

Measles in the News, 2019-2026: Timing, Geography and Tone of Global Measles 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 measles was covered in a global news index from January 2019 to July 2026, using 32,717 de-duplicated measles articles, and set that coverage beside 12,737 research papers (2000-2025) and 236 patent families (2015-2024) on measles. Six results stand out:

1. **Two waves of attention.** Measles took 7.05 of every 10,000 news articles in 2019. Its share fell 83.1% in 2020 and was below 1 per 10,000 in each year from 2021 to 2023. It rose 3.56-fold from 2023 to 2025, but the 2025 level (3.45) was still 51.1% below 2019.
2. **Peaks.** The highest monthly share was April 2019, at 17.62 per 10,000. The highest since then was March 2025, the month of the outbreak in western Texas and New Mexico, at 7.2.
3. **Season.** On average 43.26% of each year's measles coverage appears from January to April.
4. **Geography.** The United States holds 64.01% of located measles news, 1.32 times its share of all news. Bangladesh (8.14) and New Zealand (5.81) are the most over-represented countries, and India is under-represented (0.22). Within the United States, New Mexico (27.51), South Carolina (7.42) and Texas (3.09) lead. Canada's attention rose 27.86-fold from 2023 to 2025.
5. **Tone and urgency.** 78.8% of measles articles are negative in tone (all news: 33.6%), and 88.7% are rated critical priority (all news: 42.6%). Vaccine hesitancy is a theme of 26.75% of themed articles.
6. **Research and invention.** Measles papers fell 45.1% as a share of all papers from 2019 to 2023 and recovered to 1.07 per 10,000 in 2025. Patent families are few, and China's office holds 51.9% of their office filings.

Findings stated for citation

- **F1.** Measles took an 83.1% smaller share of news in 2020 than in 2019 (1.19 vs 7.05 per 10,000).
- **F2.** April 2019 was the peak month for measles news, at 17.62 articles per 10,000.
- **F3.** The share rose 3.56-fold from 2023 (0.97) to 2025 (3.45), still 51.1% below 2019.
- **F4.** March 2025 had the highest monthly share after 2019 (7.2 per 10,000) and the most articles (1,790).
- **F5.** Between 2019 and 2025, on average 43.26% of each year's measles news appeared in January-April.

- **F6.** The United States' share of located measles news (64.01%) was 1.32 times its share of all news. India's (2.92%) was 0.22 times.
- **F7.** Among the nine countries with at least 100 located articles, Bangladesh (8.14) and New Zealand (5.81) were the most over-represented.
- **F8.** 78.8% of measles articles were negative in tone, 2.35 times the all-news share.
- **F9.** 88.7% of measles articles were machine-rated critical priority, 2.08 times the all-news share.
- **F10.** Vaccine hesitancy and public perception appeared in 26.75% of themed measles articles, 714.18 times its frequency in all themed news.
- **F11.** Measles papers fell 45.1% as a share of all papers from 2019 to 2023.
- **F12.** China's office held 51.9% of the office filings of measles patent families (2015–2024).
- **F13.** Within the United States, New Mexico (27.51), South Carolina (7.42), Texas (3.09) and North Dakota (2.9) had the most over-represented measles coverage; New Jersey (0.07) the least.
- **F14.** Measles coverage as a share of Canada's news rose 27.86-fold from 2023 to 2025.
- **F15.** In January–July 2026, measles took 192.59 of every 10,000 located articles about Bangladesh.
- **F16.** Measles coverage as a share of India's news fell from 1.11 to 0.34 per 10,000 between 2023 and 2025.

1. Introduction

Measles is one of the most contagious human diseases, and one of the clearest tests of vaccination programmes. Where coverage with two doses of vaccine falls, outbreaks follow, and news is often the first public record of them: where cases appear, who is exposed, and what health authorities do. News coverage also shapes how parents and policy-makers judge the risk. Yet coverage is rarely measured as data in its own right. Surveillance systems record cases. Bibliometric studies record research. Few sources record attention, meaning how much of the news measles 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 patent families. 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 (8,029 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, an editorial 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 article is about measles when its opening text contains *measles* or *rubeola* as whole words. Nearly all matches use the first word (32,691 of them); *rubeola* adds 66. The index also assigns topic tags, but a test showed that articles matched by the tag alone were

mostly general vaccination stories, so tags are not used. No exclusion pattern was needed: the word has no common figurative or commercial sense, and no templated feed was found among the matches.

Precision. One reviewer read 40 randomly drawn matched openings. 36 referred to measles as part of what was reported (precision 90%), and in 31 (77.5%) measles or measles vaccination was the main subject. The four false matches were another disease story naming measles only as a comparison, a biography line of a person quoted on an unrelated story, a passing mention in an article on ventilation equipment, and a mistranslated weather bulletin. Vaccination stories that list measles among several diseases were counted as relevant, because measles vaccination is part of what they report.

