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ORIGINAL ARTICLE

Global Level Research Output in Dengue Viruses: A Scientometric Analysis

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ABSTRACT

Background: This report covers dengue viruses research papers from 2015 to 2024 using the Scopus interdisciplinary online database. The study's goal is to examine the year-by-year growth of publications, relative growth rate and doubling time, top ten authors' contributions, and time series analysis, contributions of top ten journals, institutions, countries, and highly cited papers in dengue viruses' research publications.

Aim: This study studies or evaluates dengue viruses' research trends from 2015 to 2024 to discuss the possibility of employing data from the Scopus database. Between 2015 and 2024, there was an annual rise in dengue viruses' research articles of 28016 research publications, 474687 citation in research publications.

Objectives: To perform a bibliometric analysis of the Global Level Research Output in Dengue Viruses: A Scientometric Analysis. The authors' study purpose is to look at how scientometric dengue viruses' research is evolving and to detect any trends in that development. It also intends to discover prior trends in dengue viruses research publications published in scientometrics based on the sample data.

Material: This study confirmed that the were contributed in 2020. Wiwanikit, V. is the most prolific author in the field of Dengue Viruses, with 186 (19.23%) research papers in the United States. In terms of publication distribution by country, the United States contributed the most papers (2710), accounting for more than 209351 (28.37%) research publications. The institutions with Fundacao Oswaldo Cruz alone published 887 (17.72%) papers, while the journals of found that Plos Neglected Tropical Diseases is on top of the list with the publication of 1069 (24.17.84%) publications clinching the first position.

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Result: The time series analysis statistical application in Dengue Viruses research articles is predicted to be around 3291 in 2025 and 3536 in 2030. So, at the time, serious study confirmed that the number of papers on spice research was expanding. The widely cited publication Vos T. *et al.* (2015) Global, regional, and national incidence, prevalence, and years lived with disability for 328 illnesses and injuries in 195 countries, 1990-2016: A systematic analysis for the Global Burden of Disease Study 2016, The Lancet, 390(10100)1211-1259. The citation is 5780, and the document type is article.

Conclusion: Dengue Viruses consists of the provisions established in to reduce dengue virus transmission, these interventions should focus on locations with high levels of human-vector contact. Insecticide treated curtains and innovative mosquito traps have showed potential in reducing dengue virus infections. Surveillance is another component of dengue prevention, as it provides the necessary information for risk assessment and program direction.

KEYWORDS

• Scientometric • Dengue Viruses • RGR • Time series analysis highly cited paper • RCI

INTRODUCTION

Overview: Dengue (break-bone fever) is a viral ailment transmitted by mosquitos to humans. It is more prevalent in tropical and subtropical settings. Most persons who contract dengue will not experience symptoms. However, for those who do, the most common symptoms are a high temperature, headache, muscle aches, nausea, and rash. The majority will recover within 1-2 weeks. Some people acquire severe dengue and require hospitalization. In severe circumstances, dengue can be lethal. You can reduce your risk of dengue by avoiding mosquito bites, particularly during the day. Dengue fever is treated with pain relievers because there is no specific medication available. Symptoms: Most dengue patients experience minor or no symptoms and recover in 1-2 weeks. Dengue fever, on rare occasions, can be fatal. If symptoms develop, they typically appear 4-10 days after infection and last 2-7 days. Symptoms may include a high fever (40°C/104°F), intense discomfort behind the eyes, muscular and joint pain, nausea, vomiting, swollen glands, and a rash.

Individuals infected for the second time have a higher risk of developing severe dengue. Severe dengue symptoms frequently appear after the fever has subsided, including severe abdominal pain, continuous vomiting and quick breathing, bleeding gums or nose, exhaustion, restlessness, blood in vomit or stool, extreme thirst, pale and chilly skin, and feeling weak. People who are experiencing these severe symptoms should seek medical attention immediately. Dengue patients may have fatigue for several weeks following their recovery. The dengue virus is transmitted to people through the bites of infected female mosquitos, particularly the Aedes aegypti mosquito. Other species in the Aedes genus can operate as vectors, but their contribution is often secondary to that of Aedes aegypti. However, in 2023, an increase in local dengue transmission by Aedes albopictus (tiger mosquito) was observed throughout Europe.[1]

