Among Outpatients' Sources of Information When Using Medical Care, Word of Mouth from Family and Friends Is the Largest at Every Age at 64.4–70.6%, While Internet Sources Spread by Age (Hospital Websites 46.6% at Ages 0–14, 13.8% at 75+) — Reasons for Choosing the Hospital Instead Spread by Hospital Type: Referral by a Doctor Is 72.2% at Special Functioning Hospitals and 19.7% at Small Hospitals (3.665-Fold) but Spreads Only 1.178-Fold by Age [M089]

Spread of an item = spread by age and spread by hospital type ── What separates them is whether it divides by age or by hospital type

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Abstract

Using basic tabulation Table 2 (reasons for choosing the hospital) and Table 4 (sources of information when usually using medical care) of the Ministry of Health, Labour and Welfare's Patient's Behavior Survey (2023), this paper looked at how what general-hospital patients base their choice of hospital on, and where they get information, differ by age and by hospital type. No new mathematical theorem and no new law are claimed.

First, the tables are consistent. In every row, yes + no particular + unknown equals 100 within a rounding difference of 0.1. Both are multiple-answer questions, and the denominator of each item is the people who answered that they "obtain information" or "have a reason for choosing the hospital" (Section 3).

Second, **among outpatients who obtain information (80.9%), word of mouth from family and friends is the largest source in every age group and hardly moves, at 64.4–70.6%. Hospital websites fall from 46.6% at ages 0–14 to 13.8% at 75+, other internet sources (SNS etc.) from 35.9% to 7.4%, and hospital help desks rise from 6.0% at 15–39 to 21.2% at 75+** (Section 4).

Third, **referral by a doctor is the most common outpatient reason for choosing the hospital at 40.9% overall, but it spreads 3.665-fold by hospital type, from 72.2% at special functioning hospitals to 19.7% at small hospitals, and only 1.178-fold by age (39.3–46.3%). At small hospitals and hospitals with long-term care beds, the most common reason becomes convenient access (32.5% and 38.6%)** (Section 5).

Fourth, this is the core of the paper. **Comparing, item by item, "the spread across 5 age groups (max ÷ min)" with "the spread across 5 hospital types," the spread by age is larger for 9 of the 10 outpatient sources of information, and the spread by hospital type is larger for 6 of the 7 outpatient reasons for choice.** The exceptions are word of mouth (age 1.096, hospital type 1.111, both the smallest among the 10 sources) and building and facilities (1.635 and 1.617, nearly equal) (Section 6).

Fifth, **for inpatients, the spread by age is larger for all 10 sources of information, but for reasons for choice it is larger by age for 4 of 7, so they do not divide as cleanly as for outpatients** (Section 7).

Sixth, what separates them is **whether an item divides by age or by hospital type**. Of the two things lumped together as "how people choose a hospital," where they get information divides by the person's age, and what they chose it for divides by the type of hospital they are at. Only word of mouth hardly moves by either.

Scope note: **This paper claims no new mathematical theorem and no new law** — reasons for choosing the hospital and sources of information are in public tables, and this paper only compared, item by item, the spread by age and by hospital type. **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. It does not judge which sources of information are good, how one should choose a hospital, or whether hospitals, physicians, or hospital types are good or bad.** Individual hospitals are not compared. Hospital types are used only to see where items divide. Answers are multiple answers, and the denominator of each item is the people who answered yes. Why items divide by age or by hospital type cannot be separated with these tables (the age composition of patients also differs by hospital type). Who answered for patients aged 0–14 cannot be told from the tables. Coverage is patients of general hospitals; clinics are not included. **About the data**: the Patient's Behavior Survey (Ministry of Health, Labour and Welfare) was taken from e-Stat and used under the Government of Japan Standard Terms of Use (Version 2.0); the ratios in this paper were processed from it. What this paper adds: **measuring each multiple-answer item by two spreads, by age and by hospital type, and showing that for outpatients sources of information divide by age and reasons for choice by hospital type, with only word of mouth hardly moving by either.**

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1. Notation and question

- **Sources of information**: sources of information when usually using medical care (multiple answers). Shares take the people who "obtain information" as 100.
- **Reasons for choosing the hospital**: reasons for choosing this hospital (multiple answers). Shares take the people who "have a reason for choosing the hospital" as 100.
- **Spread**: for an item, the max ÷ min of its share across 5 age groups, and across 5 hospital types.

Question: What do people base their choice of hospital on, and where do they get information? Does this divide by age, or by the type of hospital they are at?

Observation 1.1: M088 used the same Patient's Behavior Survey to look at symptoms when first seen by a physician and the time to that first visit. This paper uses the same survey to look at information and reasons on the way to a hospital.