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 measles articles divided by its share of all located articles. State lift divides a state's share of the country's located measles articles by its share of all located news from that country. Place tags derived from ordinary words (714 words, such as "Congress", "Earth", "Winter", "Cloud", "Mobile" and "Hurricane") were treated as unlocated in every location field, which removed 15.3% of city-tagged articles. Year comparisons use 2019–2025; 2026 covers January–July only.

Research and patents. Research papers are de-duplicated articles and reviews (2000–2025) with *measles* or *rubeola* in the title; repository deposits are excluded. Patent families (2006–2024) use the same title rule and are counted once per filing office.

3. Results

3.1 How much and when

The index holds 32,717 measles articles from January 2019 to July 2026. Coverage came in two waves (Table 1, Figure 1). In 2019 measles took 7.05 of every 10,000 news articles. In 2020 its share fell to 1.19, 83.1% lower. It stayed below 1 per 10,000 in 2021, 2022 and 2023. It rose to 1.45 in 2024 and 3.45 in 2025, a 3.56-fold increase over 2023. Raw counts in 2025 (9,317) exceeded 2019 (8,322), but because the index more than doubled, the 2025 share was 51.1% below the 2019 share.

Year	Measles articles	All articles in index	Per 10,000
2019	8,322	11,807,177	7.05
2020	1,929	16,230,014	1.19
2021	1,260	17,281,220	0.73
2022	1,869	19,115,515	0.98
2023	1,986	20,484,506	0.97
2024	3,380	23,311,896	1.45
2025	9,317	26,990,006	3.45

Table 1. Measles articles per year and as a share of the index. 2026 (January–July, 4,654 articles, 3.55 per 10,000) is partial and omitted from comparisons.

The highest monthly share was April 2019, at 17.62 per 10,000, the month of outbreaks in New York and the Pacific Northwest. May 2019 (10.63) and March 2019 (10.03) follow. After 2019 the highest month was March 2025, at 7.2 per 10,000. With 1,790 articles it was also

the month with the most measles articles of the whole period, the month of the outbreak in western Texas and New Mexico.

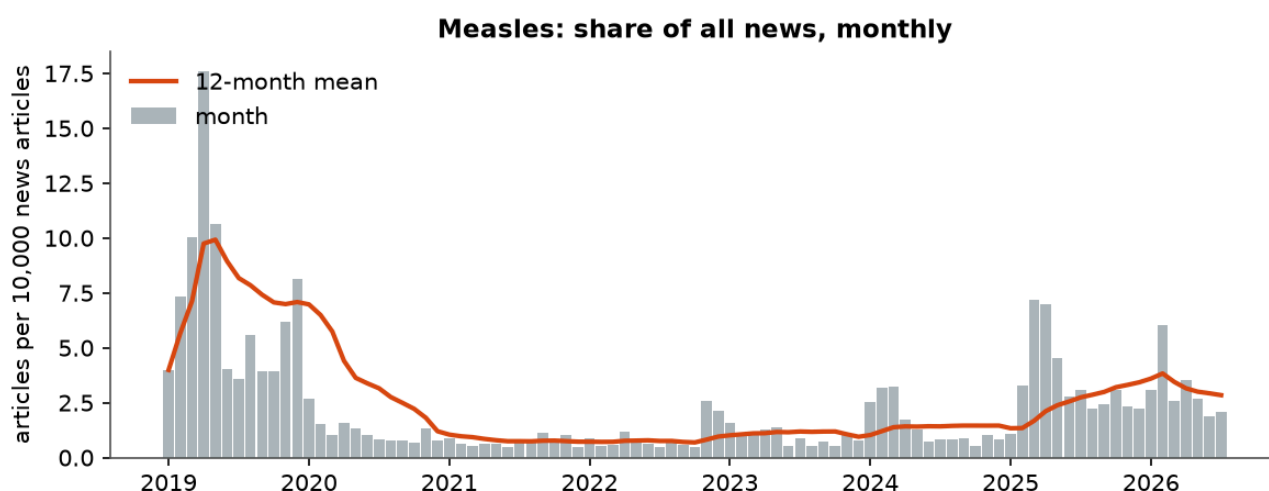


Figure 1. Measles coverage as articles per 10,000 news articles, monthly, January 2019 – July 2026. Bars are months; the line is the 12-month mean.

Coverage is concentrated in late winter and spring (Figure 2). January (11.0%), February (8.99%), March (11.12%) and April (12.15%) together hold 43.26% of a typical year's measles articles. The five months from June to October hold 29.24%. June (5.11%) and October (5.13%) are the quietest. Part of this pattern comes from the two largest outbreak years, 2019 and 2025, which both peaked in spring.

