

Antimicrobial Resistance in the News, 2019-2026: Attention, Geography and Tone of Global 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 antimicrobial resistance was covered in a global news index from January 2019 to July 2026, using 51,769 de-duplicated matched articles, and set that coverage beside 35,794 research papers (2015-2025) and 708 patent families (2015-2024) on the same subject. Six results stand out:

1. **Flat attention.** The topic took 3.94 of every 10,000 news articles in 2019 and 3.78 in 2025. Raw counts rose 2.19-fold, but the index grew as fast. The low point was 2020, at 3.0 per 10,000, 24% below 2019.
2. **Calendar.** Outside a January dating artefact, November (8.78%) and December (8.69%) hold the largest shares of each year's coverage. November is the month of World Antibiotic Awareness Week. In 2024 the peak month outside January was September (3.98 per 10,000), the month of the United Nations high-level meeting on the subject.
3. **Geography.** The United Kingdom's share of located coverage is 2.28 times its share of all news; the United States, the largest source (32.38%), is under-represented at 0.67. Africa (2.29), Oceania (1.79) and Europe (1.56) are over-represented by continent. Within the United States, New York (1.91) and California (1.59), the only states with at least 50 located articles, are over-represented.
4. **Priority and tone.** 93.4% of articles are rated critical priority (all news: 42.6%), yet only 27.2% are negative in tone (all news: 33.6%).
5. **Measurement.** 80% of a hand-checked sample were journal abstracts indexed alongside news reports. Only 11.69% of matched articles carry a country, and records with only a publication year cluster on 1 January.
6. **Research and invention.** Research papers on resistance grew from 2.49 to 8.59 per 10,000 papers between 2015 and 2025 (3.45-fold). Patent families grew 4.09-fold in raw count from 2015 to 2024, and China's office held 51.7% of filing-office records.

Findings stated for citation

- **F1.** The topic's share of news was 3.94 per 10,000 articles in 2019 and 3.78 in 2025, while raw counts rose 2.19-fold.
- **F2.** Its share fell 24% from 2019 to 2020 (3.0 per 10,000), the lowest year from 2019 to 2025.
- **F3.** November (8.78%) and December (8.69%) hold the largest monthly shares outside January, against a mean of 7.28% for February to December.
- **F4.** September 2024 was the peak month of 2024 outside January (3.98 per 10,000); December 2025 was the highest such month in the period (5.89).

- **F5.** The United Kingdom's share of located coverage (13.32%) was 2.28 times its share of all news; the United States' (32.38%) was 0.67 times.
- **F6.** Africa (2.29), Oceania (1.79) and Europe (1.56) were over-represented by continent; North America (0.64) was under-represented.
- **F7.** New York (1.91) and California (1.59), the only US states with at least 50 located articles, were both over-represented.
- **F8.** Coverage per 10,000 of each country's news fell from 2023 to 2025 in the United States and the United Kingdom, and changed little in India.
- **F9.** Indian coverage was 49.9% negative against 41.2% for all Indian news, a gap of 8.7 points.
- **F10.** 93.4% of articles were rated critical priority by the model, 2.19 times the all-news share; 27.2% were negative.
- **F11.** The theme label antimicrobial stewardship appeared in 51.04% of themed articles, 500.18 times its all-news rate.
- **F12.** Foodborne illness outbreaks appeared in 9.42% of themed articles, 176.54 times their all-news rate.
- **F13.** Resistance papers rose 3.45-fold as a share of all papers between 2015 and 2025.
- **F14.** Resistance-related patent families published per year grew 4.09-fold in raw count between 2015 and 2024.
- **F15.** China's office held 51.7% of filing-office records of resistance-related patent families (2015–2024).

1. Introduction

Antimicrobial resistance arises when bacteria, fungi, viruses or parasites stop responding to the drugs used to treat them. It is a slow problem. It has no single date, no single place and few images, so its place in the news is uncertain. Health agencies try to raise attention through awareness weeks, action plans and high-level meetings. Whether attention follows is rarely measured.

This paper and its dataset measure it. 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 (13,008 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. It also indexes journal abstracts, which matter for this topic. Each record 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 antimicrobial resistance when its opening text contains, as whole words, *antibiotic resistance*, *antimicrobial resistance* (or *anti-microbial resistance*), *antibiotic-resistant* or *antibiotic resistant*, *antimicrobial-resistant* or *antimicrobial resistant*, *drug-resistant bacteria*, *drug-resistant infections*, *superbug* or *superbugs*. Broad or

ambiguous candidates were dropped after review: the acronym *AMR* also names autonomous mobile robots and a common given name, and *MRSA* and *multidrug-resistant* drew market-report listings and antiviral uses. Four families of matches are excluded:

- market-research listings ("market size", "market to witness");
- job advertisements;
- one diagnostics company's press-release footer, which names resistance genes in every release;
- uses of resistance genes as laboratory selection markers.