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2. Preview and design

Written honestly: the design was decided after looking at the tables.

	Content
Tables	Patient's Behavior Survey 2023, basic tabulation Table 2 (reasons for choosing the hospital, multiple answers) and Table 4 (sources of information, multiple answers), both by outpatient/inpatient × hospital type × sex × age group
Noticed in the preview	Sources of information moved a lot by age (internet), and reasons for choice moved a lot by hospital type (referral by a doctor, convenient access). So, item by item, the spread by age and the spread by hospital type were set side by side
Comparison	Outpatient sources by age, reasons by hospital type, two spreads per item, and the same comparison for inpatients

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3. Data and checks

Calculation 3.1 The 2 retrieved files were fixed by SHA-256, and the following were checked.

- The 2 tables are for 2023, in %. Table 4 has 10 sources and Table 2 has 7 reasons.
- Rows are outpatient/inpatient × 6 hospital types (all, special functioning hospitals, large hospitals, medium hospitals, small hospitals, hospitals with long-term care beds) × sex × age group.

- Yes + no particular + unknown minus 100 is at most 0.1 in both tables (rounding). The denominator of each item is the people who answered yes (that column is 100.0).

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4. Sources of information (outpatients)

Calculation 4.1 Sources by age group (outpatients, those who obtain information = 100, %)

Source	0–14	15–39	40–64	65–74	75+	Spread by age
Word of mouth (family, friends)	70.6	64.4	66.7	70.4	68.6	1.096
Hospital websites	46.6	44.3	44.2	24.9	13.8	3.377
Other internet (SNS etc.)	35.9	36.1	29.0	12.2	7.4	4.878
Hospital help desks	8.2	6.0	9.3	15.6	21.2	3.533
Government websites	8.1	5.9	5.8	3.2	2.2	3.682

Observation 4.2: **In every age group, the largest source is word of mouth from family and friends, hardly moving at 64.4–70.6%. Hospital websites fall with age from 46.6% to 13.8%, other internet sources (including SNS, bulletin boards, and blogs) from 36.1% at 15–39 to 7.4% at 75+, and hospital help desks rise from 6.0% at 15–39 to 21.2% at 75+.** The average number of sources among those who obtain information falls from 1.885 at ages 0–14 to 1.438 at 75+. 80.9% of outpatients obtain information and 16.2% do not in particular.

