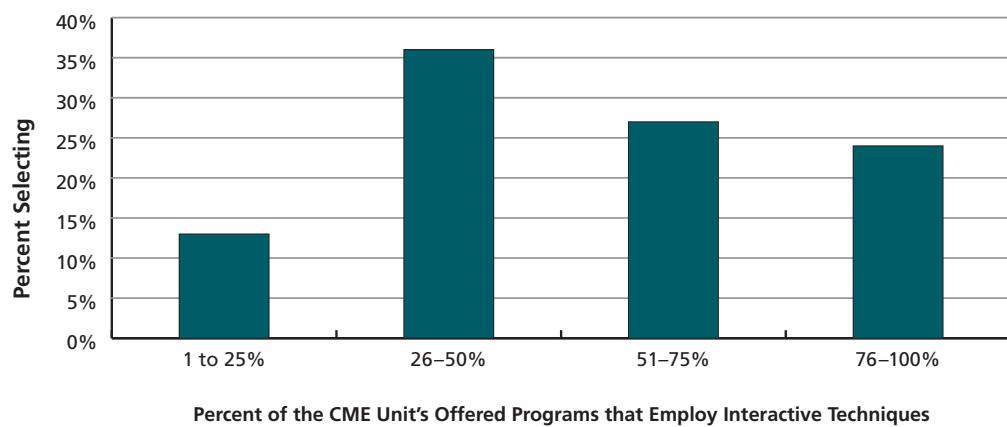


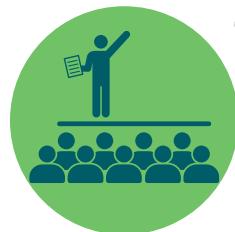
Figure 10: Percentage of Total CME Offerings Using Interactive Methods (126 respondents)

This section focuses on the impact of CME programming in the institution, attempting to capture:

- Details about the location and types of health professionals targeted by CME activities
- The extent to which CME units capture the impact of their programming efforts
- The degree to which they are engaged in scholarship activities—including information about grant capture, research and scholarship, and means of studying the effect of educational activity

SECTION 4: Reach, Scope, and Impact of CME Programming

Participation



Two questions asked about the CME programming participants at the unit's institution. The first related to their source—that is, whether they represented an internal audience (i.e., AMC staff and full-time faculty), an external audience (i.e., community-based, outside the institution), or a combination of both.

Respondents were asked to use a seven-point scale in which '1' represented an external-only audience, and '7' represented internal-only participation. A bell curve-like distribution was noted, although the majority (86 respondents or 66%) indicated a '4' or '5' in their responses, indicating a more internal participation. No units indicated that participants were derived entirely from an external population; five units reported that their participants were entirely internal. See Figure 11.

Academic CME units engage a wide variety of health professionals in their programming and reach a professional population comprising roughly equal numbers of internal (faculty and staff) and external (regional) participants.

