SOCIETY FOR ACADEMIC
CONTINUING MEDICAL EDUCATION

Survey for 2004
Descriptive Results

Collected February 2004
and including program data for 2002–03

Prepared by the Survey Subcommittee
of the Research Committee

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Executive Summary

CME units and personnel share an overall mission to ensure that high quality CME programs are developed and produced at medical schools. The results of the biennial surveys continue to demonstrate diversity across medical schools in the types and amounts of programming and in organizational and operational arrangements for CME units and CME personnel. The intent of the survey is not to produce an overall integrated view of CME units and their activities, but to highlight areas and issues of particular interest.

SACME currently has members at 104 of the 142 medical schools in the United States and Canada. Survey forms were completed for 71 schools. The institutional response rate of 68% is higher than rates for the majority of previous surveys. Although the medical schools responding to past surveys and the present survey are not identical, a general assumption is made that they are sufficiently similar for comparisons to be made between current data and parallel data reported previously.

A general trend in the results of the 2004 survey is a relative stability of findings, with many similar to results four years ago. Summarized below are major findings regarding topics in this year's survey.

Current trends. Modest increases are reported for the quality of courses and the number of courses. Modest decreases are reported for financial support from the university and for time between registering and the course date. For the other items (e.g., attendance, faculty interest in CME, commercial support), the overall trend is close to no change, with some individual institutions experiencing changes in both decreasing and increasing directions.

When looking at trends across years, the patterns tend to be somewhat consistent for most measures. The most variability is in financial support from commercial companies. A trend for ongoing slight increases is evident for quality of courses, number of courses, and possibly for faculty interest in participating in their school's CME. Generally stable are the number of external physicians per course, attendance at "pleasure" locations, and faculty interest in participating in other sponsor's CME. Generally decreasing are financial support from the university and the advance time for registration.

Programs and attendees. Regarding live, in person courses for external physician attendees, in 2002–03 the typical (median) medical school produced 65 courses with 705 hours of credit and had an annual attendance of 3,248 physicians and 1,500 other participants. Each of these numbers is slight a decrease from two years ago.

Other forms of live CME for external audiences vary in their prevalence across medical schools. Half (49%) of medical schools arrange presentations at county medical societies and local hospitals. One-third of schools offer individual tutorials or traineeships. A minority of medical schools broadcast live conferences by television (22%), telephone (20%), or Internet (13%). These numbers have been consistent in recent years.

Regarding self-study CME activities, 80% of medical schools offer self-study activities: 68% in written form, 62% Internet, 42% computer disks, 33% video, and 21% audio. Schools that offer self-study activities typically produce fewer than ten self-study activities per year. The number of schools producing self-study activities did not change appreciably in recent years, but the number of activities by Internet, computer disc, and written material appear to be increasing and the number by video and audio appear to be decreasing.

Virtually all schools designate credit for some ongoing multiple session internal activities such as grand rounds. The median is 37 activities for a total of 808 credits, with schools varying widely on these numbers. The majority of schools designate credit for a few single occasion internal activities. The median is one activity for eight credits. Regarding activities for which credit was not designated, but probably could be if "paper work" requirements were performed, the majority of schools have a few additional internal activities that could be converted from not-for-credit to for-credit. These numbers are fairly stable across years.

Course fees. The usual fee per credit hour ranges widely across medical schools. Fees for courses at the institution's primary location (median of $18/credit hour) are similar to recent years. Fees for courses at "pleasure" locations (median of $27/credit hour) are also similar to recent years.

Research in CME units. Research is being performed in 24% of medical school CME units. About one-quarter to one-third of medical schools are involved in each of the following: CME unit personnel doing CME research based in other units, personnel based in other units doing CME research, CME personnel doing research on other levels of medical education, and CME personnel doing research on topics other than medical education. The involvement of CME units in research decreased slightly over previous years, including the typical senior staff time devoted to it and the level of funding obtained for it.

Relationships with commercial companies. While medical schools vary widely in the number of courses, the typical (median) medical school received support for 39 courses, which represents 70% of the school's CME activities. This is similar to the amounts four years ago. The typical school received $500,000 in support, representing 45% of the school's course revenue. The amount of support is an increase over four years ago.

The typical school offered four courses supported solely by one company, representing 5% of the school's courses. If commercial support were no longer provided, the typical school would no longer hold 15 courses, representing 23% of the school's courses and a loss of 1,500 attendees. These are similar to the amounts reported four years ago.

The majority of types of live broadcast CME activities and self-study CME activities are predominantly supported by commercial funds: telephone conferences, single session televised conferences, live Internet broadcasts, written self-study, audio self-study, and computer disk self-study. About half of the following do not receive commercial support: televised conferences with multiple sessions, tutorials or traineeships, video self-study, and Internet self-study.

Support is most often provided as a general grant to a course, for speaker's expenses, and for food and refreshments for course participants. The frequency of the purposes for support is similar to the recent past.

While virtually all medical schools accept financial support from commercial companies, some policies regarding the support vary appreciably between medical schools. About half of the medical schools have policies that: courses involving communication companies may be sponsored, all funds pass through the CME unit, university honoraria guidelines take precedence over company guidelines, and courses must have a token fee. The findings are similar to those four years ago.

The majority of schools find that commercial companies are "often": timely in signing letters of agreement, timely in paying funds, and have processes making it easy for the CME unit to compose letters requesting funds from the company. The values are slightly lower than four years ago.

This survey asked respondents to rank 15 pharmaceutical companies on a 5–point scale (1 = low to 5 = high) on knowledge of CME requirements and processes, adherence to national guidelines, and ease to work with. The means of scores ranged from 3.2 to 4.3 – all above the midpoint of the scale. A company's score on "knowledge" generally parallel's its score on "adherence." The scores for "ease" were less closely related to the other two measures.

About half of medical schools held commercially funded "satellite" meetings in conjunction with meetings of national specialty societies. The "satellite" meetings were typically initiated and managed by communication companies, involved "a little" problem with oversight and management, and did not reduce funding for regional CME activities. The results are similar to those four years ago.

Communication companies. Three-quarters of the medical schools currently work with communication companies. Medical schools have a wide variation of experiences in with working with these companies, with typically "somewhat" of a problem with short time constraints and "a little" problem with faculty contacts, with the company following approval processes, and with budget control. Schools who are working with communication companies vary appreciably on whether they like to work with this type of company. The results are similar to those four years ago.

Most medical schools will sponsor an activity with a communication company if a member of the school's faculty is the activity director. The majority will sponsor an activity if a member of the school's faculty is on the presenting faculty or is at least reviewing an activity.

AMA PRA credit to non-U.S. physicians. The AMA now requires that U.S. based accredited CME providers obtain written permission from the AMA in order to award AMA PRA category 1 credit to non-U.S. licensed physicians. The majority of schools have not requested this permission.

About one-third have requested it for some live, in person courses and about 10% have requested it for various types of self-study activities.

CME involvement in LCME accreditation. For medical schools that had their medical student education program reaccredited in the past two years, this year's survey asked about the involvement of the CME unit in that reaccreditation process. At all schools the CME leadership or unit provided information about the CME program as part of the institutional self-study process. The substantial majority also provides some information during the reaccreditation site visit.

Priorities for the CME program's mission. This year's survey asked several questions about priorities related to the mission of the overall CME program at the medical school. The most striking finding across all items is the broad distribution of responses. This demonstrates a general lack of consensus regarding importance of the possible priorities listed in this survey. The two most highly rated activities are applying evidence-based education research in CME delivery and emphasizing quality improvement practices. The two most important barriers are lack of funding for outcomes-based CME activities and limited time to make CME more effective. The four most important methods are educational interventions to change knowledge and skills and to improve performance, evaluation methods, and needs assessment in the practice setting. None of the listed tools and resources have high mean ratings on importance.

Introduction

Members of the Society's Research Committee survey CME units at medical schools to collect and disseminate information about policies and practices relating to continuing medical education as carried out by colleges and schools of medicine in the United States and Canada. This current survey and its report are intended to fulfill several functions. It provides an overview for all Society members concerning programming and attendance. It provides newer members with an overview of areas and activities that might otherwise take several years to acquire through informal discussions. It provides longer term members an update on general information and a clearer understanding of specific activities. For all members it provides the occasion to compare their CME units with those of other schools, to recognize the extent to which they are similar to or different from the other schools, and to suggest ways to improve the functioning of their units.

The survey focuses on continuing medical education for physicians. Many units providing CME also provide continuing education for other health professions. Recognizing the purpose of the Society, the survey does not include information on activities aimed primarily at groups other than physicians. This focus provides information that is more comparable across medical schools.

All attempts to represent reality have their limitations. The survey is an excellent way to present aggregate data on a number of dimensions. However, it cannot represent the complex factors operating simultaneously at any one school. The report provides a general perspective. Additional inquiry would be necessary to draw conclusions about any one school.

The limited size of the population – 142 medical schools (126 in the United States and 16 in Canada), 104 of which currently have a member in the Society – and the typical response rate (60 to 85 schools) provides sample sizes with the statistical power to detect only substantial differences on measures that are significant at the .05 level (5 chances in 100 that the observed difference is not random). However, differences of moderate and small size may be important for administrative and policy decisions. Therefore, this descriptive report presents data and discusses them briefly in the context of factors known to be operating in the CME environment. Issues of particular interest are typically addressed in more detail in subsequent articles published in professional journals.

The methods used to collect the data and some comments concerning the representativeness of data are presented below. The descriptive results include three sections that are routinely included in the surveys: current trends, programs and attendees, and course fees. Three additional sections have been periodically included in previous surveys and updated results are presented in this survey: research in CME units, financial involvement of commercial companies, and communication companies. The last three descriptive sections are on topics unique to this survey. The report concludes with a summary of patterns seen across the various topics included in the survey. The responding institutions are acknowledged at the end.

Methods

The questionnaire was developed by members of the Survey Subcommittee of the Research Committee of the Society. Its content was derived from items in previous surveys of the Society, suggestions of society members to the Research Committee, and suggestions developed by the Subcommittee as they revised the survey content. Items in the survey are introduced in the results section with the results for the item.

The questionnaire was sent on January 30, 2004, to the 159 members of the Society working at 104 medical schools and colleges in the United States and Canada. Members were asked to complete and return one questionnaire per institution. On February 24 and again on March 4 a reminder to return the questionnaire was sent by email to members at institutions that had not returned a completed questionnaire. The responses were returned from February through late March, 2004.

Table 1 presents the response rates in returning the questionnaire. Seventy-one of the medical schools (68%) returned the survey. As indicated in Table 1, response rates by geographic region ranged from 38% in Canada to 82% in the southern United States.

Table 2 summarizes the previous response rates for the biennial survey. The response rate for this survey is higher than the rates for the majority of previous surveys.

TABLE 1. Percent of Institutions Returning the Survey by Geographic Region

	North-East	Mid-West	South	West	Canada	Total
Number of Institutions	28	25	32	11	8	104
Number Returning Questionnaires	19	18	22	9	3	71
Response Rate	68%	72%	69%	82%	38%	68%

TABLE 2. Response Rates for Biennial SMCDCME Surveys

Year	Number Institutions	Number Returned	Response Rate
1986	120	63	53%
1988	120	58	48%
1990	118	72	61%
1992	117	65	56%
1994	114	75	66%
1996	121	89	74%
1998	122	82	67%
2000	112	62	55%
2002	100	74	74%
2004	104	71	68%

Although the medical schools responding to past surveys and the present survey are not identical, a general assumption is made that they are sufficiently similar that comparisons are made between current data and parallel data reported previously. However, trends across time must be interpreted cautiously because some change across years will be due to differences in the specific institutions returning the surveys across the years.