Together these removed 341 of 52,110 raw matches (0.65%). One reviewer read 40 randomly drawn matched openings. 39 were about resistance to antimicrobial drugs or measures against it (precision 97.5%), and in 33 (82.5%) resistance was the main subject. The one false positive was a vaccine-partnership release that named resistance in passing. The same check classed 32 of the 40 records (80%) as journal abstracts and 8 as news reports, and 9 of the 40 were dated 1 January.

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 place's share of matched articles divided by its share of all located articles. Place tags derived from ordinary words ("Congress", "Earth", "Winter", "Cloud", "Mobile", "Hurricane" and others, 714 words in all) were treated as unlocated in every location field, which removed 15.3% of city-tagged articles.

Research and patents. Research papers are de-duplicated articles and reviews (2000–2025) with a resistance term in the title. Repository deposits and selection-marker uses are excluded. Patent families (2006–2024) use the same title rule, are counted once per filing office, and exclude patents that use resistance genes only as selection markers.

3. Results

3.1 How much and when

The index holds 51,769 antimicrobial-resistance articles from January 2019 to July 2026. Raw counts rose from 4,656 in 2019 to 10,211 in 2025, but the share of all news did not: 3.94 per 10,000 in 2019, 3.49 in 2024 and 3.78 in 2025 (Table 1). The low point was 2020, at 3.0 per 10,000. That is 24% below 2019, in the first year of the COVID-19 pandemic (Figure 1).

Year	Matched articles	All articles in index	Per 10,000
2019	4,656	11,807,177	3.94
2020	4,877	16,230,014	3.0
2021	5,692	17,281,220	3.29
2022	6,733	19,115,515	3.52
2023	7,536	20,484,506	3.68
2024	8,134	23,311,896	3.49
2025	10,211	26,990,006	3.78

Table 1. Antimicrobial-resistance articles per year and as a share of the index. 2026 (January–July) is partial and omitted.

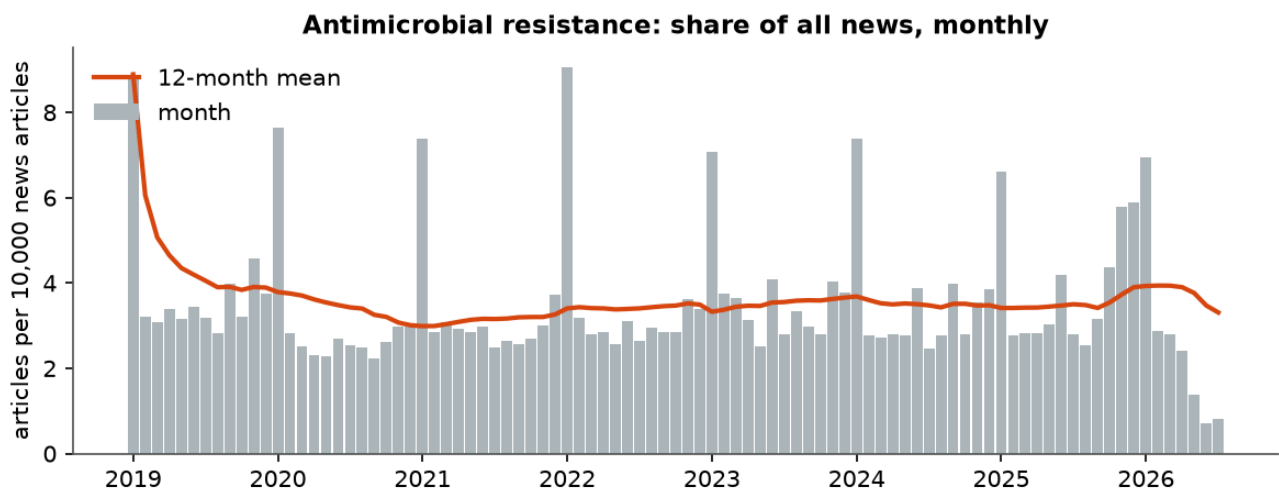


Figure 1. Antimicrobial-resistance coverage as articles per 10,000 news articles, monthly, January 2019 – July 2026. Bars are months; the line is the 12-month mean. The tall January bars are a dating artefact (see text).