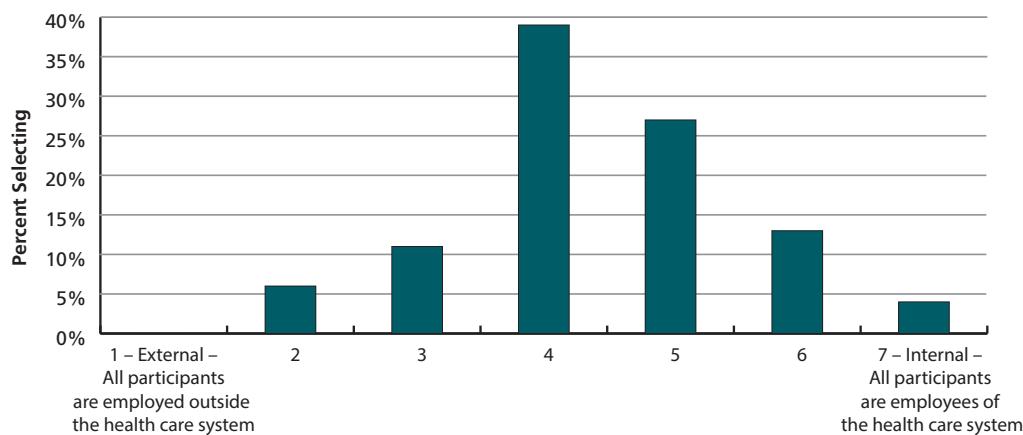


Figure 11: The Source of Participants in CME Programming

A different seven-point scale was used to determine the professional backgrounds of those participating in CME activities from '1' (physicians only) to '7' (an equal mix of all relevant health professionals—nurses, physician assistants, pharmacists, and others). Here, respondents indicated a more mixed interprofessional picture over a physician-only picture. Ninety units (131 respondents or 61%) indicated a '5', '6', or '7' on the interprofessional scale. See Figure 12.

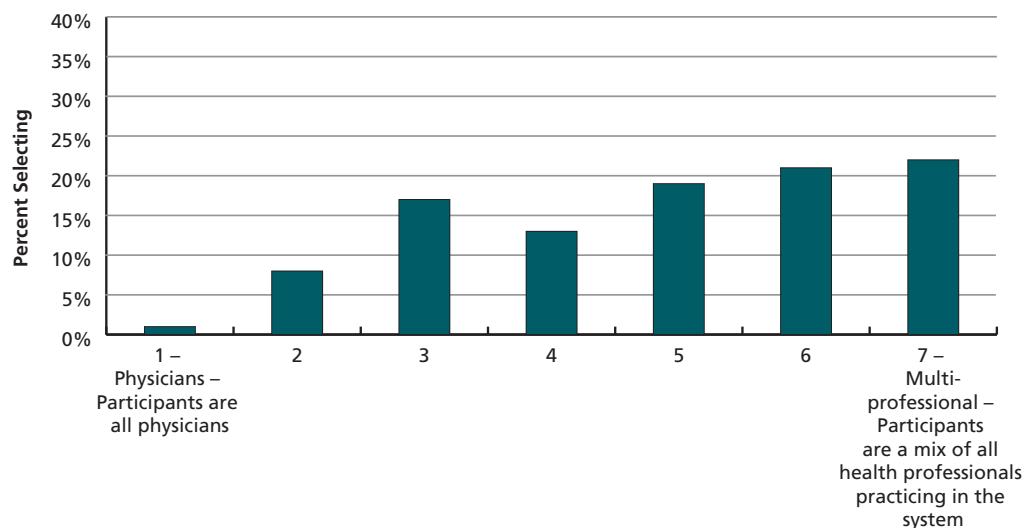


Figure 12: Participants' Professions in CME Programming

Internal Versus External Programming

Reflecting the dichotomous nature of its participant sources, CME units were asked about program methods targeting an internal population of health professionals versus those used for an external audience.

CME units reported a wide variety of activities targeting internal audiences and external participants, respectively. While many of these are documented elsewhere by the ACCME (www.accme.org), the Harrison Survey tracks these activities fairly extensively, with internal programming details new to the survey for 2013 and external programming details comparable to those reported in 2012.