The return of the survey did not necessarily mean that data were available for every item. Some items did not apply to all institutions and some institutions did not complete all items. A major factor in providing data was the extent to which the CME unit already kept data in a format similar to that requested by the survey. For example, data for physician oriented programs were already separate from data for other programs, attendance data were kept separately for external participants and internal participants. When an item did not apply to an institution it was sometimes left blank and the distinction between missing data and "does not apply" or "zero" was not always clear. The number of responses on which the data are based varies from item to item and therefore the total number of responding schools is usually presented for each item. Also, median values (50th percentile) are reported when extreme values for a few institutions would disproportionately affect mean values.

Data are generally reported as submitted in the questionnaire. An exception is dollar values reported by Canadian schools, presumably in Canadian dollars. Those values were converted to U.S. dollars by multiplying by .74.

Two time frames are used in presenting data. Some items concern aspects of CME activities over a 12-month period. Information for these items was requested for the last academic year (typically 2002-03) or other recent annual reporting period used by the institution. Other items asked about operations and opinions at the time the survey was being completed – about February, 2004. The applicable time period is shown when data are presented for more than one year.

Descriptive Results

Current Trends

The survey included a section asking for impressions about current trends for several aspects of CME at medical schools. The information represents the perception of directors of CME units concerning trends at the time the questionnaire was completed (February, 2004). The distribution of medical schools on the responses is presented in Table 3 along with the data for the same items when they were asked in previous

surveys. The mean response for each item (coded from 1 = "decreasing a lot" to 5 = "increasing a lot" is also presented. With 3.0 reflecting no average change, means < 3 indicate a decreasing trend and means > 3 indicate an increasing trend. Many means fall between 2.8 and 3.2, indicating little overall change across medical schools

The number of courses for external physicians is slightly increasing. The trend for reporting slight increases in courses is consistent across many years.

The responses indicate that the number of external physicians per course is overall stable. In most previous years the trend has been slight increases or stable.

Attendance at courses at "pleasure" locations is fairly stable. Across years the trend is for stable or slightly lower attendance at these courses.

Faculty interest for participating in the medical school's CME is stable overall. Across years the trend is for stable or very slightly higher interest.

Faculty interest for participating in CME produced by other sponsors is largely stable and similar to previous years.

Financial support for CME from the university is lower than in any previously reported year. The trend over years is continuing slight decreases in support from the university.

Financial support from commercial companies is stable overall, but with appreciable variation. Over the years the patterns of change have varied across increases and decreases.

Quality of courses is viewed as increasing overall. This continues the trend across years for reports of increasing quality.

Time between registering and the course date is viewed as decreasing slightly. The responses are similar to those in past years, showing a continuing trend to later registration across time.

An overall summary of current trends is that modest increases are reported for the quality of courses and the number of courses. Modest decreases are reported for financial support from the university and for time between registering and the course date. For the other items, the overall trend is close to no change, with some individual institutions experiencing changes in both decreasing and increasing directions.

When looking at trends across years, the patterns tend to be somewhat consistent for most measures. The most variability is in financial support from commercial companies. A trend for ongoing slight increases is evident for quality of courses, number of courses, and possibly for faculty interest in participating in their school's CME. Generally stable are the number of external physicians per course, attendance at "pleasure" locations, and faculty interest in participating in other sponsor's CME. Generally decreasing are financial support from the university and the advance time for registration.

Programs and Attendees

Difficulties sometimes arise because people use the same terms to mean different things. Respondents must use terms with common definitions for responses to be comparable. Therefore, this section of the questionnaire began with a page of definitions concerning courses and attendees. The text is reproduced as the Appendix. The defined terms were then used to specify a primary interest in responses concerning live multiple hour and multiple day courses, conferences and seminars oriented to external physicians.

Courses, credit hours, and attendees. Table 4 presents the distributions of medical schools on the annual number of courses oriented to external physicians, on the category 1 credits designated for these courses, and on the total attendance at these courses by physicians and others external to the institution. The 25th, 50th and 75th percentiles for these variables are shown in Table 5 for nine previous surveys as well as for the current one.

Medical schools vary widely on the annual number of courses oriented to external physicians (Table 4). Table 5 shows a doubling in number of courses from 1984-85 to 1990-91. From then to 1994-95 the number of courses appears to have decreased slightly. In 1996-97 the number of courses returned to the 1990-91 levels and continued to increase until 2002-03, which appears to be slightly lower. This slight decrease is at variance from the report of slightly increasing courses presented in the first part of Table 3.

As shown in Table 4, the distribution on total course CME credits (hours) is fairly wide. The 25th, 50th, and 75th percentiles are shown in Table 5. The number of course credits increased until 1992-93, remained fairly stable through 1996-97, then increased in 1998-99 and are at approximately the same (perhaps slightly lower overall) in 2000-01. The number of hours certified is slightly lower in 2002-03. The pattern of the number of courses increasing more than the number of course hours suggests that the number of shorter courses has increased and the number of longer courses has decreased.

The third section of Table 4 shows that the attendance by external physician participants also varies widely. Table 5 presents the 25th, 50th, and 75th percentiles for recent surveys. The number of external physician participants increased until 1992-93, was generally stable in 1994-95, then increased since 1996-97 until a decrease in 2002-03. This decrease is particularly noteworthy at the upper end of the distribution.

The number of other external participants is not always recorded in a way that is convenient to report. For the courses oriented to external physicians, the last section of Table 4 shows that the number of other external attendees clusters fairly tightly at less than 4,000 for most schools. Table 5 presents the 25th, 50th, and 75th percentiles. Again increases

TABLE 3. Distribution of Medical Schools on Current Trends in Various Aspects of CME

	Year (Reported in February)	Current Trend Is: Decreasing A Lot [1]	Decreasing A Little [2]	No Change [3]	Increasing A Little [4]	Increasing A Lot [5]	Mean [1-5]	Total Schools
Number of Courses for External Physicians:	1990	0%	10%	29%	46%	15%	3.7	70
	1992	3%	16%	28%	50%	3%	3.3	64
	1994	0%	27%	26%	43%	4%	3.2	70
	1996	2%	23%	36%	35%	4%	3.2	88
	1998	2%	21%	24%	42%	11%	3.4	81
	2000	2%	19%	16%	55%	8%	3.5	62
	2002	3%	31%	26%	35%	5%	3.1	74
	2004	0%	16%	24%	46%	14%	3.6	71
Number of External Physicians per Course:	1990	0%	20%	33%	37%	10%	3.4	69
	1992	2%	19%	43%	35%	2%	3.2	63
	1994	1%	34%	34%	27%	4%	3.0	71
	1996	1%	33%	38%	27%	1%	2.9	88
	1998	1%	33%	27%	36%	3%	3.1	80
	2000	5%	26%	14%	53%	2%	3.2	62
	2002	3%	37%	29%	27%	4%	2.9	73
	2004	3%	25%	28%	35%	9%	3.2	71
Attendance at Courses at "Pleasure" Locations:	1990	3%	12%	60%	23%	2%	3.1	65
	1992	5%	15%	64%	15%	1%	2.9	61
	1994	10%	21%	47%	21%	1%	2.8	71
	1996	11%	30%	41%	17%	1%	2.7	83
	1998	3%	14%	54%	29%	0%	3.1	79
	2000	5%	11%	63%	21%	0%	3.0	57
	2002	13%	24%	56%	7%	0%	2.6	70
	2004	7%	22%	54%	17%	0%	2.8	70
Faculty Interest in Participating in Your School's CME	1990	0%	3%	31%	53%	13%	3.8	58
	1992	3%	6%	37%	48%	6%	3.5	63
	1994	1%	12%	41%	36%	10%	3.4	73
	1996	2%	24%	36%	31%	7%	3.2	89
	1998	5%	21%	33%	32%	9%	3.2	81
	2000	7%	16%	34%	37%	6%	3.2	62
	2002	3%	28%	35%	30%	4%	3.0	74
	2004	4%	11%	47%	31%	7%	3.2	71
Faculty Interest in Participating in Other Sponsors' CME	1990	0%	5%	55%	33%	7%	3.4	70
	1992	5%	4%	69%	20%	2%	3.1	55
	1994	2%	4%	79%	13%	2%	3.1	62
	1996	1%	11%	69%	18%	1%	3.1	78
	1998	4%	7%	66%	20%	3%	3.1	74
	2000	2%	7%	67%	20%	6%	3.2	62
	2002	2%	2%	84%	10%	2%	3.1	59
	2004	0%	4%	80%	14%	2%	3.1	71

(TABLE 3 continues on next page)

TABLE 3 (continued). Distribution of Medical Schools on Current Trends in Various Aspects of CME

	Year (Reported in February)	Current Trend Is: Decreasing A Lot [1]	Decreasing A Little [2]	No Change [3]	Increasing A Little [4]	Increasing A Lot [5]	Mean [1-5]	Total Schools
Financial Support for	1990	6%	21%	54%	16%	3%	2.9	70
CME from University:	1992	9%	25%	52%	12%	2%	2.7	64
	1994	12%	18%	55%	14%	1%	2.7	73
	1996	16%	25%	47%	11%	1%	2.6	89
	1998	11%	10%	59%	18%	1%	2.9	80
	2000	5%	16%	60%	17%	2%	2.9	62
	2002	11%	19%	63%	7%	0%	2.7	72
	2004	24%	21%	43%	10%	2%	2.4	70
Financial Support for	1990	0%	13%	39%	39%	9%	3.4	69
CME from Commercial	1992	2%	23%	33%	37%	5%	3.2	64
Companies:	1994	16%	39%	23%	19%	3%	2.5	73
	1996	8%	44%	19%	25%	4%	2.7	89
	1998	15%	19%	28%	36%	2%	2.9	81
	2000	2%	22%	20%	51%	5%	3.4	62
	2002	5%	49%	23%	22%	1%	2.6	74
	2004	9%	35%`	18%	34%	4%	2.9	71
Quality of Courses	1990	0%	0%	28%	55%	16%	3.8	67
for External Physicians:	1992	0%	0%	34%	55%	11%	3.8	64
	1994	0%	4%	25%	58%	13%	3.8	72
	1996	0%	1%	33%	56%	10%	3.8	89
	1998	0%	0%	30%	62%	8%	3.8	79
	2000	0%	2%	28%	57%	13%	3.8	62
	2002	0%	1%	42%	46%	11%	3.7	74
	2004	0%	0%	33%	56%	11%	3.8	71
Time between registering	1996	13%	21%	56%	10%	0%	2.6	89
& course date:	1998	12%	24%	51%	11%	1%	2.7	78
	2000	8%	28%	50%	11%	3%	2.7	60
	2002	5%	31%	54%	10%	0%	2.7	74
	2004	7%	35%	49%	9%	0%	2.6	71

occurred through 1992-93, then an appreciable increase in 1998-99 and a slight increase in 2000-01. In 2002-03 the number decreased somewhat in the low and middle parts of the distribution, while increasing at the upper end of the distribution.

Other CME activities. Medical schools can engage in a number of additional CME activities. Data on the other formats for "live" CME are presented in Tables 6 and 7. Data on enduring self-study CME activities are presented in Table 8. The column ranges reflect natural clustering of medical schools; the ranges are usually not equal across columns.

