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Scientometric Analysis of Scientific Validity of Medical Archives Regarding Other Medical Journals in Bosnia and Herzegovina

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ABSTRACT

Introduction: Medical Archives is the oldest medical journal in Bosnia and Herzegovina (B&H) (founded in 1947.). A total of 104 articles were published in Medical Archives during 2015. Analyzing the type of articles, original articles are present in majority during 2015–80.7% (in last seven years, 561 (76%) were original out of 738). In last seven years, 651 (88.2%) articles were from the field of clinical medicine (preclinical disciplines, in the last three years are more represented than in previous years). Collaboration rate in 2015 was 0,92. Articles written in collaboration of five authors (21.1 %) are found to be predominant. From year to year, most often required time for a decision on acceptance or on the revision prior acceptance is between 50 and 60 days (30% of cases in 2015). During 2015, 47.1% of articles were originally from B&H (eleven countries were represented). H index of Medical Archive for 2014 was 12, and does not vary during the last decade. **Findings:** In 2015 in B&H about twenty-five journals are issued in the field of biomedical and life sciences in general (six are indexed on Medline/PubMed, one is indexed in the Science Citation Index Expanded (SCIE)/Web of Science base). According to GoogleScholar the biggest h5 index has Bosnian Journal of Basic Medical Sciences (BJBMS) and Medical Archives, while the biggest h5 median has BJBMS i Acta Informatica Medica. The highest H-index (13) in B&H has Izet Masic MD, PhD, Enver Zerem MD, PhD and Semir Vranic MD, PhD, while highest g-index (22) has Enver Zerem MD, PhD (analyzed by software package "Publish or Perish"). **Conclusion:** By comparing the state of medical publishing in B&H with neighboring countries (Croatia, Serbia, Montenegro), we have concluded that B&H is behind Croatia and Serbia by following parameters: Total Documents, Total Cites and H index but in front of Montenegro.

Key words: Medical Archives, H-index, g-index.

1. INTRODUCTION

Biomedical publication in the former Yugoslavia has a long tradition (1). The oldest medical journal in Bosnia and Herzegovina (B&H) was "Jahrbuch des Bosnisch-Herzegowinischen Landesspitales in Sarajevo" (Annual of the National Hospital in Sarajevo) (Figure 1) which was established in 1897 (published in German language) (1).

Medical News Journal (Medicinski vjesnik) in Croatia (1877), Health News (Zdravstveni vestnik) in Slovenia (1927), Medical Archives (Medicinski arhiv) in Bosnia and Herzegovina (1947) and Domestic physician (Domaci lekar) in Serbia (1877), represent a precursor of today's journal in the former Yugoslavia (1).

In 2015 in B&H about twenty-five journals are issued in the field of biomedical and life sciences in general. Systematization is made, 17 of the most relevant journals are selected, and their indexation in scientific databases is presented (Table 1). Unfortunately, the rest of them are not in the table bellow (lot of them that are not included into account are review journals), due to inefficiency on

	Medical Archives	Materia Socio Medica	Acta Informatica Medica	Acta Medica Academica	Medicinski Glasnik	BJBMS	Journal of Health Sciences	HealthMed	Acta Medica Saliniana	Pediatrics Today	Medical Journal	Pharmacia	Veterinaria	Sport Science	Folia Medica	Scripta Medica
SCIE																
PubMed Central																
PubMed/MedLine																
Excerpta medica/EMBASE																
Scopus																
Scirus																
EBSCO																
DOAJ																
Index Copernicus																
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GFMER																
HINARI																
ProQuest																
NewJour																
SCImago Journal and Country Rank																
ISC Master Journals List																
CrossRef																
Google Scholar																
Genamics JournalSeek																
WorldCat																
VINITI of RAS																
Research Gate																
Catalyst																
ScopeMed																
SafetyLit																
BioInfoBank Library																
PubGet																
GetCited																
CIRRIE																
Kubon and Sagner OPAC																
NLM Catalog																
EastView																
Cab Abstracts																
Global Health																
DynaPresse																
InfoBase Index																
Index Scholar																
Academic One File																
JCR																
BASE																
Elek Zeitschriftenbibliothek																
ISI																
Open J Gate																
British Library Direct																
CASSI																
DRJI																
ESSCI																
Universal Impact Factor																
Global Impact Factor																
Physical Education Factor																
Electronic Journals Index																
Academic Journals Database																
SFESAnE																
Research Bible																
Academic Keys																

Table 1. Representation of the journals in Bosnia and Herzegovina in the field of medicine in the scientific bases

Figure 1. Jahrbuch des Bosnisch-Herzegowinischen Landesspitales in Sarajevo

their web sites, or due to absence of information of the index status on their website. Timeliness on their own web sites gives a great view of the seriousness of a journal in contemporary world.

Journals that are indexed in Medline/PubMed are Medical Archives (established in 1947), Materia Socio-Medica (established in 1978), Acta Informatica Medica (established in 1993), Acta Medica Academica (established in 2008), Bosnian Journal of Basic Medical Sciences (BJBMS) (established in 2004) and Medicinski Glasnik (established in 2007). The first three mentioned represent editions of Academy of Medical Sciences of Bosnia and Herzegovina. Acta Medica Academica is edition of the Academy of Sciences and Arts of Bosnia and Herzegovina. Medicinski Glasnik is the official publication of the Medical Association of Zenica-Doboj Canton (Federation of Bosnia and Herzegovina). BJBMS is edition of Association of Basic Medical Sciences of the Federation of Bosnia and Herzegovina and is the only one of the above mentioned journals, which is indexed in the Science Citation Index Expanded (SCIE)/Web of Science base. The Journal of Health Sciences is an open access, periodical journal, with the purpose to publish articles relevant to field of laboratory diagnostics, physical therapy, healthcare and nursing, radiologic technology, health and ecology and related fields, and in this moment has pending status in Medline/PubMed base. Medical Archive is the oldest of the mentioned journals in B&H. In last ten years journal is published bi-monthly. Till now in Medical Archives over 5000 articles were published and most of them were original articles from all medical disciplines (1). Medical Archive is a journal, in which articles in the field of clinical medicine are usually present. Considering the number of articles, we can say that it is the most important journal in the field of clinical medicine, because majority of original articles in these areas are published there, compared with all other journals in B&H, which are contained in the Medline/PubMed database. Internal and surgical areas are dominating. Medical Archive (Table 1) is the most common in the scientific bases worldwide.