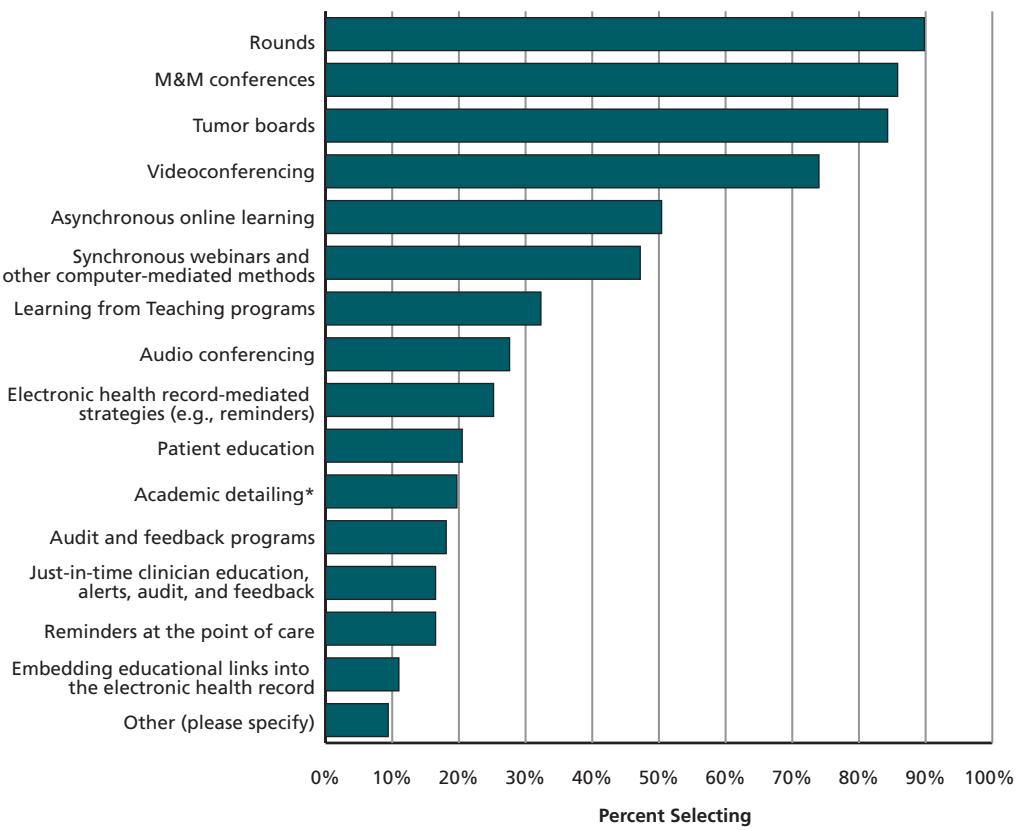
Internal Programming



One hundred and twenty-seven respondents replied to the question of which forms of internal programming were most frequently employed. One hundred and fourteen (90%) reported that rounds (regularly scheduled meetings of staff and faculty in clinical departments or divisions) were clearly the most popular and

frequently deployed means of internal programming. This was followed closely by morbidity and mortality conferences (M&Ms) reported by 109 respondents (86%) and tumor boards (107 respondents or 84%). Videoconferencing—a method that could be used for the delivery of rounds or other types of CME programming—was reported by 94 respondents (74%). Less, but still appreciable involvement was noted in asynchronous online learning and synchronous webinars, at 50% and 47% respectively. Fewer respondents reported using the American Medical Association's new Learning from Teaching program (32%), audio conferencing (28%), electronic health record-mediated strategies (e.g., reminders; 25%), patient education (21%), academic detailing (outreach visits by a health professional to a physician practice to discuss specific clinical management issues—generally prescribing, practice, or prevention measures; 20%), audit and feedback programs (18%), and reminders and educational online links at the point of care (17%). See Figure 13.

Programming for internal participants employed programs that ranged from the historically traditional (rounds and M&M conferences, for example) to webinars, asynchronous learning, academic detailing, and EHR-linked learning.

