SPECIAL
Report

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Relationship Between Medical Institutions and Pharmacies: Trends in Japan from 2016 to 2022

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Encise | Research Center

Monitoring Pharmaceutical Industry for the Society

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SPECIAL Report

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Background, Rationale & Methodology

A large number of medical institutes exist in Japan, and they vary significantly in their nature and size. According to data from Medical Connecter as of January 2023, they together generate about 75 million outgoing prescriptions (Rxs) every month. These outgoing-Rxs are then received by about 60K dispensing pharmacies (DPs) nationwide and they form over half of the total Japanese pharmaceutical market by value (the remaining is the in-house purchase/prescribing by all hospitals (HPs) and general practitioners (GPs)).

The flow of these outgoing Rxs between the Rx-generating institute and the Rx-receiving DP behaves in a certain manner depending on various factors viz. – geographical conditions (prefecture, region, city etc.) and location specific preferences, distance between a medical institute and a dispensing pharmacy, number of dispensing pharmacies around medical institutes, types of facilities available at medical institutes and DPs etc.

The relationship between outgoing-Rx generating institutes and the DPs which receive it, could be better understood through two important variables – Relationship Rank (priority at which an institute and DP are related) and Relationship Ratio (or composition ratio; explained as actual number of outgoing-Rxs received by DPs from medical institutes or vice-versa, expressed as a percentage (%) of total Rxs).

This report is based primarily on data and information from Medical Connecter. Medical Connecter is a compilation and analysis of survey data on the flow of out-of-hospital prescriptions, compiled by Encise using its proprietary network.

Executive Summary

1. The term "primary pharmacy" refers to the pharmacy that receives the highest number of Rxs from a specific medical institution, and the pharmacies that receive the second and third largest number of Rxs are defined as "secondary pharmacy" and "tertiary pharmacy", respectively. The proportion of outgoing Rxs received by primary pharmacies has experienced a gradual decrease in recent years. The downward trend is expected to continue as patients will have more choices when selecting a pharmacy.

2. Over the six-year period spanning from 2016 to 2022, there has been a notable rise in the total count of medical institutions (medical institutions here refer to facilities that issue outgoing Rxs) across all prefectures. This surge can be chiefly attributed to an increase in the number of clinics and an increase in bungyo rate in certain regions.

While the number of outpatient Rxs experienced a decline from 2019 to 2022, partly due to the impact of COVID-19, it is anticipated that the number of patients seeking medical care will grow in the future, primarily driven by Japan's expanding elderly population. As the prescription (Rx) receipt rate for 2022 announced by the Japan Pharmaceutical Association stands at 76.6%, there remains room for further growth, indicating that the number of medical facilities issuing outpatient Rxs will also increase. Particularly, in some prefectures with large populations and a low bungyo-rate (e.g. Osaka and Aichi prefectures), many new clinics are opening, and the number of medical institutions issuing outpatient Rxs is also increasing.
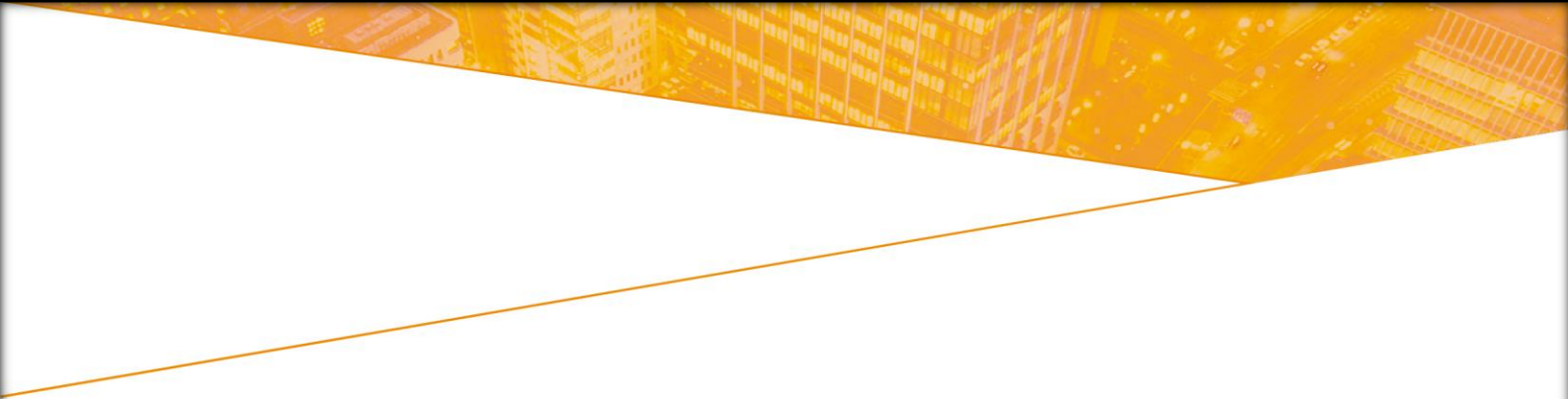
3. By region, the Kanto, Kinki, and Chubu regions have consistently increased both the number of medical institutions and the number of outgoing Rxs over the past six years since 2016. Projections indicate that the number of medical institutions and the number of outgoing Rxs in these regions will further increase in the future, and the composition ratio is also expected to increase nationwide.

4. During the course of the study, there has been a visible decrease in the average distance that separates medical institutions from their primary pharmacies. This trend can be attributed to several factors, including the increasing prevalence of medical malls that are situated alongside multiple medical facilities, an increase in the number of pharmacies that receive Rxs from multiple medical institutions in malls, and the relaxation of laws and regulations permitting pharmacies to operate on the premises of medical institutions.

These shifting dynamics indicate a noteworthy change in what patients prioritize when selecting a pharmacy. Patients seem to increasingly value the convenience and the array of services and benefits provided by pharmacies and drugstores, rather than solely focusing on proximity to the medical institution.

5. The concentration ratio of primary pharmacies receiving Rxs from medical institutions is experiencing a decrease, and a similar decline is observed in the rate of Rxs received by pharmacies from their primary medical institutions as well. This trend is anticipated to become even more pronounced in the future, driven by various factors including the introduction of refill Rxs, the proliferation of family-owned pharmacies, and the continued growth of drugstore chains.
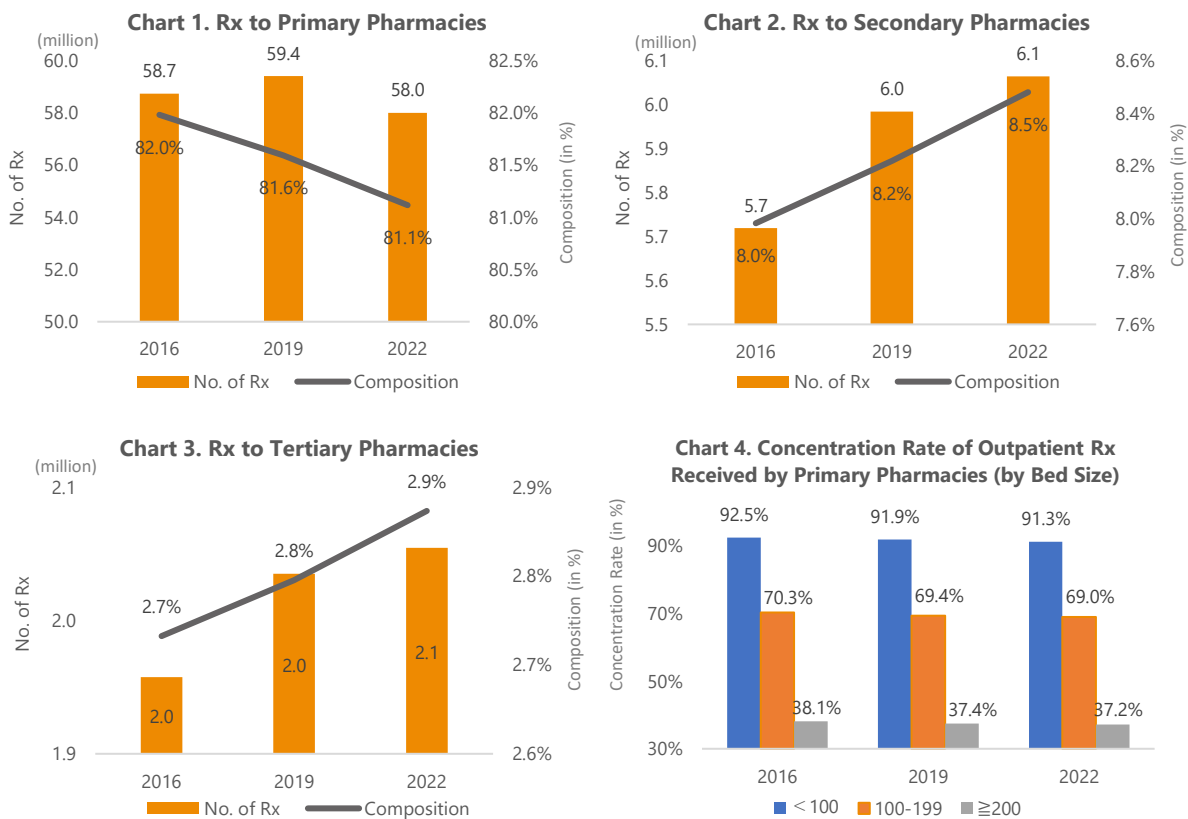
6. In the past six years, there has been a significant uptick in the number of drugstores with a dispensing function, and this upward trajectory is projected to persist. Behind this rapid increase is the fact that more and more patients are choosing drugstores over dispensing pharmacies because of the convenience of shopping for daily necessities while waiting, and the advantage of gaining points on purchase. For the specialized dispensing pharmacies, they are expected to expand primarily in close proximity to clinics in regions where bungyo-rate has not yet advanced substantially.