SCIENTOMETRICS STUDY

The word measurement means the application of mathematical and statistical techniques to find out the growth of documents, scattering, or literature in various types of documents, publication of documents by an author, impact of document, and so on. **Cole and Eales (1917)**[2] in their publication on the history of comparative anatomy, applied statistical methods for analyzing the literature called statistical analysis. The most important contribution was made by **Hulme (1923)**[3] when he published the book statistical bibliography, this term continued to be used for statistical measures till the end of the 1960s. **Ranganathan (1948)**[4] coined the term librametry to denote the measurement of various library activities and services using mathematical and statistical techniques.

Alan Prichard (1969)[5] coined the term bibliometric to denote the Application of mathematical and statistical methods to books and other media, the process of written

communication, and of the nature and course of a discipline. **Van Raan (1997)**[6] According to scientometric research is devoted to Quantitative studies of science and technology. According to **Beck (1978)**[7] "Scientometrics is defined as the quantitative evaluation and inter-comparison of scientific activity, productivity, and progress". **Bookstein (1995)**[8] defined "scientometrics as the science of measuring science. Scientometrics is also considered as a bibliometric measurement for evaluation of scientific development, social relevance and impact of the application of science and technology". **Ingwerson and Christensen (1997)**[9] defined the term "informatics designates a recent extension of the traditional bibliometric analysis, also to cover non-scholarly communities in which information is produced, communicated and used".

REVIEW OF LITERATURE

Cabanillas-Lazo, Miguel *et al*. **(2024)**[10] were carried out a bibliometric study on Effect of Bariatric Surgery on Gut Microbiota, 595 numbers of data extracted from Scopus for the period 2016 to 2022. 47 were excluded due to an inconsistency of the availability of the metadata record. 552 papers were included in this study, data analyzed through SciVal. Carel Le Roux was the most prolific author whereas Edi Prifti was most impactful. "National Institute of Health and Medical Research" is the best institution. United States had the highest scientific production in this domain. Articles which having international collaboration had prolific impact. Since 2019 there has been consistent growth in the number of publications.

Chang Y. *et al* **(2023)**[11] were carried out a bibliometric study on Global research tendency and connection between colorectal cancer and gut flora for the time 2001 to 2021, The articles and reviews were considered for this study and data extracted from the Web of Science. Data analysed using CiteSpace and VOS viewer for knowledge-map analysis. 2,707 publications were found, there was huge increase in publications in 2015. In this domain major contributors are the "United States" and "China. Jun, Yu. From the Chinese University of Hong Kong was the most productive author. High frequency keywords are "Intestinal flora" and "colorectal cancer,"

Nie, Kaidi MD *et al*. **(2024)**[12] were conducted a study on "Bibliometric and visual analysis of intestinal flora and immunity," data were extracted from the "Web of Science" database on Gut microbiota and immunity, and data was analysed using Microsoft Excel, Scimago, VOS viewer software etc. 16,611 publications were written in English out of which 10, 865 articles and 5746 reviews, time considered 2013 to 2022. University of California System is at the top in with 525 papers. Most productive journals are "Frontiers in Immunology, "Frontiers in Microbiology, and "PLOS ONE".

Lu Zhang *et al*. **(2022)**[13] were conducted "a bibliometric study of global trends in diabetes and gut flora research from 2011 to 2021", data extracted from "Web of Science" database. The extracted data (4834 articles) were analysed using the software "Citespace.5.8. R3" and "Vosviewer1.6.17". In this field of study, there was involvement of 23365 authors, 4820 institutions, and 109 countries. In respect of publications United States was at the top with 1262 articles, with 134 articles the "University of Copenhagen" was at the top, and Patrice, D. Cani was the most prolific author with 52 publications.

