2017

Environment, Society and Governance Report

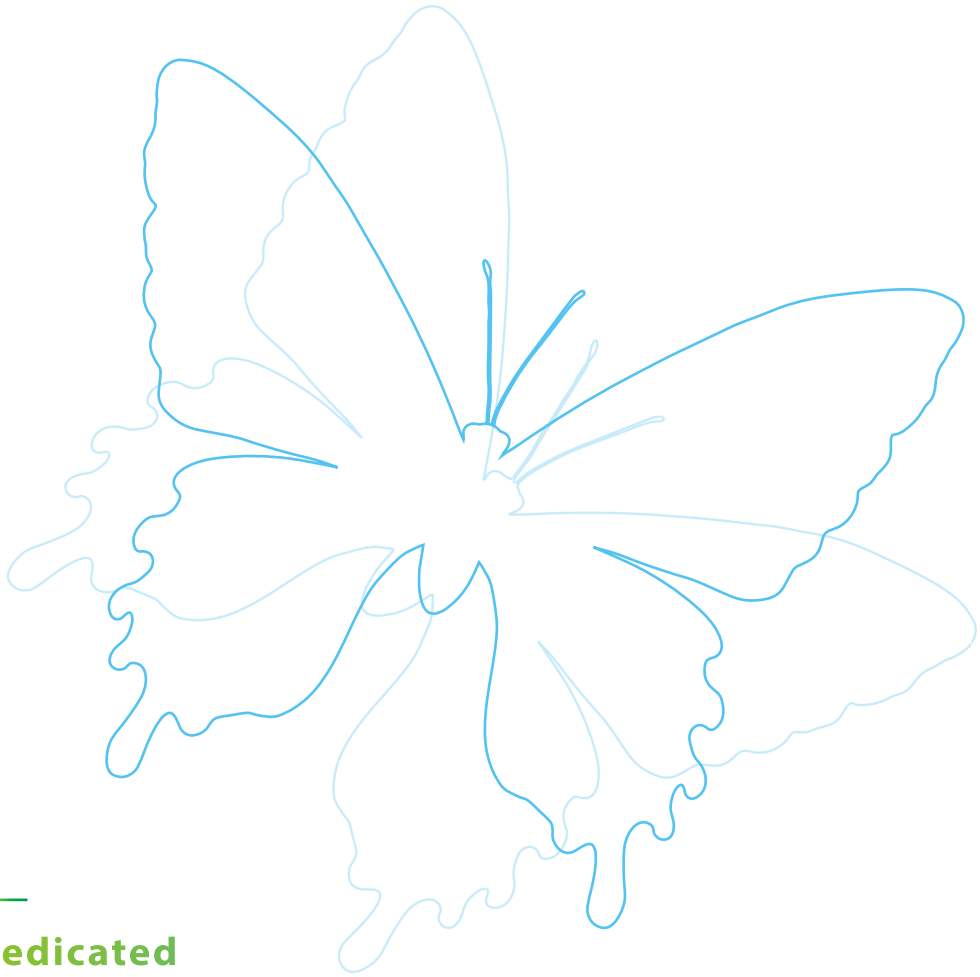
上海医药集团股份有限公司
Shanghai Pharmaceuticals Holding Co., Ltd. *
(A joint stock company incorporated in the People's Republic of China with limited liability)

(Stock Code: 02607)

Definitions

In this report, unless the context otherwise requires, the following terms shall have the following meanings:

"Shanghai Pharmaceutical Group", "Shanghai Pharmaceuticals Holding", "Shanghai Pharmaceuticals", "the Company"or "We"	Shanghai Pharmaceuticals Holding Co., Ltd
Shaphar	Shanghai Pharmaceutical Co., Ltd.
SPH Keyuan	SPH Keyuan Xinhai Pharmaceutical Co., Ltd.
SPH Sine	Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd.
SPH No. 1 Biochemical and Pharmaceutical	Shanghai SPH No. 1 Biochemical and Pharmaceutical Co., Ltd.
SPH New Asiatic	Shanghai SPH New Asiatic Pharmaceutical Co., Ltd.
SPH Traditional Chinese Medicine	Shanghai Traditional Chinese Medicine Co., Ltd.
Chiatai Qingchunbao Pharmaceutical	Chiatai Qingchunbao Pharmaceutical Co., Ltd.
SPH Changzhou Pharmaceutical	SPH Changzhou Pharmaceutical Co., Ltd.
SPH Zhongxi Sunve	Shanghai Zhongxi Sunve Pharmaceutical Co., Ltd.
SPH Growful	SPH Qingdao Growful pharmaceutical Co., Ltd.
SPH Research Institute	Central Research Institute of Shanghai Pharmaceuticals Holding Co., Ltd.
SPH Xiamen Traditional Chinese Medicine	Xiamen Traditional Chinese Medicine Co., Ltd.
Huqingyutang Pharmaceutical	Hangzhou Huqingyutang Pharmaceutical Co., Ltd.
SPH Herbapex	Liaoning SPH Herbapex Pharmaceutical (Group) Co., Ltd.
SPH Zhonghua	Shanghai Zhonghua Pharmaceutical Co., Ltd.
SPH Medical Instruments	Shanghai Medical Instruments Co., Ltd.
SPH Material Supply and Marketing	Shanghai Pharmaceutical Material Supply and Marketing Co., Ltd.
SPH Dong Ying	SPH Dong Ying (Jiangsu) Pharmaceutical Co., Ltd.
SPH Sales	Shanghai Pharmaceutical Group Pharma Sales Co., Ltd.
A shares	domestic shares of the Company, which are listed on the Shanghai Stock Exchange and traded in RMB
H shares	overseas shares of the Company, which are listed on the Hong Kong Stock Exchange and traded in Hong Kong dollars
Renminbi	Renminbi, the lawful currency of the PRC



Dedicated
to Uplifting People's Healthy Living Qualities

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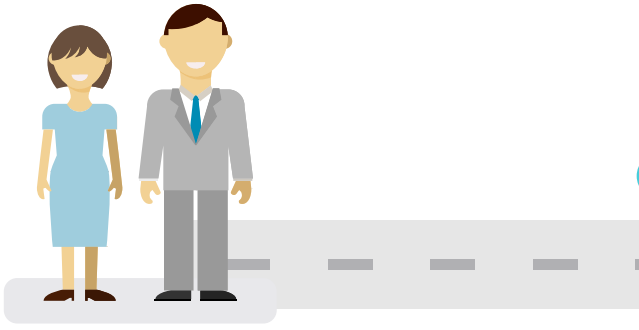


CHAPTER 7

Positive solutions to assist resolving social problems

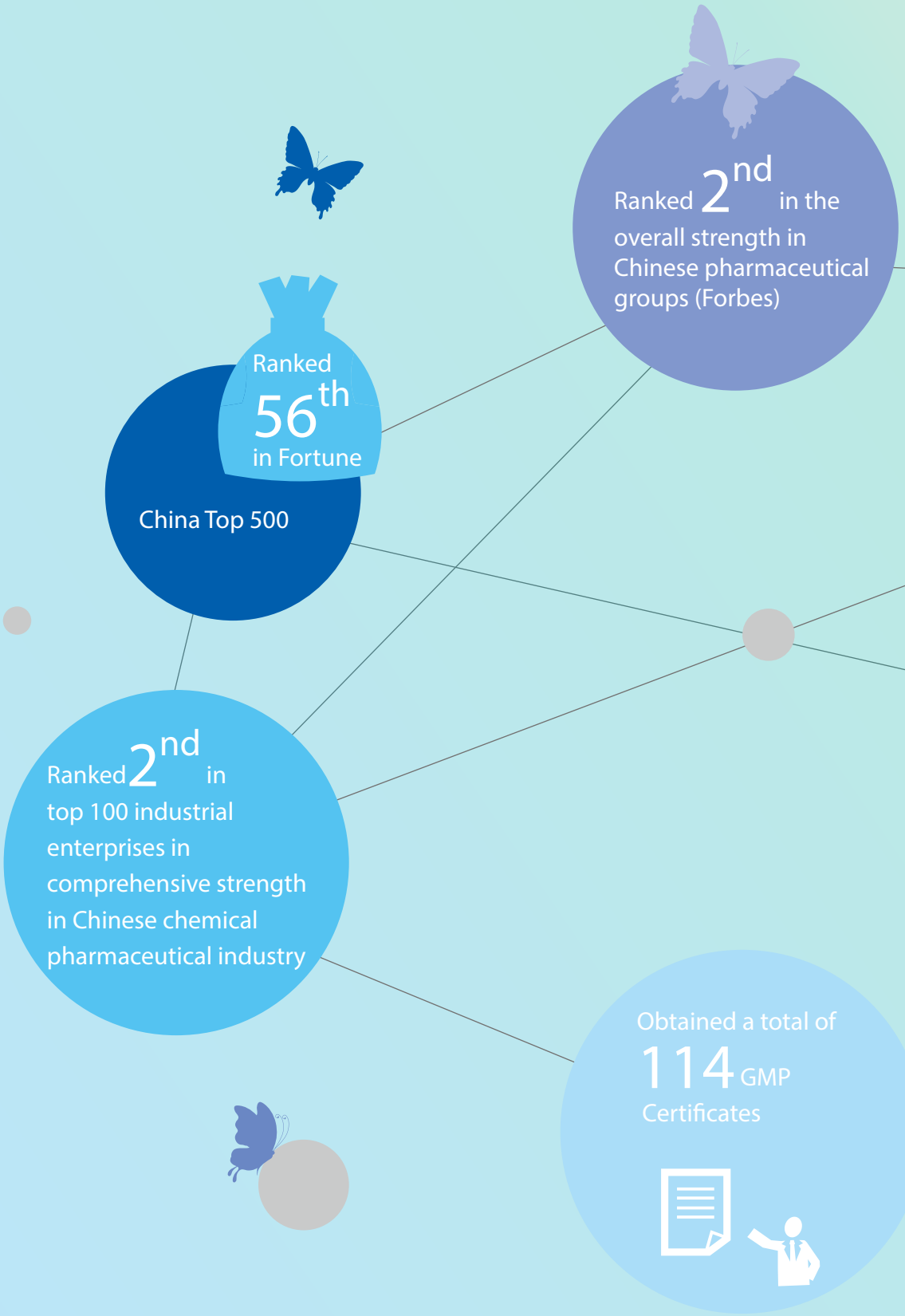
CHAPTER 8

Create overall value based on responsible operation

CHAPTER 9

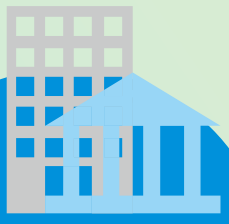
Our responsibility, our promise (2017)

2017


Ranked 2nd in the overall strength in Chinese pharmaceutical groups (Forbes)
Ranked 56th in Fortune China Top 500
Ranked 2nd in top 100 industrial enterprises in comprehensive strength in Chinese chemical pharmaceutical industry
Obtained a total of 114 GMP Certificates

Commercial network directly covers 24 provinces, municipalities and autonomous regions, serving over 20 thousands of medical institutions, over 220 hospitals providing pharmacy trusteeship service

Top 20
Industrial Enterprises with Drug R&D Product Line in China in 2016



Applying or obtained a total of 192 authorized patents

Ranked 45th in top 500 enterprises of China's manufacturing industry

Rise by 6 positions from its ranking in 2016

Chapter 1
About this report

Standards for preparation

This report makes reference to the Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI), "Notice on Strengthening the Social Responsibility Commitment of Listed Companies and Releasing the "Guidelines on Environmental Information Disclosure of Companies Listed in Shanghai Stock Exchange" "promulgated by the Shanghai Stock Exchange, the "Guidelines for Preparation of Corporate Social Responsibility Reporting" and the "Environmental, Social and Governance Reporting Guide", as set out in Appendix 27 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited, and its main amendments.

Scope

The duration of this report is from 1 January 2017 to 31 December 2017. Unless otherwise stated, the data and cases mentioned in this report are derived from Shanghai Pharmaceuticals Holding Co., Ltd. and its subsidiaries.

Content selection

This report makes reference to the principles of GRI's substance, sustainable background, stakeholders' engagement and integrity, and fully takes into account the Company's development strategy and business development initiatives.

Contact us

Tel: 86-21-63730908
Email: sph-csr@sphchina.com

Indicator selection

This report takes into consideration the relevance, substance and availability of all specific indicators related to performance disclosure of key issues. We will continue to adjust and optimize the disclosure indicators in future reports.

Form of promulgation

This report is published online. The online version can be downloaded from the Shanghai Stock Exchange website (www.sse.com.cn) and the Company website (www.sphchina.com).
For further information on the Company's business, please refer to the 2017 annual report of Shanghai Pharmaceuticals.

Chapter 2
Message from the Chairman

Embracing social responsibility through innovation in pursuit of a "Healthy China"

In 2017, the operating revenue of Shanghai Pharmaceuticals was RMB130.847 billion, representing a YOY increase of 8.35%; net profit attributable to the equity holders of the listed company was RMB3.521 billion, representing a YOY increase of 10.14%. The Company ranked No. 56 on Fortune China 500. These pleasing achievements demonstrate our industry position, responsiveness to change and our competitiveness, enabling us to see our own continued growth and new prospects ahead. On the other hand, these achievements remind us of our social responsibility. As the saying goes, with greater power comes greater responsibility, our business success only serves to drive ourselves towards better fulfilling our social responsibility and contributing to a "Healthy China".

The "Healthy China" vision looks at securing good health for the populace, reflecting the foremost social responsibility to which we are committed as a pharmaceutical company. All our businesses serve the sole purpose of enhancing people's health and quality of life. Specifically, we seek to achieve this purpose by consistently making sure that our pharmaceutical products are "high quality, affordable and user-friendly".

To that end, we have developed an innovative R&D system by integrating deeply our production, learning, clinical practice, research and sales operations. It was a fruitful year as we brought hope for health to more patients.

As part of our continued efforts, Phase 1 of the base for pilot research and industrialized production under Shanghai Pharmaceutical Group (Benxi) Northern Pharma Co., Ltd. was officially completed. As a technological innovation system combining production, learning and research, it plays a pivotal role in promoting the commercialization of technological results.

With the international boom in probiotics research, we established the Microecological Joint Research Center with Ruijin Hospital in Shanghai. We work together to develop microecological preparations for treating metabolic diseases, promoting the integration of enterprise-level technology innovation into the pharmaceutical industry, and the rapid transformation of innovative results.

On secondary development of confidential TCM varieties, our joint program with eight hospitals and institutions in Shanghai has won support from the "Technology Innovation Action Plan", an initiative in the field of biological medicine that brings together production, learning, clinical practice and research. Remarkable partial results have been achieved across all research topics.

The clinical research topic we have undertaken together with 10 hospitals in Shanghai, with a focus on strategic key products in surgical anaesthetics, was also selected for Shanghai's "Technology Innovation Action Plan" as a project that combines production, learning, clinical practice and research operations in biological medicine. This achievement marks our further success in integrating medical research into the pharmaceutical industry.

In the consistency evaluation of generic drugs, we have also been making progress, having conducted consistency evaluation for 97 approved projects.

In addition to our own innovation drive, Shanghai Pharmaceuticals proactively takes on the responsibility to drive the innovative development of the pharmaceutical industry. As the Director Unit of the Innovation Committee of China Chemical & Pharmaceutical Industry Association, Shanghai Pharmaceuticals launched the "2017 Summit on Innovation Development in Healthcare Industry & Finance" , exploring the integration and symbiosis of research, production and financing to pave the way for pharmaceutical industry towards innovative development.

When it comes to drug quality, we are committed to quality assurance and strengthening quality inspection, implementing Six Sigma management and driving production integration, while continuing to innovate and make important progress in the area of "smart manufacturing". The launch of the Laboratory Information Management System (LIMS) has significantly improved quality control and management to ensure consistent and stable drug quality and safety. On the other hand, in the planting bases in Ningxia, Yunnan and Hunan that capitalize on Chinese herb resources, we have successfully developed a comprehensive quality traceability system covering planting, production and sales as part of our continued efforts to provide more reliable medicine.

As for drug circulation, our innovative commercial and business models have continued to improve the accessibility of our drugs and communicate our "pride in service" to tens of thousands of families.

During the period under review, Shanghai Pharmaceuticals acquired "Cardinal Health China", a wholly-owned subsidiary of Cardinal Health, Inc. With complementary strengths, we are

working together to expand into the global pharmaceuticals and medical equipment industry and create an innovative medical treatment and medicine business model to better serve patients and consumers.

Innovative projects such as "Yiyaoquan, extended prescription" safeguard the integrated reform of community health to benefit a great number of chronic disease patients and elderly patients.

A closer relationship between drug producers and retailers has helped quality Traditional Chinese Medicine to provide health benefits for domestic consumers.

Although special needs groups and patients suffering from rare diseases are in the minority, they are also part of the "Healthy China" vision. We have been working, and take pride in our practice, to ensure the normal supply of low-cost drugs in demand and orphan drugs to cater to the special needs groups and patients suffering from rare diseases.

To improve the healthcare situation in rural areas in provinces such as Yunnan and Guizhou, we launched the "Shanghai Medical Care Guardian Plan", a pioneering project that brings together the construction of rural health clinics, training of rural doctors and the subsidization of patients suffering from rare diseases (in the case of Yunnan, children suffering from congenital heart disease) as a public health solution well-attuned to local needs. We will continue to work and bring these remote areas into the fold of "Healthy China".

"Healthy China" is about not just human health, but also environmental health. In addition to providing drugs to meet health needs, Shanghai Pharmaceuticals is actively engaged in environmental management to help create a sustainable green environment. Through greater investment in environmental protection and energy management, the Group has continued to enhance the capability of its subsidiaries in handling wastewater, emissions and dust, constantly reaching water conservation and coal-saving targets. For our Chinese herbal medicine planting bases, emphasis is placed on environment assessment and protection, with the concept of organic environmental care integrated into the planning and production processes. We seek to develop symbiosis and to thrive and develop with the environment. Unsustainable practices are never an option.

Shanghai Pharmaceuticals has made some progress on the journey towards a "Healthy China". However, there is still a long way to go to address the wide gaps in healthcare needs and the demand for environmental care. Shanghai Pharmaceuticals will rise to the challenge by committing to innovative development. As we strive to become a Fortune Global 500 Company, we will remain mindful of our social responsibility and public well-being and achieve healthy development together with society at large!

Chairman of Shanghai Pharmaceuticals Holding Co., Ltd.:

Chapter 3
Overview of the Company

The main businesses of Shanghai Pharmaceuticals cover pharmaceutical industry, pharmaceutical distribution and services, pharmaceutical retail and e-commerce. Through continuous focus on the core resources of the industrial chain, simultaneous development of endogenous development and extension, the Company holds a leading industry position in the domestic pharmaceutical industry.

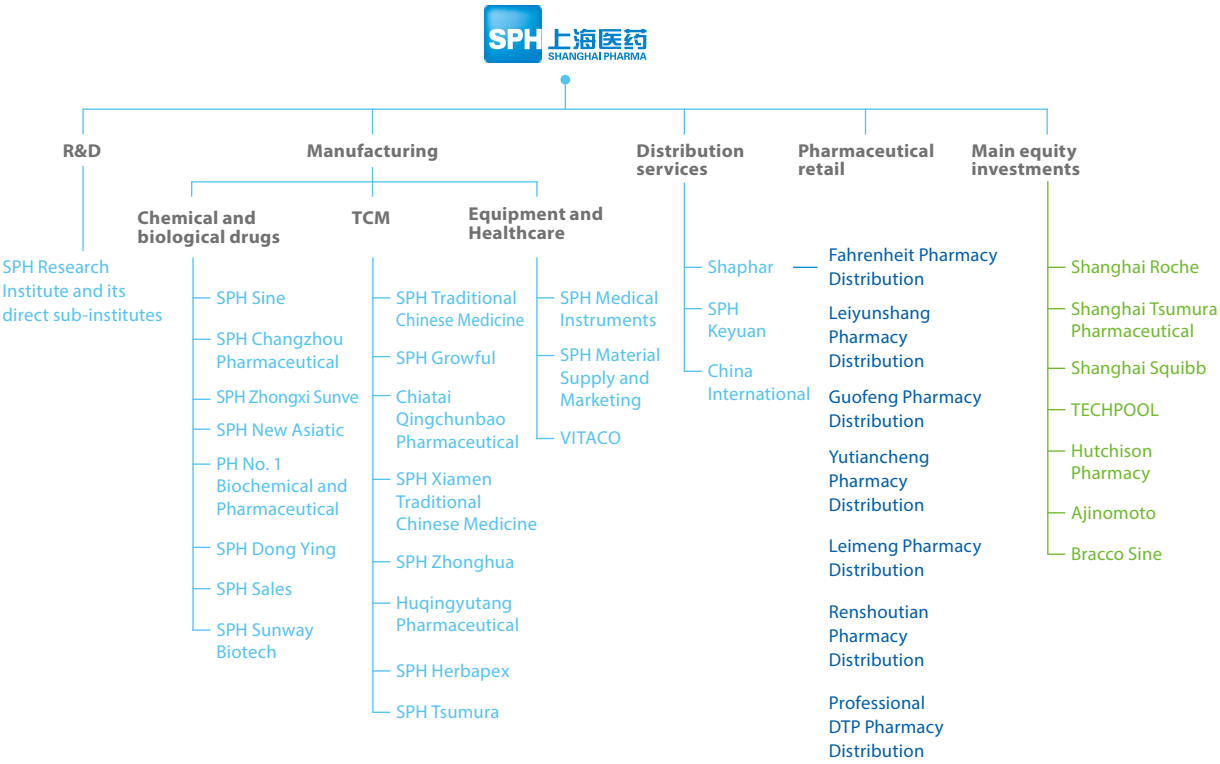
The Company's R&D work is guided by clinical needs, and biological products are developed in synergy with chemical drugs and traditional Chinese medicine. Our main focus is on innovative drugs in tumor, immune and cardiovascular fields, as well as key generic drugs in the fields of angiocarpy, digestive system, psychiatry and neurology, antineoplastic, anti-rheumatism and diabetes; at the same time, we actively carry out consistency evaluation of generic medicines, new drug research of traditional Chinese medicine and the secondary development of key products on the market; produce chemical and biological drugs, modern Chinese medicine and health care products, medical equipment and more; our distribution network directly covers 24 provinces, municipalities and autonomous regions in China, serving more than 20,000 medical institutions, and we continue to expand the terminal service network, especially grassroots community medical institutions. We innovate supply chain solutions, and are committed to becoming a modern, efficient, agile, intelligent supply chain service provider and solution provider.

In 2017, with the stable growth of macro economy in the PRC and continued advances made in structural reform of the supply side of the medical health industry, the operation of China's medical drug market showed signs of entering a new era. In the past year, the deepening reform of "linkage among medical treatment, medical insurance and pharmacy" continued and several important policies were implemented. Policies with particularly significance and prolonged impact include: announcement of the reform of the review and approval system, the encouragement toward more fleshed out innovation policies regarding medicine and medical equipment, the launch of supporting policies regarding quality and effecacy consistency evaluation for generic drugs, the Pilot Scheme for Market for Drug Marketing Authorization Holder (MAH) System, the comprehensive implementation of the "two-invoice system", the deepening of the reformation of public hospitals, the adjustment of the Directory of insured drugs and the launch of multi-type cost control models. In general, the industry policies are in a direction towards innovation, compliance, quality and cost-effectiveness, requiring enhanced corporate operation. It is expected that the domestic pharmaceuticals market will continue to be one of the most attractive markets in the world. The industry will become more internationally-competitive, demanding upgrades and further centralizing through high-quality development. Corproates face opportunities and challenges alike in the development.

Looking back on 2017, surrounding the strategic planning of "Three three three plus one" and the trend of the changes in the industry, Shanghai Pharmaceuticals launched the general working policy of "Complying with the changes in the industry, accelerating transformation and development and ensuring leading industrial position". Under the leadership of the Board and the management team, all staff carried out the strategy of R&D innovation, service innovation, network extension, extension merger and international development, yielding significant results in a phased manner. The operating results achieved stable growth and profitability, innovative impetus, operating efficiency and our status in the industry continued to rise.

In the new development period, the Company will proactively seize the national strategic opportunities, follow the policy and innovative trend of the industry, speed up on the promotion of intensive development, innovation development, international development and combination with production to maintain the leading position in the pharmaceutical industry in China and strive to rank in the top 500 enterprises in the world. The Company is fully committed to transforming itself into an integrated pharmaceutical group with international competitiveness.

Taking advantages of the unique combination of industrial chains, aggregate core resources to strive to provide a series of more convenient solutions for medical institutions, patients, suppliers, etc.



- SPH main business sectors
- SPH direct subsidiaries (23)
- Main brands of retail pharmacy distribution
- Main equity investments (7)

Our overall strength continues to lead in domestic pharmaceutical industry

During the reporting period, the Company's operating income was RMB130.847 billion, up by 8.35% on a YOY basis. Net profit attributable to the equity holders of the listed company was RMB3.521 billion, representing an increase of 10.14% on a YOY basis. As at 31 December 2017, the equity attributable to owners of the Company was RMB39.676 billion and its total assets were RMB94.344 billion.