2. SCIENTOMETRIC ANALYSIS OF THE JOURNAL "MEDICAL ARCHIVES"

Journal "Medical Archives", in last ten years is published bi-monthly. "Medical Archives" is now indexed in the following databases: PubMed/MedLine (from 1972, abstracted in this bases more than 5.500 journals) (1), PubMed Central (from 2013), and from the year 2009 in databases: Excerpta medica/EMBASE, Scopus, Scirus, EBSCO, DOAJ, Index Copernicus, Ulrich's Periodicals Directory, Geneva Foundation for Medical Education and Research - GFMER, HINARI, CAB Abstracts, Global Health, ProQuest, NewJour, SCImago Journal and Country Rank, ISC Master Journals List, CrossRef, Google Scholar, Genamics JournalSeek, WorldCat, VINITI of RAS, Research Gate, Catalyst, ScopeMed, SafetyLit, BioinfoBank Library, PubGet, GetCited, CIRRIE, Kubon and Sagner OPAC.

A total of 104 articles were published in Medical Archives during 2015 (Figure 2). Although the number of articles was in decrease in the period 2007-2010 this number in last three years has stabilized (Figure 2).

Analyzing the type of articles, original articles are

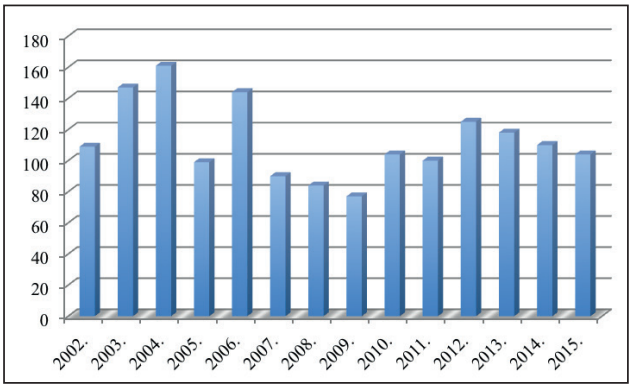
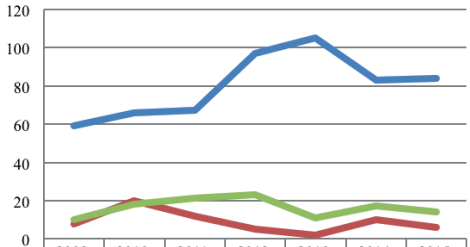


Figure 2. Total number of articles during period 2002.-2015.

present in majority during 2015 (80.7%) (Figure 3). By analyzing last seven years, 561 (76%) were original out of 738 (Figure 3).

During 2015, 90% of publications were related to the

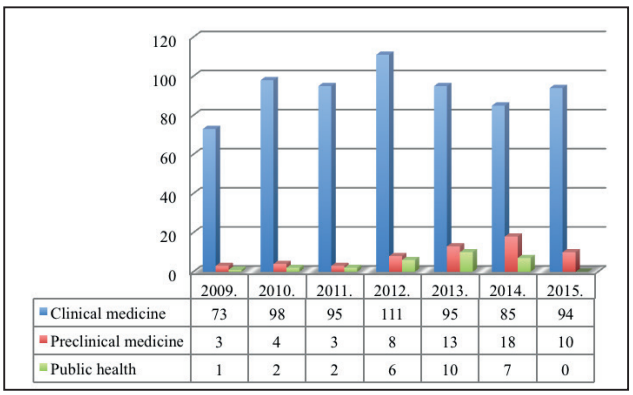


	2009.	2010.	2011.	2012.	2013.	2014.	2015.
Original (include professional)	59	66	67	97	105	83	84
Review	8	20	12	5	2	10	6
Case reports	10	18	21	23	11	17	14

Figure 3. Type of articles during period 2009-2015

field of clinical medicine (27.6% Surgery, 25,6% Internal Medicine, 10.7% Dermatovenerology, Gynecology 7.4%, 7.4% Pediatrics, 6.4% Ophthalmology, 5.3% Physical therapy, 4.2% ENT, 3.2% Neuropsychiatry, 1.1% Radiol-

ogy and Immunology). Analyzing last seven years, 651 (88.2%) articles were from the field of clinical medicine (Figure 4). Preclinical disciplines, in the last three years are more represented than in previous years (in 2015.



	2009.	2010.	2011.	2012.	2013.	2014.	2015.
Clinical medicine	73	98	95	111	95	85	94
Preclinical medicine	3	4	3	8	13	18	10
Public health	1	2	2	6	10	7	0

Figure 4. Distribution of articles by fields during period 2009.-2015.

10 papers were from preclinical fields, and of these 80% from the field of Biochemistry and 20% from the field of Microbiology) (Figure 5).

Collaboration rate (ratio of number of multi-authored articles with the total number of articles) in 2015 was

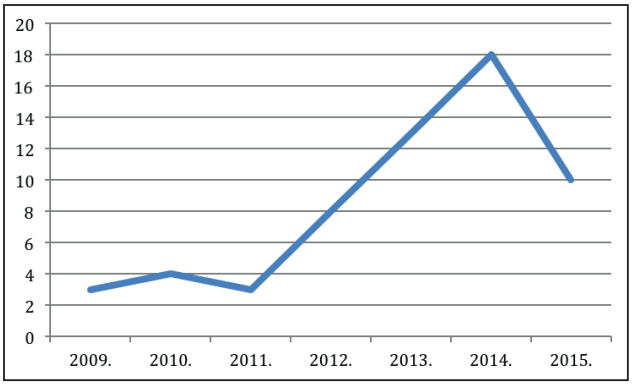


Figure 5. Preclinical disciplines in Medical Archives during period 2009-2015 (the highest number of articles was in 2014.)

