

# Assessing the Online Information-Seeking Patterns of Physicians

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## Background

- The Internet has had a strong impact on how physicians access information, and many have reported the influence of this information on their medical decision making.<sup>1,2</sup>
- Online medical information offers a platform for addressing healthcare quality and patient safety by assisting with diagnosis and patient management and by facilitating the free flow of information.<sup>3</sup>
- The Internet offers opportunities to facilitate improvement in the quality of care through physician maintenance of certification.<sup>4</sup>
- The purpose of this information-seeking study was to identify the perceptions, attitudes, use, and information-seeking patterns of physicians regarding online continuing medical education.

## Methods

- In order to understand what has been studied concerning physicians' perceptions, attitudes, and usage patterns regarding online continuing education, a literature review was conducted using only peer-reviewed articles indexed in PubMed or Medline.
- Four focus group sessions of 6-8 physician specialists were conducted to identify the factors perceived to be most relevant and useful in online education.
- The literature review and focus group sessions were used to inform a survey that was developed to assess the study topics as described above.
- The survey was distributed electronically to a national audience of physician specialists including allergists, dermatologists, emergency medicine physicians, endocrinologists, medical oncologists, nephrologists, neurologists, ophthalmologists, pulmonologists, and rheumatologists.
- Responses were received from 500 US physicians between February 9, 2009, and February 13, 2009. Respondents received a small honorarium for their input.

Table 1: Respondent demographics

	US Physicians (N = 500)
Board certified	96.6%
Specialty	
Allergists	3.4%
Dermatologists	10.0%
Emergency medicine physicians	31.8%
Endocrinologists	5.0%
Medical oncologists	5.2%
Nephrologists	7.2%
Neurologists	11.2%
Ophthalmologists	16.4%
Pulmonologists	5.6%
Rheumatologists	4.2%
Practice setting	
Private practice	66.8%
Academic medical school	16.6%
VA Hospital	0.2%
Community clinic	2.0%
Other setting	12.8%
Practice location	
Urban	37.0%
Suburban	53.6%
Rural	9.4%
Gender, % male	81.8%
Patients seen per week, mean	58
Years in practice, mean	21