Keya Ghosh *et al.* **(2024)**[14] Global Research Output on Intestinal Flora and Health from 2000-2023: A Scientometric Analysis a Significant number of studies have been made on intestinal flora and health and it has flourished in the last 24 years. In this study we have taken up an initiative to measure the literature outcome in intestinal flora using Scientometric analysis during the period 2000 to 2023 as extracted from SCOPUS interdisciplinary database. Total 6913 numbers of scholarly publications have been fetched which sum up most advanced achievements in this field according to the objectives. This research aims to assess the global research productivity on "Intestinal flora." In respect of Literature Publications "China" is at the top among the world with publications (TP=4773.

OBJECTIVES OF THE STUDY

- To examine the publication and growth rate of literature over the Dengue Viruses publications.
- To examine the RGR and doubling time of the publications over the study period.

- To find out the most prolific authors and most prolific institutions in the field of Dengue Viruses
- To study the distribution of publications journals and country-wise research publications.
- To study the time series analysis the Dengue Viruses
- T study the Highly cited paper of research publications

METHODOLOGY

The researcher has collected the required research data from the online version of the Scopus database on the Dengue Viruses. From 2015 to 2024 and it is used as the main source of data for the present study. The researcher has used the Dengue Viruses for searching the records on a given field, an overall of 28016 records was retrieved as a result of a search made in the database. (TITLE-ABS-KEY :(TITLE-ABS-KEY ("Dengue virus") AND PUBYEAR > 2014 AND PUBYEAR < 2025) the data was collected on 09.05.2024 for the Scopus database in the Micro Soft Excel sheet.

DATA ANALYSIS AND INTERPRETATION

Year-wise Growth of Dengue Viruses Research Publication

Table 1: Year-wise Growth of Dengue Viruses Research Publication

S.No	Years	Publications	%	Citations	%	CPP	H-index	RCI
1	2015	2077	7.41	1185	0.25	0.57	9.00	0.00
2	2016	2622	9.36	8249	1.74	3.15	25.00	0.00
3	2017	2620	9.35	1434	0.30	0.55	40.00	0.00
4	2018	2777	9.91	38846	8.18	13.99	68.00	0.00
5	2019	2867	10.23	52943	11.15	18.47	83.00	0.00
6	2020	3249	11.60	56454	11.89	17.38	87.00	0.00
7	2021	3479	12.42	64324	13.55	18.49	95.00	0.00
8	2022	3062	10.93	82595	17.40	26.97	109.00	0.01
9	2023	3095	11.05	93326	19.66	30.15	121.00	0.01
10	2024	2168	7.74	75331	15.87	34.75	110.00	0.01
	Total	28016	100.00	474687	100.00			

Table 1 reveals the growth of research publications published during the study period from 2015 to 2024 with a sample of 28016 articles published in the field of Dengue Viruses. The highest number of articles i.e. 3479 (12.42%) was published in the year 2021. Followed by the second-highest number of articles in 3249 (11.60%) were contributed in the year 2020. These two years are considered as most productive years. The productivity of the publications in these two years increased to 24.02%. However, the minimum number of articles 2077 (7.41%) were published in the year 2015.

The highest number of citations is 93326 (19.66%) research publications, and H-index is 212, the CPP is 30.15, and the RCI is 0.01. Followed by 82595(17.40%) research publications, the H-index is 109, the CPP is 26.9, and the RCI is 0.01. The lowest number of citations is 1185(0.25%) research publications, the H-index is 9 the CPP is 0.57, and the RCI is 0.00.

RGR and doubling time in the field dengue viruses research publication

Table 2: RGR and doubling time in the field of dengue viruses research publication

Years	Publications	Cum	W1	W2	RGR=(W2-W1)	Dt=(0.693/RGR)
2015	2077	2077		7.64		
2016	2622	4699	7.64	8.46	0.82	0.85
2017	2620	7319	8.46	8.90	0.44	1.56

Years	Publications	Cum	W1	W2	RGR=(W2-W1)	Dt=(0.693/RGR)
2018	2777	10096	8.90	9.22	0.32	2.15
2019	2867	12963	9.22	9.47	0.25	2.77
2020	3249	16212	9.47	9.69	0.22	3.10
2021	3479	19691	9.69	9.89	0.19	3.56
2022	3062	22753	9.89	10.03	0.14	4.79
2023	3095	25848	10.03	10.16	0.13	5.43
2024	2168	28016	10.16	10.24	0.08	8.60
Total	28016	149674				