0,92. Articles written in collaboration of five authors (21.1 %) are found to be predominant followed by collaboration of four authors (19,2 %) (Figure 6).

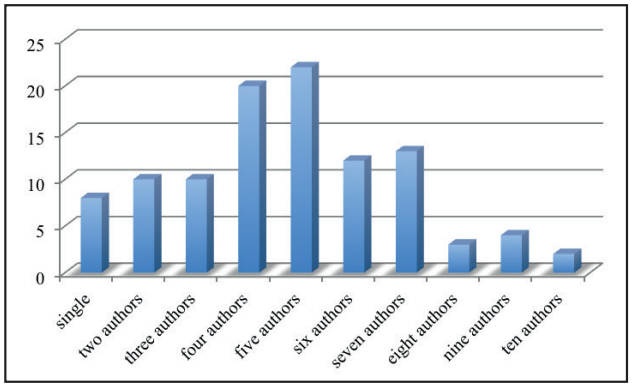


Figure 6. Collaboration of authors during 2015

From year to year, most often required time for a decision on acceptance or on the revision prior acceptance is between 50 and 60 days (30% of cases in 2015) (Figure 7).

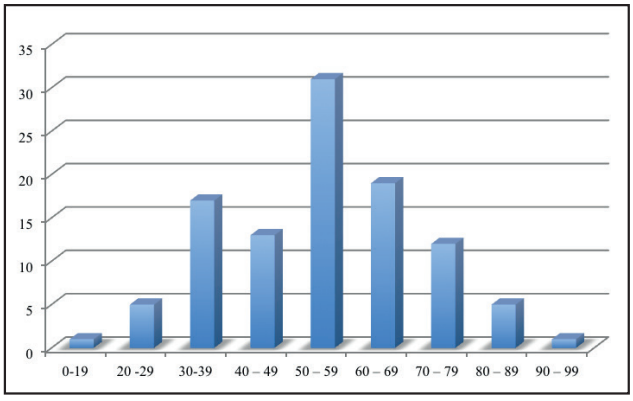


Figure 7. Time needed for the decision on acceptance of article in year 2015

During 2015, 47.1% of articles were originally from B&H (eleven countries were represented–B&H, Iran, Kosovo, Saudi Arabia, Albania, Turkey, R. Macedonia, Serbia, Jordan, Greece, Croatia, which is still slightly lower number compared to previous years). Growing number of regional collaboration was noticed (Figure 8).

Figure 8. Map of countries from which the articles came from in year 2015

According to scimagojr.com, SCImago Journal Rank (SJR) (average number of weighted citations received in the selected year by the documents published in the selected journal in the three previous years) for 2014 was 0,168 and is increasing (Figure 9).

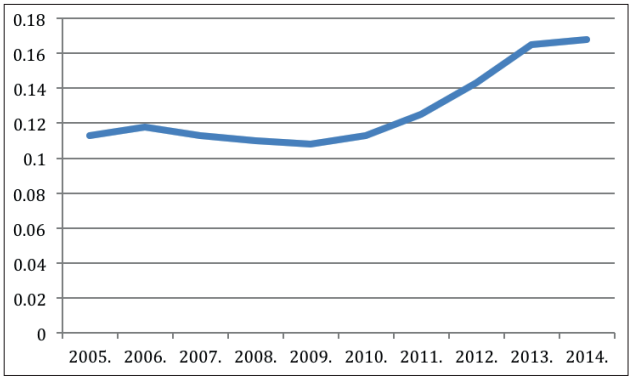


Figure 9. Scilmago Journal Rank Indicator of Medical Archives during period 2005-2014

Analyzing on same portal parameter Cites/Doc. (2 years) (widely used as impact index), for Medical Archive was 0.45, and a slight decrease compared to 2013 was observed which was 0,49 in that year (Figure 10).

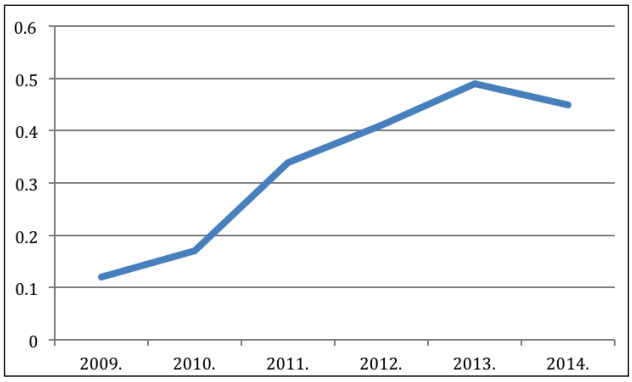


Figure 10. Cites / Doc. (2years) (widely used as impact index) parameter for Medical Archives during period 2009-2014

The SJR indicator measures the scientific influence of the average article in a journal, it expresses how central to the global scientific discussion an average article of the journal is (2). Cites per Doc. (2y) measures the scientific impact of an average article published in the journal, it is computed using the same formula that journal impact factor ™ (Thomson Reuters) (2) (Figure 11).

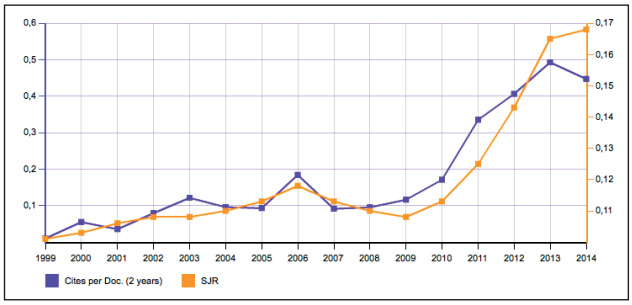


Figure 11. SJR indicator vs. Cites per Doc (2 years) for Medical Archives (2)

Not every article in a journal is considered primary research and therefore "citable" (2). Figure 12 shows the ratio of a journal's articles including substantial research (research articles, conference papers and reviews) in three year windows (2).