The first section of Table 6 displays the number of presentations at county medical societies and local hospitals that were arranged by the CME unit. Presentations of this type are arranged by just over half of the medical schools, although the number of presentations varies substantially. The results across recent years suggest that fewer medical schools are arranging these presentations, although in 2002-03 a few schools are again offering a large number of these activities.

Some CME units conduct conferences by telephone. Table 6 presents the number of medical schools presenting single session telephone conferences and multiple session telephone conferences. The substantial majority of CME units are not involved with either single or multiple session telephone conferences. The results appear to be fairly stable across years, with a tendency for a few less schools to hold single session conferences and a few more schools to hold multiple session conferences.

TABLE 4. Distribution of Medical Schools on Annual Number of Courses, CME Hours, External Physician Participants, and Other External Participants

Courses, & Conferences for External Physicians	Medical Schools	Course CME Credits (Hous)	Medical Schools	External Physician Participants	Medical Schools	Other External Participants	Medical Schools
0-19	5	0-199	8	0-999	11	0-999	26
20-39	7	200-399	13	1,000-1,999	13	1,000-1,999	15
40-59	18	400-599	8	2,000-2,999	7	2,000-2,999	9
60-79	14	600-799	15	3,000-3,999	12	3,000-3,999	5
80-99	4	800-999	4	4,000-4,999	10	4,000-4,999	2
100-119	6	1,000-1,199	5	5,000-5,999	4	5,000-5,999	3
120-139	5	1,200-1,399	3	6,000-7,999	3	6,000-7,999	4
140-199	7	1,400-1,599	2	8,000-9,999	3	8,000-9,999	1
200-over	4	1,600-1,799	3	10,000-11,999	1	10,000-11,999	2
		1,800-1,999	2	12,000-15,999	4	12,000-15,999	3
		2,000-over	7	16,000-over	2		
Total Schools	70	Total Schools	70	Total Schools	70	Total Schools	70

Note: Data are for the year from July 200, through June 2001, or the closest 12 month reporting period.

The survey also asked about single and multiple session televised (video) conferences. Table 6 shows that the substantial majority of medical schools are not involved with television conferences. The results appear to be fairly stable across years. The actual number of televised activities is presented on the right side of Table 7. The substantial decrease in the number of televised activities is evident. Table 7 also shows that the current televised activities are now always two-way interactive.

In recent years the survey asked about conferences broadcast over the Internet. As shown in Table 6, very few schools are broadcasting live either single session conferences or multiple session conferences by Internet and the number of schools involved has increased only a little over the years. The number of activities broadcast by Internet is increasing, as shown in the lower right side of Table 7. Table 7 also shows that as the number increases, the proportion using two-way interactive connections is decreasing.

The last section of Table 6 addresses individual tutorials and traineeships. Only a third of medical schools offer tutorials or traineeships, usually to a low number of individuals. Results across years suggest an ongoing reduction in the number of schools and individuals involved in this type of CME.

Another form of CME is the self-study course using some type of enduring material. For several years Society surveys have asked about the total number of individuals participating in self-study for credit. The survey for 1992-93 expanded the questions in this area. It also asked for the number of self-study activities developed/produced, asked for the data separately by type of medium (written, audio, video), and added computer based self-study. The survey for 1994-95 further differentiated between computer self-study offered on disk or CD ROM and computer self-study offered by direct connection through the Internet.

Table 8 presents the distribution of medical schools on the number of self-study courses produced and the number of individuals given credit. Approximately two-thirds of the medical schools produced written self-study, more than half produced computer self-study based on the Internet, 42% produced computer self-study based on disk, a third produced video self-study, and 21% produced audio self-study. Over the most recent years (since 1994-95), the number of medical schools offering Internet CME has increased substantially, the number offering computer disk (CD-ROM) and written CME has increased, the number offering audio CME is stable, and the number offering video CME is decreasing slightly. The last set of entries in Table 8 show the results for all CME formats combined. The number of medical schools offering one or more formats of self-study CME has increased, in recent years stabilizing at 80% of medical schools offering self-study CME in some format.

Looking at the number of individuals receiving credit, the most noteworthy result is that CME credit is received for using written self-study activities much more often than any other format. This pattern has been consistent over the years.

The survey asked about CME activities oriented primarily to "internal" physicians, i.e. physicians who are faculty of the medical school. The questions and results are summarized in Table 9.

Almost all schools designate credit for ongoing multiple session internal activities like grand rounds. However, schools vary widely on the number of these activities, with a fairly consistent wide distribution over time. Across the four years the 50th percentile ranges from 30 to 38 multiple session

TABLE 5. Distribution (Quartiles) of Medical Schools on Annual Number of Courses Oriented to External Physicians, CME Hours, External Physician Participants, and Other External Participants

	Reporting Year	25th Percentile	50th Percentile	75th Percentile	Total Schools
Number of Courses for	1984-85	16	32	52	47
External Participants:	1986-87	22	34	56	56
	1988-89	29	46	60	61
	1990-91	30	61	100	61
	1992-93	32	57	94	71
	1994-95	31	50	78	84
	1996-97	32	61	96	81
	1998-99	34	67	104	61
	2000-01	48	70	109	71
	2002-03	38	65	109	70
Number of CME	1988-89	257	415	653	59
Credits (Hours) Certified:	1990-91	284	468	944	60
	1992-93	314	554	1,114	72
	1994-95	243	507	1,000	82
	1996-97	302	617	1,087	81
	1998-99	477	754	1,540	60
	2000-01	398	786	1,321	69
	2002-03	357	705	1,177	70
Number of External	1988-89	1,000	2,078	3,300	59
Physician Participants	1990-91	1,200	2,039	3,957	61
	1992-93	1,240	2,552	5,000	73
	1994-95	1,273	2,537	4,538	82
	1996-97	1,519	2,815	4,959	81
	1998-99	1,418	3,314	5,481	59
	2000-01	1,437	3,536	5,571	69
	2002-03	1,405	3,248	4,700	70
Number of Other	1988-89	350	500	1,000	52
External Participants	1990-91	293	850	1,731	56
	1992-93	400	1,414	2,281	67
	1994-95	517	1,208	2,522	80
	1996-97	445	1,237	2,358	77
	1998-99	792	1,983	3,377	57
	2000-01	927	2,039	3,266	70
	2002-03	886	1,500	3,401	70

activities. This year the survey asked how many credit hours were designated for these activities. The wide distribution of responses is presented in the upper half of Table 10.

Regarding single occasion internal activities for credit, Table 9 shows that a substantial minority of the schools indicated "none," with a 50th percentile value of 1. This pattern is stable over time. The number of credits for these activities is presented in the lower half of Table 10. The distribution is wide, although the typical number of hours designated is low.

To assess the extent to which there are internal CME activities that are not receiving credit, the survey asked: "How many CME activities were held for which credit was <u>not</u> designated, but could probably have had credit if the 'paper work' requirements (documentation of planning, attendance, evaluation) had been performed?" The responses are in the last section of Table 9. The typical response is that few additional meetings could receive credit – the 50th percentile is in the range of 1-10 activities across all years.

TABLE 6. Distribution of Medical Schools on Annual Number of Some Other Types of "Live" Externally Oriented CME Activities

	Reporting Year	0	1-50	51-100	101-200	201-400	>400	Total Schools
Number of School Sponsored Presentations at Local Medical Societies and Hospitals:	1984-85	31%	37%	11%	15%	4%	2%	54
	1986-87	18%	35%	11%	24%	5%	7%	55
	1988-89	25%	33%	22%	8%	6%	6%	72
	1990-91	23%	49%	5%	12%	9%	2%	57
	1992-93	32%	42%	17%	5%	3%	1%	72
	1994-95	38%	39%	4%	13%	4%	2%	53
	1996-97	40%	41%	9%	7%	2%	1%	80
	1998-99	46%	30%	10%	12%	0%	2%	57
	2000-01	46%	35%	13%	6%	0%	0%	71
	2002-03	41%	38%	5%	6%	6%	4%	68

	Year	0	1-10	11-50	>50	Schools
Number of Single Session Telephone Conferences:	1988-89	83%	10%	6%	1%	72
	1990-91	83%	12%	3%	2%	58
	1992-93	86%	11%	3%	0%	71
	1994-95	88%	6%	6%	0%	53
	1996-97	86%	4%	6%	4%	80
	1998-99	86%	6%	4%	4%	56
	2000-01	96%	4%	0%	0%	71
	2002-03	88%	8%	4%	0%	66
Number of Multiple Session Telephone Conferences:	1988-89	94%	5%	1%	0%	72
	1990-91	88%	9%	3%	0%	57
	1992-93	92%	4%	3%	1%	71
	1994-95	89%	9%	2%	0%	86
	1996-97	81%	13%	3%	3%	80
	1998-99	86%	12%	2%	0%	57
	2000-01	80%	17%	3%	0%	71
	2002-03	80%	18%	2%	0%	63
Number of Single Session Video Conferences:	1988-89	71%	22%	1%	6%	72
	1990-91	79%	16%	5%	0%	58
	1992-93	76%	20%	4%	0%	71
	1994-95	70%	29%	1%	0%	87
	1996-97	70%	23%	6%	1%	80
	1998-99	79%	12%	9%	0%	58
	2000-01	76%	18%	3%	3%	71
	2002-03	78%	20%	2%	0%	67
Number of Multiple Session Video Conferences:	1988-89	92%	8%	0%	0%	72
	1990-91	86%	10%	3%	0%	58
	1992-93	93%	4%	3%	0%	71
	1994-95	83%	16%	1%	0%	81
	1996-97	75%	21%	3%	1%	80
	1998-99	75%	21%	4%	0%	57
	2000-01	85%	14%	1%	0%	71
	2002-03	81%	17%	2%	0%	67

(TABLE 6 continues on next page)

TABLE 6 (continued). Distribution of Medical Schools on Annual Number of Some Other Types of "Live" Externally Oriented CME Activities

	Year	0	1-10	11-50	>50	Schools
Number of Single Session Internet Broadcast Conferences	1996-97	95%	5%	0%	0%	80
	1998-99	93%	7%	0%	0%	57
	2000-01	93%	7%	0%	0%	71
	2002-03	87%	6%	7%	0%	70
Number of Multiple Session Internet Broadcast Conferences	1996-97	95%	5%	0%	0%	80
	1998-99	98%	2%	0%	0%	57
	2000-01	96%	4%	0%	0%	71
	2002-03	92%	8%	0%	0%	65
		0	1-20	21-60	61-300	Schools
Number of Individuals in Tutorials or Traineeships:	1984-85	39%	45%	8%	8%	53
	1986-87	42%	33%	16%	9%	57
	1988-89	46%	33%	16%	9%	72
	1990-91	48%	36%	8%	4%	61
	1992-93	49%	37%	8%	6%	72
	1994-95	54%	28%	9%	9%	80
	1996-97	52%	33%	5%	10%	80
	1998-99	54%	32%	12%	2%	57
	2000-01	68%	24%	5%	3%	71
	2002-03	66%	24%	6%	4%	66

TABLE 7. Communication Methods for Live Televised and Internet Broadcast CME Activities

Type of Activity	Year	Two-way Interactive	No. of Activities
Televised, single session	1998-99	94%	172
	2000-01	54%	225
	2002-03	100%	111
Televised, multiple session	1998-99	66%	79
	2000-01	30%	37
	2002-03	100%	35
Internet broadcast, single session	1998-99	40%	5
	2000-01	50%	14
	2002-03	29%	119
Internet broadcast, multiple session	1998-99	100%	1
	2000-01	100%	3
	2002-03	50%	6