1. Flow of Outpatient Prescriptions to Pharmacies

Chart 1. Rx to Primary Pharmacies

(million)

Year	No. of Rx	Composition
2016	58.7	82.0%
2019	59.4	81.6%
2022	58.0	81.1%

No. of Rx / Composition (in %)

Chart 2. Rx to Secondary Pharmacies

(million)

Year	No. of Rx	Composition
2016	5.7	8.0%
2019	6.0	8.2%
2022	6.1	8.5%

No. of Rx / Composition (in %)

Chart 3. Rx to Tertiary Pharmacies

(million)

Year	No. of Rx	Composition
2016	2.0	2.7%
2019	2.0	2.8%
2022	2.1	2.9%

No. of Rx / Composition (in %)

Chart 4. Concentration Rate of Outpatient Rx Received by Primary Pharmacies (by Bed Size)

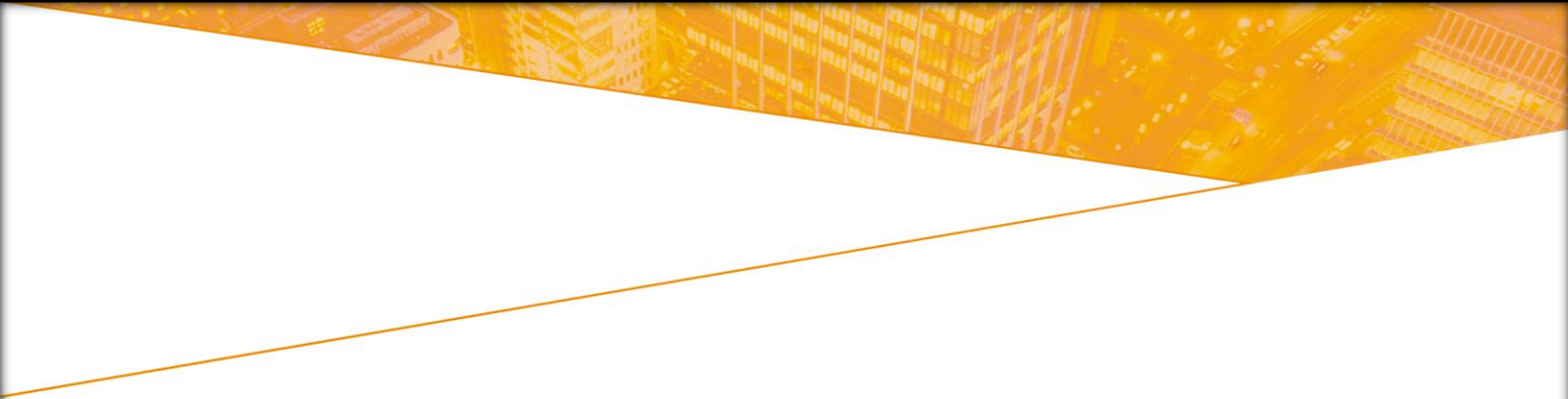| Year	<100	100-199	≧200
2016	92.5%	70.3%	38.1%
2019	91.9%	69.4%	37.4%
2022	91.3%	69.0%	37.2%

Concentration Rate (in %)

Source: Encise Inc.

Observations

1. The percentage of all outpatient-Rxs received by primary pharmacies has been slightly declining over the period of the study (Chart 1). This has been compensated by corresponding increase in the percentage of Rxs received by secondary and tertiary pharmacies (Chart 2 and 3).

2. The size of hospital (by number of beds) is found to be inversely proportional to the percentage of outgoing-Rxs received by the primary pharmacies. I.e., the larger the hospital, the lower the percentage of outgoing-Rx received by the primary pharmacies.

By bed size, GPs with less than 100 beds (including those with no beds) have the highest percentage of outgoing Rxs received by the primary pharmacies at the rate of more than 90%. For the hospitals with 100 to 199 beds, it was found to be approximately 70% and for the large hospitals with 200 or more beds, the composition was less than 40% (Chart 4).

Exploration

1. As the most common and obvious practice, patients tend to visit pharmacies located directly in front of medical institutions. However, changes in this trend have been observed in recent years. This shift is due to the promotion of "family pharmacies" and "home visits by pharmacies" as part of national policy. The number of patients who consistently bring their prescriptions from various medical institutions to the same pharmacy has been increasing through "family pharmacies," and pharmacological management for patients recuperating at home is being encouraged through "home visits by pharmacies." Additionally, more patients are choosing to take their prescriptions to drugstores that offer customer retention benefits, such as earning points for each prescription filled, the convenience of shopping while waiting, and other services. These factors appear to have dispersed patients not only to existing pharmacies but also to pharmacies tailored to each patient's needs, and gradually reduced the percentage of outgoing-Rxs received by the primary pharmacies in the mix.

2. In the case of clinics, it is common to have one pharmacy right in front of them. Larger hospitals often have several pharmacies in front of them. From a patient's perspective, waiting time is an important factor in choosing a pharmacy. Hence, if there are several pharmacies, patients will have better flexibility to go to the pharmacy which has lesser waiting time, thereby dispersing Rxs.
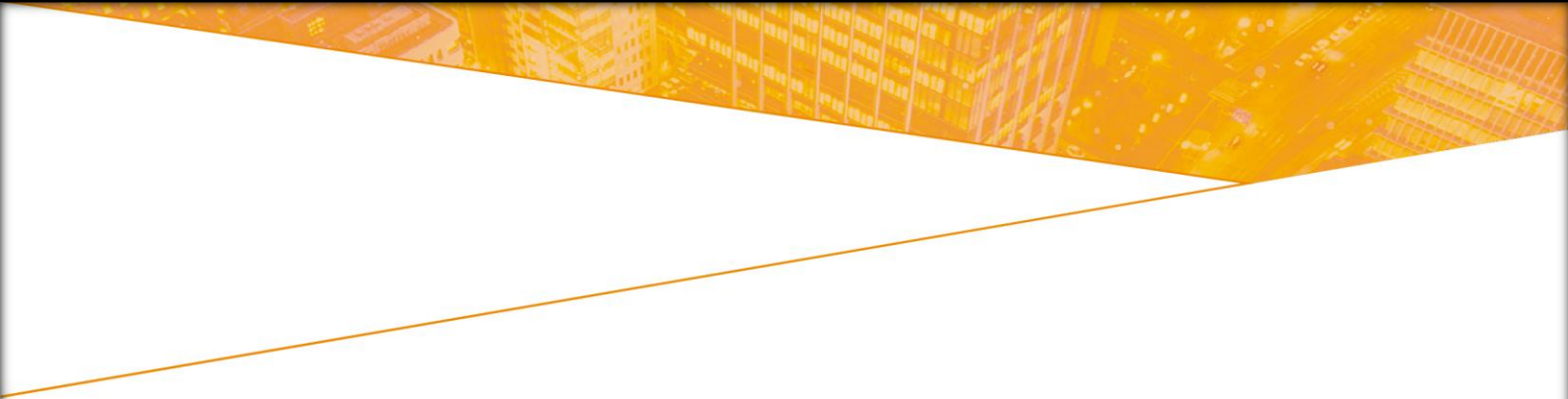
Inferences

The family pharmacies, which are being promoted as government policy, are expected to become more established and drugstores chains are likely to have more stores than they currently have, given the pace of increase to date. Furthermore, with the introduction of new "electronic Rxs regulation in January 2023", patients are going to have more flexibility in choosing a pharmacy.