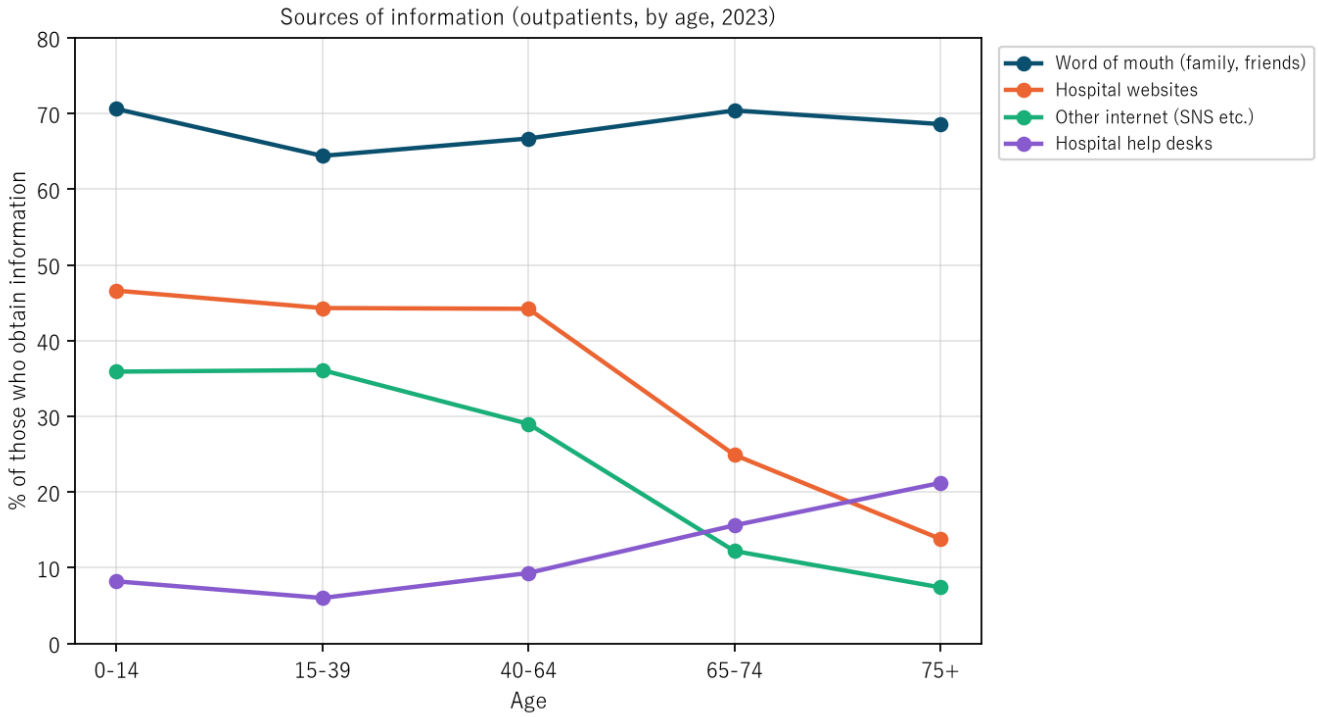


Figure 1: Sources of information (outpatients, by age, 2023). Navy is word of mouth, orange hospital websites, green other internet, and purple hospital help desks.

5. Reasons for choosing the hospital (outpatients)

Calculation 5.1 Reasons by hospital type (outpatients, those with a reason = 100, %)

Reason	Special functioning	Large	Medium	Small	With long-term care beds	Spread by hospital type
Referral by a doctor	72.2	60.7	40.4	19.7	23.4	3.665
Convenient access	11.0	19.4	28.6	32.5	38.6	3.509
Specialized care	34.2	30.7	22.5	26.1	17.7	1.932
Family or friends' advice	9.2	9.6	14.0	24.6	19.1	2.674
Kind doctors and nurses	6.6	8.6	13.4	18.4	19.0	2.879

Observation 5.2: **Referral by a doctor spreads 3.665-fold, from 72.2% at special functioning hospitals to 19.7% at small hospitals, but only 1.178-fold by age (39.3–46.3%). The most common reason is referral by a doctor at special functioning, large, and medium hospitals, and convenient access at small hospitals and hospitals with long-term care beds (32.5% and 38.6%).** 93.3% of outpatients had a reason for choosing the hospital and 4.6% had none in particular.