TABLE 8. Distribution of Medical Schools on Number of Annual Written, Audio, Video, and Computer Self Study Courses and Number of Individuals Receiving Credit for Them

		No. of Activities Produced				No. of Individuals Receiving Credit						
		0	1-10	11-50	50-100	0	1-200	201-500	501-1,000	1001-10,000	>10,000	Total Schools
Written Self-Study (including journals)	1992-93	56%	41%	3%	0%	68%	20%	8%	3%	1%	*	71
	1994-95	51%	43%	6%	0%	52%	26%	5%	6%	11%	*	82
	1996-97	46%	46%	8%	0%	51%	26%	8%	4%	11%	*	80
	1998-99	32%	57%	9%	2%	35%	23%	7%	8%	23%	4%	52
	2000-01	38%	40%	22%	0%	45%	25%	6%	6%	18%	0%	71
	2002-03	32%	48%	20%	0%	35%	25%	6%	8%	23%	3%	65
Audio Self-Study	1992-93	93%	6%	1%	0%	95%	4%	1%	0%	0%	*	71
	1994-95	78%	22%	0%	0%	82%	13%	1%	1%	3%	*	81
	1996-97	79%	21%	0%	0%	82%	16%	1%	0%	1%	*	80
	1998-99	77%	21%	2%	0%	83%	11%	0%	2%	4%	0%	47
	2000-01	72%	27%	1%	0%	79%	14%	3%	3%	1%	0%	71
	2002-03	79%	19%	2%	0%	80%	6%	4%	8%	2%	0%	58
Video Self-Study	1992-93	82%	13%	4%	1%	86%	9%	4%	1%	0%	*	71
	1994-95	56%	43%	1%	0%	65%	21%	5%	5%	4%	*	81
	1996-97	56%	43%	1%	0%	60%	32%	0%	4%	4%	*	80
	1998-99	60%	38%	2%	0%	62%	26%	0%	2%	6%	4%	50
	2000-01	59%	38%	3%	0%	70%	23%	6%	1%	0%	0%	71
	2002-03	67%	25%	8%	0%	69%	18%	8%	3%	0%	0%	60
Self-Study Computer SS: Disk	1994-95	85%	15%	0%	0%	91%	5%	3%	0%	1%	*	80
	1996-97	78%	21%	1%	0%	80%	18%	0%	0%	1%	*	80
	1998-99	69%	29%	2%	0%	71%	17%	0%	0%	0%	2%	48
	2000-01	63%	37%	0%	0%	69%	23%	5%	0%	3%	0%	71
	2002-03	58%	37%	5%	0%	60%	27%	4%	7%	2%	0%	60
Computer SS: Internet	1994-95	91%	9%	0%	0%	97%	3%	0%	0%	0%	*	79
	1996-97	75%	25%	0%	0%	80%	18%	1%	1%	0%	*	80
	1998-99	53%	45%	2%	0%	60%	32%	2%	4%	2%	0%	47
	2000-01	47%	40%	13%	0%	61%	19%	10%	7%	3%	0%	71
	2002-03	38%	42%	18%	2%	38%	26%	14%	8%	12%	2%	60
All Types of Self-Study Combined	1984-85	(not collected)				67%	17%	7%	5%	4%	*	54
	1986-87	(not collected)				51%	19%	21%	0%	9%	*	58
	1988-89	(not collected)				48%	32%	7%	6%	7%	*	72
	1990-91	(not collected)				55%	24%	3%	8%	10%	*	62
	1992-93	52%	37%	10%	1%	66%	16%	7%	10%	1%	*	71
	1994-95	39%	51%	10%	0%	45%	25%	8%	5%	17%	*	77
	1996-97	28%	51%	23%	0%	30%	39%	10%	5%	16%	*	80
	1998-99	18%	57%	21%	4%	22%	30%	4%	11%	29%	4%	54
	2000-01	20%	44%	32%	4%	29%	25%	9%	8%	29%	0%	70
	2002-03	20%	38%	30%	12%	21%	23%	8%	9%	33%	6%	69

Note: Until 1992-93 information was collected only for the total number of individuals receiving credit for all types of self-study.

* Until 1998-99 the highest category for number of individuals receiving credit was >1,000, combining 1,000 to 10,000 and >10,000.

TABLE 9. Distribution of Medical Schools on Annual Number of CME Activities Oriented Primarily to Internal Physicians

		0	1-10	11-25	26-75	76-150	>150	50th Percentile	Total Schools
Series/multiple activities (e.g., grand rounds) for credit	1996-97	1%	11%	25%	35%	20%	8%	35	76
	1998-99	5%	18%	24%	33%	12%	8%	30	60
	2000-01	3%	12%	20%	43%	16%	6%	38	68
	2002-03	4%	12%	21%	37%	19%	7%	37	68
Single occasion activities for credit	1996-97	52%	29%	8%	8%	1%	2%	0	77
	1998-99	33%	41%	12%	10%	2%	2%	2	49
	2000-01	36%	46%	9%	6%	0%	3%	2	66
	2002-03	39%	39%	10%	8%	2%	2%	1	63
Activities without credit, but with "paperwork" could have credit	1996-97	24%	36%	22%	13%	5%	0%	1-10	76
	1998-99	14%	49%	17%	13%	7%	0%	1-10	56
	2000-01	23%	42%	23%	9%	3%	0%	1-10	66
	2002-03	28%	41%	17%	11%	3%	0%	1-10	65

TABLE 10. Distribution of Medical Schools on Annual Credit Hours Designated for CME Activities Oriented Primarily to Internal Physicians

Credit hours designated for internal:	0	1-100	101-500	501-1,000	1,001-5,000	5,001-10,000	over 10,000	50th Percentile	Total Schools
Series/multiple activities (e.g., grand rounds)	3%	7%	23%	21%	36%	6%	4%	808	67
	0	1-10	11-50	51-100	101-500	501-1,000			
Single occasion activities	37%	22%	20%	7%	8%	6%		8	63

Course Fees

The questionnaire asked for the usual fee per credit hour for courses without unusual outside financial support, separating courses at the primary (home location) from courses at "pleasure" locations. The distribution of responses is presented in Table 11. As in past reports, the fee per credit hour varies greatly across schools.

The extent of change in course fees across the past years is indicated in Table 12. The table presents the 25th, 50th, and 75th percentiles for fees per credit hour from the current and past surveys. The top half of the table shows that for courses at the institution's primary location, fees were relatively stable from 1992 until 2000, with a slight increase since then.

The lower half of Table 12 shows that the fee per credit hour for courses at "pleasure" locations has tended to increase somewhat across the years, although they appear to be stable since 2000.

Research in CME Units

CME units vary in the extent to which research is part of the unit's activity. This section of the survey describes the extent to which research concerning CME is being performed by CME units and by others at medical schools and their associated universities.

The survey included five interrelated items concerning CME units and research on CME – see Table 13. Of the schools, 24% have research projects based in the CME unit, 34% have CME unit personnel doing research based in other units on CME, 35% have CME unit personnel doing research based in other units on undergraduate/graduate medical education, 41% have non-CME unit personnel doing CME research, and 28% have CME unit personnel doing research in other units on

TABLE 11. Distribution of Medical Schools on Usual Fee Per Credit Hour

Usual Fee per Credit Hour	Distribution for Courses At: Primary Location	"Pleasure" Locations
$0	6	7
$1 to $6	2	1
$7 to $9	2	1
$10 to $12	7	0
$13 to $15	10	2
$16 to $18	8	0
$19 to $21	9	6
$22 to $24	1	2
$25 to $27	12	15
$28 to $30	7	13
$31 to $35	1	6
$36 to $40	2	6
$41 to $50	4	1
$50 or more	0	1
Total Schools	67	61

TABLE 12. Distribution (Quartiles) of Medical Schools on Usual Fee Per Credit Hour Across Biennial Surveys

	Reporting Year	Usual Fee Per Credit Hour 25th Percentile	50th Percentile	75th Percentile	Total Schools
Courses at Primary Location:	1986	$10	$12	$15	51
	1988	$10	$15	$17	54
	1990	$10	$15	$18	70
	1992	$12	$15	$20	62
	1994	$10	$15	$20	72
	1996	$12	$15	$20	79
	1998	$12	$15	$20	75
	2000	$12	$16	$23	58
	2002	$13	$18	$23	61
	2004	$12	$18	$25	67
Courses at "Pleasure" Location:	1986	$14	$16	$20	45
	1988	$15	$20	$22	46
	1990	$16	$20	$25	57
	1992	$18	$21	$25	48
	1994	$15	$23	$28	64
	1996	$18	$23	$28	64
	1998	$18	$25	$30	67
	2000	$20	$25	$32	50
	2002	$20	$25	$33	57
	2004	$20	$27	$33	61

TABLE 13. Distribution of Medical Schools on Questions Regarding Research and CME

	Year	No	Yes	Total Schools
Research projects based within CME unit?	1990	81%	19%	72
	1994	82%	18%	74
	1998	78%	22%	81
	2000	69%	31%	61
	2004	76%	24%	70
CME unit personnel doing research based in other units on CME?	1990	67%	33%	69
	1994	76%	24%	72
	1998	*	*	*
	2000	59%	41%	56
	2004	66%	34%	68
CME unit personnel doing research based in other units on undergraduate/graduate medical education?	1990	67%	33%	63
	1994	70%	30%	71
	1998	*	*	*
	2000	56%	44%	50
	2004	65%	35%	60
Non-CME unit personnel doing CME research?	1990	69%	31%	68
	1994	63%	37%	70
	1998	*	*	*
	2000	59%	41% **	59
	2004	59%	41% **	69
CME unit personnel doing research in other units on non-CME topics?	2000	71%	29%	52
	2004	72%	28%	67

*Data not collected appropriately.
** 2000: with 24% of 59 schools having this research done in collaboration with CME unit.
2004: with 29% of 69 schools having this research done in collaboration with CME unit.

non-CME topics (e.g., physicians performing clinical research). Over time the involvement in research has been fairly stable in all of these areas.

Another item asked, "In roles and assignments in your CME unit, what is the approximate full time equivalent of senior personnel spent on research?" The results are presented in Table 14. Most (78%) CME units do not have senior personnel spending time on research. Of the remainder, it is most common for this to be a minor portion (0.1 to 0.3 FTE) of someone's role. Compared to previous years, the results are fairly stable, with a few institutions increasing the FTE of senior research personnel in the CME unit.

The final question concerning research asked about the approximate annual research revenue of the CME unit by revenue source. The distribution of responses is presented in Table 15. Fifteen percent of CME units received research revenue. The principal source of this revenue is external grants, which also provide the largest amounts of funding. Less frequent sources are "other" sources, conference fees, and university funds. The CME units that receive funding from these "less frequent" sources are usually also receiving external grant funds. The number of CME units with research funding has been generally stable over time.

Relationships with Commercial Companies

An ongoing topic of discussion is the extent to which pharmaceutical, instrument, and other companies provide financial support to CME activities. Questions about commercial support for courses, conferences, and seminars oriented to external physicians have been asked every four years starting in 1988. Over the years several guidelines for commercial support have been announced, including the American Medical Association's Ethical Opinion on Gifts to Physicians from Industry (1991), the Accreditation Council for CME expanded Standards for Commercial Support of Continuing Medical Education (1992), the code of the Pharmaceutical Research and Manufacturers of America (2002), and guidance for pharmaceutical manufacturers from the Office of Inspector General in the Department of Health and Human Services (2003). Over the years a number of policy and operational changes regarding commercial support have been implemented at medical schools.