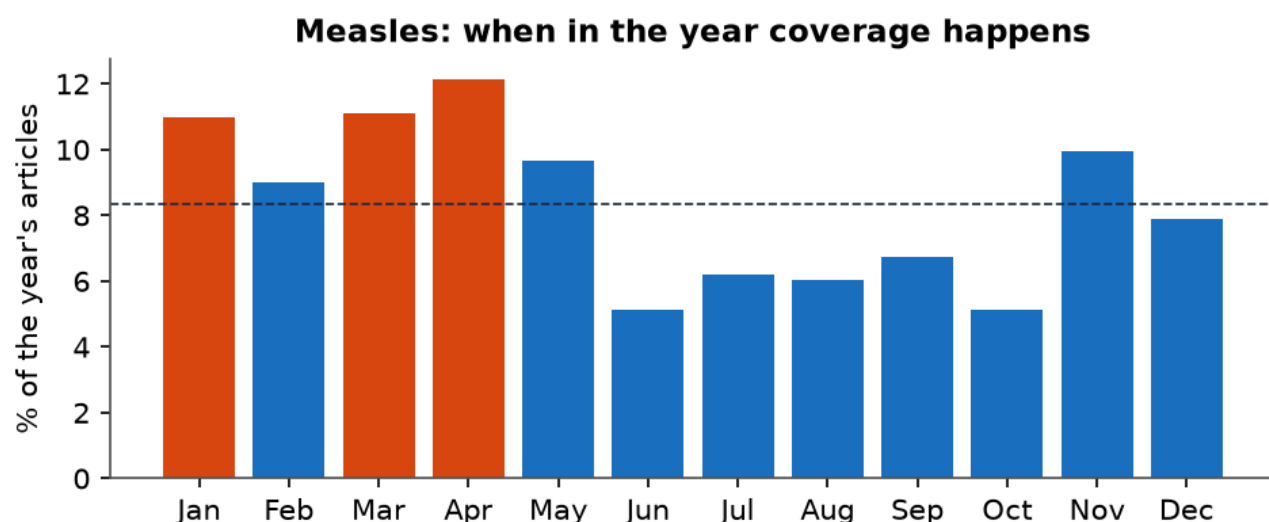


Figure 2. Share of each year's measles articles published in each month, averaged over 2019–2025. Dashed line = an even spread across the year.

3.2 Where

Between January 2023 and July 2026, 11,337 measles articles (58.64%) carried a primary location. The United States holds 64.01% of them, with a lift of 1.32: measles takes a larger share of American news than of news overall. Canada (1.88), Australia (1.54) and Brazil (1.46) are also over-represented. The largest lifts are in Bangladesh (8.14) and New Zealand (5.81). The United Kingdom (0.92) and Nigeria (0.88) are slightly under-represented, and India has a lift of 0.22 (Table 2, Figure 3).

Country	Located measles articles	Share %	Lift vs all news
United States	7,257	64.01	1.32
United Kingdom	609	5.37	0.92
Canada	458	4.04	1.88
New Zealand	426	3.76	5.81
Australia	375	3.31	1.54
India	331	2.92	0.22
Bangladesh	239	2.11	8.14
Brazil	143	1.26	1.46
Nigeria	136	1.2	0.88

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

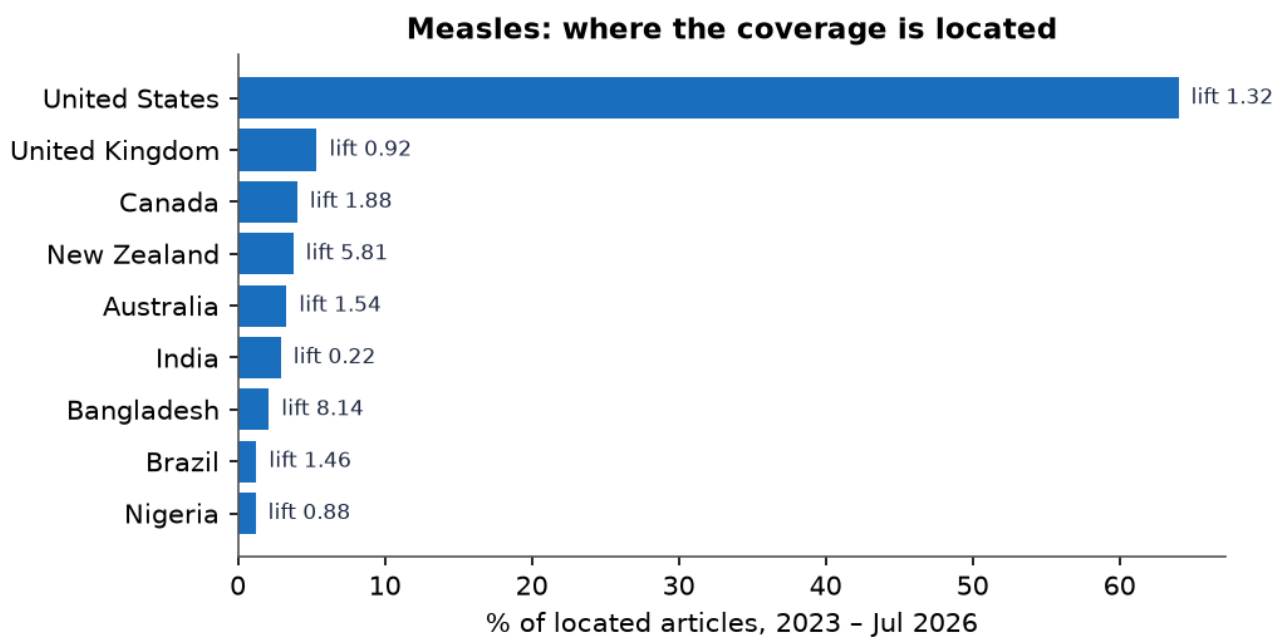


Figure 3. Leading countries by share of located measles articles, 2023 – Jul 2026, labelled with lift against all located news.

