

Malaria in the News, 2019-2026: Seasonality, Geography and Tone of Global Malaria Coverage, and How It Compares with Research and Invention

Fliar BI · Prism Research Layer · Working paper, October 2026 · Dataset and code: github.com/fliarbi/prism-news-api · Licence CC BY-NC 4.0

Abstract

We measure how malaria was covered in a global news index from January 2019 to July 2026, using 34,405 de-duplicated malaria items, and set that coverage beside 48,495 research papers (2015-2025) and 1,377 patent families (2015-2024) on malaria. Six results stand out:

1. **Seasonality.** On average 11.46% of each year's malaria coverage appears in April, the month of World Malaria Day, against 8.33% for an even spread.
2. **Falling attention.** Malaria's share of news fell 38% between 2019 and 2025, from 3.05 to 1.89 articles per 10,000 news articles. The share peaked in October 2021, the month the RTS,S vaccine was recommended for wide use, at 5.44 per 10,000.
3. **Geography.** Africa holds 42.11% of located malaria news, 11.14 times its share of all news. Uganda (42.98), Kenya (13.55), Ghana (9.26) and Nigeria (8.27) are the most over-represented of the eight countries with at least 100 located items. India is over-represented (1.71) and the United States under-represented (0.39). Within India, Jharkhand (1.93), Uttar Pradesh (1.78) and Haryana (1.73) lead.
4. **Urgency without gloom.** 80.6% of malaria articles are rated critical priority (all news: 42.6%), yet only 35.5% are negative in tone (all news: 33.6%). In Ghana and Nigeria malaria news is less negative than local news overall; in India and the United States it is more negative.
5. **Measurement.** 23.1% of raw matches for malaria vocabulary were structured journal abstracts, COVID-19 drug stories or market notices. Among the items kept, 37.5% of a hand-checked sample were journal abstracts rather than news reports.
6. **Research and invention.** Malaria papers held a steady share of the literature (6.83 per 10,000 papers in 2015, 6.6 in 2025). Patent families published per year were roughly flat (147 in 2015, 137 in 2024) while patent publication overall grew.

Findings stated for citation

- **F1.** Between 2019 and 2025, an average of 11.46% of each year's malaria news appeared in April, against 8.33% for an even spread.
- **F2.** Malaria's share of news fell 38% from 2019 to 2025 (3.05 to 1.89 per 10,000 articles).
- **F3.** October 2021 was the peak month for malaria news, at 5.44 articles per 10,000.
- **F4.** Africa's share of located malaria news (42.11%) was 11.14 times its share of all news.

- **F5.** India's share of located malaria news (22.61%) was 1.71 times its share of all news. The United States' (19.11%) was 0.39 times.
- **F6.** 80.6% of malaria articles were rated critical priority, 1.89 times the all-news share; 35.5% were negative in tone.
- **F7.** Vaccine equity appeared in 2.44% of themed malaria articles, 207.65 times its frequency in all news.
- **F8.** Malaria took a 23% smaller share of news in 2020 than in 2019.
- **F9.** Malaria papers held 6.83 per 10,000 papers in 2015 and 6.6 in 2025.
- **F10.** Malaria patent families were roughly flat, 147 (2015) and 137 (2024); China's office held 26.9% of office-family pairs.
- **F11.** Within India, Jharkhand (1.93), Uttar Pradesh (1.78) and Haryana (1.73) had the most over-represented malaria coverage.
- **F12.** Within the United States, Florida (3.43) and Texas (2.07) had the most over-represented malaria coverage.
- **F13.** Malaria's share of Nigeria's news rose 1.43-fold from 2023 to 2025; India's fell to 0.67 of its 2023 level.
- **F14.** Malaria news was less negative than local news in Ghana and Nigeria, and more negative in India and the United States.
- **F15.** Of countries with at least 100 located items, Uganda was the most over-represented, at 42.98 times its share of all news.

1. Introduction

Malaria remains one of the largest causes of illness and death in tropical countries, and the period covered here includes the first recommendations of malaria vaccines for children. News is one of the main ways the public and policy-makers learn about the disease: outbreaks, funding, drug resistance and vaccine roll-outs. Yet coverage is rarely measured as data in its own right. Health agencies record cases. Bibliometric studies record research. Few sources record attention, meaning how much of the news malaria takes and when, where and in what tone.

This paper and its dataset do that. They combine three records for one topic: a global news index, research papers and patents. Each comparison uses a denominator, so that growth in the index or in publishing is not mistaken for growth in interest. The companion dataset publishes an article-level sample (8,652 rows) and full coverage tables, so every figure here can be re-derived. The [Prism News API](#) serves the full history.

2. Data and methods

News. The Prism news index holds articles from outlets worldwide; non-English articles are indexed in English translation. Each article carries its opening text (the first few sentences), a primary location, a graded tone label, a machine-assigned priority rating (1-9), themes, keywords and named organisations. We count unique article identifiers; repeated rows for the same article are removed. When this release was built, 92.88% of the index was readable, so all counts are lower bounds.