Awards and accolades

> Ranking 995th in 2017 Global 2000 by Forbes (Chinese Edition)
> Ranking 56th in 2017 Top 500 Enterprises of China by Fortune (Chinese Edition)
> Ranking 3rd in 2017 Most Admired Chinese Pharmaceutical Companies by Fortune (Chinese Edition)
> Global Nifty 50 for stocks with the greatest potential for growth by Goldman Sachs Portfolio Strategy Research
> Ranking first in 2017 Top 500 Asia brands (pharmaceutical Industry) sponsored by Asiabrand.cn, China-Asia Economic Development Association under the Ministry of Foreign Affairs, Hong Kong Takung Wenwei Media Group, International Business Daily under the Ministry of Commerce
> China Business Top 100, China Star Enterprise Award by CBT100
> Top 100 Chinese Listed Companies Brand Value in 2017 by the China Buiness Research Centre of Tsing Hua Universityand National Business Daily
> Ranking 6th in 2016 Top 100 Chinese Enterprise (pharmaceutical industry) and Top 20 Industrial Enterprises with Drug R&D Product Line in China in 2017 by China National Pharmaceutical Industry Information Centre under the Ministry of Industry and Information Technology
> Ranking 134th in top 500 Chinese enterprises of 2017 and 45th in top 500 enterprises in Chinese manufacturing industry in 2017 by China Enterprise Confederation / China Enterprise Directors Association
> Ranking 3rd in top 100 in Chinese pharmacy industry in 2016 by Medicine Economic Newspaper
> Ranking 3rd in top 10 enterprise groups in Chinese pharmaceutical industry in 2017, 2nd in in top 100 industrial enterprises in comprehensive strength in Chinese chemical pharmaceutical industry, 13th in Oustanding Brands in Chinese Chemical Pharmaceutical Industry (Export of Medicine), 10th in Oustanding Brands in Chinese Chemical Pharmaceutical Industry (Export of Active Pharmaceutical Ingredients) by China Chemical & Pharmaceutical Industry Association, China Association of Pharmaceutical Commerce, China Nonprescription Medicines Association and China Pharmaceutical Enterprises Development Promote Association
> Top 10 2017 Chinese Listed Pharmaceutical Companies with Highest Innovative Strength by Healthcare Executive
> 2017 Top 50 in medicine R&D strength in China, Top 20 enterprises in chemical R&D strength in China, Top 20 in comprehensive medicine R&D strength in China by www.yaozh.com, Organizing Committee of China Medicine R&D Innovation Summit, China-Pharmacy
> China Business Top 100, China Star Enterprise Award by CBT100
> Ranking 15th in top 100 Shanghai enterprises of 2017, 7th in top 100 enterprises in Shanghai manufacturing industry in 2017 by Shanghai Enterprise Confederation, Shanghai Entrepreneur Association and Shanghai Federation of Economic Organizations
> 2017 Top 100 Bund Ranking of the Most Valuable Chinese Brands by School of Management of Fudan University and Shanghai Institute of Corporate Culture & Brand
> 2014-2016 Shanghai Counterpart Support and Cooperative Communication Advanced Group by CCP Shanghai Cooperative Communication Committee, the Cooperative Communication Office of the Shanghai Municipal People's Government and the Shanghai Human Resources and Social Security Bureau
> Letter of Thanks (for Shigatse Health Poverty Alleviation Project and supporting the construction of Shanghai Medical Library of People's Hospital) from Shanghai Youth Volunteer Association, the Communist Youth League of Shanghai Municipal Commission of Health and Family Planning, the Communist Youth League of Shanghai Cooperative Communication Committee, Shigatse People's Hospital
> Promotion of public healthy life – breaking the Guinness world record of barefoot running with the most participants

Chapter 4
Strategy and Analysis

Mission

- Perseverance, committed to enhancing people's healthy living quality

Vision

- Become a respectful manufacturer with leading brand medicine and a service provider in healthcare field with industry reputation

Core values

- Innovation, integrity, cooperation, tolerance, responsibility

4.1 Responsibility Management System

	Management responsibilities	Management structure
Strategy	Formulation and improvement of corporate social responsibility strategy	Strategy Committee Strategic Operations Department
Management and practice	To be in line with the business of the Company, our corporate social responsibility practice includes but not limited to: R&D innovation, lean manufacturing , promotion of access to medicines and services, meeting the medication needs of special groups, providing solutions to resolve social problems, accountable operations, etc. (please refer to relevant sections)	Horizontal: functional responsibility system Vertical: line management system
Communication	Capital market / responsibility brand communication in doctor- patient market Communication with other stakeholders (please refer to relevant sections below)	Board of Directors' Office / Office Stakeholder Communication Department

4.2 Stakeholders and Communication Channels

Stakeholders	Stakeholders' concerns	Our communication channels
Shareholders	Performance Governance Compliance	Open information disclosure Shareholders' general meeting, investor performance conference, roadshow / reverse roadshow, etc. Investor relations hotline, E interaction, etc.
Clients	Safety / quality Service Price	After-sales service, research on level of satisfaction Academic seminar Rational drug use and popularization Brand communication
Employees	Power enhancement Personal development Protection of rights and interests	Performance management communication Training Workers' congress WeChat, Weibo, BBS, intranet, internal publication
Partners	Supply chain management Cooperation to achieve win - win situation	Industry communication Training Business exchange platform Cooperative assessment
Community and environment	Solutions to resolve social problems Environmental protection	Friendly activities Responsible operation

4.3 Substantive Analysis of Key Responsibility

Step 1

Benchmark international standard (GRI), sort out information disclosure

Step 2

Determine the issues at preliminary stage according to the level of importance

Step 3

Take into account stakeholders' concerns, carry out substantive analysis and sorting of issues

Our concerns

Drug safety, product / service accessibility, market behavior, staff development, corporate value, corporate governance, business ethics, friendly activities, environmental protection

Stakeholders' concerns

Drug safety, product / service accessibility, friendly activities, corporate value, business ethics, corporate governance, environmental protection, market behavior, staff development

Key responsibility issues

Solutions to resolve social problems

Friendly activities

.....

Public health

Take medicine of high quality, make medicine affordable, take medicine with ease (R&D innovation, product quality, production cost, network construction, etc.)

Accountable operation

Shareholders efficiency, governance, management and control

Employees diversified equality occupational health growth and protection of rights and interests

Environment environmental protection

Chapter 5
Let people take medicine of high quality, make the medicine affordable

Our goal

- Take medicine of high quality, make medicine affordable

Our management ideology

- R&D innovation —— Reliable efficacy of new drugs
- Production process —— Quality and safety assurance, reasonably affordable

Our measures

- Define overall R&D strategy and three-year R&D direction
- Continue to promote the consistency evaluation of generic drugs, continuously optimize the R&D system, implement full coverage of Lean Six Sigma management, carry out industry-university-research-medicine collaboration, implement quality responsibility, and promote production integration

Our achievements

- A number of R&D achievements have obtained clinical approvals. The construction of R&D industrial pilot base project (phase I) of North Pharmaceutical has been completed and new progress have been made for the consistency evaluation of generic drugs
- Built a microecological R&D platform and the secondary development of the national TCM confidential varieties has yielded fruitful results
- Jointly promoted projects on industry-university-research-medicine collaboration with ten hospitals in Shanghai and cooperated with the National Metabolic Disease Clinical Medical Research Center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5.1 Focus on R&D, innovation and development

1 R&D comprehensive strength ranks first

- Application for biological products - class 1 new drugs "recombinant anti-HER2 humanized monoclonal antibody composition for injection" for therapeutic use obtained clinical approvals.
- Application for anti-tumor biological product - class 2 new drugs "recombinant anti-HER2 humanized monoclonal antibody-MCC-DM1 coupling agent for injection" obtained clinical approvals.
- Clinical phase I studies for chemical drugs - class 1.1 innovative drugs SPH3127 developed with the Mitsubishi Tanabe Pharma have been carried out.
- Clinical phase II studies for class 1.1 innovative drugs Deuteporfin developed with Fudan Zhangjiang have been carried out.
- Application for "Eslicarbazepine Acetate" as the first generic ANDA in the United States obtained approvals; generics chlorodipine butyrate and its emulsion obtained clinical approvals.

At the 34th session of annual meeting of National Pharmaceutical Industry Information in 2017 sponsored by the China National Pharmaceutical Industry Information Center, the Company was shortlisted by the Ministry of Industry and Information Technology in the list of the top 100 enterprises in the Chinese pharmaceutical industry in 2016, ranking sixth; was selected as the "Best Industrial Enterprise with Drug R&D Product Line in China in 2017"; awarded the "Top 20 in strength in China's chemical drug R&D in 2017", "Top 50 Chinese drug R&D brands in 2017" and "Top 20 in comprehensive strength in China's drug R&D in 2017" at the China Pharmaceutical R&D Innovation Summit organized by www.yaozh.com.

2 Overall R&D strategy and three-year R&D direction

Overall R&D strategy:

To meet clinical needs and provide safe and effective branded drugs for curing major diseases and chronic diseases

1. Innovative drugs: the combination of autonomy and cooperation, simultaneous development to be carried out both internationally and domestically

2. Generic drugs: offering the same quality and efficacy, with innovation in imitation

3. Secondary Development: Extending product shelf life and maintaining product value

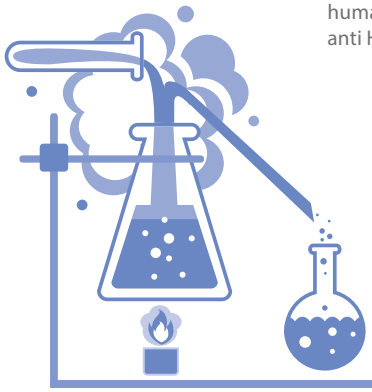
The next three-year direction:

1, For biological drugs: focus on intensive investment in antibody Bio-better and its breakthroughs. Specific varieties are: recombinant humanized CD20 antibody injection; humanized anti HER2 compound antibody development

2. For chemical drugs: focus on immunity and oncology. Key varieties are: SPH3127, Deuteporfin and SPH1188-11

3. For generic drugs: consistency evaluation is the R&D focus. Improve innovation taking the priority of cost, and actively expand international markets

4. For traditional Chinese medicine: conduct research on new traditional Chinese medicine steadily; carry out joint development of traditional Chinese medicine formula particles with Tsumura; combined with the Group's strategy "One Policy for One Product", strengthen the secondary development of large varieties being listed, extend the product life cycle, and maintain the product value. Improve the quality standards, optimize the process, conduct research on new indications, such as Wangbi Tablets, Yangxinshi Tablets, Weifuchun, Pill of Eight Treasures and other varieties



3 New progress in the consistency evaluation of generic drugs

During the Reporting Period, the Company fully promoted quality and efficacy consistency evaluation for generic drugs. According to the market and clinical needs, taking into account the overall condition of the Company, the Company implemented a total of 97 approvals for consistency evaluation.

By the time July 30th, 2018, 3 approvals have been completed and 34 approvals are undergoing bioequivalence testing.

4 Continuously optimize the R&D system

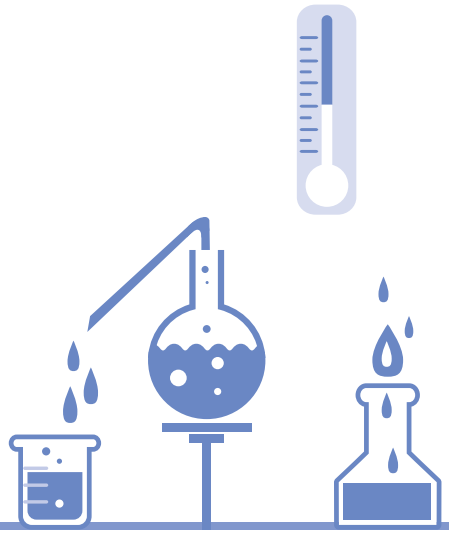
During the reporting period, the Company continued to optimize the R&D system. The R&D management center established a matching work system, R&D projects implemented the "one product and one research" strategy; refined cost management and implemented strict project schedule management through strengthening information platform construction and management.

At the same time, the Company strengthened the open cooperation, optimized the R&D model and started the construction of U.S. R&D Centers. The construction of phase 1 of the industrial pilot base of Shanghai Pharmaceutical Group (Benxi) Northern Pharma Co., Ltd was completed.

5 Promote in-depth industry-university-research-medicine collaboration, and develop innovation systems

Continue to build a microecological R&D platform

After the application for the "Shanghai Probiotics Innovative Drug Engineering and Technology Research Center" in 2014 and successfully passing the acceptance test in 2016, in 2017, with a boom in international probiotic research, in order to promote better and faster microecological innovative drug research at the company level, Shanghai Pharmaceuticals established the "Shanghai Pharmaceuticals Microbiology Institute" to promote the innovative development of microecology by leveraging the Group's resources and technology platform. Shanghai Pharmaceuticals collaborated with Ruijin Hospital in Shanghai in establishing a microecological joint research center to cooperate to develop microecological agents for the treatment of metabolic diseases in order to promote the combination of technological innovation of enterprises and the pharmaceutical industry, and promote the rapid transformation of innovation results, thus providing more therapeutic drugs and methods for modern medicine, and achieving a win-win situation for hospitals and enterprises.



Build a new starting point, innovate for better future

The opening ceremony of the R&D industrial pilot base project (phase I) of Shanghai Pharmaceutical Group (Benxi) Northern Pharma Co., Ltd was held on 25 October 2017 in Benxi, Liaoning. Shanghai Pharmaceutical Group (Benxi) Northern Pharma Co., Ltd is a wholly-owned subsidiary of Shanghai Pharmaceuticals. It is located in Benxi Hi-tech Zone, a national-level biomedical industrial park. The project (phase 1) occupies a floor area of 46,000 square meters.

After SPH North Pharmaceutical is put into operation, the industrial pilot scale-up and sample preparation of 10 R&D products can be conducted each year, and drugs in the initial stage of market launch can be produced, forming an industrial pilot base with chemical innovation drugs in compliance with international standards and high-end generic drugs; becoming a boutique drug production base qualified with Drug Marketing Authorization Holder (MAH) serving the Company and domestic and foreign R&D institutions. SPH North Pharmaceutical undertakes the important task of R&D and innovative development of the Company and is responsible for the Company's mission of R&D of innovative drugs, pilot scale-up, and pharmaceutical industrialization. SPH North Pharmaceutical will strive to build a R&D pilot and industrial base with complete facilities, complete functions and world-class equipment, and build a high-level quality control system to provide strong support and guarantee for the implementation of the Company's development strategy.

At the beginning of its establishment, SPH North Pharmaceutical has been committed to the R&D of new drugs. The class 1.1 new drugs SPH3127 and SPH1188 jointly applied with Shanghai Pharmaceuticals have obtained clinical approvals and have entered clinical trials to varying degrees. Applications for clinical trials of SPH3348 have obtained the approval of the China Food and Drug Administration.

At present, Shanghai Pharmaceuticals has integrated the relevant innovative drugs and generic drugs of the subsidiaries such as SPH No.1 Biochemical and Pharmaceutical, SPH Zhongxi Sunve, Sichuan Dehui, etc., and has prepared pilot scale-up and industrialization of SPH North Pharmaceutical. SPH No.1 Biochemical and Pharmaceutical's chlorodipine butyrate emulsion has been officially put into trial development at SPH North Pharmaceutical on the day when the base construction was completed.

In addition, Shanghai Pharmaceuticals and Shenyang Pharmaceutical University signed a strategic framework agreement in March 2015 to achieve the development goals of complementary advantages and industry-university-research collaboration. The two parties will have all-round cooperation in R&D of drugs, key technology platform construction, and talent training. The construction and implementation of the project will certainly promote the pre-clinical R&D advantages of innovative drugs of Shenyang Pharmaceutical University and the organic combination of industrial pilot advantages of Shanghai Pharmaceuticals, so as to achieve complementary advantages and bilateral development.

The completion of the R&D industrial pilot base project will further optimize the pharmaceutical R&D and innovation environment of Chinese Pharmaceutical Capital and create new experience for the development of the health industry in Benxi City. More importantly, a new platform is built in which Chinese Pharmaceutical Capital are in line with international standards, which is of significance in promoting development of Benxi's biomedical industry.

Shanghai Pharmaceuticals and Shenyang Pharmaceutical University signed the "Shanghai Pharmaceuticals - Shenyang Pharmaceutical University Strategic Cooperation Framework Agreement". Based on the principle of complementary advantages, mutual benefits and long-term cooperation, Shanghai Pharmaceuticals and Shenyang Pharmaceutical University will give full play to their respective advantages in developing drug R&D projects, establishing key technology platforms and open cooperation bases, talent training and other aspects, so as to accelerate the transformation of scientific research achievements, and achieve win-win cooperation.

Shanghai Pharmaceutical Group (Benxi) Northern Pharma Co., Ltd and the Benxi High-tech Zone Management Committee signed the "Drug Marketing Authorization Holder (MAH) Base Pilot Cooperative Framework Agreement". Both parties agreed to respond to the policy of the national "Pilot Scheme for Drug Marketing Authorization Holder (MAH) System" to jointly carry out the MAH base pilot work.

Secondary development of the national TCM confidential varieties has yielded fruitful results

The "Research and Application of Novel Polymer Gel Release System" (Fourth Completion Unit) won the first prize of the National Science and Technology Progress Award

The "Key Technology of Hydrogel Release and its Industrialization" won the second prize of the Shanghai Science and Technology Award

Pill of Eight Treasures and cataplasms of Leiyunshang have a definite curative effect and have a high reputation and market potential. They are listed as key products by Shanghai Pharmaceuticals for in-depth R&D. In 2014, with the support of the Company, SPH Research Institute and Shanghai Leiyunshang Pharmaceutical together with eight hospitals and institutes in Shanghai, including and Eastern Hepatobiliary Hospital, the Cells Unit of the Institute of Life Science , Shuguang Hospital, Eastern Hepatobiliary Hospital, Shanghai Sixth People's Hospital , Shanghai Eastern Hospital , Renji Hospital , Shanghai Municipal Hospital of Traditional Chinese Medicine, LongHua Hospital and Tongren Hospital jointly applied for the 2014 "Science and Technology Innovation Action Plan" of Shanghai to support the industry-university-research-medicine collaboration projects in the biomedical field.

After more than two years of unremitting research, various areas have achieved relatively substantial results in a phased manner. On 10 April 2017, the R&D management center of Shanghai Pharmaceuticals organized a project evaluation of Shanghai's industry-university-research-medicine collaboration project "Research on the Mechanism of Pill of Eight Treasures Capsules and Technology Improvement and Clinical Efficacy of Canwu Babugao". The value of research and research results have been fully affirmed.

Pill of Eight Treasures is a national protected product of traditional Chinese medicine and a national confidential product of traditional Chinese medicines. The CFDA regulations allow the use of special medicine, natural musk, which is one of the key medicines. The clinical treatment of various types of hepatobiliary diseases is effective. In view of the differences in clinical understanding of products, there is still room for improvement in the core competitiveness of products in the current pharmaceutical field. Under the strong support of the Shanghai Science and Technology Committee, Shanghai Pharmaceuticals focuses on the Pill of Eight Treasures Action Mechanism and Clinical New Value Exploration Project, and cooperates with the Academician Pei Gang of the Shanghai Institutes for Biological Sciences, CAS and his team to study the action mechanism of Pill of Eight Treasures, and Professor Wei Lixin of Eastern Hepatobiliary Hospital and his team to explore the new clinical value of Pill of Eight Treasures. The research of this topic will help to provide a scientific basis for tapping the market potential of this famous traditional Chinese medicine. Since 2015, the experimental data of this research has been used in product and clinical promotion data one after another, providing doctors with reference for the use of drugs, and also supporting the expansion of Pill of Eight Treasures' marketing.

Fufang Zijing Xiaoshang Babugao is a modern dosage form of its traditional confidential recipe "three-color dressing" developed in cooperation with Shishi Shangke in 1999. It is the country's new class 3 type of medicine and is also the country's first medicine Babugao. Shanghai Leiyunshang Pharmaceutical is the earliest domestic manufacturer of Babu Formulations, possessing relatively mature production techniques. Among them, the "Research and Application of Novel Polymer Gel Release System" (Fourth Completion Unit) won the first prize of the National Science and Technology Progress Award, and the "Key Technology of Hydrogel Release and its Industrialization" won the second prize of the Shanghai Science and Technology Award.

Babugao (Babu patch) is a topical patch made of a water-soluble polymer as matrix materials, which has a large drug load, less skin irritation, comfort, breathable moisture, good permeability, and no pollution in industrial production, and is more in line with current patient medication characteristics. In the clinical research of the Fufang Zijing Xiaoshang Babugao and other Babu patches after its market launch, in order to further reflect the epidemiological distribution and regional differences in the clinical research of the products, the product research is more scientific, and at the same time, provides the basis of the national distribution of the products at the later stage. A real-world clinical research of (Fufang Zijing Xiaoshang Babugao) for 2400 cases was completed to further evaluate the external effectiveness and safety of intervention measures. For Babu's process quality, the Company has updated the backing materials to improve the stickiness of the product by researching the prescription process, In addition, the Company has upgraded various aspects, such as the extension of the expiry date of the products, change in the release film, improvement of product packaging, and optimization of auxiliary adhesive materials, so as to improve the core competitiveness of the products.

Shanghai Pharmaceuticals and 10 Hospitals in Shanghai Jointly Promote Industry-University-Research-Medicine Collaboration in Shanghai

As one of the Group's 20 key tasks in 2016, the "sales-production-research Collaboration" has achieved results in a phased manner after a year of hard work.

In early 2016, Shanghai Pharmaceuticals established a surgery anesthesia line synergy group and launched a pilot operation. SPH Sales, SPH Dongying and the R&D management department of the Company participated in the establishment of three professional groups to address the key strategic product of the surgical anesthesia line — Kutai. The Company and 10 hospitals in Shanghai jointly applied for the projects on industry-university-research-medicine collaboration in the biomedical field under the 2016 "Science and Technology Innovation Action Plan" of the Shanghai Municipality and was shortlisted. Shanghai Pharmaceuticals and the 10 hospitals took 13 municipal issues in the form of general topics and sub-topics.

With the support of the government, the best usage for Chinese people in new surgical methods such as robotic surgery is found through academic research, so as to provide theoretical guidance for the rational use of Cisatracurium Besilate (Kutai) in general anesthesia, and promote it nationwide to benefit more patients. This is a successful attempt of the cross-organizational sales-production-research collaboration model focused on promotion of therapeutics of Shanghai Pharmaceutical, and it has created an innovative model in which academic marketing and scientific R&D are closely integrated.

On 15 March 2017, under the impetus of the Company's R&D management center, the R&D management department of the R&D management center and the anesthesia line product sales team of SPH Sales jointly launched the "Clinical Revaluation Research of Cisatracurium Besilate for Injection (Kutai) ", the projects on industry-university-research-medicine collaboration in the biomedical field under the 2016 "Science and Technology Innovation Action Plan" of the Shanghai Municipality. 10 hospitals, including Ruijin

Hospital Affiliated to Shanghai Jiao Tong University School of Medicine, Huashan Hospital Affiliated to Fudan University, Shanghai Sixth People's Hospital , Shanghai Ninth People's Hospital, Shanghai Jiao Tong University School of Medicine, South Campus, Renji Hospital Affiliated to Shanghai Jiao Tong University School of Medicine , Fudan University Shanghai Cancer Center, Eye & ENT Hospital of Fudan University, Shanghai Tongren Hospital, Shanghai Yangpu District Central Hospital and Shanghai Tenth People's Hospital participated together. 10 large-scale general hospitals take the advantages of a large number of hospital patients, comprehensive disease types, complete academic departments, and solid scientific research base to carry out multi-angle, multi-level and multi-faceted evaluation on pharmacokinetics of Cisatracurium (Kutai), pharmacodynamics, scope of drug application, medicine interactions, adverse drug reactions, etc. in extracorporeal circulation, laparoscopic surgery and nervous system surgery in specific groups of people such as the elderly, people suffered from cancers and heart diseases for obtaining more comprehensive data, so as to provide a strong basis for more standardized and rational drug use in clinics, as well as guidelines for the use of drugs and formulation of expert consensus.

The "Clinical Revaluation Research of Cisatracurium Besilate for Injection (Kutai)" undertaken by Shanghai Pharmaceuticals and the 10 hospitals was shortlisted as the projects on industry-university-research-medicine collaboration in the biomedical field under the 2016 "Science and Technology Innovation Action Plan" of the Shanghai Municipality. It marks the birth of another successful case that combines medical research with the pharmaceutical industry.

Case:

The generic drugs have been approved by the US FDA and have been sold in the United States. Rosuvastatin Calcium Tablets manufactured by the SPH Changzhou Pharmaceutical Factory won the ANDA of the US FDA in 2016. In 2017, it actively conducted the layout of US market research and sales channels, and completed the first order shipment at the end of the year, achieving breakthroughs in sales of formulated products in the US market, and the Company endeavours to further expand its market share.

Comprehensively advance the in-depth study of the diagnosis and treatment of metabolic diseases by Shanghai Pharmaceuticals together with National Metabolic Disease Clinical Medical Research Center

On 28 December 2017, the Clinical Research Cooperation Alliance formed by the Shanghai Institute of Endocrine and Metabolic Diseases — National Metabolic Disease Clinical Medical Research Center and Shanghai Pharmaceuticals were formally established. The clinical project signing and evaluation meeting was officially held at the headquarters of Shanghai Pharmaceuticals. Academician of the Chinese Academy of Engineering, Associate Dean of Ruijin Hospital, Shanghai Jiao Tong University, Director of the Shanghai Institute of Endocrine and Metabolic Diseases, Ning Guang, Director of the National Metabolic Disease Clinical Medical Research Center and Zuo Min, Executive Director and CEO of Shanghai Pharmaceuticals signed the Clinical Research Cooperation Alliance Framework Agreement between the Shanghai Institute of Endocrine and Metabolic Diseases — National Metabolic Disease Clinical Medical Research Center and Shanghai Pharmaceuticals Holding Co., Ltd..

