Outpatient First-Visit Claims in FY2023 Moved by 1.284-Fold Across Months (Fewest in April, Most in December), About Twice the Range of Repeat Visits, but Dividing by the Month's Weekdays Widens the Range — the Share of First Visits Moves Only 1.243-Fold by Month (0.1514–0.1883) but 7.47-Fold by Age, from 0.4436 at 10–14 to 0.0594 at 85–89 [M093]

Spread of the first-visit share = spread by month and spread by age ── What separates them is whether it moves by month or by age

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Abstract

Using the monthly and the sex-and-age counts of claims for first and repeat consultation fees (outpatients) in the Ministry of Health, Labour and Welfare's 10th NDB Open Data (FY2023), this paper looked at how much outpatient first and repeat visits move by month and by age. No new mathematical theorem and no new law are claimed.

First, the tables are consistent. For each of the 3 claim items used (first-visit fee, revisit fee, outpatient consultation fee), the 12 months and the 19 age groups by sex each sum to the total, and the two tables' totals match. However, the monthly table has no age and the sex-and-age table has no month, so "the seasonal shape by age" cannot be built from these two tables (Section 3).

Second, **first visits moved 1.284-fold, from 17,634,912 claims in April to 22,636,689 in December, with a coefficient of variation of 0.0598, 1.908 times that of repeat visits (0.0314). Repeat visits are fewest in January** (Section 4).

Third, **the differences between months are not explained by the number of care days in the month. Dividing by the number of weekdays counted from the Cabinet Office holiday table raises the coefficient of variation, from 0.0598 to 0.0730 for first visits and from 0.0314 to 0.0445 for repeat visits, and dividing by calendar days moves it by no more than 0.002** (Section 5).

Fourth, this is the core of the paper. **The share of first visits (first ÷ (first + repeat)) moves only 1.243-fold by month, from 0.1514 in April to 0.1883 in January, but 7.47-fold by age, from 0.4436 at ages 10–14 to 0.0594 at 85–89** (Section 6).

Fifth, **ages 0–14 account for 0.2186 of first visits but 0.0626 of repeat visits, and ages 65+ for 0.2037 of first visits but 0.5504 of repeat visits.** First and repeat visits are largely counts of people of different ages (Section 6).

Sixth, what separates them is **whether it moves by month or by age**. "Outpatient visits move with the seasons," in monthly counts, means first visits move about twice as much as repeat visits; but in the share of first visits among outpatients, the spread by age (7.47-fold) is much larger than the spread by month (1.243-fold).

Scope note: **This paper claims no new mathematical theorem and no new law** — claims for first and repeat consultation fees are in public tables, and this paper only lined them up by month and by age and divided by the number of care days. **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 evaluate epidemics of infectious diseases. Nor does it say why months differ (seasonal illness, holidays, the system, etc.). It does not judge whether visits are many or few or whether medical institutions are good or bad.** Counts are claims, not people, and cover only one fiscal year (April 2023 to March 2024). The monthly table has no age and the sex-and-age table has no month, so the seasonal shape by age is not examined. Weekdays were counted from the Cabinet Office holiday table, without non-holiday closures such as the New Year period or Obon. Prefectures and medical institutions are not compared. **About the data**: the 10th NDB Open Data (Ministry of Health, Labour and Welfare) and the national holidays (Cabinet Office) are both used under the Public Data License (Version 1.0); the shares and ratios in this paper were processed from them. What this paper adds: **lining up the monthly spread of first and repeat visits and showing that it is not explained by the number of care days, and comparing the spread of the first-visit share by month and by age and showing that the spread by age (7.47-fold) is much larger than by month (1.243-fold).**

1. Notation and question

- **First and repeat visits**: outpatient claims for the first-visit fee (111000110), and for the revisit fee (excluding hospitals with 200+ general beds, 112007410) + the outpatient consultation fee (112011310).
- **Share of first visits**: first ÷ (first + repeat).

- **Weekdays**: Monday–Friday excluding holidays. **Coefficient of variation**: the standard deviation of the 12 monthly values ÷ their mean.