3.3 Geo intelligence: continents, states and shifting attention

The world map (Figure 4) shows the pattern at a glance. Measles is over-represented in the news of North America, Oceania, Brazil and Bangladesh, and under-represented in India. Most other countries have fewer than 100 located measles articles and are left grey. By continent, Oceania (2.72) and North America (1.4) are over-represented, Africa is close to parity (0.98), and South America (0.88), Europe (0.52) and Asia (0.4) are under-represented (Figure 6, left). Each lift is measured against the index's own coverage of that continent, so it compares attention, not cases.

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

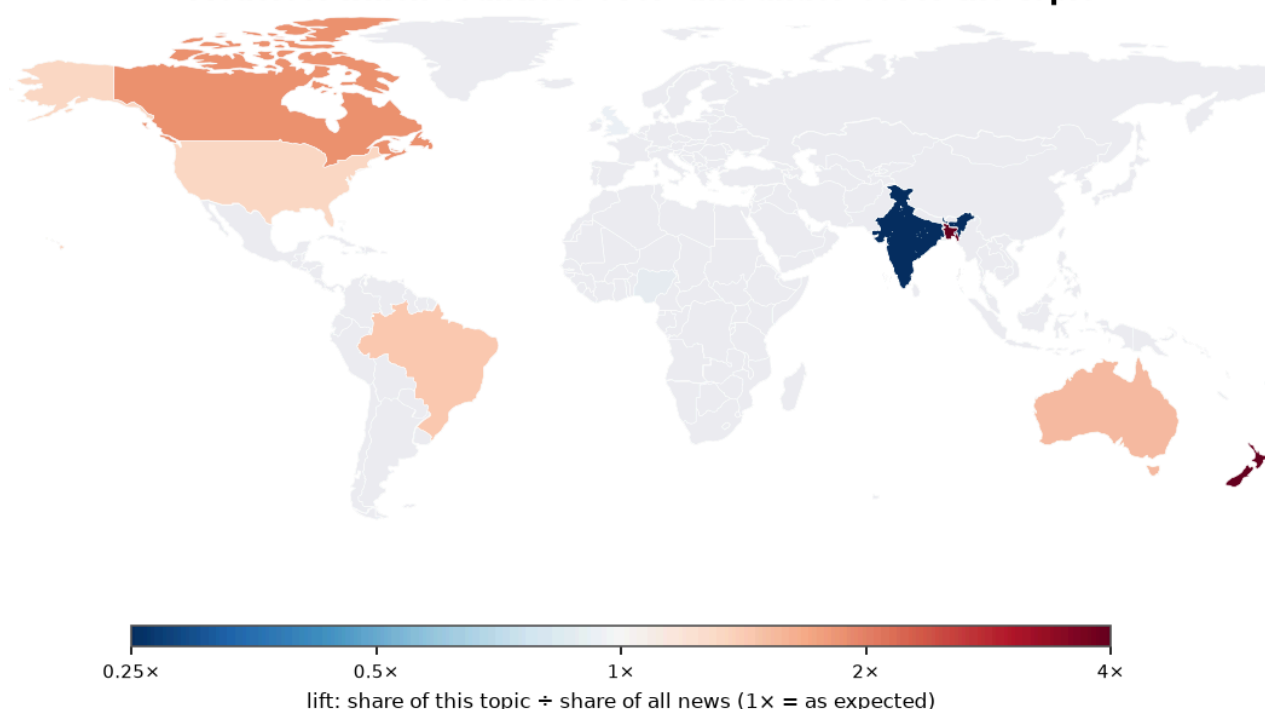


Figure 4. Lift of each country's share of located measles articles, January 2023 – July 2026 (red = over-represented, blue = under-represented, grey = fewer than 100 articles). India is drawn with its official outline.

Within the United States, the picture is sharper (Table 3, Figure 5). Measured against each state's share of American news, New Mexico (27.51), South Carolina (7.42), Texas (3.09) and North Dakota (2.9) are the most over-represented. New Mexico and Texas were the states of the 2025 Southwest outbreak, and South Carolina had an outbreak from late 2025 into 2026. Texas also has the most located articles (1,185). New Jersey (0.07), Tennessee (0.38), California (0.48) and Massachusetts (0.59) are far below their weight in American news. Among states with at least 50 located measles articles, these are the lowest lifts. Arizona, which ranked among the lowest before place tags from ordinary words were removed, now has only 14 located articles and is not ranked.