## Results

Figure 1: Frequency of searching for clinical information online

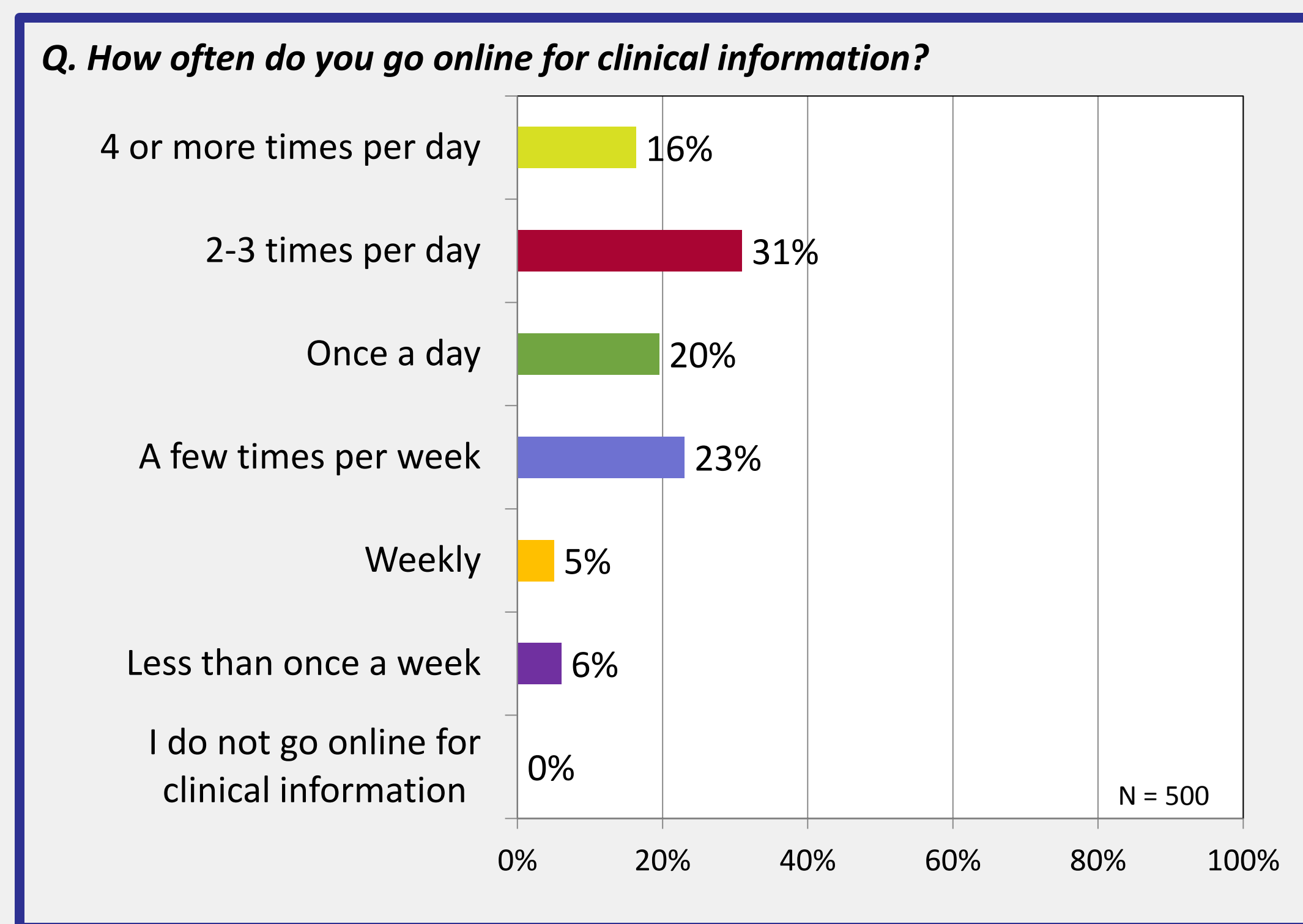


Figure 2: Likelihood of accessing specific content online

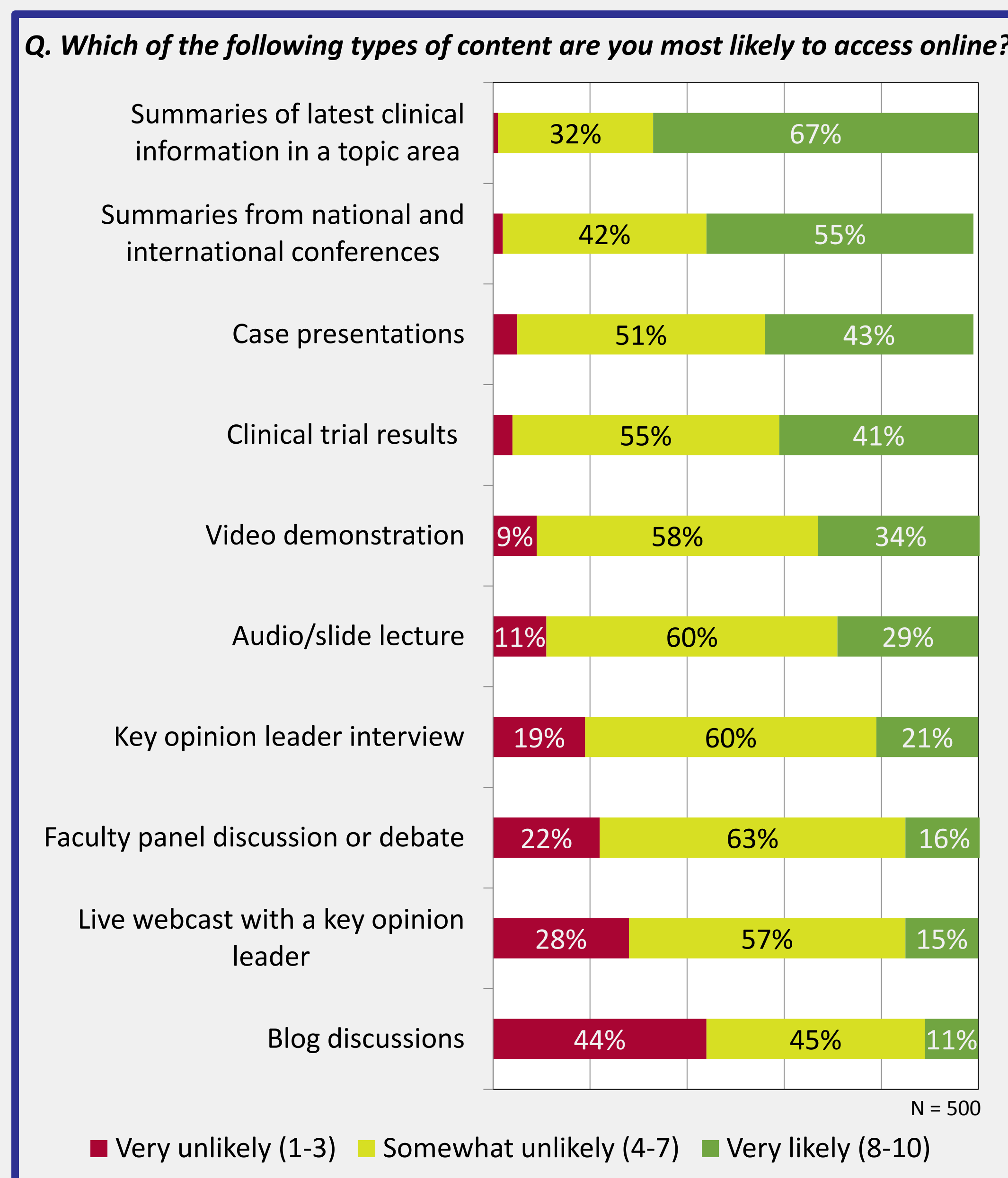
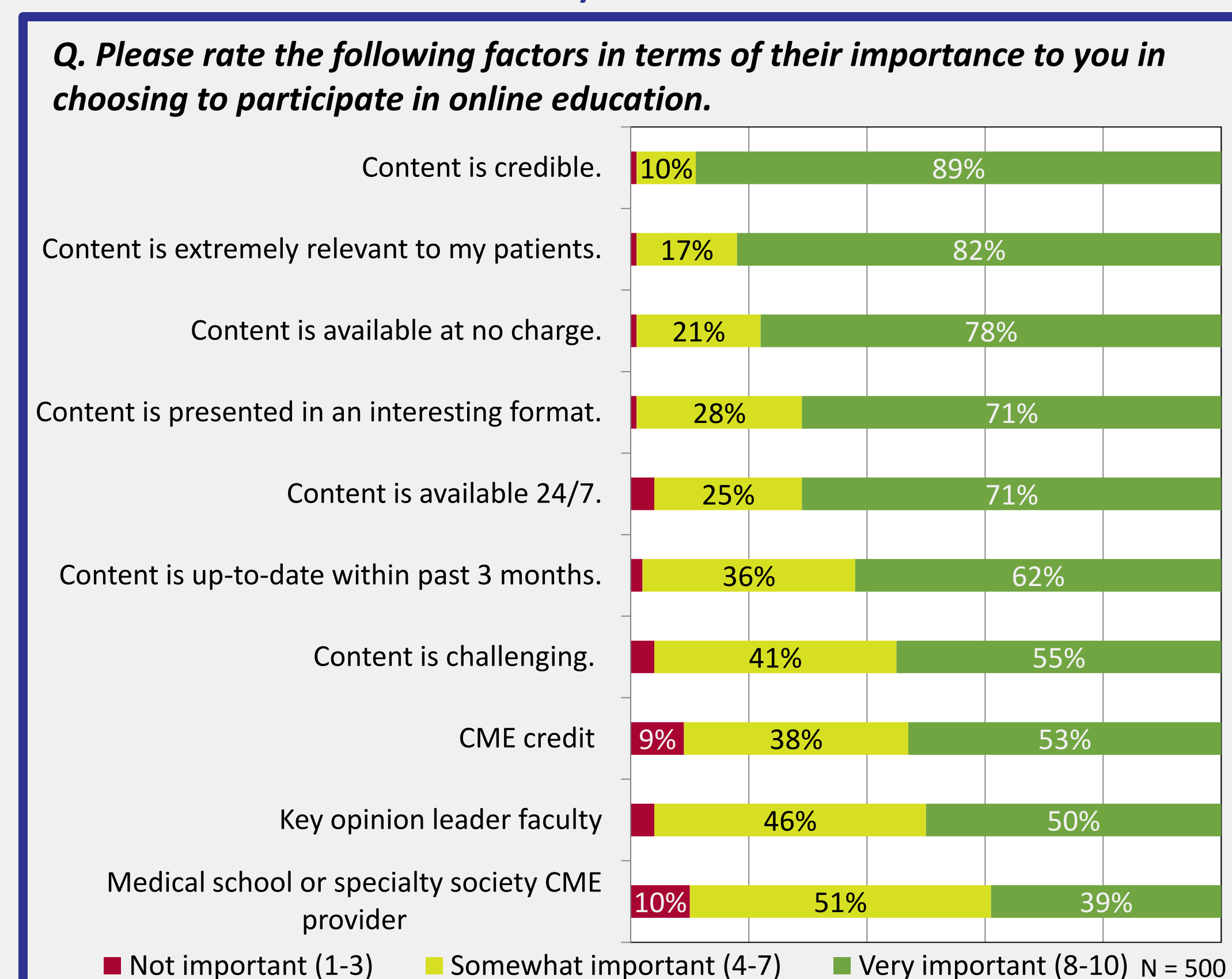


Figure 3: Important characteristics of online education and credibility of online medical content



Q. Please rate the following in terms of their importance to you in establishing the credibility of medical content you access online.