The monthly profile has one artefact and one real pattern (Figure 2). January holds 19.95% of a typical year's matches. The excess comes from journal records that carry only a year of publication and are dated 1 January, so January is not read as a peak of attention. The highest monthly share in the period, January 2022 (9.07 per 10,000), is set aside for the same reason. Across the other eleven months the mean share is 7.28%. November (8.78%) and December (8.69%) are the highest. November is the month of World Antibiotic Awareness Week. Outside January, the highest single months were December 2025 (5.89 per 10,000) and November 2025 (5.79). The index held fewer articles overall in those months than earlier in 2025, which raises the share. In 2024 the highest month outside January was September (3.98), the month of the United Nations General Assembly high-level meeting on antimicrobial resistance.

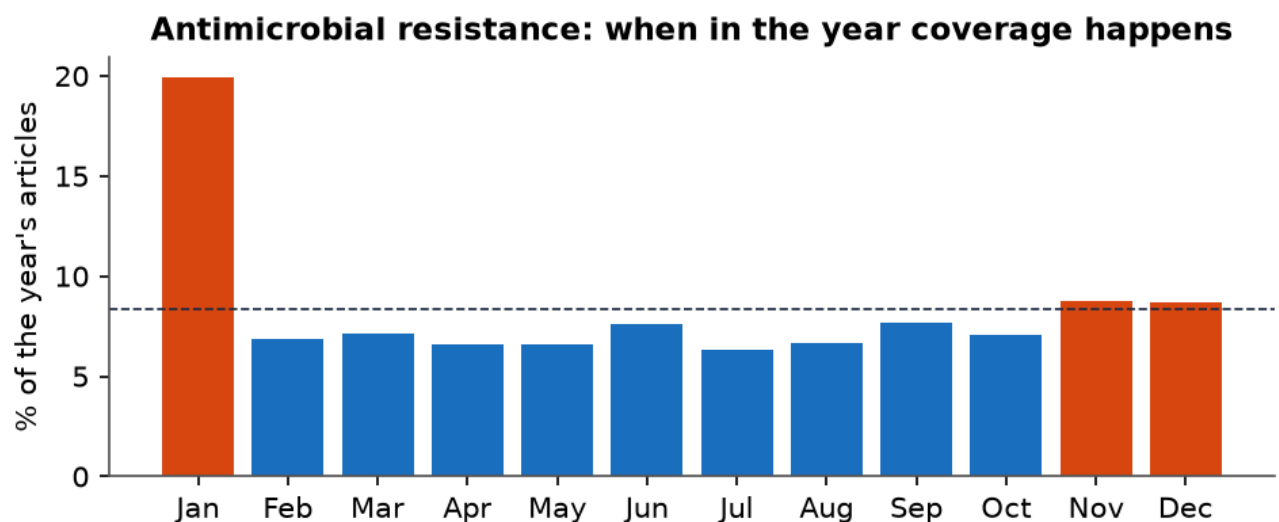


Figure 2. Share of each year's antimicrobial-resistance articles published in each month, averaged over 2019–2025. Dashed line = an even spread (8.3% per month). January is inflated by records dated 1 January.

3.2 Where

Between January 2023 and July 2026, 3,484 matched articles carried a primary location, 11.69% of all matched articles in that window. Most of the rest are journal abstracts without a place. The United States holds the largest raw share (32.38%), but its lift is 0.67: the topic takes a smaller share of American news than of news overall. The United Kingdom's share (13.32%) comes with a lift of 2.28, the highest of the five countries with at least 100 located

articles. Australia (1.74) follows, and India and China (both 1.12) are slightly over-represented (Table 2, Figure 3).

Country	Located articles	Share %	Lift vs all news
United States	1,128	32.38	0.67
India	517	14.84	1.12
United Kingdom	464	13.32	2.28
Australia	130	3.73	1.74
China	103	2.96	1.12

