

# Business performance

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# Dispensing Pharmacy Business

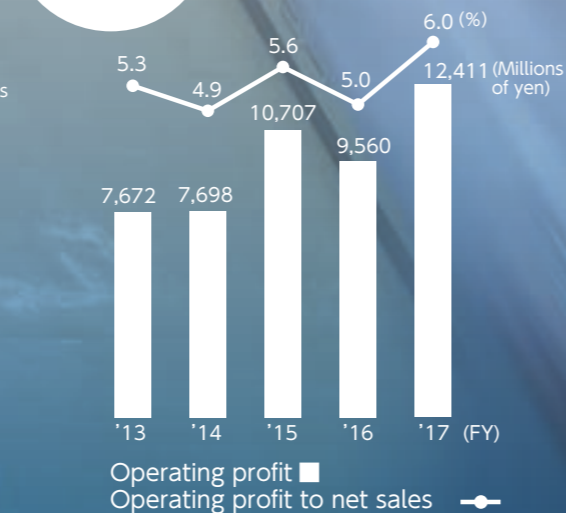
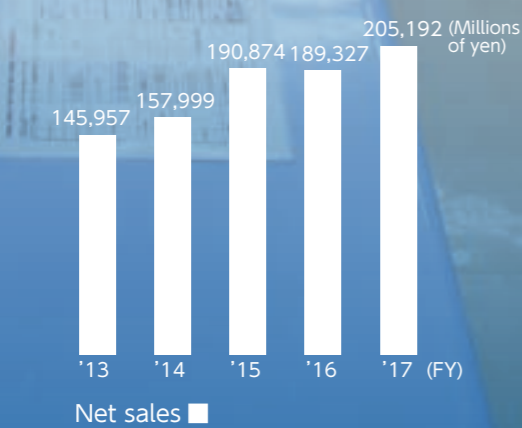
## Operation and Opening of Dispensing Pharmacies



Sales Composition



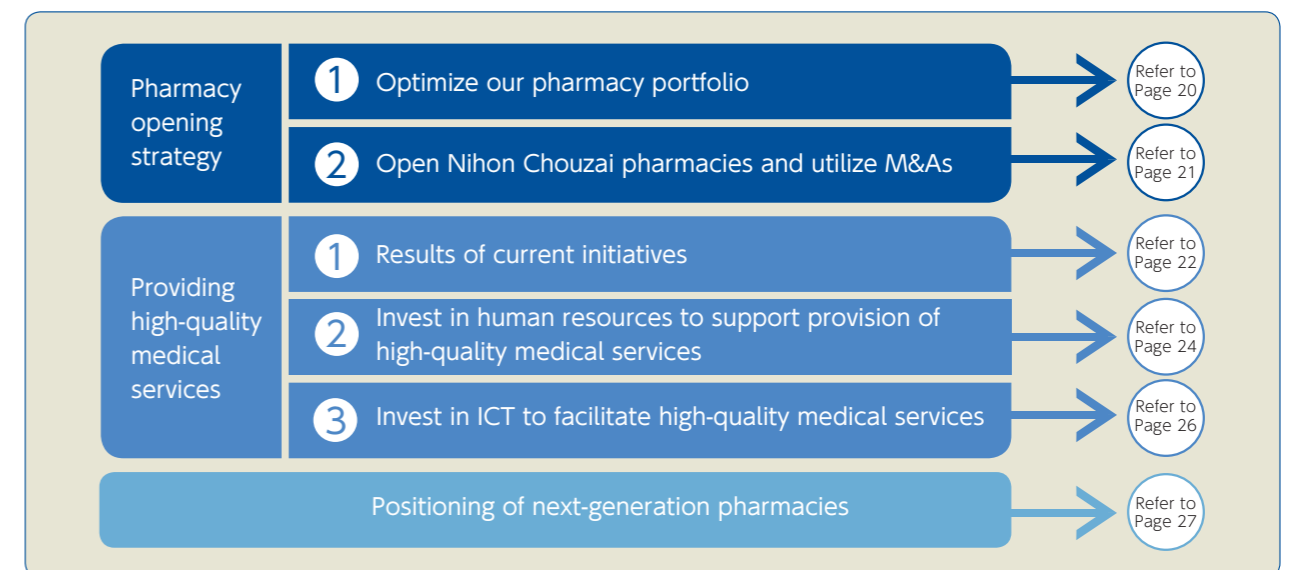
Composition of Operating Profit



### Long-Term Strategy for 2030

Expand business by operating and opening pharmacies efficiently and providing high-quality medical services.

Aim to be a pharmacy and a company that patients and society need.



### Pharmacy opening strategy

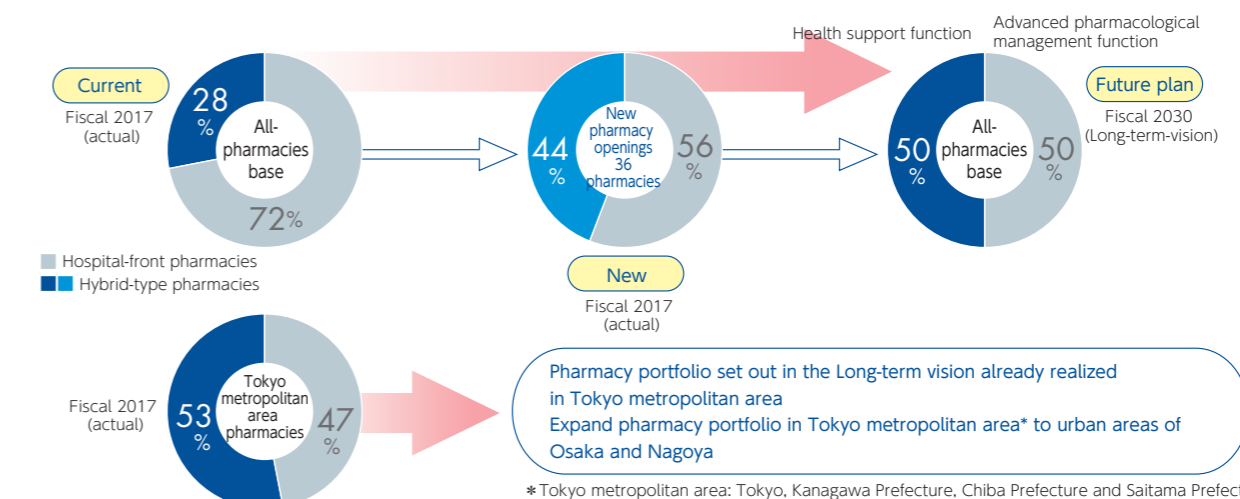
① Optimize our pharmacy portfolio with well-balanced composition of pharmacy type

#### Functional differentiation of pharmacies and medical service system

Pharmacy portfolio	Functional differentiation	Medical service system
Hospital-front pharmacies	Advanced pharmacological management function + family pharmacists and pharmacy function (mid- and wide-range area)	<ul style="list-style-type: none"> <li>Support for advanced medicine</li> <li>Training of disease expert pharmacists</li> </ul>
Hybrid-type pharmacies	Health support function + family pharmacists and pharmacy function (narrow-range area)	<ul style="list-style-type: none"> <li>Health support for local residents</li> <li>Pre-symptomatic state/prevention initiatives</li> </ul>

At Nihon Chouzai, we are advancing a pharmacy opening strategy that is aimed at realizing Vision of Pharmacies for Patients. Specifically, we will make a broad functional differentiation between pharmacies that mainly provide a health support function, an additional function for family pharmacists and pharmacies, which will be the basic function of dispensing pharmacies of the future, and pharmacies that mainly provide an advanced pharmacology management function.

We anticipate a 1:1 ratio for these functionally differentiated pharmacies. Hospital-front pharmacies which primarily serve the advanced pharmacology management function accounted for 72% as of the end of fiscal 2017, the year ended March 31, 2018. Meanwhile, 44% of our new pharmacy openings in the fiscal 2017 were hybrid-type pharmacies, which primarily provide health support functions, and we are steadily building toward the realization of the 1:1 ratio set out in our Long-term Strategy.



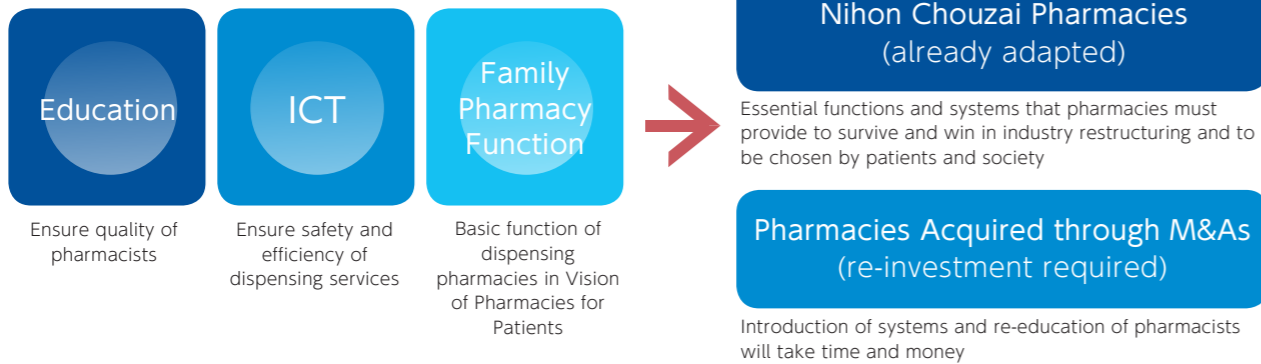
## Pharmacy opening strategy

### ② Open Nihon Chouzai Pharmacies and Utilize M&As

Trend in Opening of Pharmacies	(No. of pharmacies)				
	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016	Fiscal 2017
Opening of pharmacies	37	29	27	42	36
Nihon Chouzai pharmacies	33	28	22	21	23
M&As	4	1	5	21	13
Closure of pharmacies	9	12	11	12	8
No. of pharmacies at fiscal year end	494	511	527	557	585

\*Total number of stores including retail stores (2 retail stores as of end of fiscal 2017)

### 1 Basic Strategy : Nihon Chouzai Pharmacies in the Past and in the Future



### 2 M&A Strategy : Complement Nihon Chouzai Pharmacies with Active Initiatives Focused on Large-Scale Hospital-Front Pharmacies

Perception of M&A Environment	Fiscal 2017 (before revision)	Fiscal 2018 (estimate after revision)
	No. of projects	→
Corporate value rating for project	→	↓↓
Rehabilitation project	Increase	Further increase
Balance of demand and supply	Demand > supply	Demand < supply

We perceive that the market environment is right for us with our ability to handle large-scale reconstruction-type M&As thanks to the decline in corporate value ratings for target pharmacies because of the revisions to NHI drug prices and prescription dispensing fees as well as the increase in reconstruction-type projects.

We are monitoring market trends and actively utilizing M&As to complement our pharmacy opening strategy. The standards for M&As at Nihon Chouzai remain unchanged from the past. Specifically, we place an emphasis on strong net sales and ensuring quality to facilitate adjustment to prescription dispensing fee revisions. We plan to promote the acquisition of hospital-front pharmacies at major hospitals responsible for advanced medical care such as university hospitals for an appropriate price without reducing net sales per pharmacy. With regards to future trends, we expect M&A projects to increase given the April 2018 prescription dispensing fee revision.

