

CITATION TREND OF MEDICAL ARTICLES – A 20 YEARS ANALYSIS

Octavian Andronic, Sorina Nechita, Dan Nicolae Păduraru, Alexandra Bolocan, Daniel Ion

Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

University Emergency Hospital of Bucharest, Romania

Introduction

The trend of citations arouses interest for authors due to the specific parameters derived from the number of citations, for institutions due to the involvement of citations in calculating specific scores of university rankings and also for publishers considering the impact scores calculated based on citations. Thus, we tried to determinate how the number of citations for the field of medicine fluctuates.

Material and Method

The methodology of the study involved extracting data from the **Web of Science** platform for the **most cited 1000 articles** in the **field of medicine, published in 2001**.

Document Type	Open Access		Total
	nOA	OA	
Article	325	335	660 (66.0%)
Review	247	93	340 (34.0%)
Total	572 (57.2%)	428 (42.8%)	1000

Table 1 – Distribution of selected articles

Results

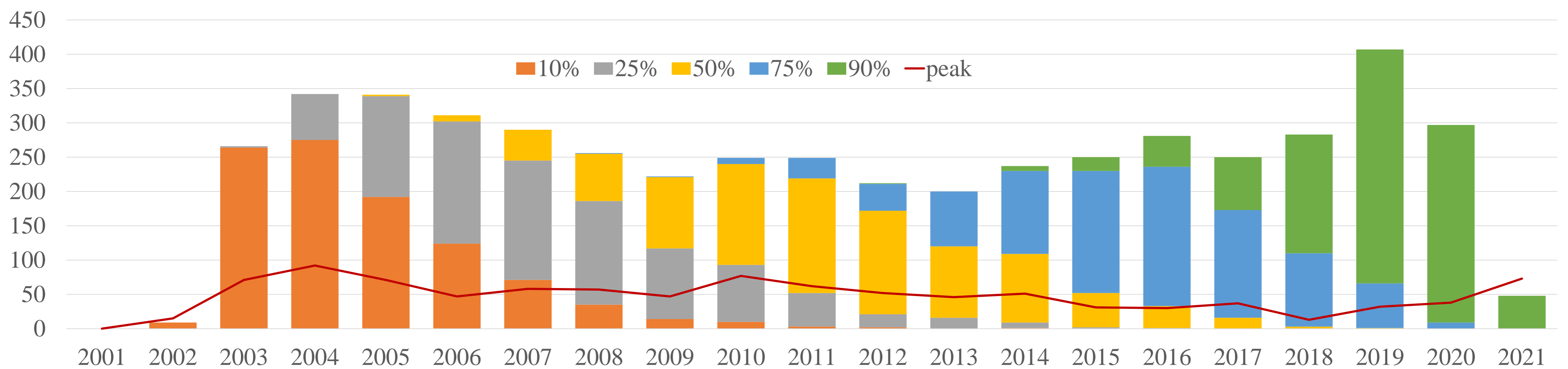


Figure 1

In the graph above are represented, for each year, the number of articles that reach in that year 10%, 25%, 50%, 75%, respectively 90% of the total number of citations obtained in the period of 20 years. Thus we can see the time windows in which the articles reach a certain percentage of citations - for example 50% of the total number of citations are reached by most articles in the window of years 6-14. The red line shows the number of articles that reach the peak in that year - the maximum number of citations / year. Although we would expect most articles to reach the peak in the first 10 years after publishing, it can be seen that there are many articles that reach this threshold after 15 years.