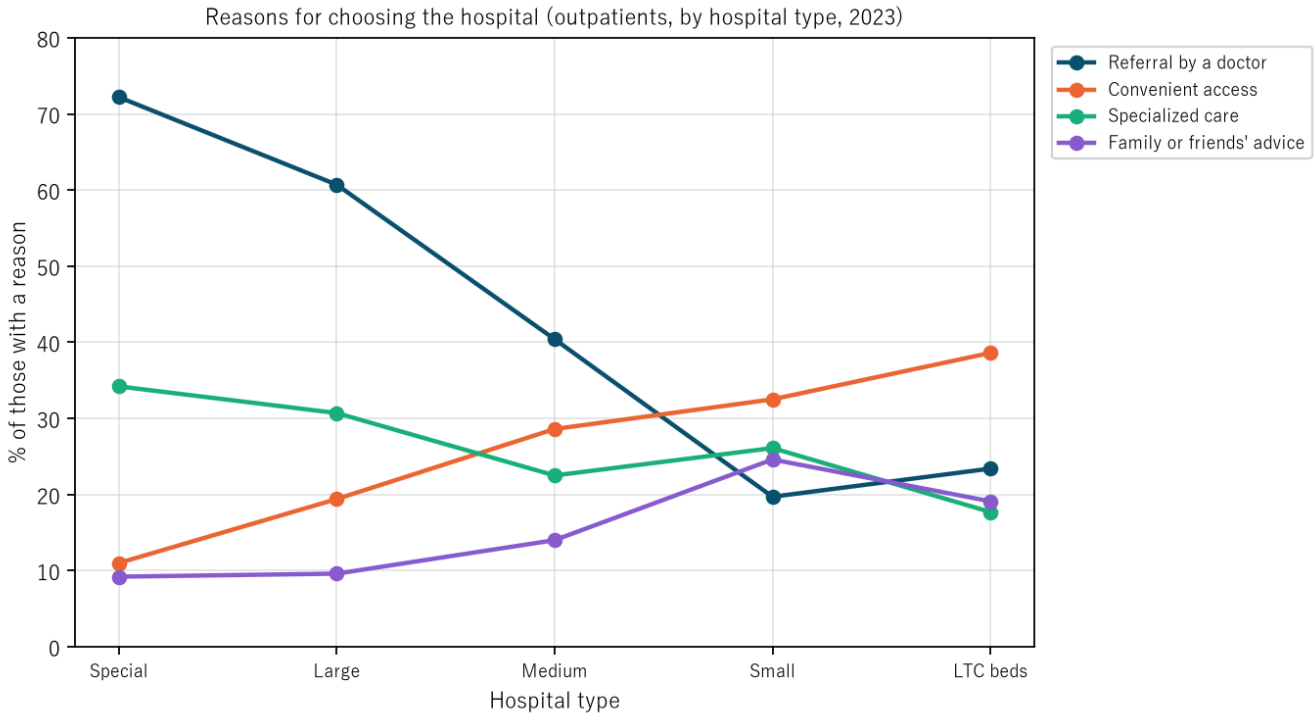


Figure 2: Reasons for choosing the hospital (outpatients, by hospital type, 2023). Navy is referral by a doctor, orange convenient access, green specialized care, and purple family or friends' advice.

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6. The core — divided by age, or by hospital type?

Calculation 6.1 Spread by item (outpatients, max ÷ min)

Item	Spread by age	Spread by hospital type	Larger
Source: other internet	4.878	1.596	Age
Source: hospital help desks	3.533	1.473	Age
Source: hospital websites	3.377	1.431	Age
Source: hospital ads	1.537	1.163	Age
Source: word of mouth	1.096	1.111	Hospital type
Reason: referral by a doctor	1.178	3.665	Hospital type
Reason: convenient access	1.452	3.509	Hospital type
Reason: kind doctors and nurses	2.035	2.879	Hospital type
Reason: specialized care	1.506	1.932	Hospital type
Reason: building and facilities	1.635	1.617	Age

Observation 6.2: **For 9 of the 10 outpatient sources of information the spread by age is larger, and for 6 of the 7 outpatient reasons for choice the spread by hospital type is larger.** The table shows 10 of the 17 items. The exceptions are word of mouth (age 1.096, hospital type 1.111, both the smallest among the 10 sources) and building and facilities (1.635 and 1.617); in both, the two spreads differ little.