United States: highest lift	Articles	Lift	United States: lowest lift	Articles	Lift
New Mexico	628	27.51	New Jersey	89	0.07
South Carolina	316	7.42	Tennessee	56	0.38
Texas	1,185	3.09	California	313	0.48
North Dakota	88	2.9	Massachusetts	91	0.59
Colorado	210	1.66	Washington	113	0.66
Utah	89	1.54	North Carolina	73	0.7
Pennsylvania	540	1.38	Wisconsin	61	0.7
Ohio	189	1.36	Florida	266	0.76

Table 3. US states with the highest and lowest lift in measles coverage, January 2023 – July 2026 (states with at least 50 located articles). Lift = the state's share of the country's located measles articles ÷ its share of all located news from that country.

Measles: states of United States by lift

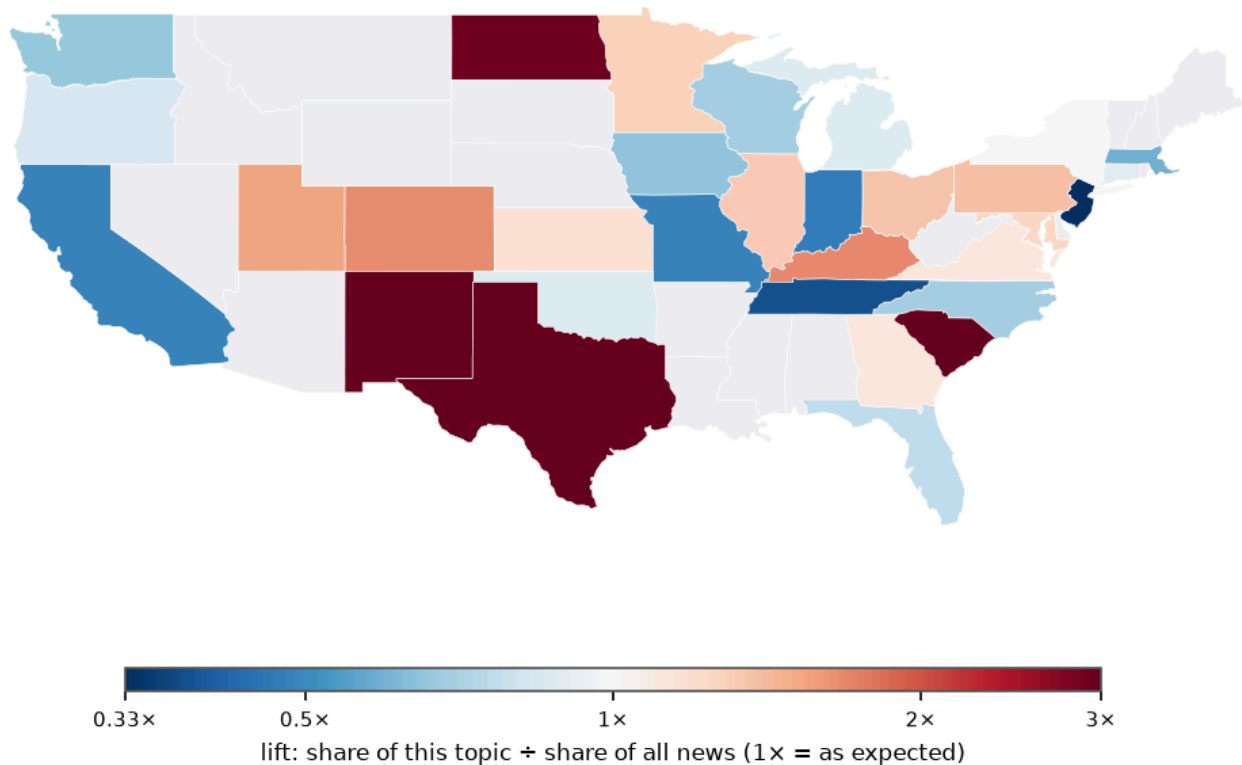


Figure 5. Lift of each US state's share of located measles articles against its share of all located US news, January 2023 – July 2026.

India's state-level counts are too small to analyse. Only 263 Indian measles articles carry a state, and no state has 50. Uttar Pradesh (47) and Maharashtra (41) have the most. No India state map is drawn for this topic, and no state finding is stated.

Attention also moves between countries from year to year (Figure 6, right). Measured as measles articles per 10,000 of each country's located news, Canada rose from 0.35 in 2023 to 9.75 in 2025 (27.86 times), the United States from 0.64 to 7.6 (11.88 times), New Zealand from 8.14 to 36.19 (4.45 times), Australia 2.23 times and the United Kingdom 1.92 times. Nigeria rose from 0.78 to 3.96 and Brazil from 4.69 to 6.45. India is the one leading country whose attention fell, from 1.11 to 0.34. New Zealand's 2019 level, 97.81 per 10,000, was the highest for any leading country in a complete year. It was exceeded in January–July 2026 by Bangladesh, at 192.59, during that country's outbreak.

Measles coverage is negative in tone in every leading country, but the gap with each country's own news differs. Canada's measles articles were 92.1% negative against 27.1% of Canadian news overall (3.4 times). In the United States the figures were 88.3% against 33.1% (2.67 times). India's measles coverage was the least negative, 55.3% against 41.2% of Indian news (1.34 times).