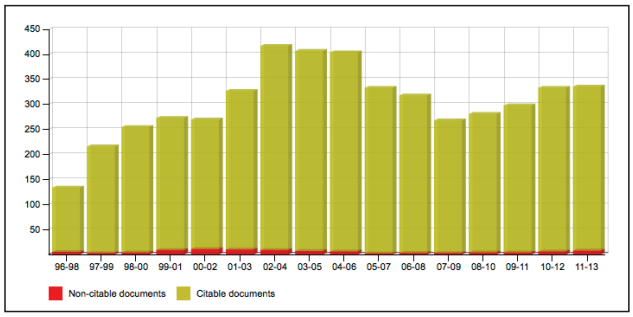


Figure 12. Ratio of citable and non-citable documents (2)

H index (the index that attempts to measure the productivity and impact of published work of scientists) of Medical Archive for 2014 was 12, and does not vary during the last decade (H index of the Medical Archive is the highest among journals in Bosnia and Herzegovina) (Figure 13).

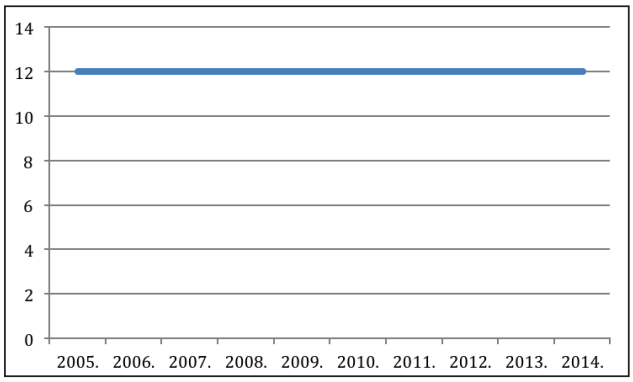


Figure 13. H index for Medical Archives during period 2005-2014

Google Corporation in 2005 launched Google Scholar online service that allows a search for scholarly literature. According to GoogleScholar, h5 index (h-index for articles published in the last 5 complete years) for Medical Archives is 14 and h5 median (median number of citations for the articles that make up its h5-index) is 19. The most cited articles by GoogleScholar are shown in Figure 10 (should be interpreted with caution - PubMed shows that articles have higher number of citation) (Figure 14).

Title / Author	Cited by	Year
Clinical Evaluation of Nigella Sativa Seeds for the Treatment of Hyperlipidemia: a Randomized, Placebo Controlled Clinical Trial AM Sabzghabaee, M Dianatkhah, N Sarrafzadegan, S Asgary, ... Medical Archives 66 (3), 198	29	2012
Biomarkers of Plaque Instability in Acute Coronary Syndrome Patients J Nurkic, F Ljuca, M Nurkic, E Jahic, M Jahic Medical Archives 64 (2), 103	28	2010
Incidence and Types of Sleep Disorders in patients with Stroke Z Pasic, D Smajlovic, Z Dostovic, B Kojic, S Selmanovic Medical Archives 65 (4), 225	22	2011
Apache II Scoring System is Superior in the Prediction of the Outcome in Critically Ill Patients with Perforative Peritonitis S Delibegovic, D Markovic, S Hodzic Medical Archives 65 (2), 82	21	2011
The Effect of Loneliness on Malnutrition in Elderly Population E Ramic, N Pranjic, O Batic-Mujanovic, E Karic, E Alibasic, A Alic Medical Archives 65 (2), 92	21	2011
Most Frequent Causes of Urinary Tract Infections in Children L Spahiu, V Hasbahta Medical Archives 64 (2), 88	20	2010
Conflict of interest policies and disclosure requirements among European Society of Cardiology National Cardiovascular Journals. F Alfonso, A Timmis, FJ Pinto, G Ambrosio, H Ector, P Kulakowski, ... Medical archives (Sarajevo, Bosnia and Herzegovina) 66 (3), 148	18	2012
Correlation of CRP and Serum Level of Fibrinogen with Severity of Disease in Chronic Obstructive Pulmonary Disease Patients B Lazovic Medical Archives 66 (3), 159	17	2012
Assessing Intravenous Ketamine and Intravenous Dexamethasone Separately and in Combination for Early Oral Intake, Vomiting and Postoperative Pain Relief in Children Following Tonsillectomy M Safavi, A Honarmand, MR Habibabady, S Baraty, O Aghadavoudi Medical Archives 66 (2), 111	16	2012
Alpha Lipoic Acid and Glycaemic Control in Diabetic Neuropathies at Type 2 Diabetes Treatment K Ibrahimpasic Medical Archives 67 (1), 7	16	2013

Figure 14. The most cited articles in Medical Archives during period 2010.-2015.

3. SCIENTOMETRIC ANALYSIS OF OTHER B&H MEDICAL JOURNALS

Scientometrics is part of scientology (the science of science) that analyzes scientific papers and their citation in the scientific journal selected sample (3). Scientometrics is the science of measuring and analyzing science using qualitative, quantitative and computational approaches (4). Scientometrics with its various indices is a reliable method for evaluation of scientific development (5). Name bibliometrics in the seventies was introduced to denote a quantitative study of the communication

process using mathematical and statistical methods to books and other media of communication (6). Almost simultaneously, in the countries of the former Eastern Bloc was introduced scientometrics name derived from the Russian language (6). More specifically, in 1969 was introduced the name scientometrics relating to scientific field that deals with the study of science as an information process by applying quantitative (statistical) method, and later Tibor Braun (who in 1977 established international journal Scientometrics), introduces the name Scientometrics (7, 8, 9).

Modern Scientometrics is based largely on the work of Derek J. de Solla Price and Eugene Garfield (Garfield founded ISI - Institute for Scientific Information is considered to be the father of scientometrics and methods of evaluation of scientific publications) (6). Garfield has been striving to mathematical representation developed several factors that allow the assessment value and importance of scientific publications, including the most important impact factor (IF) and the H-index (6).