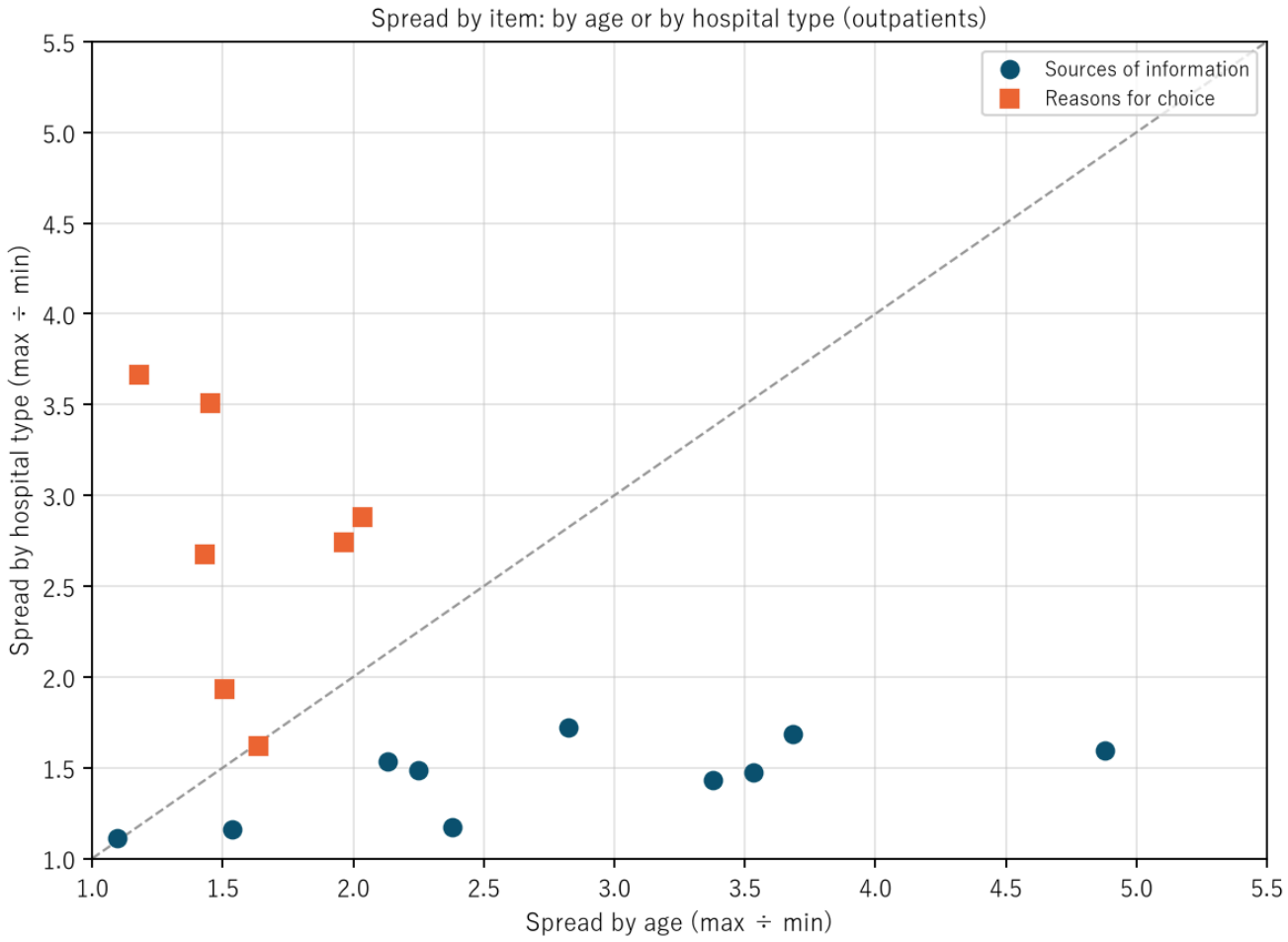


Figure 3: Spread by age (horizontal) and spread by hospital type (vertical) for each item (outpatients). Navy is sources of information and orange reasons for choice. Below the dashed line the spread by age is larger; above it, the spread by hospital type.

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7. Inpatients

Observation 7.1: **For inpatients, the spread by age is larger for all 10 sources of information. For reasons for choice, it is larger by age for 4 of 7 (family or friends' advice, convenient access, kind doctors and nurses, building and facilities) and by hospital type for 3 (referral by a doctor, specialized care, other).** They do not divide as cleanly as for outpatients. Referral by a doctor is 55.3% for inpatients overall (outpatients 40.9%) and 69.3% at ages 0–14.

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8. Limitations

1. **Why items divide by age or by hospital type cannot be separated with these tables.** The age composition of patients also differs by hospital type, so the two spreads are not independent of each other.
2. Answers are multiple answers, and the denominator of each item is the people who answered yes. The spread is the max ÷ min over 5 groups, and items with small shares move easily with rounding.
3. Who answered for patients aged 0–14 cannot be told from the tables.
4. Coverage is patients of general hospitals; clinics are not included.
5. The paper does not judge which sources of information are good, how one should choose a hospital, or whether hospitals or physicians are good or bad.

Conclusion

Among outpatients' sources of information, word of mouth from family and friends was the largest at every age at 64.4–70.6%, and internet sources fell with age. Among reasons for choosing the hospital, referral by a doctor spread 3.665-fold by hospital type, 72.2% at special functioning hospitals and 19.7% at small hospitals, and only 1.178-fold by age. Item by item, outpatient sources spread more by age in 9 of 10, and reasons spread more by hospital type in 6 of 7.

What separates them is one thing — whether an item divides by age or by hospital type.

When you hear "how people choose their hospital," **check together whether it is about where they get information or about what they chose it for.**

Data and reproduction

Data	Patient's Behavior Survey 2023, basic tabulation Tables 2 and 4 (Ministry of Health, Labour and Welfare, e-Stat) (retrieved 26 September 2026)
Terms of use	e-Stat follows the Government of Japan Standard Terms of Use (Version 2.0). The ratios in this paper were processed from it and are not numbers produced by the government
Coverage	Japan, outpatients and inpatients of general hospitals, 2023
Verification	`検算/M089.py` (`--zu` also draws the figures). Every number in the text is taken from `検算/M089_output.txt`
Raw data	`data/` holds the retrieved files and `SOURCES.md` (URLs, retrieval date, SHA-256, terms of use, definitions and how the calculations were set up)
Figures	`図/M089_zu1`, `図/M089_zu2`, `図/M089_zu3` (png, svg, English versions)

References

- Ministry of Health, Labour and Welfare. Patient's Behavior Survey 2023, basic tabulation Tables 2 and 4 (in Japanese). e-Stat (accessed 26 September 2026). https://www.e-stat.go.jp/
- Yamagishi, Y. (2026). 28.1% of Outpatients Had No Symptoms When First Seen by a Physician, and Among Cancers This Ranges from 65.3% for Prostate and 64.4% for Lung to 31.6% for Uterus — for Time to First Visit, Those with Symptoms Have Both Ends (Under 24 Hours and 3 Months or More) About as Thick as the Middle (Ends ÷ Middle 0.958), While Those Without Symptoms Gather in the Middle, 1 Week to Under 3 Months (0.350) [M088]. Zenodo (unpublished).