Matching. An item is about malaria when its opening text contains *malaria* or *malarial* as whole words. Three families of matches are excluded:

- journal abstracts with structured headings ("background:", "methods:", "objectives:") and titles that announce a case report or review;
- articles that mention hydroxychloroquine, or that name chloroquine or "a malaria drug" together with COVID-19, a story that dominated 2020;
- market-research notices ("malaria diagnostics market size...").

Together these removed 10,326 of 44,731 raw matches (23.1%). One reviewer read 40 randomly drawn matched openings. 38 used malaria in its disease sense (precision 95%), and in 24 (60%) malaria was the main subject. The two false positives were an HIV story that named the Global Fund to Fight AIDS, Tuberculosis and Malaria, and a bibliography fragment. The same check found that 15 of the 40 items (37.5%) were journal abstracts without structured headings, which the index carries alongside news. They are about malaria and are kept, but they mean that the totals describe items about malaria in the index rather than press coverage alone.

Measures. Coverage over time is expressed per 10,000 articles in the index that month or year, because the index grew from 11,807,177 articles in 2019 to 26,990,006 in 2025. Seasonality uses each year's within-year month shares, averaged over the complete years 2019–2025. Geography, tone, priority and themes use January 2023 – July 2026. Geography is expressed as lift: a country's share of malaria articles divided by its share of all located articles. Place tags derived from ordinary words (714 words, such as "Congress", "Earth" and "Winter") were treated as unlocated in every location field, which removed 15.3% of city-tagged articles. Only 5,919 of the 17,582 items in that window (33.7%) carry a primary country.

Research and patents. Research papers are de-duplicated articles and reviews (2000–2025) with *malaria*, *malarial*, *antimalarial* or *Plasmodium* in the title. Repository deposits are excluded, as are titles about lupus, arthritis or COVID-19, where anti-malarial drugs are used for other diseases. Patent families (2005–2024) use the same title rule (without *malarial*) and are counted once per filing office.

3. Results

3.1 How much and when

The index holds 34,405 malaria items from January 2019 to July 2026. Raw counts rose from 3,596 in 2019 to 5,089 in 2025, but the share of all news fell: 3.05 per 10,000 in 2019, 2.5 in 2024 and 1.89 in 2025 (Table 1). That is a 38% decline over six years. The year 2020 was 23% below 2019, in the year pandemic coverage expanded, and 2022 was equally low. The highest monthly share was October 2021, at 5.44 per 10,000, 1.91 times the 2021 average (Figure 1). That was the month in which the World Health Organization recommended the RTS,S vaccine for wide use. Other high months were April 2019 (5.11) and September 2021 (4.5).

Year	Malaria items	All articles in index	Per 10,000
2019	3,596	11,807,177	3.05
2020	3,814	16,230,014	2.35
2021	4,919	17,281,220	2.85
2022	4,492	19,115,515	2.35
2023	4,986	20,484,506	2.43
2024	5,829	23,311,896	2.5
2025	5,089	26,990,006	1.89

Table 1. Malaria items per year and as a share of the index. 2026 (January–July) is partial and omitted.

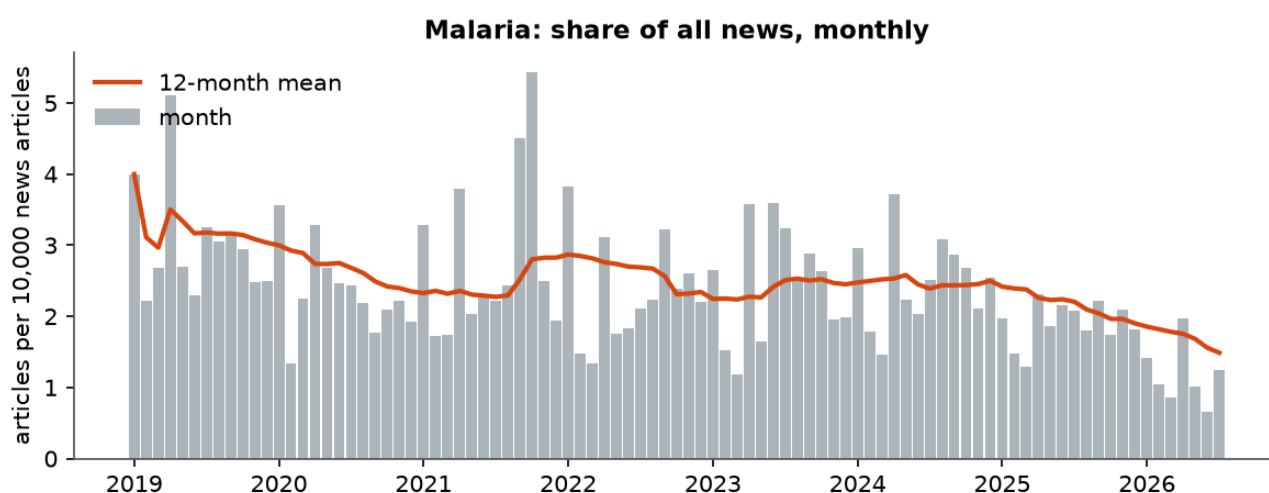


Figure 1. Malaria coverage as articles per 10,000 news articles, monthly, January 2019 – July 2026. Bars are months; the line is the 12-month mean.