IF is the number of citations of articles published in the journal during the previous two years divided by the total number of articles published in the journal during the same period (6). Factor of influence depends on: the quality of the journal, the language on which it was printed, the area it covers, the magazine distribution system (6). IF in the academic journal is a measure that reflects the average number of citations of articles published in the journal (in a given year, IF of the journal is the average number of citations received per paper published in that journal during the previous two years) (6).

In August 2005, Jorge Hirsch introduced a new indicator for quantifying the research output of scientists (10, 11). Hirsch's so-called H index was proposed as an alternative to other bibliometric indicators - such as the number of publications, the average number of citations and the sum of all citations (12) - and is defined as follows: "A scientist has index h if h of his or her Np papers have at least h citations each and the other (Np - h) papers have ≤ h citations each" (11). All papers by a scientist that have at least h citations are called the "Hirsch core" (13). An H-index of 5 means that a scientist has published five papers that each have at least five citations (14). An H-index of 0 does not inevitably indicate that a scientist has been completely inactive: he or she might have already published a number of papers, but if none of the papers was cited at least once, the H-index is 0 (14).

H-index is an index that attempts to measure the productivity and impact of published work of scientists (the index is based on the basis of the most cited papers and the number of citations that papers received in other publications) (15).

The H-index is given by the largest number h of papers of a researcher which have received at least h citations. One criticism is that the excess citations, i.e., all citations which exceed h for a given publication do not have an effect. Therefore Egghe (16) proposed the g-index which is given by the largest number g of papers which have received at least g citations on average (It was argued recently that the g-index is a measure of a researcher's specific impact (i.e., impact per paper) as much as it is a measure of overall impact) (17). The main difference between the g-index and the H-index is that the former penalizes consistency of impact whereas the latter rewards such consistency (it is concluded that the H-index is a better bibliometric tool than is the g-index) (17).

In 2015 in B&H about twenty-five journals are issued in the field of biomedical and life sciences in general (18). Journals that are indexed in Medline/PubMed are Medical Archives, Materia Socio Medica, Acta Informatica Medica, Acta Medica Academica, Bosnian Journal of Basic Medical Sciences (BJBMS) and Medicinski Glasnik (18). The first three mentioned represent editions of Academy of Medical Sciences of Bosnia and Herzegovina, Acta Medica Academica is edition of the Academy of Sciences and Arts of Bosnia and Herzegovina, Medicinski Glasnik is the official publication of the Medical Association of Zenica-Doboj Canton (Federation of Bosnia and Herzegovina) (18). BJBMS is edition of Association of Basic Medical Sciences of the Federation of Bosnia and Herzegovina and is the only one of the above mentioned journals, which is indexed in the Science Citation Index Expanded (SCIE)/Web of Science base (18-22).

H index of Medical Archive for 2014 is 12 (according to scimagojr.com), and is the highest among the journals

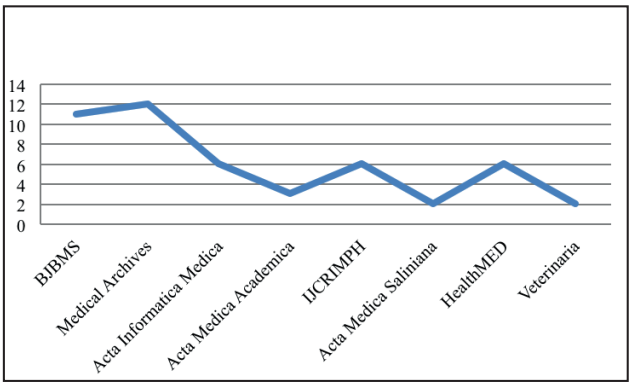


Figure 15. H index for B&H journals (according to scimagojr.com)

in B&H (Figure 15).

According to scimagojr.com for 2014, BJBMS has the biggest SCImago Journal Rank (0,208) (Figure 16), while the highest Cites/Doc. (2years) parameter (widely used as impact index) has Acta Informatica Medica (0,70) (Figure 17). Cites / Doc. (2years) parameter is also differ-

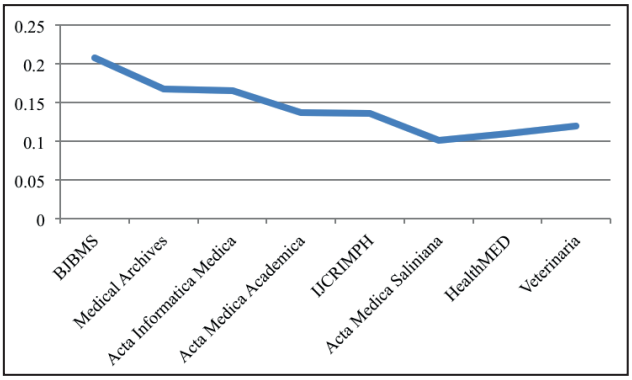


Figure 16. SCImago Journal Rank for B&H journals (according to scimagojr.com)

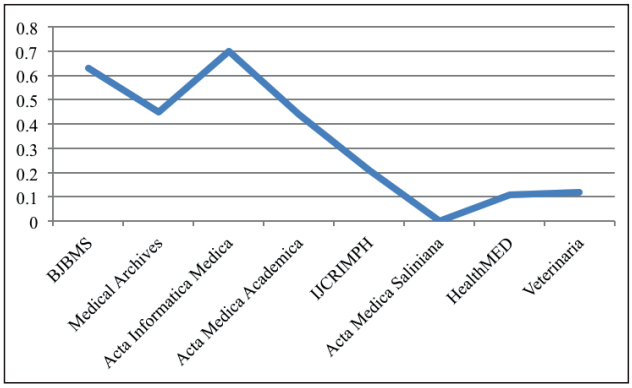


Figure 17. Cites / Doc. (2years) parameter for B&H journals (according to scimagojr.com)

entiated by fields that studies the medicine (Figure 18). By analyzing parameter Total Cites (3 years) (number of citations received in the selected year by a journal to the documents published in the three previous years), it has

