# The Share of Japanese-Language Papers Among All PubMed Records Fell from 0.0294 in 1989 to 0.0011 in 2025 — Japanese-Language Papers with the "English Abstract" Publication Type Fell from 2,557 in 2015 to 23 in 2018 and Returned to 1,806 in 2023, but Japanese-Language Papers with an Abstract Only Fell from 3,545 to 2,299 over the Same Years, and the Same Publication Type Fell, Regardless of Language, to 0.0680 Times Its 2015 Level in 2017 [M117]

**Records with the "English Abstract" label = records with an abstract × share given the label — What separates them is whether you count by the label attached or by what the record contains**

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## Abstract

**Using counts from PubMed (U.S. National Library of Medicine) retrieved through E-utilities (27 September 2026), this paper counted papers written in Japanese (language field Japanese) by publication year from 1975 to 2025, and crossed them with whether an abstract exists, the "English Abstract" publication type, and Japanese affiliation. Whether Japanese-language papers are many or few, good or bad, and research quality are not discussed. No new mathematical theorem and no new law are claimed.**

First, **Japanese-language papers went from 7,041 in 1975 (0.0282 of all records) to a peak of 11,851 in 1989 (0.0294), and numbered 2,039 in 2025 (0.0011)** (Section 4).

Second, and this is the core of this paper, **Japanese-language papers carrying the "English Abstract" publication type fell from 2,557 in 2015 to 23 in 2018 and returned to 1,806 in 2023. But Japanese-**

**language papers with an abstract (hasabstract) only fell from 3,545 in 2015 to 2,299 in 2018, and numbered 1,806 in 2023** (Section 5).

Third, **the same "English Abstract" publication type, regardless of language, fell from 18,937 in 2015 to 1,287 in 2017 (0.0680 times) and returned to 23,594 in 2023. It did not happen only to Japanese-language papers. The share of Japanese-language papers with an abstract that carried the label was below 0.05 in the 5 years 2017–2021** (Section 5).

Fourth, **the affiliation label was also attached differently by year. Records with a Japanese affiliation jumped from 536 in 1986 to 6,551 in 1987 and 14,657 in 1988, and the share of Japanese-language papers with a Japanese affiliation fell from 0.376 in 2013 to 0.112 in 2014** (the reasons were not checked; Section 6).

Fifth, **movements in counts by label include movements in how the label is attached. Counting by whether an abstract exists, one cannot say that "Japanese-language papers with English abstracts disappeared in 2017"** (Section 5).

Sixth, what separates them is **whether you count by the label attached or by what the record contains**. When you hear on PubMed that "papers of some kind decreased (or increased)," check whether it was counted by labels such as publication type or affiliation, or by what the records contain.

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**Scope note**: **This paper claims no new mathematical theorem and no new law** — the counts are public in PubMed, and this paper only counted and ordered them. **This paper is a structural interpretation of the shape of numbers in public aggregate data; it is not medical advice, not a diagnosis, and not a treatment recommendation. The author is not a physician. Decisions about individual health should be discussed with a physician or a medical institution. This is a preprint that has not been peer reviewed. Whether Japanese-language papers are many or few, good or bad, and the quality or value of research are not discussed. No specific paper, journal, publisher, author, or research institution is named.** PubMed contains records from the journals it covers, not all papers written in Japanese. **The reasons the attachment of labels changed (how publication types are assigned, how affiliations are entered, changes in covered journals, and so on) were not checked.** The language of abstracts was not checked record by record. The counts are as of retrieval and change daily. **About the data**: Courtesy of the U.S. National Library of Medicine. The counts are as of 27 September 2026 and do not reflect the most current or accurate data from NLM. NLM does not endorse this paper. What this paper adds: **showing that counts by the "English Abstract" publication type and counts by whether an abstract exists diverge greatly in 2017–2021, and that the divergence is not limited to Japanese-language papers**.

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## 1. Notation and question

- **Japanese-language paper**: `japanese[la]` (records whose language field is Japanese). The PubMed User Guide states that the language field is the language in which the article was published and that "many non-English articles have English language abstracts."
- **With an abstract**: `hasabstract`, the "Abstract" filter itself in the User Guide (no search field tag is required).
- **"English Abstract" publication type**: `"english abstract"[pt]`, a label attached to a record as a publication type.