Coverage has a clear annual rhythm (Figure 2). April holds 11.46% of a typical year's malaria items, against 8.33% for an even spread, and April's share of all news was above that year's average in every year from 2019 to 2025. World Malaria Day falls on 25 April. September (10.3%) and October (9.35%) are also above average. January (11.57%) looks high as well, but part of it is an artefact: journal items dated only by year are filed under 1 January. February (5.35%) and March (5.82%) are the quietest months.

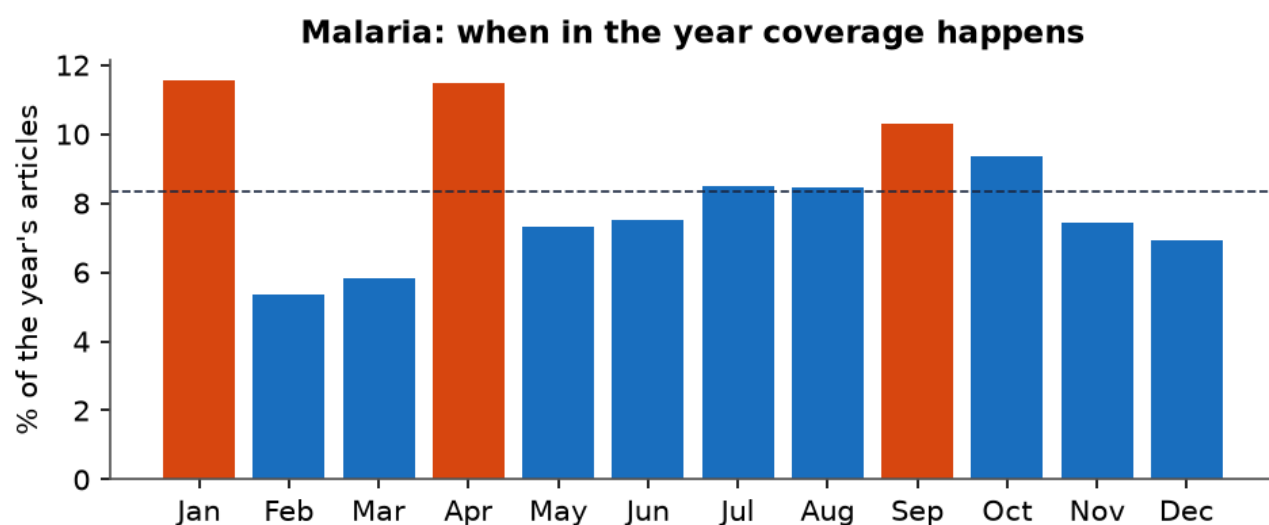


Figure 2. Share of each year's malaria articles published in each month, averaged over 2019–2025. Dashed line = an even spread.

3.2 Where

Between January 2023 and July 2026, 5,919 malaria items carried a primary location. India (22.61%) and the United States (19.11%) hold the largest raw shares, but their lifts differ: 1.71 for India and 0.39 for the United States. Malaria takes a small share of American news. The most over-represented countries are in sub-Saharan Africa (Table 2, Figure 3).

Country	Located malaria items	Share %	Lift vs all news
India	1,338	22.61	1.71
United States	1,131	19.11	0.39
Nigeria	671	11.34	8.27
Ghana	264	4.46	9.26
United Kingdom	184	3.11	0.53
Kenya	176	2.97	13.55
Uganda	150	2.53	42.98
Brazil	138	2.33	2.7

Table 2. Countries with at least 100 located malaria items, January 2023 – July 2026, with lift against all located news.