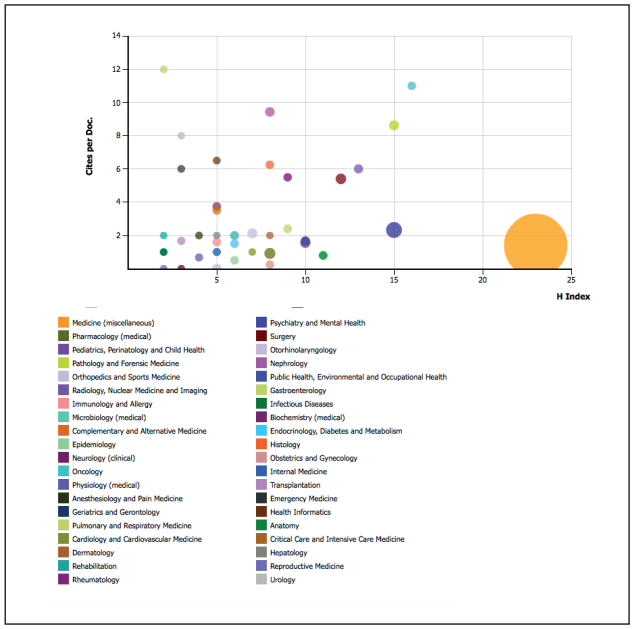


Figure 18. Cites / Doc. (2years) parameter vs H index for medicine fields in period 2012-13 (2)

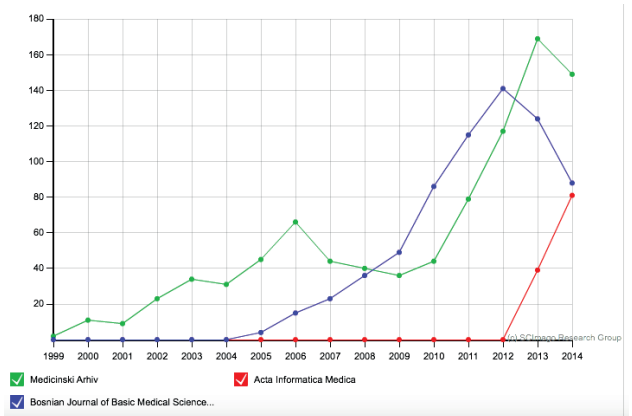


Figure 19. Comparation between Medical Archives, Acta Informatica Medica and Bosnian Journal of Basic Medical Sciences by parameter Total Cites (3 years) (2)

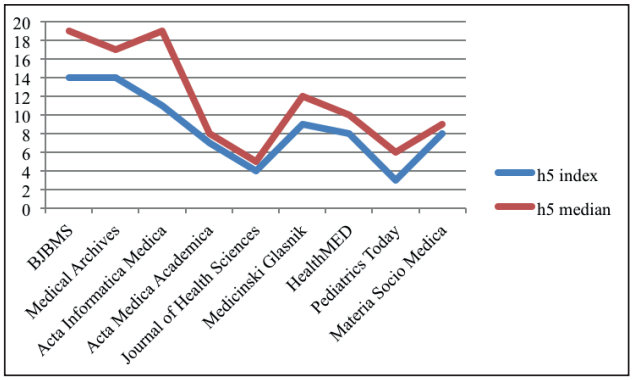


Figure 20. GoogleScholar information about h5 index and h5 median for B&H journals

been shown that Medical Archives has the highest (Figure 19).

According to GoogleScholar the biggest h5 index (h-index for articles published in the last 5 complete years) has BJBMS and Medical Archives (14) (Figure 19), but the biggest h5 median (median number of citations for the articles that make up its h5-index) has BJBMS i Acta Informatica Medica (19) (Figure 20). The most cited articles from Materia Socio Medica, Acta Informatica

Title / Author	Cited by	Year
The effect of physical activity on cognition-physiological mechanisms. JP Gligoroska, S Manchevska Materia socio-medica 24 (3), 198-202	14	2011
Social Networks in Medical Education in Bosnia and Herzegovina I Masic, S Sivic Materia Socio-Medica 24 (3), 162	13	2012
The importance of serum procalcitonin in diagnosis and treatment of serious bacterial infections and sepsis. S Mehanic, R Baljic Materia socio-medica 25 (4), 277-281	12	2013
Leadership, Job Satisfaction and Organizational Commitment in Healthcare Sector: Proposing and Testing a Model AM Mosadeghrad, M Ferdosi Materia Socio-Medica 25 (2), 121	10	2013
Almanac 2011: Acute Coronary Syndromes. The National Society Journals Present Selected Research that has Driven Recent Advances in Clinical Cardiology. C Knight, AD Timmis Materia socio-medica 23 (3), 161-170	9	2010
Barriers to implement Electronic Health Records (EHRs) S Ajami, R Arab-Chadegani Materia Socio-Medica 25 (3), 213	9	2013
Communication in Nursing Practice L Kourkouta, IV Papathanasiou Materia Socio-Medica 26 (1), 65	9	2014
Cross-cultural Adaptation of a Questionnaire on Self-perceived Level of Skills, Abilities and Competencies of Family Physicians in Albania A Alla, K Czabanowska, V Kijowska, E Roshi, G Burazeri Materia Socio-Medica 24 (4), 220	8	2012

Figure 21. The most cited articles in Materia Socio Medica during period 2010-2015