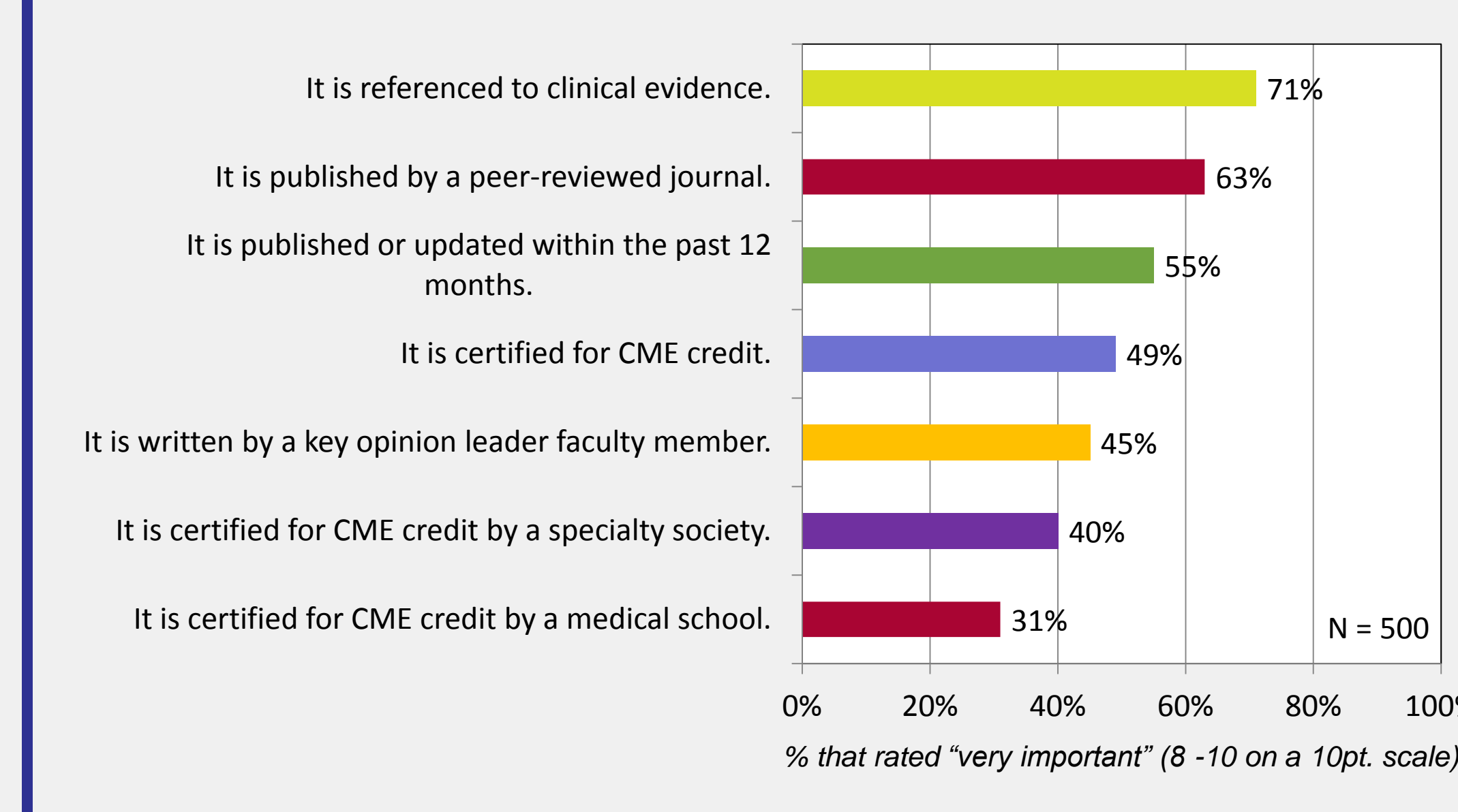
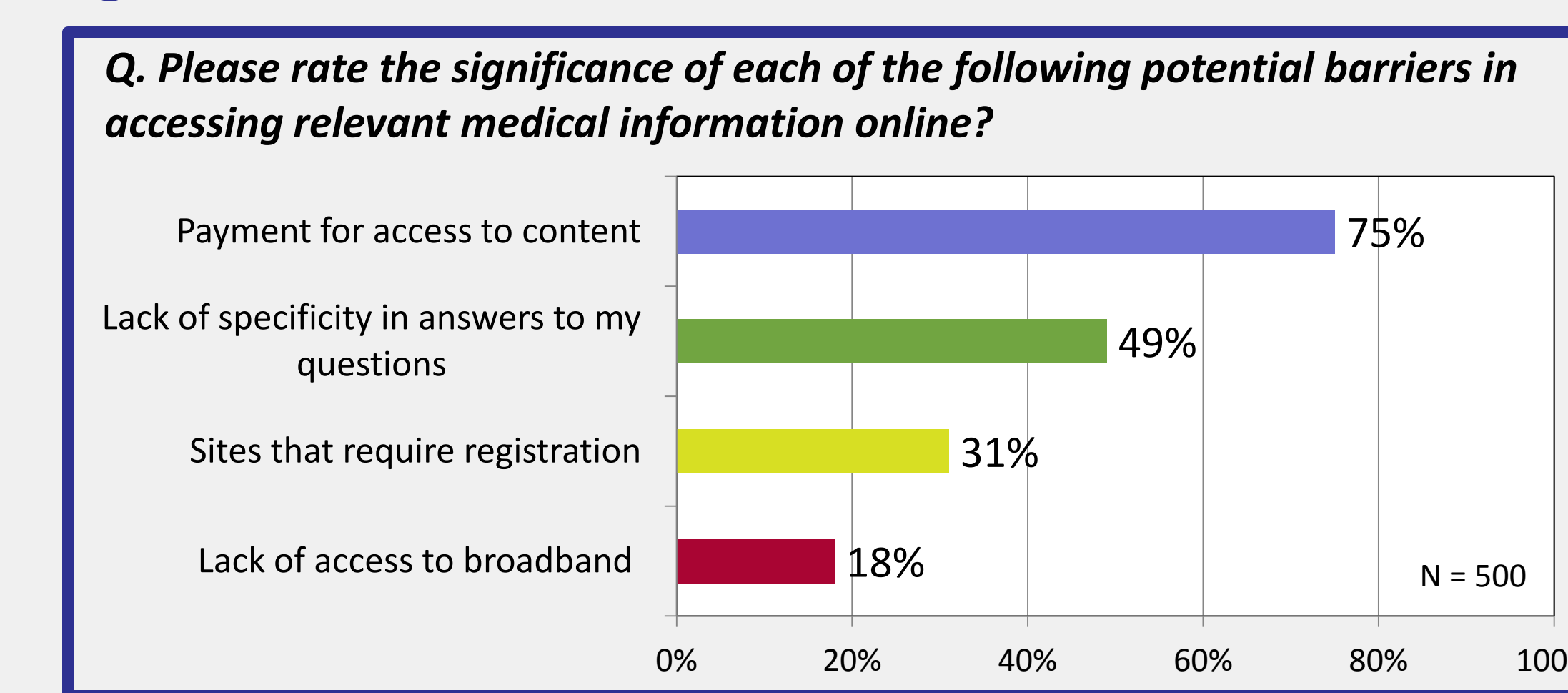