Shanghai Pharmaceuticals has always been committed to exploring new ways and methods for the diagnosis and treatment of metabolic diseases. This cooperation aims to promote the in-depth exploration of Shanghai Pharmaceuticals in the clinical research of metabolic diseases. The establishment of the Clinical Research Cooperation Alliance and the signing of the clinical research project will leverage the expertise of the Shanghai Institute of Endocrine and Metabolic Diseases — National Metabolic Disease Clinical Medical Research Center and combine the advantages of both parties to advance the research progress of Shanghai Pharmaceuticals in the field of metabolic diseases, and promote the rapid transformation of research results into clinical applications.

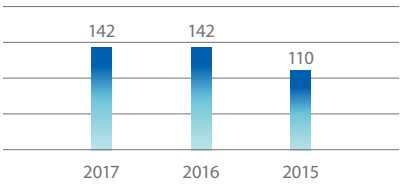
6 Pave the way for innovation in the pharmaceutical industry

The achievement of world-class pharmaceutical innovation products and companies only depends on the deep integration of research, production and financing. The Chinese pharmaceutical industry can achieve large-scale upgrading, corporate transformation and innovation through the integration of industry and financing.

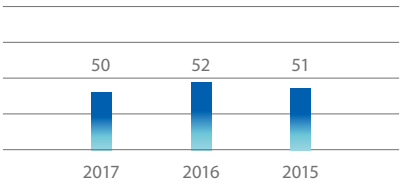
As such, as the Chairman of the Innovation Work Committee of the China Pharmaceutical Industry Association, Shanghai Pharmaceuticals initiated the "Healthcare Production and Financing and Innovation Development Summit for 2017" in Shanghai on 18 May to promote professional investment capabilities and coordinate industry development. Aiming at the goals of promoting the innovation and globalization of China's healthcare industry, scientists, entrepreneurs and investors were integrated in the medical health industry chain to jointly create a healthcare research, production and financing ecosystem to help Chinese pharmaceutical companies enter the top three global industries and welcome the birth of a world-class healthcare company in China. The summit focused on the transformation of the medical field, industry market prospects and investment cooperation opportunities, deeply shared new trends, new technologies and new breakthroughs in the development of the industry, and at the same time built a multi-level, diversified and highly efficient communication and trading platform for a number of innovative companies and investment institutions.

Key indicators:

Invention patent application / authorization for invention obtained (number of application/authorization)

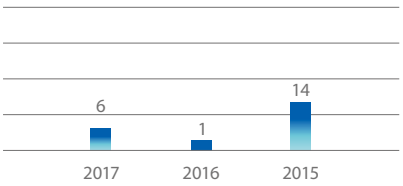


Invention patent application

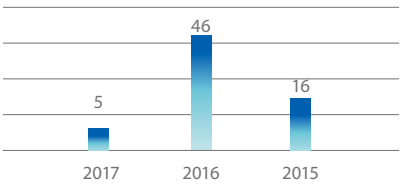


Obtain authorization for invention

Clinical application / approval (number of application/approval)

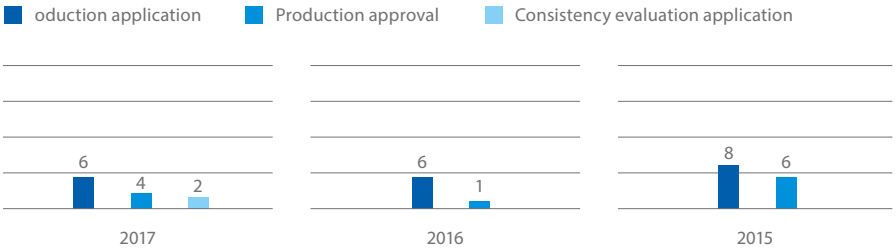


Clinical application

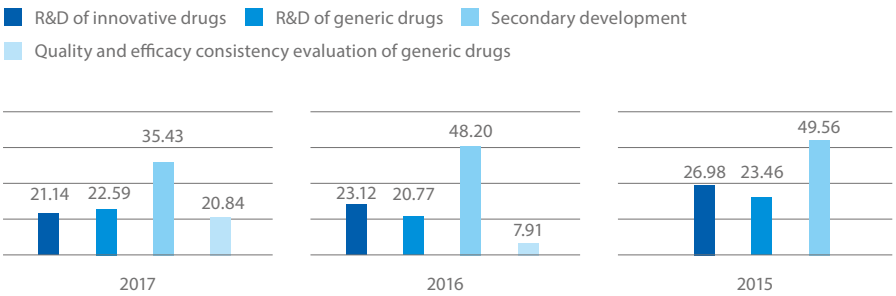


Clinical approval

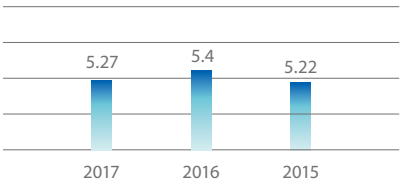
Production application / approval (number of application/approval)



R&D expenditure distribution (%)



Percentage of R&D investment



Percentage of R&D Investment (%)

Note: Percentage of R&D investment caliber:
R&D investment for the year / industrial sales revenue × 100%

5.2 Comprehensive promotion, continuous assurance of quality and safety of drugs

During the reporting period, all 44 drug manufacturers affiliated to the Company passed GMP certification and obtained a total of 114 GMP certificates. By reforming and passing the GMP certification, the Company has comprehensively enhanced its technological equipment, production management and quality management in pharmaceutical manufacturing to ensure continuous and steady production of drugs that meet the intended use and registration requirements.

1 Implement quality responsibility

In order to implement drug quality management, the Company and 17 drug manufacturers and business enterprises directly affiliated to the Company signed the "2017 letter of responsibility for quality management of drug production and business operations". Further strengthen the compliance awareness, improve the management system, and enhance the ability to prevent and control quality risks through quality regular meeting and special quality inspection.

Further strengthen the compliance awareness, improve the management system, and enhance the ability to prevent and control quality risks through quality regular meeting and special quality inspection.

2 Strengthen quality audit

In 2017, the quality audit "adhered to the problem and risk orientation and focused on outstanding issues". In conjunction with the actual situations of the drug manufacturers affiliated to the Company, the Company focused on the audit of key links such as supplier management, process control and quality control laboratories.

During the reporting period, the quality audits of 23 drug manufacturers have been completed. All of them have completed the rectification within one month and submitted written rectification reports.

3 Promote comprehensive management

In 2017, the Company further strengthened the all-around quality management of all employees, and all processes to improve quality and efficiency. Guide the extensive use of intelligent, digital, informatization means and other technical means to the subordinate enterprises to improve quality online monitoring, online control, and product life cycle quality management capabilities.

The Company enhanced the quality control of medical devices and operating companies, promoted the construction of quality management network, and established a communication platform to ensure that related companies improved their quality management capabilities and compliant production and operations.

4 Lean Six Sigma Management

With the continuous and in-depth development of Lean Six Sigma management, all sectors of the Company have been covered, and sales companies and research institutes have gradually deepened their projects. Sales companies have doubled their projects by the end of this year. With the further expansion of industrial sector coverage, the project quality has undergone a qualitative leap, and the project has gradually increased from the universal project of the green belt to 18 difficult, high-quality and high-value black belt projects in 2017.

The black belt project focused on improvement of system, such as lean laboratories, reduction of the unit cost of strategic varieties and construction of operational excellence system, etc. For the commercial sector, the Lean Six Sigma project continued to focus on inventory improvement to achieve a significant reduction in inventory, improve the Company's capital utilization, and optimize the billing period, etc.

5 Production integration

In 2017, the Company adjusted its production bases according to the "Intensive Development" strategic objectives, as well as the product positioning, production capacity, and development prospects of each subsidiary, and integrated one raw material production base and two preparation production bases.

We gradually promote each subsidiary to become a production base with our own characteristics, advantages and scale.

6 Quality responsibility

Pursuant to the "Drug Administration Law of the People's Republic of China", "Drug production quality management practices", "Medical equipment production quality management practices" and other relevant national laws and regulations, the "Quality Manual" of Shanghai Pharmaceuticals is prepared. This manual is the Company's programmatic documentation on quality management, is the basic rule for the Company to establish, implement and maintain a quality management system, and is the Company's quality commitment to its customers and the society.

All members of the Company implements the quality policy of this manual in a comprehensive and stringent manner. The manual further regulates the production of drugs, medical equipment and other products, as well as business activities to ensure and maintain the continuous suitability and effectiveness of the quality management system, and to confirm the customers and other relevant parties that the Company has its ability to provide products and services that meet the requirements of applicable laws and regulations as always, and that the Company takes actions to fulfill social responsibility.

The "Quality Manual" specifies the Company's liability to its customers, including but not limited to the following:

Product quality level - during the production of products, relevant laws and regulations related to product production, technical standards, customer feedback requirements and product quality review analysis results should be identified, and the measures to raise the product quality level should be determined.

Product environmental protection level – during the production of products, the environmental impacts should be taken into account, including energy conservation and conservation of natural resources.

Service quality level - When a product is delivered to a customer (including direct sales, distribution and retail), regulatory requirements and customer feedback related to product sales should be identified, and measures to improve the service quality should be determined.

Authenticity of advertising – when introducing the products and services, the production and business units should promote accurately according to the registration or permission approvals.

Ability to handle customer complaints, rework and product return – in handling any complaints from customers and rework and product return, the production and business units should be dealt with promptly.

Case:

In order to improve the drug quality and safeguard the medication safety of patients, continuous innovation and improvement in quality control is necessary to enhance management. Under the tide of informationization, SPH No. 1 Biochemical & Pharmaceutical has also continued to implement the "Smart Intelligence" strategy and deployed the Laboratory Information Management System (LIMS). The quality control and management level has been significantly improved through on-line use.

The complete audit tracking of data reflects the emphasis on regulations; transparent and visible business processes demonstrate the efficiency of management; detailed and in-depth big data statistics improve the capability of quality analysis; paperless experimental processes demonstrate the emphasis on environmental protection. The deployment of LIMS has opened a brand new scene for quality control, bringing more vitality to innovation while facing the challenges, and laying an important foundation for becoming a modern laboratory.

7 Supply chain management

Drug manufacturers subordinate to Shanghai Pharmaceuticals conduct quality audit of suppliers and implement procurement process control to ensure that the procurement of products meets quality standards, and that the procurement process complies with relevant laws and regulations, in order to meet the requirements of product quality and safety.

Through the "Quality Manual", "Supplier quality audit control procedures" and other documents, Shanghai Pharmaceuticals guides the subordinate drug manufacturers to carry out supplier management and procurement process control. Subordinate enterprises formulates the corresponding written documents to standardize the operation of enterprise supplier management and procurement process to ensure compliance with the requirements of the "Drug production quality management practices" and other laws and regulations.

For the purposes of ensuring that the procurement of products complies with the requirements of regulations, registration approval and quality standards, enterprises will conduct quality audit for all suppliers purchasing products. What type of quality audit control of the supplier and the purchased product is used depends on the impact of the purchased product on the quality of the final product of the entity and the requirements for risk management.

Generally, the following processes are included: supplier classification, audit model, supplier selection, audit preparation, preliminary examination, qualified suppliers, monitoring and measurement, review, etc. The above processes have a standardized written record.

Enterprises subordinate to the Group strictly manage and require suppliers through the following measures:

1.Supply interruption risk (safety inventory risk, supply channel risk):

Based on the characteristics of the long-term sterility test cycle and the weight of the annual plan of the product, the Company combines the full competition of the material market, the supply and demand relationship, and the selective width to set certain safety inventory for products with higher weights, and develop strategic cooperation suppliers. At the same time, eliminated the exclusive suppliers of non-market factors as far as possible.

2. Material quality risk (quality inspection risk, return risk):

Establish a scientific supplier assessment and admittance system, review the authenticity and legitimacy of the supplier's credit standing, determine a list of qualified suppliers, conduct timely on-site audits and sample analysis of significant changes (main equipment, materials and processes), improve inspection methods, set quality control, inspection and return terms in the contract and implement supplier assessment, evaluation and elimination mechanisms.

3. Material price risk (price fluctuation risk, bargaining ability risk):

Eliminate exclusive suppliers of non-market factors. Track relevant national industrial policies, select appropriate pricing strategies based on different materials (bargaining, tendering, bidding, competitive procurement, etc.), analyze the cost of each material, track the prices of basic raw materials, and control the capacity of leading suppliers in the industry, production rhythms, costs, sales strategies, etc., while using third-party pricing platforms to enhance the transparency of market prices, strengthen market pre-judgment, implement strategic procurement, and sign annual contracts to lock down some low-cost materials.

4. Warehouse management risk (inventory backlog risk, overdue inventory risk); plan control risk (plan-creation risk, implementation change risk).

Sell according to the market demand, at the same time combining production equipment and other current conditions, formulate a reasonable immediate and rolling sales plan; the production planning department formulates the production plan according to the immediate and rolling sales plan and production site conditions; the procurement department formulates the procurement plan according to the inventory; implement the orders and contracts after approval according to the stipulated privilege and procedures, and coordinate and arrange the progress of procurement. Resolutely implement unnecessary and over-planned procurement; reduce and eliminate the costs of disposal of expired materials and solid hazardous wastes.

5. For supplier audits and self-inspections: The production plants, procurement centers and quality management departments jointly conduct on-site audits of raw material suppliers, accessories suppliers and packaging material suppliers, and do a good job in quality assessment of existing suppliers; organize special self-inspection of compliance with GMP and related laws and regulations on the entire process of drug manufacturing including supplier audit, raw material drug procurement, quality inspection, material release, production management, etc.; for non-conformities found during self-inspection, formulate rectification measures to ensure the orderly operation of the quality system.

Case 1:

In mid-June 2017, SPH Hua Yu Chinese Herbs held an award ceremony for standardized demonstration planting bases for wolfberry. Ningxia wolfberry has the reputation of "the best wolfberry in China" and Ningxia is an authentic production area verified clinically by the ancient Chinese medicine. This wolfberry base is one of the bases for the first batch of 17 varieties of standardized commodity established by SPH Hua Yu Chinese Herbs, and the existing scale of planting wolfberry is more than 1,500 acres. In the early stage, SPH Hua Yu Chinese Herbs conducted a comprehensive review and inspection of various key stages including the natural conditions of the base, breeding and cultivation of quality materials, production and cultivation of medicinal materials, harvesting and processing, packaging and storage, etc., which were in line with the requirements of the standardized Chinese herbal medicine commodity bases.

SPH Hua Yu Chinese Herbs, through the establishment of standardized Chinese herbal medicine commodity bases, keeps a foothold on the origin of the cultivation of Chinese herbal medicines, realizes a quality traceability system for the whole process from planting, production to market, so as to ensure stable supply of medicinal materials and controllable prices, and provide reliable protection for the establishment of quality standards for Chinese herbal pieces grade, and strive to provide the people with more safe medicines.

Case 2:

Dendrobe medicinal ingredients are rich and balanced, nourishing yin and tonifying deficiencies. Since ancient times, Dendrobium officinale Kimura et Migo has been listed as "China's nine major grasses". The planting advantage of Yunnan Dendrobe is obvious. No matter what the climate, soil, humidity, light, altitude and other conditions are, they provide unique conditions for the cultivation and maintenance of Dendrobium officinale Kimura et Migo, creating a "natural habitat" for the growth of Dendrobe.

In 2015, SPH Shenxiang established a Dendrobium officinale Kimura et Migo base in Dali, Yunnan, where the air quality was excellent, the water was cool and sweet, and the environment is similar to that in which wild Dendrobe grows. In order to ensure the authenticity of medicinal herbs, SPH Shenxiang and the Kunming Institute of Botany, Chinese Academy of Sciences, have identified and selected high-quality seedlings of Dendrobe. In addition to the requirements of the Chinese Pharmacopoeia, Dendrobe of SPH Shenxiang has been tested by an independent third-party agency SGS and SPH Shenxiang has established a strict traceability mechanism to ensure the authenticity of medicinal herbs and protection of consumer rights.

After two years of meticulous construction, on 29 March, 2017, the Dali Dendrobe base of SPH Shenxiang was opened, which marked the initial success of the construction of the old brand - Dendrobe base of SPH Shenxiang, and the development of the entire Chinese Medicine industry chain of Shanghai Pharmaceuticals was full of vitality.

Case 3:

On 1 March, 2017, the opening ceremony of "SPH Xiangzhong Ecological Medicine Valley" and Hunan Shangyao Traditional Chinese Medicine Development Co., Ltd. was held in Chenxi Village, Anhua County. As such, thousands of mu of planting bases were incorporated into the territory to create an ecological drug source base, and Shanghai Pharmaceuticals took another step.

Anhua County of Hunan Province is known as the "Hunan Treasury of Traditional Chinese Medicine". It has excellent ecological resources and a tradition of planting medicinal herbs in the past, and its development advantages are obvious. The launch of "SPH Xiangzhong Ecological Medicine Valley" will further improve the distribution of traditional Chinese medicine resources in Shanghai Pharmaceuticals, providing high-quality and ecological raw materials for Chinese medicine for Shanghai Pharmaceuticals.

The Hunan company, as a resource company for the Central China region, takes the "core demonstration planting, cooperation and promotion of planting techniques, processing at authentic production area, and breakthroughs in scientific research technologies" as its development goal, and will lay a solid foundation for the spring of high-quality Chinese herbal medicines.

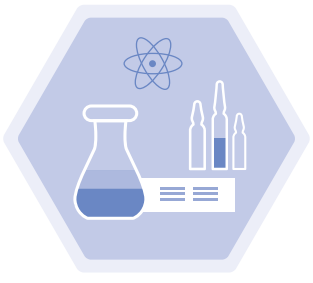
In the future, we will work hard to achieve the goal of "constructing 7 professional regional medicinal herb companies, covering about 90% of the country's TCM resource distribution areas, and fully guaranteeing the supply of raw materials and quality of about 400 commonly used varieties".

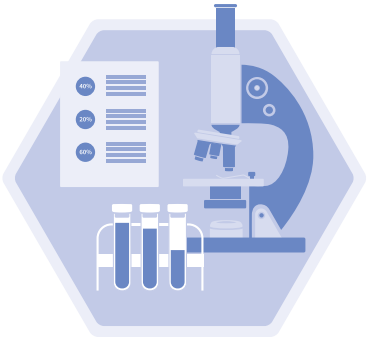
Case 4:

The second batch of "Shanghai craftsmen" was named and the frontline staff of Shanghai Pharmaceuticals was selected again.

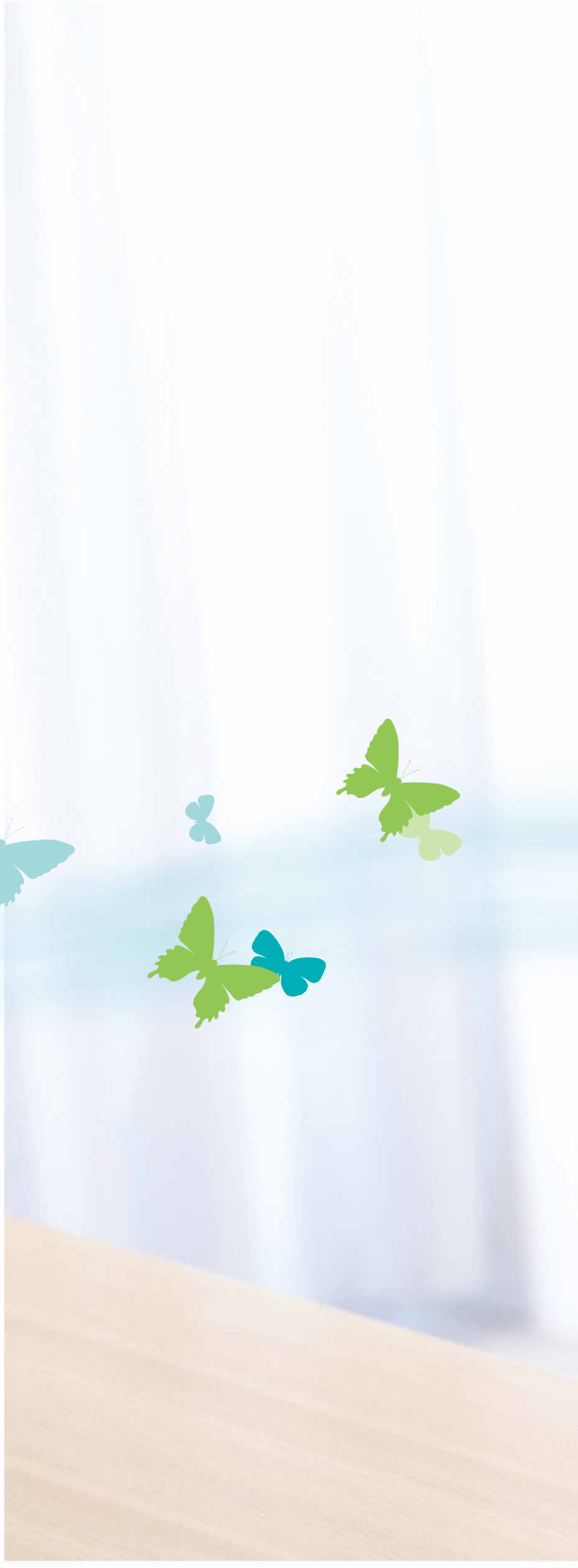
On the morning of 19 September, 2017, at the "Named as Shanghai Craftsman" and the "Innovation and Entrepreneurship Zero Distance" Craftsmen Forum for 2017 held by Shanghai Federation of Trade Unions, Bi Linli from Shanghai Traditional Chinese Medicine became one of the second batch of 94 "Shanghai Craftsmen".

In the first batch of 88 "Shanghai Craftsmen" that were released last year, Zhang Xiongyi, a frontline staff of Shanghai Pharma took the lead. Bi Linli was re-elected and once again demonstrated the professionalism and dedication of the staff in Shanghai Pharmaceuticals. Advocating the craftsmen's ingenuity and nurturing the spirit of craftsmen are important tasks that Shanghai Pharma has been promoting.





Chapter 6
Let people take medicine with ease



Our goal

- Take medication with ease

Our management ideology

- Promote online and offline drug / service accessibility
  1. Commercial model innovation
  2. Business model innovation
  3. Improve drug access
  4. Meet the needs of special group

Our measures

- Continue to expand the layout of the nation's commercial network
- Improve the service capacity of SPHC
- Enhance community drug service capabilities
- Designated production

Our achievements

- Expanded the commercial network to fill the blank provinces
- "Yiyao" services meet the requirements of comprehensive reform of communities
- Strategic cooperation improves service capabilities
- Ensure the normal supply of shortage of cheap drugs

6.1 Strengthen the leading position of drug circulation and greatly improve patient service ability

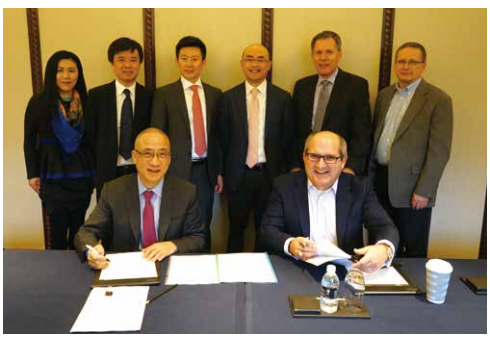
On November 15, 2017, Shanghai Pharmaceuticals announced the acquisition of "Cardinal Health China", a wholly-owned subsidiary of the US-based Cardinal Health, Inc.. At the same time, Shanghai Pharmaceuticals and Cardinal Health, Inc. announced the formation of a strategic partnership to jointly develop the huge business opportunities in the global pharmaceutical and medical device industry based on the respective advantages of both parties, including creating innovative medical and pharmaceutical business models to better serve the patients and consumers.

Under the background of the comprehensive reform of the Chinese pharmaceutical industry, the strategic acquisition of Cardinal Health China business by Shanghai Pharmaceuticals will help us further strengthen our leading position in drug circulation and accelerate the development strategy for the transformation and upgrading of modern health services. We will also effectively promote the rapid development of the pharmaceutical business through the enhancement of distribution and retailing, and effectively participate in and serve the strategy of the National Health China.

Under the macro background of China's supply-side reform, China's drug circulation sector is ushering in a new wave of industrial concentration. In particular, at the industrial policy level, various reforms such as the "two-invoice system" aiming at shortening the supply chain of medicines and reducing the burden on patients and eliminating the "zero difference" in the use of medicines as a source of income for public hospitals have been fully implemented. The comprehensive capabilities of the drug circulation company, such as network scale, operational efficiency, financial strength, and logistics and distribution have been put forward large-scale upgrading requirements, leading to in-depth changes in the original industry business model, and catalyzing and accelerating industry consolidation.

Shanghai Pharmaceuticals actively grasps the historic opportunity of industrial change, insists on the combination of inventory growth and mergers and acquisitions, accelerates the nationwide distribution of distribution networks, expands business areas, enriches the categories of agents and highlights featured products, enriches the ability of information and logistics management and continuously innovates service models so as to meet the urgent needs of the terminal for service upgrades; at the same time, it seizes the opportunity to absorb the incremental retail sales urged by the industrial changes, and develops DTP business and retail e-commerce innovation services. Cardinal Health China business is highly synergistic and complementary with Shanghai Pharmaceuticals, and it is a rare large-scale, high-quality asset. Through the post-acquisition integration and collaboration, not only will the overall competitive landscape and industrial advantages of Shanghai pharmaceuticals' distribution business be significantly enhanced, but also Shanghai Pharmaceuticals will further consolidate its leading edge in multiple segments of business and innovation, and accelerate the realization of its overall strategic goals.

