The Effect of Internet Access on Usage Patterns for Government Information in Scholarly Scientific Publications: Preliminary Findings

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The internet is changing channels of scholarly communication. Access to online resources clearly facilitates scholarly research, research methods and styles. Some empirical studies have, through citation analysis looked at the impact of the internet on scholarly work. 1-3 A few studies have looked at citation patterns of government documents before and after the WWW became a significant scholarly tool. 4,5 However, little is known about the use of electronic government information in clinical and health sciences research in the internet era. This study uses citation analysis to examine whether online access to government information had an impact on its use over time.

Hypothesis: Internet and online access to government documents at local, state, national, and international levels facilitates its use by scholars.

The largest increase between 1995 and 2010 was observed for WHO (15% to 22%) followed by CDC (15% - 21%), foreign national (3% - 12%), and U.S. State (1% - 3). Citations to U.S. Federal declined from 56 to 38% and international documents from 10% to 4% between 1995 and 2010. Citations to U.S. Local documents remain unchanged. The American Journal of Clinical Nutrition, the American Journal of Medicine and the New England Journal of Medicine showed the greatest increase in citation counts.

Conclusions

• Total citation counts for government documents in clinical and health sciences journals increased between 1995 and 2010.

• Change in citation counts varied by document provenance.

• American Journal of Clinical Nutrition, The New England Journal of Medicine, and American Medicine showed the largest number of citations to government documents.

• CDC and WHO materials were the most cited documents in medical scholarly journals.

• Citation of federal (excluding CDC) and international (excluding WHO) declined between 1995 and 2010.

• U.S. local documents were rarely cited.

• Overall, government documents citation counts in health sciences and medical journals increased between 1995 and 2010. Determining the significance of these changes will require additional analysis.

References


Results

Total Documents Cited in Health Sciences Journals.

1995: 642 (49.0%) 2010: 1070 (3.1%)

Five core health sciences journals were selected based on Web of Science impact factor and publishing history. 6,3,41 Citations references in 2,105 articles from 1995 and 2010 were screened for presence of government documents. U.S. federal, state, local, international (intergovernmental), and foreign national government agencies, CDC and World Health Organization in cited references were identified.

Table 1. Clinical and health sciences journals selected in this study.

<table>
<thead>
<tr>
<th>Journals</th>
<th>1995</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Journal Clinical Nutrition</td>
<td>9.5</td>
<td>12.1</td>
</tr>
<tr>
<td>American Journal of Medicine</td>
<td>4.8</td>
<td>4.8</td>
</tr>
<tr>
<td>American Journal of Nursing</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Annals of Internal Medicine</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>The New England Journal Medicine</td>
<td>5.6</td>
<td>5.6</td>
</tr>
</tbody>
</table>

Fig. 1. Change in citation counts by document type in studied journals.

Fig. 2. Distribution of documents in the American Journal Clinical Nutrition, 1995 and 2010.

Fig. 3. Distribution of documents by type by journal for 1995 and 2010.

Table 2. Citation results from 1995 to 2010.

<table>
<thead>
<tr>
<th>Journals</th>
<th>1995</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Journal Clinical Nutrition</td>
<td>106</td>
<td>143</td>
</tr>
<tr>
<td>American Journal of Medicine</td>
<td>468</td>
<td>326</td>
</tr>
<tr>
<td>American Journal of Nursing</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Annals of Internal Medicine</td>
<td>279</td>
<td>256</td>
</tr>
<tr>
<td>The New England Journal Medicine</td>
<td>125</td>
<td>131</td>
</tr>
</tbody>
</table>

Note: 1. Selected health sciences journals included in the study. 2. The impact factor was revised from the 1995 2012 Web of Science.

Health Sciences Journals used in this study

Five core health sciences journals were selected based on Web of Science impact factor and publishing history. 6,3,41 Citations references in 2,105 articles from 1995 and 2010 were screened for presence of government documents. U.S. federal, state, local, international (intergovernmental), and foreign national government agencies, CDC and World Health Organization in cited references were identified.