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

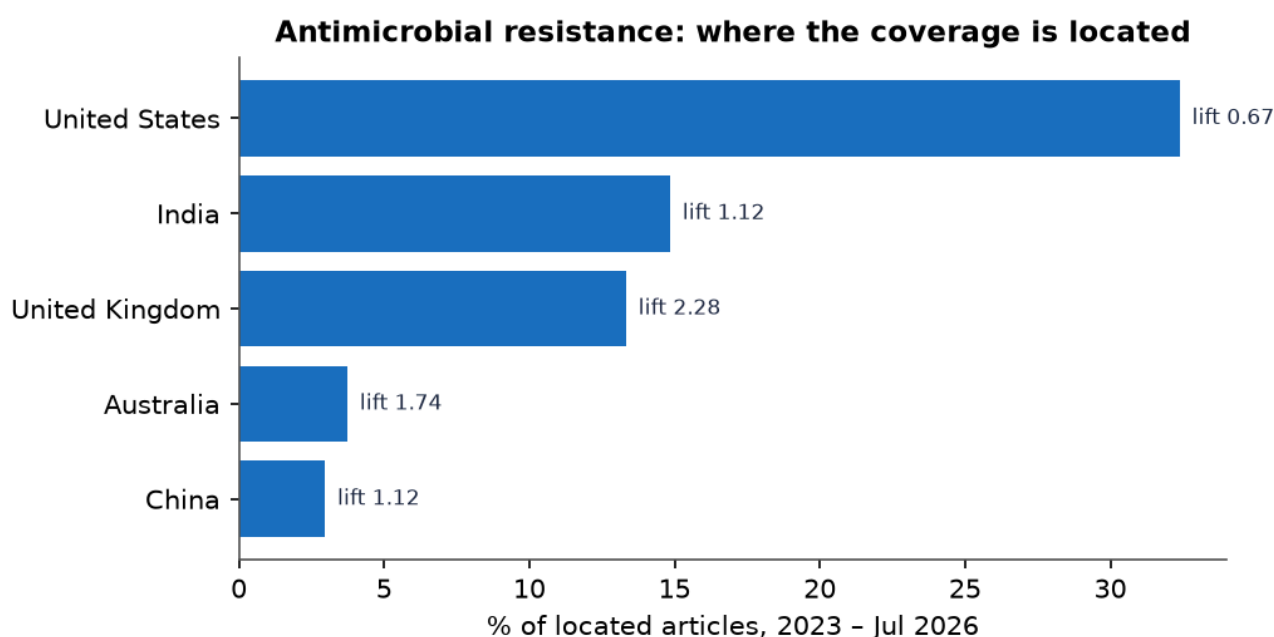


Figure 3. Leading countries by share of located antimicrobial-resistance articles, 2023 – Jul 2026, labelled with lift against all located news.

3.3 Geo intelligence: continents, states and shifting attention

A world lift map is not drawn for this topic. It needs at least eight countries with 100 or more located articles, and only five qualify. Continents carry the global picture instead (Figure 5, left). Africa (2.29), Oceania (1.79) and Europe (1.56) are over-represented, Asia (1.06) is close to its weight, and North America (0.64) is under-represented. South America has only 24 located articles and is not interpreted.

Within countries, the picture is clearer for the United States than for India (Table 3). Of 736 located US articles, only New York (164 articles, lift 1.91) and California (117, lift 1.59) reach 50, and both are over-represented (Figure 4). Massachusetts (48) shows a higher lift but falls just below the threshold and is not interpreted. The Washington tag (47) mostly marks Washington, D.C. or the US government in the sample rows, not Washington State, and is not interpreted. Texas (38, lift 0.88) and Florida (35, 0.88) are slightly under-represented. The data do not show why. An India state map is not drawn: only 296 located Indian articles exist, no state reaches 50 (Delhi has 47), and fewer than eight reach the 30 needed for the map. The India columns of Table 3 are shown for completeness and are not interpreted.

India: state	Articles	Lift	United States: state	Articles	Lift
Delhi	47	1.22	New York	164	1.91
Tamil Nadu	41	2.76	California	117	1.59
Kerala	32	4.44	Massachusetts	48	2.75
Maharashtra	32	0.68	Washington	47	2.44
Telangana	29	2.82	Texas	38	0.88
Karnataka	23	1.4	Florida	35	0.88
Uttarakhand	16	2.41	Pennsylvania	29	0.66
Uttar Pradesh	13	0.35	New Jersey	27	0.19

Table 3. States by located antimicrobial-resistance articles, January 2023 – July 2026. Lift = the state's share of the country's located matched articles ÷ its share of all located news from that country. Indian states are ordered by count; US states by lift among those with at least 50 articles, then by count. Counts below 50 are not interpreted; the Washington row mostly reflects Washington, D.C. tags.