Question: How much do outpatient first and repeat visits move with the season (month)? Is that movement explained by the number of care days in the month? Which is larger, the movement by month or the difference by age?

Observation 1.1: M080 showed that per day, oral drug days supplied peak in December for most drug classes, and that after dividing by the total monthly shape only allergy and respiratory drugs remain large. M086 showed, in the Patient Survey, that the share of first visits among outpatients falls with age from age 0. This paper lines up the monthly movement and the age difference of first and repeat visits in NDB claim counts.

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2. Preview and design

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

	Content
Tables	10th NDB Open Data, first and repeat consultation fees, counts by month of care and by sex and age (outpatients, FY2023); national holidays (Cabinet Office)
Noticed in the preview	The plan was to ask "how the seasonal shape differs by age," but the monthly table has no age and the sex-and-age table has no month. Since the seasonal shape by age cannot be built, the paper compares the spread by month with the spread by age
Noticed in the preview (2)	I expected differences in monthly counts to be explained by the number of weekdays, but dividing by weekdays widened the monthly spread. The expectation was dropped and the measured direction written as is
Comparison	Monthly first and repeat visits and their spread, the spread after dividing by care days, and the spread of the first-visit share by month and by age

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3. Data and checks

Calculation 3.1 The 7 retrieved files were fixed by SHA-256, and the following were checked.

- The two tables cover months of care April 2023 to March 2024, first and repeat consultation fees, outpatients. The monthly table has 12 month columns; the sex-and-age table has 19 age-group columns for each sex (0–4 to 90+).
- For the first-visit, revisit, and outpatient consultation fees, the 12 months sum to the total and the 19 age groups by sex sum to the total, and the two tables' totals match. FY2023 claims: first-visit fee 253,194,954, revisit fee 1,049,234,472, outpatient consultation fee 155,419,905.
- The Cabinet Office holiday table has 17 holidays and substitute holidays from April 2023 to March 2024.

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4. First and repeat visits by month

Calculation 4.1 Claims by month (outpatients)

Month	First visits	Repeat visits (revisit + outpatient fee)	Share of first visits	Weekdays	Calendar days
April	17,634,912	98,809,841	0.1514	20	30
June	21,148,226	103,271,693	0.1700	22	30
August	20,107,106	98,049,631	0.1702	22	31
December	22,636,689	104,665,505	0.1778	21	31
January	21,953,816	94,648,619	0.1883	21	31
February	22,090,711	95,405,133	0.1880	19	29
March	21,886,457	103,617,930	0.1744	20	31

Observation 4.2: **First visits are fewest in April (17,634,912) and most in December (22,636,689, 1.284-fold). Repeat visits are most in December and fewest in January (1.106-fold). The coefficient**

of variation is 0.0598 for first visits and 0.0314 for repeat visits, so the monthly spread of first visits is 1.908 times that of repeat visits.