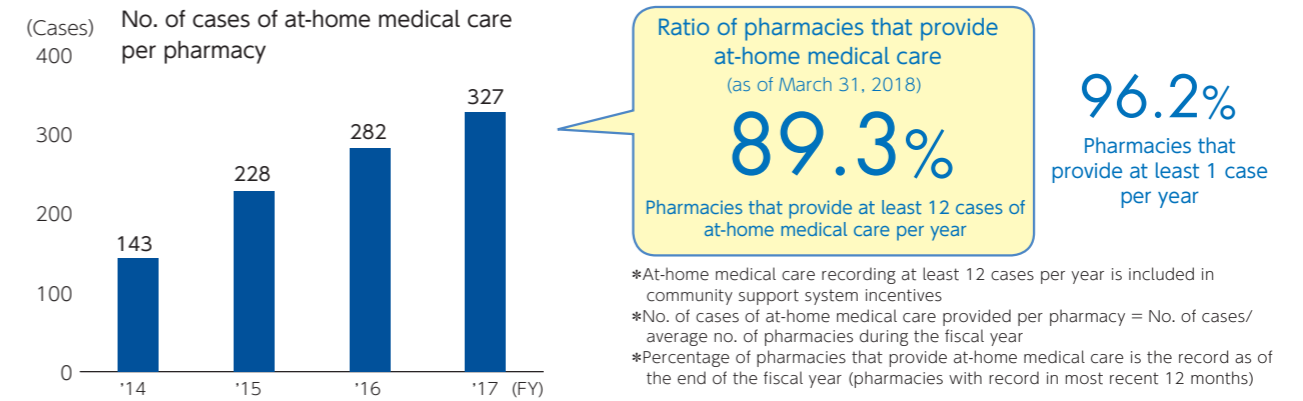
	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016	Fiscal 2017
Net Sales per Pharmacy (¥million)	304	314	367	349	359

\*Net sales per pharmacy: Dispensing Pharmacy Business net sales ÷ Average number of stores during period

## Providing high-quality medical services

### ① Results of current initiatives

#### 1 At-Home Medical Care : Promoting High-Quality At-Home Medical Care



A Vision of Pharmacies for Patients (Ministry of Health, Labour and Welfare, October 2015) explicitly states that patients treated at home can also receive meticulous pharmacological management as part of being able to achieve a patient-oriented separation of drug prescribing and dispensing. Pharmacological management and medication guidance for at-home patients is also positioned as one of the basic functions of family pharmacists and pharmacies.

Nihon Chouzai regards the strengthening of at-home medical care initiatives as one of the most important issues for surviving and winning in the industry reorganization expected in the future as well as becoming the pharmacists and pharmacies that patients and society need. We established the new At-home Medical Care Department in

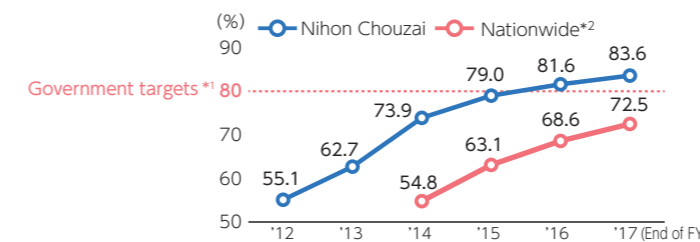
2016 with the objective of strengthening our support for at-home medical care needs. In addition to establishing structures that can meet needs for at-home medical care nationwide, we are working to share our sterile preparation techniques and know-how for providing at-home medical care and to create educational opportunities as we strive to raise the quality of pharmacists for at-home medical care.

As a result of these active initiatives for at-home medical care, although their records vary, 96.2% of Nihon Chouzai pharmacies (practically equivalent to all pharmacies if new pharmacies are excluded) have a record in at-home medical care, and 89.3% of pharmacies have a record of at least 12 cases per year, which is a high percentage.

#### Main Initiatives to Promote At-Home Medical Care

- Support structure based on At-home Medical Care Department**: 33 people (As of March 31, 2018)
- Establishment of sterile dispensing rooms**: 28 locations (As of March 31, 2018 (includes clean rooms))
- Streamlining through collaboration between at-home medical care management system and dispensing system**

#### 2 Generic Drugs : Promoting Use of Generic Drugs



\*1 Basic Policy on Economic and Fiscal Management and Reform 2017, Cabinet Office

\*2 Trend of Dispensing and Medical Care Expenses (National fiscal 2017 as of February 28, 2018, Ministry of Health, Labour and Welfare)

Nihon Chouzai has been pioneering the use of generic drugs since before their general proliferation. As of March 31, 2018, our generic drug volume share reached 83.6%, maintaining a high level that is about 10% above the national average. The government announced its volume share target of 80% for September 30, 2020, but we achieved this target two years early. Under the fiscal 2018 prescription dispensing fee revision, the numerical targets of the premium for generics dispensing systems were increased as shown at left. While it has been difficult for our competitors to respond, it was possible for Nihon Chouzai to respond promptly because we have pioneered the promotion of generic drugs.

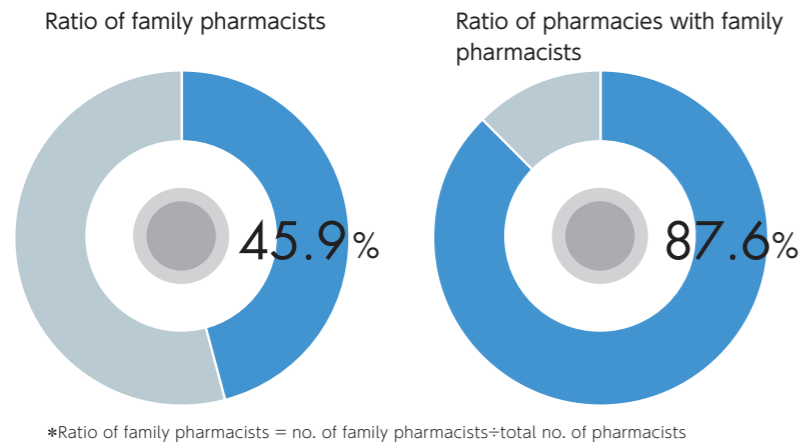
#### Premium for generics dispensing systems (previous indicators)

Premium 2	(at least 75%) 22 points
Premium 1	(at least 65%) 18 points
No premium	(less than 65%)

#### Premium for generics dispensing systems (new indicators)

Premium 3	(at least 85%) 26 points
Premium 2	(at least 80%) 22 points
Premium 1	(at least 75%) 18 points
No premium	(less than 65%)

**3 Family Pharmacists and Pharmacies** Status of Initiatives for Family Pharmacists and Pharmacies (As of April 1, 2018)



initiatives aimed at raising recognition of family pharmacists and pharmacies

Carefully and repeatedly providing patients with individual service

Through media such as TV commercials and in-store posters, etc.

The family pharmacist and pharmacy is a basic function that must be performed by pharmacists and pharmacies from now on. We will be forced to withdraw from the market unless we can perform a function as family pharmacists and pharmacies. We must regard this as an extremely key challenge that will affect the future restructuring of the industry.

Nihon Chouzai is creating an industry-leading system as a result of the company-wide strengthening of our initiatives, and we will continue making concerted efforts to further increase the ratio of family pharmacists and the ratio of pharmacies with family pharmacists.

**3 Health Check Stations** Disease Prevention and Pre-symptomatic State Initiatives for Local Residents



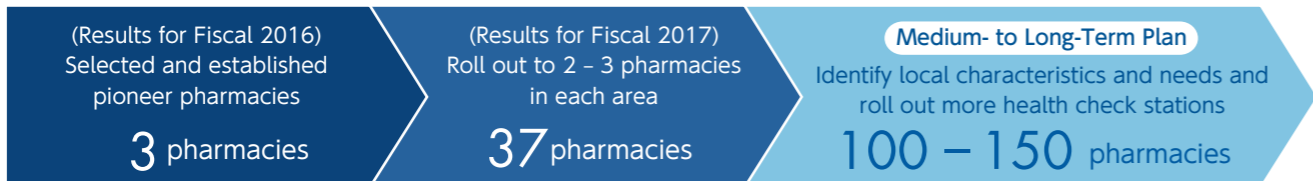
- (1) Advice on diet and exercise from registered dietitians
- (2) Promoting use by local residents through the holding of health fairs
- (3) Specialist booths on health maintenance and promotion
- (4) Health management using various measurement devices, including sphygmomanometers and body composition measurement equipment
- (5) Support for self-medication with a range of more than 500 items, including OTC drugs and health food
- (6) Recommendations to receive a medical examination and referrals to medical institutions depending on symptoms

A Vision of Pharmacies for Patients explicitly stated the health support function as an additional function to the basic function of family pharmacists and pharmacies. This role is expected to help with disease prevention and health support for local residents.

Nihon Chouzai aims to strengthen health support functions and has been promoting the establishment of

in-pharmacy Health Check Stations at a rapid pace. Health Check Stations support self-medication for local residents serving as bases for community health support where local residents can receive health advice and health measurements even when they do not currently have any specific physical problems and without having a prescription.

\*The Health Check Station is a registered trademark of Nihon Chouzai Co., Ltd.



**Providing High Quality Medical Services** **2 Invest in Human Resources to Support Provision of High-Quality Medical Services**

**1 Recruitment**

Jump to top of employer popularity ranking in dispensing pharmacy and drugstore industry  
**Becoming the company of choice!**

Sciences overall		Sciences female		Chemistry and pharmacology	
Rank	Company name	Rank	Company name	Rank	Company name
<b>41</b>	<b>Nihon Chouzai</b>	<b>11</b>	<b>Nihon Chouzai</b>	1	Pharmaceutical company A
...	...	...	...	2	Cosmetics company S
52	Dispensing pharmacy company S	15	Dispensing pharmacy company S	<b>3</b>	<b>Nihon Chouzai</b>
...	...	...	...	...	...
55	Dispensing pharmacy company A	23	Dispensing pharmacy company A	...	...
...	...	...	...	...	...
66	Drugstore company S	27	Drugstore company S	...	...

Prepared by Nihon Chouzai based on 2019 Graduate Employer Popularity Rankings (article on April 24, 2018), My Navi and Nikkei

Results show up in the numbers

**Achieved all-time high recruitment of new graduate pharmacists in April 2018**

Nihon Chouzai continually implements steady and courteous recruitment activities for pharmacy faculty students with a targeted approach from the student perspective based on a system of recruiters for each university. These recruiters repeatedly inform pharmacology students and those associated with pharmacology that Nihon Chouzai is a company that will treat their desire to fully demonstrate and further increase their knowledge of pharmacology, which they studied for six years at university, without ever disappointing them.

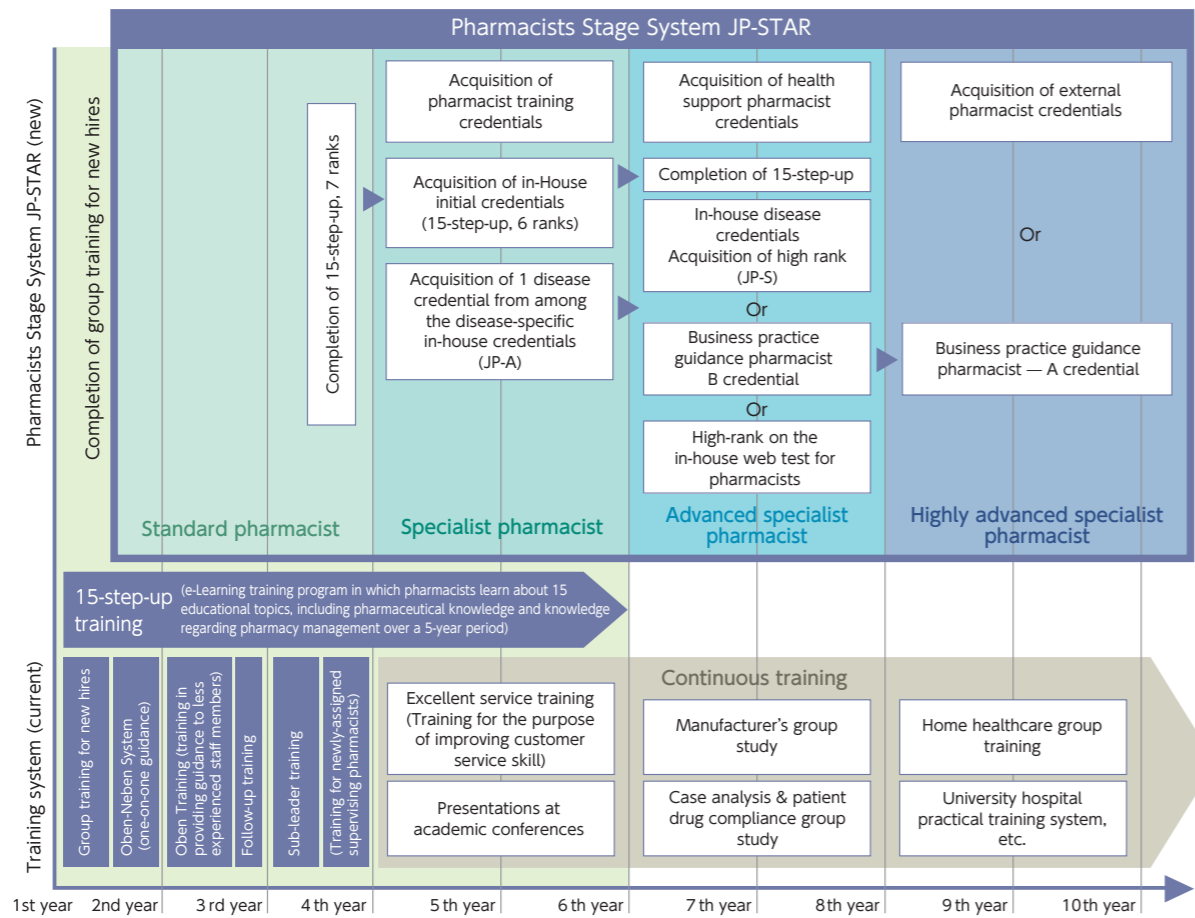
As a result, we have jumped to the top of the dispensing pharmacy and drugstore industry in the science-related employer popularity ratings, and we achieved an all-time high in the number of new graduate pharmacists we recruited in April 2018.

