



THE USE OF WIKIPEDIA FOR INCREASING AWARENESS ABOUT UNDERSEA AND HYPERBARIC MEDICINE.



Josephine H. Li, Gene W. Hobbs and Robert W. Perkins

Rubicon Foundation, Inc and Duke Center for Hyperbaric Medicine and Environmental Physiology, Durham, NC, USA

Background

In the seven years since its inception, Wikipedia, an Internet-based and user-edited encyclopedia with millions of users has increasingly become a starting point for background information utilized by both faculty and students. Wikipedia does not greatly differ from Encyclopaedia Britannica in the accuracy of articles¹. Wikipedia was one of two end sites most commonly providing correct answers to Google searches on unfamiliar medical topics².

Wikipedia contains numerous articles on undersea and hyperbaric medicine related topics as well as many historically significant events and people. Many of these articles are lacking in background information, current research, and references to support their claims.

The Rubicon Research Repository (RRR) is a collection of physiology and medical publications. Digitization of documents increases their accessibility and facilitates collaboration. These holdings represent a significant portion of the available information needed to improve encyclopedic articles.

Methods

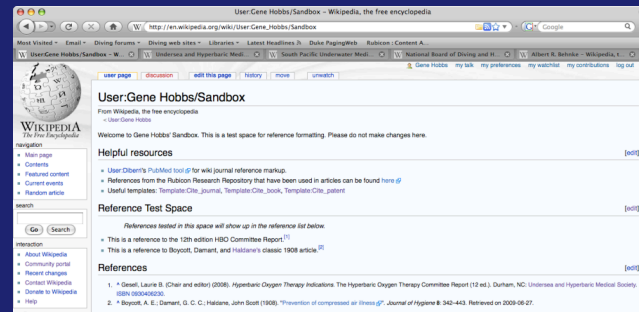
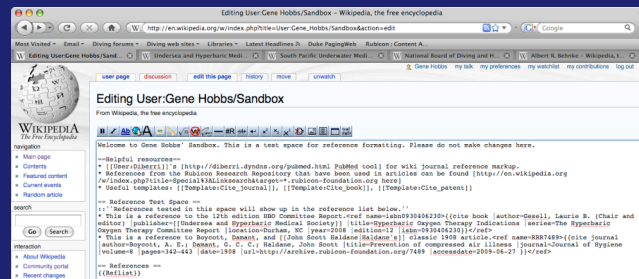
References to RRR documents were added to Wikipedia articles beginning March 15, 2008.

Wikipedia's User:Diberri created a PubMed tool used to create properly formatted references. Once articles have been identified as needing supporting information, the PubMed tool is used to format the references for addition to the articles.

Internet traffic to the RRR documents was collected using AWStats 6.5.

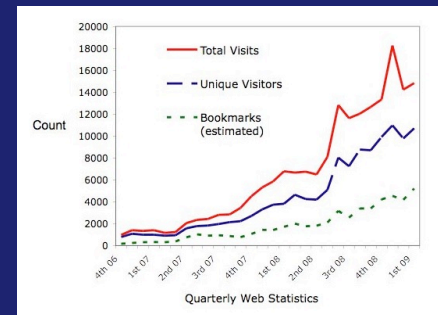
Examples

Proper reference formatting is essential for correct display and usability within Wikipedia. Below are examples of the mark up language and how the final product is displayed.



Results

There are currently 848 RRR references cited. Prior to using Wikipedia, there was a period of initial growth from December '07 to March '08 with a mean of 4107 unique visitors per month (SD 420.2, SE 210.1). From April '08 to January '09, the unique visitor count showed a mean of 8341 (SD 2271, SE 718.2). Web traffic data, December 2007 to January 2009:



Conclusions

Wikipedia significantly increased RRR traffic (p=0.00018) showing that users do look for further information if it is available to them. Adding Wikipedia references extends the pool of RRR visitors to Wikipedia users who may not usually encounter the database. Journals in other fields now require a Wikipedia entry submission along with manuscripts to be peer reviewed and placed upon acceptance.³ This practice should be considered a professional responsibility and will continue as the RRR expands.

References

- Giles J. Internet encyclopaedias go head to head. *Nature*. 2005 Dec 15;438(7070):900-1.
- Johnson PT, Chen JK, Eng J, Makary MA, Fishman EK. A comparison of world wide web resources for identifying medical information. *Acad Radiol*. 2008 Sep;15(9):1165-72.
- Callis KL, Christ LR, Resasco J, Armitage DW, Ash JD, Coughlin TT, Clemmensen SF, Copeland SM, Fullman TJ, Lynch RL, Olson C, Pruner RA, Vieira-Neto EH, West-Singh R, Bruna EM. Improving Wikipedia: educational opportunity and professional responsibility. *Trends Ecol Evol*. 2009 Apr;24(4):177-9.