- **Japanese affiliation**: `japan[ad]` (records with the word Japan in the affiliation field). The User Guide states that affiliations are included if submitted by the publisher, and that multiple affiliations were added starting from 2014, previously only the first author's affiliation.

**Question**: How much did Japanese-language papers decrease? When counting "Japanese-language papers with English abstracts," does counting by label or by content make a difference?

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## 2. Preview and design

**Written honestly**: the design was extended after seeing the main retrieval.

| | Content |
|---|---|
| Data | PubMed E-utilities counts (main retrieval of 255 queries: 51 years 1975–2025 × 5 kinds; additional retrieval of 102 queries: 51 years × 2 kinds) and the PubMed User Guide |
| Noticed in the main retrieval | Japanese-language papers with the "English Abstract" publication type fell from 2,557 in 2015 to 23 in 2018 and came back in 2023 |
| Added | Queries recounting by whether an abstract exists (hasabstract), and queries counting the same publication type regardless of language |
| Noticed in the main retrieval (2) | Records with a Japanese affiliation jumped from 1986 to 1988 |
| Compared | Number and share of Japanese-language papers, with an abstract, the "English Abstract" publication type, and Japanese affiliation |

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## 3. Data and checks

**Calculation 3.1** Five files — the two count JSON files, the two retrieval scripts, and the copy of the User Guide — were fixed by SHA-256, and the following were checked. The checker computes only

from the saved JSON files and does not query PubMed.

- The 255 main queries (27 September 2026, 02:14:34–02:18:29) and 102 additional queries (02:21:44–02:23:17) are complete.
- The query translations contain the publication date range and, as intended, the language ("japanese"[Language]), affiliation ("japan"[Affiliation]), publication type, and abstract filter. **Written honestly**: the check was first written to match the affiliation translation without quotation marks and failed once.
- The only warnings were "No items found" for queries with a count of 0; warnings indicating a misread query were 0.
- The saved User Guide contains the original text of the language and affiliation fields and the text stating that hasabstract is the "Abstract" filter itself.
- All subset relations hold (Japanese and … ≤ Japanese ≤ all, and so on).

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## 4. The number of Japanese-language papers

**Observation 4.1**: **Japanese-language papers went from 7,041 in 1975 (0.0282 of all records) to a peak of 11,851 in 1989 (0.0294), and numbered 2,039 in 2025 (0.0011).** There is a large one-year step from 5,534 in 2016 to 3,242 in 2017. The reason cannot be told from the counts. All years are in the checker's output.

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## 5. The core — counting by the label attached or by what the record contains

**Calculation 5.1** Japanese-language papers with the "English Abstract" publication type and with an abstract, and the same publication type regardless of language

| Publication year | Japanese and "English Abstract" type | Japanese and with an abstract | Type ÷ with an abstract | "English Abstract" type, any language |
|---|---|---|---|---|
| 2013 | 2,869 | 3,644 | 0.787 | 29,878 |
| 2015 | 2,557 | 3,545 | 0.721 | 18,937 |
| 2016 | 701 | 3,533 | 0.198 | 5,099 |
| 2017 | 46 | 2,513 | 0.018 | 1,287 |
| 2018 | 23 | 2,299 | 0.010 | 1,381 |
| 2021 | 29 | 2,002 | 0.014 | 1,773 |
| 2022 | 623 | 1,953 | 0.319 | 8,251 |
| 2023 | 1,806 | 1,806 | 1.000 | 23,594 |
| 2025 | 1,581 | 1,581 | 1.000 | 21,739 |

**Observation 5.2**: **Japanese-language papers with the "English Abstract" publication type fell from 2,557 in 2015 to 23 in 2018 and returned to 1,806 in 2023. Japanese-language papers with an abstract only fell from 3,545 in 2015 to 2,299 in 2018. The share of Japanese-language papers with an abstract that carried the label was below 0.05 in the 5 years 2017–2021.**

**Observation 5.3**: **The same publication type, regardless of language, fell from 18,937 in 2015 to 1,287 in 2017 (0.0680 times 2015; the lowest since 2010) and returned to 23,594 in 2023.** This did not happen only to Japanese-language papers; it is a movement in how the publication type label was attached. Why it moved this way was not checked in this paper.