These changes are also making a favorable environment for the online pharmacy business. Amazon, a major online retailer, has also announced its entry into this field. Patients can select a pharmacy from the Amazon website, receive online medication instructions, and pick up their prescription medications.
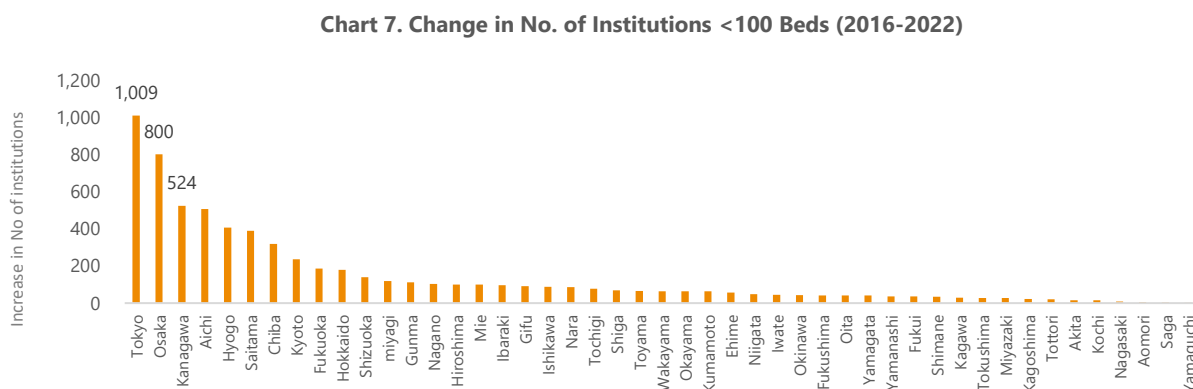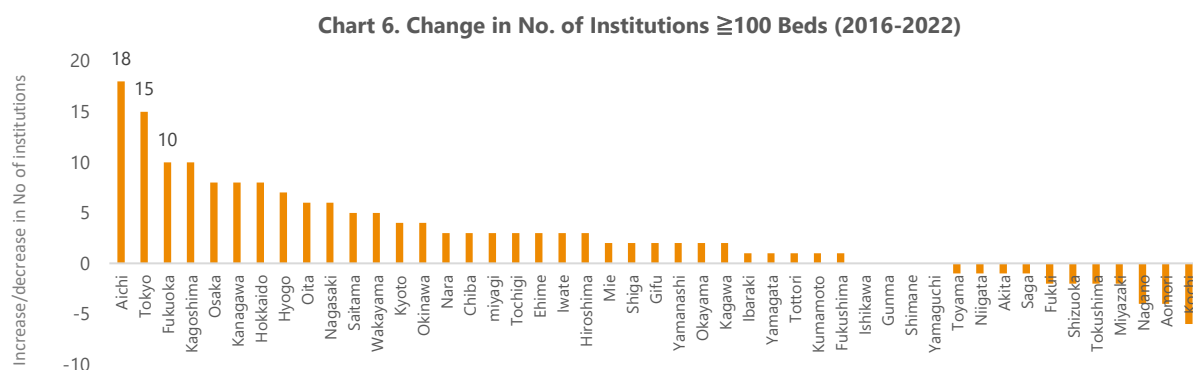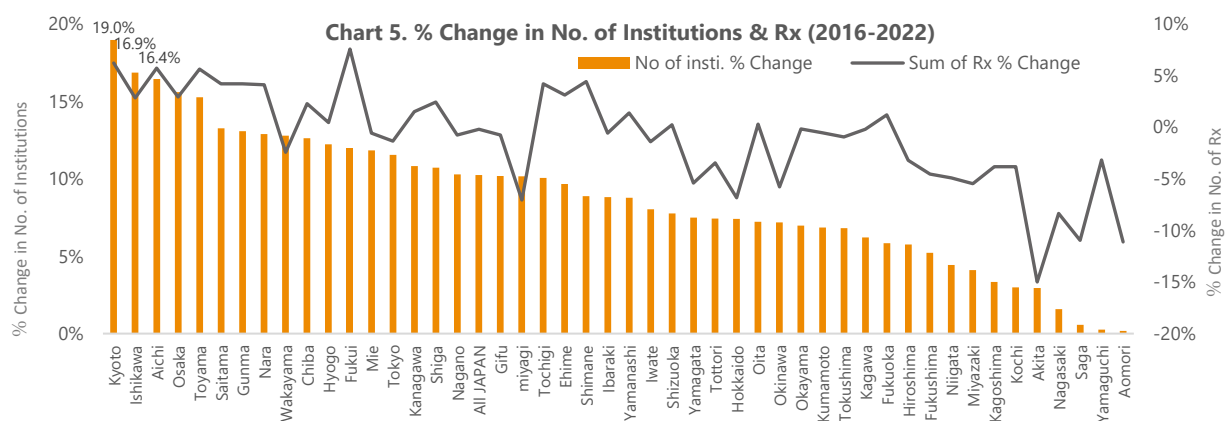
These likely developments are expected to expand patient options and change the relationship between medical institutions and pharmacies. In the future, Rxs will be dispersed among many pharmacies as patients bring their Rxs to the pharmacy that best suits their needs. As a result, the Rx concentration rate at medical institution's gate pharmacies is expected to decline.

2. Prefecture wise Trends

Chart 5. % Change in No. of Institutions & Rx (2016-2022)

Chart 6. Change in No. of Institutions ≧100 Beds (2016-2022)

Chart 7. Change in No. of Institutions <100 Beds (2016-2022)

Source: Encise Inc.

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Observations

1. The total number of medical institutions has increased in all prefectures over the six-year period from 2016 to 2022 (Chart 5). The largest increase in the number of medical institutions was seen in Kyoto Prefecture (19.0%), followed by Ishikawa (16.9%) and Aichi (16.4%) prefectures. Conversely, very little increase was seen in Aomori (0.2%), Yamaguchi (0.3%), and Saga (0.6%) prefectures.

2. By bed size, the number of medical institutions with 100 or more beds has increased by 126 (3.2% from 2016 to 2022) nationwide, while 11 prefectures have witnessed a decline in this figure (Chart 6). On the other hand, the number of medical institutions with 99 or fewer beds has increased by 6,593 (10.7%) during the same period. Out of this, 35% of the increase was contributed by the top three prefectures – Tokyo, Osaka and Kanagawa (Chart 7).
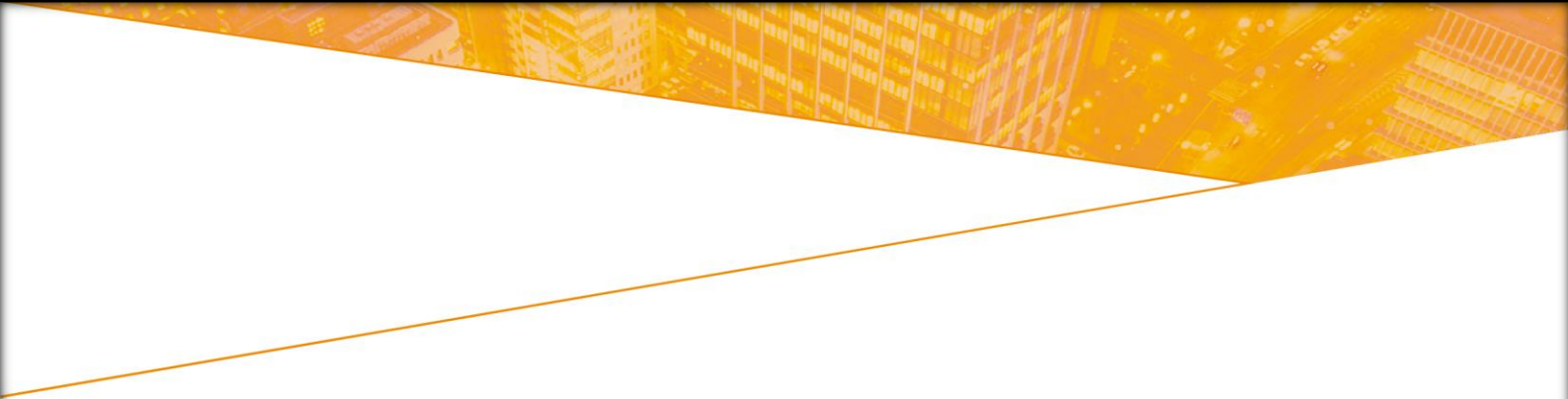
Exploration

1. The percentage of outpatients who receive their medicines at pharmacies outside the hospital is called the "Rx receipt rate". It is reported monthly by the Japan Pharmaceutical Association (refer to Table 1 in Appendix 1). Kyoto, Ishikawa, and Aichi are the top three prefectures where the number of medical institutions issuing outpatient Rxs increased from 2016 to 2020, and have Rx receipt rates below the national average. Bungyo-rate (i.e. the percentage of medical institutions which issue out-patient Rxs) is considered directly proportional to the Rx receipt rate, and these areas are also considered to have a low bungyo rate. The bungyo rate has increased in recent times in these areas, and the number of medical institutions issuing out-of-hospital Rxs is thought to be increasing accordingly. In February 2022, the Rx receipt rate was 62.6% in Kyoto, 69.5% in Ishikawa, and 68.1% in Aichi prefectures – below the national average of 76.1%.