We have already initiated a positive cycle under which we recruit many outstanding pharmacists who are strongly

motivated to learn more about dispensing and provide a high-level education system, as well as the acquisition of advanced skills for expert pharmacists; thereby enhancing the quality of the medical service we provide to patients; promoting positive assessment of pharmacists who interact seriously with patients (as reflected in rankings); and accelerating the recruiting of outstanding pharmacists who are strongly motivated to learn more about dispensing. In order to make this positive cycle even more powerful, we will continue to invest in human resources, including grade-specific training and the in-house Stage System with an eye to the acquisition of qualifications for pharmacists working in pharmacies, certified dietitians, and medical administrators in particular, but also including the head office staff who provide support, thus promoting initiatives aimed at making us the company of choice.

## 2 Human Resource Development

Launch of new personnel system JP-STAR, the Pharmacist Stage System, to satisfy employee aspirations



For more information, please see "Human" pages in ESG Management section (p.48).

## 3 Strengthening Advanced Pharmacology Management Functions

Promoting acquisition of expert pharmacist accreditation based on external evaluations

	Target	Content of qualification
Accredited Pharmacist of Outpatient Cancer Chemotherapy JASPO*	At least 30 pharmacists over 3 years	<ul style="list-style-type: none"> <li>Pharmacists who have acquired the knowledge and skills to safely administer outpatient chemotherapy</li> <li>Pharmacists who can provide total support for patients and their families in community cancer care</li> </ul>
Board Certified Pharmacist in Palliative Pharmacy Japanese Society for Pharmaceutical Palliative Care and Sciences	At least 20 pharmacists over 3 years	<ul style="list-style-type: none"> <li>Pharmacists who have acquired the expert knowledge and skills regarding the appropriate use of cancer pain relief and medical narcotics</li> </ul>

\*Japanese Society of Pharmaceutical Oncology

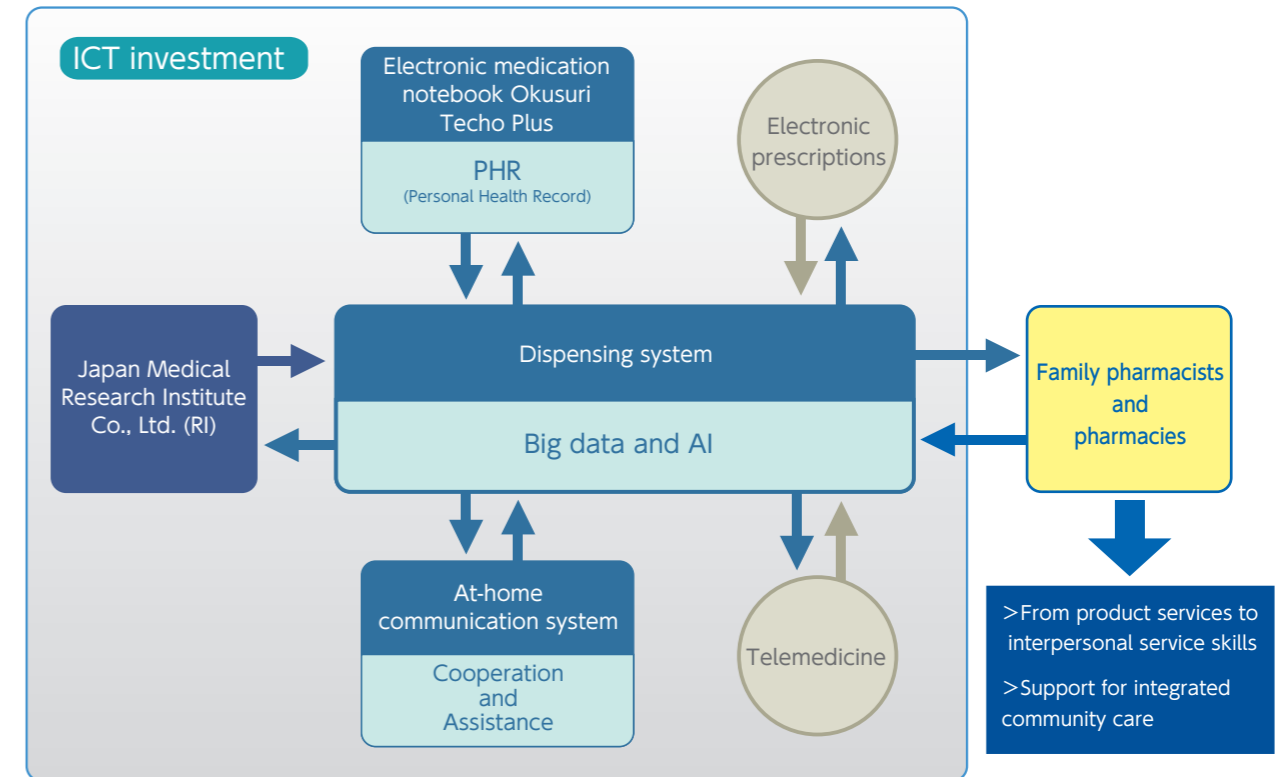
▶ Providing training aimed at acquisition of Accredited Pharmacist of Outpatient Cancer Chemotherapy certification by 26 pharmacists (as of March 31, 2018)

## Providing High Quality Medical Services

### ③ Invest in ICT to facilitate high-quality medical services

ICT utilization is essential for high-quality medical services and rationalization and streamlining of medical care

Aggressive ICT investment required at pharmacies that will survive and win in the industry reorganization



The Japanese government has been implementing studies spanning multiple ministries and agencies into the utilization of ICT in medical settings.

Nihon Chouzai has been aggressively promoting ICT investment for some time ahead of other companies, including the in-sourcing of dispensing systems, in-house development of electronic medication notebook, the construction of an at-home communication system, and the establishment of Japan Medical Research Institute Co., Ltd., which is responsible for processing and analyzing big data. Going forward, we will continue contributing to the provision of high-quality medical services and the realization of rationalized medical expenses by combining the accumulation of ongoing ICT investment with face-to-face

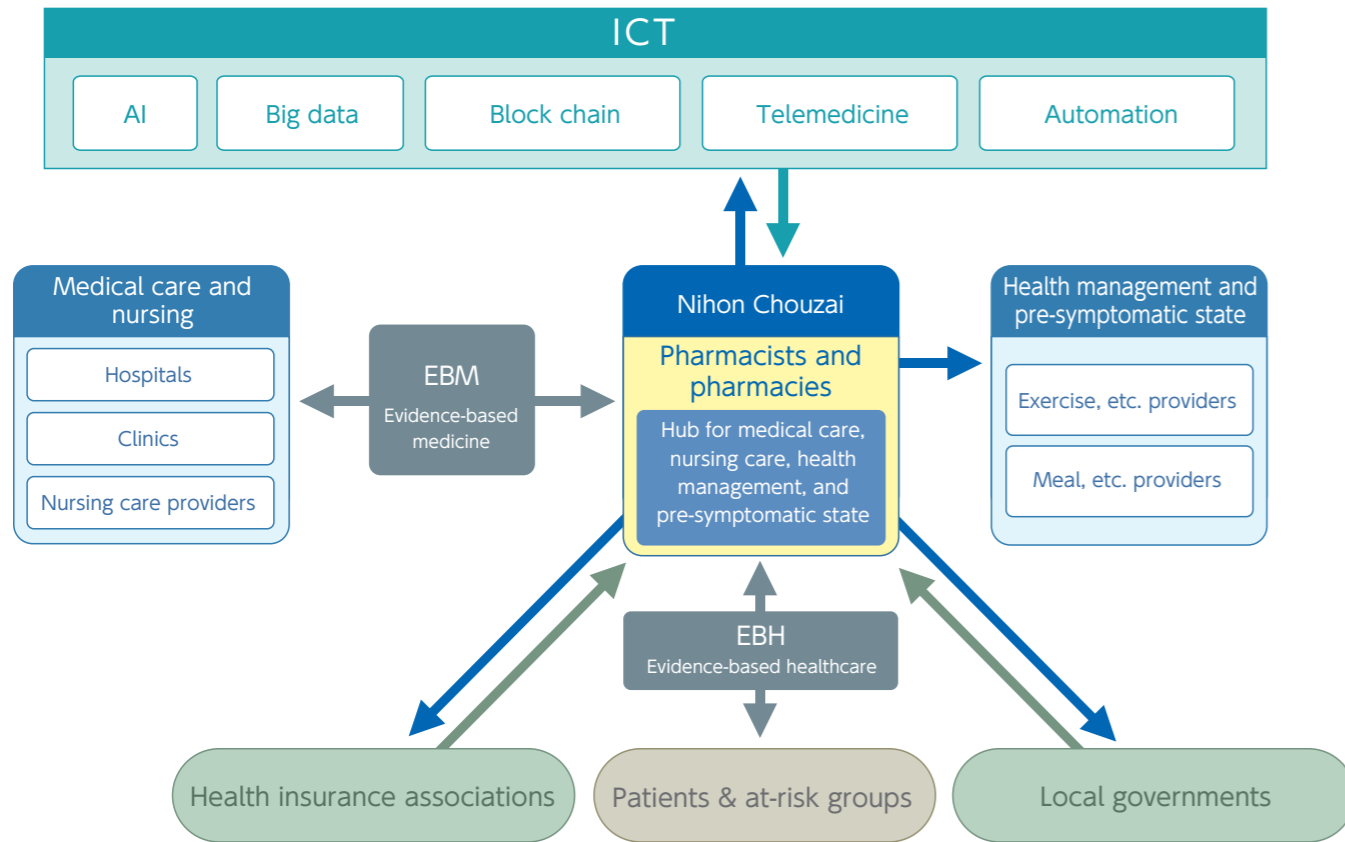
communication with family pharmacists.

The ban on electronic prescriptions was lifted in April 2016, and consideration of a common format, including specific operation, has been underway since April 2018. The format is expected to spread in conjunction with the future development of ICT. At the same time, telemedicine trials have been conducted in national strategic special zones, and telemedicine is now being provided by physicians. Telemedicine provided by pharmacists is being tried in special zones, as well. Studies are expected to proceed, including those involving more extensive implementation of telemedicine by pharmacists and the establishment of new laws.



## Pharmacies in hub-like position

Through utilization of ICT to streamline medical care and rationalize medical expenses, pharmacies could be in a position as hubs in the integrated community care system.



Next-generation pharmacies will be in a unique position to be responsible for rationalizing and streamlining medical care with aim of curbing increases in medical expenses through the utilization of ICT and are expected to have a hub-like position in medical care, nursing care, health management, and preventive healthcare. At Nihon Chouzai, we aim to be the pharmacists and pharmacies that the public needs by continuously investing in ICT and human resources and playing a major role within the integrated community care system. In particular, we have been implementing ICT investment since shortly after our establishment, facilitating extensive business expansion going forward using management resources that our competitors do not have.