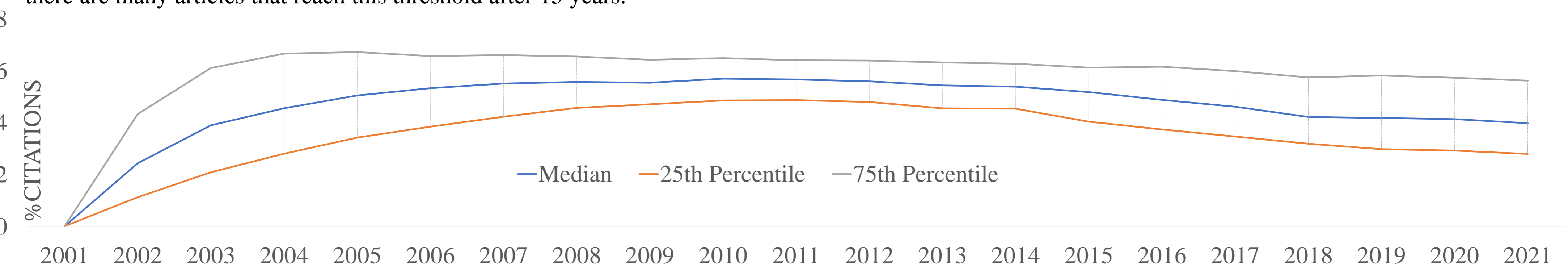


Figure 2

The graph above shows the median, respectively the 25th and 75th percentiles of the percentage of citations (out of the total of the 20 years) obtained by the articles each year. It can be seen reaching a maximum number of citations in year 6 and remaining somewhat constant in the next 7 years followed by a slight decrease.