**Observation 5.4**: **Movements in counts by label include movements in how the label is attached.** Counting by whether an abstract exists, one cannot say that "Japanese-language papers with English abstracts disappeared in 2017." However, the language of abstracts was not checked record by record.

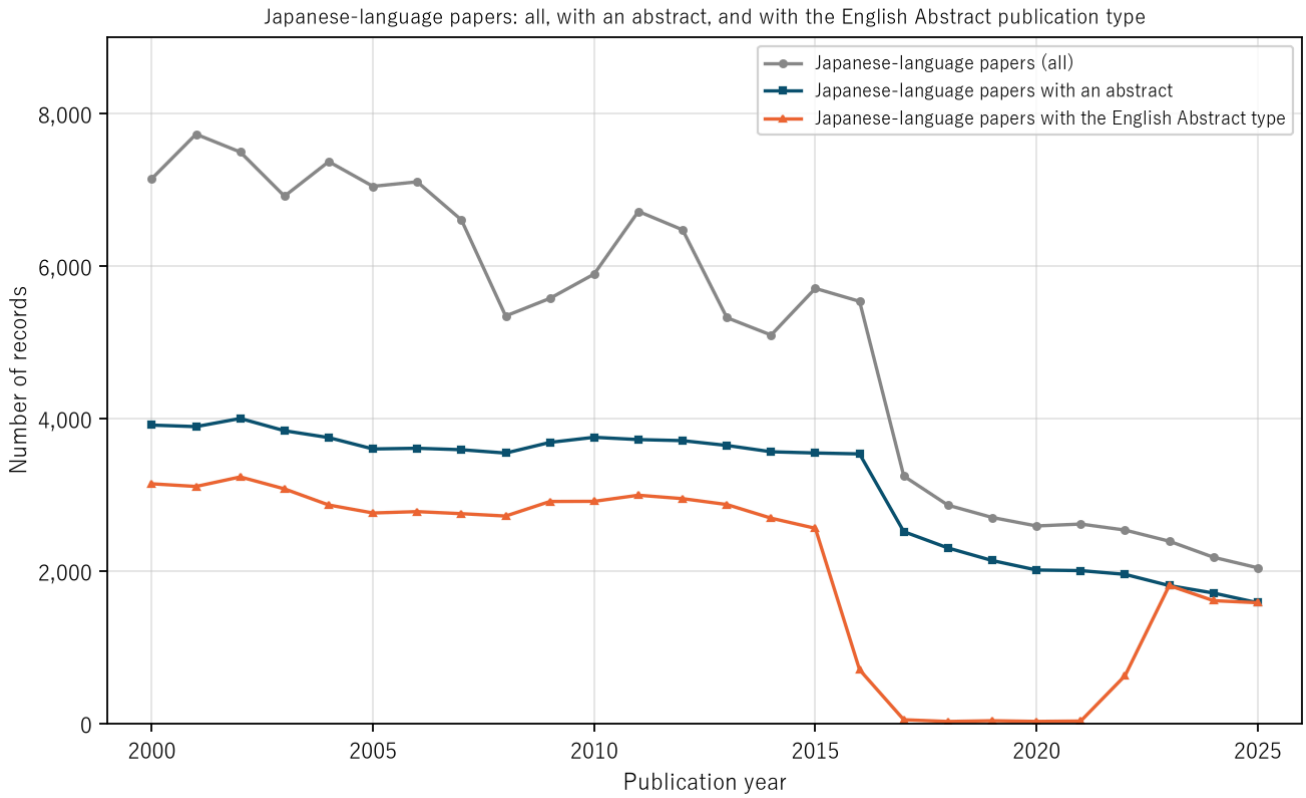



**Figure 1**: Japanese-language papers: all (gray), with an abstract (navy), and with the "English Abstract" publication type (orange), 2000–2025.