TABLE 14. Distribution of Medical Schools on Full-Time Equivalents of Senior Research Personnel in CME Unit

	0	0.1-0.3	0.4-0.6	0.7-1.0	1.1-5.0	Total Schools
1990	81%	11%	7%	1%	0%	72
1994	82%	12%	2%	1%	3%	74
1998	79%	13%	6%	1%	1%	80
2000	71%	16%	5%	3%	5%	60
2004	78%	10%	0%	5%	7%	68

Note: For schools with research projects based within the CME unit.

TABLE 15. Distribution of Medical Schools on Amount and Source of Research Revenue to CME Unit

Revenue Source	Year	Revenue Amount					Total Schools
		$0	$1 to $5,000	$5,001 to $10,000	$10,001 to $50,000	$>50,001	
External grants	1990	89%	4%	0%	6%	1%	72
	1994	92%	0%	1%	4%	3%	73
	1998	88%	0%	0%	6%	6%	81
	2000	76%	5%	0%	10%	9%	58
	2004	85%	0%	2%	6%	7%	69
Other	1990	99%	0%	1%	0%	0%	72
	1994	97%	0%	0%	3%	0%	73
	1998	100%	0%	0%	0%	0%	81
	2000	95%	3%	2%	0%	0%	57
	2004	96%	2%	2%	0%	0%	61
Conference fees	1990	89%	7%	3%	1%	0%	72
	1994	99%	1%	0%	0%	0%	73
	1998	98%	0%	1%	0%	1%	81
	2000	93%	3%	0%	2%	2%	57
	2004	95%	0%	2%	0%	3%	69
University	1990	97%	3%	0%	0%	0%	72
	1994	95%	3%	1%	1%	0%	73
	1998	96%	1%	0%	2%	1%	81
	2000	91%	2%	0%	7%	0%	58
	2004	98%	0%	0%	0%	2%	69
Total of sources	1990	83%	6%	3%	7%	1%	72
	1994	86%	3%	0%	7%	4%	73
	1998	88%	0%	0%	6%	6%	81
	2000	75%	3%	2%	8%	12%	58
	2004	85%	0%	2%	4%	9%	70

Note: This table treats missing data (i.e. blank response) as zero revenue from the source.

TABLE 16. Distribution of Medical Schools on Number and Percent of Courses with Financial Support from Commercial Companies

Reporting Year	a. Number of Courses with Commercial Support							Total Schools
	0	1-10	11-20	21-40	41-60	61-80	81-150	>150	
1986-87	4%	31%	31%	26%	4%	2%	2%	0%	51
1990-91	7%	14%	28%	29%	5%	10%	7%	0%	58
1994-95	0%	15%	22%	37%	16%	5%	5%	0%	86
1998-99	3%	7%	11%	33%	17%	8%	17%	4%	58
2002-03	0%	15%	13%	24%	20%	6%	18%	4%	67
	b. Percent of Courses with Commercial Support								
		0%	1%-10%	11%-20%	21%-40%	41%-60%	61%-80%	81%-100%	
1986-87		2%	6%	14%	14%	25%	21%	18%	51
1990-91		6%	7%	10%	17%	17%	30%	13%	60
1994-95		0%	7%	10%	19%	18%	21%	25%	84
1998-99		0%	2%	5%	13%	15%	18%	37%	60
2002-03		0%	2%	8%	8%	22%	21%	39%	67

Commercial support for CME courses. The distribution of medical schools on (a) the annual number and (b) the percent of courses with financial support from commercial companies is presented in Table 16. Regarding the number of courses receiving support, all institutions received commercial support for several courses, with a wide variation in the number of courses that receive support (Table 16 part a.). Comparing the number of courses receiving support across the years, the trend across years is for medical schools to have a higher number of courses receive commercial support. This is more clearly evident in the first section of Table 20, which shows the 25th, 50th, and 75th percentiles on the number of courses receiving support across the 16 years. The median (50th percentile) number of courses went from 26 in 1994-95 to 39 in 2002-03, with the most recent four years being the most stable period.

The number of courses produced by an institution with commercial support should also be interpreted in relation to the total number of courses offered by the institution. The percent of an institution's courses with commercial support is presented in Table 16, part b. In 1998-99 more than half of the medical schools reported that 60% or more of their CME courses received commercial support. Comparing the number of courses receiving support across time periods, the trend is fa higher percentage of courses receiving commercial support. This is more clearly evident in the second section of Table 20. Across the 25th, 50th, and 75th percentiles, the 50th percentile (median) of courses receiving support increased from 50% to 70%, with the percentage stable across the last four years.

What is the magnitude of the financial support? Institutions were asked to take into account financial support paid both to the CME unit and directly to faculty for course expenses and report (a) the approximate total contributed by commercial companies to support courses oriented to external physicians and (b) the approximate percentage of the annual course revenue represented by this dollar amount.

The upper half (part a.) of Table 17 shows that medical schools vary widely on the total dollars received from commercial support. Comparing the dollars received across the time periods, an appreciable increase is evident across time. The magnitude of the change is clearer in the third section of Table 20, which shows the 25th, 50th, and 75th percentiles for the years. The reported total dollars approximately doubles between each four year period. However, the circumstance underlying the reported increases may differ across the periods. The amount of commercial support going to CME was commonly recognized to be increasing substantially during the late 1980's and the increase from 1986-87 to 1990-91 probably reflects a substantial increase in real funds. In the early 1990's stricter standards for documenting all commercial support were implemented and a substantial amount of previously unreported support began to be documented. At the same time, the amount of commercial support was commonly recognized not to be increasing much. The increase in reported dollars from 1990-91 to 1994-95 is probably predominantly an increase in the amount of documented commercial support rather than an increase in the actual amount of commercial support received. The increases since 1994-95 are probably actual increases in support.

Interestingly, the substantial increases in reported total amount of commercial support in Table 20 are not consistent with the perceived stability in trends for commercial support that were reported in Table 3. In part the discrepancy may be due to the 64% inflationary increase in the Consumer Price Index over the 16 year period, although some meaningful absolute increase remains.

TABLE 17. Distribution of Medical Schools on Total Dollars in Commercial Support of Courses and Percent of Revenue from Commercial Support

Reporting Year	a. Total Dollars from Commercial Support								Total Schools
	$0	$1 to $20,000	$20,001 to $60,000	$60,001 to $100,000	$100,001 to $300,000	$300,001 to $600,000	$600,001 to $1 million	>$1 million	
1986-87	5%	28%	43%	11%	13%	0%	0%	0%	44
1990-91	9%	8%	21%	11%	43%	9%	0%	0%	47
1994-95	0%	1%	12%	23%	29%	24%	8%	3%	81
1998-99	0%	3%	11%	3%	31%	14%	16%	22%	58
2002-03	0%	6%	4%	8%	19%	15%	14%	34%	67

	b. Percent of Revenue from Commercial Support						
	1% to 10%	11% to 20%	21% to 40%	41% to 60%	61% to 80%	81% to 100%	
1986-87	35%	20%	30%	8%	5%	2%	40
1990-91	17%	36%	33%	5%	9%	0%	42
1994-95	19%	24%	33%	18%	6%	0%	72
1998-99	6%	11%	50%	22%	9%	2%	54
2002-03	14%	6%	26%	28%	18%	8%	66

The potential impact of commercial support on a medical school's CME program also depends on its proportion of overall CME income. The lower half (part b.) of Table 17 shows the distribution of medical schools on the percent of course revenue received from commercial support. Again a wide distribution is found across medical schools. Comparing the percent of course revenue from commercial support across the time periods, a meaningful recent increase is evident. The magnitude of change is clearer in the fourth section of Table 20, which shows the 25th, 50th, and 75th percentiles for the years. The 50th percentile (median) for percent of revenue from commercial support has more than doubled and is now 45% of a school's CME revenue.

Course dependence on commercial support. What would happen if this commercial support were removed? Some courses depend on commercial support as the only meaningful source of revenue. For some courses commercial support may not be the biggest revenue component, but it is a necessary component for the course to be viable. For yet other courses, commercial support provides enhancements in quality (more guest faculty, more expensive promotional materials, more expensive food), but the course would still be viable without these enhancements.

The 1994-95 survey was the first to ask for the number of CME courses oriented to external physicians that were "solely" supported by one commercial company (i.e. all or most of the costs were paid by one company with participants paying either no fee or a token fee). The responses are presented in Table 18, part a, and show a wide distribution across schools. Table 20 presents the 25th, 50 th, and 75 th percentiles of the distribution. Over the past eight years the trend appears to be an increase followed by a modest decrease (50th percentiles of 1, 6, and 4 solely sponsored courses).

Again, it is important to interpret the numbers in the context of the size of the school's overall CME program. Part b. of Table 18 presents the percentage of the school's total number of courses oriented to external physicians that were "solely" supported. For almost half of the schools, "solely" supported courses constitute 5% or less of their course offerings, with solely supported courses constituting the majority of CME courses at 8% of medical schools. The change in percent of courses that are solely supported is more clearly presented in Table 20, which shows the 25th, 50th, and 75th percentiles of the distribution. Over the past eight years the pattern of a substantial increase followed by a modest decrease is evident.

What if there were no commercial support? In addition to "solely" supported courses not having occurred, a number of other courses depend on commercial support as a vital component of revenue. A rough estimate of the impact of commercial support on CME programming was obtained by asking: "If no financial support from commercial companies had been available [last year], what is your estimate of (a) the number of courses oriented to external physicians that would not have been held and (b) their attendance?"

Responses to the number of courses that would not have been held are presented in the upper half (part a.) of Table 19. The change is clearer in the next-to-last section of Table 20, which presents the 25th, 50th, and 75th percentiles over time periods. The trend shows an overall increase in the number of courses that would not have been held, but the median of 15 for the most recent period is slightly lower than four years ago.

TABLE 18. Distribution of Medical Schools on Number of Courses Supported "Solely" by One Commercial Company

Reporting Year	a. Number of "Solely" Supported Courses: 0	1-5	6-10	11-20	>20	Total Schools
1994-95	41%	32%	14%	9%	4%	84
1998-99	13%	36%	22%	14%	15%	61
2002-03	22%	38%	17%	6%	17%	65
	b. Percent of Courses that are "Solely" Supported 0%	1%-5%	6%-10%	10%-20%	21-50%	>50%
1994-95	42%	28%	11%	8%	9%	2%	82
1998-99	14%	16%	24%	19%	16%	11%	56
2002-03	22%	27%	10%	18%	15%	8%	65

TABLE 19. Distribution of Medical Schools on Number of Courses That Would Not Have Been Held (and External Attendance) If No Commercial Support

Reporting Year	a. Number of Courses Not Held 0 Schools	1-5	6-10	11-20	21-50	>50	Total
1986-87	27%	32%	22%	14%	5%	0%	37
1990-91	16%	14%	34%	20%	14%	2%	44
1994-95	12%	29%	18%	22%	18%	1%	77
1998-99	9%	11%	19%	22%	26%	13%	54
2002-03	12%	20%	12%	17%	25%	14%	57
	b. Number of External Attendees 0	1 to 500	501 to 1,000	1,001 to 2,000	2,001 to 4,000	>4000	
1986-87	28%	42%	5%	22%	3%	0%	36
1990-91	10%	36%	34%	12%	8%	0%	40
1994-95	11%	35%	18%	24%	12%	0%	72
1998-99	2%	23%	13%	27%	18%	17%	48
2002-03	4%	30%	10%	18%	24%	14%	50

The number of attendees at courses that would not have been held is presented in the lower half (part b.) of Table 19 and the last section of Table 20 presents the 25 th, 50 th, and 75th percentiles. The number of participants that would be affected has increased appreciably over the years. Over the last four years the effect is greatest at the upper end of the distribution.