Antimicrobial resistance: states of United States by lift

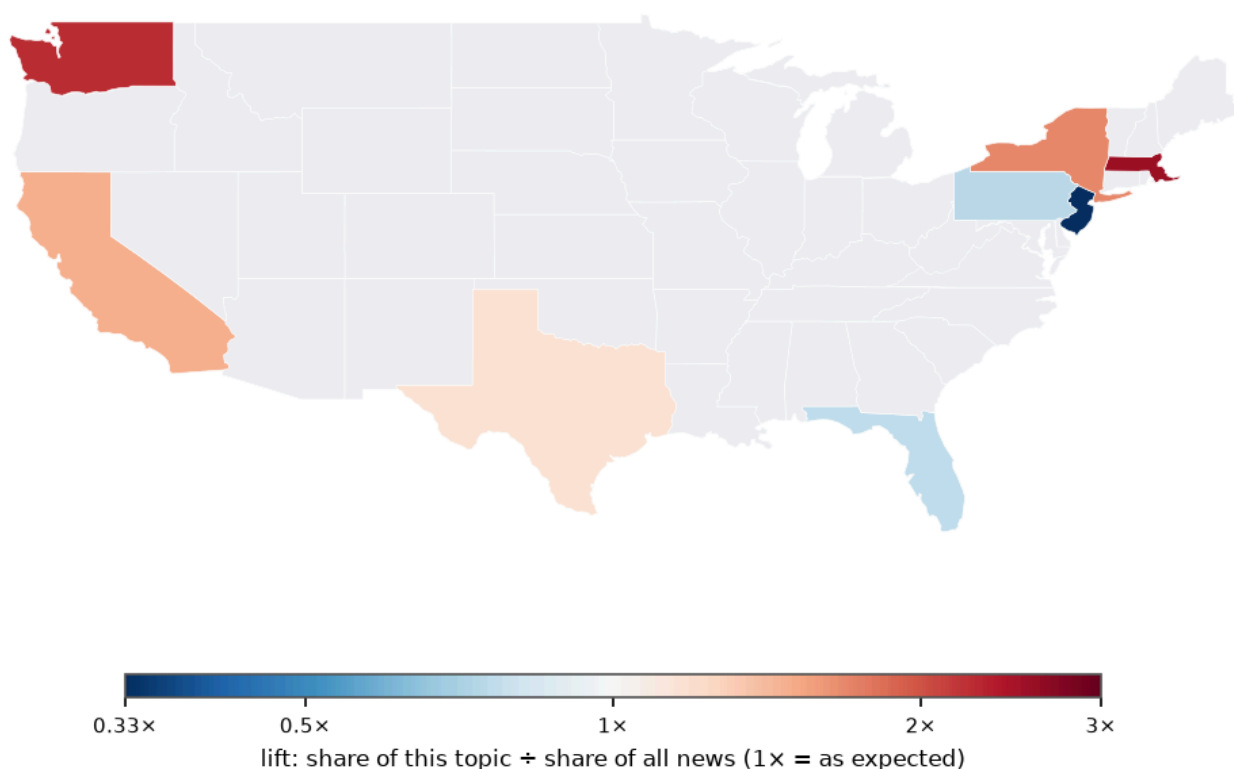


Figure 4. Lift of each US state's share of located antimicrobial-resistance articles against its share of all located US news, January 2023 – July 2026 (grey = fewer than 30 articles).

Attention also moves between years (Figure 5, right). Measured as matched articles per 10,000 of each country's located news, coverage fell from 2023 to 2025 in the United States (0.78 to 0.52, 0.67 times) and the United Kingdom (2.41 to 1.84, 0.76 times), and changed little in India (0.95 to 0.92, 0.97 times). No country with enough coverage rose. Australia (2.42) and China (2.49) both peaked in 2023 and fell to 0.72 and 0.76 in 2024. The United Kingdom's share has been the highest of the five in every year from 2019 to 2025, apart from 2023.

Tone by country is set against each country's own news (Table 3a). Coverage is more negative than the country's news in all three countries with enough labelled articles. The gap is largest in the United States (47.0% negative against 33.1%, 13.9 points, 1.42 times), then India (49.9% against 41.2%, 8.7 points, 1.21 times) and the United Kingdom (43.8%

against 36.9%, 6.9 points, 1.19 times). Located articles are mostly news reports, so they are more negative than the matched set as a whole, which is dominated by abstracts.

Country	Labelled articles	Negative % (topic)	Negative % (country's news)	Gap, points
United States	1,125	47.0	33.1	13.9
India	513	49.9	41.2	8.7
United Kingdom	463	43.8	36.9	6.9

Table 3a. Negative share of located antimicrobial-resistance articles against the negative share of all located news from the same country, January 2023 – July 2026.