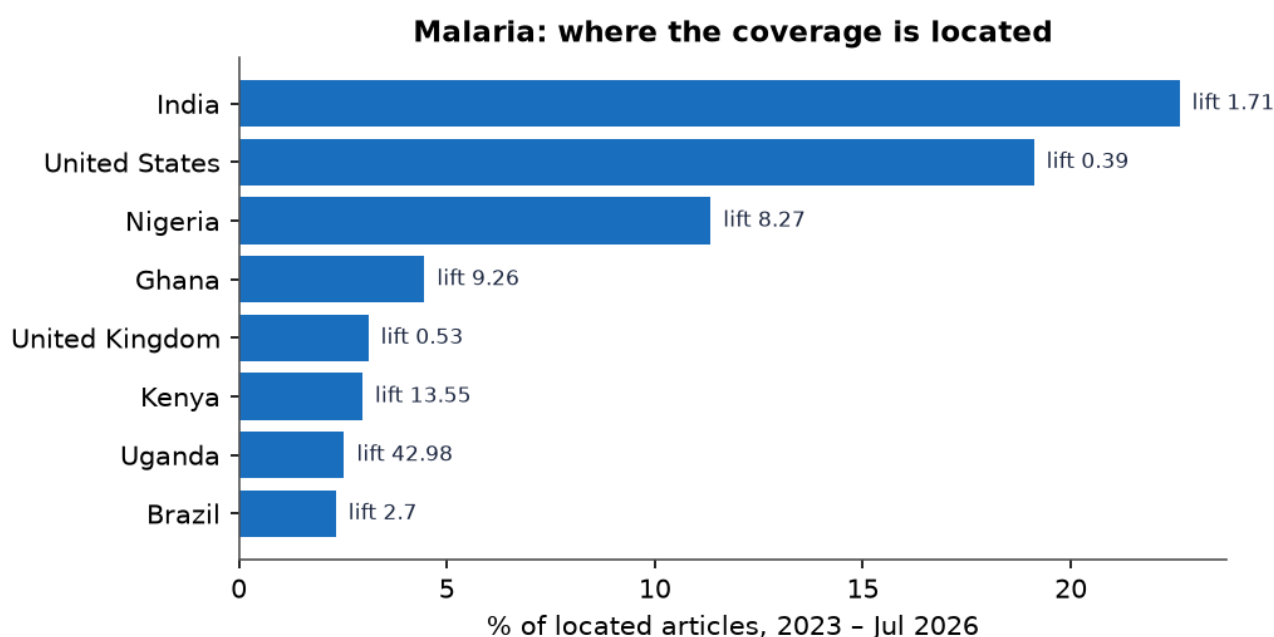


Figure 3. Leading countries by share of located malaria articles, 2023 – Jul 2026, labelled with lift against all located news.

3.3 Geo intelligence: continents, states and shifting attention

The world map (Figure 4) shows the same pattern. Only eight countries pass the 100-article threshold, so most of the map is grey, but the coloured countries split cleanly: sub-Saharan Africa and India are over-represented, while the United States and the United Kingdom are under-represented. By continent, Africa holds 42.11% of located malaria items at a lift of 11.14. South America (1.87) and Asia (1.19) are also over-represented, while North America (0.32), Europe (0.45) and Oceania (0.48) are not (Figure 6, left). Nigeria, Ghana, Kenya and Uganda together hold 21.3% of located malaria news. Brazil's lift (2.7) is not read as over-representation: most Brazil rows in the sample are tagged to "Palma" (Minas Gerais), a name that comes from an organisation field rather than a Brazilian place.

