

# Online CME and Information Seeking: Readers and Credit Seekers

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## Background

- While physician attendance at live CME activities is observable, less is known about the actual physician use of enduring materials (e.g., online courses, newsletters, CD-ROM, etc.)
- Physicians use online activities for both medical information seeking and formal CME activities; therefore, it is important to understand more about how online activities contribute to physician learning
- New ways to document use patterns of physicians who access and interact with CME content but do not seek credit (readers), compared with those completing those programs (credit seekers), would expand our understanding of information-seeking behaviors

## Purpose

- To explore the previously unobservable behaviors of physicians who access and interact with CME content but do not seek credit
- To examine data from registered users of a large online CME site for differences in demographics and knowledge application between readers and credit seekers
- To test the hypothesis that there would be no significant differences in demographic characteristics and in knowledge application between readers and credit seekers
- To develop a new definition of "reach" achieved by a CME activity, that would include both readers and credit seekers and could have implications for design of future online CME activities

*Credit seekers only outperformed readers on specialty topics with more complex and in-depth content.*

## Methods

- Twenty online CME activities were selected for inclusion in this study
- To be eligible, activities had to be certified for one hour of category I AMA credit and were scheduled to post online between July 2005 and September 2006
- Thirteen of the activities were targeted toward specialty audiences, and 7 were for primary care audiences
- Overall, data was collected for 14,865 online participants, from which 649 readers and 650 credit seekers were included in the analysis
- A sample was defined for each CME activity as all participating U.S. physicians registered with the site, with a medical education number, who participated in the activity content during the first 60 days of the activity posting

- For each activity, four or five case-based self-assessment questions were developed in a multiple choice format
- The following demographic characteristics were identified for inclusion in the study: sex, in practice more than 10 years, patient care, degree (MD or DO), primary care, age, years in practice
- Readers were defined as those physicians who participated in the activity, and responses from readers on self-assessment questions were included if the physician answered at least one of the activity's self-assessment questions
- Credit seekers were defined as those who completed all questions in the activity's post-test in order to request category I credit for participating in the activity
- Analyses were conducted, producing an overall comparison of readers and credit seekers in all 20 activities (see Table 1), as well as sub-analyses of primary care activities (see Table 2) and specialty area activities (see Table 3)