Support for "media delivered" CME activities. The number of "media delivered" CME activities was presented in Tables 6–8. The 1994-95 survey was the first to ask about the extent of commercial support for CME activities involving communication media or storage. The results are presented in Table 21. This table presents the total number of each type of activity summed across all medical schools. Each school indicated how many of each type of activity received four levels of support: none, some, "vital" (i.e. not total, but no activity without support), and total support. The number of each type of activity receiving each level of support was then summed across all medical schools.

The first entries concern live CME activities that were simultaneously transmitted to other locations. The extent of commercial support for telephone conferences differs by whether they are single session or multiple sessions. Most single and multiple session telephone conferences in 2002-03 received commercial support,

For televised conferences in 2002-03, the majority of single session conferences received some support while the majority of multiple session televised conferences did not receive support.

TABLE 20. Distribution (Quartiles) of Medical Schools on Extent of Commercial Support for Courses Oriented to External Physicians

	Reporting Year	25th Percentile	50th Percentile	75th Percentile	Total Schools
Number of Courses	1986-87	9	14	25	51
Receiving Support:	1990-91	12	23	46	58
	1994-95	16	26	44	86
	1998-99	21	38	76	58
	2002-03	18	39	73	67
Percent of Courses	1986-87	23%	50%	70%	51
Receiving Support:	1990-91	25%	50%	70%	60
	1994-95	25%	59%	81%	84
	1998-99	49%	70%	90%	60
	2002-03	47%	70%	88%	67
Total Amount of	1986-87	$20,000	$41,000	$75,000	42
Commercial Support Funds:	1990-91	$53,000	$115,000	$198,000	43
	1994-95	$88,000	$186,000	$383,000	82
	1998-99	$147,000	$309,000	$984,000	58
	2002-03	$190,000	$500,000	$1,230,000	67
Percent of Course Revenue	1986-87	8%	20%	30%	40
from Commercial Support:	1990-91	12%	20%	33%	42
	1994-95	10%	21%	35%	79
	1998-99	25%	35%	54%	54
	2002-03	28%	45%	60%	66
Number of Courses	1986-87	(not collected)			
Supported "Solely"	1990-91	(not collected)			
by One Company:	1994-95	0	1	6	84
	1998-99	2	6	14	61
	2002-03	0	4	10	65
Percent of School's	1986-87	(not collected)			
Courses Supported "Solely"	1990-91	(not collected)			
by One Company:	1994-95	0%	2%	10%	82
	1998-99	4%	9%	23%	56
	2002-03	1%	5%	18%	65
If No Support, Number	1986-87	0	3	8	37
of Courses Not Held:	1990-91	4	10	15	44
	1994-95	2	8	18	77
	1998-99	6	17	38	54
	2002-03	3	15	35	57
Number of Attendees	1986-87	0	200	900	36
at Courses Not Held	1990-91	250	772	1,000	40
if No Support	1994-95	121	650	1,500	72
	1998-99	552	1,500	2,800	48
	2002-03	191	1,500	3,150	50

TABLE 21. Level of Commercial Support for Media Delivered CME Activities at Medical Schools

Type of Media Delivered CME Activity	Year	Total # of Activities	# of Activities with This Level of Support				Total Schools
			None	Some	"Vital"	Total	
Telephone conf., single session	1994-95	115	35	7	31	42	53
	1998-99	99	3	64	8	24	56
	2002-03	67	4	3	4	56	46
Telephone conf., multiple session	1994-95	98	28	6	4	59	86
	1998-99	294	239	1	0	54	56
	2002-03	38	2	21	1	14	43
Televised conf., single session	1994-95	97	68	11	13	5	87
	1998-99	87	4	52	30	1	56
	2002-03	56	8	40	0	8	44
Televised conf., multiple session	1994-95	49	27	7	14	1	81
	1998-99	36	1	35	0	0	56
	2002-03	24	13	9	2	0	45
Internet live, single session *	1998-99	9	0	3	1	5	56
	2002-03	139	46	1	3	89	43
Internet live, multiple session *	1998-99	5	2	1	0	2	56
	2002-03	115	5	101	2	7	43
Tutorial or traineeship *	1998-99	23	20	0	0	3	56
	2002-03	140	74	3	33	30	47
Written self-study (inc. journals)	1994-95	205	118	12	8	67	82
	1998-99	211	15	6	71	119	56
	2002-03	281	45	19	76	141	44
Audio self-study	1994-95	54	34	9	2	9	81
	1998-99	21	1	1	15	4	56
	2002-03	20	3	0	2	15	40
Video self-study	1994-95	102	65	10	15	12	81
	1998-99	75	7	55	0	13	56
	2002-03	142	94	2	12	34	43
Computer, disk self-study	1994-95	23	18	2	2	1	80
	1998-99	12	4	1	3	4	56
	2002-03	42	5	4	4	29	40
Computer, Internet self-study	1994-95	18	16	1	0	1	79
	1998-99	67	10	3	43	11	56
	2002-03	237	114	23	10	90	40

* Not asked in 1994-95

Most Internet broadcast (live) conferences, both single session and multiple session, receive commercial support.

The majority of tutorial and traineeship activities do not receive commercial support.

The last five entries concern CME activities developed as enduring materials for self-study. Most self-study in written, audio, and computer disk forms is dependent on commercial support. Just over half of computer Internet self-study is dependent on commercial support. The majority of video self-study is not dependent on commercial support.

Use of commercial support. How are financial contributions from companies utilized? Table 22 indicates several specific activities frequently supported with commercial funds and the responses of medical school CME units to how often the type of activity is supported with commercial funds.

TABLE 22. Distribution of Medical Schools on Frequency of Use of Commercial Support for Specific Activities

	Reporting Year	How Often Supported				Mean [1-4]	Total Schools
		Never [1]	Seldom [2]	Sometimes [3]	Often [4]		
General Grant to Course:	1986-87	2%	15%	28%	55%	3.4	54
	1990-91	0%	5%	20%	75%	3.7	60
	1994-95	2%	0%	9%	89%	3.9	88
	1998-99	2%	2%	10%	86%	3.8	61
	2002-03	2%	2%	10%	86%	3.8	69
Speakers (Honoraria and Travel):	1986-87	4%	11%	31%	54%	3.4	54
	1990-91	8%	10%	31%	51%	3.3	59
	1994-95	12%	19%	39%	30%	2.9	88
	1998-99	19%	20%	35%	26%	2.6	62
	2002-03	17%	19%	34%	30%	2.7	70
Food / Refreshments for Participants:	1986-87	8%	31%	50%	11%	2.6	54
	1990-91	17%	28%	40%	15%	2.5	58
	1994-95	26%	39%	27%	8%	2.2	88
	1998-99	24%	28%	30%	18%	2.4	62
	2002-03	40%	34%	16%	10%	2.0	70
Dinner for Course Faculty:	1986-87	17%	41%	37%	5%	2.3	54
	1990-91	29%	38%	21%	12%	2.2	59
	1994-95	42%	37%	18%	3%	1.8	88
	1998-99	44%	30%	21%	5%	1.9	62
	2002-03	71%	16%	11%	2%	1.4	70
General Grant to CME Unit	1986-87	44%	30%	13%	13%	2.0	54
	1990-91	36%	33%	10%	21%	2.2	58
	1994-95	37%	41%	10%	12%	2.0	86
	1998-99	43%	40%	9%	8%	1.8	60
	2002-03	65%	20%	9%	6%	1.6	68
Auditorium Rental:	1986-87	63%	22%	13%	2%	1.5	54
	1990-91	55%	22%	12%	10%	1.8	58
	1994-95	65%	23%	11%	1%	1.5	88
	1998-99	57%	23%	18%	2%	1.6	61
	2002-03	73%	15%	10%	2%	1.4	70
Social Events (new item):	1998-99	50%	32%	15%	3%	1.6	60
	2002-03	71%	24%	3%	2%	1.3	70
Travel Expenses of Participants:	1986-87	54%	22%	15%	9%	1.8	54
	1990-91	88%	5%	4%	3%	1.2	58
	1994-95	93%	5%	2%	0%	1.1	88
	1998-99	96%	2%	2%	0%	1.1	62
	2002-03	86%	4%	8%	2%	1.3	70

When support is provided, it is most often provided as a general grant to the course. The second and third most frequent designated uses are for speaker's expenses (honoraria and travel) and for food and refreshments for course participants. Infrequently support is specifically designated for dinners for course faculty, for auditorium rental, as a general grant to the CME unit, or for travel expenses of participants.

Comparing the distributions across the time periods, the frequency with which support is designated across specific types of activities is fairly stable, particularly across recent time periods. Comparing the means within a specific type of activity, the only increase is in the frequency with which support is designated as a general grant to a course. The designation of support to go to more specific uses has tended to decrease. The payment of travel expenses for participants (a practice that national guidelines view as inappropriate under most circumstances) decreased appreciably after the first time period and remains rare.

Institutional policies on commercial support. Another series of questions addressed institutional policies concerning financial support from commercial companies. As indicated in Table 23, virtually all medical schools will accept financial support from commercial companies. However, policies regarding the handling of funds and associated arrangements vary substantially across medical schools. About half of the medical schools have policies that: courses involving communication companies may be sponsored, all funds and transactions pass through the CME unit, university honoraria guidelines take precedence over company guidelines, and courses must have at least a token fee. Few medical schools will sponsor a program where a commercial company can specify the only individuals to be invited. Comparing the responses across the time periods, the percent with these policies has been very stable.

Administrative issues and commercial support. Table 24 presents the experience of schools on some operational issues with commercial companies. Although the wider distribution indicates some variation in experience, the majority of schools find that commercial companies are "often": timely in signing letters of agreement, timely in paying funds, and have processes making it easy for the CME unit to compose letters requesting funds from the company. The scores on all three items decreased slightly over the past four years.

Company knowledge, adherence, and ease. This year's survey included a new set of items specifically focusing on pharmaceutical companies, the segment of commercial company most likely to provide commercial support for CME activities. The survey listed the 15 pharmaceutical companies ranked highest on spending on research and development and on revenue from health care. CME units used 5 point scales to score each company on: (1) knowledge of CME requirements and processes, (2) adherence to national guidelines, and (3) ease to work with. The means for each score for each company are presented in Table 25. The number of schools responding differs by company, with a higher number of responses likely to reflect the breadth and frequency of providing funding to CME. To simplify comparisons, the companies are listed in descending order on their mean score on the first item, which concerns knowledge. All scores are above the midpoint ("3") on the scale. The means tend to have a modest range across one full point on the scale, i.e. from a low of 3.2 to a high of 4.3. A company's score on "knowledge" generally parallels its score on "adherence." The means for "ease" tend to less closely parallel scores on the other two measures and overall tend to have slightly lower values. Merck has the greatest discrepancy in scores, with the highest scores on "knowledge" and "adherence," and the lowest score on "ease." Presumably the score on "ease" reflects views concerning a centralized system to apply for funds over the Internet, which Merck pioneered in the last year.