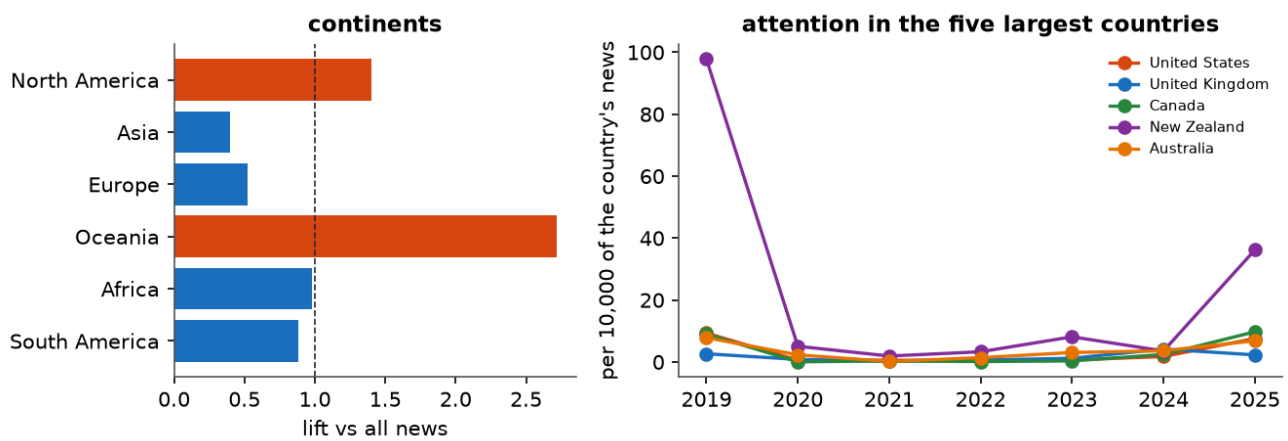


Figure 6. Left: lift by continent, January 2023 – July 2026. Right: measles articles per 10,000 of each country's located news, 2019–2025, for the five countries with the most articles.

3.4 Tone, urgency and themes

Measles coverage is far more negative and more urgent than news in general (Figure 7). Among articles with a tone label, 78.8% are negative, against 33.6% across the index (2.35 times). The index's priority rating puts 88.7% of measles articles at critical level (7 or higher), against 42.6% of all news (2.08 times). The rating is assigned by a model, not by editors.

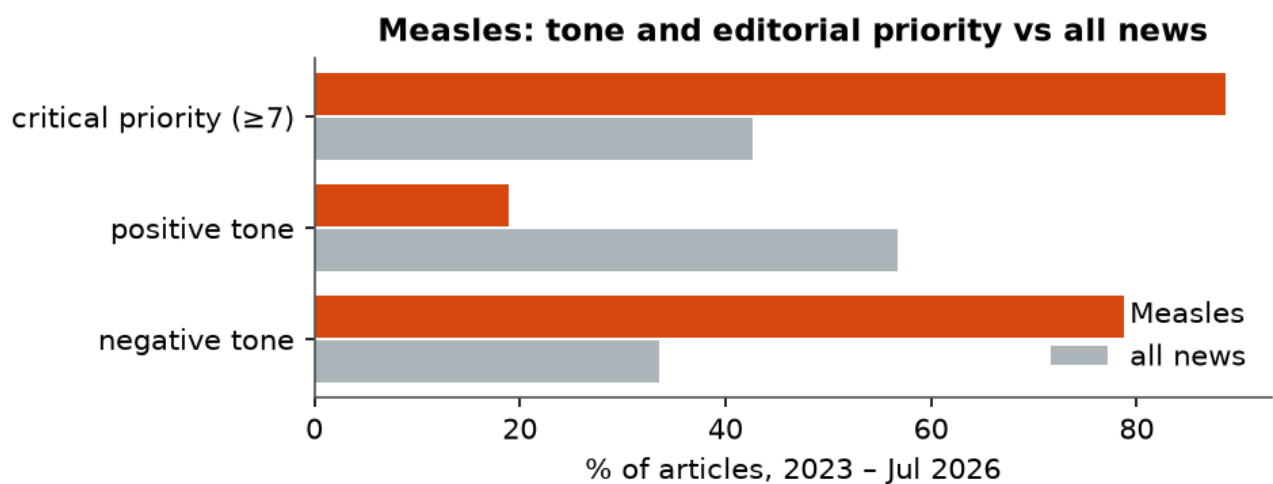


Figure 7. Tone and the share rated critical priority, measles articles vs all news, 2023 – Jul 2026.

Themes show what measles stories are about (Table 4). Immunisation is the dominant frame: immunisation strategies (41.43% of themed articles), herd immunity (26.14%) and immunisation schedules (24.45%). Vaccine hesitancy and public perception appears in 26.75% of themed articles, 714.18 times its rate in all news, and vaccine hesitancy research in a further 12.51%.