Title / Author	Cited by	Year
Recommendations of the International Medical Informatics Association (IMIA) on Education in Biomedical and Health Informatics-First Revision J Mantas, E Ammenwerth, G Demiris, A Hasman, R Haux, W Hersh, ... Acta Informatica Medica 18 (1), 4	158	2010
Plagiarism in scientific publishing. I Masic Acta informatica medica: AIM: journal of the Society for Medical Informatics ...	33	2012
How to search, write, prepare and publish the scientific papers in the biomedical journals. I Masic Acta informatica medica: AIM: journal of the Society for Medical Informatics ...	32	2011
Ethical aspects and dilemmas of preparing, writing and publishing of the scientific papers in the biomedical journals. I Masic Acta informatica medica: AIM: journal of the Society for Medical Informatics ...	24	2012
Barriers for Adopting Electronic Health Records (EHRs) by Physicians S Ajami, T Bagheri-Tadi Acta Informatica Medica 21 (2), 129	21	2013
Percutaneous Endoscopic Gastrostomy (PEG): Retrospective Analysis of a 7-year Clinical Experience N Vanis, A Saray, S Gornjakovic, R Mesihovic Acta Informatica Medica 20 (4), 235	19	2012
Cooperation between research institutions and journals on research integrity cases: guidance from the committee on publication ethics (cope). E Wager, S Kleinert Acta informatica medica: AIM: journal of the Society for Medical Informatics ...	17	2012
On-line biomedical databases-the best source for quick search of the scientific information in the biomedicine. I Masic, K Milinovic Acta informatica medica: AIM: journal of the Society for Medical Informatics ...	15	2012
Readiness Assessment of Electronic Health Records Implementation S Ajami, S Ketabi, SS Isfahani, A Heidari Acta Informatica Medica 19 (4), 224	14	2011
Antioxidant and Immunostimulant Effect of Carica Papaya Linn. Aqueous Extract in Acrylamide Intoxicated Rats KM Sadek Acta Informatica Medica 20 (3), 180	13	2012

Figure 22. The most cited articles in Acta Informatica Medica during period 2010-2015

Title / Author	Cited by	Year
Candida albicans and non-albicans species as etiological agent of vaginitis in pregnant and non-pregnant women. M Babic, M Hukic Bosnian journal of basic medical sciences/Udruzenje basicnih mediciniskih ...	30	2010
The effect of a probiotic strain (Lactobacillus acidophilus) on the plaque formation of oral Streptococci. A Tahmourespour, RK Kermanshahi Bosnian journal of basic medical sciences/Udruzenje basicnih mediciniskih ...	26	2011
Outcomes of 3% green tea emulsion on skin sebum production in male volunteers. T Mahmood, N Akhtar, BA Khan, HM Khan, T Saeed Bosnian journal of basic medical sciences/Udruzenje basicnih mediciniskih ...	26	2010
Oxidative stress in cataractogenesis. S Cekić, G Zlatanović, T Cvetković, B Petrović Bosnian journal of basic medical sciences/Udruzenje basicnih mediciniskih ...	24	2010
Methicillin-resistant Staphylococcus aureus (MRSA) as a cause of nosocomial wound infections. M Sisirak, A Zvizdic, M Hukic Bosnian journal of basic medical sciences/Udruzenje basicnih mediciniskih ...	23	2010
The importance of determining procalcitonin and C reactive protein in different stages of sepsis. GZ Baruti, H Pacarizi, B Zhubi, L Begolli, V Topciu Bosnian journal of basic medical sciences/Udruzenje basicnih mediciniskih ...	19	2010
Ocular manifestation of rheumatoid arthritis-different forms and frequency. G Zlatanović, D Veselinović, S Cekić, M Zivković, J Đorđević-Jocić, ... Bosnian journal of basic medical sciences/Udruzenje basicnih mediciniskih ...	19	2010
Relevance of uric Acid in progression of type 2 diabetes mellitus. A Causevic, S Semiz, DA Macic, B Cico, T Dujic, M Malenica, T Bego Bosnian journal of basic medical sciences/Udruzenje basicnih mediciniskih ...	19	2010
Aerobic capacity as an indicator in different kinds of sports. G Rankovic, V Mutavdzic, D Toskic, A Preljevic, M Kocic, RG Nedin, ... Bosnian journal of basic medical sciences/Udruzenje basicnih mediciniskih ...	16	2010
Depression in hemodialysis patients. B Cengić, H Resić Bosnian journal of basic medical sciences/Udruzenje basicnih mediciniskih ...	16	2010

Figure 23. The most cited articles in Bosnian Journal of Basic Medical Sciences during period 2010-2015

Medica and Bosnian Journal of Basic Medical Sciences are shown on Figures 21-23.

By comparing the state of medical publishing in B&H with neighboring countries (Croatia, Serbia, Montenegro), we have concluded that B&H is behind Croatia and Serbia by following parameters: Total Documents, Total Cites and H index (Figure 24, 25, 26), but in front of Montenegro. Though interesting is monitoring of inter-

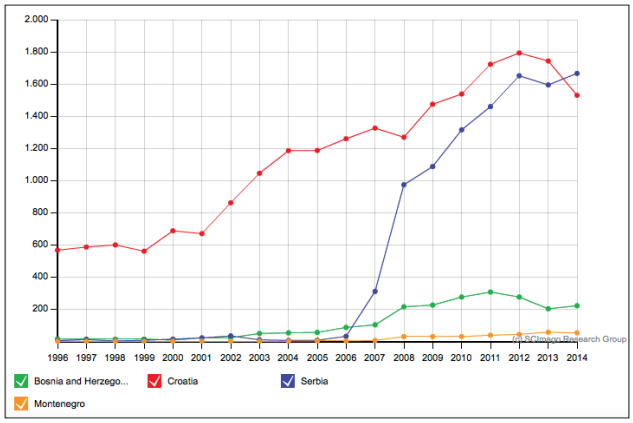


Figure 24. Comparation between B&H, Croatia, Serbia and Montenegro by Total Documents parameter (2)

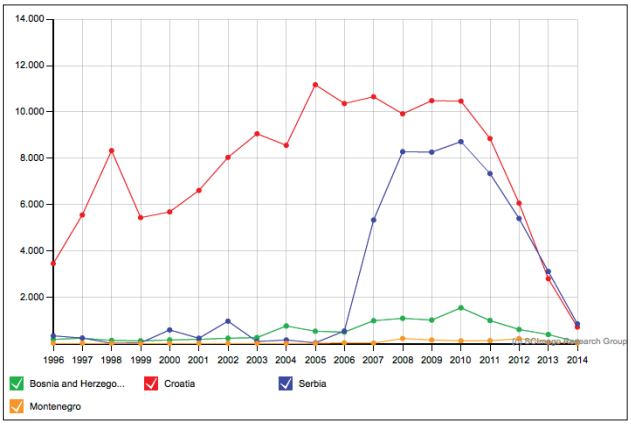


Figure 25. Comparation between B&H, Croatia, Serbia and Montenegro by Total Cites parameter (2)