One example of a specific initiative is our participation in the Kanagawa Prefecture Pre-symptomatic State Market

Creation Promotion Project.\* In addition to providing support as a pharmacy for promoting health for the people of Kanagawa Prefecture through the provision of products and services that include Okusuri Techo Plus, the electronic medication notebook developed in-house, Nihon Chouzai is playing a new social role as a pharmacy by communicating the "Pre-symptomatic state (ME-BYO)" concept being promoted by Kanagawa Prefecture to the people of Kanagawa Prefecture and making efforts to utilize ICT.

Going forward, we will actively promote such initiatives to maintain health and prevent disease with evidence-based healthcare and medical care with evidence-based medicine to build an unprecedented position in society, thus providing efficient and high-quality medical services and simultaneously realizing the creation of business opportunities.

\*Kanagawa Prefecture Pre-symptomatic State Market Creation Promotion Project

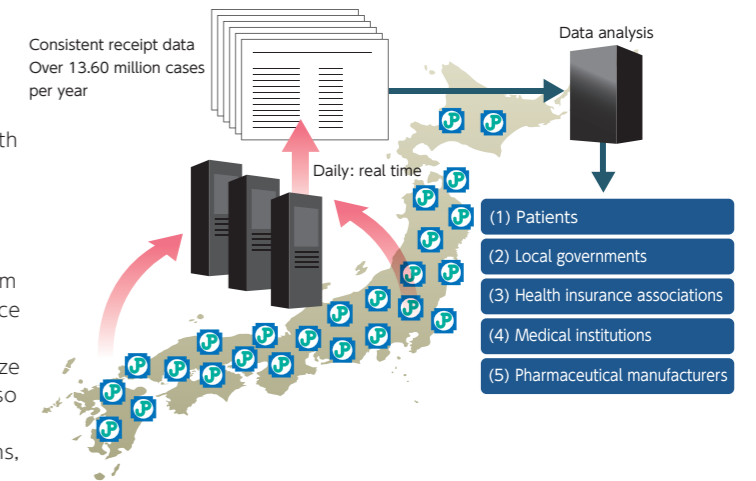
A project being implemented by Kanagawa Prefecture with the objectives of stimulating consumption through the revitalization of the regional economy and activating a pre-symptomatic state industry by spreading the pre-symptomatic disease prevention (ME-BYO) concept and treating preventable diseases. The project has promoted sales and other businesses, including sales of products related to the pre-symptomatic state from the perspectives of stimulating new consumption, bringing out the health needs of people in the prefecture, creating a new pre-symptomatic state industry and promoting market expansion. Sales and other businesses report on sales of products and services related to the pre-symptomatic state, and the effects of monitor surveys and sales on stimulating and encouraging consumption.

## Information Provision and Consulting Business

### Analyzing and utilizing data

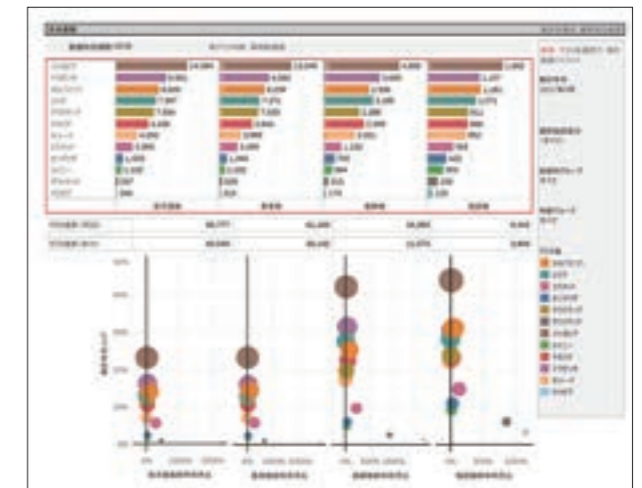
Japan Medical Research Institute Co., Ltd. operates a business that contributes to the healthy progress and growth of the medical industry based on the information resources cultivated through Nihon Chouzai Group companies by providing a valuable information service that helps to improve the lives of the public.

By analyzing the mass of prescription data obtained from dispensing pharmacies, it helps to improve patient adherence (medication management) and by analyzing the actual conditions of pharmaceutical treatment, it helps to rationalize medical expenses. The Japan Medical Research Institute also provides surveys, research, information, and consulting services for local governments, health insurance associations, medical institutions, pharmaceutical manufacturers and others based on its medical information resources.



### Information Provision Service

With RI-CORE, which commenced services in fiscal 2017, it is possible to analyze the usage status of pharmaceuticals based on prescriptions rather than based on shipments from wholesalers to provide high-value-added analysis data customized for individual users. It is also possible to check changes in the trends for products that users want to know about and track in the following month for generic prescribing which is on the increase due to the revision of medical fees in April 2018. While promoting initiatives aimed at utilization of real world data, the Japan Medical Research Institute operates businesses that take maximum advantage of synergies with the Dispensing Pharmacy Business.



Screenshot of RI-CORE service demonstration

### Executive Study Groups

Since August 2017, seminars on formulary efficacy have been held at eight venues nationwide with the general manager of the Hospital Consultant Group at the Japan Medical Research Institute serving as the instructor. The seminars were attended by diverse participants from medical institutions, health insurance associations, pharmaceutical manufacturers and others, and lively Q&A sessions were held. At present, efforts are being made to curb the increase in medical expenses by increasing the volume share of generic drugs, and it is hoped that the introduction of formularies for regional units will serve as one measure for the rationalization of medical expenses on a monetary base.



Executive Study Groups held in February 2018

### Data Health Initiatives and Formulary Collaboration

A variety of measures are being implemented to construct an integrated community care system which provides seamless medical care, nursing care, disease prevention, and daily living support by 2025. However, many challenges are mounting up for initiatives aimed at rationalization of regional medical expenses. At Nihon Chouzai, we believe that we can contribute to the rationalization of medical expenses through our current data health initiatives and formulary collaboration.

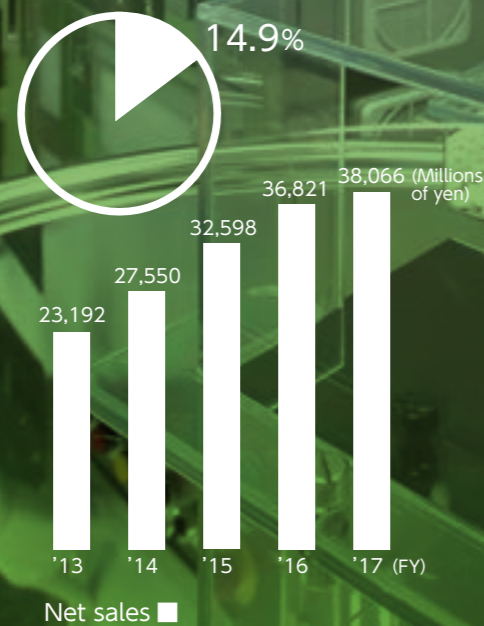
Specifically, we utilize Nihon Chouzai's proprietary formulary operation know-how after performing analysis and simulation based on anonymized information from health insurance associations and local governments. We will continue to provide high-value-added information services by comprehensively supporting data health planning, including drafting business plans, determining the effectiveness of various activities through ongoing progress analysis, and drafting business plans for the subsequent fiscal year.

# Pharmaceutical Manufacturing and Sales Business

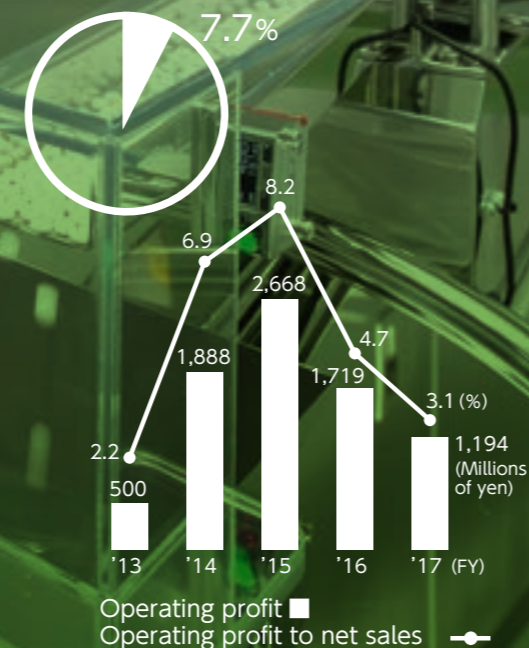
## Manufacture and Sales of Generic Drugs



Sales Composition



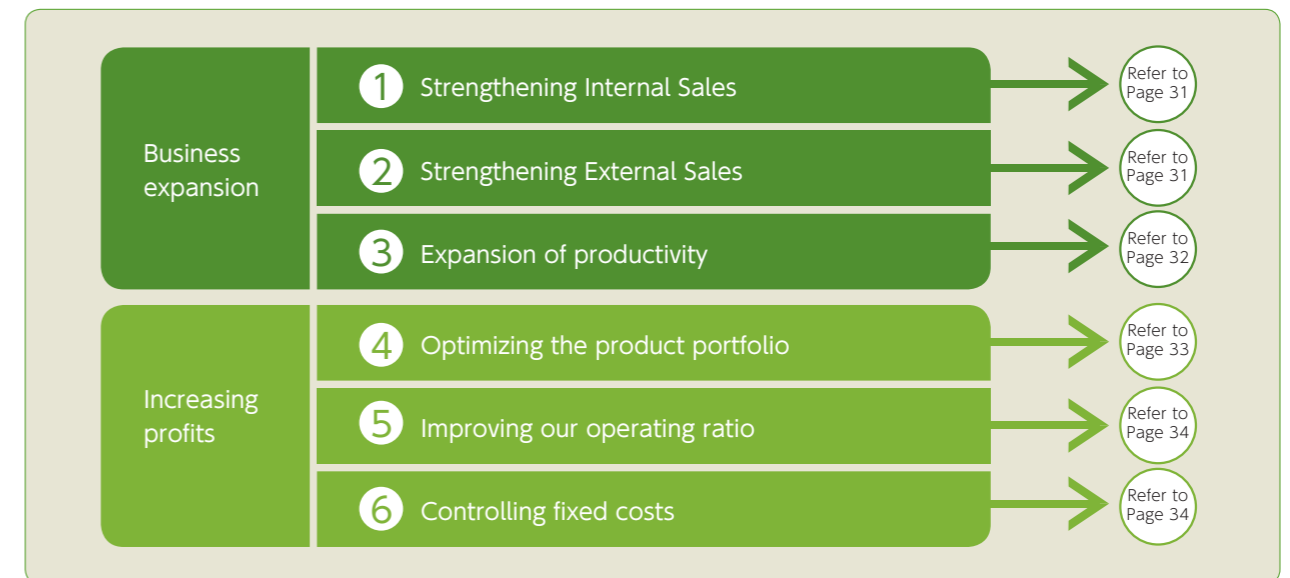
Composition of Operating Profit



### Long-Term Strategy for 2030

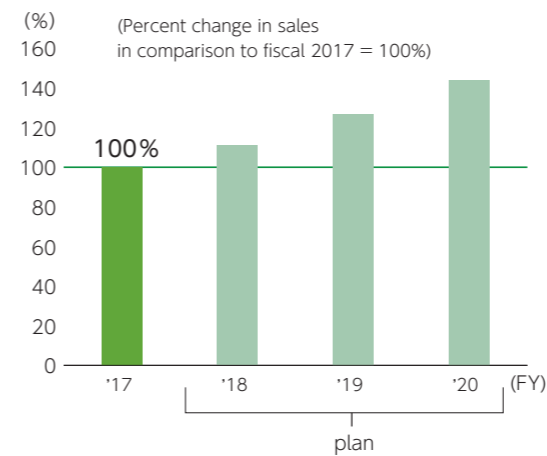
Through the expansion of the manufacture and sales of the generic drugs business, we help to control the increasing costs of medical care in Japan's super-aging society

Aiming to be one of the top 5 generic drug manufacturers

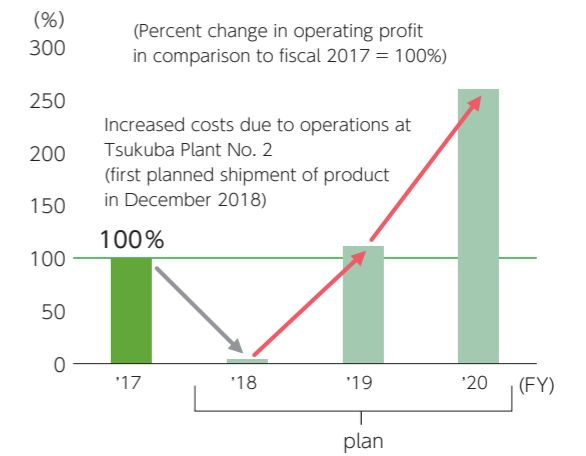


### Medium-Term Business Plan

Net sales



Operating profit



Based on the fact that we have announced an intensive sales promotion plan designed to meet the 80% volume-based market share target for generic drugs set by the national government, we expect that the generic drug market will continue to steadily expand. There are two main causes of the increased sales in the Pharmaceutical Manufacturing and Sales Business. One is increased internal sales, which refers to sales to prescription dispensing pharmacies that are part of our Group. The second is increased external sales, which refers to sales to prescription dispensing pharmacies, hospitals, and clinics that are not within the Group. Planned expansion of the Dispensing Pharmacy Business is expected to lead to major increases in sales.