Theme	Articles	Share %	Lift
immunization strategies for rare diseases	5,813	41.43	1589.94
herd immunity and population-level protection	3,668	26.14	1388.12
vaccine hesitancy research	1,756	12.51	819.27
combination vaccines (e.g., MMR, DTaP)	1,183	8.43	808.22
vaccine hesitancy and public perception	3,753	26.75	714.18
immunization schedule guidelines by age group	3,431	24.45	660.73
vaccine education and healthcare provider training	1,056	7.53	626.81
pediatric vaccination requirements	2,853	20.33	596.14

Table 4. Themes most specific to measles coverage (lift against all themed news, themes carried by more than 5% of themed articles), January 2023 – July 2026.

The organisations named most often are public-health bodies: the US disease-control agency (2,841 articles under its full name), the World Health Organization (2,152), the US health department (929), the American Academy of Pediatrics (479), UNICEF (415) and the UK Health Security Agency (361). The most frequent label in the organisation field (4,456 articles) is a mis-resolution of the US agency's abbreviation to an unrelated group, so organisation counts are not used as findings. Wire services and broadcasters also rank high.

3.5 Research attention and invention

Research on measles follows its own cycle. Papers with *measles* or *rubeola* in the title rose to 1.22 per 10,000 papers in 2019, fell to 0.67 in 2023 (45.1% lower) and recovered to 1.07 in 2025, a 1.6-fold rise from 2023. Over 2015–2025 the share grew by a factor of 1.2, while the total literature in the corpus grew by a factor of 1.0. Between 2015 and 2025, 6,266 such papers were published. The most-cited include a systematic review of measles' basic reproduction number [1], work on the vaccine's effects on childhood mortality [2], the discovery of the epithelial receptor for the virus [3], and studies of immune amnesia after infection [4, 5].

News attention and research attention follow a similar shape for measles (Figure 8). Both peaked in 2019, fell in 2020–2023 and rose again in 2024–2025, though news fell further and rose faster.

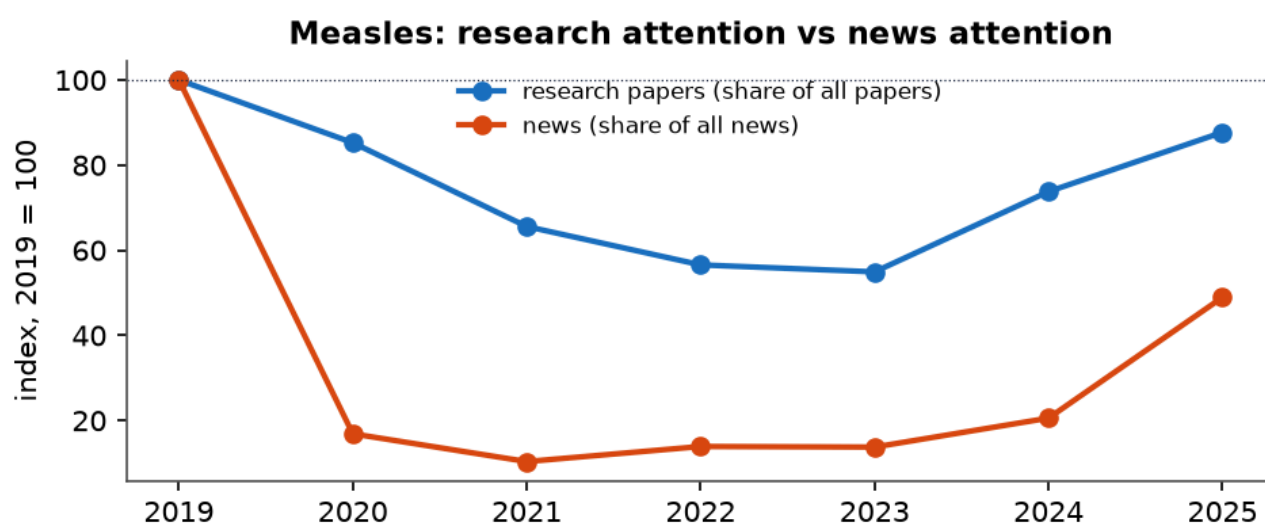


Figure 8. Research papers with measles in the title (share of all papers) and measles news (share of all news), each indexed to 2019 = 100.

Patenting is small. 236 measles-related patent families were published between 2015 and 2024, between 13 and 37 a year. The counts are too small for a trend to be stated. China's office holds 51.9% of office-family pairs, followed by the United States (11.1%), international applications (7.8%) and the European office (7.4%) (Figure 9). The leading technology classes are medicinal preparations (A61K, 51 families) and microorganisms and genetic engineering (C12N, 28), which cover vaccines and measles-virus vectors.