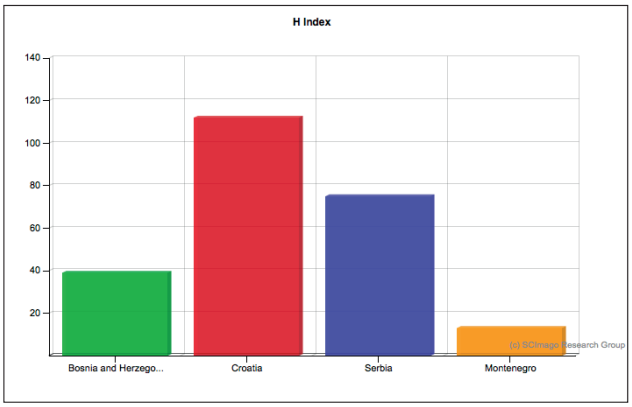


Figure 26. Comparation between B&H, Croatia, Serbia and Montenegro by H index (2)

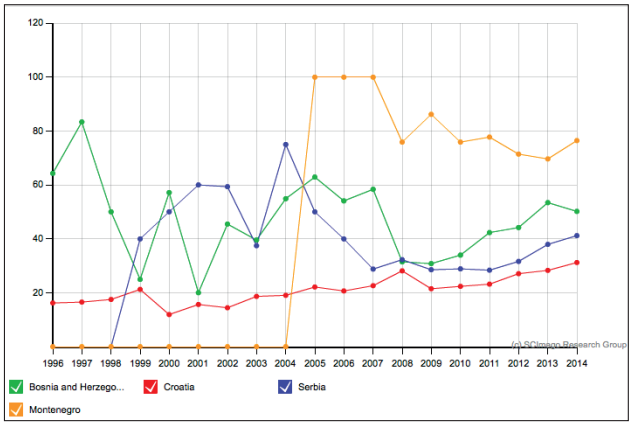


Figure 27. Comparation between B&H, Croatia, Serbia and Montenegro by international collaboration parameter (2)

national collaboration, where B&H is in front of Croatia and Serbia, but behind Montenegro (Figure 27).

Ana Wil Harzing, from Melbourne, Australia, in 2006 launched a free of charge available software package called "Publish or Perish", which is used for the derivation of various citation analyses, including impact factor (4). We analyzed the most prolific authors of B&H by mentioned software (the highest H-index has Izet Masic MD, PhD, Enver Zerem MD, PhD and Semir Vranic MD, PhD, while highest g index has Enver Zerem MD, PhD) (Table 2).

4. CONCLUSION

A total of 104 articles were published in Medical Archives during 2015. Analyzing the type of articles, original articles are present in majority during 2015–80.7% (in last seven years, 561 (76%) were original out of 738).

In last seven years, 651 (88.2%) articles were from the field of clinical medicine (preclinical disciplines, in the last three years are more represented than in previous years). Collaboration rate in 2015 was 0,92.

From year to year, most often required time for a decision on acceptance or on the revision prior acceptance is between 50 and 60 days (30% of cases in 2015).

During 2015, 47.1% of articles were originally from B&H (eleven countries were represented).

* H index of Medical Archive for 2014 was 12, and does not vary during the last decade.

Author	H-index	g-index
Azra Alajbegovic	9	12
Semir Beslija	6	19
Marko Buksa	4	7
Mirza Dilic	8	11
Vjekoslav Gerc	4	7
Mehmed Gribajcevic	2	2
Mirko Grujic	3	9
Zoran Hadziahmetovic	3	4
Almira Hadzovic Dzuvo	6	10
Kemal Dizdarevic	4	10
Muhidin Hamamdzic	2	2
Mirsada Hukic	9	19
Dzelaludin Junuzovic	4	7
Jasenko Karamehic	5	7
Abdulah Kucukalic	9	17
Mehmed Kulic	4	7
Lidija Lincender	4	5
Slobodan Loga	4	6
Farid Ljuca	8	14
Izet Masic	14	18
Bakir Mehic	3	4
Senka Mesihovic Dinarevic	3	6
Rusmir Mesihovic	6	9
Nedzad Mulabegovic	4	5
Snjezana Milicevic	3	5
Dragana Niksic	4	5
Ljerka Ostojic	12	16
Senija Rasic	3	4
Halima Resic	7	10
Nermin Salkic	6	10
Osman Sinanovic	11	19
Sekib Sokolovic	5	15
Emir Solakovic	3	5
Husref Tahirovic	9	15
Berislav Topic	5	8
Nenad Vanis	5	8
Semir Vranic	13	21
Enver Zerem	13	22

Table 2. Most profilic authors in B&H analyzed by Publish or Perish software (based on Google Scholar database)

* H-index is a better bibliometric tool than is the g-index.

* In 2015 in B&H about twenty-five journals are issued in the field of biomedical and life sciences in general.

* Journals that are indexed in Medline/PubMed are Medical Archives, Materia Socio Medica, Acta Informatica Medica, Acta Medica Academica, Bosnian Journal of Basic Medical Sciences (BJBMS) and Medicinski Glasnik (18-22).

* According to scimagojr.com for 2014, BJBMS has the biggest SCImago Journal Rank (0,208) while the highest Cites/Doc. (2years) parameter (widely used as impact index) has Acta Informatica Medica (0,70).

* According to GoogleScholar the biggest h5 index has BJBMS and Medical Archives (14), but the biggest h5 median has BJBMS i Acta Informatica Medica (18).

* By comparing the state of medical publishing in B&H with neighboring countries (Croatia, Serbia, Montenegro), we have concluded that B&H is behind Croatia and Serbia by following parameters: Total Documents, Total Cites and H index but in front of Montenegro.

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- **Conflict of interest: none declared.**

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