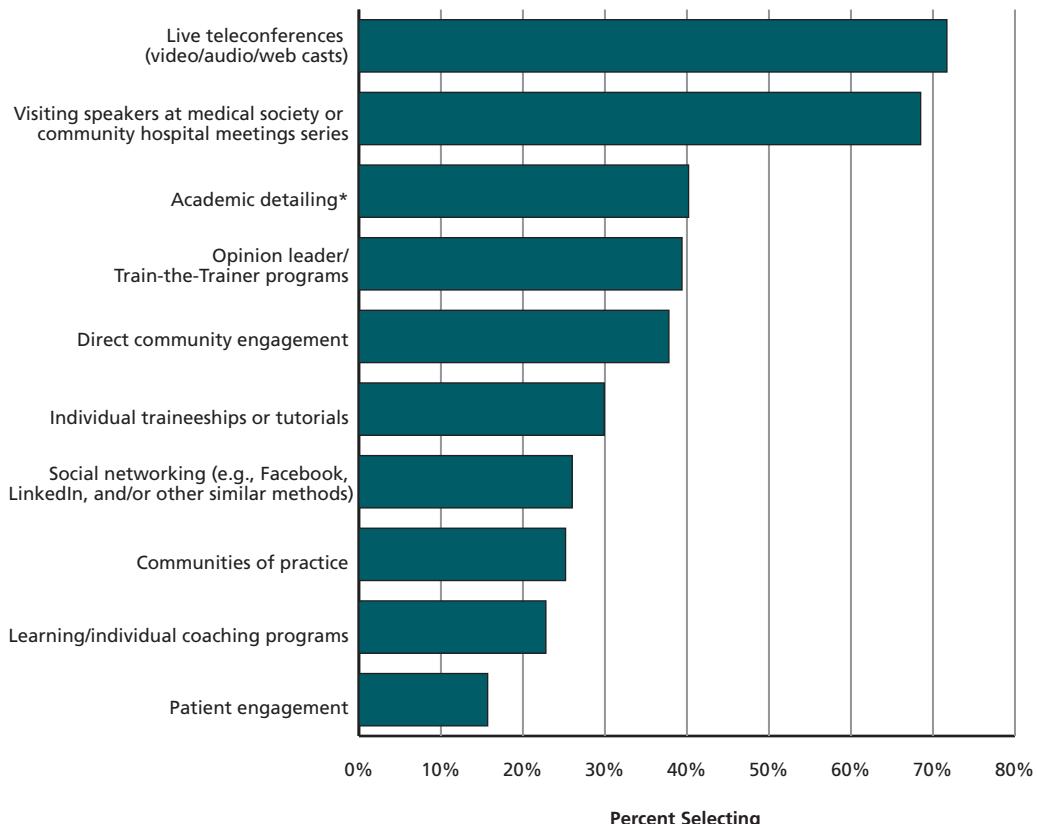


* Academic detailing comprises the outreach visit of a health professional (trained nurses, pharmacists, and/or other such health professionals) internally within an institution or externally to deliver educational messages to a physician practice, individuals, or small groups of community-based clinicians.

Figure 13: Methods Included in Internal CME Programming for Participants Within the Academic Institution (127 respondents)

External Programming

Respondents also were asked which outreach activities were planned and implemented to serve participants or learners outside the institution. This generated responses from 127 units ranging from traditional to more current, nontraditional methods and activities. Ninety-one units reported employing live teleconferences (72% of respondents), while 88 units (69%) employed a “visiting speakers” program—a longstanding effort to engage rural and other clinicians educationally. Fewer respondents reported academic detailing (51 units, 40%), opinion leader and train-the-trainer programs (50 units, 39%), direct community engagement with social and other agencies (48 units, 38%), clinical traineeships (38 units, 30%), social networking activities (33 units, 26%), community of practice programs (32 units, 25%), coaching programs (30 units, 23%), and patient engagement (20 units, 16%). See Figure 14.



Academic CME units demonstrated a strong commitment to external programming, using visiting speaker programs and teleconferences in large part, but also incorporating academic detailing, opinion leaders, train-the-trainer methods, and social networking methods.

Figure 14: Outreach Activities Planned for an External Audience of Participants Outside the Academic Institution (127 respondents)

Outcome Measurement



A hallmark of an effective, integrated academic CME presence is the unit's ability to track its outcomes. In contrast to the more traditional view of CME as monitoring learner perceptions (the so-called "happiness index") of earlier CME programming, academic CME units were asked to document the extent to which they employed outcome measures that tracked more advanced outcomes, such as competency- or performance-outcome measurements. These included intended change measures (i.e., commitment-to-change); competence measures (e.g., multiple choice exams, simulations); performance metrics (e.g., quality improvement, registry, or similar data); patient outcomes data as measured by patient surveys, health outcomes data; and population health information as tracked by epidemiologic data. Not surprisingly, CME respondents reported they undertook those elements in closer proximity to the CME activity such as documenting commitments to change, and undertook tracking health care or population health data less often. Nonetheless, respondents reported activity at all levels. Ninety-nine of 124 units (80%) reported that all programs used commitment-to-change measurements. In contrast, fewer units reported that all their activities used competency measures (51 of 121 units or 42%), performance data (28 of 120 units or 23%), patient outcomes data (15 of 116 units or 13%), or population health data (11 of 111 units or 10%). See Figure 15.