2. In Japan, the number of hospitals is not expected to increase significantly as the number of beds in each region is predetermined by the government's regional medical plan. And if the number of hospitals appears to be increasing in 'Medical Connecter' data, it is likely to be due to the bungyo effect (as the Rxs honoured earlier inside the institution are now switched to out-of-hospital Rxs). Additionally, the increase in the number of clinics that provide out-of-hospital Rxs is most likely due to the increase in new openings. The above seems to be the reasons why the number of medical institutions issuing out-of-hospital Rxs has increased.

Inference

Although the number of outpatient Rxs is on a downward trend from 2019 to 2022, partly due to COVID-19, the number of patients is expected to increase in the future due to the growing elderly population in Japan. The number of medical institutions issuing outpatient Rxs will also increase. The Rx-receipt rate was 76.6% in 2022, and there seems to be still scope for increase. Especially, the number of new clinics opening is expected to increase in Osaka and Aichi prefectures, where the Rx receipt rate is below the national average and the population growth rate has been high over the past ten years.

And since newly opened medical institutions will increase out-of-hospital Rxs, new dispensing pharmacies and drugstores are also expected to open more in such areas.

3. Region wise Trends

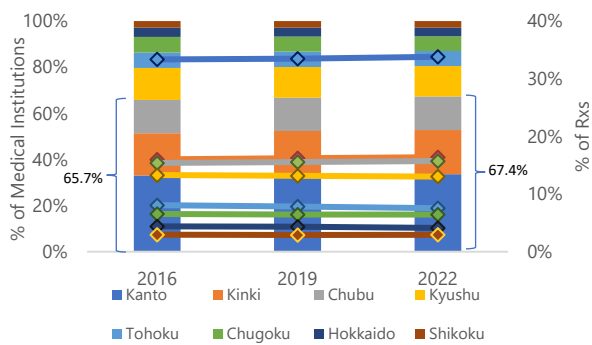### Chart 8. Percentage of Insti. & Rx by Region

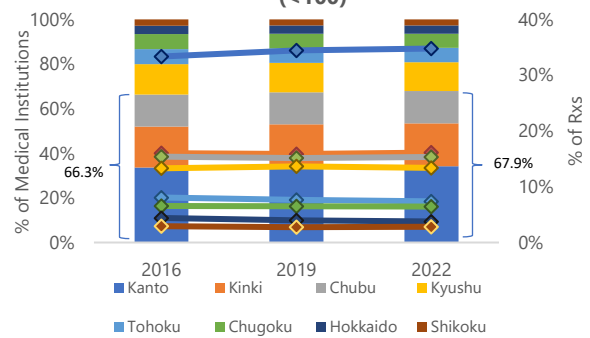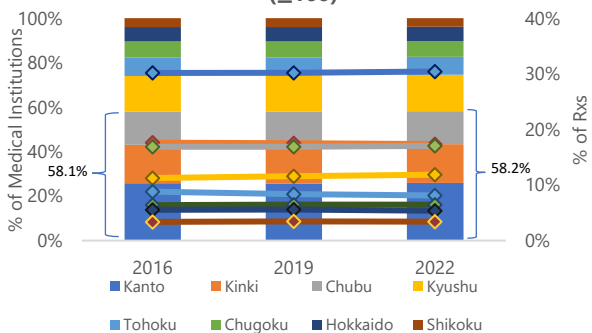### Chart 9. Percentage of Insti. & Rx by Region (<100)

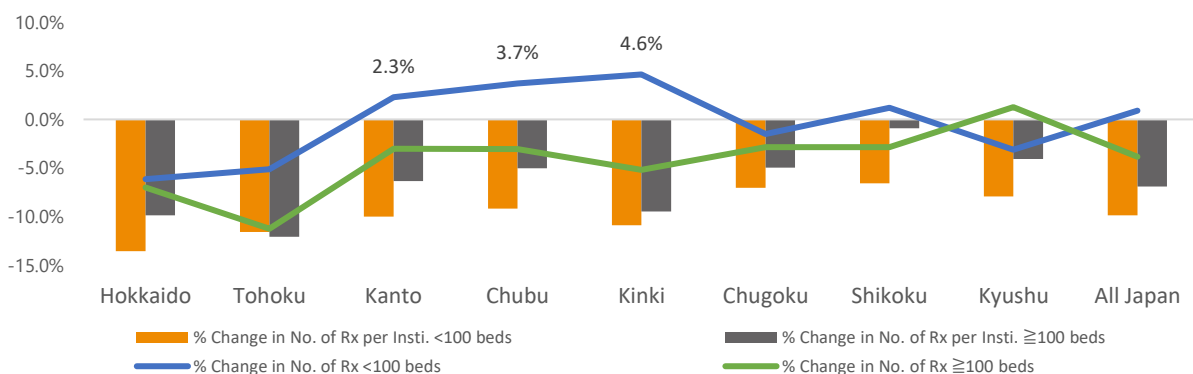### Chart 10. Percentage of Insti. & Rx by Region (≧100)

NOTE

Bars: the composition of the number of medical institutions issuing Rxs

Lines: the composition of the number of Rxs

Chart 11. % Change in No. of Rx Per Insti. and by Bed Size & Region (2016-2022)

Source: Encise Inc.

Observations

1. Looking at the number of medical institutions (issuing outpatient-Rx) by region in 2022, Kanto leads the nation with 33.6% of total institutions followed by Kinki and Chubu. These three regions have also continued to increase their share over the period of six years since 2016. The combined composition of these three regions rose from 65.7% in 2016 to 66.7% in 2019, and 67.4% in 2022, constituting over two-thirds of the total number of the nation's medical institutions (Chart 8). In the top two regions, Kanto and Kinki, the concentration of medical Institutions with 99 or fewer beds is higher than that of HPs with 100 or more beds (Chart 9 and 10).

2. If we look at the percentage of total Rxs by region, Kanto, Kinki, and Chubu grew by more than 1% over the six years from 2016 to 2022(Chart 8). Looking at the breakdown, this trend is more pronounced for HPs with 99 or fewer beds than for medical institutions with 100 or more beds (Chart 9 and 10). However, the number of Rxs per medical institution has declined in all regions, and the decline is more intense in medical institutions with 99 or fewer beds than in HPs with 100 or more beds (Chart 11).

Exploration

1. While Japan's overall population is declining, the population of the Tokyo metropolitan area (Saitama, Chiba, Tokyo, and Kanagawa prefectures) is increasing (1.6% rise between 2016 and 2022 as per "Data published by the Statistics Bureau of Japan"). The number of clinics in the Kanto area has also increased by 2,500 over the past 6 years, and the clinics tend to open in areas where the population is increasing. On the other hand, the number of HPs is not as affected by population distribution as clinics because HPs are set up in accordance with regional medical plans. In the Kinki and Chubu regions, the Rx-receipt rate was lower than the national average (2022 Japan National Average:76.6%, Chubu:73.8%, Kinki:69.8%).
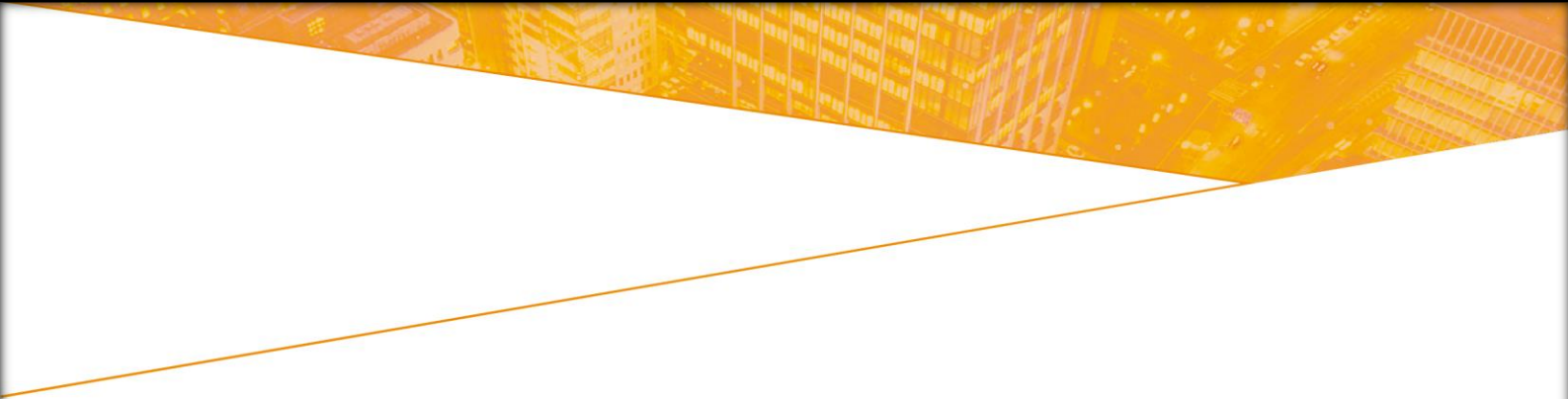
In recent years, however, the Rx-receipt rate has increased in these regions, which can be attributed to an increase in the number of medical institutions issuing out-going Rxs compared to other regions.