In fiscal 2018, we expect a temporary drop in operating profit due to previous costs, including start-up costs associated with the start of operations at the Tsukuba Plant No. 2, which is equipped with large-scale, state-of-the-art equipment. These costs include increased depreciation costs, utilities, and personnel costs. However, we plan to recover operating profit starting in fiscal 2019 through increased revenue, increased efficiency and functional differentiation of our manufacturing plants, and the expansion of our contract manufacturing business.

Our unique business model creates synergy with our Dispensing Pharmacy Business

Sales composition ratio (internal and external)



The Pharmaceuticals Manufacturing and Sales Business has a unique business model that combines internal sales, which refers to sales to prescription dispensing pharmacies within our Group, and external sales, which refers to sales to hospitals, clinics, and other companies' prescription dispensing pharmacies. Total sales for fiscal 2017 were composed of internal sales totaling 35% and external sales totaling 65%. Currently, we have achieved a level of growth that puts us among the top 10 generic pharmaceutical manufacturers.

Since Nihon Chouzai has the advantage of internal sales, which other generic drug manufacturers do not have, they account for constant sales amount. This allows for increased ease of stock control, and it has allowed us to create manufacturing plans that have little waste. Research and development efforts are being focused on off-patent pharmaceuticals, and particularly on those pharmaceuticals that are used in large quantities in the internal Dispensing Pharmacy Business. External sales are focused on vendors such as medical institutions, dispensing pharmacy chains, and privately run pharmacies and are currently experiencing an upward trend.

Revising our sales strategy prevents excessive discounts

Toward the stabilization of generic drug prices driven by revised distribution guidelines

The listing of generic drugs on the National Health Insurance drug price list in June 2016 led to an escalation in the price competitions among generic drug manufacturers. The resulting downturn in income throughout the entire generic drug industry continues to this day. Nihon Chouzai was one of the companies that was at least partially involved in these price competitions, and as a result, increased sales still have not yet led to increased operating profit.

Under these circumstances, Nihon Chouzai began making adjustments to its terms of sales through discussions with wholesalers in order to remove itself from these price competitions as quickly as possible. As a result, we became able to engage in sales under more stable conditions as of the latter half of the period ending in fiscal 2017, which in turn allowed us to recover a large portion of profit as compared to the first half of fiscal 2017. The Revised Distribution Guidelines,

which were released by the Ministry of Health, Labour and Welfare in January 2018 and put into operation in April 2018, outlined efforts to control excessive price discounting, which we hope will lead to the stabilization of generic drug prices.

Revised Distribution Guidelines (implemented in April 2018)

- (1) Establish appropriate market prices in order to do away with negative primary margin on sales
- (2) Promote early settlement and unit price-based/individual product transactions
- (3) Revise excessive discount negotiations

\* Created by Nihon Chouzai based on the "Guidelines for Distributors for the Improvement of Medicinal Pharmaceuticals Distribution," which was published by the Ministry of Health, Labour and Welfare in January 2018

Expanding internal sales which are not affected by market trends, expanding the contract manufacturing business which is a new growth driver, starting in the sales alliance business

	Sales structure	Fiscal 2017	Fiscal 2018 onwards
Internal sales	In-Group ● Pharmacies	good <small>Reorganization of the dispensing pharmacy industry</small>	very good
	Out-Group ● Hospitals ● Pharmacies ● Drug stores	good <small>Volume-based government target 80%</small>	good
External sales	Contract manufacturing business	good	very good
	Sales alliance business	fair	good

Synergy with the Dispensing Pharmacy Business

Increased sales due to expansion of the Dispensing Pharmacy Business

Relationships with wholesalers

Increased sales due to expansion of the size of the market

New growth driver

Expansion of the contract manufacturing business

Entrance into the sales alliance business

There are three main drivers behind expansion in the Pharmaceutical Manufacturing and Sales business. The first is the fact that we can greatly increase internal sales by ensuring that the Dispensing Pharmacy Business remains an industry leader after the industry is reorganized. The second is the fact that we can utilize the powerful relationships we have built with wholesalers over the last 40 years to insure that the Dispensing Pharmacy Business will continue to experience increased external sales as we move into the future. The third consists of both the contract manufacturing and sales alliance businesses, which have been identified as new growth drivers.

Although the market of generic drug is expanding, it is difficult for the small- to medium-sized generic drug manufacturers to actively engage in new capital investment. Due to the tendency for increased demand caused by the expanding market to be met by contract manufacturing, it is expected that the contract manufacturing business will show growth in the future. Our productivity will increase once the Tsukuba Plant No. 2 is completed, which will give us the ability to take on more contract manufacturing and sales alliance businesses. Thus, we plan to actively develop these business sectors and increase their operations.

Completion of Tsukuba Plant No. 2, which will enable to increase our domestic productivity to 10 billion units.

We will increase efficiency and differentiate functions in addition to expanding our plant size in order to handle growing demand

The completion of Tsukuba Plant No. 2 will allow us to establish a more flexible production system

> Future increases in demand will be met by improving productivity via increased efficiency and functional differentiation by, for example, assigning products to manufacturing plants that have suitable production lots.

> The latest equipment will be used to expand our contract manufacturing business and move into the sales alliance business. We are also setting up production systems that will allow us to examine and enter new business sectors in the future.



Outside view of Tsukuba Plant No. 2



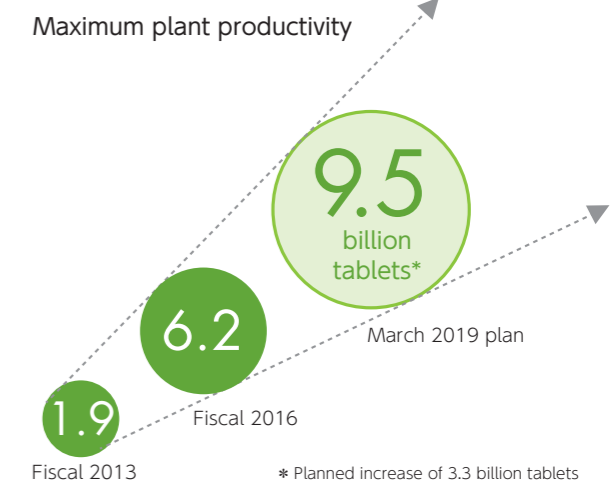
Granulator



PTP/Packaging line

Tsukuba Plant No. 2 has the latest equipment, which allows it to accommodate a wide range of production needs, from small-quantity production to mass production. The plant has manufacturing equipment that allows all steps of production to be controlled through automation, from weighing and sifting to mixing, granulation, drying, and sizing. Efficiency has been further improved by creating a direct line that allows subsequent operations such as PTP packaging and boxing to take place seamlessly. We have also introduced a production control system that regulates the entire process from bulk drug delivery to shipment of finished product. These and other efforts ensure that our newly established system will be able to handle licensing contracts for any and all products.

The completion of Tsukuba Plant No. 2 will expand our productivity to 9.5 billion tablets. Construction of Tsukuba Plant No. 2 has now advanced to the point that the first phase of construction is now complete. Once the third phase of construction is complete, the overall Group productivity will reach 16.2 billion tablets. By shifting the production of large-lot items to Tsukuba Plant No. 2, we will be freeing up our other plants' production capability. The use of the newly freed production capability will in turn allow us to manufacture new items. By taking advantage of the unique characteristics of each plant and using manufacturing equipment that is suited to individual production lots, we will achieve a production efficiency that surpasses any level we reached in the past.



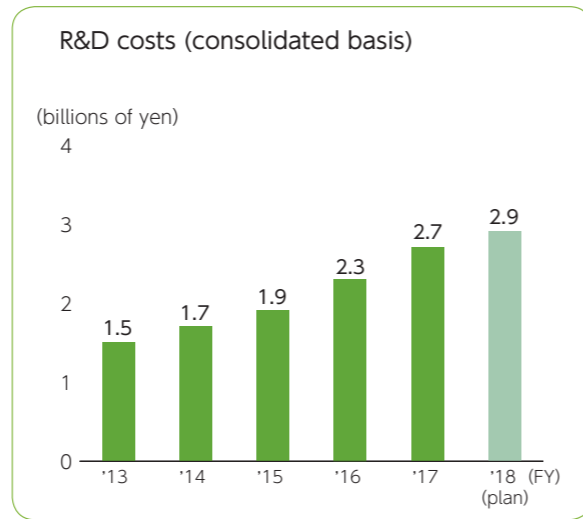
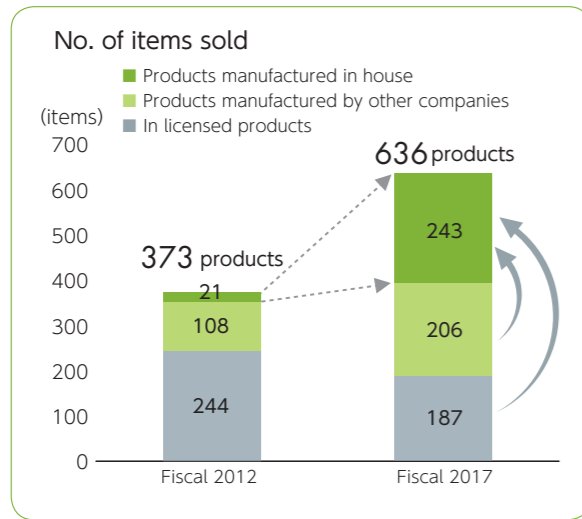
\* Planned increase of 3.3 billion tablets once phase-one capabilities at Tsukuba Plant No. 2 go into operation



Increased income

④ Optimization of the product portfolio

Increase in the ratio of products manufactured in house and promotion of increased profitability through active R&D



In-house products	>Increased number of products	Sales through wholesalers
	>Shift to in-house products	
	>Complement existing products through the addition of in licensed products	
Sales alliance products	>Sales alliance of in-house products to other companies	Sales to generic drug manufacturers
Contract manufacturing products	>Contract development that assumes contracted manufacturing (CDMO)*	
	>Promotion of new contract manufacturing business activities	

R&D	>R&D unrelated to any particular disease
	>Efficient R&D that is focused mainly on products that are used in large quantities by our own pharmacies
	>Utilization of the specific technical strengths and know-how possessed by the research facilities Nihon Generic Co., Ltd. and Choseido Pharmaceutical Co., Ltd.
	>Efficient pharmaceutical production that is matched to the characteristics of the factory equipment utilized at each company

\*The Contract Development Manufacturing Organization is contracted by companies not only to manufacture pharmaceuticals but also to carry out all processes including product development.