As China's eighth largest drug distributor, Cardinal Health China has 14 local direct sales companies, directly covering 13 key cities in China, and 322 cities with sub-networks serving nearly 11,000 medical institutions. After the acquisition, the coverage and depth of the Shanghai Pharmaceuticals' distribution network will be greatly enhanced. On the one hand, the depth of the network in core regions such as Shanghai, Beijing and Zhejiang will be enhanced, and the market penetration will be strengthened to consolidate the competitive advantages of key markets including East China. On the other hand, the blank areas that have not yet been covered, such as Tianjin, Chongqing and Guizhou will be expanded and the implementation of the nationwide network layout will be accelerated. Shanghai Pharmaceuticals' product line will also be effectively expanded, and there will be a significant increase in the varieties and quantities of pharmaceutical and non-pharmaceutical products to be represented. In particular, the number of imported drug distributors will leap to the top of the industry.

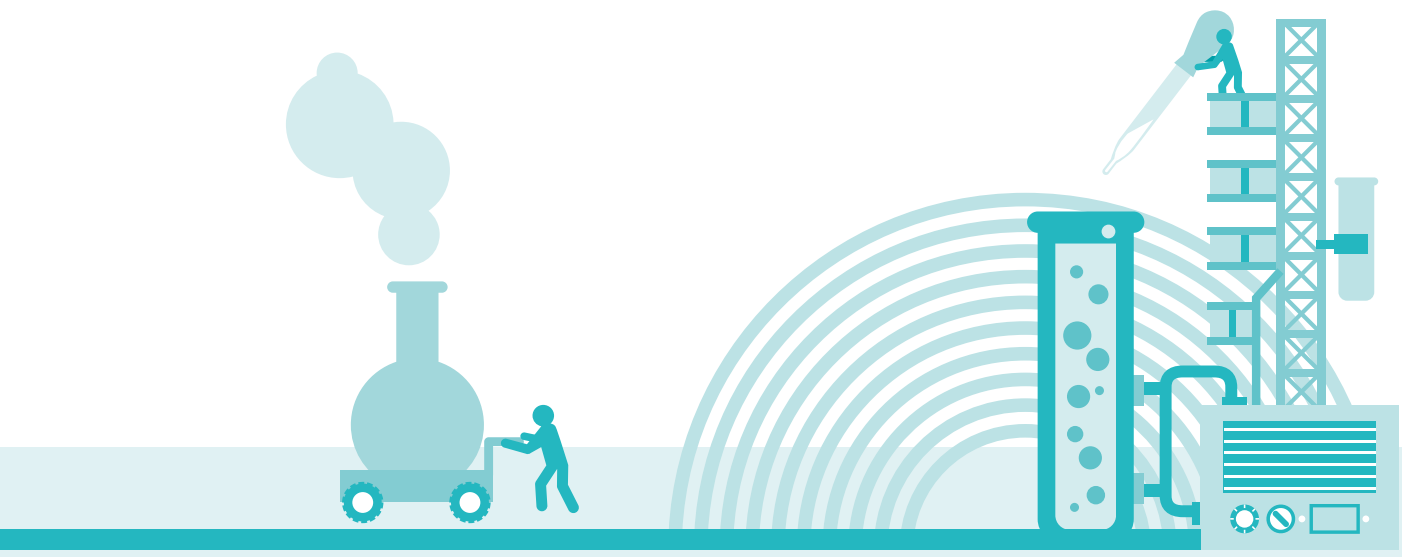


Cardinal Health China is one of the leading medical device distributors, specialty drug agents and third-party logistics companies in China. It has 17 distribution centers in China, with a total storage area of approximately 146,000 square meters, and a refrigerated storage capacity of approximately 7,000 square meters; provides technology-driven solutions and end-to-end supply chain management for healthcare organizations. The infusion of this part of business will help expand the scale and characteristics of Shanghai Pharmaceuticals in medical devices and specialty drugs, and increase the viscosity with end customers.

For Direct to Patient (DTP) pharmacies, Shanghai Pharmaceuticals has more than 40 DTP pharmacies in East China and North China, and Cardinal Health China has 30 DTP pharmacies in 22 cities. This acquisition will form the largest DTP professional brand chain pharmacy in China with unified brand, integrated operation and service excellence, thus becoming the preferred partner for international special drug manufacturers to enter the Chinese market.

Shanghai Pharmaceuticals' distribution network directly covers 24 provinces, municipalities and autonomous regions in China

South China Sea Islands



6.2 Create "Yiyaoquan" that covers the whole city and deliver "extended prescription" door-to-door

"Reducing drug prices" and "relieving the shortage of medical resources" are two aspects of medical reform that people are particularly concerned about. How to organize part of the patients suffering from chronic diseases with dispensing as the main needs to the grassroots level so that patients with minor diseases are not required to dispense in the community is a major difficulty in re-allocation of medical resources and optimization of the healthcare environment. In this regard, Shanghai Pharmaceuticals actively responds to this.

1 Continuously promote innovative projects to ensure comprehensive health reform of communities

- nformation System Construction

Shanghai Pharmaceutical Co., Ltd. actively participates in the information construction of the comprehensive reform of communities, and assigns nearly 100 staff, 3 project managers, and 10 technicians. This not only improves the ability of information matching and information processing in accordance with the requirements of the Shanghai Community Comprehensive Reform Office so as to dock with the hospitals according to the time node, but also it has greatly helped the community health service center with weak level of informatization, and has won praise from many community customers.

- Logistics Distribution Service

In order to meet the distribution requirements of the comprehensive reform of communities, Shanghai Pharmaceutical Co., Ltd. has tailored a set of logistics systems that are different from traditional businesses for "Yiyaoquan".

First, further sink into the logistics distribution network. In order to meet the needs of the patients, Shanghai Pharmaceutical Co., Ltd. will sink the network into the community health service stations and even the patients' homes to truly realize the "door-to-door dispensing".

Second, take an open and cooperative attitude. The logistics system of "Yiyaoquan" leverages internal and external forces. On the one hand, leveraging the comprehensive network of retail outlets of Shanghai Pharmaceutical Co., Ltd., further increase the ways for patients to take drugs; on the other hand, relying on third-party logistics to achieve door-to-door dispensing services. At present, drug distribution services have been provided for nearly 300,000 elderly patients cumulatively.

Third, guarantee timeliness. "Yiyaoquan" of Shanghai Pharmaceutical Co., Ltd. has strict management of the timeliness of distribution and put forward high standards and strict requirements for "delivery in the afternoon for orders made in the morning and delivery in the next morning for orders made in the afternoon".

In order to ensure the timeliness of drug distribution, the prescription distribution supervision system has been developed to make statistics for prescription distribution efficiency and look for further improvements. By further improving the process, the time required from prescription by community physicians to dispensing was increased from an average of 2.3 days in November 2016 to an average of 1.4 days in May 2017.

- Operation Management Support

In order to ensure the smooth operation of this comprehensive reform of communities, Shanghai Pharmaceutical Co., Ltd. not only makes a huge investment in hardware systems, but also provides greater support for staffing and internal operations. Shanghai Pharmaceutical Co., Ltd. has a large number of professionals (operations, information, sales, logistics, licensed pharmacists) and makes three major audits and reviews.

First, each prescription is checked: for each single prescription received, professional licensed pharmacists are available for auditing to ensure the accuracy of drug information.

Second, the daily order check: after completing the busy work, the staff of Shanghai Pharmaceutical Co., Ltd. must check the order of the day after office hours every day to confirm the correctness of each drug information.

Third, monthly order verification: at the beginning of each month, the business personnel of Shanghai Pharmaceutical Co., Ltd. conduct a full check of the prescription order of the previous month to ensure the accuracy of the information.

Although the investment in the three major audits and reviews is difficult to estimate, the effectiveness is significant. A number of possible dispensing errors have been successfully prevented, which ensures the accuracy of dispensing.

2 Innovative services are effective, extended prescriptions are benefited

- Pursue more drug supplies for contracted residents

In order to maximize the range of medications used by patients, Shanghai Pharmaceutical Co., Ltd. confirms the varieties of drugs that meet the requirements for extended prescriptions with its suppliers one by one. As of May 2017, the list of drugs that meet the extended prescription has reached 517 items, covering mainstream elderly medication such as hypertension, diabetes, Parkinson's Disease, osteoporosis and cerebral infarction. Shanghai Pharmaceutical Co., Ltd. has completed the drug dispensing services for nearly 300,000 contracted patients from 128 community health service centers accumulatively and dispensed more than 1 million boxes of drugs. The scope of dispensing covers Shanghai.

- Attract community residents to gradually return to community health centers

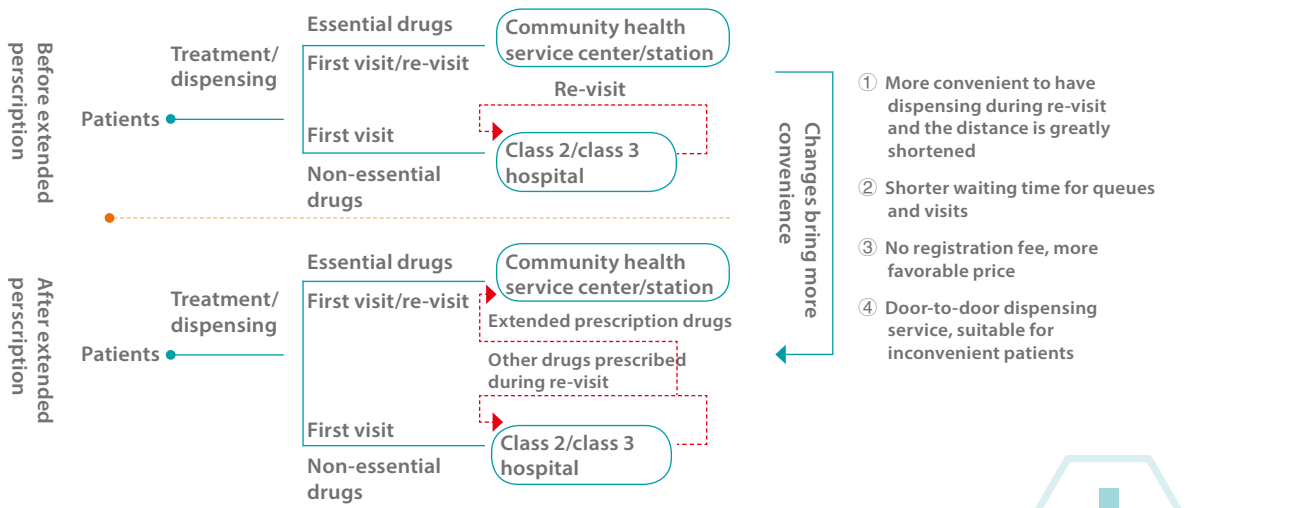
As an important part and breakthrough of the comprehensive reform of communities, the "Extended Prescription" has achieved good social effects for more than a year since it was launched and is gradually attracting community residents to return to the community health centers at the doorstep. For example, in the case of Longbai Community which have signed an exclusive contract with Shanghai Pharmaceutical Co., Ltd., since the trials of Longbai last year, a number of preferential measures have come to the fore, among which extended prescription and long prescription are particularly popular and have received residents' praise.

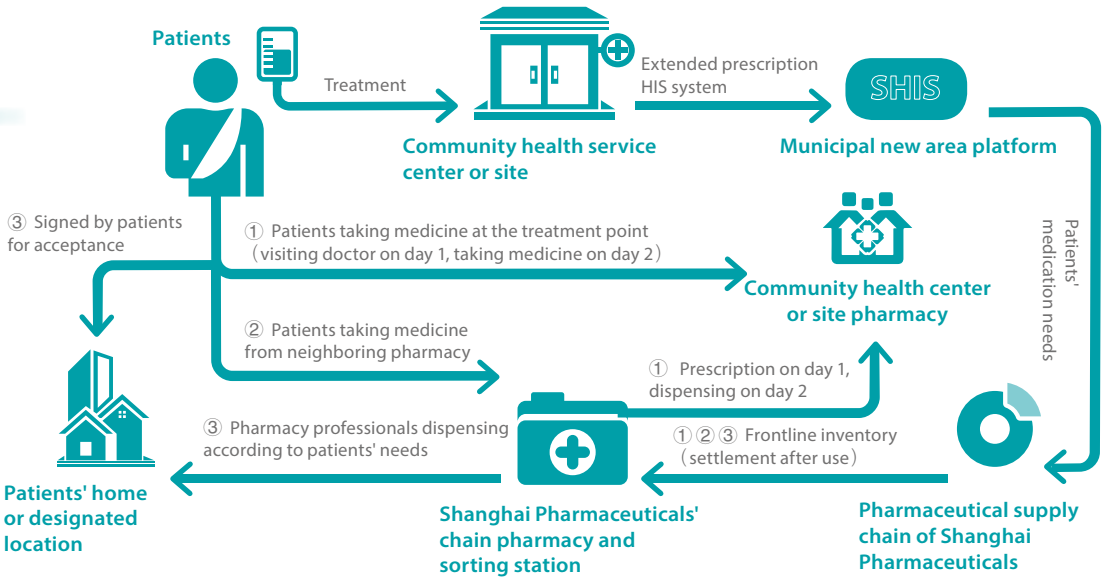
- Improve public health and safeguard drug safety

The "Yiyaoquan" project, in conjunction with big data, has established a "health management" platform for residents, laying a good foundation for future disease management and health management for Shanghai residents. While solving the "last part" of dispensing, it cooperates with the health department to establish residents' health records and provides residents with a series of health management and counseling services to enhance citizens' health care awareness and scientific knowledge of drug use.

- Save social resources and increase supply chain efficiency

By integrating the needs of each link, intensive, large-scale, standardized operations are carried out, logistics costs are reduced, dispensing efficiency is improved, information is quickly responded, and dispensing goals are completed in a timely and accurate manner.





6.3 Promote electronic prescription and medical insurance online payment

On 11 June, 2017, Shanghai Pharma Health Commerce Co., Ltd ("SPHC") and Tencent Holdings Limited held a signing ceremony for strategic cooperation and a cooperation plan conference in Shanghai.

SPHC is one of the innovative business platforms under Shanghai Pharmaceutical Co., Ltd. It uses electronic prescription circulation as its core business model to realize the multiple points of entry in the "Internet + medicine" value chain, which has a certain degree of complementarity with Tencent in the development of "Internet + medicine" business.

In order to promote common development and achieve resource sharing and complementary advantages, both parties will establish strategic partnerships in the areas of electronic prescription circulation, medical insurance online payment, medical financial innovation payment mode, and grand health management, and by relying on the development of the "Internet+" era, jointly promote the integration and development of the Internet and the medical industry and open up market opportunities and business opportunities in the "Internet + medicine" field.

6.4 A closer relationship between drug producers and retailers to support innovative development

On 27 February, 2017, Shanghai Pharmaceutical Co., Ltd. and SPH Shenxiang held a signing ceremony for the "Nanpai Ejiao Strategic Cooperation" in Shanghai. Both parties reached a long-term cooperation intention on this project and launched a new mode of industrial and commercial linkage. SPH Shenxiang takes efforts to retain the traditional craftsmanship, and to restore the production of Nanpai Ejiao, and by relying on the network, pure marketing, retailing and other advantages of Shanghai Pharmaceutical Co., Ltd., this tradition will be spread to the whole country and promote the culture of Chinese medicine.

6.5 Strategic cooperation to expand the medical logistics market in China

On 4 August, 2017, Shanghai Pharmaceuticals and DHL China held a signing ceremony for strategic cooperation and joint venture framework agreement in Shanghai. Both parties announced that they will cooperate in the field of life sciences and health, achieve mutual complementarity and resource sharing through capital and business cooperation, and jointly develop third-party logistics, warehousing, distribution, and value-added services related to medicine, grand health products and medical devices.

China's life sciences and health industry is in a period of rapid development. With the gradual implementation of the two-invoice system policy and the comprehensive upgrading of industry supervision, the industry is in a period of change and transformation. Upstream and downstream customers will cause huge demand for value-added services. There is an urgent need for excellent, efficient and professional logistics services and support.

Through cooperation, Shanghai Pharmaceuticals can flexibly use DHL's transportation network and supplier resources throughout the country, undertake the logistics development strategy of Shanghai Pharmaceuticals, and further improve the rationality of the efficiency and cost of logistics operations through scale and network efficiency. In the future, both parties will work hard to create an efficient, agile and intelligent supply chain service system, and become the first choice of logistics strategic partner in the domestic pharmaceutical and life sciences industries. This will not only help foreign pharmaceutical companies further expand their domestic markets, but also actively assist domestic pharmaceutical companies to go global in the future.

Case 1: New warehouse area, new starting point, new dream – SPH Logistics opens the new warehouse at Fenggong Road, the distribution level will be upgraded again

On 18 June, 2017, the relocation of Jiangyang warehouse of SPH Logistics was completed. The warehouse at Fenggong Road in Jiading District was officially opened and the delivery and distribution were successfully completed.

The opening of the new warehouse at Fenggong Road will improve the logistics distribution of Shanghai Pharmaceutical Co., Ltd. in Shanghai, achieve the high standards of distribution targets and distribution modes, and improve the service levels of logistics, warehousing, transportation and systems. Shanghai Pharmaceutical Co., Ltd. will meet new challenges with its high morale and practise the cultural philosophy of "proud of its service" to provide better services to customers.

Case 2: The first hemodialysis service in Anhui Tianchang

The opening ceremony of Shanghai Pharmaceutical Yisheng Medical Investment and Management Co., Ltd. ("Shanghai Pharmaceutical Yisheng") — Nephropathy Center of Jintaiyang Hospital was held on the morning of 26 October, 2017 in Anhui Tianchang. As such, patients with kidney disease in Tianchang and neighbouring areas can get first-class, convenient and efficient medical services in China "at the doorstep".

Shanghai Pharmaceutical Yisheng — Nephropathy Center of Jintaiyang Hospital is the crystallization of cooperation between Shanghai Pharmaceuticals and Tianchang Jintaiyang Hospital. The center specializes in the diagnosis and treatment of chronic kidney diseases, especially in the hemodialysis treatment of patients with uremia with a leading level in China, first-class team of experts, first-class nursing team, first-class hemodialysis equipment, first-class medical environment and first-class teleconsultation system. The patient will receive quality, adequate and safe treatment at the Blood Purification Center of Jintaiyang Hospital, and the quality of life will be greatly improved.

Case 3: All supply chain services are interlocked, and the new Hepatitis C treatment is provided to patients within the shortest time

As the first brand new total oral direct anti-hepatitis C virus combination therapy program, Bristol-Myers Squibb ("BMS")'s brand new HCV therapeutic drugs, Ballyzer and Supervip, were approved in China. As a strategic partner of BMS's HCV products, Shanghai Pharmaceutical Co., Ltd. has moved forward at full speed to enable patients to use the drug for the first time.

Logistics center, information headquarters, operation headquarters, customer service department, procurement center, sales department, pharmacy, etc. will collaborate to ensure that the entire process and all time nodes are completely safe. In only 11 hours, the products are delivered to the patients and the first national prescriptions of Ballyzer and Supervip were successfully completed.

10 July

21:00 / BMS Shanghai Minhang Factory completed production and packaging → 23:00 / Drugs delivered to BMS Wuxi office

11 July

00:35 / Drugs delivered from Wuxi → 2:15 / Cargo delivered to SPH Logistics warehouse → 2:18 / Receipt, acceptance inspection was completed → 5:30 / Drugs placed on shelves → 5:48 / Finished placing drugs on shelves → 5:53 / Issued sales orders → 6:17 / First sales invoice was printed → 6:35 / Drug loading was completed → 6:51 / Drugs were delivered from SPH Logistics warehouse to Ruijin Hospital → 7:37 / Drugs delivered to Ruijin Hospital in Shanghai → 7:55 / Acceptance, receipt was completed → 8:00 / Completed first prescription, patients got the drugs

Case 4: Protecting life, Shanghai Pharma Xinxin 38 hours emergency anti-burn infection drugs

At 8 o'clock on the 21 July, a gas cylinder exploded at a shop on Dengcai Street in Xihu District, Hangzhou. More than 20 patients with severe burns were sent to No.2 People's Hospital of Zhejiang Province for treatment. However, the demand for sulfadiazine silver, which was an important drug for controlling skin burn infection, was tens of times that needed for daily use. The normal stocks of hospital drug stores could not meet such a huge amount.

On the 21 July, Shanghai Pharma Xinxin formulated an emergency response plan to quickly make deployment and preparation:

- If there were still some stocks in hospitals that have been sold before, a special vehicle would be sent to the hospitals for return. After the necessary formalities have been fulfilled, they would be sent to No.2 People's Hospital of Zhejiang Province immediately.
- Contacted the manufacturer to fully explain the emergency and asked the manufacturer to deliver the drugs at the fastest speed
- Contacted the headquarters of Shanghai Pharmaceutical Co., Ltd. to seek help
- Prepared to assign people to go to the manufacturer in Liuyang, Hunan Province, for picking up the drugs

At 21:00 on the 22 July, a vehicle carrying 60 cans of sulfadiazine silver, which was produced by the manufacturer, arrived in Haining. Special vehicles from Shanghai Pharma Xinxin completed the delivery of the goods immediately, and completed the warehousing inspection, billing, and delivery and a series of necessary processes within two hours.

At 22:50 on the 22 July, emergency drugs were sent to No.2 People's Hospital of Zhejiang Province to ensure the timely supply of the rescue medicines for patients.

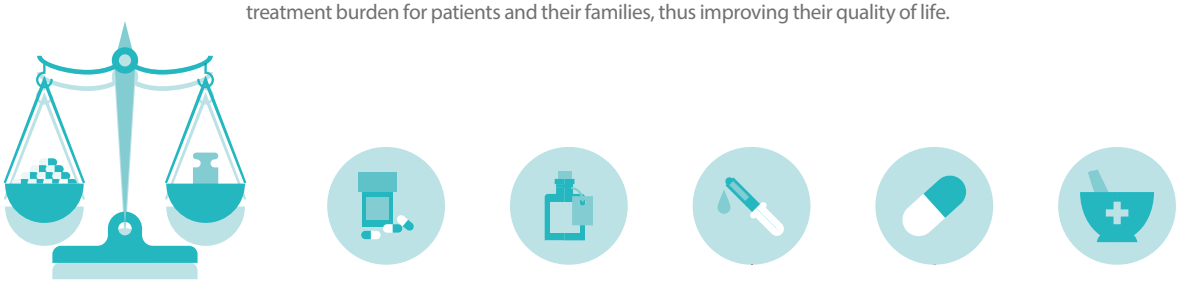
Case 5: Create a New Insurance Project to Benefit Patients with Hepatitis C

The first "pay for efficacy" new insurance project for hepatitis C patients was formally launched! On 15 August, 2017, the "Meixin Health" - Hepatitisia Protection Project was officially launched at the SPHC headquarters. The project was a comprehensive membership service for Ballyzer (® Dalatravir) combined with Supervip (® Athuravir) .

Ballyzer ® combining with Supervip ® , as the first total oral direct anti-hepatitis C virus combination therapy program, has been approved for market launch in China, and has become one of the programs recommended by the Chinese Hepatitis C prevention and treatment guidelines for the treatment of hepatitis C patients. According to the results of clinical studies covering patients in mainland China, the cure rate of the therapy program of Ballyzer ® combining with Supervip ® for gene type 1b NS5A non-resistant chronic hepatitis C patients was as high as 91%-99%, and the safety and tolerability were good. Under the premise of a high cure rate, the "Meixin Health" - Hepatitisia Protection Project also came into being, aiming to enhance the patient's confidence in medicine and further achieve the goal of early treatment and early cure of the Hepatitis C population.

Case 6:

Yiyao Financial under SPHC and AstraZeneca jointly and officially launched the financial installation service for Tagrisso, the innovative drugs targeted for lung cancers on 1 July to effectively reduce payment pressure and treatment burden for patients and their families, thus improving their quality of life.



6.6 Meet the medication needs of special group

1 Perseverance, ensure normal supply of shortage of cheap drugs

For the purpose of solving the problem of shortage of cheap drugs, the "Focused direction of industrial revitalization and technological transformation in 2015" issued by the Ministry of Industry and Information Technology proposed 17 varieties of shortage drugs, of which 10 varieties are produced from Shanghai Pharmaceuticals to ensure the normal supply.

Varieties of shortage drugs	Manufacturers
Corticosteroid	SPH No. 1 Biochemical & Pharmaceutical Co., Ltd.
Dobutamine	
Tannic acid	
Vasopressin	SPH No. 1 Biochemical & Pharmaceutical Co., Ltd., Shanghai Harvest Pharmaceutical Co., Ltd.
Oxytetracycline	Shanghai Harvest Pharmaceutical Co., Ltd.
Pilocarpine	
Norepinephrine	
Isoproterenol	
Dopamine	
Digoxin	Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd.

Shanghai Pharmaceuticals designated production varieties

Designated production varieties	Treatment area / Coverage	Manufacturer	Supply situation
Lobeline Hydrochloride Injection	Mainly used for neonatal asphyxia, asphyxia caused by carbon monoxide poisoning, poisoning due to inhalation anesthetics and other central inhibitors (such as opioids, barbiturates), as well as respiratory failure caused by pneumonia, diphtheria and other infectious diseases	Shanghai Harvest Pharmaceutical Co., Ltd.	Timely delivery, no feedback from medical institutions on shortage and late delivery

Shanghai Pharmaceuticals designated production base

Designated production base	Main production varieties	Treatment area / Coverage
Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd.	Methotrexate, digoxin	Digoxin: Hypertensive patients with valvular heart disease, congenital heart disease, chronic heart failure patients, etc. Methotrexate: acute leukemia, malignant lymphoma, head and neck cancer, lung cancer, etc.