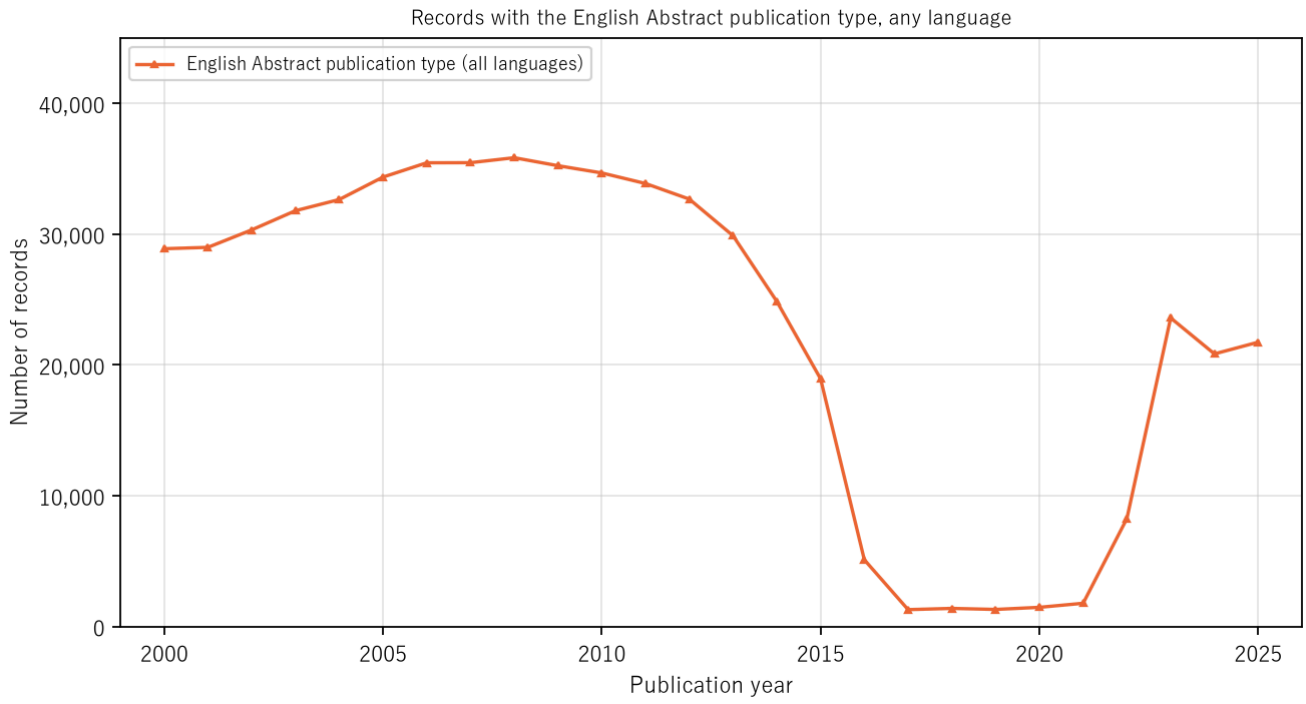



**Figure 2**: Number of records with the "English Abstract" publication type, regardless of language, 2000–2025.

## 6. The affiliation label

**Observation 6.1**: **Records with a Japanese affiliation jumped from 259 in 1984, 343 in 1985, and 536 in 1986 to 6,551 in 1987 and 14,657 in 1988.** For publication years 1986 and earlier, hardly any records carrying the affiliation label are counted.

**Observation 6.2**: **The share of Japanese-language papers with a Japanese affiliation fell from 0.412 in 2012 and 0.376 in 2013 to 0.112 in 2014 and 0.092 in 2015, and was 0.106 in 2025.** The User Guide states that multiple affiliations were added from 2014, but how this relates to the fall was not checked in this paper. When counting "papers from Japan" by affiliation, assume that the label is attached differently by year.