2. As for the change in the number of Rxs, the main factor is the increase in the population and the number of medical institutions issuing out-going Rxs. The decline in the number of outgoing-Rxs issued by HPs with 100 or more beds can be attributed to the government's efforts to promote functional differentiation among medical institutions - with HPs providing advanced medical care such as cancer treatment and treatment of intractable diseases, while clinics providing primary care (Chart 11).

Inference

In the Kinki and Chubu regions, the Rx-receipt rate is currently lower but it is expected to increase in the future. In addition, looking at population growth trends in each region, only the Kanto region has seen an increase over the past six years, while the Hokkaido, Tohoku, Chugoku, and Shikoku regions have seen a decline of more than 3% over the past six years. This suggests that the Kanto, Kinki, and Chubu regions are expected to have even a higher number of medical institutions and a higher percentage of outgoing-Rxs in the future.

4. Distance from Medical Institution to Pharmacy

Chart. 12 Average Distance Between a Medical Institution and Its Primary Pharmacy
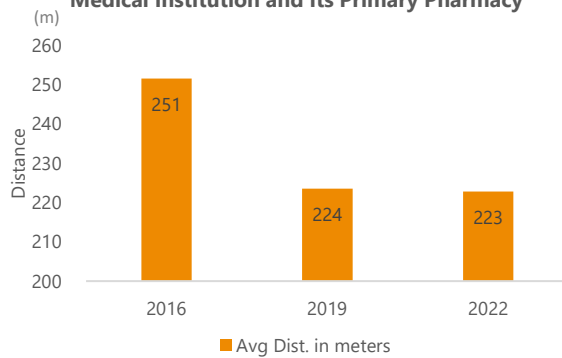

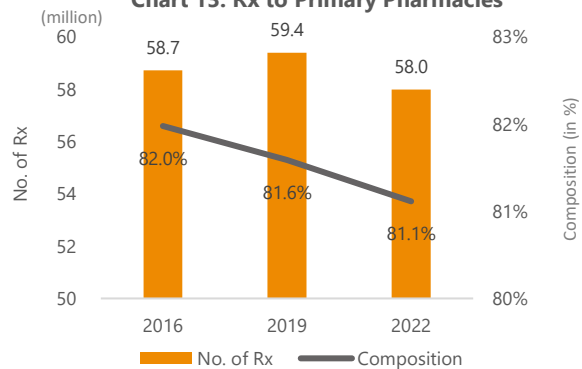**Chart 13. Rx to Primary Pharmacies**

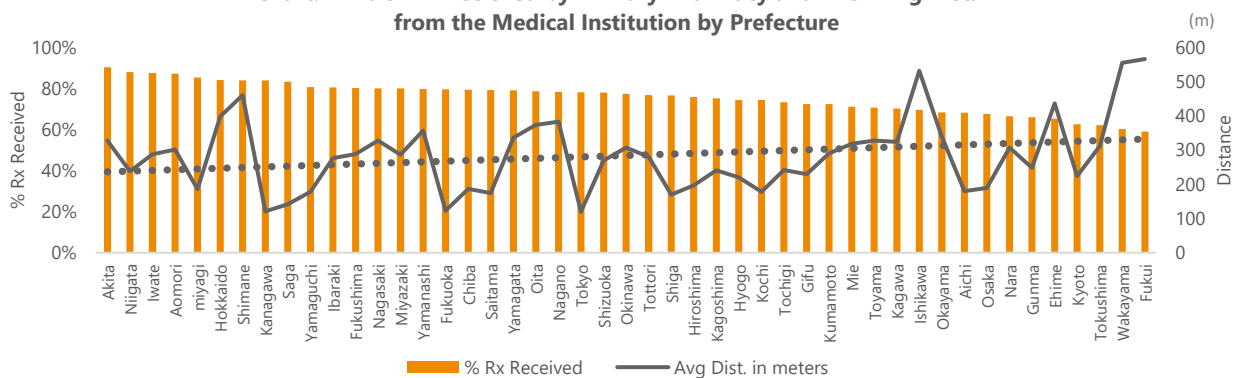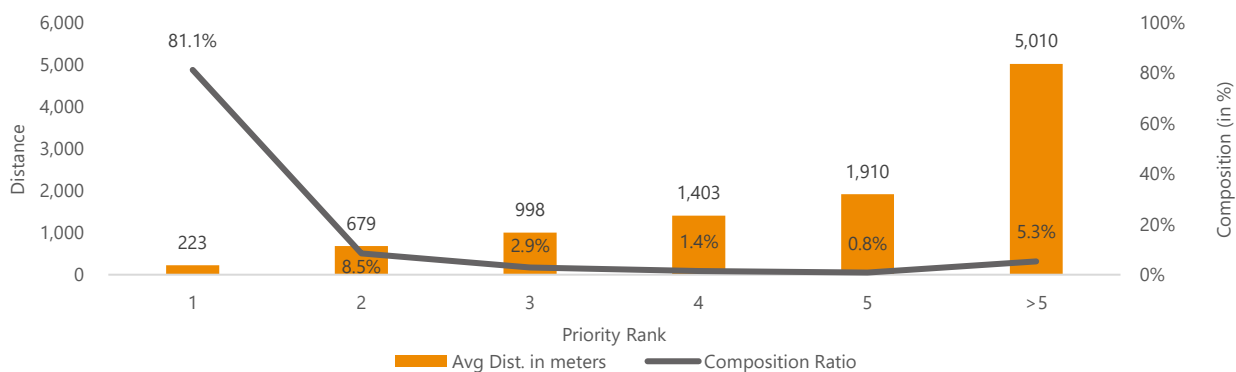**Chart. 14 % of Rx Recieved by Primary Pharmacy and Their Avg Dist. from the Medical Institution by Prefecture**

Chart. 15 Distance and Rx Composition Ratio to Pharmacies by Their 'Priority Rank' in 2022

Source: Encise Inc.

Observations

1. The average distance between medical institutions and their respective primary pharmacies has been decreasing during the study period. To illustrate this trend, the average distance was 251 meters in 2016, decreased to 224 meters in 2019, and further diminished to 223 meters in 2022 (as depicted in Chart 12).

2. The total number of outgoing Rxs received by primary pharmacies from medical institutions per month has remained almost unchanged over the period of the study (it was 58.7 million in 2016, 59.4 million in 2019, and 58 million in 2022). A slight declining pattern can be observed in the composition ratio of all outgoing Rxs with the values remaining at 82.0% in 2016, 81.6% in 2019, and 81.1% in 2022 (Chart 13). The total number of Rxs going to the primary pharmacies still exceeds 80% of the total number of outgoing Rxs issued by the medical institutions.

3. Looking at each prefecture, the average distance between medical institutions and primary pharmacies is shorter in prefectures with a high bungyo rate and longer in prefectures with a low bungyo rate.(trendline in Figure 14).

4. The term 'primary pharmacy' refers to the pharmacy that receives the highest number of Rxs from a specific medical institution. In a similar manner, pharmacies that receive the second and subsequent highest number of Rxs are categorized as secondary, tertiary, and so forth. Chart 15 illustrates the higher the pharmacies' priority rank, the closer the average distances from the medical institutions.

The average distance from medical institutions to primary pharmacies stands at 223 meters. In contrast, the average distance to secondary pharmacies is 679 meters, more than three times farther. The average distance to tertiary pharmacies extends to about one kilometre, and the average distance to subsequent lower-ranked pharmacies is one kilometre or more, but does not show the same exponential increase as from primary pharmacies to secondary ones.

Exploration

1. The reduction in the average distance between a medical institution and its primary pharmacy can be attributed to several factors. One of these factors is the growing prevalence of medical malls, where pharmacies are co-located with multiple medical institutions. For reference, the number of medical institutions situated at the same address has increased from 1,061 in 2016 to 1,166 in 2019, and further to 1,227 in 2022. The number of medical institutions and pharmacies co-located at the same address has also increased from 2,692 in 2016 to 3,148 in 2019, and 3,523 in 2022. This has reduced the average distance between medical institutions and pharmacies within the same mall.