Malaria: which countries over- and under-cover the topic

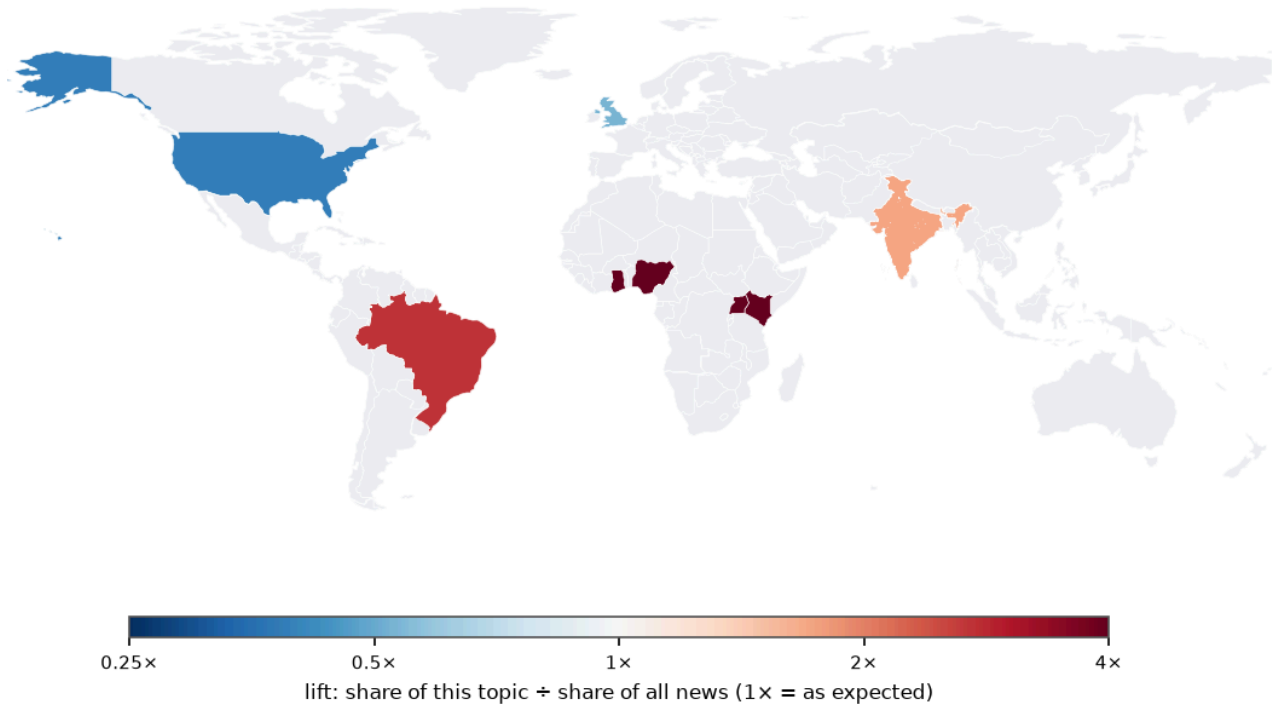


Figure 4. Lift of each country's share of located malaria articles, January 2023 – July 2026 (red = over-represented, blue = under-represented, grey = fewer than 100 articles). India is drawn with its official outline.

Within India, 1,152 malaria items carry a state (Table 3, Figure 5). Measured against each state's share of Indian news, and counting only states with at least 50 malaria items, Jharkhand (1.93), Uttar Pradesh (1.78) and Haryana (1.73) are clearly over-represented, and Delhi (1.21) and Tamil Nadu (1.16) mildly so. Uttar Pradesh also has the largest count (261). Maharashtra (0.63) is under-represented despite 115 items. Odisha (1.89) and Chhattisgarh (2.25) have high lifts on fewer than 50 items each. In the United States, only 721 malaria items carry a state and only five states pass 50 items. Florida (3.43) and Texas (2.07) lead, followed by New York (1.23) and California (1.06). Washington's lift (2.87) is not read as a state result: most of its sample rows name only "Washington" and report from the national capital. Too few states pass the map threshold, so no US map is drawn.

India: state	Items	Lift	United States: state	Items	Lift
Jharkhand	54	1.93	Florida	133	3.43
Uttar Pradesh	261	1.78	Washington*	54	2.87
Haryana	51	1.73	Texas	88	2.07
Delhi	181	1.21	New York	103	1.23
Tamil Nadu	67	1.16	California	76	1.06
Gujarat	26	0.68	Illinois	22	1.16
Maharashtra	115	0.63	Pennsylvania	12	0.28
Karnataka	27	0.42	New Jersey	14	0.1

Table 3. States with the highest and lowest lift in malaria coverage, January 2023 – July 2026. Lift = the state's share of the country's located malaria items ÷ its share of all located news from that country. Rows below 50 items are shown for context only; the lowest rows are the lowest-lift states with at least 25 items (India) or 10 items (United States). *Mostly the national capital, not the state.

Malaria: states of India by lift

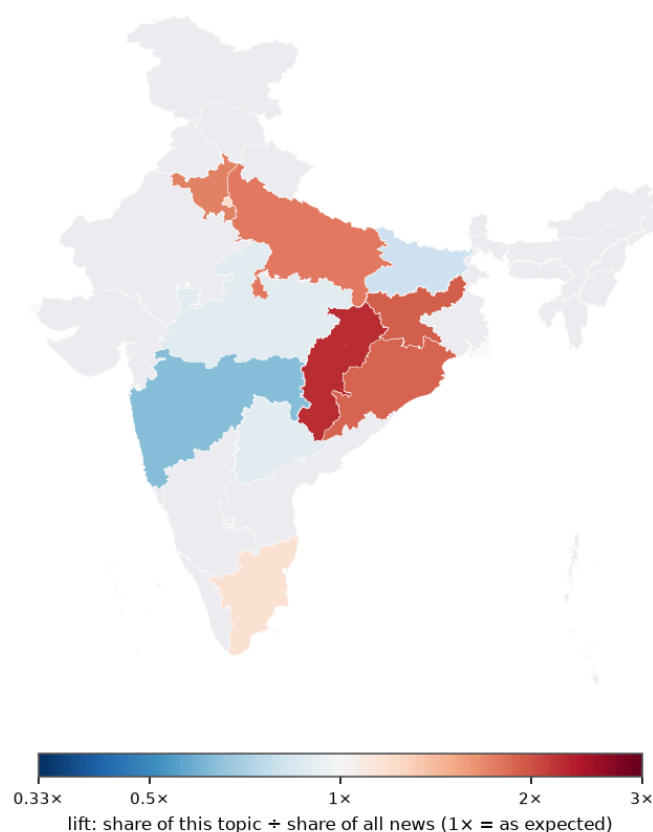


Figure 5. Lift of each Indian state's share of located malaria articles against its share of all located Indian news, January 2023 – July 2026. Official outline; Ladakh is drawn within Jammu and Kashmir in the boundary file used.

Attention also moves between countries from year to year (Figure 6, right; Table 4). Measured as malaria items per 10,000 of each country's located news, Uganda rose from 28.79 in 2023 to 86.61 in 2025 and Nigeria from 10.13 to 14.48 (1.43 times). Attention fell in Ghana (21.34 to 8.82), Kenya (25.53 to 17.55), India (3.04 to 2.05, 0.67 times), the United Kingdom (0.98 to 0.76) and the United States (0.85 to 0.61, 0.72 times).