Table 2 clearly shows the mean relative growth rate and doubling time of the publications in the area of the Dengue Viruses for the study period. It is noticed that the RGR of an article has gradually decreased from 0.82 in the year 2016 to 0.08 in the year 2024 for the given study period. The doubling time of the publication of articles gradually increases from 0.85 in the year 2016 to 8.60 in the year 2024. It can be summarized from the above discussion that the RGR of the article gradually decreased. And on the other hand,the doubling time of the articles gradually increased.

Most prolific authors in the field of dengue viruses research publication

Table 3: Most prolific authors in the field of dengue viruses research publication

Author	Country	No, of Publications	%	Citation	%	CPP	h-index	RCI
Wiwanitkit, V.	United States	186	19.23	732	2.02	3.94	7	0.11
Benelli, G.	India	112	11.58	8291	22.94	74.03	55	1.98
Harris, E.	Brazil	110	11.38	8490	23.49	77.18	48	2.06
Ooi, E.E.	China	105	10.86	3300	9.13	31.43	30	0.84
Ng, L.C.	United Kingdom	81	8.38	2782	7.70	34.35	27	0.92
Nogueira, M.L.	Indonesia	80	8.27	2538	7.02	31.73	23	0.85
Leo, Y.S.	France	75	7.76	1719	4.76	22.92	25	0.61
Morita, K.	Malaysia	75	7.76	911	2.52	12.15	17	0.32
Wilder-Smith, A.	Thailand	72	7.45	3300	9.13	45.83	32	1.23
Shi, P.Y.	Australia	71	7.34	4086	11.30	57.55	34	1.54
		967	100.00	36149	100.00			

Table 3 shows the contribution of the most prolific authors in the field of Dengue Viruses, it is observed that Wiwanitkit, V. has contributed the highest number of articles i.e. 186 (19.23%) research publications in the United States, followed by Benelli, G.112 (11.58%) research publications India, and Harris, E.110 (11.38%) research publications in Brazil. The lowest author in Shi, P.Y.71 (7.34%) research publications in Australia.

The highest number of citations is 8490 (23.49%) research publications, and H-index is 48, the CPP is 77.18, and the RCI is 2.06. Followed by 8291(22.94%) research publications, the H-index is 55, the CPP is 74.03, and the RCI is 1.98. The lowest number of citations is 732 (2.02%) research publications, the H-index is 7 the CPP is 3.94, and the RCI is 0.11.

Most prolific subjects in the field of dengue viruses research publication

Table 4: Most prolific subjects in the field of dengue viruses research publication

Subject	Publications	%
Medicine	16482	40.54
Immunology and Microbiology	7704	18.95
Biochemistry, Genetics and Molecular Biology	5079	12.49
Agricultural and Biological Sciences	2458	6.05
Pharmacology, Toxicology and Pharmaceutics	2023	4.98
Multidisciplinary	1524	3.75
Computer Science	1439	3.54
Environmental Science	1410	3.47
Chemistry	1302	3.20
Engineering	1231	3.03
Total	40652	100.00

Table 4 shows the contribution of the most prolific subjects in the field of Dengue Viruses, it is observed that Medicine contributed the highest number of with 16482 (40.54%) research publications, followed by Immunology and Microbiology with 7704 (18.95%) research publications, and Biochemistry, Genetics and Molecular Biology with 5079 (12.49%) research publications. The lowest subject was Environmental Science with 1410 (3.47%) research publications.