Case: The new production line of orphan drug "Pyridostigmine Bromide Tablets" was put into operation, bringing good news to patients with Myasthenia Gravis

On 29 September, 2017, the new high-standard Active Pharmaceutical Ingredients workshop invested by Shanghai Zhongxi Sunve Pharmaceutical Co., Ltd. ("Shanghai Zhongxi Sunve") in the Fengxian Xinghuo Base was officially passed the "Good Manufacturing Practice" certification of Shanghai Food and Drug Administration, and obtained the GMP certificate for Active Pharmaceutical Ingredients "Pyridostigmine Bromide", symbolizing that the production capacity of Active Pharmaceutical Ingredients "Pyridostigmine Bromide" will be increased by a factor of 10, and the production and supply of Active Pharmaceutical Ingredients for "Pyridostigmine Bromide Tablets" will be solved at the source.

On 18 October, 2017, the new "Pyridostigmine Bromide Tablets" production line built by M5 workshop of Shanghai Zhongxi Pharmaceutical Machinery Co., Ltd. ("Shanghai Zhongxi Pharmaceutical Machinery"), a subsidiary of Shanghai Zhongxi Sunve, passed the on-site inspection of Shanghai Food and Drug Administration, and officially obtained the "Pyridostigmine Bromide Tablets" commissioned production approval. The finished product of "Pyridostigmine Bromide Tablets" has been commissioned in the new workshop to start production. The new workshop and new production equipment will enable the production capacity of the "Pyridostigmine Bromide Tablets" to be significantly improved, and at the same time, effectively guarantee the stability of product quality.

On 23 October, 2017, the tablet preparation of the new "Pyridostigmine Bromide Tablets" production line at the M5 workshop of Shanghai Zhongxi Pharmaceutical Machinery was successfully produced. Since 2016, the production and supply problems of "Pyridostigmine Bromide" that seriously troubled patients with Myasthenia Gravis have been effectively mitigated.

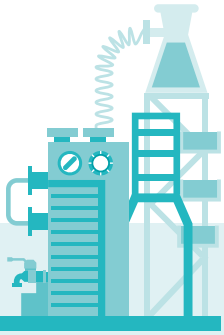
2 Provide professional pharmacy services to meet the needs of special group

Direct To Patient（DTP）

It is expected that after the integration with Cardinal Health, there will be over 70 stores in 20 provinces and cities.

Drug reserves

Included in the municipal-level major commodity reserves in the Municipality with a total of 79 varieties, amounting to a total of more than RMB19 million, of which 70 varieties are emergency western medicine, and eight varieties are emergency Chinese medicine; mainly antibiotics, transfusion medicine, antiviral drugs, detoxification and emergency rescue drugs for radiation damage, which are stored by Shanghai Pharmaceutical Co., Ltd. and Shanghai Traditional Chinese Medicine. In accordance with the requirements of the Shanghai Reserve Commodity Management Office, the enterprise medical reserve management network operates normally, its two storage enterprises implement a 24-hour duty system to ensure the quality and transportation of the municipal reserve medicine commodity. In addition, since 2007, the Company has begun to organize and implement drug storage on behalf of the military combat. The amount was more than RMB15 million, and Shanghai Pharmaceutical Co., Ltd. was the storage enterprise while other subsidiaries acted as emergency units.



Chapter 7
Positive solutions to assist resolving social problems

Our goal

- Effective solutions to resolve social problems

Our management ideology

- Closely integrated with its core resources

Our measures

- Targeted poverty alleviation
- Practice public welfare
- Community investment

Our achievements

- More social recognition, public image enhanced
- Clearer social welfare ideology, focused resource allocation

7.1 Targeted proverty alleviation widely recognized by the government, society, and people

1 Targeted poverty alleviation plans

Full participation of the society is required to make the dream of "Live in dignity and a healthy China" come true. Shanghai Pharmaceuticals has always focused on close integration between its own core resources and social needs, in order to create a more comprehensive value. In accordance with the spirit of important speech on poverty alleviation work from General Secretary Xi Jinping, the Company, in conjunction with the advantages of its own resources, gradually and orderly carries out the work of targeted poverty alleviation.

In 2015, the Company and the China Youth Development Foundation officially launched the "Shanghai Medical Care Guardian Plan", and the first phase of the special fund for the plan was RMB10 million, which was the first social welfare special fund under the China Youth Development Foundation for the purpose of improving rural medical care. The fund will be used to build rural health clinics in remote mountain areas, subsidize rural patients suffering from rare diseases, and train rural doctors in three years 2016-2018）, and to integrate with relevant medical resources to carry out activities such as "free medical consultation in the countryside", and implement health education and serve the local public. While promoting medical equality in remote and impoverished areas and accessible health poverty alleviation, efforts are made to combine their own businesses to carry out industrial poverty alleviation and address the status quo of the poor from the source.

2 Overview of annual targeted poverty alleviation

For health and poverty alleviation, in accordance with the "Shanghai Medical Care Guardian Plan", the Company mainly focused on the construction of hope clinics in remote mountain areas, training rural doctors, funding for rare diseases and other aspects of work in 2017. For example, for the construction of hope clinics, as of December 2017, the "Shanghai Medical Care Guardian Plan" special funds were used to build 19 hope clinics in Jianchuan County, Dali Prefecture in Yunnan Province, Heqing County, Qiubei County in Wenshan Prefecture, Jinping County in Honghe Prefecture, Zhengan County, Zunyi City in Guizhou Province, and other state-level poverty counties, accumulatively covering more than 58,000 people in poor areas. In 2018, it was planned to build 17 hope clinics in Yunnan, Guizhou, Sichuan and Anhui.

The construction of hope clinics will not only become a standardized Town clinic capable of fulfilling preventive health care, medical services, and health administration functions, but will also become a communication platform for health culture and become a mutual support between urban and rural areas. For rural doctor training, the second phase of rural doctor training was held in Dali, Yunnan Prefecture, covering more than 50 local rural doctors in ten counties and three provinces in Yunnan; for funding for rare diseases, free medical consultation for children with congenital heart diseases were carried out in Yunnan, and diagnosed and rescued nearly 50 children with congenital heart diseases.

For industrial poverty alleviation, the Company has established a base for the cultivation of Chinese herbal medicines and the acquisition of medicinal materials in conjunction with the traditional Chinese medicine sector, which has stimulated the development of the traditional Chinese medicine industry in poverty areas such as Yunnan and Hunan where the Company is located, helping more poor households get out of poverty.

Effectiveness of targeted poverty

Unit: RMB0'000

Index	Quantity and development status
A. Overall situation	
In particular: funds	1237
B. Investment by category	
1.Poverty alleviation by industrial development	
In particular: 1.1 Types of industrial poverty alleviation projects	√ Agriculture and forestry industry poverty alleviation ☐ Tourism poverty alleviation ☐ E-commerce poverty alleviation ☐ Asset income poverty alleviation ☐ Technology poverty alleviation ☐ Others
1.2 Number of industrial poverty alleviation project (no.)	2
1.3 Investment amount of industrial poverty alleviation project	1000
1.4 Number of people out of poverty for helping set up a case file (person)	200
2. Poverty alleviation by transfer of employment	
In particular: 2.1 Investment amount of vocational skills training	50
2.2 Number of people with vocational skills training (person/times)	1000
3. Health poverty alleviation	
In particular: 3.1 Amount of money invested for medical and health resources in poverty areas	RMB1.7 million (mainly used for construction of hope clinics in poverty areas, training of rural doctors, funding for congenital heart diseases etc.)
3.2 Estimated coverage in poverty areas (person)	38000 people
4. Social poverty alleviation	
4.1 Investment amount of targeted poverty alleviation	RMB 170,000 (Targeted poverty alleviation at poverty towns such as Wulidianzi Town, Huanren Manchu Autonomous County, Liaoning Province)
C. Awards (content, level)	
2014-2016 Advanced collective for Shanghai counterpart support and cooperation exchange 2017 "Best Partner" (China Youth Development Foundation)	

Subsequent targeted poverty alleviation plans

According to the particular environment of each poverty area and the conditions of different poor people, implement accurate identification of poverty target, accurate assistance and accurate management through the application of scientific and effective procedures. Mainly focusing on the promotion plan relating to the "Shanghai Medical Care Guardian Plan" of the Company, followed by taking into consideration the advantages of the Company's resources, continue to vigorously promote the construction of hope clinics in remote mountain areas, rural doctor training, implementation of health education, etc.; moreover, in light of the actual local situation in poverty areas, carry out rare disease financing, and effectively promote the equalization and accessibility of basic medical healthcare.

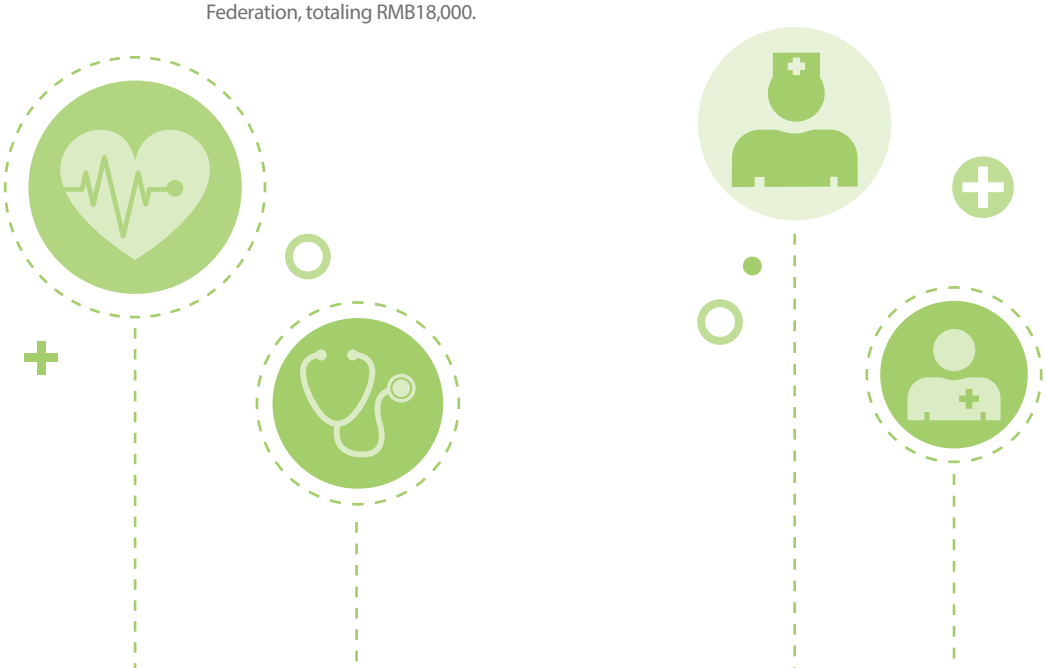
7.2 Making it a widespread habit to do public good

On 22-25 June 2017, initiated by the Shanghai Association of Chinese Integrative Medicine and the Health Bureau of Shihezi City, Bashi of the Xinjiang Production and Construction Corps, the "Belt and Road Healthy Walk" charity activity supported by companies under Shanghai Pharmaceuticals was officially launched.

Shanghai Leiyunshang Pharmaceutical and Shanghai Xingling Sci. & Tech. Pharmaceutical Co., Ltd. ("Shanghai Xingling") under Shanghai Traditional Chinese Medicine were the sole corporate sponsors of the "Belt and Road Healthy Walk" public health campaign. They participated and offered full support throughout the activity and donated 4 classical Chinese medicines to the local Red Cross Society, including Shanghai Leiyunshang Pharmaceutical's Salvia miltiorrhiza tablet, China's first integrated traditional Chinese and Western medicine research-based Zhenju Jiangya Tablets, and Shanghai Xingling's two preferred basic medications for cardiovascular and cerebrovascular diseases and cognitive disorders, namely "Styron" gingko ketone capsules and "Styron" gingko ketone granules, with a total value of more than RMB100,000.

On 14 December, 2016, SPH Keyuan (Huangshi) Co., Ltd. and the People's Procuratorate of Huangshi City established the Foundation for the Care of Minors, aiming to make up for the lack of coverage of judicial assistance, and to provide assistance to salvage targets affected by life, medical care, and employment, promoting the healthy growth of minors involved. Each salvage target could receive the salvage amount ranging from RMB1,000 and RMB5,000, and the payment standards might be raised under special circumstances upon approval. The salvage funds were mainly used for the medical expenses, psychological counseling costs and necessary learning, employment and skills training costs of the salvage target.

In March and July of 2017, the Company remitted the funds to the "Hubei Charity SPH Keyuan Minor Care Fund" of Hubei Charity Federation, totaling RMB18,000.



Recently, the books valued at RMB20,000 donated by Beijing Xinhai Keyuan Pharmacy Co., Ltd ("Beijing Keyuan") to the "Beijing Keyuan -Chenduo County, Yushu Prefecture Love and Support Program" that was launched in 2012 had been successfully delivered to the Chengwen Town Centre Boarding School in Chenduo County, Yushu Prefecture, Qinghai Province, refreshing the extra-curricular life of students again.

Following last year's "clothes (books) warming homes, sending love to the mountains" public welfare activities, Shanghai Traditional Chinese Medicine and SPH Hua Yu Chinese Herbs set off again to extend our love. On the morning of 15 June, the volunteer team took the gifts with love and drove for more than 4 hours and came to Taizi Elementary School in the mountain areas to send clothes and books to children who were studying in hardships.

In May 2017, SPH Keyuan Shaanxi participated in poverty alleviation activities for Jiangkou Huizu Town in Ningshan County, and donated RMB80,000 for repair and maintenance of health clinics; in August, it provided assistance in poverty-stricken areas, visited poor households, and donated RMB3,000; in September, it donated RMB30,000 for the housing repair and maintenance project of Heyi Town in Shiquan County.

On 5 September, 2017, HuQingYuTang Pharmaceutical participated in "China Charity Day", and its doctors, sincere with a benevolent heart, participated in the charitable work to offer help to the people! More than 10,000 "city cosmetologists" donated 50 boxes of Qingyu Piwen Dan from HuQingYuTang valued at hundreds of thousands of dollars, giving care and warmth to the sanitation workers who guarded the city.

On 24 July, 2017, SPH Keyuan Xinhai Inner Mongolia Pharmaceutical Co., Ltd. donated medical products valued at RMB5,000 to the elderly in the Chinese Home for the Elderly in Hantai Town, Dongsheng District, Ordos City, and Nursing Home in Xinhai Yihe City. There were more than a dozen of varieties of medicines mainly for treating common diseases of the elderly such as colds, pharyngitis, hypertension, anemia and diabetes.

On 6 April, 2017, the Youth League Committe of SPH Xiamen Traditional Chinese Medicine organized voluntary blood donation activities to contribute its effort for blood donation. More than 60 people participated in the five-hour activity. In the end, 45 blood donors successfully made blood donation, and the amount of blood donated reached 10,700 ml.

On 24 March, 2017, Shanghai Zhongxi Sunve, as the exclusive manufacturer of "Pyridostigmine Bromide Tablets" —— the drug for the relief of symptoms of Myasthenia Gravis, gave a love donation to Beijing Aili Myasthenia Gravis Care Center, hoping that more patients would become stronger and there would be more love and care from the society, so that patients with Myasthenia Gravis would become "more powerful."

7.3 Community investment

The Company attaches great importance to community relations. Affiliated enterprises actively participate in community affairs in various aspects, and constantly strengthen the positive interaction with the community. While contributing to the community, the Company creates favourable conditions for its sustainable development.

1 Host the world's large-scale barefoot run to promote the sports life of Shanghai citizens

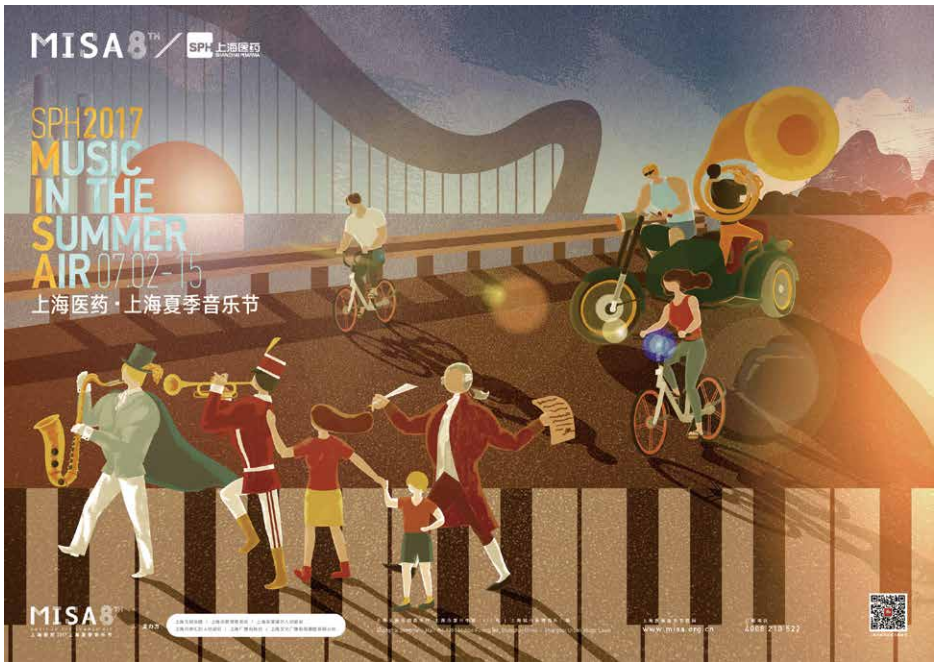
As a company headquartered in Shanghai, Shanghai Pharmaceuticals actively promotes the healthy sports life of Shanghai citizens. On 15 April 2017, Shanghai Pharmaceuticals' "Healthy China Four Seasons Run" was successfully held at Yuewan Plaza in Shanghai Oriental Sports Center.

A total of approximately 2,500 citizens participated in this unique "large-scale barefoot race" and created a new Guinness World Record. This was the first large-scale healthy run in Shanghai in 2017.

2 Total title sponsor: the 8th Music in the Summer Air to enhance the quality of music life of Shanghai citizens

After 7 years of cultivation, the Music in the Summer Air has gradually become a unique cultural brand in Shanghai and is an art event that Shanghai citizens hope for in summer. As a company headquartered in Shanghai, Shanghai Pharmaceuticals upholds the brand mission and actively promotes the healthy lifestyle of Shanghai citizens.

Through the total title sponsor of the 8th Music in the Summer Air for 2017, from 2 to 15 July, a total of 25 excellent performances of traditional symphonies and trendy crossover music presented by Chinese and foreign famous groups and famous artists, creating a young, dynamic and positive health atmosphere for Shanghai.



3 Support "rational use of drugs" in the community

It is the primary social responsibility of pharmaceutical companies to improve people's satisfaction with drug safety and ensure the fulfillment of their medical needs to the maximum extent. Shanghai Pharmaceuticals fully supports the series of publicity and educational activities for the community to "strengthen pharmacy management and promote rational use of drugs" in Shanghai. In a combination of expert lectures and on-site consultations, the public will be informed about the drug knowledge and specifications of common diseases and chronic diseases, as well as problems and mistakes that should be avoided in the daily medication process, so that the public's scientific understanding of the drugs and the use of drugs will be continuously enhanced, enabling the public to take medicine of high quality with peace of mind and without worries.

On 15 October 2017, the 19th Fahrenheit - Leiyunshang Paste Festival with the theme of "Happy Sports Life to Maintain Health in a Pleasant Way" was held in Fahrenheit Yangpu Pharmacy. Several well-known veteran traditional Chinese medicine practitioners in Shanghai provided services to the public including pulse measurement, prescription, and more than 100 consumers received such services. They also provided services such as free traditional Chinese medicine consultation and medication counseling. The people received other services such as measurement of blood pressure, blood glucose and bone density, valet gel, powdering and other services for free. They also provided customers with paste services featuring a strong team of experts, pure herbs and quality services.

On 13 May 2017, the party branch of Henan Kangxin Pharmaceutical Co., Ltd. invited licensed pharmacists to organize the "Propaganda and Consultation on the Basic Knowledge of Use of Drugs in Summer" activity at the Kangxin Pharmacy, aiming at providing guidance on the use of drugs for common diseases in the summer (including heat stroke, cold, diarrhea and skin diseases). Many people came to this event for consultation. This event effectively promoted the basic knowledge of commonly used drugs in the summer and raised public awareness of prevention of common diseases in the summer.

On 16 July 2017, Xiamen Traditional Chinese Medicine Co., Ltd. ("XTCM") held the "Traditional Chinese Medicine Law" publicity activities at the South Gate of Zhongshan Park in Xiamen. There were an area promoting the knowledge of "Traditional Chinese Medicine Law", an area providing free health consultation from famous traditional Chinese medicine practitioners, the on-site display area for identification of the authentic Chinese medicine, and the traditional Chinese medicine experience zone and other interactive sessions. By popularizing the knowledge of traditional Chinese medicines, allowing people to truly feel the convenience and special features of traditional Chinese medicine, thereby promoting the spirit of traditional Chinese medicine.

In order to give full play to the vanguard and exemplary role of serving party members in participating in community building and serving the people, on 24 June 2017, more than 60 serving party members of Liaoning SPH Herbapex Pharmaceutical (Group) Co., Ltd. ("SPH Herbapex") entered the Huanren Shuncheng community and participated in the "Giving love and warmth, serving party members take part in community activities" conducted by the Shuncheng community. Through charity donations and visits to people in difficulties, they had effectively done practical things and solved problems for the community, so that the people felt the warmth and care from the serving party members. Therefore, this activity has been unanimously recognized and praised by the community.

Chapter 8
Create overall value based on responsible operation

Our goal

- Create overall value

Our management ideology

- Take different stakeholders' appeals seriously

1. Responsible to shareholders
2. Responsible to employees
3. Responsible to the environment

Our measures

- Strengthen transparent management, promote business development and realize synergy of management and control
- Focus on employees' career development and occupational health and raise their remuneration, benefit level and comprehensive capacities
- Integrity, self-discipline and compliant operations
- Insist on green production and low-carbon operation

Our achievements

- Operating results kept growing at 8%-plus, EPS increased 10.14% and dividend distributed to all the shareholders was not lower than 30% of the net profit distributable last year.
- We provided our employees with professional, high-efficiency and individualized training courses and growth paths in light of their work posts and career development needs.
- We worked on legal construction projects, performed standardized operation of pollution treatment facilities, and legally disposed of hazardous waste
- Energy-saving and water-saving effects were significant

8.1 Governance and control

In 2017, the Company attained the business objective and completed various key tasks for 2017 and achieved annual budget goals in response to a sequence of significant policy and market changes including reduced drug price brought by a new round of bidding, implementation of efficacy consistency evaluation of generic drugs, and rollout of new drug examination and approval policy, zero-profit drug policy, two-invoice system, etc.

1 Governance mechanism

The Company actively built a comparatively perfect modern governance system for listed companies and constantly improved its corporate governance structure in strict accordance with the Company Law, the Securities Law and other relevant laws, and relevant regulations formulated and issued by regulatory departments.

In 2017, in order to further improve the governance mechanism, the Company has revised the statements of some provisions of the Information Disclosure Management System of Shanghai Pharmaceuticals in accordance with the provisions of the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited recently revised by the Stock Exchange of Hong Kong Limited and the Securities and Futures Ordinance issued by the Securities and Futures Commission of Hong Kong.

At the same time, the Company intended to further improve the profit distribution policy of the Articles of Association in accordance with the relevant provisions of the Guidelines for the Articles of Association of Listed Companies (2016 Revision) (CSRC Announcement [2016] No. 23), the Guidelines for Supervision of Listed Company No. 3 - Cash Dividend Distribution of Listed Companies (CSRC Announcement [2013] No.43), the Guidelines for Cash Dividend Distribution of Listed Companies (Shanghai Stock Exchange [2013] No. 1), the Notice on Further Implementation of Matters Related to Cash Dividend Distribution of Listed Companies (CSRC [2012] No. 37), the Decision on Amendments to Certain Provisions for Cash Dividend Distribution of Listed Companies (CSRC No. 57); currently the amendment has been reviewed and passed by the Company's Board of Directors, pending the approval by the shareholders' general meeting.

2 Risk and Internal Control Management

In order to respond to the ever-changing risks and comply with the compliance requirements in terms of the listed company governance, the Company has set up working procedures for risk identification, risk assessment, risk response and risk reporting, which are used to identify internal and external risks and assess the probability and impact of risk occurrence, identify risk response strategies and implement response plans, and regularly and systematically report risk and risk management information to the Board of Directors, Audit Committee and management.

In respect of corporate internal control, the Company has established a corporate legal person governance structure, and set up an organizational structure that meets the Company's business scale and business management needs from the perspective of corporate risks based on the requirements for setting up a modern corporate system, taking into account its own development status, and has continuously improved and optimized the Company's internal control management system in relation to five aspects, namely control environment, risk assessment, control activities, information and communication, and supervision mechanism.

In order to cultivate a culture of compliant operations and reduce the risk of non-compliant operations, in 2017, the Company listed the promotion of compliance management as one of the key tasks of the year, and promoted the construction of a compliance operations system, for which the following tasks were mainly carried out:

1. Define the structure of a compliance organization with participation of all employees

2. Formulate the Code of Compliant Conduct and improve policy processes

3. Hold a compliance culture forum to raise the awareness of compliance with regulations

4. Pilot compliance measures deployment to verify the implementation effect

5. Change compliance supervision methods, highlighting professional collaboration

In order to define the management and control requirements and promote the standardization of operations, a set of internal control processes featuring coordination, unification and effective operations were established within the Company to ensure the standardization and systematization of the Company's overall internal control. In the year, the docking, coaching and promotion of internal control management were implemented for newly acquired companies.