Secondly, beginning in October 2016, there has been a relaxation of laws and regulations allowing pharmacies to operate within hospital premises. In such instances, the theoretical distance between the medical institution and its primary pharmacy becomes zero meters. The combined effect of these two factors directly contributes to the reduction in the average distance between medical institutions and their primary pharmacies.

2. It's important to note that proximity to medical institutions remains the predominant factor influencing pharmacies in collecting more Rxs. Therefore, the average distance between primary pharmacies and medical institutions is considered to be closer in areas with a high bungyo rate. Furthermore, areas characterized by shorter distances between medical institutions and primary pharmacies are often found within prefectures that encompass large cities with substantial populations. The active establishment of medical malls in these regions has played a significant role in diminishing the average distance between these two entities.

3. As mentioned above, the "distance" from medical institutions is the most significant factor for pharmacies to receive a higher volume of outgoing Rxs. However, the Rx- composition ratio of the pharmacies ranked sixth or below in priority amounts for 5.3%.   The average distance of this pharmacy group from medical institutions exceeds 5,000 meters. This implies that a portion of patients make their pharmacy choices based on criteria other than distance.

Inferences

Although the average distance between the medical institutions and the primary pharmacies has been shrinking in recent years, the following factors are likely to contribute to an increase in the average distance in the future. The 'refill Rxs regulation' was introduced in April 2022 mainly for patients with chronic diseases and stable symptoms. This allows the patients to receive Rxs that can be repeated up to three times without seeing a doctor each time. This is expected to further promote the trend where patients will prefer to pick up their medications at their family pharmacies near their homes or at preferred drugstores, rather than at pharmacies located in front of the medical institutions.

In addition, with the spread of online medical care and electronic Rxs systems, the concept of a front-door pharmacy is expected to become less significant, and the distance between medical institutions and pharmacies where patients bring their Rxs is expected to be farther.
The changing dynamics suggest that the most important factor for patients in selecting a pharmacy is changing from 'distance from medical institutions' to 'convenience and various services and benefits' offered by pharmacies or drugstores.

However, in prefectures where the bungyo rate is still low, it is anticipated that new pharmacies will open in front of medical institutions, which may reduce the distance between them and medical institutions. The nationwide bungyo rate has already reached ~76%, hence the scope for opening a significant number of new primary pharmacies in front of medical institution in the future is not very high.
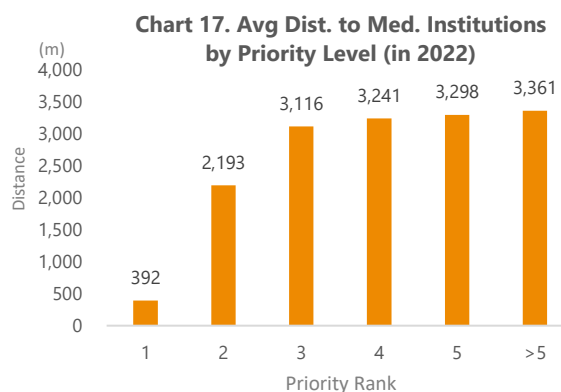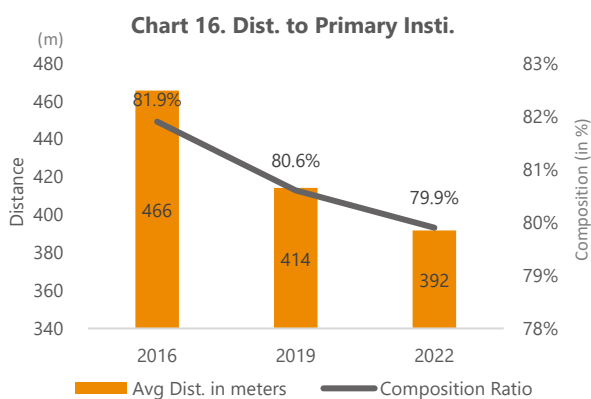
5. Distance from Pharmacy to Primary Medical Institution

Chart 16. Dist. to Primary Insti.

Chart 17. Avg Dist. to Med. Institutions by Priority Level (in 2022)

Source: Encise Inc.

Observations

1. We note that the average distance to the medical institution (Primary medical institution), which sends the maximum Rxs to the pharmacy has been shrinking. It was 466 meters in 2016, 414 meters in 2019, and 392 meters in 2022 (Chart. 16). This trend is similar to the average distance from a medical institution to a primary pharmacy, which is also shrinking.

2. On the other hand, the distance from the pharmacies to the secondary and the subsequent medical institutions has a different trend compared to the distance from medical institutions to the pharmacies (refer to Chart 15 in Section 4). We note that there is a significant rise in the average distance to secondary and subsequent medical institutions compared to the average distance to the primary medical institution. Further, there is no significant increase in the average distance to tertiary and subsequent medical institutions as shown in Chart 17.

The number of Rxs that pharmacies received per month from primary medical institutions has declined slightly. It was 58.7 million in 2016, 59.4 million in 2019, and 58.0 million in 2022 (-1.2% decline in 2022 compared to 2016). Likewise, the composition ratio also declines slightly to 82.0%, 81.6%, and 81.1% (refer to Chart 1 in Section 1).

Exploration

1. The average distance between pharmacies and primary institutions has rapidly declined between 2016 and 2019 partly because of pharmacies permitted to open on hospital premises from 2016 and the increase in medical malls (Appendix 3).

In addition, pharmacies are often opened in front of the medical institutions and they are relatively much farther away from their secondary and tertiary institutions. The tertiary and subsequent medical institutions each are approximately 3 km away, which indicates that many medical institutions in Japan are established within a 3 km radius.

2. The decline in the concentration ratio of Rxs from primary medical institutions could be the result of the 'family pharmacy system', and the increasing acceptance of 'drugstores. The pharmacies these days are receiving Rxs from a greater number of medical institutions than before due to the "family pharmacy system".

Furthermore, the number of drugstores which handle Rxs from a broader spectrum of multiple medical institutions is increasing. Consequently, the volume of Rxs dispensed is likely to increase. From the perspective of pharmacies, this increase in diversity is leading to a decrease in the composition ratio.

Inference

The concentration ratio at which primary pharmacies receive Rxs issued by medical institutions is declining. Similarly, the rate of Rxs received by pharmacies from their primary medical institutions is also declining. This trend is expected to become even more noticeable in future due to several factors.
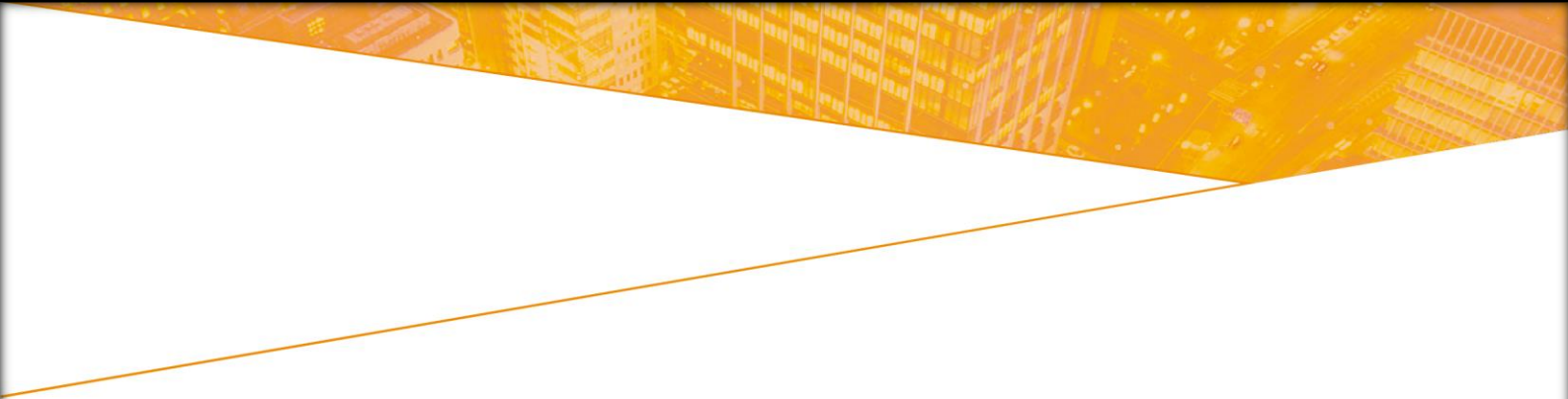
As discussed in the chapter 4 "Distance from Medical Institution to Pharmacy," the proliferation of family pharmacies, and the further expansion of drugstores are some of the reasons for this.

All these factors are likely to make the pharmacies receive more Rxs from distant medical institutions than ever before.