Country-wise distribution of dengue viruses research publication

Table 5: Country-wise distribution of dengue viruses research publication

Country	Publications	%	Citation	%	CPP	h-index	RCI
United States	6347	25.69	209351	28.37	32.98	166	1.10
India	4275	17.30	68619	9.30	16.05	85	0.54
Brazil	3006	12.17	82480	11.18	27.44	92	0.92
China	2287	9.26	63950	8.67	27.96	86	0.94
United Kingdom	2113	8.55	91731	12.43	43.41	120	1.45
Indonesia	1411	5.71	34874	4.73	24.72	45	0.83
France	1402	5.67	65865	8.93	46.98	89	1.57
Malaysia	1366	5.53	40026	5.42	29.30	59	0.98
Thailand	1282	5.19	23248	3.15	18.13	62	0.61
Australia	1221	4.94	57790	7.83	47.33	83	1.58
Total	24710	100.00	737934	100.00			

Table 5 depicts the geographical wise distribution of publications, out of 24710 articles, the United States contributed the highest number of articles which amounts to more than 209351 (28.37%) of the total publication then followed by India 4275 (17.30%) and, the Brazil 3006 (12.17%), these three countries together contributed more than 55.16% of the world publications in the field of Dengue Viruses Further, it is observed

that the China 2287 (9.26%), United Kingdom 2113 (5.11%), Indonesia 1411 (5.71%), France 1402 (5.67%), Malaysia 1366 (5.53%), Thailand 1282 (5.19%), Australia 1221 (4.94%) research publications.

The highest number of citations is 209351 (28.37%) research publications, and H-index is 166, the CPP is 32.98, and the RCI is 1.10. Followed by 91731 (12.43%) research publications, the H-index is 120, the CPP is 43.41, and the RCI is 1.45. The lowest number of citations is 23248 (3.15%) research publications, the H-index is 62 the CPP is 18.13, and the RCI is 0.61.

Top ten research institutions in the field of dengue viruses research publication

Table 6: Top ten research institutions in the field of dengue viruses research publication

Institutions	Publications	%	Citation	%	CPP	H-index	RCI
Fundacao Oswaldo Cruz	887	17.72	28002	10.48	31.57	66	0.59
Mahidol University	601	12.01	13832	5.18	23.01	48	0.43
Universidade de São Paulo	600	11.99	34209	12.81	57.02	54	1.07
University of Oxford	499	9.97	43209	16.18	86.59	65	1.62
CNRS Centre National de la Recherche Scientifique	478	9.55	15914	5.96	33.29	58	0.62
National University of Singapore	477	9.53	21877	8.19	45.86	56	0.86
London School of Hygiene & Tropical Medicine	463	9.25	38793	14.52	83.79	62	1.57
Institute Pasteur, Paris	342	6.83	15316	5.73	44.78	58	0.84
Centers for Disease Control and Prevention	335	6.69	14730	5.51	43.97	44	0.82
National Institutes of Health NIH	324	6.47	41246	15.44	127.30	61	2.39
Total	5006	100.00	267128	100.00			

Table 6 gives the account of research publications by the top ten research institutions at the global level in the area of Dengue Viruses all together they published 5006 publications sharing nearly more than the world publications during the study period. Which, Fundacao Oswaldo Cruzalone published 887 (17.72%) articles and then followed by the Mahidol University contributed nearly 601 (12.01%) articles, Universidade de São Paulo 600 (11.99%), University of Oxford 499 (9.97%) research publication. The lowest institutions in National Institutes of Health NIH 324 (6.47%) research publications.

The highest is 41246 (15.44%) research publications, the H-index is 61, the CPP is 127.30, and the RCI is 2.39. Followed by 38793 (14.52%) research publications, the H-index is 62, the CPP is 83.79, and the RCI is 1.57. The lowest number of citations is 13832 (5.18%) research publications, the H-index is 48, the CPP is 23.01, and the RCI is 0.43.

Most productive journals in the field of dengue viruses research publication

Table 7: Most productive journals in the field dengue viruses research publication

Journals	Publications	%	Citation	%	CPP	h-index	RCI
Plos Neglected Tropical Diseases	1069	24.98	28271	16.40	26.45	72	0.66
Viruses	612	14.30	86673	50.28	141.62	40	3.52
Plos One	558	13.04	10316	5.98	18.49	47	0.46
Scientific Reports	425	9.93	10508	6.10	24.72	51	0.61
American Journal of Tropical Medicine and Hygiene	390	9.11	5479	3.18	14.05	34	0.35