By evaluating the operational effects of equity investment projects and fixed asset investment projects after the project review and acquisition (construction), the Company will reduce implementation risks from the front end, track project forecasts at the back end, and propose suggestions for improvement based on the status quo, so as to ensure the investment quality of the project to the maximum extent.

3 Compliant operations

Shanghai Pharmaceuticals has always been attaching importance to marketing compliance management, because compliant operations are not only the minimum management requirement for companies, but also an important guarantee for participating in international competition and practicing social responsibilities. In 2017, Shanghai Pharmaceuticals comprehensively promoted the construction of a compliance management system and formulated the "Marketing Compliance Manual".

1. Establish a Marketing Compliance Management Framework

2. Define marketing compliance management objectives and working principles

3. Determine the marketing compliance management policy

4. Carry out marketing qualification training

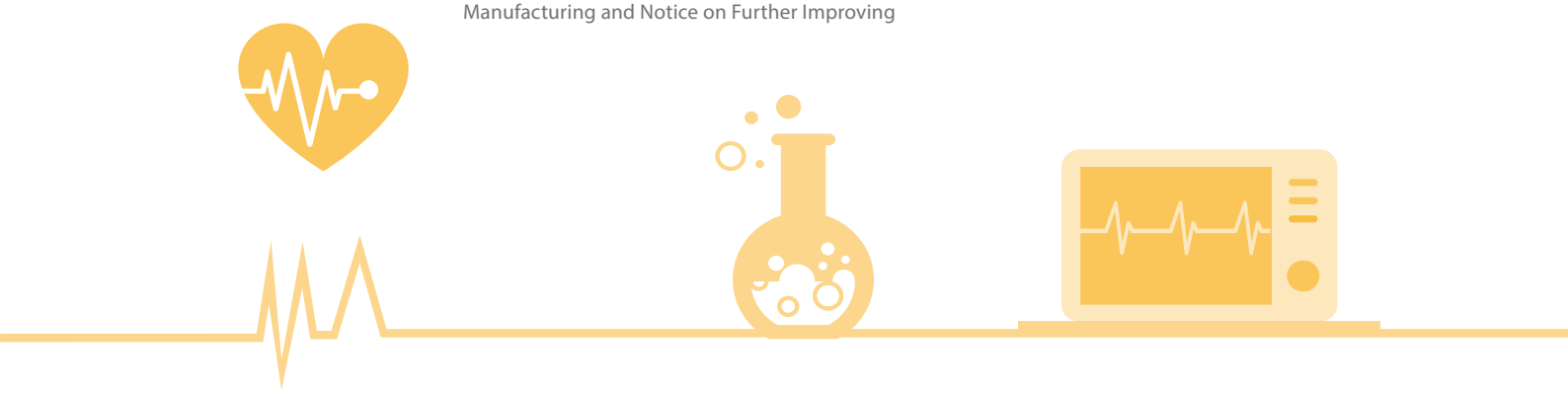
5. Conduct compliance supervision and penalties for violations

6. Set up compliance risk warning and crisis handling plan

4 Information Disclosure

In respect of information disclosure, the Company, in line with investors' needs and compliance, took initiative to fulfil the obligation of information disclosure by innovative methods and enhanced time effectiveness and transparency of information disclosure in strict accordance with the Standards for the Contents and Formats of Information Disclosure by Companies Offering Securities to the Public No.2 - Contents and Formats of Annual Reports (2016 Revision) issued by CSRC, Guideline on Industry Information Disclosure No. 7 - Listed Companies Engaging in the Pharmaceutical Manufacturing and Notice on Further Improving Information Disclosure of Poverty Alleviation by Listed Companies issued by the Shanghai Stock Exchange, and Environmental, Social and Governance Reporting Guide issued by the Stock Exchange of Hong Kong Limited and other requirements.

From 1 January 2017 to 31 December 2017, the Company disclosed a total of four periodic reports (annual report 2016, first quarterly report 2017, interim report and third quarterly report 2017), 55 A-share temporary announcements and 77 H-share announcements and documents.



5 Communication with investors and safeguarding of their rights and interests

The Company regularly held conference calls involving global investors and conducted roadshows for global institutional investors. Meanwhile, the Company positively responded to and answered the investors' questions through the "E-interactive Platform" of the Shanghai Stock Exchange, investor hotline and e-mails. In 2017, the Company maintained good interaction with domestic and overseas investors, participated in and received investor survey, and held reverse roadshows in Shanghai and Hong Kong in July respectively, ensuring investors could be promptly informed of the Company's operating results and strategy plans. In 2017, the Company has made invitations to its investors for more than 200 times in total. As of 31 December 2017, the "E-interactive Platform" of the Shanghai Stock Exchange had received 32 questions from investors, and the Company paid great attention and responded to them all in a timely manner.

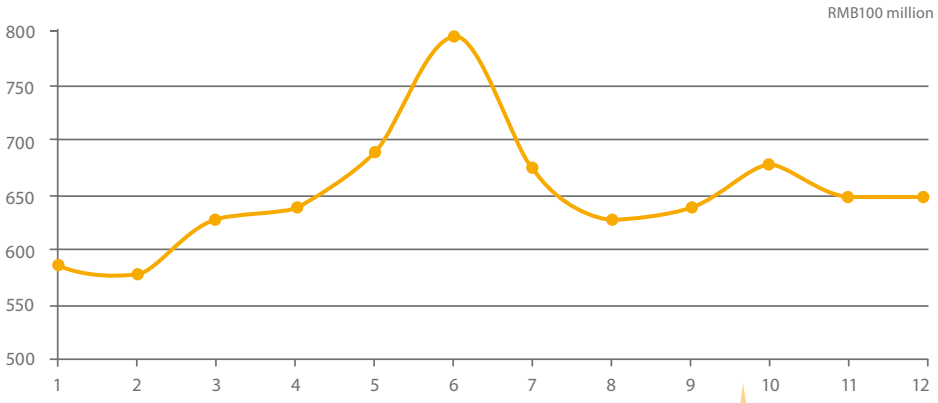
Case 1: Profits shared through cash dividend

The Company highly valued general investors, especially the rights and interests of medium and small investors. From 2012 onwards, the Company insisted on distributing profits in cash every year while taking sustainable development into account, and the dividend proportion has exceeded 30% for five years in a row, ensuring that investors could share the bonus of enterprise growth.

Case 2: Market value management

In the first half of 2017, the Company's share price continued to climb under the influence of the outstanding performance of the first quarter results and the positive logic of the market investment logic of the favorable conditions to the leading companies brought by the two-invoice system policy. In June, the market value exceeded RMB77.7 billion, which was the highest single-day market value during the year. From June to August, due to the negative impact of the two-invoice system on the sales to distributors of medicine-related commercial companies, the growth of the industry performance slowed down, the broader share prices of medicine-related commercial sectors underperformed, and the share price of the Company fell. The market value returned to the level in March. The Company actively communicated with the capital market in a variety of ways to stabilize market sentiment and the market value was recovering gradually. By the end of 2017, the Company's market capitalization was kept at around RMB65 billion, boosting the market confidence.

Trend chart of market value of Shanghai Pharmaceuticals（601607.SH ／ 2607.HK）in 2017



6 Anti-corruption

In respect of audit, the Company formulated the Purchase and Bidding Management Measures of Shanghai Pharmaceuticals as well as Management Measures of Supplier Integrity and Compliance of Shanghai Pharmaceuticals according to the Bidding Law of the People's

Republic of China, the Regulation on the Implementation of the Bidding Law of the People's Republic of China and other relevant state laws and regulations. The two systems mainly specified the bidding and purchasing requirements for engineering projects, equipment, facilities, office supplies, office equipment, IT software and hardware, professional maintenance, consulting services, etc., and honesty and compliance requirements that the Company's staff should observe during transactions with suppliers.

In respect of the discipline inspection commission, while complying with laws and regulations related to the Anti-Corruption and Bribery Law of the People's Republic of China and other [Anti-corruption] laws applicable to the Company, the Company continued to study, publicize and implement the Criteria of Honesty and Self-discipline for the Communist Party of China and Regulation of the Communist Party of China on Disciplinary Actions, and earnestly implemented Shanghai Pharmaceuticals' Measures for Implementation of Entity Responsibility of Party Committee and Supervision Responsibility of Discipline Inspection Commission in Building of A Clean and Honest Government. Key work was carried out in promoting building of risk prevention and control system for major fields:

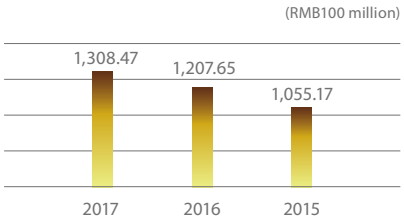
1. Promote implementation of Guidance Opinions on Strengthening Management of Sensitive Posts. Enhance incorruption education for employees at sensitive posts, conduct examination on the implementation of management of sensitive posts, and prevent corruptions from the source.

2. Implement the Measures for Management of Honesty and Compliance of Suppliers, cooperate with relevant business departments in urging various units to regulate management of suppliers so as to improve the enterprise's risk prevention ability.

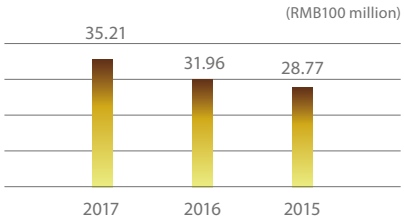
3. Work out the Notice on Strengthening Management of Agency of Relevant Enterprise Products of the Group by Employees Who Have Left Shanghai Pharmaceutical Group, and further enhance management of agency of relevant enterprise products of the Group by employees who have left the Group.

Key indicators:

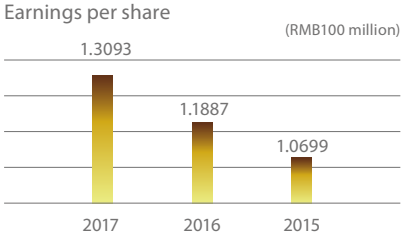
Operating revenue



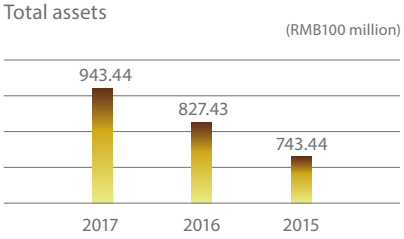
Net profits attributable to shareholders of listed company



Earnings per share



Total assets



8.2 Employee development

1 Career development

The Company gradually established employee career development channels, including the position system for R&D personnel, position system for technical-quality control personnel, and position system for skilled personnel, and kept improving the position standards.

The Company strengthened the introduction of market-oriented talents and extensively promoted the methods for selection of talents for competitive jobs; established a unified recruitment management platform, set up an internal employee recommendation system, integrated internal and external recruitment channels and resources, optimized recruitment process and established internal and external talent pools; absorbed international talents and promoted the Company's international business development; annually organized theme recruitment in the campus, established strategic alliances with relevant universities and jointly established national education practice bases and master graduate internship bases to improve students' practical ability through internships, graduation design, exchange of experts, directed and entrusted trainings, so as to shorten their run-in period after entering the company.

As the "Continuing Education Base for Medical Professional Technicians" designated by the Shanghai Municipal Human Resources and Social Security Bureau, the Company arranged professional medical technicians to conduct theoretical discussions and practical projects on medical expertise.

After systematic training and master instructing apprentice, a number of leading skilled personnel with exquisite craftsmanship and working in the frontline emerged in the Company. In particular, one person was selected as one of the "Shanghai Craftsmen", one person was awarded Shanghai Mechanics Master Studio, one person was included in the funding project "Thousand Talents Program for Chief Mechanics in Shanghai", and one person was included in the additional funding project "Thousand Talents Program for Chief Mechanics in Shanghai".

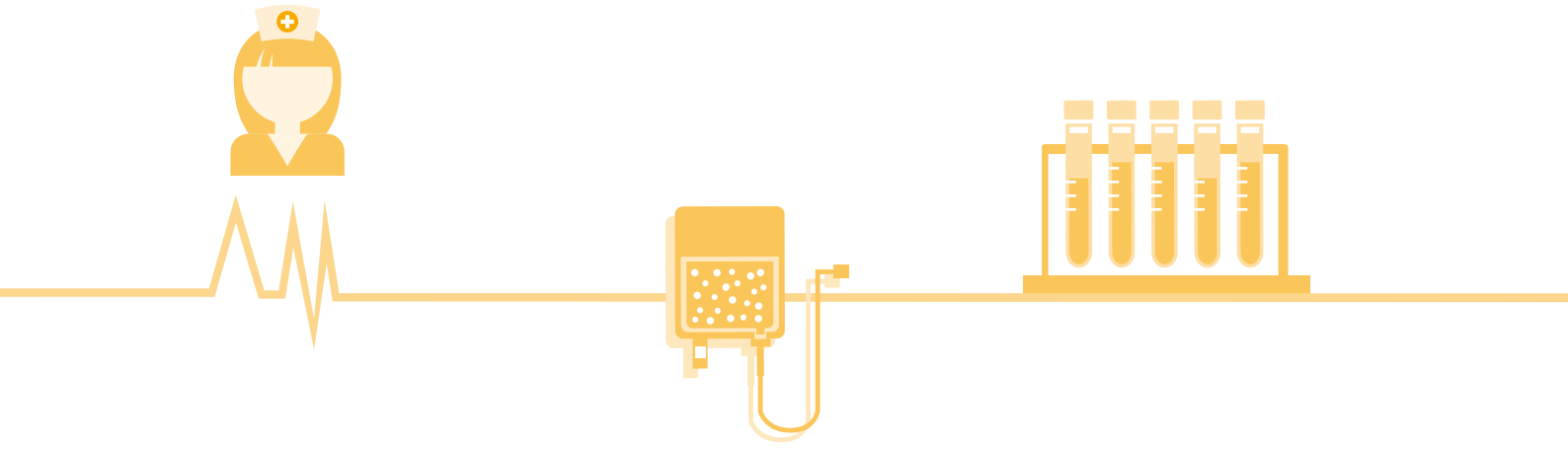
2 Salary & welfare

The Company adhered to the salary payment concept centered on position, ability, performance and market and kept improving the normal growth mechanism and the underpinning mechanism for employee salaries, so as to improve the incomes of employees of the enterprise.

The Company improved the salary system and salary adjustment mechanism for headquarters' staff, launched career development and salary optimization projects for headquarters' staff, and enhanced the linked mechanisms between employee performance results with salary adjustment, appointment and promotion.

The Company, with SPH Research Institute as a pilot, promoted and implemented the project manager system for R&D personnel, and established a salary distribution system that matched the position system for R&D personnel and was directly related to the R&D projects.

With reference to the enterprise's development, the Company actively improved the welfare system for employees, and some enterprises established the welfare items such as commercial health insurance, supplementary provident fund and enterprise annuity.



3 Training and development

The Company paid high attention to employees' growth and development and provided employees with systematic learning and development paths and training courses:

Through seminars, external visits, internal sharing, etc., the management level and leadership ability of middle and senior managers are continuously improved;

For the new managers, the Company continued to optimize the iterations and continued to carry out the "Jing Yan" study program;

The Company held the "Young Geese Flying High - Induction Training for New Graduates" to enhance the new employees' sense of identity for corporate culture and improve their sense of belonging and sense of pride. 214 new graduates learned the Company's strategic plan, corporate culture, Lean Six Sigma, professionalism attainment and time management and participated in a variety of activities including visit to enterprises, team development training, face-to-face with senior management and interaction with campus ambassadors. The Company solidly promoted the "young geese growth partnership program" and provided each new graduate with a guide acted by excellent league cadre, so as to accompany the "young employee" in growth during the one-year growth partnership period and help them change from a good student to a good employee.

To continuously promote the Lean Six Sigma management, in 2017, the Company launched lean project counselling and operational green belt training. More than 100 people participated in relevant training and the Company organized 340 people to participate in the black belt and green belt examinations;

To accelerate the R&D transformation and enhance the overall capabilities of R&D project managers, the Company organized a study program for R&D project managers. A total of 40 students participated in the study and practice. Through online knowledge learning, offline case sharing, and follow-on on-the-job practices, the Company continued to train and upgrade the project management capabilities and cross-departmental communication skills of project managers;

The "Contract Manager Competency Training" study program was a systematized and standardized skill training program designed to address the needs of the Company's employees in legal affairs, contract management and other related positions. It was an important guarantee for the implementation of the Company's legal system and legal risk management and control. More than 100 legal-related personnel participated in the training and obtained the qualified certificate.

4 Health and safety

Occupational health:

The Company always insisted on the work objective of 100% report rate and detection rate of occupational hazardous factor, 100% notification rate of post occupational hazard, 100% physical examination rate and 100% training rate in occupational health management, and realized full coverage of occupational hazard management and the work objective of no occurrence of occupational disease.

To improve the safety of production facilities, the Company controlled and eliminated the hazards at the source; in March, the Group issued a notice on accelerating the implementation of "phasing out outdated safety technical equipment" and "the list of elimination and rectification of outdated safety technical equipment", conducted the investigation and research of the occupational health hardware facilities of enterprises, explored the equipment and facilities that the state has ordered to be phased out, and urged the enterprises to disable, scrap and rectify the equipment and facilities that have been phased out according to regulations, and followed up the implementation of the rectification of each enterprise.

Case:

Shandong Xinyi Pharmaceutical Co., Ltd. changed its three-legged centrifuge into a four-legged type. Through closed, nitrogen-exposed linkage devices, it not only improved the operating environment, but also protected the health of employees. Asia Pioneer Pharmaceutical Factory changed its code labeling made by the assembly line machinery in the formulation workshop to laser code labelling, and updated an automatic packaging machine to reduce the noise hazard. The Muye cylinders of Shanghai Zhongxi Pharmaceutical Machinery Jiejing were changed to closed ones, greatly reducing the concentration of organic solvents in the operating environment.

Work safety:

In accordance with Production Safety Law and relevant laws and regulations, the Group continued to promote the work safety responsibility system to prevent work safety accidents. The Group insisted that "work safety is the responsibility of both the Communist Party and the government and relevant cadres should be responsible for not only their own jobs but also related work safety" and applied supervision on work safety to every process.

The Company has established a set of Work Safety Management Norms and Systems, continued to promote safety and environmental protection management system building, and improved safety and environmental protection standardization. To achieve the goal of "no serious production safety accidents, no significant fire and explosion accidents, no largely responsible major traffic accidents, no major occupational hazard accidents and less serious injury accident and general accidents", the Company held safety and environmental protection education activities to increase employees' safety and environmental protection awareness and conducted safety risk evaluation and inspection to responsively spot and eliminate safety risks.

On 13 January 2017, the President of Shanghai Pharmaceuticals signed a Letter of Responsibilities for Work Safety in 2017 with the general managers of 24 subordinate enterprises, specifying the work safety goal for each year.

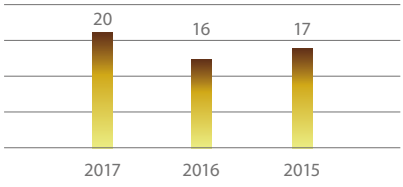
The Company organized four special projects including special rectification of "non-flame-retardant colour steel plate", "laboratory hazardous chemicals", "anti-customary unlawful behavior", and "exhausted plant rental space". The Company focused on key special projects throughout the year, and has achieved certain improvements in all aspects of work safety. The Company continued to push forward the review of work safety standardization. The production companies subordinate to Shanghai Pharmaceuticals completed the review of 15 second-tier companies and maintained full-scale work safety management.

The Company encouraged enterprises to participate in safety culture construction unit rating activities in Shanghai. 3 enterprises in Shanghai applied to Shanghai Work Safety Association for participating in Shanghai safety culture construction unit rating. Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd. and Shanghai SPH No.1 Biochemical and Pharmaceutical Co., Ltd. have passed the review.

During the "Safety Month" campaign, the Company organized emergency drills with second-tier companies; on 9 June, Shanghai Pharmaceuticals and second-tier companies organized an actual emergency drill, using Shanghai Leiyunshang Pharmaceutical as the drill site to simulate fire accidents in the production process to conduct the fire drill. In the "119 Firefighting Awareness Month" campaign in China, on 8 November, Changzhou Pharmaceutical Factory conducted the emergency drill on the occurrence of dangerous goods leakage accidents in chemical raw material manufacturer. Conducting regular emergency simulation exercises can enable employees to truly feel the scenes of accidents such as fire disasters during production and get the basic knowledge of emergency rescue. Through constant drill exercises, employees' awareness of safety was increased.

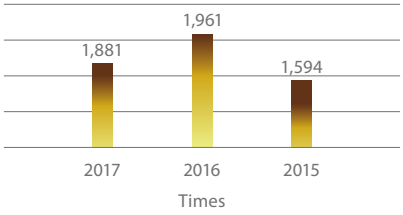
Key indicators:

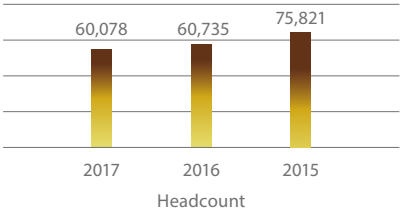
Work safety accidents or work-related accidents in the year (number of accidents)



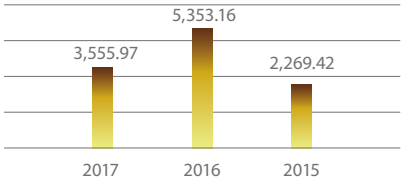
Note: Consolidated statistics of work safety accidents and work-related accidents, all were minor and slight injury accidents.

Safety education and training



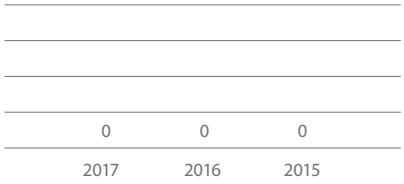


Occupational health-related investment (RMB0'000)



This indicator mainly refers to investment in improving the working environment and increasing personal protective equipment and emergent protective measures.

Incidence rate of occupational diseases



5 Employment and labour practices

According to the Labor Contract Law of the People's Republic of China and local labor laws, regulations and policies, Shanghai Pharmaceuticals recruited employees according to job requirements on the basis of impartiality and fairness and did not discriminate employees because of their gender, age, disease and race; the Company paid social insurance and other statutory welfare for all regular employees in a timely and fixed manner; all subordinate enterprises granted statutory holidays and paid leave to employees; Shanghai Pharmaceuticals had always insisted on legitimate employment and was not involved in use of child labor or forced labor.

In protecting the legitimate rights and interests of employees, the labor union of the Company made it available for staff members to express their demands and tried to maintain harmonious labor relations by holding different activities. In 2017, labor unions at all levels listened to and collected the views and suggestions of staff members through the workers' congress (employee representative inspection, employee representative proposal), collective negotiation, labor emulation, continuous improvement proposals, cultural and sports activities and seminars, after which they responsively reported these views and suggestions to the Party and government leaders of enterprises and urged enterprises to make improvement.

In addition, the Company urged labor unions at all levels to complete information collection and entry of membership cards. In the second half of 2017, 12,527 members were newly registered, accounting for 66% of the total members and all of whom were insured under the special insurance plan (over RMB250,000 of premium was paid).

Claims of 33 gravely ill members under the plan were settled; as at the end of the year, claims of 23 members were satisfied and were compensated RMB480,000.

For enriching employees' cultural life, the Company consciously incorporated its core values of "innovation, integrity, cooperation, tolerance and responsibility" throughout the employees' cultural and sports activities, and continued to carry out various types of healthy and diverse employees' cultural and sports activities. The Company continued to improve the spiritual and cultural pursuit and quality of employees, conducted the "Shanghai Pharmaceuticals Most Appealing" employee singer contest. Through online and offline methods, nearly 260 employees signed up the contest. After the preliminary contest, rematch and semi-finals, 18 employees won the final tickets. A group of excellent employee singers stood out through the event. A total of 152 teams were organized and nearly 1,000 employees participated in the Shanghai Team Culture Network Competition.

In addition, the Company organized more than 20 employees to participate in various kinds of employee training and cultural and sports activities organized by the Shanghai Federation of Trade Unions, including photography, calligraphy and painting exhibitions, and fishing competitions. The two works were awarded silver and bronze awards in the calligraphy and painting exhibition of the Shanghai Federation of Trade Unions respectively, demonstrating the style of Shanghai Pharmaceutical Group employees. The Company organized nearly 900 employees to participate in the 8th Employee Games of Shanghai Industrial Investment and obtained good results: the first place in 2 groups, the first place in 1 individual, the second place in 4 individuals, the third place in 2 individuals and 1 group merit award.

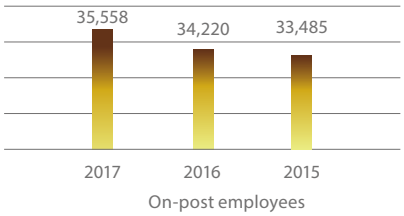
For female employees, in March this year, "Holding Happiness and Giving Warmth to Shanghai Pharmaceuticals" organized by the Women Workers' Committee of Shanghai Pharmaceuticals raised the hope of caring action of female employees of Shanghai Pharmaceuticals and focused on the perspective of a group of women in the Shanghai Pharmaceuticals family who had difficulties in their lives but were strong, and by helping them to fulfill their aspirations, pass on the true feelings and warmth to them and let them feel more love and happiness.

During this period of more than one month, the Women Workers' Committees of 9 companies of Shanghai Pharmaceuticals started nine "dream tours" for small wishes respectively. The 9 recipients also realized their wish to conduct a private lecture on TCM health culture in the Company and revisit to the Company's planting base.