Such changes would require pharmaceutical companies to educate and provide information to a greater number of pharmacies than ever especially about the speciality pharma treatments. As it is necessary for pharmacists to provide patients with thorough instructions on medications, particularly in the case of long-term treatments where compliance is crucial (e.g. for cancer outpatients).

6. Pharmacy Chains in Japan

Chart 18. Percentage of Total Number of Pharmacies in Japan

- 2016: 9.3%
- 2019: 11.1%
- 2022: 13.3%

(Y-axis: Composition Ratio, 6% to 14%)
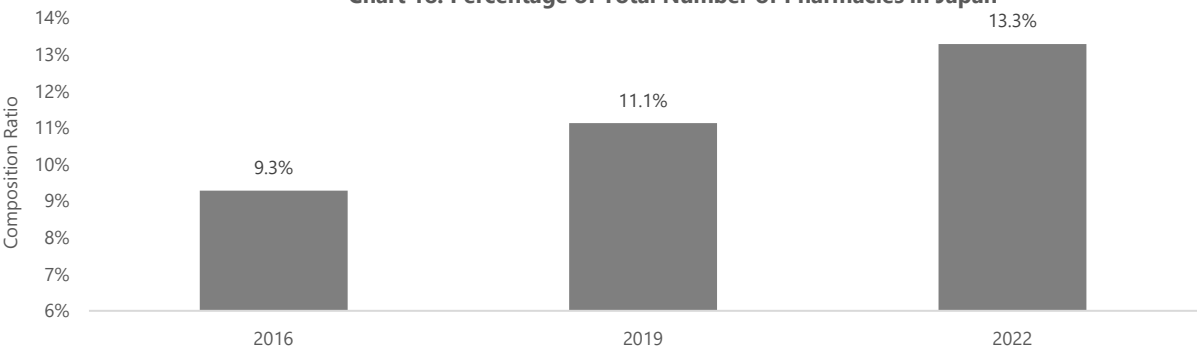
Chart 19. Top 10 Chains by Number of Pharmacies (2022)

Chain	No. of Pharmacies	Rate of Increase
Welcia	1,809	86%
Sugi Pharmacy	1,291	76%
Ain Pharmacy	771	71%
Nihon Chouzai	712	31%
Kraft	588	20%
Qol Co., Ltd.	572	29%
Sogo Medical	570	29%
Kokokara Fine	528	114%
Kusuri no Aoki	520	189%
Tsuruha	387	80%

Legend:
- Drugstore (grey)
- Pure Pharmacy (orange)

Bar: Number of Pharmacies   Line: Rate of Increase
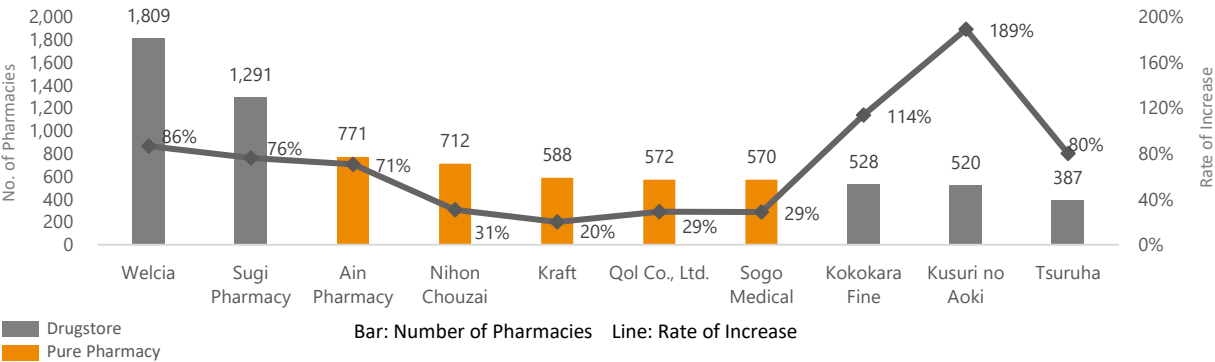
Chart 20. No. of Drugstores in the Top 10 Chains

- 2016: 3 (Welcia, Sugi Pharmacy, Kokokara Fine)
- 2019: 3 (Welcia, Sugi Pharmacy, Kokokara Fine)
- 2022: 5 (Welcia, Sugi Pharmacy, Kokokara Fine, Kusuri no Aoki, Tsuruha)

(Y-axis: No. of chains)

**Chart 21. Average Distance to Primary Medical Insti. (2022)
(Top 10 Chains by No. of Pharmacy)**

Bar: Average Distance   Line: Percentage Change

Legend: Drugstore / Pure Pharmacy

Source: Encise Inc.

Observations

1. The number of pharmacies owned by pharmacy chains has been significantly increasing in recent years. The top 10 pharma chains currently own 13.3% of the total number of pharmacies in Japan (over 4 PP increase since 2016).   Correspondingly, they together also receive 13.3% of the total outgoing-Rxs generated in the country (3.7 PP increase since 2016). The total contribution of these Rxs in value terms was 16.1% (4.3 PP increase since 2016) (Chart 18).

Welcia, Sugi Pharmacy, and Ain Pharmacy were the top three pharmacy chains in terms of number of stores in 2022 (chart 19). The number of drugstores owned by pharmacy chains has been increasing (64% increase since 2016). Among them, Kusuri no Aoki (189%), Kokokara Fine (114%) and Welcia (86%) witnessed the maximum increase.

Some of the pharmacy chains conduct business as a drugstore model (where they sell drugs along with several other things and services), while others are purely into dispensing pharmacy business.
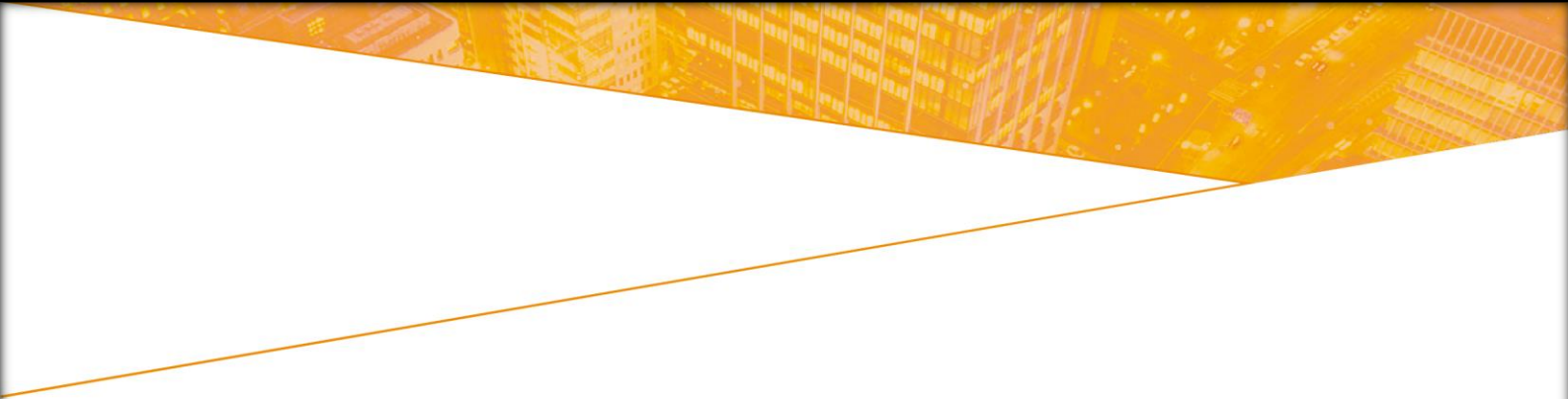In 2016, three of the top 10 pharmacy chains by number of stores were drugstores; while in 2022, five of the top 10 pharmacy chains were drugstores (chart 20).

2. Comparing the average distance between pharmacies and primary medical institutions by chain, the drugstore chains have a farther average distance to primary medical institutions, while the chains that specialize in dispensing pharmacies have a closer average distance (Chart 21).

Exploration

1. Pharmacies specializing in dispensing drugs are generally opened in front of medical institutions. Drugstores focus on not only dispensing drugs, but also selling daily necessities and food products. They are aggressively opening new stores in suburban areas, which is the reason for the large increase in the number of stores.

2. Drugstores, which also handle food and daily necessities, open in the suburbs to attract shoppers. Hence, the average distance between them and primary medical institutions is longer. On the other hand, pharmacies specializing in dispensing drugs often open in front of medical institutions, so the average distance between them and primary medical institutions is closer.