## 7. Relation to earlier papers

M004 showed that "how papers increase" changes depending on what PubMed counts are counting. M112 split the share of papers readable for free by two labels (in PMC, or free outside PMC). M116 counted retractions by two different years and showed that adding up yearly counts counts some records twice. This paper showed, with Japanese-language papers, an example in which counts by label and counts by record content diverge.

## 8. Limitations

1. **Whether Japanese-language papers are many or few, good or bad, and the quality or value of research are not discussed.**
2. PubMed covers some journals, not all papers written in Japanese.
3. The reasons the attachment of publication types and affiliations changed were not checked.
4. The language of abstracts was not checked record by record.

5. Yearly counts may overlap because the same record can be counted in two years (M116). The counts are as of 27 September 2026 and change daily.

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## Conclusion

The share of Japanese-language papers among all PubMed records fell from 0.0294 in 1989 to 0.0011 in 2025. Counted by the "English Abstract" label, those with English abstracts appear to have almost disappeared in 2017–2021, but counted by whether an abstract exists, they only declined gradually. The same label fell and returned in the same years regardless of language. Counts by label include movements in how the label is attached.

**What separates them is one thing — whether you count by the label attached or by what the record contains.**

When you hear on PubMed that "papers of some kind decreased (or increased)," **check whether it was counted by labels such as publication type or affiliation, or by what the records contain.** When counting by label, **check with another way of counting whether the same label was attached the same way across years.**

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## Data and reproduction

| | |
|---|---|
| Data | Counts and query translations retrieved from PubMed (U.S. National Library of Medicine) E-utilities (esearch), 27 September 2026, from 02:14:34. Courtesy of the U.S. National Library of Medicine. PubMed User Guide |
| Terms of use | NLM Terms and Conditions (free of charge; credit the source; do not imply NLM endorsement; state that the data are not the most current) |
| Coverage | PubMed records of publication years 1975–2025: Japanese-language papers, with an abstract, the "English Abstract" publication type, and Japanese affiliation |
| Verification | `検算/M117.py` (`--zu` also draws the figures). Every number in the text is taken from `検算/M117_output.txt` |
| Raw data | `data/pubmed_m117_20260927.json` and `data/pubmed_m117_extra_20260927.json`, the retrieval scripts `data/fetch_pubmed.py` and `data/fetch_pubmed_extra.py`, `data/pubmed_userguide_20260927.html`, and `data/SOURCES.md` (terms of use, SHA-256, excerpts of the original text) |
| Figures | `図/M117_zu1` and `図/M117_zu2` (png, svg, English versions) |

## References


- U.S. National Library of Medicine. PubMed (E-utilities, esearch). Courtesy of the U.S. National Library of Medicine (retrieved 27 September 2026). https://eutils.ncbi.nlm.nih.gov/entrez/eutils/
- U.S. National Library of Medicine. PubMed User Guide (accessed 27 September 2026). https://pubmed.ncbi.nlm.nih.gov/help/
- Yamagishi, Y. (2026). "Medical Papers Double About Every 15 Years" Has a Different Answer Depending on What Is Counted [M004]. Zenodo. https://doi.org/10.5281/zenodo.22963542
- Yamagishi, Y. (2026). The Share of Papers with Free Full Text Rose from 0.118 for 1990 Publications to 0.643 for 2025 Publications — Its Composition Changed: in 1996–2006 Records Free Outside PMC (0.124 in 2004) Outnumbered Records in PMC (0.088), and from 2007 Records in PMC Were the

Majority (0.552 vs 0.092 in 2025). Of the 2,402 Pancreatic Cancer Papers Published in 2008, 0.261 Can Now Be Read Free in Full Text [M112]. Zenodo (unpublished).

- Yamagishi, Y. (2026). Counting Retracted Publications by the Original Paper's Publication Year, 2022 Has the Most (7,133), and 2025 Has 5.40 per 10,000 Records (0.135 Times 2022), So Recent Years Look Lower — Counting Retraction Notices by the Notice's Year, the Most Is 2023 (8,030), and the Middle Year of the Counts Is 2020 for Retracted Publications and 2023 for Notices. Adding Up the Yearly Counts Counts Some Records in Two Years and Gives 1.1069 Times [M116]. Zenodo (unpublished).