Tone, read against each country's own baseline, divides the countries in two. In Ghana, 26.3% of malaria items are negative against 43.3% of Ghanaian news (17 points lower), and in Nigeria 32.9% against 44.4% (11.5 points lower). In India, 54.7% are negative against 41.2% (13.5 points higher), and in the United States 50.5% against 33.1% (17.4 points higher). The labels do not say why; the difference is a measure of coverage, not of the disease situation in each country.

Country	2023 per 10,000	2025 per 10,000	Negative % (malaria)	Negative % (all news)
India	3.04	2.05	54.7	41.2
United States	0.85	0.61	50.5	33.1
Nigeria	10.13	14.48	32.9	44.4
Ghana	21.34	8.82	26.3	43.3
United Kingdom	0.98	0.76	–	–

Table 4. Malaria items per 10,000 of each country's located news, 2023 and 2025, and the negative share of malaria items against that country's news overall, January 2023 – July 2026 (tone is reported for the four countries with the most labelled items).

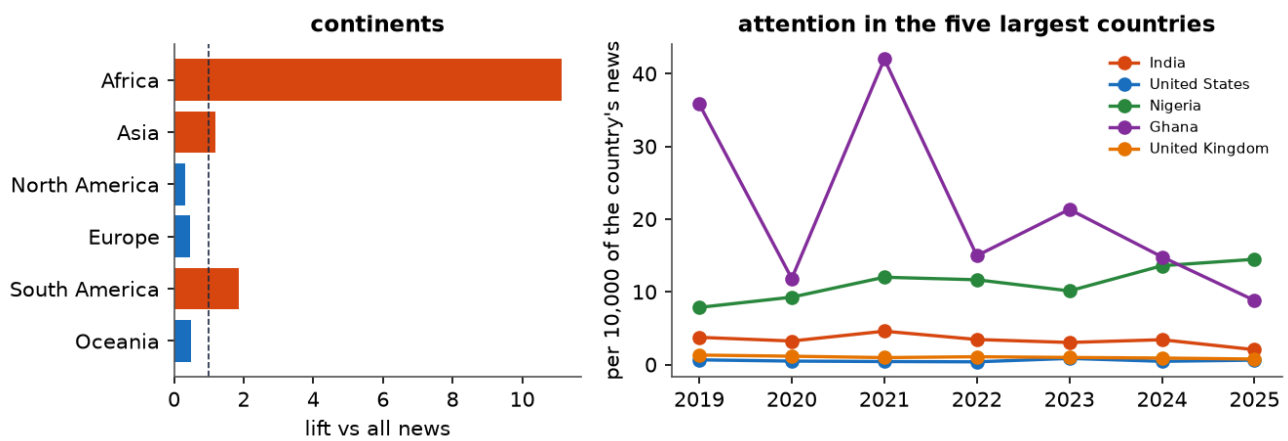


Figure 6. Left: lift by continent, January 2023 – July 2026. Right: malaria articles per 10,000 of each country's located news, 2019–2025, for the five countries with the most articles.

3.4 Tone, urgency and themes

Malaria coverage is rated as urgent but is not especially negative (Figure 7). The machine-assigned priority label puts 80.6% of malaria items at critical level (7 or higher), against 42.6% of all news (1.89 times). Among items with a tone label, 35.5% are negative, against 33.6% across the index (1.06 times), and 62.1% are positive, against 56.8%.