Inference

The number of drugstores has increased over the past six years and further growth is expected. Possible factors contributed to this increase include the spread of refill Rxs and the increasing number of people who bring their Rxs to drugstores, which offer various advantages to patients, rather than to their GP's front-door pharmacies.
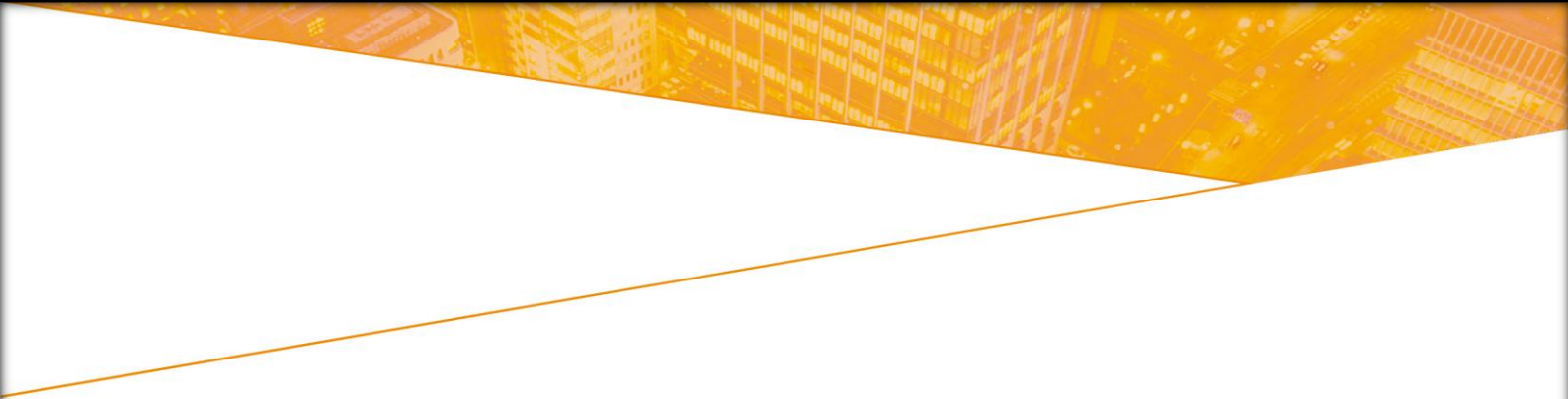
It is anticipated that dispensing specialty pharmacies will open mainly in front of clinics in areas where bungyo has not yet progressed, and at the same time attract patients by performing the functions of a family pharmacy. In order to fulfil the requirements of a family pharmacy, it is necessary to have a sufficient number of pharmacists on staff. Generally, drugstores have only a few pharmacists per store, making it difficult to meet the requirement.

Thus, by taking advantage of their respective characteristics, drugstore and dispensing pharmacy chains will further expand the number of pharmacies, and each pharmacy chain will develop patient-oriented applications and other products to attract patients.

On the other hand, in order to compete with the huge capital power of the major pharmacy chains and to introduce a platform that reduce the hassle of negotiating prices with drug wholesalers and the cost of purchasing drugs, and to bring in more patients, an increasing number of small local pharmacy chains and individual pharmacies are joining voluntary chains. As of March 2023, approximately 9,000 pharmacies are already members of the Medical System Network, one of the voluntary chains.

Appendix

Appendix 1. Prescription Receipt Rate by Prefecture (February 2022)

Table 1.

Prefecture Name	% Rx Received	Prefecture Name	% Rx Received
Hokkaido	84.1%	Shiga	76.5%
Aomori	87.2%	Kyoto	62.6%
Iwate	87.4%	Osaka	67.5%
Miyagi	85.3%	Hyogo	74.4%
Akita	90.3%	Nara	66.4%
Yamagata	79.0%	Wakayama	60.2%
Fukushima	80.1%	Tottori	76.7%
Ibaraki	80.5%	Shimane	83.9%
Tochigi	73.2%	Okayama	68.3%
Gunma	66.0%	Hiroshima	75.8%
Saitama	79.2%	Yamaguchi	80.6%
Chiba	79.4%	Tokushima	62.1%
Tokyo	78.1%	Kagawa	70.2%
Kanagawa	83.8%	Ehime	65.1%
Niigata	87.9%	Kochi	74.3%
Toyama	70.6%	Fukuoka	79.5%
Ishikawa	69.5%	Saga	83.2%
Fukui	59.0%	Nagasaki	79.9%
Yamanashi	79.7%	Kumamoto	72.3%
Nagano	78.3%	Oita	78.5%
Gifu	72.3%	Miyazaki	79.9%
Shizuoka	78.0%	Kagoshima	75.2%
Aichi	68.1%	Okinawa	77.3%
Mie	71.1%	All JAPAN	76.1%

Source: Japan Pharmaceutical Association

Appendix 2. Population Change Rate by Prefecture (2016-2022)

Table 2.

Unit:1,000people

Prefecture Name	2016	2022	% change	Prefecture Name	2016	2022	% change
Hokkaido	5,352	5,140	-4.1%	Shiga	1,413	1,409	-0.3%
Aomori	1,293	1,204	-7.4%	Kyoto	2,605	2,550	-2.2%
Iwate	1,268	1,181	-7.4%	Osaka	8,833	8,782	-0.6%
Miyagi	2,330	2,280	-2.2%	Hyogo	5,520	5,402	-2.2%
Akita	1,010	930	-8.6%	Nara	1,356	1,306	-3.8%
Yamagata	1,113	1,041	-6.9%	Wakayama	954	903	-5.6%
Fukushima	1,901	1,790	-6.2%	Tottori	570	544	-4.8%
Ibaraki	2,905	2,840	-2.3%	Shimane	690	658	-4.9%
Tochigi	1,966	1,909	-3.0%	Okayama	1,915	1,862	-2.8%
Gunma	1,967	1,913	-2.8%	Hiroshima	2,837	2,760	-2.8%
Saitama	7,289	7,337	0.7%	Yamaguchi	1,394	1,313	-6.2%
Chiba	6,236	6,266	0.5%	Tokushima	750	704	-6.5%
Tokyo	13,624	14,038	2.9%	Kagawa	972	934	-4.1%
Kanagawa	9,145	9,232	0.9%	Ehime	1,375	1,306	-5.3%
Niigata	2,286	2,153	-6.2%	Kochi	721	676	-6.7%
Toyama	1,061	1,017	-4.3%	Fukuoka	5,104	5,116	0.2%
Ishikawa	1,151	1,118	-3.0%	Saga	828	801	-3.4%
Fukui	782	753	-3.9%	Nagasaki	1,367	1,283	-6.5%
Yamanashi	830	802	-3.5%	Kumamoto	1,774	1,718	-3.3%
Nagano	2,088	2,020	-3.4%	Oita	1,160	1,107	-4.8%
Gifu	2,022	1,946	-3.9%	Miyazaki	1,096	1,052	-4.2%
Shizuoka	3,688	3,582	-3.0%	Kagoshima	1,637	1,563	-4.7%
Aichi	7,507	7,495	-0.2%	Okinawa	1,439	1,468	2.0%
Mie	1,808	1,742	-3.8%	All JAPAN	126,933	124,947	-1.6%

Source: Statistics Bureau of Japan, Encise inc.

Appendix 3. Number of Medical Malls (2016-2022)

Table 3.

2016	2019	2022
1,061	1,166	1,227

Source: Encise Inc.

＊A medical mall in this context is one in which several medical institutions are located at the same address.

Appendix 4. Number of Pharmacies on Hospital and Clinic premises (2017-2023)

Table 4.

Aug. 2017	Sep. 2018	Dec. 2020	Apr. 2021	Jun. 2022	Jun. 2023
48	64	186	187	256	371

Breakdown in 2023

Total	371
National and Public Hospitals	98
Public Hospitals	53
Social Insurance Hospitals	10
Others	146
Clinics	64

Source: Japan Pharmaceutical Association

Lexicon

Family Pharmacy System

The "Family Pharmacy System" was introduced in the April 2016 revision of dispensing fees with the objective of centralized and continuous understanding of patients' medication information, pharmacological management and guidance based on this information, 24-hour home support, and collaboration with medical institutions.

Refill Prescriptions

"Refill prescription" is a system introduced in April 2022 that allows patients with stable symptoms to repeat Rxs up to three times within a certain period of time, unless the drugs have a limit on the duration of the medication.

Electronic Prescriptions in January 2023

"Electronic prescriptions" became available from January 26, 2023 at medical institutions and pharmacies that are ready to use them. In addition to being a system for operating Rxs electronically, it has the advantage of ensuring patient safety by allowing them to refer to information on Rxs most recently prescribed and dispensed at multiple medical institutions and pharmacies, and to check for duplicate Rxs using this information.

Prescription Receipt Rate

The "prescription receipt rate" is the percentage of patients who received their Rxs at an outpatient clinic and had them dispensed at a pharmacy outside the hospital. The Japan Pharmaceutical Association announces the situation by prefecture every month.

Encise

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