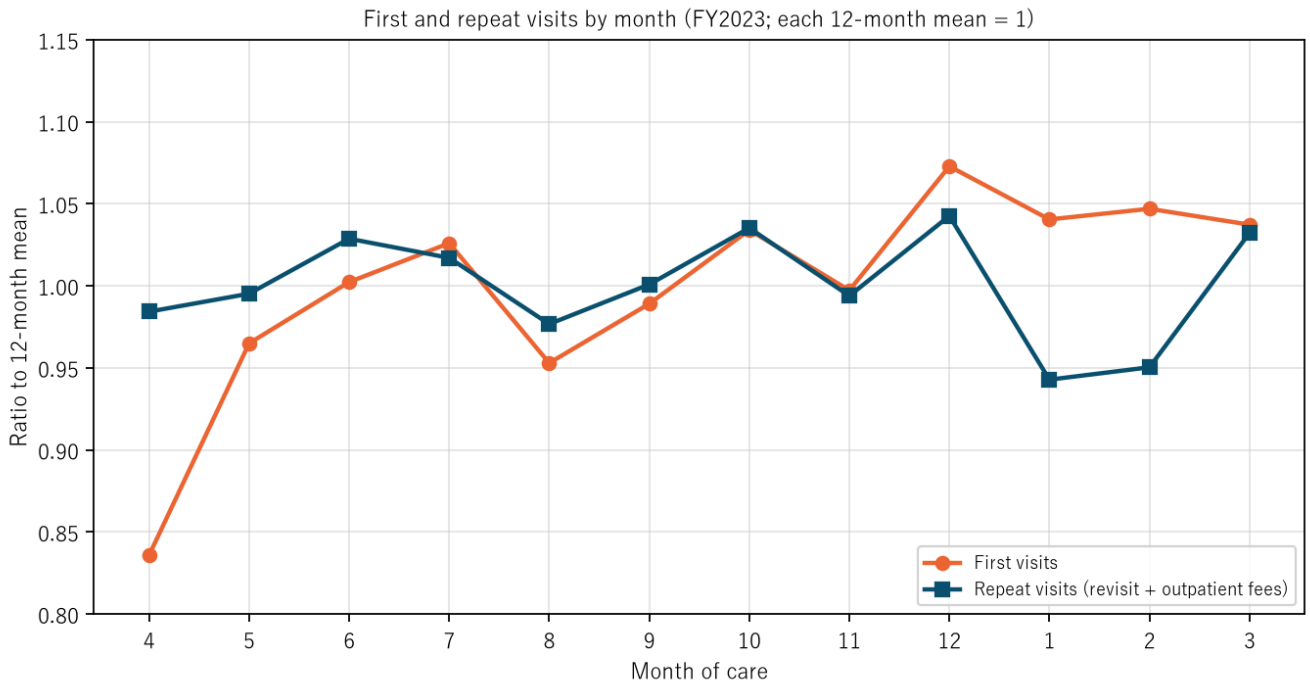


Figure 1: First visits (orange) and repeat visits (navy) by month, each as a ratio to its 12-month mean.

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5. Dividing by the number of care days

Calculation 5.1 Coefficient of variation (12 months)

	As is	Per calendar day	Per weekday	Per weekday and Saturday
First visits	0.0598	0.0608	0.0730	0.0645
Repeat visits	0.0314	0.0302	0.0445	0.0342

Observation 5.2: **For both first and repeat visits, dividing by the number of weekdays raises the coefficient of variation (first visits 0.0598 → 0.0730, repeat visits 0.0314 → 0.0445). Dividing by calendar days moves it by no more than 0.002.** It is not the case that months with more weekdays have more claims. The weekday counts do not include non-holiday closures such as the New Year period or Obon.

6. The core — moving by month or by age

Calculation 6.1 Share of first visits by age group (outpatients, FY2023, both sexes)

Age	First visits	Repeat visits	Share of first visits
0–4	13,425,132	21,839,455	0.3807
10–14	19,715,061	24,732,167	0.4436
20–24	13,246,715	17,834,801	0.4262
40–44	15,628,337	41,690,203	0.2727
60–64	11,898,449	87,694,722	0.1195
75–79	11,233,471	155,736,093	0.0673
85–89	5,164,029	81,824,507	0.0594
90+	2,816,908	40,189,839	0.0655

Observation 6.2: **The share of first visits moves only 1.243-fold by month, from 0.1514 in April to 0.1883 in January, but 7.47-fold by age, from 0.4436 at 10–14 to 0.0594 at 85–89.** Ages 0–14 account for 0.2186 of first visits and ages 65+ for 0.2037; of repeat visits, ages 0–14 account for 0.0626 and 65+ for 0.5504. First and repeat visits are largely counts of people of different ages, and the monthly movement is small compared with that difference.

