



*Evidence Summary*

***The Quality of Canadian and U.S. Government Health Documents Remains Unchallenged Until Better Research Can Be Undertaken***

**A review of:**

Lambert, Frank. "Assessing the Authoritativeness of Canadian and American Health Documents: A Comparative Analysis Using Informetric Methodologies." Government Information Quarterly 22.2 (2005): 277-96.

**Reviewed by:**

Michael Corkett  
Senior Information Specialist  
National Collaborating Centre for Women's and Children's Health  
London, England, United Kingdom  
E-mail: [mcorkett@ncc-wch.org.uk](mailto:mcorkett@ncc-wch.org.uk)

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**Abstract**

**Objective** - To assess by means of citation analysis whether the public trust afforded health documents published by the Canadian and U.S. governments is appropriate, and to ascertain whether differences in the respective health care systems influence how publications are produced.

**Design** – Comparative study.

**Setting** – The Canadian Depository Service Program (DSP) and the U.S. Department of Health and Human Services (DHHS) web sites.

**Subjects** – One hundred sixty-six electronic documents sourced from the DSP website, and 284 electronic documents sourced from the DHHS website.

**Methods** – Subjects were randomly selected from repositories offering the most comprehensive collections. Documents with evidence of references to other works used in preparation were separated from those without such characteristics. Data variables were collected from documents with evidence of references. Statistical analysis of the data was undertaken.

**Main results** – Of the respective samples, 89 (53%) from the DSP and 109 (38.4%) from

the DHHS contained references. Personal authors were identified in 46 (51.7%) and 63 (58%) of the respective subsets. Handbooks and guidebooks accounted for the largest portion of the DSP subset (29; 32.6%) and government periodicals were the largest constituent of the DHHS subset (41; 37.6%). Scholarly journals were the most common reference type for both the DSP (44%) and the DHHS (58.5%) subsets. The number of references per document was widely dispersed for both subsets; the DSP mean was approximately 64 (SD=114.68) and the DHHS was 73.71 (SD=168.85). Kruskal-Wallis subset analysis of median number of references by document type found differences generalizable to the entire DSP ( $p<0.01$ ) and DHHS ( $p<0.01$ ) populations. Health Canada Reports, handbooks, and guidebooks contained significantly more references than periodical articles or fact sheets. Certain DHSS documents, classified as "other," contained more references than periodical articles. Canadian documents were more likely to contain references than U.S. documents ( $p<0.01$ ). Comparison of documents to determine whether one country employs more rigorous citation practices did not produce statistically significant results. U.S. Federal Government documents are more likely to be referenced in other U.S. government health documents, compared to Canadian publications ( $p<0.01$ ). The presence of references in documents from either country significantly affected likelihood of being cited by web authors ( $p<0.01$ ).

**Conclusion** – Significant differences in reference use frequencies between DSP and DHHS documents challenges Foskett's stance that documents of value contain references (Foskett). Use of peer-reviewed scholarly journals for both DSP and DHHS publications was reassuring, suggesting a fairly rigorous publication standard. Reliance of DHHS publications upon federal government documents remains unclear.

Referencing of DSP documents, irrespective of reference usage suggests a level of trust towards Canadian government health publications. Web authors appear more comfortable citing referenced DHHS documents. Further study could involve the examination of reference frequency by journal compared against journal impact factors.

### **Commentary**

This is an ambitious study, which attempts to go beyond the descriptive studies of previous researchers by providing a meaningful comparative analysis. However, the study struggles to provide an insight to levels of public trust in government health documents. The choice of a comparative study design is appropriate. However, methodological concerns exist for all areas.

Despite the study objectives, the existence of a concise and pragmatically considered research question is uncertain. As previous research demonstrates, citation analysis as an indicator of individual or institutional quality is often criticised and certainly flawed (Seglen).

The literature review describes the paucity of relevant evidence and lack of inferential statistics from research to support previous findings, yet the author's search for evidence could have been extended beyond the databases Library Literature and Web of Science. Methodological insight and evidence from citation analysis of biomedical journal quality may have proven useful.

Population samples are described as random, however detail is lacking as to how randomisation was achieved. Indication of sample stratification by health subject is not provided, however Narin states that citation dynamics can be so different across research fields to make evaluative comparison on the

basis of citations difficult or impossible. Sample comparability at baseline therefore remains unclear.

The data collection methods are poorly described, and details of the collection instrument are not provided. The main area of concern is the lack of primary data presented. Several analyses investigating differences in reference type across publication format were carried out, however the reference type data cited in each type of publication are not presented. Whilst such an omission probably does not affect the results and interpretation, it is not good practice to present inferential statistics without first presenting the actual data from which the inferences arise.

Results are described in detail and informetric techniques employed, however analysis fails to satisfy the research objectives. The DSP documents are more likely to contain references than the DHHS documents, yet there is no presentation of evidence to indicate any significant step towards answering the research questions. Of genuine interest is the level of DHHS referencing of U.S. government publications, the overwhelming use of specific publications, and the extent of self-citation. Data relating to document referencing of peer-reviewed journals implies that health publications from both the DSP and the DHHS are subjected to a fairly rigorous publication standard, yet little is presented to support or discount levels of trust, and no explicit connections are made between the different types of health care system and implications for referencing habits.

Opportunity exists for future research in the area of public trust in government publications, including health issues. However, any study would demand a more rigorous methodological standard than demonstrated in this study. It is worthwhile to appreciate that when attempting to

measure the value of any publication, citation analysis should not be considered as the one and only evaluation criterion (Shoonbaert).

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