

# A Scientometric Study on Health and Medical Informatics Literature

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## Abstract and Objective

*Few researches evaluated medical and health informatics literature. All published papers on medical or health informatics indexed by ISI Web of Science databases including Science Citation Index Expanded, Social Sciences Citation Index, Conference Proceedings Citation Index- Science, and Conference Proceedings Citation Index- Social Science & Humanities from the beginning of 1985 until the end of 2008 were retrieved. The results indicated that total 3123 papers on medical or health informatics have been indexed by ISI Web of Sciences which received 16630 citations between 1990 and 2008. The average citations per year were about 5 times. The language of the most papers was English. USA, England and Germany respectively published more papers than other countries. According to the results, running more researches in this field seems to be necessary.*

## Keywords:

Health informatics, Medical informatics, Scientometric indicators, Health information management.

## Introduction

Medical Informatics is a developing body of knowledge concerned with the application of information and communication technology in the health science to promote health care services and supporting medical research and education. Few researches evaluated medical and health informatics literature. In the present study, total published papers on medical and health informatics indexed by ISI Web of Science have been studied using scientometric tools and methods to evaluate the publication trend of the related literature through the years.

## Methods

The present research was a descriptive study. We searched all published papers on medical or health informatics indexed by ISI Web of Science databases including Science Citation Index Expanded (SCIE), Social Sciences Citation Index (SSCI),

Conference Proceedings Citation Index- Science (CPCIS), and Conference Proceedings Citation Index- Social Science & Humanities (CPCISSH) from the beginning of 1985 until the end of 2008. The retrieved data were entered to the Excel software and were sorted out according to their publication years, languages, Source Titles, authors, countries Institutions. We also run a citation analysis on the retrieved papers to show the citations rate of the retrieved papers.

## Results

The results indicated that total 3123 papers on medical or health informatics have been indexed by ISI Web of Sciences during the time interval. The language of the most papers was English. Journals of "Studies in Health Technology and Informatics", "Journal of the American Medical Association" and "International Journal of Medical Informatics" published more related papers than other sources. The German author, Reinhold Haux with 70 published articles (about 2.24% of total related papers) had the most indexed papers on medical or health informatics indexed by ISI Web of Science. USA (1520), England (252) and Germany (206) respectively published more papers than other countries. The highly productive institutes in this field were Harvard University (2.75%), Columbia University (2.72 %) and Vanderbilt University (2.08%). Total citations to 123 papers indexed by ISI Web of Science were 16630 and the average citations per year were about 5 times. The most highly cited paper was an article published in 1996 by Journal of the American Medical Association (JAMA) which received 437 citations until the end of 2008.

## Conclusion

The study indicated that too many papers on medical and health informatics indexed by ISI Web of Science over the years (1990-2008). Due to the importance of the subject and the high rate of citations to the related papers running more researches in this field seems to be necessary.