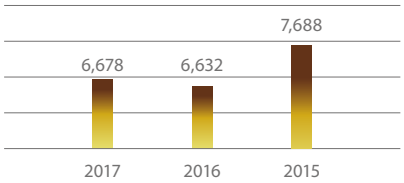
Through this event initiated by the Women's Workers' Committee this year, the responsibility of Women's Workers' Committee at all levels and trade union organizations has been further stimulated, and the first discoverers, first insiders and first helpers who care for their employees would do a better job, and let more people feel human love and care during the development of Shanghai Pharmaceuticals, allowing Shanghai Pharmaceuticals to be filled with warmth and strength

Key indicators:

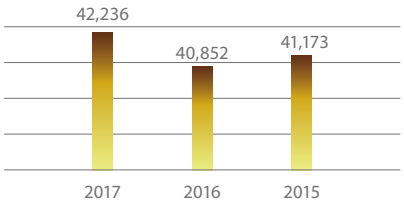
1.Total number of employees



On-post employees

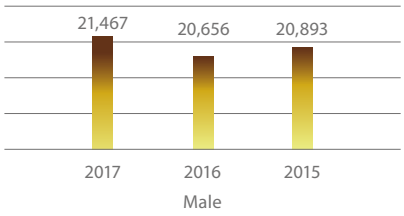


Other employees

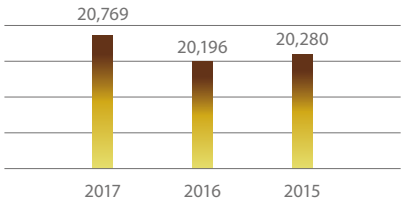


Total

2.Sex composition

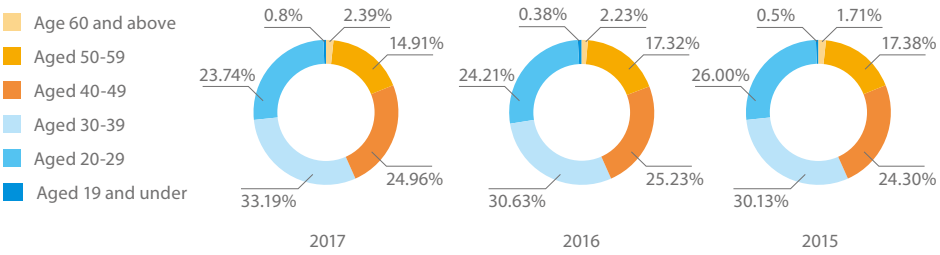


Male

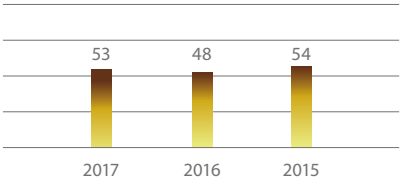


Female

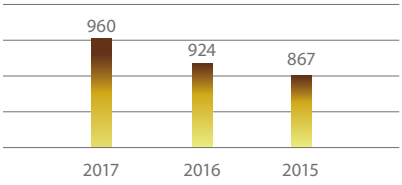
3、Age composition



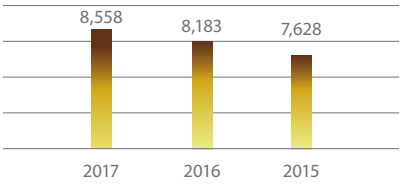
4. Education composition



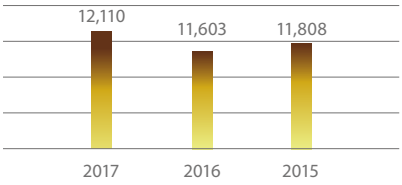
Doctor degree



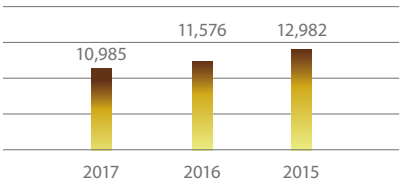
Master degree



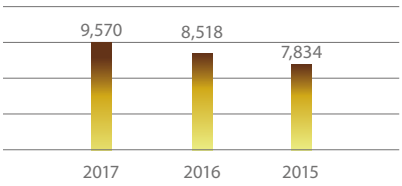
Bachelor degree



Higher vocational college

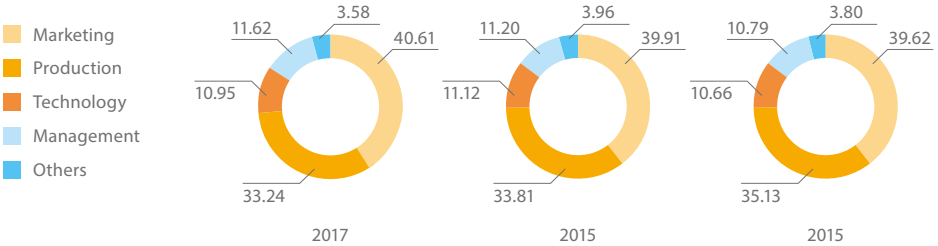


Technical secondary school (high school)

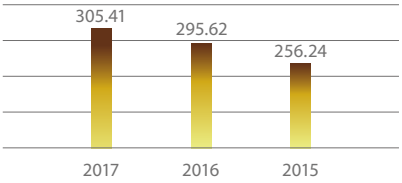


Others

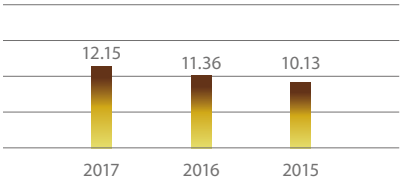
5. Employee structure



6. Efficiency indicator

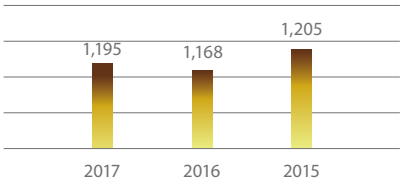


Per capita sales income (RMB0'000)

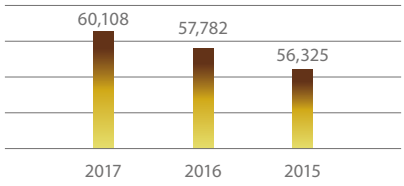


Per capita profit (RMB0'000)

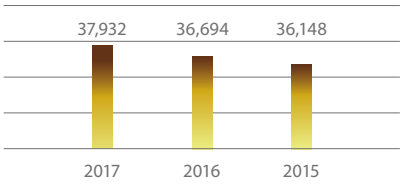
7. Training hours



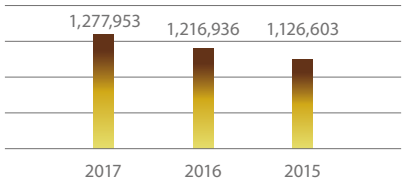
Middle-senior managers - Number of people



Middle-senior managers - Total training man hours



Ordinary employees - Number of people



Ordinary employees - Total training man hours

8.3 Environmental management

1 Environmental protection

Shanghai Pharmaceuticals implements responsibilities, enhances awareness, increases investment and continuously improves in strict compliance with the requirements of the regulations. At the beginning of each year, the Company convened a meeting of the Company's Safety and Environmental Protection Committees, signed the annual target responsibility statement at the meeting, specified the annual environmental protection objectives and tasks (Note 1), and arranged the key tasks of annual work safety and environmental protection. The Company were required to complete key tasks such as air pollution control, preparation of emergency plans, application for pollutant discharge permits, clean production audits and promotion of Environmental Day.

In 2016, the General Office of the State Council issued the Notice on Printing and Distributing the Implementation Plan for Control of Pollutant Discharge Permit System, specifying the pollutant discharge permit for enterprises and institutions in the future as the only administrative license for the discharge of pollutants during the production and operation period. The pollutant discharge permit will clarify that its pollutant discharge behavior shall comply with the environmental management requirements and bear the legal obligations pursuant to law. In 2017, the Ministry of Ecology and Environment formulated the Classification Management List for Pollutant Discharge Permits from Fixed Pollution Sources, requiring API manufacturers to obtain pollutant discharge permits before the end of 2017. Shanghai Pharmaceuticals complies with the provisions of laws and regulations related to [pollutant discharge] such as the Company's Law of the People's Republic of China on Prevention and Control of Water Pollution and the Law of the People's Republic of China on Prevention and Control of Air Pollution, and all 10 subordinate API manufacturers that meet the requirements obtained the pollutant discharge permits in accordance with the requirements of the Ministry of Ecology and Environment. The enterprises that have obtained the pollutant discharge permits will strictly follow relevant laws and regulations and standards such as the Provisional Regulations on Management of Pollutant Discharge Permits issued by the Ministry of Ecology and Environment in 2017, implement self-monitoring, improve environmental management ledgers, and regularly compile implementation reports.

Since 2016, the central environmental protection inspectors have swept across 31 provinces across the country, and the government has continued to enhance environmental protection supervision and enforcement. New environmental protection laws and regulations were successively promulgated in 2017, including the new amendments to the Law of the People's Republic of China on Prevention and Control of Water Pollution, the Regulations on the Administration of Environmental Protection of Construction Projects, and the Interim Measures on Acceptance of Environmental Protection for Construction Projects. According to the requirements of environmental protection, the security department of the Company issued nine notification documents in 2017 to arrange the subordinate companies to complete tasks such as the establishment of a sound management organization, application for pollutant discharge permit, ensuring the construction projects that the environmental protection facilities must be designed, constructed and put into use simultaneously with the main works, construction of pollution facilities, control of discharge outlets, the management of hazardous wastes. VOC remediation work, monitoring of pollutant discharge, improvement of self-monitoring capability, project voluntary acceptance, annual summary plan, etc.; 30 companies have conducted on-site environmental protection inspections, pointed out problems found on the spot and put forward rectification suggestions, which prompted companies to improve their environmental management level. At the end of the year, in accordance with the target responsibility statement signed at the beginning of the year and assessment criteria, assessments will be conducted in eight areas including legal compliance, wastewater and exhaust gas treatment, hazardous waste management, plant environment, emergency planning, inspection and rectification, environmental records, and reporting systems, and winning companies will be rewarded.

In 2017, all drug manufacturers strictly implemented the requirements of environmental protection laws and regulations, legalized construction projects, standardized operations of pollution treatment facilities, and disposed of hazardous wastes lawfully. According to the requirements of the Ministry of Ecology and Environment, 13 drug manufacturers completed the VOC rectification acceptance (Note 2); 28 drug manufacturers completed the preparation and filing of the Contingency Plan for Emergent Environmental Incidents in accordance with the Measures for Emergency Management of Emergent Environmental Incidents and other regulatory requirements. The preparation and filing of the work; 11 API manufacturers have all applied for a pollutant discharge permit in accordance with the regulatory requirements; 3 drug manufacturers have conducted a new round of clean production audits; on 5 June, 45 drug manufacturers held environmental awareness campaigns during the Environment Day according to the requirements of the Company documentation (Note 3).

Shanghai Pharmaceuticals has 12 drug manufacturers that have established the ISO14000 Environmental Management System, which lays a solid foundation for standardizing production and operations and achieving sustainable development (Note 4).

2 Energy management

Drug manufactures subordinate to Shanghai Pharmaceuticals actively carried out energy saving and water saving work and conducted energy conservation publicity work. The Company's security department actively promoted the enterprises to carry out various water-saving technical renovations (Note 5). In 2017, the Water Conservation Management Department of Shanghai Pharmaceuticals was honoured by the Shanghai Water Authority as an outstanding organizer of water conservation in Shanghai in 2017, and published "Reasonable Use of Water and Water Saving are the Responsibility of Water Enterprises" in the "Water Conservation Special Issue" prepared by the government.

Five companies such as Shanghai SPH New Asiatic Pharmaceutical Co., Ltd. completed water balance testing within the year. In mid-June, 31 energy companies in Shanghai actively participated in the energy conservation promotion week according to the requirements of the Shanghai Municipal Commission of Economy and

Informatization. Nearly 2,500 employees participated in the energy conservation knowledge competition organized by the Shanghai Energy Conservation Association. In the end, 3 people won second prizes and 14 people won third prizes. Shanghai Pharmaceuticals won the Excellent Organization Award from the Shanghai Energy Conservation Association.

The annual energy saving goals assigned by the Shanghai Municipal Commission of Economy and Informatization to Shanghai Pharmaceuticals was the comprehensive energy consumption of 125,000 tons of standard coal in 2017, and the actual energy consumption of Shanghai Pharmaceuticals in 2017 was 119,500 tons of standard coal, completing the task of energy-saving goals assigned by the government. (Note 6)

Note 1

(On 13 January, 2017, the Company completed the signing of the "Responsibility Statement for the Environmental Protection Work Objectives for 2017" of 17 directly-affiliated companies at the meeting of the Company's Safety and Environmental Protection Committee. The five-year responsibility targets of the enterprises were defined in the Responsibility Statement and the Company's management requirements in seven areas were confirmed.)

Note 2

1. In the process of pollution remediation such as VOC, enterprises were willing to invest. Asia Pioneer Pharmaceutical Factory of Shanghai SPH New Asiatic Pharmaceutical Co., Ltd. invested RMB2.2 million to add 6 sets of VOC treatment facilities

2. New Asiatic Pharmaceutical Factory of Shanghai SPH New Asiatic Pharmaceutical Co., Ltd. invested RMB2 million to install 3 sets of VOC treatment equipment in sewage station and raw material workshop

3. Shanghai SPH No.1 Biochemical and Pharmaceutical Co., Ltd. invested RMB560,000 to configure coenzyme A workshop exhaust gas treatment facilities

4. Shandong Xinyi Pharmaceutical Co., Ltd. invested RMB4.766 million in 2017 to build a 300m3/d sewage treatment station, and build 4 sets of exhaust gas treatment equipment for API workshops and 1 set of exhaust gas treatment equipment for sewage treatment stations

5. Hangzhou Huqingyutang Pharmaceutical Co., Ltd. invested RMB0.7 million to design and manufacture 2 sets of QY-1 water dust collectors (models are self-determined, QY is the meaning of Qingyu), eliminating environmental risks caused by excessive dust emissions. The Company's technical department has applied this design for a practical patent and is currently in the process of approval

Note 3

On 5 June, the Company's headquarters conducted an environmental day awareness campaign, posted a poster and organized a signing event for the "Green Action Declarations". Dozens of leaders, department heads and employees of the Company have signed declarations to promote green consumption, advocate green office, advocate green travel, promote green environment, establish green concepts, and disseminate green culture. They have forged their hearts and jointly built green water and mountains, and worked hard for bluer sky, clearer water and greener earth.

Note 4

No	Name of company
1	Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd.
2	Shanghai Harvest Pharmaceutical Co., Ltd.
3	Shanghai Sine Jinzhu Pharmaceutical Co., Ltd.
4	Shanghai SPH New Asiatic Pharmaceutical Co., Ltd.
5	Shanghai New Asiatic Pharmaceutical (Minhang) Co., Ltd.
6	Shanghai SPH No.1 Biochemical and Pharmaceutical Co., Ltd.

No	Name of company
7	SPH Changzhou Pharmaceutical Factory Co., Ltd.
8	Chiatai Qingchunbao Pharmaceutical Co., Ltd.
9	Hangzhou Huqingyutang Pharmaceutical Co., Ltd.
10	Shanghai Pharma Group Changzhou Kony Pharmaceutical Co., Ltd
11	Changzhou Wuxin Pharmaceutical Co., Ltd.
12	Nantong Changyou Pharmaceutical Technology Co., Ltd.

Note 5

1. The preparation of purified water in 3 workshops in Shanghai Zhongxi Sunve Pharmaceutical Co., Ltd. consumed a large amount of water, and 4 tons of reverse osmosis concentrated water was discharged directly every hour. 30 tons of circulation water were required per day for the factory cooling towers. After investigation, the Company invested RMB 100,000 in a project of recycling reverse osmosis concentrated water used as a supplementary water for cooling tower, with an annual savings of 9,000 tons of water after operation

2. Shanghai Sine Tianping Pharmaceutical Co., Ltd. invested RMB46,000 in the collection, storage, and recycling of concentrated water produced from purification. After the construction of the project was completed, purified concentrated water would be used as flushing water in toilets and other places, with savings of 6,000 tons of water per year.

3. Shanghai SPH No.1 Biochemical and Pharmaceutical Co., Ltd. invested RMB800,000 to build a wastewater recycling treatment system with a designed capacity of 50 tons of wastewater per hour. It has been put into use, producing about 200 tons of recycled water every day for greening and sanitary ware flushing, boiler water, etc.

Note 6

1. Shanghai Sine Jinzhu Pharmaceutical Co., Ltd. used contract energy management to update two magnetic levitation centrifugal chillers, with an overall energy efficiency ratio of 8.9, used environmentally friendly refrigerants to protect the ozone layer, and used an oil-free lubrication system, which increased the energy efficiency by 8%, with an annual savings of 280,000 kwh per year, and a reduction of 85 tons of standard coal

2. Shanghai Zhongxi Sunve Pharmaceutical Co., Ltd. invested RMB70,000 to deploy 4 gas boilers to install a Exhaust Gas Recirculation system (EGR). Using part of the exhaust gas temperature to reduce the flame temperature of the furnace could reduce the production of nitrogen oxides. After the transformation, the concentration of nitrogen oxide emissions dropped by 56%, and the annual reduction of nitrogen oxides was around 2.6 tons.

Energy Saving and Environmental Protection Data Disclosure from 2017 Social Responsibility Report

1 Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd.

1-1 Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd., General Factory

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
11942.43	2934.12	1.8	99855.7	0	0	0	0	378	117.45

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
24.89	22.39	5.5	0.07	0	0	0	621.45	38.92	31625.67

Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB1.7787 million was invested in energy saving and environmental protection. The implementation of measures to reduce emissions of gases and replacement of old exhaust cans could reduce annual particulate matter emissions by 0.91%, cessation of the use of Freon and implementation of measures to reduce steam consumption could save 752 tonnes of steam annually. In May 2017, the Company was named "Green Factory."

1-2 Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd., No. 2 Subsidiary

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
950.87	186.65	27.31	0	0	0	0	10.32	10	5.35

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
5.8	5.22	12.1	0.32	0	28	956	46	590.45	1313.1

Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB315,800 was invested in environmental protection. In 2017, the smoke separation and purification system in the canteen was upgraded, and the test results showed that the purification performance was good.

1-3 Shanghai Harvest Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
1579.96	384.4	0.65	31,823.87	0	0	6.86	2.65	652	3.42

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
7.57	6.81	1.36	0.02	0	54.72	97.6	58.49	314.64	6204.85

Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB314,000 was invested in environmental protection. Through reasonable production scheduling, the unit consumption of natural gas was reduced by 2.5% from 0.263m / 10,000 to 0.256m / 10,000. Through the replacement of imported traps, upgrading of multi-effect distilled water machine, pure steam generator and proportional control valve, as well as reasonable production scheduling and enhancement of management, the unit consumption of steam decreased by 7%, from 0.357m / 10,000 to 0.33m / 10,000. Due to the reuse effect of water, the water consumption was now 75,000 tonnes, and the average daily water saving was about 170m. The upgrading of multi-effect distilled water machine, pure steam generator and proportional control valve could save the use of steam. The unit consumption of steam was reduced by 7%, from 0.357m / 10,000 to 0.33m / 10,000.

1-4 Shanghai Fuda Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
616.58	191.69	28.95	0	0	2.4	0	0.15	26.4	3.9

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
4.84	4.36	1.92	0.04	0.11	0	31.8	38.41	633.6	1348.54

Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. The general waste contains 11.4 tonnes of dregs. As no sulfur dioxide is detected in the exhaust gas from the natural gas boiler, the emission of exhaust gas sulfur dioxide is counted as zero. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB850,000 was invested in environmental protection, which was used for the transformation of wastewater treatment stations. The original screw-type air compressor was changed to a permanent-magnet variable-frequency air compressor, and the original 25 kW/hr would be reduced to 18 kW/hr, saving about 20% of power consumption of the air compressor.

1-5 Shanghai Sine Tianping Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
2292.31	587.07	0.33	17363.78	0	0	0	6.5	30.8	27.3

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
6.54	5.88	24.11	0.29	0	0	0	99.9	190.37	6040

Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB852,000 was invested in environmental protection. The original cyclone separation dust removal equipment was upgraded and transformed to a pulse dust removal equipment. The dust removal effect was improved, which met the Shanghai emission standards. The water consumption per RMB10,000 in production in 2017 was 3.094, a year-on-year decrease of 11.7%. The energy consumption per RMB10,000 in production in 2017 was 0.1085, a year-on-year decrease of 10.99%.

1-6 Shanghai Sine Jiufu Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
537.76	97.75	0.17	0	0	0	1.55	4.32	9.25	5.7

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
2.16	1.95	5.06	0.01	0	0	0	80.89	58.344	687.7

Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB94,000 was invested in environmental protection. This year, our company has removed men and women's bathrooms and drying rooms and laundry hot water tankers. After the removal of hot water tankers, the Company would save about 58% of steam consumption in the year.

1-7 Shanghai Sine Yanan Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
807.66	165.63	23.37	0	0	0	0	3.5	60	6.5
Water consumption / 10,000 tonnes	**Amount of wastewater discharged / 10,000 tonnes**	**Amount of COD in wastewater discharged / tonne**	**Amount of N-NH3 in wastewater discharged / tonne**	**Total amount of non-methane hydrocarbon in exhaust gas emitted/kg**	**Amount of sulfur dioxide in exhaust gas emitted / kg**	**Amount of nitrogen oxide in exhaust gas emitted / kg**	**Amount of particulate matter in exhaust gas emitted/kg**	**Total greenhouse gas emissions / tonne**	
2.44	2.20	5.89	0.18	0.003	0.01	1.19	0	**Direct emission**	**Indirect emission**
								529.97	1165.21
Notes	● TThe amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".								

Overall description:
In 2017, a cumulative amount of RMB30,000 was invested in environmental protection. Through one-year equipment upgrades and technological transformations, the Company has enhanced its competitiveness in environmental protection and has also yielded economic benefits. In 2016, the Company used 29,270 tonnes of water, and in 2017, it used 24,375 tonnes of water, reducing water consumption by 4,895 tonnes, a year-on-year decrease of 16.7%. For electricity consumption, 2,067,700 kWh of electricity was consumed in 2016, and 1,672,680 kWh of electricity was consumed in 2017, and electricity consumption was reduced by 395,020 kWh, representing a year-on-year decrease of 19.1%. For natural gas, 283,784 cubic meters of natural gas was used in 2016 and 233,159 cubic meters of natural gas was used in 2017. Gas consumption was reduced by 50,625 cubic meters, a year-on-year decrease of 17.8%.

1-8 Shanghai Sine Wanxiang Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
218.94	178	24.23	0	0	0	0	0	2	5
Water consumption / 10,000 tonnes	**Amount of wastewater discharged / 10,000 tonnes**	**Amount of COD in wastewater discharged / tonne**	**Amount of N-NH3 in wastewater discharged / tonne**	**Total amount of non-methane hydrocarbon in exhaust gas emitted/kg**	**Amount of sulfur dioxide in exhaust gas emitted / kg**	**Amount of nitrogen oxide in exhaust gas emitted / kg**	**Amount of particulate matter in exhaust gas emitted/kg**	**Total greenhouse gas emissions / tonne**	
5.9	5.3	6.59	0.003	0	189	1020	86.04	**Direct emission**	**Indirect emission**
								523.89	135.2
Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".								

Overall description:
In 2017, a cumulative amount of RMB370,000 was invested in environmental protection, including the addition of voc treatment facilities and dust treatment devices.

1-9 Shanghai Sine Jinzhu Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
3327.7	606.58	0	45905.16	0	8.25	0	0	109.76	14.35
Water consumption / 10,000 tonnes	**Amount of wastewater discharged / 10,000 tonnes**	**Amount of COD in wastewater discharged / tonne**	**Amount of N-NH3 in wastewater discharged / tonne**	**Total amount of non-methane hydrocarbon in exhaust gas emitted/kg**	**Amount of sulfur dioxide in exhaust gas emitted / kg**	**Amount of nitrogen oxide in exhaust gas emitted / kg**	**Amount of particulate matter in exhaust gas emitted/kg**	**Total greenhouse gas emissions / tonne**	
								Direct emission	**Indirect emission**
24.09	21.68	7.24	0.03	0	0	0	0	24.36	9316.89
Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".								

Overall description:
In 2017, a cumulative amount of about RMB427,000 was invested in environmental protection. The original grease trap in the canteen was shifted, a new grease trap, a smoke separator, and a new plastic shred were added. In 2017, the consumption of water of 10,000 tonnes decreased by 18.63% year-on-year, 10,000 kWh of electricity consumption decreased by 6.44% year-on-year, and the total energy consumption of 10,000 units decreased by 5.46% year-on-year.

1-10 Shandong Sine Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
210.86	101	0	2432	0	2.25	0	0	48	2
Water consumption / 10,000 tonnes	**Amount of wastewater discharged / 10,000 tonnes**	**Amount of COD in wastewater discharged / tonne**	**Amount of N-NH3 in wastewater discharged / tonne**	**Total amount of non-methane hydrocarbon in exhaust gas emitted/kg**	**Amount of sulfur dioxide in exhaust gas emitted / kg**	**Amount of nitrogen oxide in exhaust gas emitted / kg**	**Amount of particulate matter in exhaust gas emitted/kg**	**Amount of ethanol in exhaust gas emitted / kg**	**Total greenhouse gas emissions / tonne**	
									Direct emission	**Indirect emission**
3.56	3.2	3.32	0.05	298.32	29.83	15.71	205.92	177.23	1.81	978.06
Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".									