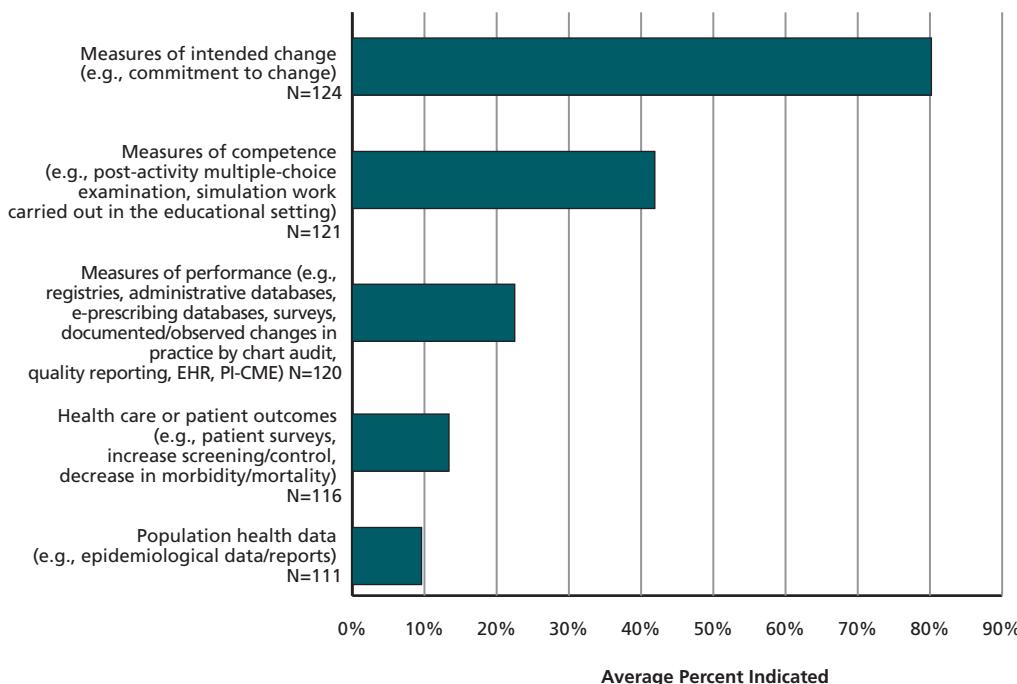


Figure 15: Outcome Measures Employed by Academic CME Units (111 to 124 respondents)

Research and Development: Scholarship in Academic CME

Research Activity

Respondents were asked to what extent they engaged in research activities. These were described as formal evaluation processes related to physician or health professional learning, the effect of CME, the outcomes derived from educational activities, and related matters. Some research was externally funded by peer review or commercial sources, and some internally funded.



In the United States and Canada, 40 units reported CME-related research activity in 2013 compared to 43 units in 2012. These units undertook a median of two research studies in both years. However, in 2013, both the number of those reporting these activities as grant-supported and the amount of that grant support increased significantly. For 2013, slightly more than half of the respondents declared some financial grant support, with a median income of \$175,000, while in 2012, roughly half declared financial grant support, with a median income of \$70,000. The mean, maximum, and minimum numbers of studies and financial support can be seen in Table 3.

Table 3: Research and Development Activities Reported by CME

**Total New CME-related Research Studies by Institution
(Including CME Unit Research Studies)**

	2012 N=43	2013 N=40
Maximum reported number of studies	100	15
Minimum reported number of studies	1	1
Mean reported number of studies	5.7	2.8
Median reported number of studies	2	2

**Total Grant Support of All Studies
(New Grants Plus All Other Ongoing Grants and Studies)**

	2012 N=42	2013 N=51
Number reporting no grant support	20	23
Number reporting support >\$0	22	28
Maximum reported grant dollars for those with support >\$0	\$9,911,316	\$15,000,000
Minimum reported grant dollars for those with support >\$0	\$20,000	\$10,000
Mean reported grant dollars for those with support >\$0	\$924,337	\$823,354
Median reported grant dollars for those with support >\$0	\$70,000	\$175,000

While the number of CME units reporting research activity and the number of activities that are grant-supported have remained level, the maximum amount of that grant support increased notably in 2013.