Figure 4: Barriers to access of medical information online



## Discussions

- Physicians seek information online on a regular basis because they want quick, convenient access to relevant evidence-based information.
- Physicians are most likely to visit a website for clinical information if the site does not require registration and payment for access.
- Physicians are more likely to visit web portals than "customized" websites.
- Educational programs that allow on-demand access, reference content to clinical evidence, and present content that is directly translatable to practice are very likely to be used by physicians.

## Implications for Education

- Physicians should be provided online education that
- Summarizes the latest information from clinical trials, as well as from national and international conferences
  - Is open access and available on demand
  - Uses case presentations to present information that is relevant to their practices
  - References clinical evidence that is published in peer-reviewed journals

## References

- Podichetty VK, Booher J, Whitfield M, Biscup RS: Assessment of internet use and effects among health professionals: a cross sectional survey. Postgrad Med J 2006, 82: 274-249.
- Bennett NL, Casebeer LL, Kristofco RE, Strasser SM: Physicians' Internet information-seeking behaviors. J Contin Educ Health Prof 2004, 24:31-38.
- Shine K: Healthcare quality and how to achieve it. Acad Med 2002, 77:91-99.
- Holmboe ES, Lynn L, Duffy FD: Improving the quality of care via maintenance of certification and the web: An early status report. Perspect Biol Med 2008, 51: 71-83.

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