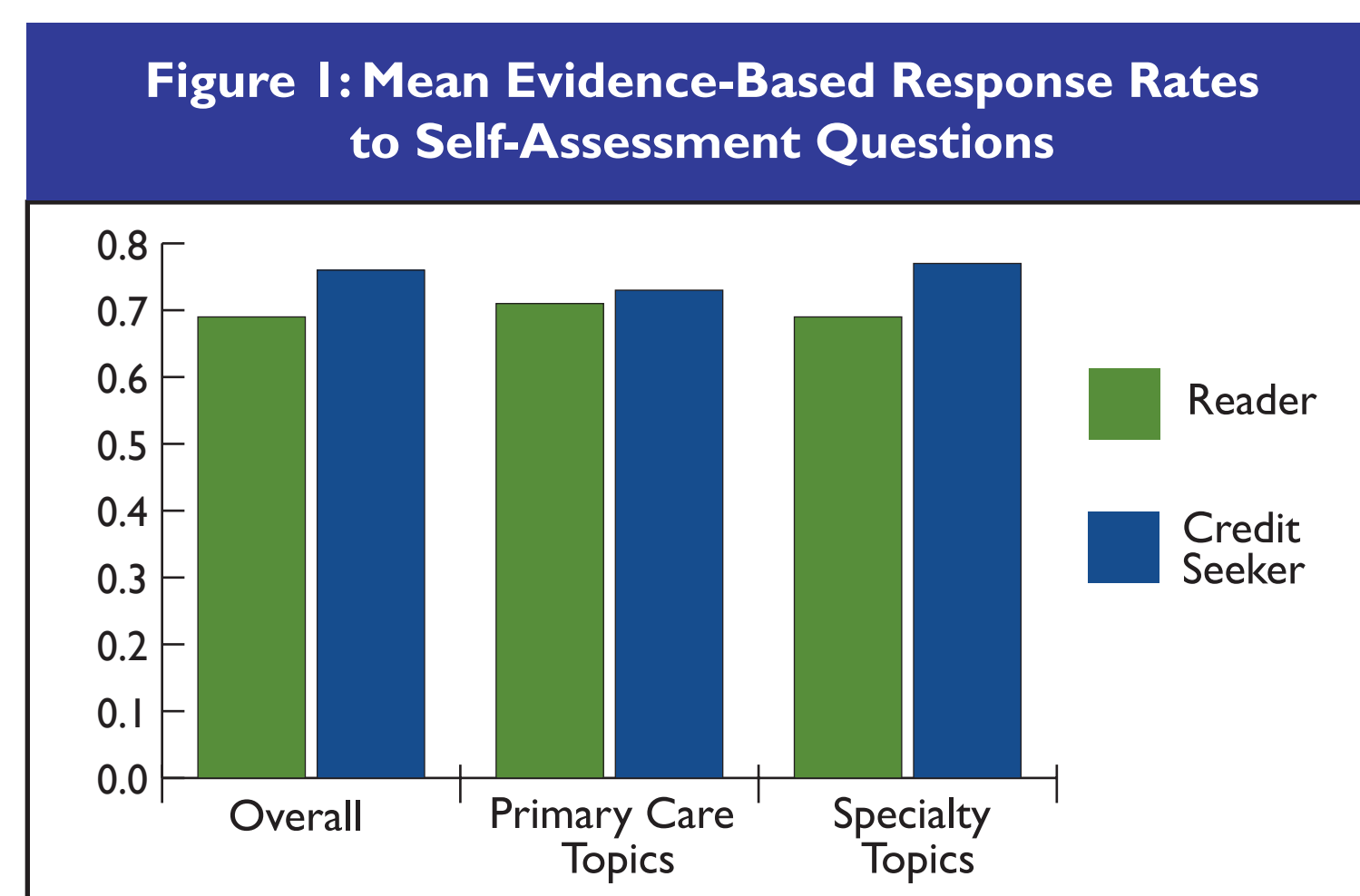
## Results

### Overall

- Credit seekers answered an average of 76% self-assessment questions correctly, compared to 69% of readers ( $p < .01$ )
- Readers were older than credit seekers (52.99 to 51.09;  $p < .01$ ) and were in practice for more years (25.91 to 23.80;  $p < .01$ )
- Credit seekers were significantly more likely to have an MD degree, as opposed to a DO degree (96.0% to 93.6%;  $p = .05$ )
- There were no other significant differences between any of the categorical demographic variables

**Table 1: Demographic Comparisons: Readers and Credit Seekers from 20 Online Activities**

Randomly Selected Matched Samples			
	Reader (649)	Credit Seeker (650)	p
% Male	68.3	67.4	.73
% In Practice More Than 10 Years	84.4	84.3	.97
% Patient Care	89.4	91.0	.50
% MD	93.6	96.0	.05
% Primary Care	46.1	42.3	.18
Age	52.99	51.09	<.01
YIP	25.91	23.80	<.01



### Primary Care Topics

- There were no significant differences between readers and credit seekers on the average number of self-assessment questions answered correctly
- There were significant differences between readers and credit seekers in age (52.80 to 49.69;  $p = .01$ ) and years in practice (25.56 to 22.62;  $p = .03$ )
- The only significant difference in the categorical variables was in degree type (96.8% of credit seekers were MDs, compared to 89.6% of readers;  $p < .01$ )

**Table 2: Demographic Comparisons: Readers and Credit Seekers from 7 Primary Care Activities**

Randomly Selected Matched Samples			
	Reader (221)	Credit Seeker (223)	p
% Male	66.2	68.5	.61
% In Practice More Than 10 Years	81.4	75.5	.13
% Patient Care	88.6	91.6	.29
% MD	89.6	96.8	<.00
% Primary Care	60.9	60.1	.87
Age	52.80	49.69	.01
YIP	25.56	22.62	.03

*Interestingly, the average age and years in practice of physicians in the current study are higher than what is commonly thought of in online credit seekers.*

### Specialty Area Topics

- Credit seekers were significantly more likely to answer more self-assessment questions correctly when compared to readers (77% to 69%;  $p < .01$ )
- Readers had more years in practice compared to credit seekers (26.21 to 24.42;  $p = .04$ )
- No other significant differences were found between readers and credit seekers in the combined specialty area topics analyses

**Table 3: Demographic Comparisons: Readers and Credit Seekers from 13 Specialty Care Activities**

Randomly Selected Matched Samples			
	Reader (428)	Credit Seeker (223)	p
% Male	69.4	66.9	.43
% In Practice More Than 10 Years	85.9	88.9	.19
% Patient Care	90.5	90.7	.94
% MD	95.6	95.5	.94
% Primary Care	38.4	33.0	.11
Age	53.21	51.83	.10
YIP	26.21	24.42	.04

*The prospect of taking a CME test may contribute to the differences in scores between groups by promoting increased attention in the specialty topics among credit seekers.*

## Conclusions

- Overall, it appears that readers and credit seekers are similar
- Credit seekers tended to answer more self-assessment questions correctly, but the difference was only 7%, and the specialty area topics accounted for most of this difference
- There were no significant differences between the number of self-assessment questions answered correctly between readers and credit seekers when examining primary care topics; however, when examining specialty area topics, the difference between readers and credit seekers was 8%

- One reason for this difference between primary care physicians and specialist physicians may be that the primary care physicians are required to keep up with a broad knowledge base and therefore may have less concern about credit
- Content that is developed with a more in-depth perspective within a specialty appears to require a more attentive approach from CME participants. The prospect of taking a test for CME credit may facilitate this attentiveness.
- Further research should be conducted to examine the demographic characteristics of readers and how they may be similar or different than those characteristics of credit seekers

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