Collaboration Within and Across CME Units

Those units reporting research activity were then asked to what extent these studies were either intra-institutional or collaborative within the institution and/or multi-institutional. In this area, a larger number responded, indicating that, while CME units themselves may not take part in research, other department faculty members—and even other institutions—may be so engaged. In 2013, of the 65 units responding, 83% (54 units) reported undertaking in cross-institutional studies, while just more than half (35 units or 55%) reported multi-institutional studies. Table 4 also includes 2012 comparative data.

Table 4: CME Engagement in Intra- and Extra-institutional Research

CME Engagement	2012 N=60			2013 N=65		
	Yes	No	Total	Yes	No	Total
Cross-institutional or collaborative research within own institution	51	8	59	54	11	65
	86%	14%	100%	83%	17%	100%
Multi-institutional or collaborative research, e.g., with other medical institutions	33	24	57	35	29	64
	58%	42%	100%	55%	45%	100%

Examples of Research Studies and Promising Practices

Respondents were asked in an open-ended format to outline CME research projects and related areas to provide examples of “promising practices” from an educational, outreach, and organizational standpoint. These were submitted to iCollaborative—the AAMC’s online repository of innovations and projects. Visit [www.medicalportal.org](http://www.medicalportal.org/icollaborative) for further information.

Visit [www.medicalportal.org/](http://www.medicalportal.org/icollaborative)
[icollaborative/](http://www.medicalportal.org/icollaborative)
 for examples of
 innovations, research
 programs, and projects.

Discussion: The Structure, Function, Impact, and Direction of Academic CME

Limitations

There are several limitations to the interpretation of this survey. It is based on a self-reported questionnaire, to which less than two-thirds of academic CME units responded (and only half of accredited CME units in Canada). Notably, timing issues with this survey may have diminished the response rate. Further, between-year comparisons are altered by non-identical response rates of CME units and by new questions or questions that were worded slightly differently (the result of an ongoing process to improve the clarity of question-writing and to shorten the survey itself). The survey report did not have information to account for specific functional differences between AMCs (e.g., private versus public funding)—a subject worthy of further analysis. Finally, while the survey writers attempted to provide definitions or clarification for most questions, these may have been misinterpreted (or interpreted slightly differently) by respondents.

Despite these limitations, we believe that the survey generates broad but important findings for discussion and analysis, which are helpful in commenting on the size and scope of the academic CME enterprise, its current and possible future direction, its role in achieving the missions of the AMC, and—most important—its role in improving patient care. Further, several trends are validated by a comparison with ACCME-reported data available at www.accme.org.

Structural Elements

This survey addressed several elements key to the structure of the academic CME unit, and the health system or AMC in which it resides. These included the degree of integration of the AMC and the CME unit, the structure and role of the CME advisory committee, the support of AMC leadership as perceived by the CME unit, and its financial model.

In an ideal world, the degree of integration of medical school and hospital functions would parallel the integration of the AMC itself. Results from the 2013 survey indicate this is not yet the case.

Several sites indicated that the medical school and teaching hospital CME units were not integrated, at least creating a situation in which collaboration, shared work, and potential synergies may be missed. This finding also was reflected in the reported role and composition of the CME committee. Responses displayed a moderate level of integration with the health care system, and could—with minimal cost and organizational restructuring—represent a more broad-based and functional constituency for clinical quality, research, and educational enterprises. It would appear that the barrier to achieving a more academic/clinical integration in the committee does not reside in the systems' leadership. In many institutions, leaders at some level appear to understand and support the alignment and role of an integrated CME unit and envision the role it can play in achieving the AMC's mission. This support, at least in the perception of the majority of respondents, is reflected in the finding that institutional funding for CME has stabilized.