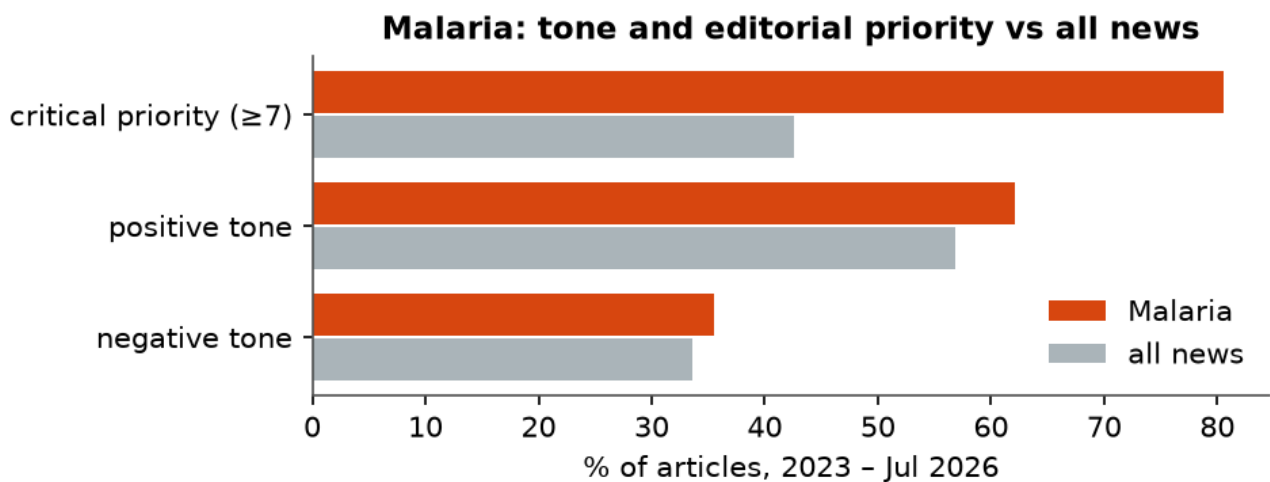


Figure 7. Tone and the share rated critical priority, malaria articles vs all news, 2023 – Jul 2026.

Themes show what malaria stories are about (Table 5). Vector-borne disease epidemiology is the most common (42.22% of themed items), followed by neglected tropical diseases (34.19%) and parasitic infections (33.05%). Vaccine themes are small in share but highly specific: vaccine equity in low-income regions appears 207.65 times as often as in all news, and global vaccination campaigns 173.7 times.

Theme	Items	Share %	Lift
neglected tropical diseases	3,723	34.19	526.84
parasitic infections in humans	3,598	33.05	448.16
vector-borne disease epidemiology	4,597	42.22	426.11
vaccines for emerging infectious diseases	191	1.75	388.3
vector-borne disease mitigation	1,104	10.14	368.83
zoonotic disease prevention measures	918	8.43	211.32
vaccine equity and access in low-income regions	266	2.44	207.65
global vaccination campaigns (e.g., WHO, UNICEF)	467	4.29	173.7

Table 5. Themes most specific to malaria coverage (lift against all themed news), January 2023 – July 2026.

The organisation named most often is the World Health Organization (1,839 items), followed by the Global Fund (455) and Gavi (336). The organisation field also carries entity-recognition errors, so it is not ranked further.

3.5 Research attention and invention

Research on malaria kept pace with the scientific literature but did not outgrow it. Papers with a malaria term in the title held 6.83 per 10,000 papers in 2015 and 6.6 in 2025, with a high of 8.02 in 2016. Between 2015 and 2025, 48,495 such papers were published. The most-cited include work on the effect of malaria control in Africa, on global malaria mortality, on artemisinin resistance and on the first phase 3 results of the RTS,S vaccine [1–4, 7].

News attention and research attention diverge (Figure 8). Research share was nearly flat, while news share fell after 2021.

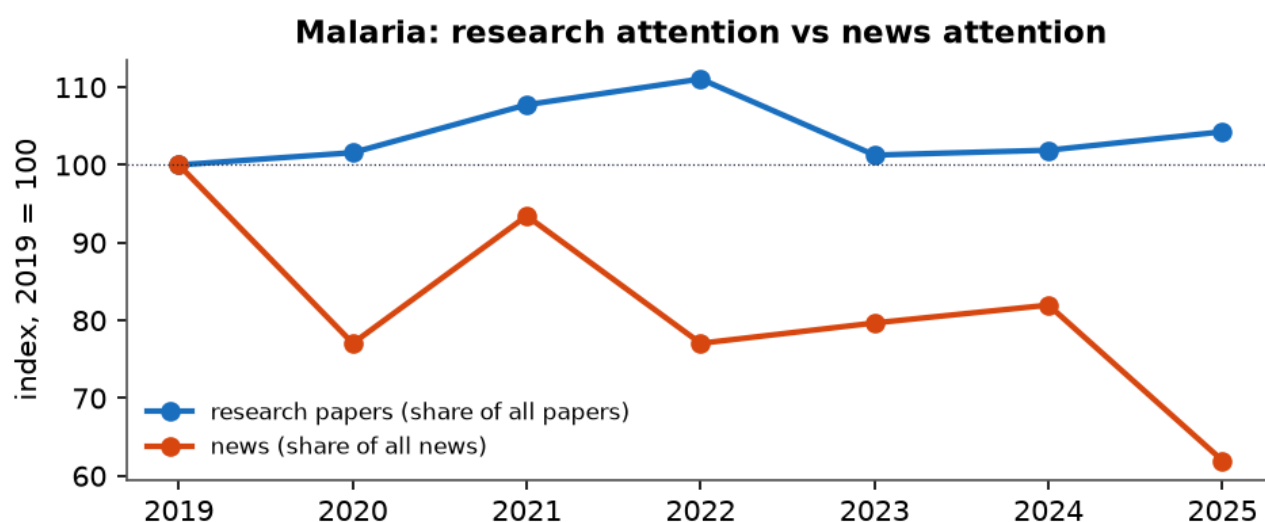


Figure 8. Research papers with malaria in the title (share of all papers) and malaria news (share of all news), each indexed to 2019 = 100.