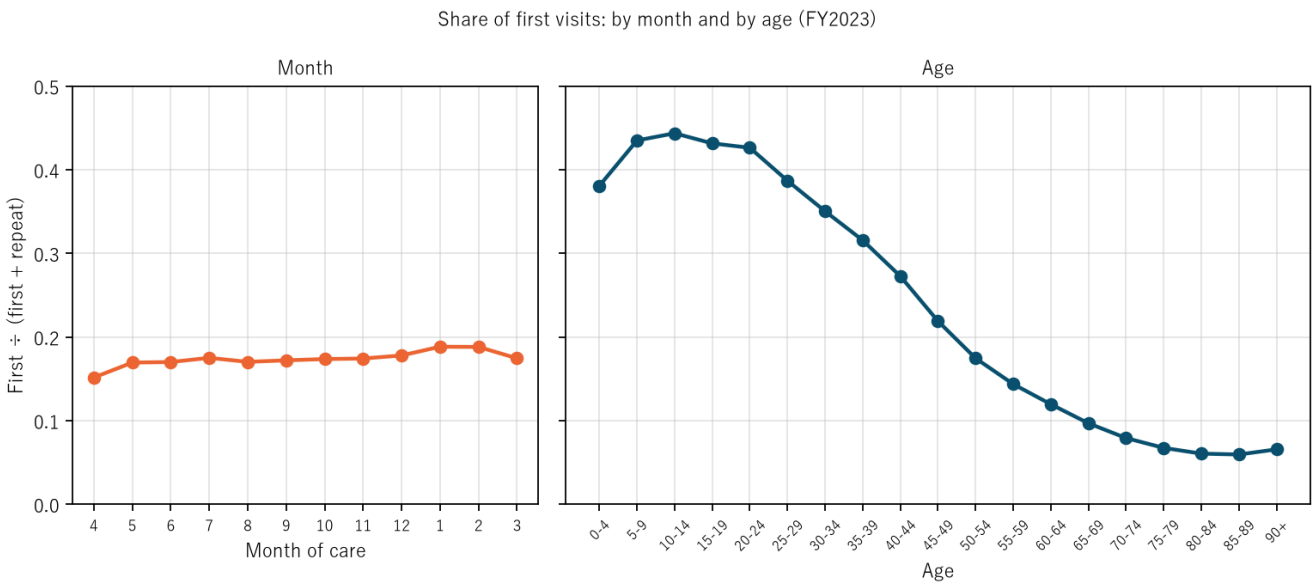


Figure 2: Share of first visits: by month (left) and by age (right) (FY2023). The vertical scale is the same in both panels.

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7. Limitations

1. **The monthly table has no age and the sex-and-age table has no month.** The seasonal shape by age is not examined, and in which ages the monthly movement of the first-visit share occurs cannot be separated.
2. Counts are claims, not people, and cover only one fiscal year (April 2023 to March 2024).
3. Weekdays exclude only holidays; closures such as the New Year period or Obon, and each institution's own closed days, are not included.
4. The paper does not say why months differ. It does not evaluate epidemics of infectious diseases.
5. It does not judge whether visits are many or few or whether medical institutions are good or bad.

Conclusion

Outpatient first visits in FY2023 moved 1.284-fold from April to December, about twice the range of repeat visits. That range widened when divided by the month's weekdays. The share of first visits moved

only 1.243-fold by month but 7.47-fold by age, from 0.4436 at ages 10–14 to 0.0594 at 85–89.

What separates them is one thing — whether it moves by month or by age.

When you hear "clinics get crowded with the seasons," **check together whether it is about monthly counts moving or about which ages come for the first time and how often.**

Data and reproduction

Data	10th NDB Open Data, first and repeat consultation fees, counts by month of care and by sex and age (Ministry of Health, Labour and Welfare); national holidays (Cabinet Office) (used 26 September 2026)
Terms of use	Both follow the Public Data License (Version 1.0). The shares and ratios in this paper were processed from them and are not numbers produced by the government
Coverage	Japan, FY2023 (months of care April 2023 to March 2024), outpatient claims for the first-visit, revisit, and outpatient consultation fees
Verification	`検算/M093.py` (`--zu` also draws the figures). Every number in the text is taken from `検算/M093_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/M093_zu1`, `図/M093_zu2` (png, svg, English versions)

References

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- Yamagishi, Y. (2026). The Inpatient Rate Doubles Every 11.24–12.10 Years at Ages 40–84, and from 1999 to 2023 the Speed of Doubling Hardly Moved While the Level at Age 60 Fell to 0.479 — the Outpatient Level Hardly Moved (0.868), While the Years to Double Lengthened from 16.38 to 20.68 and the Slope Flattened [M086]. Zenodo (unpublished).