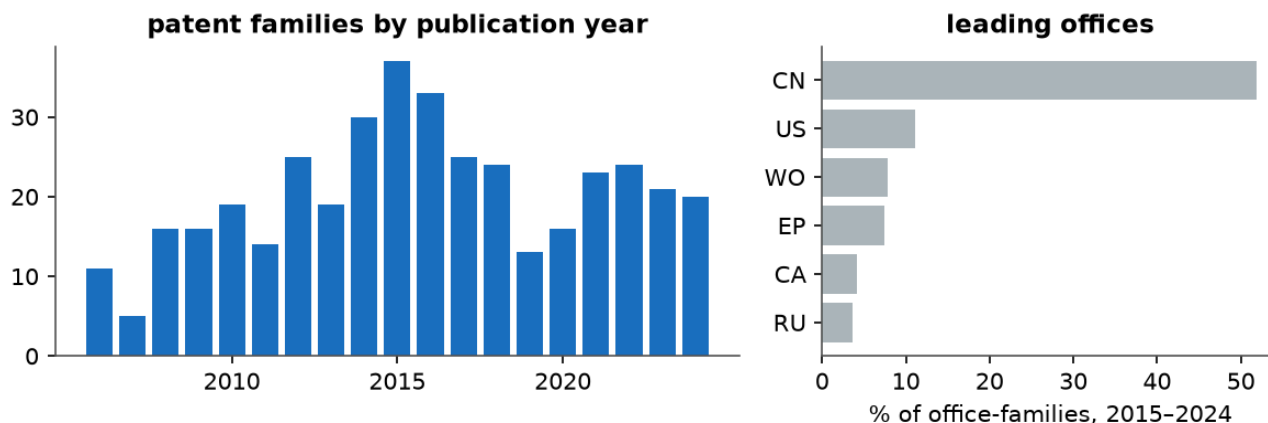


Figure 9. Measles-related patent families by publication year (left) and the leading filing offices, 2015-2024 (right).

4. Discussion

Three points matter for anyone who uses news as a record of measles. First, coverage measures attention. The 2020 trough is a fall in share, and a share also depends on what else is in the news. The two peaks, in spring 2019 and spring 2025, fell in the months of large outbreaks in the United States. Coverage in 2025 rose sharply in raw terms, but as a share of the news it stayed well below 2019. Second, a large share is not the same as over-representation. The United States holds most located measles news and is also over-represented, while India is strongly under-represented in the index's measles coverage. In Bangladesh and New Zealand, measles took an unusually large share of the country's news in the year of a national outbreak. Third, measles news is framed through vaccination. Immunisation, herd immunity and vaccine hesitancy dominate the themes, which makes the dataset useful for studying how hesitancy is reported. Location tags also need checking before they are ranked: Arizona looked strongly under-represented until place tags derived from ordinary words were removed, after which too few Arizona articles remained to rank it.

Research, invention and news run on different clocks. For measles, the research share and the news share both peaked in 2019 and both rose again in 2024-2025. Patent activity is low. The dataset lets researchers link the three, for example to test whether outbreaks with heavy coverage in a country are followed by a rise in that country's research output.

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.
- **Matching.** Matching uses the article opening. Articles that mention measles only later are missed, and 10% of matches are not about measles.

- **Machine labels.** Location, tone, priority, themes and organisations are machine-labelled. The city field is noisy and is not analysed; one organisation abbreviation is mis-resolved. Place tags derived from ordinary words were treated as unlocated in every location field (15.3% of city-tagged articles), so located counts are smaller than the raw tags suggest.
- **Outlet mix.** The index over-represents English-language and North American outlets. This shapes the geography and may explain part of the low lifts for Europe and Asia.
- **Small counts.** Indian state counts and patent counts are small; the first are not analysed and no trend is stated for the second.
- **Research and patent counts.** These match titles only. Papers on combination vaccines that do not name measles in the title are missed.

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 8,029 of 32,698 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 "measles" -since 2019-01-01 --until 2026-07-31 --granularity monthly`.

References

1. Fiona Guerra et al. (2017). The basic reproduction number (R0) of measles: a systematic review. *The Lancet Infectious Diseases*. [https://doi.org/10.1016/s1473-3099\(17\)30307-9](https://doi.org/10.1016/s1473-3099(17)30307-9)
2. Julian P. T. Higgins et al. (2016). Association of BCG, DTP, and measles containing vaccines with childhood mortality: systematic review. *BMJ*. <https://doi.org/10.1136/bmj.i5170>
3. Michael D. Mühlebach et al. (2011). Adherens junction protein nectin-4 is the epithelial receptor for measles virus. *Nature*. <https://doi.org/10.1038/nature10639>
4. Michael J. Mina et al. (2019). Measles virus infection diminishes preexisting antibodies that offer protection from other pathogens. *Science*. <https://doi.org/10.1126/science.aay6485>
5. Michael J. Mina et al. (2015). Long-term measles-induced immunomodulation increases overall childhood infectious disease mortality. *Science*. <https://doi.org/10.1126/science.aaa3662>
6. Minal Patel et al. (2020). Progress Toward Regional Measles Elimination — Worldwide, 2000–2019. *MMWR Morbidity and Mortality Weekly Report*. <https://doi.org/10.15585/mmwr.mm6945a6>
7. Anders Hviid et al. (2019). Measles, Mumps, Rubella Vaccination and Autism. *Annals of Internal Medicine*. <https://doi.org/10.7326/m18-2101>
8. Fliar BI (2026). *Measles in the News 2019–2026: article-level dataset and coverage tables*. Prism News API. <https://github.com/fliarbi/prism-news-api>