Patenting is small and has not grown. 147 malaria-related patent families were published in 2015 and 137 in 2024, below the high of 178 in 2011 and 2012, while patent publication overall grew, so malaria's share of patenting fell. Across 2015–2024, China's office holds 26.9% of office-family pairs, the United States 19% and the international (WO) route 17% (Figure 9). The leading technology classes are medical preparations (A61K, 284 families), climate-change adaptation technologies (Y02A, 97) and heterocyclic compounds (C07D, 91).

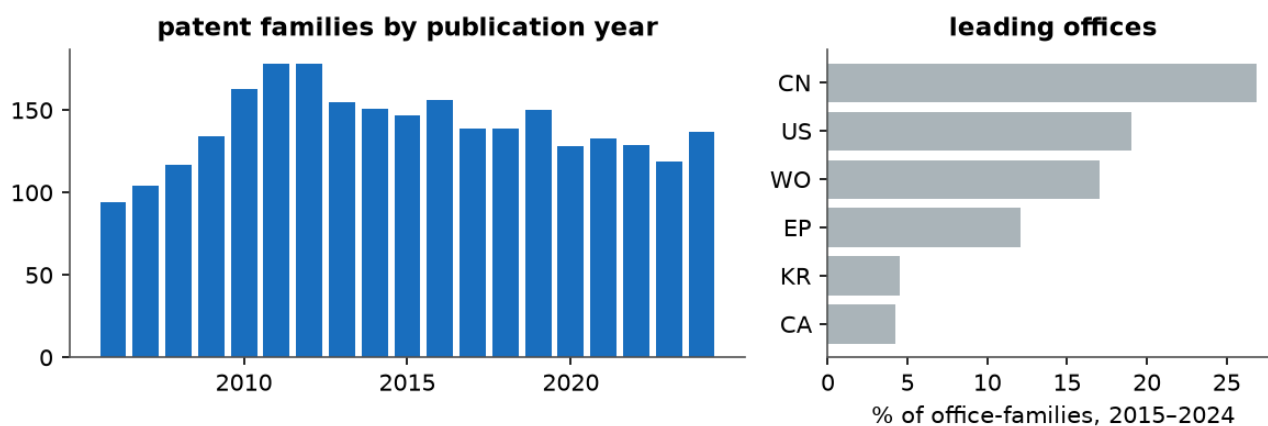


Figure 9. Malaria-related patent families by publication year (left) and the leading filing offices, 2015-2024 (right).

4. Discussion

Three points matter for anyone who uses news as a record of malaria. First, coverage measures attention. Malaria's share of news fell by more than a third between 2019 and 2025, and its highest months coincide with decisions and anniversaries (the month of a vaccine recommendation, the month of World Malaria Day). Second, raw shares mislead. India and the United States hold similar raw shares, but malaria is over-represented in Indian news and under-represented in American news. Among countries with at least 100 located items, malaria takes the largest share of attention in Uganda, Kenya, Ghana and Nigeria, and in Ghana and Nigeria the coverage is less negative than local news overall. Third, a keyword search for "malaria news" returns much that is not journalism: structured abstracts, COVID-19 drug stories and market notices made up nearly a quarter of raw matches, and unstructured journal abstracts remain a large share of what is left.

Research, invention and news run on different clocks. Research share is steady. Patent output is flat and spread across offices. News follows events and the calendar. The dataset lets researchers link the three, for example to test whether vaccine roll-outs with heavy coverage in a country are followed by changes in research or patent activity there.

5. Limitations

- **Index availability.** 92.88% of the index was readable at build time, so counts are lower bounds. Shares and lifts are less affected, because the missing part is spread across topics.
- **Coverage after May 2026.** The index thins after May 2026, so 2026 is partial and is excluded from year comparisons.
- **Journal abstracts.** About a third of matched items in the hand check were journal abstracts, not news reports. If their share changed over time, it would move the trend.
- **Dates.** Items dated only by year are filed under 1 January, which inflates January.
- **Matching.** Matching uses the article opening. Articles that mention malaria only later are missed, and 5% of matches are not about malaria.
- **Machine labels.** Location, tone, priority and themes are machine-labelled. Only 33.7% of items in the geography window carry a country, and only eight countries pass 100 items. The city and organisation fields are noisy and are not analysed.
- **Place tags.** Place tags derived from ordinary words were treated as unlocated (15.3% of city-tagged articles), so location counts are lower than in earlier builds and some genuine places named by such words are lost.

- **Outlet mix.** The index over-represents English-language outlets. This shapes geography and tone.
- **Research and patent counts.** These match titles only. Office shares reflect filing practice.

Data availability

The dataset (article sample, monthly and country tables, research and patent tables, all metrics) is released under CC BY-NC 4.0 with this paper. The sample holds 8,652 of 34,402 matched articles to 31 July 2026. Full article text, headlines, publishers, later articles and other topics are served by the Prism News API: <https://github.com/fliarbi/prism-news-api> (base URL <https://radar-api.fliarbi.com/news>). A worked query: `prism-news trends "malaria" -since 2019-01-01 --until 2026-07-31 --granularity monthly`.

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