Low Awareness of and Referral to National Cancer Information Resources Among Physicians

There are currently more than 11 million cancer survivors in the United States (1). With improvements in cancer screening technology and treatment, this number is likely to increase. The information needs of cancer patients and survivors could strain an already burdened health-care system, underscoring the need for reliable cancer information from credible sources (2–4).

Although many quality cancer information resources are available, recent data (5) indicate that health-care professionals are the most trusted source for health information, followed by US government health agencies that produce and scientifically vet materials for patients and health-care professionals, such as the National Institutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC). The National Cancer Institute’s Web site (www.cancer.gov) and the Cancer Information Service (1-800-4-CANCER) serve as NIH’s primary cancer information resources. The CDC Web site (www.cdc.gov) also serves as a cancer information resource.

To assess the awareness of and referral to national cancer information resources among primary care physicians, we analyzed data from the National Survey of Primary Care Physicians’ Recommendations and Practice for Breast, Cervical, Colorectal, and Lung Cancer Screening. The survey was fielded in 2006 and 2007 as a mailed questionnaire. The sample was drawn from the American Medical Association Physician Masterfile by using a systematic sample design that was stratified by medical specialty type. Eligible respondents were non-federal office-based family physicians, general practitioners, general internists, and obstetricians and gynecologists aged 75 years or younger. A total of 1212 physicians completed the survey for a 73.4% cooperation rate and a 67.5% response rate. Details about sampling and survey methodology are published elsewhere (6).

Respondents were asked “Are you aware of, and have you ever referred a patient to, any of the following services for cancer information: 1-800-4-CANCER; www.cancer.gov; and www.cdc.gov?” Response options were “aware and referred,” “aware of it, never referred,” and “not aware of it.” Awareness and referral were assessed by physician and practice characteristics.

SUDAAN software, version 10 (Research Triangle Institute, Research Triangle Park, NC), was used to calculate weighted percentages and 95% confidence intervals (CIs). Cross tabulations with two-sided χ² and t tests and a multinomial regression analysis were conducted to discern physician and practice characteristics associated with awareness and referral.

Awareness and referral to national information resources was low: 6.2% of physicians reported awareness and referral to 1-800-4-CANCER, 14.0% reported awareness and referral to www.cancer.gov, and 23.1% reported awareness and referral to www.cdc.gov (Table 1). Greater awareness of and referral to at least one of these resources was associated with more time spent teaching (P = .046 [t test]) and conducting administrative duties (P = .046 [t test]). Lower awareness and referral was observed among physicians who were in private practice (P = .001 [χ² test]), had larger patient loads (P = .015 [χ² test]), or had a higher percentage of uninsured patients (P = .015 [χ² test]). A multinomial logistic regression analysis revealed that compared with physicians in university settings, those in private practice were less likely to be aware of and refer to national cancer information resources (odds ratio = 0.50, 95% CI = 0.34 to 0.74) and less likely to report awareness and no referral (odds ratio = 0.49, 95% CI = 0.32 to 0.74).

Low levels of awareness of and referral to national cancer information resources were observed across physician and practice characteristics. Efforts to raise awareness and use of these resources could improve informational support to health-care providers, cancer patients, and survivors.

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Table 1. Physician awareness of and referral to national cancer information resources

<table>
<thead>
<tr>
<th>Resource</th>
<th>Sample size</th>
<th>Aware and referred</th>
<th>Aware and did not refer</th>
<th>Not aware</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-800-4CANCER</td>
<td>1182</td>
<td>6.2</td>
<td>15.2</td>
<td>78.6</td>
</tr>
<tr>
<td><a href="http://www.cancer.gov">www.cancer.gov</a></td>
<td>1183</td>
<td>14.0</td>
<td>32.9</td>
<td>53.0</td>
</tr>
<tr>
<td><a href="http://www.cdc.gov">www.cdc.gov</a></td>
<td>1184</td>
<td>23.1</td>
<td>38.5</td>
<td>32.9</td>
</tr>
<tr>
<td>At least one resource</td>
<td>1174</td>
<td>27.9</td>
<td>37.2</td>
<td>34.9</td>
</tr>
</tbody>
</table>

References

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