Working to establish appropriate sales prices and shifting the sales focus to high-profit items

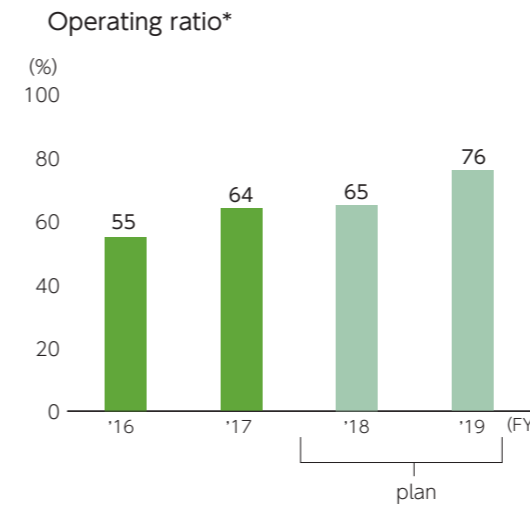
Through strict control of costs when purchasing bulk drugs, designing the drugs, and developing the manufacturing process, we gain an objective view of the cost of the finished product. By assessing costs at every step and setting appropriate wholesale prices, we can establish appropriate sales prices. Through the use of methods that allow flexibility when setting sales prices, we can avoid involvement in price competitions that arise when manufacturers cooperate with specially contracted pharmacies to provide low prices. We will continue

ensuring that our sales prices are optimized. We have begun initiatives designed to improve profit by shifting our sales strategy to high-profit items and focusing our resources on standard drugs that may still be available in the formulary medicine. These efforts are being undertaken in anticipation of future revisions that will be made to drug prices and changes in the generic pharmaceutical industry in the future.

Improving profitability

⑤ Improving operating ratio

Improving the operating ratio leads to lower cost ratios and higher gross margin ratios



\* Operating ratio refers to production during 1 shift (excluding Tsukuba Plant No. 2)

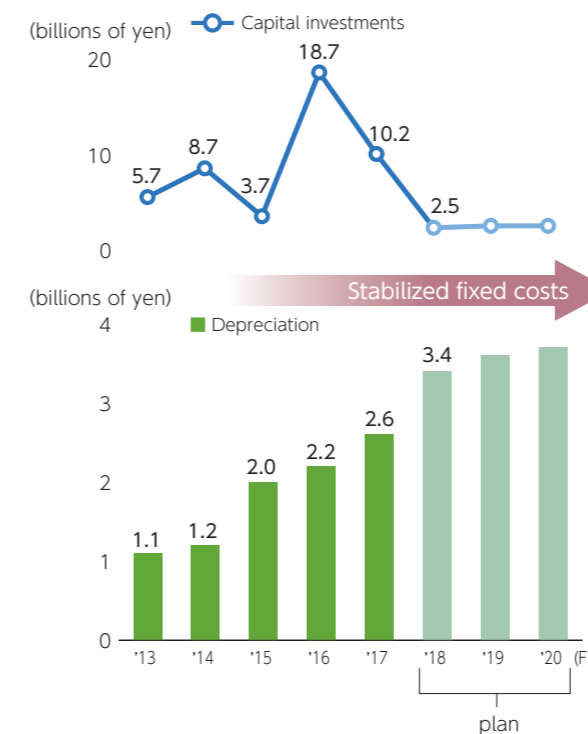
The following are the three main initiatives that lead to improved operating ratio at plants and higher gross margin ratios. First is accepting increased demand and in turn increasing our production volume by ensuring that we are equipped to provide a stable supply of product. This is being done in anticipation of government targets related to the share occupied by generic drugs (80% by the end of September 2020). Second is promoting the in-house production of products whose manufacturing was contracted to outside companies and switching to products manufactured in-house. Third is increasing the number and volume of items produced by increasing the number of contract manufacturing and sales alliance products, both of which were difficult to do in the past. Since Nihon Chouzai is late in entering the market as a generic drug manufacturer, it had few initiatives in the contract manufacturing business and sales alliance business until some years ago. With the completion of Tsukuba Plant No. 2, however, we now have the means to develop these business opportunities, and therefore we plan on expanding the contract manufacturing business and sales alliance business, which we have identified as the new growth drivers of the future.

Improving profitability

⑥ Controlling fixed costs

Fixed costs stabilize as a result of a peak-out in capital investment  
Increased sales and higher gross margin ratios are expected to lead to a V-shaped recovery of operating profit

Cost of capital investments and depreciation costs



Although capital investment costs have remained high over the past five years, this was due to capital investments designed to allow us to meet increased demand for generic drugs and increased demand created by the growing number of Group pharmacies.

Specifically, these capital investments were due to increasing the equipment at Tsukuba Plant S building (Nihon Generic), new construction of the No. 2 Plant at the Headquarters complex, equipment increases at the Kawachi Plant (Choseido Pharmaceutical), construction of and implementation of phase I construction at Tsukuba Plant No. 2 (Nihon Generic). These were all examples of prior investment for the purpose of increasing productivity to the maximum level required to maintain a stable supply of products.

Prior investment will peak-out as of fiscal 2018 onwards. As a result, fixed costs such as depreciation costs, will become stabilized. However, expansion of the generic drug market, increasing numbers of Group pharmacies, and the growing use of generic drugs is expected to lead to a major upswing in sales. In addition, higher gross margin ratios are expected to lead to increased operating profit, but as there will also be increases in costs — such as the increased depreciation associated with the start of operations at Tsukuba Plant No. 2. We anticipate that the effect of increased profit will begin to show up starting in fiscal 2019.

## Quality control initiatives

### Implemented quality objectives for the purpose of stricter quality control

#### Fiscal 2017 Quality Objectives

- 1) **Maintenance of approval documentation that is suited to the manufacturing circumstances**
  - Annual inspection of approval documentation, compliance check via GMP inspections, assessment of the appropriateness of the change of management practices
  - Appropriate implementation of the three roles of manufacturers and marketers, appropriate application of revisions to the Japanese Pharmacopoeia
- 2) **Practical application of quality risk management**
  - Product and manufacturing risk assessment, examination of validation procedures, etc. associated with the change of management, implementation of appropriate risk management practices when selecting new bulk drug and additive manufacturers
- 3) **Improvements to the system of providing information regarding quality to medical institutions and patients**
  - Improving the clarity of information that needs to be provided as well as the procedures for gathering, transmitting, releasing, and managing such information and entering into contracts related to the provision of information about newly adopted products
- 4) **Continuous improvement to keep solid quality system**
  - Increasing awareness of compliance, optimizing the quality system, adopting a GMP operations support system, planning and promotion of QA conferences with Nihon Generic and Choseido Pharmaceutical

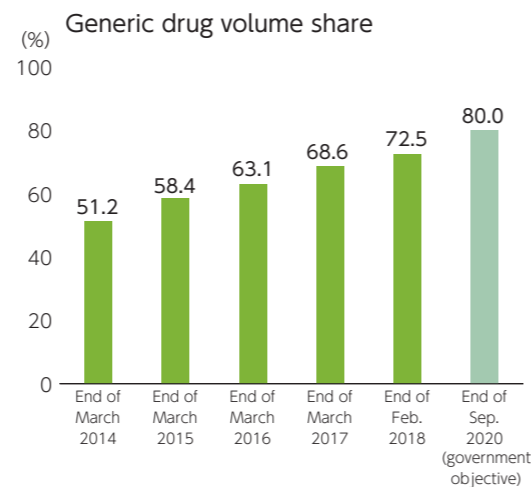
### Perception of the generic drug market environment

#### Factors related to the expansion of the generic drug market

The size of the fiscal 2017 generic drug market is expected to be approximately 1 trillion yen, and it has been calculated that it will expand to approximately 1.2 trillion yen\* in 2021. Around 2020, popular original drugs are to become off-patent drugs, and this is expected to lead to further increases in the generic drug market. It is also expected that the market will increase as a result of the launch of generic versions of other drugs that go off patent.

In addition to these developments, increased use of generic drugs at hospitals, clinics, and pharmacies is another factor that will lead to increasing numbers of generic drugs and increased expansion of the market.

The current volume share of generic drugs reached 72.5% as of the end of February 2018, and it is showing an annual increase of approximately 5% per year. Increased medical costs are expected as the number of elderly individuals in the population increases, and as a result the Ministry of Health, Labour and Welfare raised its objective for the volume share of generic drugs by the end of September 2020 to 80%. The government launched various measures when medical service fee revisions took place in an effort to help meet targets.



\*Prepared by Nihon Chouzai based on the 2018 Generic Drug and Biosimilar Data Book No. 2, Fuji Keizai Marketing Research & Consulting Group

If has been decided that drug prices will be revised annually, the resulting annual reduction in the price of drugs will have a significant impact on drug manufacturers. If drug manufacturers sell their products at greatly reduced wholesale prices as they currently do, the price of drugs will be greatly reduced as a result of government revisions. This will then lead to a situation in which it may be difficult to lower wholesale prices.

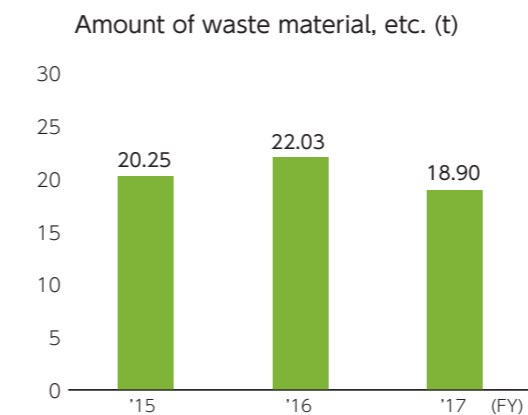
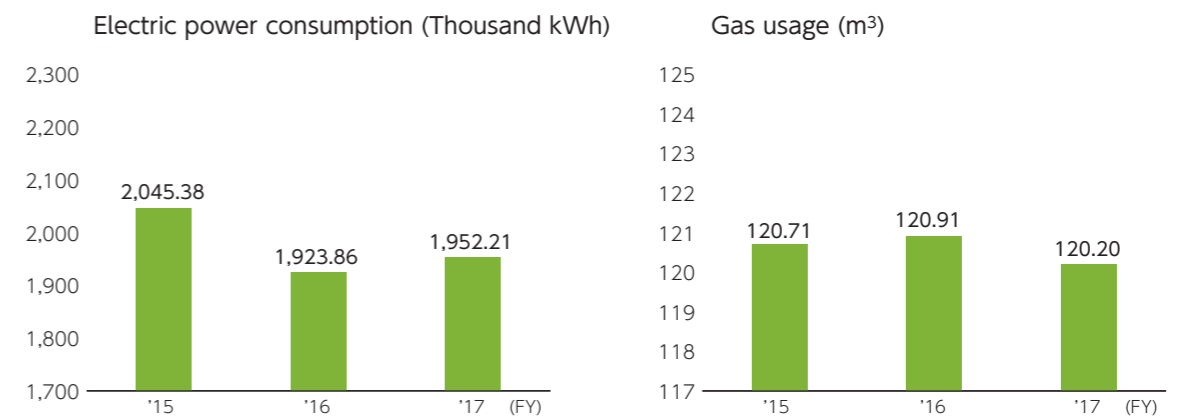
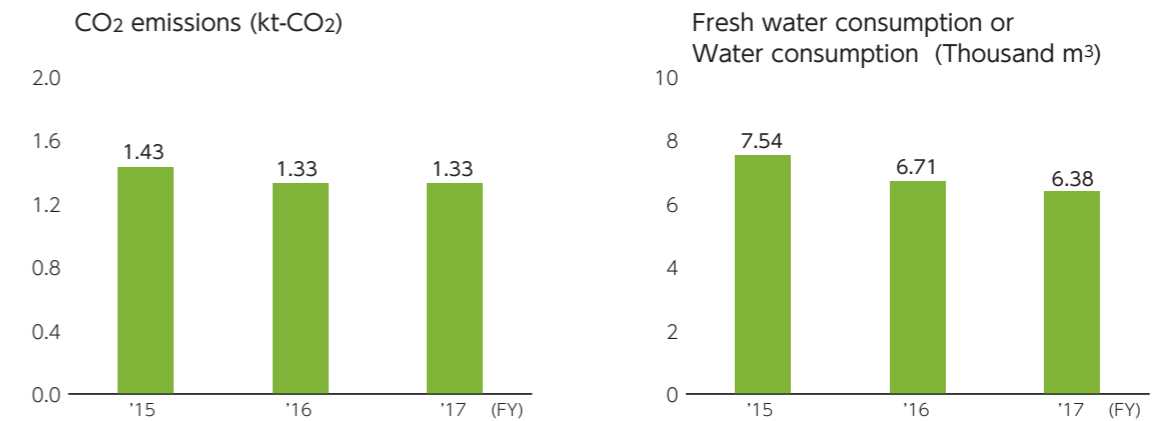
#### Effect of annual drug price revisions

Currently drug prices are revised once every two years, but the Japanese cabinet has approved annual revisions which are scheduled to start in fiscal 2020. At present, there is still debate over whether prices of all drugs will be subject to revision in 2021 or whether there will only be items that have a major gap between the drug price and the supply price. There is also debate over the issue of whether to revise drug prices to reflect the increased consumption tax in the price of drugs if the consumption tax is raised in 2019. Currently, the issue remains unclear.