"Satellite" meetings. A trend beginning in the mid-1990's was for commercial companies to fund the production of "satellite" meetings, i.e. short CME activities held in conjunction with the meetings of national specialty societies. Table 26 shows that half of medical schools sponsored a "satellite" meeting last year, although most of these schools only sponsored a few of these meetings. The distrubution is similar to four years earlier.

Table 27 presents information on some issues about "satellite" meetings provided by the half of the schools that held them. Most found that these meetings did not reduce funding for regional CME activities. Communication companies were involved in the management of the substantial majority of satellite meetings, typically handling most or all of the management. Half had no problem with the management of satellite meetings and most of the rest had only a little problem with management. Comparing the current responses with those in 2000, some meaningful changes occurred. Responses are now less widely distributed,.

Communication Companies

This survey and the one conducted in 2000 included several questions about CME units' experiences working with communication companies. Communication companies are for-profit businesses that seek funding from manufacturers of health care products and services (i.e. "commercial companies") to develop and produce continuing education activities for health care professionals. Communication companies typically have special expertise in tracking industry's interests in informing physicians about medical conditions associated with new commercial products and in logistical and technical areas, e.g., advertising, journal publication, communication technology, and meeting planning. Many of these companies seek to partner with accredited CME providers, with the accredited CME provider overseeing the activity and the company administering it.

As shown in Table 28, three-quarters of the schools currently work with communication companies. This is similar to the percentage four years ago.

For those schools working with communication companies, Table 29 presents the responses of the medical schools working with communication companies regarding some administrative issues. The distributions of the answers to the four questions are fairly wide spread, indicating a variety of

TABLE 23. Distribution of Medical Schools on
Policies Concerning Commercial Support for CME Activities

	Year (Reported in February)	Institutional Stand on Policy			Total Schools
		Yes	No	Not Considered	
Financial Support from	1988	94%	3%	3%	58
Company is Accepted:	1992	95%	3%	2%	64
	1994	99%	1%	0%	89
	2000	98%	2%	0%	62
	2004	96%	0%	4%	70
Courses with Commercial	1988	53%	34%	13%	55
CME Production Companies	1992	48%	40%	12%	63
Will Be Sponsored:	1994	54%	28%	18%	88
	2000	60%	25%	15%	60
	2004	57%	24%	19%	70
All Funds and Transactions	1988	51%	44%	5%	57
Must Pass through CME	1992	50%	45%	5%	64
Unit:	1994	67%	32%	1%	89
	2000	54%	44%	2%	62
	2004	56%	41%	3%	70
University Honoraria Guide-	1988	47%	40%	13%	57
lines Take Precedence	1992	50%	45%	5%	63
over Company's Guidelines:	1994	60%	26%	14%	87
	2000	50%	36%	14%	59
	2004	51%	30%	19%	70
Courses Must Have	1988	50%	36%	14%	56
at Least a Token Fee:	1992	48%	38%	14%	63
	1994	55%	31%	14%	85
	2000	44%	45%	11%	62
	2004	40%	47%	13%	70
Company Can Specify the	1988	18%	54%	28%	57
Only Individuals Invited:	1992	11%	73%	16%	63
	1994	13%	71%	16%	86
	2000	9%	86%	5%	62
	2004	7%	79%	14%	70
Company Must Sign Institution's Letter of Agreement	2004	31%	66%	3%	70

experiences. Most typically, medical schools have somewhat of a problem with short time constraints and a little problem with faculty contacts and messages, the company following approval processes, and budget control.

Schools vary on the level of content involvement required from their own faculty before the school will sponsor a CME activity with a communication company. Table 30 indicates the level of involvement by a school's faculty before the school will sponsor a CME activity. Most schools will sponsor activities when a faculty member is the activity director and the majority will sponsor when a faculty member is on the presenting faculty or reviews the activity. Most schools will not sponsor an activity if a faculty member is not involved. The distributions are approximately similar to responses four years ago.

TABLE 24. Distribution of Medical Schools on Some Issues with Commercial Companies

Commercial companies' administrative processes during the last year resulted in:		Seldom [1]	Some-times [2]	Often [3]	Usually [4]	Always [5]	Mean [1-5]	Total School
Their timely signing of letters of agreement	2000	5%	16%	34%	40%	5%	3.2	58
	2004	10%	39%	22%	29%	0%	2.7	69
Their paying funds in a timely manner	2000	7%	12%	29%	47%	5%	3.3	59
	2004	9%	33%	24%	33%	1%	2.9	70
It being easy for us to compose letters requesting funds	2000	4%	16%	31%	45%	4%	3.3	51
	2004	13%	40%	12%	31%	3%	2.7	67

TABLE 25. Medical School's Ratings of 15 Pharmaceutical Companies on Three Characteristics Related to CME

Company	Knowledge of CME Requirements and Processes			Adherence to National Guidelines			Easy to Work With		
	Mean	SD	N Schools	Mean	SD	N Schools	Mean	SD	N Schools
Merck	4.3	0.9	54	4.3	0.9	53	3.2	1.3	57
Aventis	4.2	0.8	56	4.2	0.7	54	3.9	1.2	58
Wyeth	4.1	1.0	51	4.2	0.9	48	4.2	1.0	51
AstraZeneca	4.0	0.8	49	4.1	0.8	49	3.9	0.9	51
Roche	4.0	0.9	33	4.0	1.0	34	3.9	1.1	36
Boehringer Ingleheim	3.9	0.8	30	4.0	0.8	29	3.9	1.0	34
Johnson & Johnson	3.9	0.8	33	4.0	0.7	32	3.9	0.8	35
Novartis	3.8	1.0	43	3.8	0.8	41	3.8	0.9	44
Pfizer	3.8	1.1	53	3.5	1.3	53	3.6	1.1	55
Abbott	3.7	1.0	44	3.9	1.0	41	3.8	1.0	46
Eli Lilly	3.7	1.0	47	3.9	0.9	44	3.4	1.1	48
GlaxoSmithKline	3.7	1.1	54	3.8	1.0	55	3.4	1.1	58
Bayer	3.6	0.9	26	3.8	0.9	27	3.8	1.0	28
Bristol Myers Squibb	3.6	1.0	46	3.6	0.9	45	3.5	1.1	49
Schering-Plough	3.4	1.3	27	3.3	1.3	27	3.5	1.5	28

Note: Ratings are on 5 point scales from 1 = Low to 5 = High. SD = Standard Deviation.

TABLE 26. Distribution of Medical Schools on Number of Commercially Funded "Satellite" Meetings Held in Conjunction with Meetings of National Specialty Societies

Number of "satellite" meetings		0	1-5	6-10	11-20	Total Schools
Percent of medical schools	2000	48%	42%	5%	5%	58
	2004	50%	44%	4%	2%	66

TABLE 27. Distribution of Medical Schools on Issues about "Satellite" Meetings

To what extent :		Not at All [1]	A Little [2]	Some-what [3]	A Lot [4]	Mean [1-4]	Total Schools
Did funding of satellite meetings reduce funding for regional CME activities?	2000	76%	9%	6%	9%	1.5	33
	2004	92%	4%	0%	4%	1.2	25
Were communication companies responsible for the management of satellite meetings?	2000	17%	25%	16%	42%	2.8	36
	2004	18%	0%	10%	72%	3.4	39
Did you have problems with the management of satellite meetings?	2000	25%	56%	11%	8%	2.0	36
	2004	50%	40%	5%	5%	1.7	38

TABLE 28. Percent of Medical Schools on Whether Work with Communication Companies

	Yes	Total Schools
2000	74%	62
2004	72%	71

TABLE 29. Distribution of Medical Schools on Issues about Working with Communication Companies

In working with communication companies to what extent do you have problems with:		Not at All [1]	A Little [2]	Some-what [3]	A Lot [4]	Mean [1-4]	Total Schools
Short time constraints?	2000	14%	42%	20%	14%	2.4	43
	2004	6%	32%	48%	14%	2.7	50
Faculty contacts and messages?	2000	35%	42%	16%	7%	2.0	43
	2004	29%	39%	20%	12%	2.2	49
Following approval processes?	2000	30%	28%	33%	9%	2.2	43
	2004	28%	44%	22%	6%	2.1	50
Budget control?	2000	29%	40%	22%	9%	2.1	42
	2004	38%	30%	26%	6%	2.0	50

TABLE 30. Distribution of Medical Schools on the Level of Involvement Required from Own Faculty before Sponsoring a CME Activity with a Communication Company

Would your school consider sponsoring a CME activity if a member of your faculty:		No	Yes	Total Schools
Is the activity director or co-director?	2000	0%	100%	43
	2004	6%	94%	52
Is on the presenting faculty of the activity?	2000	19%	81%	43
	2004	31%	69%	52
Reviews the planned activity?	2000	47%	53%	43
	2004	40%	60%	52
Is not involved in the content planning, delivery, or review?	2000	88%	12%	43
	2004	92%	8%	52

TABLE 31. Distribution of Medical Schools* on Liking to Work with Communication Companies

		Disagree Strongly (1)	Disagree Some-what (2)	Neutral/ No Opinion (3)	Agree Some-what (4)	Agree Strongly (5)	Mean [1-5]	Total Schools
Our CME unit likes to work with communication companies:	2000	7%	26%	17%	41%	9%	3.2	42
	2004	14%	18%	21%	35%	12%	3.1	51

* The questionnaire branching allowed only medical schools working with communication companies to respond to this question.

TABLE 32. Distribution of U.S. Medical Schools on Annual Number of CME Activities with Permission to Award AMA PRA Category 1 Credit to Non-U.S. Licensed Physicians

Type of CME Activity	0	1-5	6-10	10-600	Schools
Live, in-person courses for external physicians	66%	30%	2%	2%	67
Self-study by other media (e.g., print, video, or CD ROM/DVD)	90%	6%	2%	2%	67
Self-study by Internet	91%	7%	0%	2%	66
Live, broadcast activities (video, audio, internet)	98%	0%	2%	0%	65
Live, in person one-time activities for internal physicians	98%	0%	2%	0%	66
Live, in person regularly scheduled series for internal physicians	98%	0%	2%	0%	65
Total across all types	60%	31%	5%	4%	67

The final question concerned whether CME units like to work with communication companies. The responses are presented in Table 31. Among those schools working with communication companies, the views are widely distributed. The responses four years ago were also widely distributed, with the current distribution being even broader.

AMA PRA Credit to Non-U.S. Physicians

Over a year ago the AMA began to require that U.S. based accredited CME providers obtain written permission from the AMA in order to award AMA PRA category 1 credit to non-U.S. licensed physicians. (The AMA charges fees of $30 for single event applications and $300 for applications for multiple events.) Table 32 presents the responses of medical schools regarding the number of CME activities for which permission was sought. The majority of schools have not requested this permission. About one-third have requested it for some live, in person courses and about 10% have requested it for various types of self-study activities. Among schools requesting permission, most request it for only a few activities annually, with only two schools requesting it for more than 100 activities.

CME Involvement in LCME Accreditation

Medical schools' programs of medical education leading to the MD degree are periodically reaccredited. The Liaison Committee on Medical Education (LCME) accredits each medical school in the U.S. and Canada approximately every seven years. This year's survey asked whether the medical school's program for medical student education was reaccredited in the past two years (i.e. 2002 or 2003). Thirty-eight schools replied "yes." Those schools were asked to answer the two questions presented in Table 33. At all schools the CME leadership or unit provided information about the CME program as part of the institutional self-study to prepare for the reaccreditation site visit. The substantial majority also provided some information during the reaccreditation site visit.