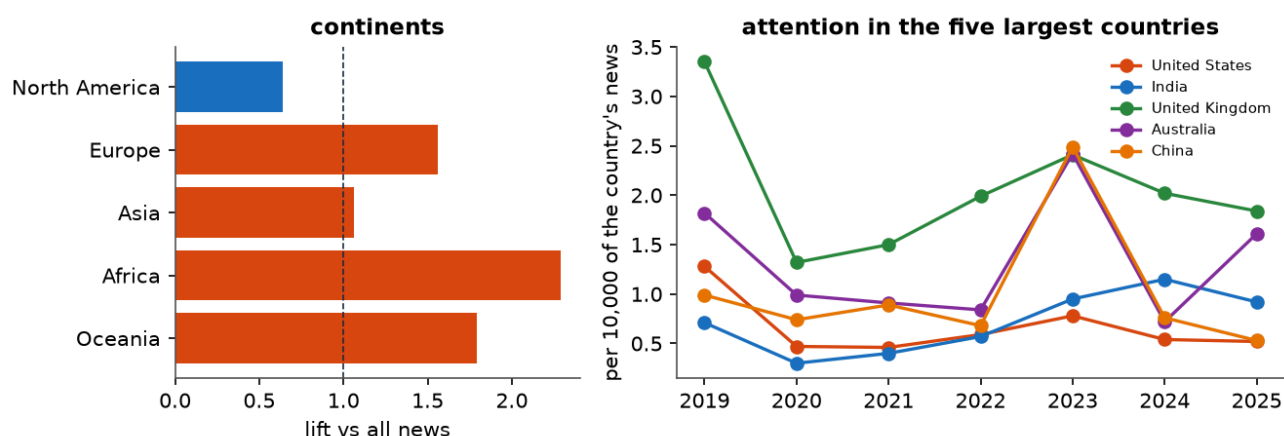


Figure 5. Left: lift by continent, January 2023 – July 2026. Right: matched articles per 10,000 of each country's located news, 2019–2025, for the five countries with the most articles.

3.4 Tone, urgency and themes

Coverage is rated far more urgent than news in general, but it is not more negative (Figure 6). Editorial priority puts 93.4% of matched articles at critical level (7 or higher), against 42.6% of all news (2.19 times). Yet only 27.2% carry a negative tone, against 33.6% across the index (0.81 times), and 67.6% are positive (1.19 times the all-news share of 56.8%). Many matched records are abstracts that report a new compound, test or intervention, and the tone model reads these as positive.

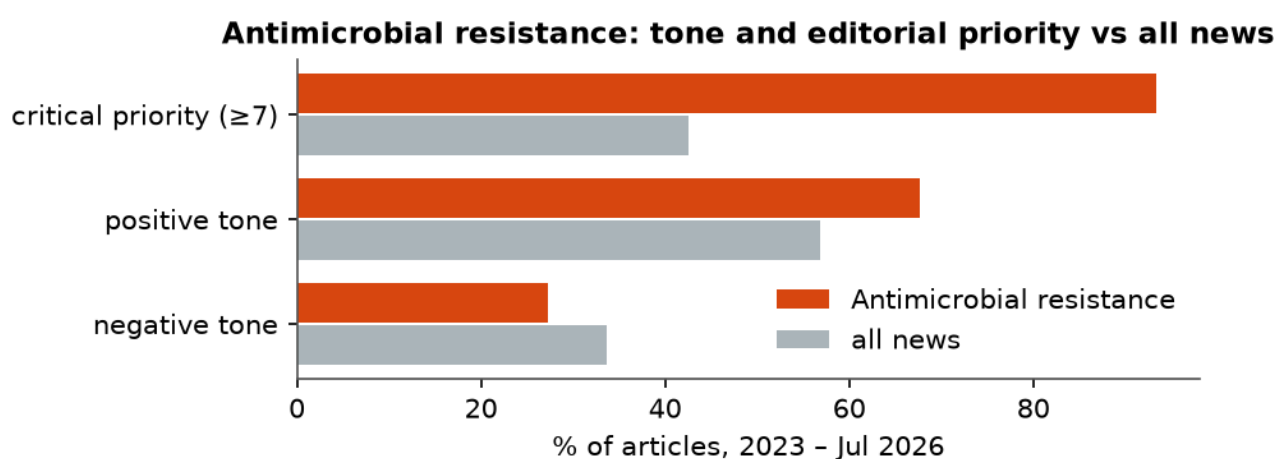


Figure 6. Tone and the share rated critical priority, antimicrobial-resistance articles vs all news, 2023 – Jul 2026.