Journals	Publications	%	Citation	%	CPP	h-index	RCI
Parasites and Vectors	325	7.59	7118	4.13	21.90	41	0.54
Frontiers in Immunology	266	6.21	7585	4.40	28.52	45	0.71
Acta Tropica	220	5.14	4468	2.59	20.31	36	0.50
BMC Infectious Diseases	211	4.93	4138	2.40	19.61	34	0.49
Journal of Virology	204	4.77	7838	4.55	38.42	48	0.95
Total	4280	100.00	172394	100.00			

Table 7 shows the top ten most productive journals in the area of the Dengue Viruses. It found that Plos Neglected Tropical Diseases is on the top of the list with the publication of 1069 (24.98%) publications securing the first rank. Accordingly, Viruses occupied the second rank with a publication of 612 (14.30%). Plos One 558 (13.04%) secured the third rank. These three journals appear to be the most productive journals in the field of the Dengue Viruses. The remaining productivity journals are also listed in the above table. The lowest Journal of Virology 204 (4.77%) research publications.

The highest is 86673 (50.28%) research publications, the H-index is 40, the CPP is 141.62, and the RCI is 3.52. Followed by 28271 (16.40%) research publications, the H-index is 72, the CPP is 26.45, and the RCI is 0.66. The lowest number of citations is 4138 (2.40%) research publications, the H-index is 34, the CPP is 19.61, and the RCI is 0.49.

Time Series Analysis

Time series analysis reveals the estimated growth values are identified based on previous data. A straight–line equation is adapted to measure the future values based on previous data. Time series analysis used by **Jeyshankar and Ramesh babu (2013)**[15] **Ravichandran S., Vivekanandhan S., & G. Vinita Angeline (2022)**[16]

Time series analysis dengue viruses research publication

Table 8: Time series analysis dengue viruses research publication

Year	Count (Y)	X	X2	XY
2015	2077	-5	25	-10385
2016	2622	-4	16	-10488
2017	2620	-3	9	-7860
2018	2777	-2	4	-5554
2019	2867	-1	1	-2867
2020	3249	1	1	3249
2021	3479	2	4	6958
2022	3062	3	9	9186
2023	3095	4	16	12380
2024	2168	5	25	10840
Total	28016		110	5459

Table 8 shows that the time series analysis formula has been predicted for the Dengue Viruses research publications for the years 2025 and 2030

The straight Line Equation is

$Y = a + bx$

Here,

$\sum Y = 28016, \sum X^2 = 110, \sum XY = 5459$

$a = \sum Y/N = 28016/10 = 2801.6 = 2801$

$b = \sum XY/\sum X^2 = 5459/110 = 49.6 = 49$

Estimated publications in the year 2025 are when X = 2025 - 2015 = 10

Y = $a + bx$

= 2801 + (49*10) = 2801 + 490 = 3291

The Estimated literature in 2030 is when X = 2030 - 2015 = 15

Y = a + bx

= 2801 + (49*15) = 2801 + 735 = 3536

The estimated growth based on a time series analysis statistical application will be expected in the Dengue Viruses research publications in the year 2025 is around equal to 3291 and in the year 2030 is around equal to 3536. So that time serious analysis confirmed that the publications on the Dengue Viruses research are increasing trend.