Function: Relationships and Reform

While AMCs themselves have begun to consider health care reform and the implications for integration, CME units appear to have some difficulty accessing and utilizing health care data to plan and evaluate their programming. The situation appears slightly better when other, broader objective needs assessments are undertaken—for example, annual hospital reports and other data on which to plan and develop CME programming. Quality data access, however, is only one element of health care reform. Among other ways to collaborate, interprofessional team-based care is made possible (although not automatic) by academic CME units' movement toward accreditation by other health professional educational bodies and by their attention to a wide array of professionals participating in learning activities. There also exists clear cross-departmental collaborations with several non-CME units—namely faculty development, allied health professional programs, graduate medical education (GME), and programs of quality improvement—albeit much less in other areas.

These less collaborative areas include undergraduate medical education, library functions, health services and related research, electronic health records, practice plans, and others—all of which present themselves as opportunities for academic CME units, enabling program planning, development, innovation, and evaluation.

Finally, the survey assessed the degree to which one element of evidence-based educational practice—interactive CME—had permeated the fabric of educational methods. Although not fully embraced by academic CME units, the use of interactivity demonstrates a move away from traditional, didactic, and thus, marginally effective CME.

Scope, Reach, and Impact

The findings also make apparent a strong commitment, equal to its internal integration, to regional community-based hospitals, health systems, and health professionals. This is reflected in the array of educational methods reported, such as teleconferencing, online learning activities, opinion leader and train-the-trainer programs, and the notable use of social networking to link to community-based health professionals. In addition, the advent of academic detailing demonstrates academic CME providers' innovation and attention to effective educational engagement and an awareness of external funding opportunities in this area. This regional alignment is important to considerations of “accountable care” structures, in which community-based health professionals—and the linkage to the AMC that academic CME represents—play a large and important role.

Also noticeable is the assessment of outcomes beyond the scope of the traditional post-course “happiness index”—a further indication of attention to educational outcomes. Here, academic CME providers report using a variety of methods—assessing commitment-to-change with relative frequency, and less but important considerations of competence, performance, and even patient outcomes—to evaluate their impact on the health system. Finally, it appears that there is a reasonably steady, if still relatively

small, cohort of CME units that are committed to scholarship and contribute to the research enterprise in health professional learning and change. This commitment is the product of collaboration both within and across AMCs, and is derived from funding sources internal and external to the institution.

Conclusion

As health care reform and system integrations continue, academic CME demonstrates several major strengths, including its potential to assist the AMC in achieving its missions and improving patient care—along with concomitant challenges and opportunities. The strengths are numerous. There is sizable progress toward evidence-based educational methods (in this case, interactivity and the advent of methods such as academic detailing) and a range of internal and external methods used to accomplish the mission of the AMC. There are many instances of highly engaged and system-wide representation of CME committees. There are strong linkages with faculty development, continuing education for all health professions, GME, and other programs; attempts at outcome measurements beyond the happiness index; and evidence of centers of research focus.

Challenges to academic CME are equally numerous. For example, there are weak or absent linkages in some instances with quality improvement and patient safety (QI/PS) programs, and with many programs such as health services research or electronic

health records. Support for and understanding of the potential role of academic CME units in scholarship, in improving patient care, and in achieving other missions of the AMC remain incomplete and patchy.

In this picture, opportunities are plentiful. They range from those that are currently understood and defined within the CME community as relatively straightforward, such as reformulating the role and composition of the CME committee, improving interactivity in formal CME presentations, and beginning the process whereby quality data can be used as an essential ingredient in planning grand rounds and other RSSs. More difficult, but not impossible, are efforts to build better linkages with

departments and programs in order to improve the scholarship, reach, and impact of CME and the function of the AMC. These efforts will strengthen the connection between QI efforts and education, allow better assessment of the impact of educational initiatives on patient outcomes, and enhance leadership's understanding of (and vision for) the potential for academic CME.

These opportunities encompass truly strategic directions for academic CME units to undertake in 2014 and beyond.

Possible strategic improvement goals for academic CME consideration include:

- *Reformulate the role and composition of the CME committee*
- *Improve interactivity in formal CME presentations*
- *Build better linkages with departments and programs in order to improve the scholarship, reach, and impact of CME*
- *Strengthen the connection between QI efforts and education*
- *Improve the assessment of the impact of educational initiatives on patient outcomes*
- *Enhance leadership's understanding of (and vision for) the potential for academic CME*



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