Themes show what the coverage is about (Table 4). Resistant pathogens (54.17% of themed articles), antimicrobial stewardship (51.04%) and the treatment of multidrug-resistant organisms (46.73%) are the most common, and each is several hundred times more frequent than in all news. Hospital infection control appears in 30.36%. Foodborne illness outbreaks

appear in 9.42%, 176.54 times their all-news rate, which reflects the food and farm side of the topic.

Theme	Articles	Share %	Lift
antimicrobial stewardship programs	12,347	51.04	500.18
treatment of multidrug-resistant organisms	11,304	46.73	424.02
antimicrobial-resistant pathogens	13,104	54.17	409.41
antimicrobial resistance initiatives	421	1.74	382.82
antibiotic resistance and novel treatments	2,822	11.67	347.01
nosocomial infection control	7,345	30.36	317.77
antibiotic resistance research	3,024	12.5	285.18
biofilm-related infections	3,299	13.64	277.03
foodborne illness outbreaks	2,278	9.42	176.54

Table 4. Themes most specific to antimicrobial-resistance coverage (lift against all themed news), January 2023 – July 2026.

The organisation field is not analysed. Its leading entries are the acronym "amr" (2,100 articles) and "the who" (1,120), and the tagger resolves the acronym CDC to an unrelated group. The Centers for Disease Control and Prevention (270 articles), the United Nations General Assembly (122) and India's medical research council (91) also appear when named in full.

3.5 Research attention and invention

Research on resistance grew much faster than the scientific literature. Papers with a resistance term in the title rose from 2.49 per 10,000 papers in 2015 to 8.59 in 2025, a 3.45-fold increase in share. Their number grew 3.46-fold, while the total literature in the corpus was flat (growth factor 1.0). Between 2015 and 2025, 35,794 such papers were published. The most-cited include the global burden estimate for 2019 [1], the priority list of resistant bacteria [2] and reviews of the origins and drivers of resistance [3, 6].

News attention does not track research attention (Figure 7). Indexed to 2019, the research share in 2025 stood at 206.99, while the news share stood at 95.94.

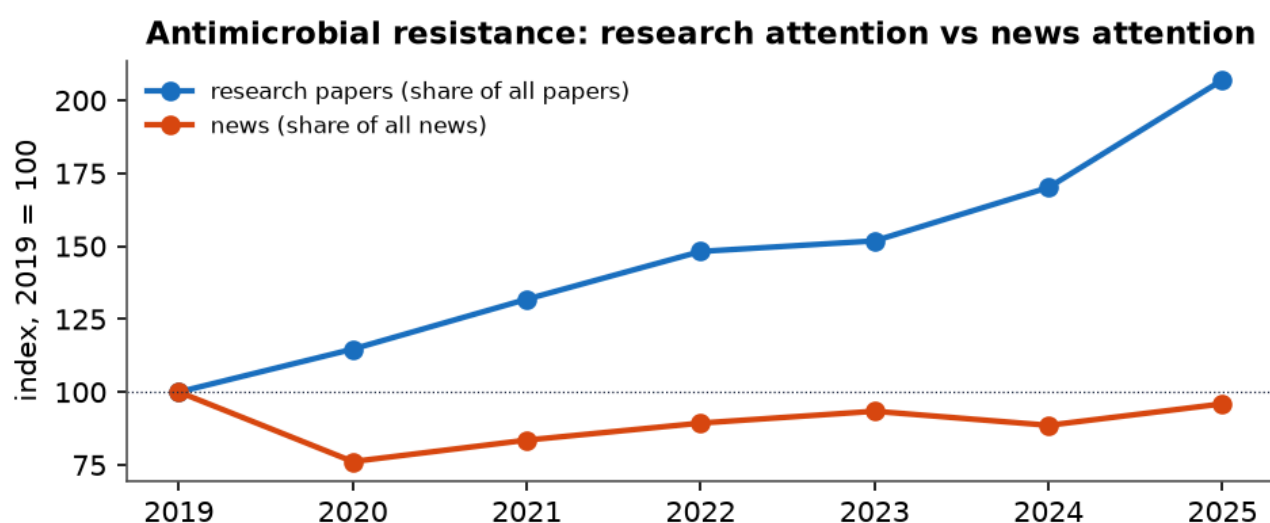


Figure 7. Research papers with resistance terms in the title (share of all papers) and antimicrobial-resistance news (share of all news), each indexed to 2019 = 100.