Highly cited papers in dengue viruses research publication

Table 9: Highly cited papers in dengue viruses research publication

S. no	Titles	Citations	Document Type
1	Vos T.; *et al.* (2015) Global, regional, and national incidence, prevalence, and years lived with disability for 328 diseases and injuries for 195 countries, 1990-2016: A systematic analysis for the Global Burden of Disease Study 2016, The Lancet, 390 (10100) 1211-1259.	5780	Article
2	Vos T.; *et al.* (2015) Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990-2013: A systematic, The Lancet, 386 (9995): 743-800.	5279	Article
3	Wang H.; *et al.* (2016) Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980–2015: a systematic analysis for the Global Burden of Disease Study 2015, The Lancet, 388 (10053): 1459-1544.	5078	Article
4	Naghavi M.; *et al.* (2017) Global, regional, and national age-sex specific mortality for 264 causes of death, 1980–2016: a systematic analysis for the Global Burden of Disease, The Lancet Study 2016, 390 (10100): 1151-121.	3842	Article
5	Gootenberg J.S.; *et al.* (2017) Nucleic acid detection with CRISPR-Cas13a/C2c2, Science, 356 (6336): 438-442.	2385	Article
6	Cao-Lormeau V.-M.; *et al.* (2016) Guillain-Barré Syndrome outbreak associated with Zika virus infection in French Polynesia: A case-control study, The Lancet, 387(10027): 1531-1539.	1826	Article
7	Gootenberg J.S.; *et al.* (2018) Multiplexed and portable nucleic acid detection platform with Cas13, Cas12a and Csm6, Science, 360 (6387): 439-444.	1713	Article
8	Hay S.I.; *et al.* (2017) Global, regional, and national disability-adjusted life-years (DALYs) for 333 diseases and injuries and healthy life expectancy (HALE) for 195 countries and territories, 1990-2016: A systematic analysis for the Global Burden of Disease Study 2016, The Lancet, 390 (10100): 1260-1344.	1646	Article
9	Murray C.J.L.; *et al.* (2015) Global, regional, and national disability-adjusted life years (DALYs) for 306 diseases and injuries and healthy life expectancy (HALE) for 188 countries, 1990-2013: Quantifying the epidemiological transition, The Lancet, 386 (10009): 2145-2191.	1549	Article
10	Kraemer M.U.G.; *et al.* (2015) Global, regional, and national age-sex specific mortality for 264 causes of death, 1980–2016: a systematic analysis for the Global Burden of Disease, e-Life Study 2016, 4: e08347.	1441	Article

Table 9 the highly cited paper Vos T.; *et al.* (2015) Global, regional, and national incidence, prevalence, and years lived with disability for 328 diseases and injuries for 195 countries, 1990-2016: A systematic analysis for the Global Burden of Disease Study 2016, The Lancet, 390 (10100) 1211-1259. The citation of 5780 and document type of article. Followed by the Vos T.; *et al.* (2015) Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990-2013: A systematic, The Lancet, 386 (9995): 743-800. The citation 5279 and document of article, Wang H.; *et al.* (2016) Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980–2015: a systematic analysis for the Global Burden of Disease Study 2015, The Lancet, 388(10053):1459-1544. The citation of 5078 and document type of article. In the highly cited paper of 10 article.

Major Findings of the Study

- The present study has analyzed nearly the growth of research publications published during the study period from 2015 to 2024 with a sample of 28016 articles published in the field of Dengue Viruses. The highest number of articles i.e. 3479 (12.42%) was published in the year 2021. Followed by the second-highest number of articles in 3249 (11.60%) were contributed in the year 2020.
- The RGR of an article has gradually decreased from 0.82 in the year 2016 to 0.08 in the year 2024 for the given study period. The doubling time of the publication of articles gradually increases from 0.85 in the year 2016 to 8.60 in the year 2024.
- During the most prolific authors in the field of Dengue Viruses, it is observed that Wiwanikit, V. has contributed the highest number of articles i.e. 186 (19.23%) research publications in the United states, and the most prolific subjects in the field of Dengue Viruses, it is observed that Medicine contributed the highest number of with 16482 (40.54%) research publications,
- During the country wise distribution of publications, out of 2710 articles, the United States contributed the highest number of articles which amounts to more than 209351 (28.37%) research publications.
- The Institutions of with Fundacao Oswaldo Cruzalone published 887 (17.72%) articles, and the journals of found that Plos Neglected Tropical Diseasesis on the top of the list with the publication of 1069 (24.17.84%) publications securing the first rank.
- The time series analysis statistical application will be expected in the Dengue Virus research publications in the year 2025 is around equal to 3291 and in the year 2030 is around equal to 3536. So that time serious analysis confirmed that the publications on the Dengue virus research are increasing trend.
- The highly cited paper Vos T.; *et al.* (2015) Global, regional, and national incidence, prevalence, and years lived with disability for 328 diseases and injuries for 195 countries, 1990-2016: A systematic analysis for the Global Burden of Disease Study 2016, The Lancet, 390 (10100) 1211-1259. The citation of 5780 and document type of article.