## ESG initiatives

### Environment

The Pharmaceutical Manufacturing and Sales Business reforms plant buildings it obtains and installs the latest equipment to ensure that CO<sub>2</sub> emissions, fresh water usage, and electrical power usage are kept to a minimum. Newly constructed plants are designed from the planning stage to be environmentally friendly.



■ Conversion using unit consumption for producing 100 million tablets

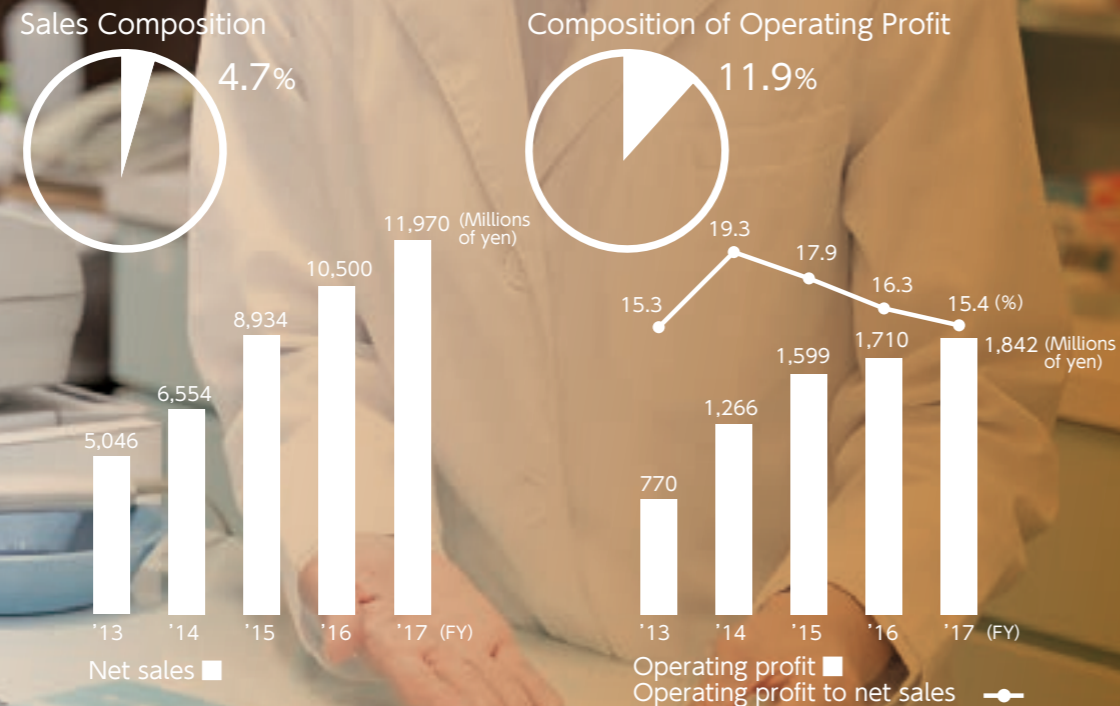
■ Amount of CO<sub>2</sub> & electricity usage  
We were unable to realize the benefits of greater efficiency through increasing production volume due to the fact that there was no production as of fiscal 2015 until new production equipment went into full operation. However, there were slight increases resulting from increased operation ratios achieved at the No. 2 Plant at Headquarters of Chouseido Pharmaceutical.

■ Amount of fresh water and gas usage  
Satisfactory reduction for increases in volume produced

■ Waste disposal  
There was a slight increase in waste during fiscal 2016 due to the fact that there were large numbers of new products manufactured in house. However, the amount of waste produced during fiscal 2017 was less than the level during fiscal 2015. We intend to reduce waste even further in the future.

# Medical Professional Staffing and Placement Business

Staffing and placement centered on pharmacists



**Growth**

Average Growth over a 7-Year Period (Fiscal 2011 - 2017) **24.4%**

The high demand for workers indicates this business will continue to experience high growth. Fields in which the Pharmacist Staffing and Placement Business is mainly involved, including fields involving physicians, nurses, registered pharmaceutical medicine sellers, and other medical professionals, are expanding.

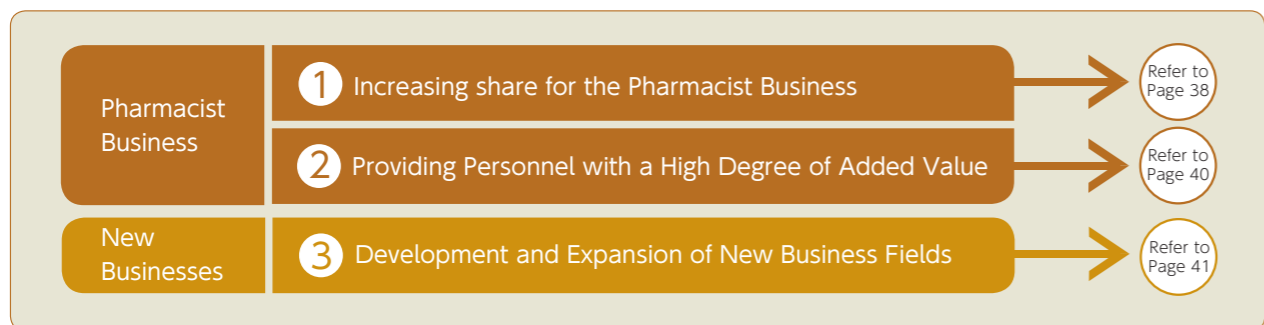
**Profitability**

Operating Margin (Fiscal 2017) **15.4%**

Based on the lack of large-scale investment and the potential for business expansion, we are realizing high profitability. Growth investment to ensure registered dispatched and placed staff members and to expand the Medical Staffing Business continues.

## Long-Term Strategy for 2030

Nihon Chouzai, which has a commanding brand presence in the medical industry, will use its Pharmacist Staffing and Placement Business as a base from which to create synergy with its core business, the Dispensing Pharmacy Business. This effort is designed to ensure expansion and entry into new business fields focused on medical professionals.



## Pharmacist Business

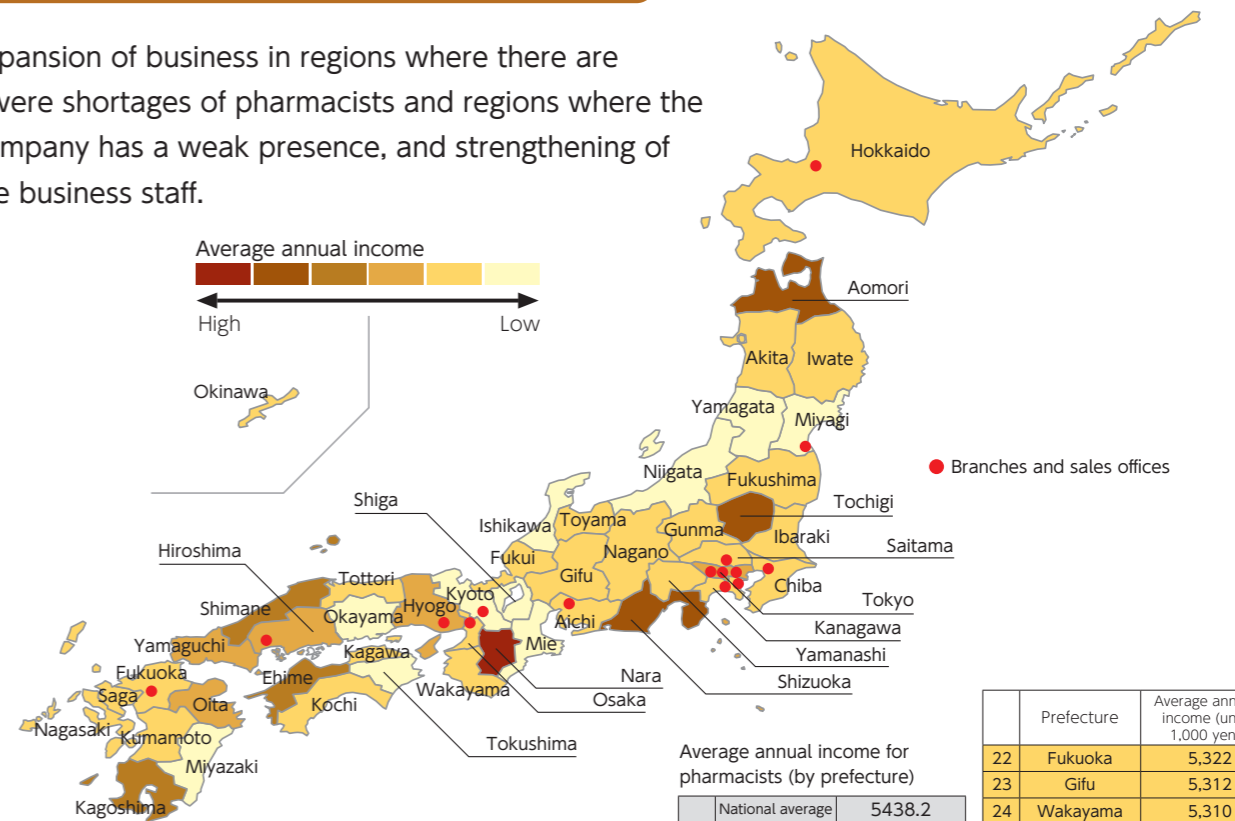
### ① Increasing share for the Pharmacist Business

Putting efforts into expanding the staffing and placement business not only in The Tokyo metropolitan area but also in other regions where there are severe shortages of pharmacists



- > Expansion of Business Offices and Increases in Business Staff: Establishment of new offices and increases in the number of personnel
- > Expansion of Business Areas (expansion in regions other than the Tokyo metropolitan area): Expansion in areas with high-salary, high recruitment demand
- > Expansion and Strengthening of the Placement Business: Demand has shifted from temporary staffing to permanent placements as a result of the dispensing fee revisions

Expansion of business in regions where there are severe shortages of pharmacists and regions where the company has a weak presence, and strengthening of the business staff.



As of December 31, 2016, there are 301,323\* registered pharmacists throughout Japan, which is a 4.6% increase over the previous survey (2014). Compared to the previous figure of 181.3 pharmacists working at pharmacies and medical facilities per 100,000 people, this is an increase of 11.3 pharmacists. However, there are significant differences from region to region, and the number of pharmacists in regions other than the Tokyo metropolitan area is far lower than the national average.

Nevertheless, the average annual income of pharmacists tends to be higher in regions other than the Tokyo metropolitan area. The top three prefectures in terms of income are Nara, Shizuoka, and Aomori prefectures. The Tokyo metropolitan area, including Tokyo and Kanagawa Prefecture, rank below 10.

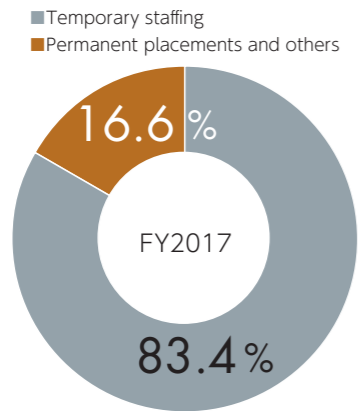
\* Compiled by Nihon Chouzai based on Survey of Physicians, Dentists and Pharmacists 2016 conducted by the Ministry of Health, Labour and Welfare

\* Compiled by Nihon Chouzai based on Basic Survey on Wage Structure 2017 conducted by the Ministry of Health, Labour and Welfare.