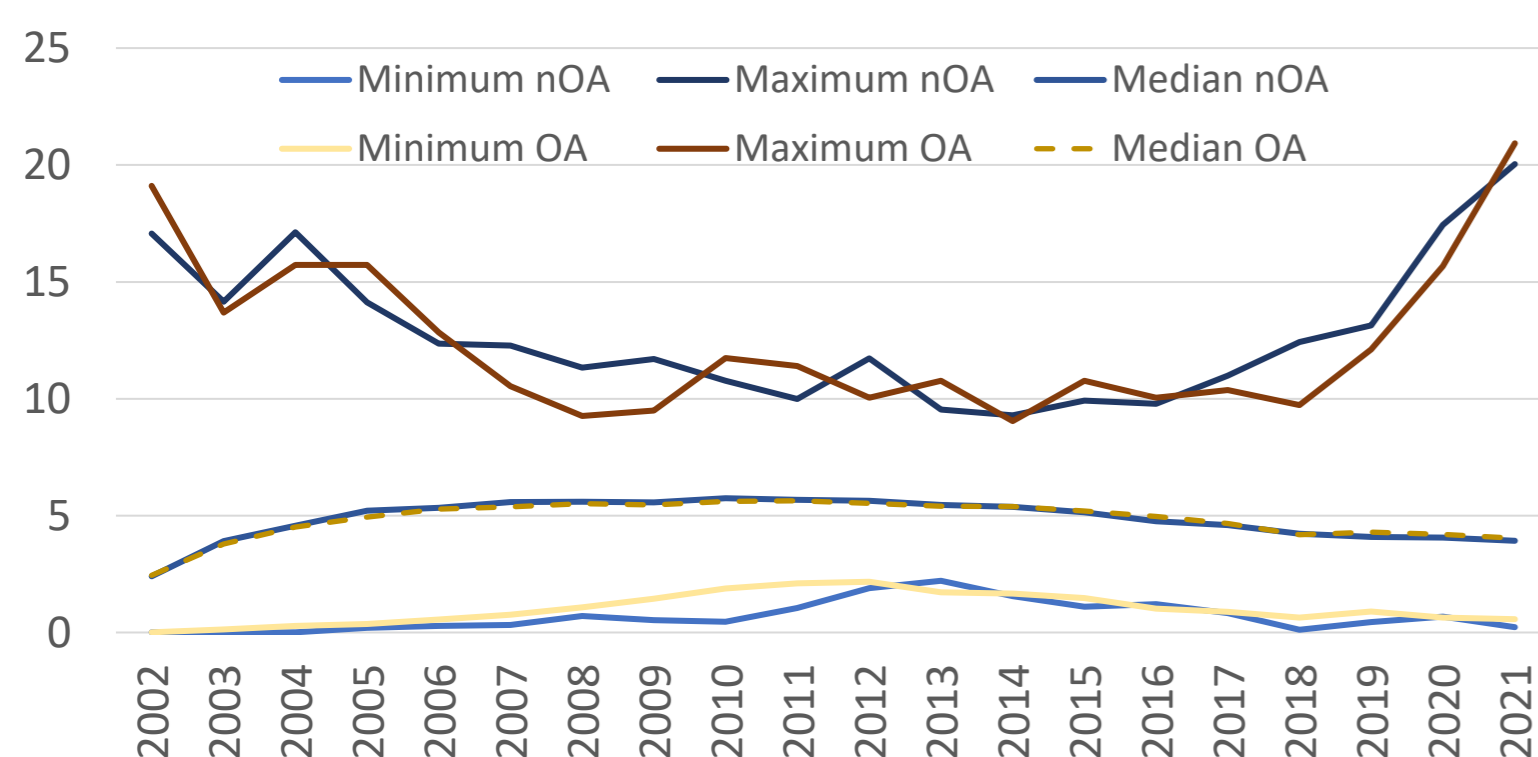
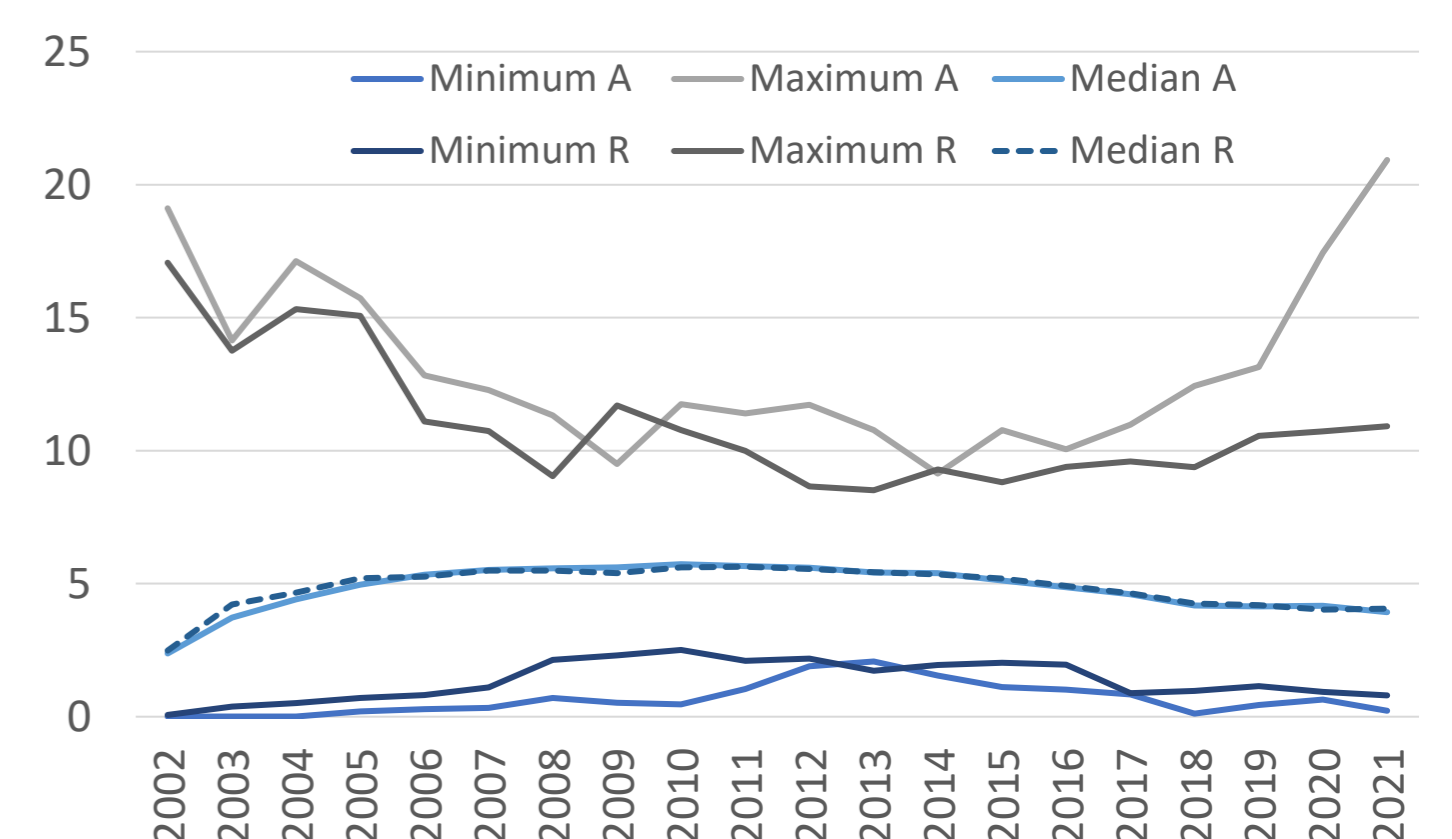


Figure 3

As can be seen from the adjacent figures, there are no significant differences between the median, minimum and maximum values of the percentage of citations obtained by the articles in relation to the type of access (open access vs non open access) and the type of document (review vs article).

Figure 4



Conclusions

Although we would have expected the citation curve to have a gradual decline after reaching the peak, the data still showed the presence of a plateau with quite small variations in the next years. We also did not identify any noticeable differences between the types of items or their properties.