CONCLUSION

In this report, the most prolific authors in the field of Dengue Viruses are identified, with Wiwanikit, V. contributing the most articles, 186 (19.23%), to research publications in the United States and the country-wise distribution of publications shows that the United States contributed the most articles (2710), totaling more than 209351 (28.37%) research publications. The institutions with Fundacao Oswaldo Cruz alone published 887 (17.72%) papers, while the journals of found that Plos Neglected Tropical Diseases is on top of the list with the publication of 1069 (24.17.84%) publications clinching the first position. To reduce dengue virus transmission, these interventions should focus on locations with high levels of human-vector contact. Insecticide-treated curtains and innovative mosquito traps have showed potential in reducing dengue virus infections. Surveillance is another component of dengue prevention, as it provides the necessary information for risk assessment and program direction.

REFERENCES

1. https://www.who.int/news-room/fact-sheets/detail/dengue-and-severe-dengue(Access on 09.05.2024)
2. Cole E.J. and Eales, N.B., (1917) the history of comparative anatomy: A statistical analysis of the literature, *Science Progress*, 11(44): 578-963.
3. Hulme E.W., (1923) Statistical bibliography in relation to the growth of modern civilization, London: *Grafton*, 44(6):1859-1951.
4. Ranganathan S.R. (1995) Library and its scope Bangalore DRTC Seventh seminar volume paper DA, *International journal of scientometrics and info metrics,* 1(1): 15-21.
5. Prichard A., (1969) Statistical Bibliography of Bibliographies, *journal of documentation*, 25(4): 348-349.
6. Van Raan, A.F.J., (1997) Scientometrics state- of The Art, *Scientometrics,* 38(1): 205-218.
7. Beck, M.T. (1978) "Editorial Statement". *Scientometrics*. 1(1), 1978, 3-4.

8. Bookstein, A. (1976) "The bibliometric distributions". *Library Quarterly*, 46(4), 1976, 416-423.

9. Ingwersen, P. and Christensen, F.H. (1997). "Data set isolation for bibliometric online analysis of research publication: fundamental methodological issues". *Journal of the American Society for Information Science,* 48, 205-217.

10. Cabanillas-Lazo (M). (2024) Effect of Bariatric Surgery on Gut Microbiota: A Scientometric Analysis. Saudi Journal of Medicine & Medical Sciences 12(1): p 65-70, Jan–Mar 2024. | DOI: 10.4103/sjmms.sjmms_146_23

11. Yonglong (Chang) and *et al.* (2023) Global research trends and focus on the link between colorectal cancer and gut flora: a bibliometric analysis from 2001 to 2021. Frontiers in Microbiology. Volume 14 - 2023 | https://doi.org/10.3389/fmicb.2023.1182006.

12. Kaidi Nie, M.D., and *et al*. (2024). Bibliometric and visual analysis of intestinal flora and immunity. Medicine (Baltimore). 2024 Jan 26; 103(4): e36575. doi: 10.1097/MD.0000000000036575.

13. Lu Zhang *et al***.** (2022). A bibliometric study of global trends in diabetes and gut flora research from 2011 to 2021. Frontiers in Endocrinology, Volume 13 – 2022. https://doi.org/10.3389/fendo.2022.990133.

14. Keya Ghosh. *et al.* (2024) Global Research Output on Intestinal Flora and Health from 2000-2023: A Scientometric Analysis, Library Progress International 44(3), and 1247-1260.

15. Jeyashankar R., Ramesh Babu B., (2013) Scientometric Analysis of Leukemia Research output 1960-2011: An Indian perspective, *Asia Pacific Journal of Library and information science*, 3(2): 1-15.

16. Ravichandran S., Vivekanandhan S., & G. Vinita Angeline (2022) Citations and publications on Zero Pollution Research during 2012-2021. A Scientometric Study*, International Journal of Research in Library Science (IJRLS)*, 8(4): 63-79, DOI: 10.26761/IJRLS.8.4.2022.1589.