Patenting is small but rising: 32 resistance-related patent families were published in 2015 and 131 in 2024 (4.09 times). These are raw counts: all published patent families also rose, from 3,302,996 in 2015 to 5,556,813 in 2024. China's office holds 51.7% of filing-office records from 2015 to 2024, followed by international applications (13.4%) and the United States (13.3%) (Figure 8). The most frequent technology classes are medicinal preparations (A61K) and measuring or testing processes involving microorganisms (C12Q), which covers resistance diagnostics.

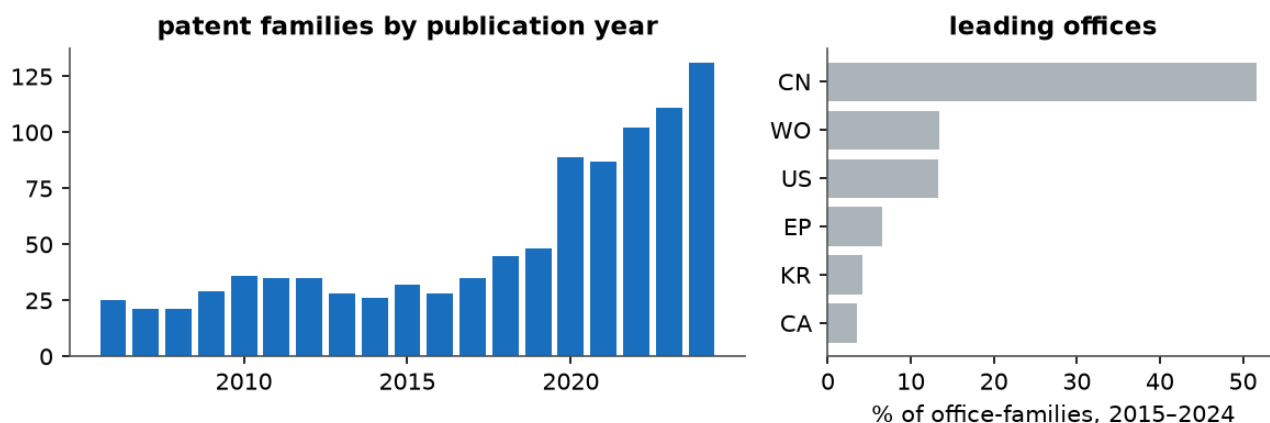


Figure 8. Resistance-related patent families by publication year (left) and the leading filing offices, 2015–2024 (right).

4. Discussion

Three points matter for anyone who uses news as a record of antimicrobial resistance. First, attention has not grown. Health agencies describe resistance as a rising threat, and research output on it more than tripled as a share of the literature, but its share of news in 2025 was below 2019. Second, attention gathers around the calendar of institutions. The largest monthly shares outside the January artefact fall in November and December, and the 2024 peak fell in the month of the United Nations meeting. These are coincidences of timing and are not tested as causes. Third, what a keyword search returns as "news" on this topic is mostly scholarly. Four in five sampled records were journal abstracts, which shapes every measure: few records carry a place, the calendar has a January artefact, and the tone leans positive.

Geography is thin but consistent. The United Kingdom stands out by lift. Africa and Oceania are over-represented by continent. Within the United States, coverage is over-represented in New York and California, the only two states with enough articles to measure. An earlier five-state ranking did not survive once place tags derived from ordinary words were treated as unlocated, which is a reminder that state-level results rest on small counts. The dataset lets researchers test these links directly, for example whether national action plans are followed by a rise in a country's coverage.

5. Limitations

- **Record types.** Most matched records are journal abstracts indexed with the news. Results describe the index as a whole, not news reports alone.
- **Dates.** Records with only a year of publication are dated 1 January, which inflates January and the January 2022 monthly peak.
- **Geography.** Only 11.69% of matched articles from 2023 on carry a country. Place tags derived from ordinary words were treated as unlocated (15.3% of city-tagged articles),

so some genuinely located articles may be counted as unlocated. The world map and the India state map cannot be drawn, and US state counts are small.

- **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 opening text. Records that name resistance only later are missed, and 2.5% of sampled matches were not about resistance.
- **Machine labels.** Location, tone, priority, themes and organisations are machine-labelled. The city and organisation fields are noisy and are not analysed.
- **Research and patent counts.** These match titles only. Patent counts are small, and 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 13,008 of 51,768 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 "antimicrobial resistance" --since 2019-01-01 --until 2026-07-31 --granularity monthly`.

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