Demand has shifted from the temporary staffing of pharmacists to the permanent placement of pharmacists as a result of the dispensing fee revision  
Expansion and strengthening of the Placement Business in accordance with changes in demand.

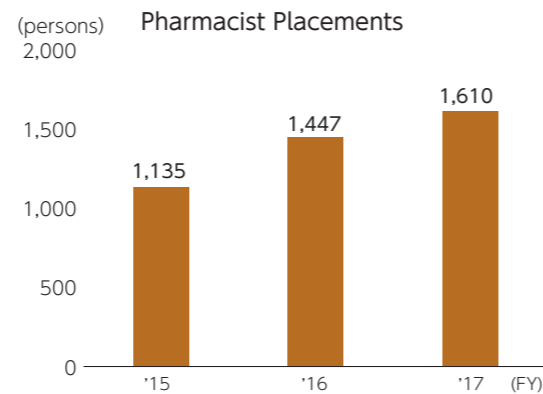
**Sales Ratio of Staffing and Placement of Pharmacists**

Since the announcement of the Vision of Pharmacies for Patients in October 2015, demand for the placement of pharmacists has undergone rapid increases. In accordance with this development, we have begun an anticipatory initiative in our Placement Business.



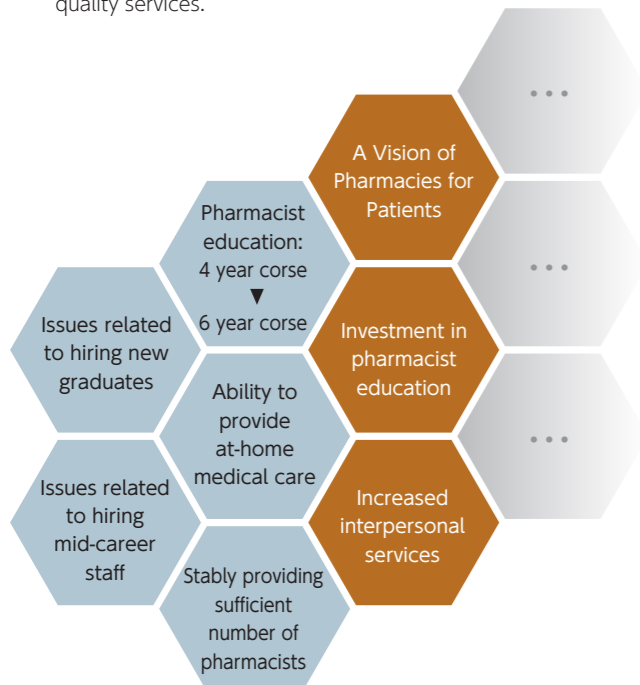
**Number of Pharmacists Placed**

The number of pharmacists placed is steadily increasing, and we are able to adjust to changes in personnel requirements. In addition to continuing stability in the Staffing Business, which is a core business, we are also expanding our pharmacist placement business, which has high profitability and growth potential.



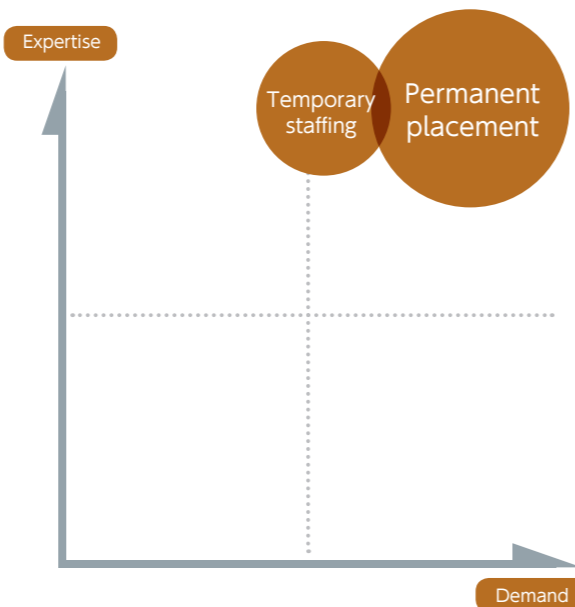
**Issues in the Pharmacy Industry**

Small- and medium-sized pharmacy chains and individual pharmacies account for approximately 90% of the prescription dispensing pharmacy industry, which currently faces the issue of hiring a sufficient number of pharmacists. As realization of the Vision of Pharmacies for Patients requires increased interpersonal relations skills of pharmacists, there is an increasing demand for pharmacists who can provide higher quality services.



**Changes in Personnel Demand**

As the requirements for family pharmacists include prior experience working at applicable pharmacies, the demand for pharmacists is shifting from temporary staffed pharmacists to permanent placed pharmacists. There is also increasing demand for professional expertise, as indicated by, for example, having undergone necessary training and having obtained the required certification as a family pharmacist.



**Pharmacist Business ② Providing Personnel with a High Degree of Added Value**

Nihon Chouzai conducts high-quality pharmacist training through its education system in order to ensure that it provides personnel with a high degree of added value.

**Synergy with the Dispensing Pharmacy Business**

**> Taking Maximum Advantage of the Popularity of Nihon Chouzai**

**The Reliability and Track Record of the Staffing and Placement Business**

Maximizing Nihon Chouzai name recognition cultivated over 40 years in the Dispensing Pharmacy Business, our Pharmacist Business has grown to become one of the leaders in the field of staffing and placing of pharmacists. We are also working to improve matching quality through the use of highly detailed face-to-face counseling.

As a result of the reliability and track record we have built up over the years, we have been awarded both the Excellent Temporary Staffing Agency and the Excellent Job Placement Agency certifications. Only about 1% of all staffing and placement businesses in Japan are able to obtain both certifications, and with both, we have been able to establish a high-quality staffing and placement business.



**> Taking Advantage of the High-Quality Education System Created by the Dispensing Pharmacy Business**

**Development of JP Learning**

As a result of the increases in the comprehensive regional medical service fees and the family pharmacists guidance fee that were part of the 2018 medical service fee revisions, demand has rapidly increased for pharmacists who are able to serve as members of an integrated community care team. The Medical Professional Staffing and Placement Business has developed JP Learning, which is a high-quality, highly efficient education program for pharmacists that was established through our Dispensing Pharmacy Business. Providing this education system to all our registered pharmacists ensures that we are able to provide the highest quality pharmacists.

JP Learning is an e-learning tool that has been designed by education specialists at Nihon Chouzai to ensure that its contents are directly related to a pharmacist's daily tasks. It allows pharmacists who are training to receive certification to obtain the credits they need to become family pharmacists.



**> App that Supports Pharmacists in their Work**

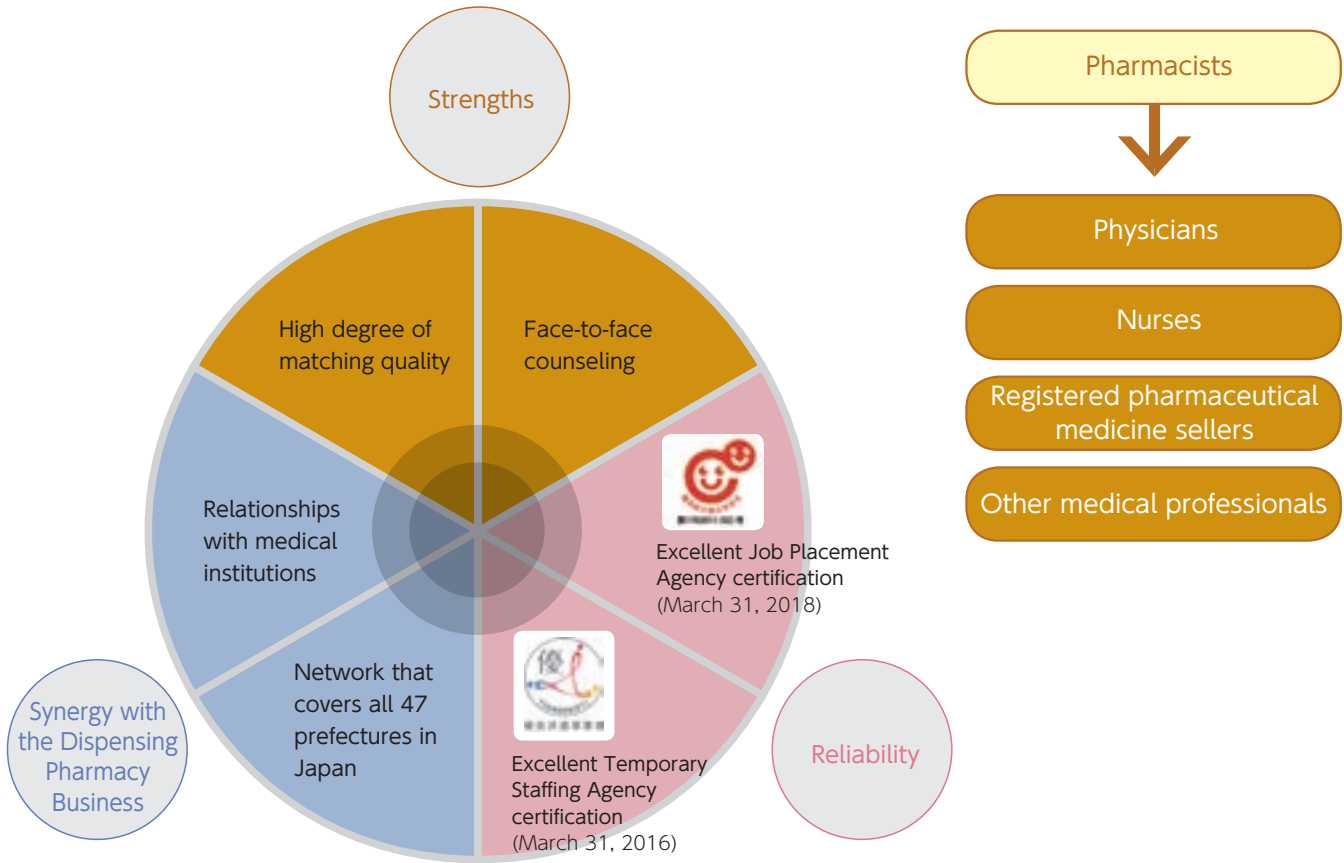
**"Yaku-Tore" – Smartphone Training Application for Health Insurance Dispensing**

Previously the Medical Professional Staffing and Placement Business created an original prescription dispensing textbook that was supervised by Nihon Chouzai and which contained easy-to-understand explanations of dispensing fees and various additional costs, administration guidance, and management of patient medication records. However, in February 2018, we released a smartphone application version of this text to make it even more convenient and easy to use. It contains an abundance of contents that are designed to help support pharmacists in their work, including dealing with dispensing fee revisions.



Expanding Business by Using Our Strengths

Expansion of Jobs



Prior Investment for the Expansion of the Physician Placement Business

Moving into the Registered Pharmaceutical Medicines Sales Business

Improving our Business Centers	Increasing our Business Staff
Added new business centers in Sapporo, Nagoya, Osaka, Fukuoka	Assigning business personnel who are experts in the Physician Placement Business

**Taking Advantage of Contact with Drugstores**  
 This business will be developed by taking advantage of contact between the top five drugstore companies and our Medical Professional Staffing and Placement Business as well as the know-how we have gained through our Pharmacist Business

**Fiscal 2017: Rapid increase in year-on-year sales of over fourfold**

Figures for the number of physicians per 100,000 people\*1 vary greatly from region to region, as they do for pharmacists. The shortage of physicians in regions outside Tokyo and other metropolitan areas remains a serious problem. We will be formally starting initiatives related to the Physician Placement Business in order to contribute to a solution to the problem of regional differences in the number of physicians.

In 2017 the number of Registered Pharmaceutical Medicine Sellers, a designation that was newly established by the 2006 revision to the Pharmaceutical and Medical Device Act, exceeded an aggregate total of 200,000 people\*2 who had received certification. Demand for registered pharmaceutical medicine sellers, who can sell almost all common pharmaceutical products, is likely to increase not only at drugstores but also at convenience stores and home appliance stores.

\*1 Ministry of Health, Labour and Welfare Overview of Physicians, Dentists and Pharmacists 2016  
 \*2 Ministry of Health, Labour and Welfare "On Status of Registered Pharmaceutical Medical Seller Examinations to Date"