Priorities for the CME Program's Mission

For several years national groups have addressed the need for more effective translation of research into practice. The linkage of information, education, and implementation involves many activities, including those performed by CME units, by quality assurance and improvement units, by certification and licensing bodies, and by many other groups.

TABLE 33. Distribution of Medical Schools on CME Involvement in Reaccreditation of Medical Student Education Program

To what extent did the CME leadership or unit provide information about the CME program:	To What extent			Mean	Total
	Not at All [1]	A Little [2]	A Lot [3]	[1-3]	Schools
a. For the institutional self-study to prepare for the reaccreditation site visit?	0%	53%	47%	2.5	38
b. During in the reaccreditation site visit?	17%	50%	33%	2.2	36

Within this broad national context of functions to be performed, this year's survey asked several questions about possible priorities related to the mission of the overall CME program at the medical school. The results are presented in Table 34.

The most striking general finding across all entries in Table 34 is the broad distribution of responses on most items. For the 30 questions that were asked, only four had a response value over 50%, three of which concerned methods. This wide distribution demonstrates a general lack of consensus regarding importance of the possible priorities listed in this survey for the missions of CME units.

Of particular interest in Table 34 are items that have higher mean scores on importance. Items with means of 3.5 (between "somewhat' and "very" important) or higher are noted here. The first section of Table 34 addresses the importance of various activities. The two most important activities are applying evidenced-based education research in CME delivery and emphasizing quality improvement practices.

The second group of questions addresses barriers to the mission of the CME program. The two most important barriers are lack of funding for outcomes-based CME activities and limited time to make CME more effective.

The third group of questions addresses the importance of methods. The four most important methods are educational interventions to change knowledge and skills and to improve performance, evaluation methods, and needs assessment in the practice setting.

The last group of questions addresses the importance of tools and resources. None of the listed tools and resources have high mean ratings on importance. The responses are about equivalent for all of the tools and resources except for the Research and Development Resource Data Base in CME, which has the lowest score in the table. Presumably this low score is related to 76% of CME units not performing research projects (see Table 13), with many units not perceiving a research and development resource to be very important.

Suggestions for the Next Survey

The Survey Subcommittee extends our appreciation to the CME directors and personnel who completed and returned this year's survey. Their willingness to provide information makes this report possible.

We invite members to submit suggestions to be included in the next survey. The work that goes into developing the survey, responding to it, and assembling the results is worthwhile only if the information is useful to the membership. We welcome your suggestions.

APPENDIX

Definitions Used for Audiences, Programs, and Locations

Program information. This section requests an annual summary of the programs you have offered for the past year. The terminology is explained below to clarify the question (and your responses). (A page of definitions may appear to be overkill. However, with the diversity among CME units the possibilities for confusion are enormous - - a lot more than you are thinking right now. You have to be on the receiving end of the completed surveys to begin to appreciate the variety -- and creativity -- our unguided energies can produce.)

Target audience. Physician oriented programs -- programs planned with physicians as an important portion of the audience, i.e., at least 25% of the expected audience and typically the majority of the audience.

External participants -- individuals attending your CME programs who are not closely associated with your institution; they typically do not have an appointment with the medical college/school, usually do not attend "internal" meetings such as department meetings, and usually are expected to pay registration fees for your CME programs. (A few schools have decided for local reasons to extend "courtesy" appointments to a large number of "community" physicians and even offer them CME at no charge. However, if they are not functionally part of the medical school/college, they should be classified as "external.")

Internal participants -- individuals attending your CME programs who are employed by your institution; they typically have an appointment with the medical college/school, they are invited to and usually attend "internal" meetings such as department meetings, and usually do not pay registration fees for your CME programs. (A few schools charge everyone a registration fee. If individuals are functionally part of the medical college/school, they should be classified as "internal.")

TABLE 34. Distribution of Medical Schools on Priorities for Their CME Program

	How Important					Mean	Total
	Not [1]	Slightly [2]	Some-what [3]	Very [4]	Critical [5]	[1-5]	Schools
How important are each of the following activities to the mission of your CME program?							
a. Apply evidence-based education research in CME delivery	3%	6%	36%	44%	11%	3.6	70
b. Emphasize quality improvement practices	3%	7%	40%	41%	9%	3.5	70
c. Have faculty include more learning facilitation	6%	9%	41%	35%	9%	3.3	70
d. Document changes in physician performance	7%	17%	27%	40%	9%	3.3	70
e. Use technology to personalize CME for individuals	6%	19%	48%	19%	8%	3.1	69
f. Utilize more learner directed interventions	6%	24%	31%	30%	9%	3.1	70
g. Apply CME interventions closer to the point of care	13%	20%	33%	26%	8%	3.0	70
h. Document changes in healthcare from CME interventions	13%	22%	34%	24%	7%	2.9	70
i. Base CME on the competency areas of the American Board of Medical Specialties	15%	10%	49%	22%	4%	2.9	68
j. Collaborate with other CME providers on long-term, multi-disciplinary, disease related CME activities	17%	21%	34%	26%	2%	2.7	70
How important are each of the following barriers to limiting the mission of your CME program?							
a. Lack of funding for outcomes-based CME activities	3%	7%	12%	54%	24%	3.9	70
b. Limited time to make CME more effective	4%	16%	24%	33%	23%	3.5	70
c. Learner's preference for traditional CME course	8%	13%	26%	43%	10%	3.3	70
d. Faculty role perceived to be content expert and lecturer	10%	11%	37%	29%	13%	3.2	70
e. Limited skills in assessment, measurement, and quality improvement	14%	13%	39%	30%	4%	3.0	70
f. Accreditation requirements	14%	28%	26%	23%	9%	2.8	70
How important are each of the following methods to the mission of your CME program?							
a. Educational interventions to change knowledge and skills	0%	3%	16%	58%	23%	4.0	70
b. Educational interventions to improve performance	0%	3%	24%	56%	17%	3.9	70
c. Evaluation methods	0%	4%	26%	41%	29%	3.9	70
d Needs assessment in the practice setting	0%	6%	27%	51%	16%	3.8	70
e. Use of technology in CME delivery	0%	17%	41%	32%	10%	3.3	70
f. Teaching system-based interventions	2%	23%	48%	21%	6%	3.1	70

(TABLE 34 continues on next page)

TABLE 34 (continued). Distribution of Medical Schools on Priorities for Their CME Program

	How Important					Mean	Total
	Not [1]	Slightly [2]	Some-what [3]	Very [4]	Critical [5]	[1-5]	Schools
How important are each of the following tools or resources to the mission of your CME program?							
a. Physician self-assessment mechanisms	6%	25%	28%	37%	4%	3.1	71
b. Practice-based learning and improvement models	3%	22%	41%	31%	3%	3.1	71
c. Quality improvement models	2%	25%	39%	30%	4%	3.1	71
d. SACME listserv discussions	13%	13%	31%	36%	7%	3.1	70
e. SACME meetings	11%	11%	43%	32%	3%	3.0	70
f. SACME web page resources	9%	17%	41%	27%	6%	3.0	70
g. The Journal of Continuing Education in the Health Professions (JCEHP)	10%	25%	36%	24%	4%	2.9	71
h. The Research and Development Resource Base in CME (RDRB/CME) at the University of Toronto	39%	27%	24%	7%	3%	2.1	71

Types of educational programs. Live, in-person courses, conferences, and seminars -- the usual multiple hour and often multiple day programming for CME. Individual promotional efforts are usually associated with each of these meetings.

Presentations at county medical societies and local hospitals -- usually of limited length, routinely scheduled, and involving little, if any promotional activity, and a limited and defined set of individuals that are invited to attend.

Telephone and television conferences -- media transmission of events occurring elsewhere or previously.

Individual tutorials and traineeships -- participant usually comes to the designated training location.

Self-study courses, either written, audio, video or computer based (from disk or via Internet) -- participant does independently, usually at home.

Internal meetings -- grand rounds, medical conferences, and other meetings primarily for members of the faculty and staff of the medical college/school.

Locations. Primary site -- the usual location for your programs. For most medical colleges/schools, this location is at or near the medical college/school.

Pleasure locations -- resorts and cities that are often visited by tourists and vacationers.

THANK YOU!

The following medical schools completed and returned the 2004 SACME questionnaire. The medical schools followed by an asterisk (*) returned it by February 28, 2004, a noteworthy accomplishment. The Survey Subcommittee extends a special thanks to the institutions below on behalf of the membership.

ALABAMA
University of South Alabama

CALIFORNIA
Charles Drew University of Medicine & Science
University of California - Davis
University of California – Los Angeles
University of California- San Francisco
University of California –San Diego
University of Southern California – Keck School of Medicine

COLORADO
University of Colorado School of Medicine

DISTRICT OF COLUMBIA
Howard University College of Medicine

FLORIDA

University of Florida College of Medicine
University of Miami School of Medicine
University of South Florida College of Medicine

GEORGIA
Medical College of Georgia
Mercer University School of Medicine*

ILLINOIS
Finch University of Health Sciences, Chicago Medical School
Rush Medical College
Southern Illinois University School of Medicine
University of Chicago Pritzker School of Medicine*
University of Illinois at Chicago*

INDIANA
Indiana University School of Medicine

IOWA
University of Iowa College of Medicine*

LOUISIANA
Tulane University Health Sciences Center

MAINE
University of New England, College of Osteopathic Medicine

MARYLAND
Uniformed Services University of the Health Sciences*

MASSACHUSETTS
Boston University School of Medicine*
Harvard Medical School
Tufts University School of Medicine
University of Massachusetts Medical School

MICHIGAN
University of Michigan Medical School*
Wayne State University School of Medicine

MINNESOTA
University of Minnesota

MISSOURI
Washington University School of Medicine

NEBRASKA
Creighton University*

NEW JERSEY
University of Medicine & Dentistry of New Jersey

NEW MEXICO
University of New Mexico School of Medicine*

NEW YORK
New York Medical College
SUNY at Stony Brook
SUNY at Buffalo*
University of Rochester
Weill Medical College of Cornell University

NORTH CAROLINA
Brody School of Medicine, E Carolina University
Duke University Medical Center*
Wake Forest University School of Medicine

OHIO
Northeastern Ohio University College of Medicine*
Ohio State University*
University of Cincinnati
Wright State University*

OKLAHOMA
University of Oklahoma College of Medicine*

OREGON
Oregon Health & Science University

PENNSYLVANIA
Penn State College of Medicine
Temple University School of Medicine
University of Pennsylvania School of Medicine
University of Pittsburgh

RHODE ISLAND
Brown Medical School

SOUTH CAROLINA
Medical University of South Carolina*
University of South Carolina

SOUTH DAKOTA
University of South Dakota School of Medicine

TENNESSEE
East Tennessee State University, Quillen College of Medicine
University of Tennessee Graduate School of Medicine*
Vanderbilt University School of Medicine

TEXAS
Texas A & M College of Medicine*
Texas Tech University Health Sciences Center*
University of Texas Southwestern Medical Center at Dallas

VERMONT
University of Vermont College of Medicine

VIRGINIA
Eastern Virginia Medical School*
University of Virginia School of Medicine
Virginia Commonwealth University*

WISCONSIN
University of Wisconsin Medical School

CANADA
Dalhousie University Faculty of Medicine
University of Calgary*
University of Toronto Faculty of Medicine