Overall description:
In 2017, a cumulative amount of RMB5.33 million was invested in environmental protection, including the upgrading and transformation of the original exhaust gas treatment device with alkali spraying and activated carbon adsorption, and the construction of new sewage stations to treat the exhaust gas with alkali spraying and biological trickling. The energy consumption per RMB10,000 of production value of the enterprise decreased by 19.37% year-on-year, and the water consumption per RMB10,000 of production value of the enterprise decreased by 60.15% year-on-year.

2 Shanghai SPH No. 1 Biochemical and Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne	
14211.54	2691.11	485.33	0	0	0	4.15	0.1	350	566.65	
Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Amount of Ammonia emitted / kg	Total greenhouse gas emissions / tonne	
72.33	16.40	32.38	0.10	3366.09	141.41	5327.99	294.12	133.43	Direct emission	Indirect emission
									12076.83	18931.96
Notes	● The wastewater data source is estimated based on the sewage station flow meter and EIA water balance domestic wastewater, and the difference of the Company's remaining tap water is used for cooling tower and boiler industrial steam preparation. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".									

Overall description:
In 2017, a cumulative amount of RMB6.6432 million was invested in environmental protection, of which RMB1.8 million was invested in the addition of two sets of workshops and VOC collection and treatment systems for sewage stations. In 2017, VOC emissions decreased by 80% year-on-year.

2-1 Shanghai Sunway Biotech Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
720.75	169.61	0	1041.85	0	0	8	0	3	0.43
Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
9487	8538.3	0.02	0.00008	0	0	0	0	Direct emission	Indirect emission
								12.78	1307.8
Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".								

Overall description:
In 2017, a cumulative amount of RMB 173,000 was invested in environmental protection. In 2016, the water saving project was launched and it started to be used in 2017, and the water consumption decreased by 22.3% year-on-year.

2-2 Shanghai Ziyuan Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne	
306.58	74.15	0	0	0	0	0	44	0.5	150.8	
Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Amount of chlorine in exhaust gas emitted / kg	Total greenhouse gas emissions / tonne	
									Direct emission	Indirect emission
0.8	0.64	2.4	0.16	833.28	0	13.88	10.16	77.76	138.39	5216.45
Notes	● The amount of wastewater discharged is calculated based on 80% of water consumption. As no sulfur dioxide is detected in the exhaust gas from the boiler, so the emission of sulfur dioxide is counted as 0. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".									

Overall description:
In 2017, a cumulative amount of about RMB6 million was invested in environmental protection, including an investment of RMB4.5 million to configure an exhaust gas treatment facility. The electricity consumption in 2017 decreased by about 25% year-on-year, and the volume of sewage discharged decreased by 20% year-on-year.

2-3 Shanghai Great Wall Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
591.97	132.19	0.54	1506.8	0	0	0	0	3	13.2
Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
3.43	3.08	1.59	0.01	3660	0	0	226	20.98	1095.7
Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. As no sulfur dioxide and nitrogen oxides are detected in the exhaust gas from the boiler, so their emissions are counted as 0. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".								

Overall description:
In 2017, a cumulative amount of RMB800,000 was invested in environmental protection. The five sets of exhaust gas treatment facilities, including VOCs catalytic oxidation furnaces, VOCs activated carbon treatment equipment, pulse dust removal equipment, and two sets of wet dust removal equipment were in normal operations. Two sets of newly added VOCs treatment equipment have passed the audits and have been put into use, and emissions of VOCs were reduced by 8 tonnes each year. Water consumption in 2017 decreased by 1,400 tonnes year-on-year, and electricity consumption decreased by 214,900 kWh year-on-year.

3 Shanghai SPH New Asiatic Pharmaceutical Co., Ltd.

3-1 Shanghai SPH New Asiatic Pharmaceutical Co., Ltd.（Asia Pioneer Pharmaceutical Factory）

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
6850.66	1454.8	0	70392.88	0	3.45	16.41	5	568	39.46

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
48.57	43.71	10.91	3.34	55.99	0	0	0	71.75	17977.74

Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB4.896 million was invested in environmental protection, of which RMB2.2 million was invested in the VOC control (phase 1) project. The heat pump used in the bathroom replaced the existing steam heating system, saving 1,288.45 tonnes of steam throughout the year. The electricity consumption decreased by 7.84% year-on-year, outsourcing thermal power decreased by 1.81% year-on-year, hazardous waste decreased by 41.09% year-on-year, water consumption decreased by 30.57% year-on-year, the amount of wastewater discharged decreased by 30.57% year-on-year, the amount of COD discharged decreased by 62.03% year-on-year, and the amount of N-NH3 discharged decreased by 16.95% year-on-year.

3-2 Shanghai SPH New Asiatic Pharmaceutical Co., Ltd. (New Asiatic Pharmaceutical Factory)

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
4955.18	1108	157.3	0	0	8.4	6	21	391	98

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
39.8	35.82	8.95	0.68	0.22	0.15	3.73	0.03	3494.3	779.5

Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB1.8 million was invested in environmental protection, including the investment of RMB600,000 in building new VOC treatment devices at the wastewater treatment station, and the investment of RMB520,000 in energy-saving renovation of the bathroom in the preparation workshop. After continuously taking energy-saving and emission-reduction technology measures for several years, in 2017, the electricity consumption decreased by 18%, the water consumption decreased by 19%, and the natural gas consumption decreased by 35%.

3-3 Shanghai New Asiatic Pharmaceutical (Minhang) Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
1952.45	470.67	45.0	0	0	0	7.04	0.71	21.60	5.8

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
5.14	4.62	7.45	0.68	317.74	3.02	248.40	267.88	997.74	3311.18

Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB1.8787 million was invested in environmental protection, including RMB1.35 million for VOC control facilities and RMB80,000 for environmental emergency plan certification fees. In 2017, the water balance test was completed, and the water pipe network of the whole plant was refurbished to increase the second- and third-grade meters to reduce eakage. The thermal performance test of the cooling tower was conducted and the water consumption was adjusted based on the test results. In 2017, the water consumption decreased by 12.06% year-on-year, and the natural gas consumption decreased by 0.08% year-on-year.

3-4 Liaoning Medya Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
3497	550	135	19389	597	5.5	21.6	5.48	500	19.43

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
13.49	11	5	0.17	5500	1203	5624	1067	3759.42	6001

Notes	● The amount of wastewater discharged is calculated based on 80% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB952,000 was invested in environmental protection, including the investment of RMB160,000 in the installation of 7 sets of tail gas absorption equipment, among which, RMB500,000 was invested to add 2 dry vacuum pumps to the freezing plant of the API factory. In 2017, the recovery of acetone was increased by 43 tonnes. According to the current market, the cost of RMB258,000 could be saved. In 2017, sewage discharge decreased by 8,000 tonnes year-on-year.

4 Shanghai Traditional Chinese Medicine Co., Ltd.
4-1 Shanghai Leiyunshang Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
5832	1122	169	0	0	0	65	67	1560	2.9
Water consumption / 10,000 tonnes	**Amount of wastewater discharged / 10,000 tonnes**	**Amount of COD in wastewater discharged / tonne**	**Amount of N-NH3 in wastewater discharged / tonne**	**Total amount of non-methane hydrocarbon in exhaust gas emitted/kg**	**Amount of sulfur dioxide in exhaust gas emitted / kg**	**Amount of nitrogen oxide in exhaust gas emitted / kg**	**Amount of particulate matter in exhaust gas emitted/kg**	**Total greenhouse gas emissions / tonne**	
22.07	15.45	10.35	0.28	8.8	37	1550	318	**Direct emission**	**Indirect emission**
								4065	7893
Notes	● According to the production characteristics of the enterprise, the amount of wastewater discharged is calculated based on 70% of water consumption. The general waste contains 1250 tonnes of dregs. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".								

Overall description:
In 2017, a cumulative amount of RMB2.15 million was invested in environmental protection. In 2017, the renewal of the air-conditioning self-control system of the workshop, the chilled water system pipe network, and the energy-using equipment was completed. The implementation and construction of the energy monitoring and management system was carried out, smart energy and steam metering instruments were installed, and a computerized statistics platform for energy data of enterprises was gradually established. Water-saving assessments of external ointment and Liushenwan workshops were conducted, water balance analysis was performed, and water-saving programs and measures were proposed and implemented. In 2017, the production increased by 20% year-on-year, electricity consumption decreased by 3.5% year-on-year, natural gas consumption decreased by 7.6% year-on-year, gasoline consumption decreased by 13% year-on-year, and diesel fuel consumption decreased by 15% year-on-year.

4-2 Shanghai Leiyunshang Fengbang Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
429.79	112.98	0	0	0	0	1.86	60.47	38	0.5
Water consumption / 10,000 tonnes	**Amount of wastewater discharged / 10,000 tonnes**	**Amount of COD in wastewater discharged / tonne**	**Amount of N-NH3 in wastewater discharged / tonne**	**Total amount of non-methane hydrocarbon in exhaust gas emitted/kg**	**Amount of sulfur dioxide in exhaust gas emitted / kg**	**Amount of nitrogen oxide in exhaust gas emitted / kg**	**Amount of particulate matter in exhaust gas emitted/kg**	**Total greenhouse gas emissions / tonne**	
0.9	0.63	0.85	0.05	0	0	610	18.14	**Direct emission**	**Indirect emission**
								195.85	794.81
Notes	● According to the production characteristics of the enterprise, the amount of wastewater discharged is calculated as 70% of the fresh water consumption. As no sulfur dioxide is detected in the exhaust gas from the boiler, the emission of exhaust gas sulfur dioxide is tentatively counted as 0. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".								

Overall description:
In 2017, the Company spent RMB62,000 on energy saving and environmental protection, mainly covering the operating costs of pollution facilities and waste disposal fees, etc. While the industrial output value of enterprises increased by 9.84% year-on-year, the annual overall energy consumption decreased by 3% year-on-year, the water consumption decreased by 28%, and the amount of wastewater discharged decreased accordingly.

4-3 Shanghai SPH Xingling Sci. & Tech. Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
1625.26	366.01	140.43	35175.65	0	0	0	0	757.1	12

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
8.76	6	7.2	0.22	945.6	28.8	93.6	5592	4.8	3871.9

Notes	● The amount of wastewater discharged is calculated based on 70% of water consumption. The general waste contains 652 tonnes of dregs. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB100,000 was invested in environmental protection, including an investment of RMB30,000 for adding a 10-tonne alkali storage tank at the sewage treatment station. In 2017, the amount of COD discharged decreased by10% year-on-year.

4-4 Shanghai Dehua Traditional Chinese Medicines Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
339.72	77.5	0	5737.7	0	1.5	11.71	19.9	2.7	0.5

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
1.39	0.83	4.17	0.34	0	0	0	0	99.43	54.52

Notes	● The amount of wastewater discharged is calculated based on 60% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB650,000 was invested in environmental protection. In 2017, the overall energy consumption decreased by 3% year-on-year, and the sewage volume decreased by 5% year-on-year.

4-5 Shanghai Yutiancheng Chinese Herbal Medicine Company Limited

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
192.17	69.10	0	0	0	0	10.5	63	23.5	0
Water consumption / 10,000 tonnes	**Amount of wastewater discharged / 10,000 tonnes**	**Amount of COD in wastewater discharged / tonne**	**Amount of N-NH3 in wastewater discharged / tonne**	**Total amount of non-methane hydrocarbon in exhaust gas emitted/kg**	**Amount of sulfur dioxide in exhaust gas emitted / kg**	**Amount of nitrogen oxide in exhaust gas emitted / kg**	**Amount of particulate matter in exhaust gas emitted/kg**	**Total greenhouse gas emissions / tonne**	
0.49	0.44	2.12	0.01	0	19.81	124.24	44.22	**Direct emission**	**Indirect emission**
								230.62	486.12
Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".								

Overall description:
In 2017, a cumulative amount of RMB107,000 was invested in environmental protection, including the implementation of reconstruction of rainwater and sewage diversion pipelines. In 2017, the overall energy consumption decreased by 5% year-on-year.

4-6 Shanghai Huapu Chinese Herbal Medicine Company Limited

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
198.47	49.27	0	0	0	6.85	34.32	60	50.4	0
Water consumption / 10,000 tonnes	**Amount of wastewater discharged / 10,000 tonnes**	**Amount of COD in wastewater discharged / tonne**	**Amount of N-NH3 in wastewater discharged / tonne**	**Total amount of non-methane hydrocarbon in exhaust gas emitted/kg**	**Amount of sulfur dioxide in exhaust gas emitted / kg**	**Amount of nitrogen oxide in exhaust gas emitted / kg**	**Amount of particulate matter in exhaust gas emitted/kg**	**Total greenhouse gas emissions / tonne**	
1.28	1.15	0.63	0.00619	0	228	220	0	**Direct emission**	**Indirect emission**
								196.71	346.61
Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".								

Overall description:
In 2017, a cumulative amount of RMB101,600 was invested in environmental protection investment. In 2017, the overall energy consumption decreased by 5% year-on-year, and the amount of wastewater discharged decreased accordingly.

4-7 Shanghai Xinde Chinese Herbal Medicine Company

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
156.51	70.44	0	0	0	0	0	48	98	0.373

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
1.46	1.1	0.4	0.0012	0	0	0	0	150.96	495.55

Notes	● TThe amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB791,000 was invested in environmental protection, including the implementation of the rainwater and sewage diversion project, the expansion project of the sewage tank, and the phosphorus removal device project. In 2017, the overall energy consumption decreased by 4% year-on-year.

4-8 Shanghai Huaying Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
32.9	21.56	0	0	0	0	0	6.96	20	0

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
0.36	0.32	0.092	0.003	0	3.6	42.3	2.7	21.89	151.67

Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB20,000 was invested in environmental protection, including the installation of water spray device in the exhaust gas vent of the herbal medicine workshop to reduce dust particle emissions, and the installation of energy-saving lamps to reduce power consumption.

4-9 Shanghai SPH Shenxiang Health Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
57.81	47	0	0	0	0	0	0	5.28	0.1

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
0.32	0.29	0.16	0.02	0	0	0	0	0	330.645

Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB30,000 was invested in environmental protection. In 2017, the overall energy consumption decreased by 5% year-on-year, water consumption decreased by 10%, and the amount of wastewater discharged decreased accordingly.

5 Shanghai Zhongxi Sunve Pharmaceutical Co., Ltd.
5-1 Shanghai Zhongxi Sunve Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
2200.43	837.94	0	32130.21	0	11.45	24	13.74	11.20	341.01

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Amount of acetone in exhaust gas emitted / kg	Total greenhouse gas emissions / tonne	
									Direct emission	Indirect emission
8.94	8.05	1.93	0.43	1576.62	0	528	4.32	1.62	150.53	9429.23

Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. Exhaust gas nitrogen oxide is emitted from exhaust gas incinerators. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB13.3872 million was invested in environmental protection, including RMB10 million for the operation and maintenance of pollution facilities, RMB2.4872 million for the disposal of hazardous waste, and RMB1 million for VOC facility renovation costs. The amount of investment increased 10% year-on-year. In September 2017, the Company invested RMB 1 million to implement VOC facility upgrades to ensure that the discharge of VOC exhaust gas is in compliance with the standards. The electricity consumption decreased by 20% year-on-year by taking the management measures of turning on and off of refrigeration units. 5% of power consumption could be saved by increasing the frequency conversion control with 90 kW circulating pump operation control. More than 80% of fresh water consumption could be saved by using the clean-up wastewater produced from preparation of RO pure water as the refill water of the cooling tower. In 2017, the Company established and passed certifications for three major management systems, namely ISO14000, ISO9000, and ISO18000.

5-2 Shanghai SPH Zhongxi Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
3581.17	1044	176	0	0	0	7.21	0	1510.8	9.7

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
12.97	9	6.22	0.034	1110.57	0	2229.3	1020.88	3828.94	7344.54

Notes	● According to the production characteristics of the enterprise, the amount of wastewater discharged is calculated based on 70% of water consumption. As no sulfur dioxide is detected in the exhaust gas from the boiler, the emission of exhaust gas sulfur dioxide is counted as zero. The general waste disposal volume included 840 tonnes of Chinese medicine dregs, 180 tonnes of Chinese medicine extraction waste and 70 tonnes of Chinese medicine sludge. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB2.225 million was invested in environmental protection, including RMB1.1 million for solid waste disposal fees, RMB200,000 for overall treatment fees of exhaust gas emission pipes, and RMB70,000 for low-nitrogen transformation fees of gas boilers. In 2017, the Company installed the exhaust gas recirculation system (EGR) to 4 fuel gas boilers. After the transformation, the concentration of nitrogen oxides emitted was reduced below 100mg/m3, and the emission of nitrogen oxides was decreased by about 2.63 tonnes throughout the year. According to the requirements of the competent environmental protection department in Jiading District, the Company organized the standardized management of hazardous waste, and successfully passed the assessment of the competent environmental protection department in Jiading District in November 2017. In 2017, the Company implemented a cooling water energy-saving transformation project in the transitional season. In the transitional season (October, November, March, April), cooling water was used instead of the chiller to cool down the purification system, saving electricity by 36,000 kWh in 4 months.

5-3 Shanghai Jinhe Bio-Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
1557.45	819.37	33.46	0	0	0	17.00	108.00	3.36	25.00

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
3.34	3.01	0	0	14445.24	13.38	626.04	0	1114.86	5764.27

Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. As there is no test data for the indicators of COD and N-NH3 in wastewater, the amount of COD in wastewater discharged and the amount of N-NH3 in wastewater discharged are tentatively counted as 0. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB2 million was invested in environmental protection, of which about RMB770,000 was spent on the operation and maintenance of pollution facilities. In 2018, about RMB3 million will be invested in retrofitting existing VOC treatment facilities to improve the effect of VOC treatment and ensure that exhaust gas VOC meets the standard emissions. At the same time, the discharge of wastewater and emissions of exhaust gas will be monitored to correctly calculate the pollutant emissions.

6 Shanghai Zhonghua Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
838.44	159.6	0.069	10520.26	0	0	0	0	32	6

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
3.15	2.83	6.74	0.04	0	0	0	0	1.49	2280.01

Notes	● The amount of wastewater discharged is calculated based on 90% of water consumption. The Company relocated from the city center to Qingpu District and began trial production in December 2017 and no exhaust gas monitoring was conducted. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB111.78 million was invested in environmental protection, and the environmental protection investment was RMB3.75 million. The newly-built environmental protection equipment includes 1 wastewater conditioning tank, 1 emergency accident tank, 4 units of stand-alone dust removal equipment in the workshop, and exhaust gas activated carbon adsorption equipment. The new factory equipment uses energy-saving electromechanical equipment. Large-scale motors are equipped with on-site compensation capacitors, and small motors are equipped with capacitance compensation on the low-voltage side of the transformer room to reduce energy consumption to the maximum extent.

6-1 Shanghai Zhonghua Nantong Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
294	98	0	0	0	0	0	0	36	0.2

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
2.02	0.2	0.27	0.02	0	0	0	0	0	689

Notes	● The amount of wastewater discharged is calculated based on water balance. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB440,000 was invested in environmental protection, including the construction of a new sewage treatment plant and the transformation of the underground sewage pipe network. Water consumption decreased by 31.53% year-on-year. In 2017, the Company was rated as a green enterprise by Rudong County Environmental Protection Bureau.

7 SPH Changzhou Pharmaceutical Co., Ltd.

7-1 Changzhou Pharmaceutical Factory Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne	
2242	885.71	0	33827	0	0.3	19.05	2.4	229.6	128.74	
Water consumption / 10,000 tonnes	**Amount of wastewater discharged / 10,000 tonnes**	**Amount of COD in wastewater discharged / tonne**	**Amount of N-NH3 in wastewater discharged / tonne**	**Total amount of non-methane hydrocarbon in exhaust gas emitted/kg**	**Amount of sulfur dioxide in exhaust gas emitted / kg**	**Amount of nitrogen oxide in exhaust gas emitted / kg**	**Amount of particulate matter in exhaust gas emitted/kg**	**Amount of hydrogen chloride in exhaust gas emitted / kg**	**Total greenhouse gas emissions / tonne**	
25.73	21	23.31	5.90	0	0	0	15.84	3093.12	**Direct emission** 66.4	**Indirect emission** 9951.94
Notes	● The data on the amount of wastewater discharged are accumulatively obtained from the drainage meters of the sewage treatment stations. The amount of COD and N-NH3 in wastewater discharged are calculated by formulas. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".									

Overall description:
In 2017, a cumulative amount of RMB5.4299 million was invested in environmental protection. The Company completed the "composite frozen energy-saving technological transformation project" of the Changzhou Economic and Information Technology Commission, and was awarded RMB200,000 of the energy conservation subsidy from the Changzhou Economic and Information Technology Commission; completed and passed the water saving project "Water Saving, Recycling and Emission Reduction Project in Preparation Workshop" for 2017 of the Changzhou Municipal Water Conservancy Bureau. The project passed the acceptance inspection of the Changzhou Municipal Water Conservancy Bureau and was awarded RMB70,000 from the water saving project of the Changzhou Municipal Finance Bureau. In 2017, the Company's electricity consumption and gas consumption decreased by 2.84% and 10.48% respectively year-on-year. Sewage discharge, the amounted of COD in wastewater discharged, and the amount of N-NH3 in wastewater discharged decreased by 19.23%, 7.76% and 37.63% year-on-year, respectively.

7-2 Changzhou Wuxin Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne	
345.18	50.3	0	4425.6	0	1.2	0	0.65	8.5	132.42	
Water consumption / 10,000 tonnes	**Amount of wastewater discharged / 10,000 tonnes**	**Amount of COD in wastewater discharged / tonne**	**Amount of N-NH3 in wastewater discharged / tonne**	**Total amount of non-methane hydrocarbon in exhaust gas emitted/kg**	**Amount of sulfur dioxide in exhaust gas emitted / kg**	**Amount of nitrogen oxide in exhaust gas emitted / kg**	**Amount of particulate matter in exhaust gas emitted/kg**	**Amount of ethanol in exhaust gas emitted / kg**	**Total greenhouse gas emissions / tonne**	
0.865	0.36	0.882	0.108	0	0	0	159	453.6	**Direct emission** 3.2312	**Indirect emission** 840.6765
Notes	● The amount of wastewater discharged is calculated based on the wastewater discharge flow meter. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".									

Overall description:
RMB420,000 in environmental protection.

7-3 Nantong Changyou Pharmaceutical Technology Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne	
1374.41	486	0	20896	0	0	0	0	25	459.86	
Water consumption / 10,000 tonnes	**Amount of wastewater discharged / 10,000 tonnes**	**Amount of COD in wastewater discharged / tonne**	**Amount of N-NH3 in wastewater discharged / tonne**	**Total amount of non-methane hydrocarbon in exhaust gas emitted/kg**	**Amount of sulfur dioxide in exhaust gas emitted / kg**	**Amount of nitrogen oxide in exhaust gas emitted / kg**	**Amount of particulate matter in exhaust gas emitted/kg**	**Amount of methanol in exhaust gas emitted / kg**	**Total greenhouse gas emissions / tonne**	
8.6	6.98	14.1	0.24	8784	0	0	72	10152	**Direct emission**	**Indirect emission**
									0	5717.57
Notes	● The amount of wastewater discharged is calculated by taking over the discharge flow meter. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".									

Overall description:
In 2017, a cumulative amount of RMB1.13 million was invested in environmental protection. By replacing the box-type vacuum pump with a screw vacuum pump and adding a condenser before the vacuum, the recovery rate of the solvent was improved, and the discharge of ethyl ether was reduced. During the production process, the desiccant anhydrous sodium sulfate was replaced with anhydrous magnesium sulfate. At the same time, some drying steps were eliminated without affecting the quality and safety of the product, which greatly reduced the generation of hazardous solid waste of the Company.

7-4 Chifeng Arker Pharmaceutical Technology Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne	
3183.9	331.5	0	61479	0	0	0	1.5	91	0.326	
Water consumption / 10,000 tonnes	**Amount of wastewater discharged / 10,000 tonnes**	**Amount of COD in wastewater discharged / tonne**	**Amount of N-NH3 in wastewater discharged / tonne**	**Total amount of non-methane hydrocarbon in exhaust gas emitted/kg**	**Amount of sulfur dioxide in exhaust gas emitted / kg**	**Amount of nitrogen oxide in exhaust gas emitted / kg**	**Amount of particulate matter in exhaust gas emitted/kg**	**Amount of volatile organic compounds in exhaust gas emitted / kg**	**Total greenhouse gas emissions / tonne**	
5.50	5	2.25	0.13	0	0	0	0	9440	**Direct emission**	**Indirect emission**
									4.7	9095
Notes	● The amount of wastewater discharged is calculated based on the total value of the online monitoring flow meter for wastewater discharge. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".									

Overall description:
In 2017, a cumulative amount of RMB700,000 was invested in environmental protection. The use of recycled water as cooling water for vacuum pumps could save 25,000 tonnes of water each year.

7-5 Chifeng Mysun Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
1841.97	232	0	25120	0	0	34	122	5	0.2

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
6.5	5.85	1.76	0.08	0	0	0	3499.2	487.2	4395.2

Notes	● The amount of wastewater discharged is calculated based on 90% of water withdrawal. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises"..

Overall description:
In 2017, a cumulative amount of RMB70,000 was invested in environmental protection. The materials that were easily degradable and easy to recycle were chosen as the pharmaceutical packaging materials, which reduced excessive use of packaging materials and generation of packaging waste.

8 SPH Qingdao Growful Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
5678.38	814.34	0.96	98362	0	0	64.5	48.2	584.96	0

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
13.92	10.44	23.91	0.43	0	0	0	908.06	368.6	16548.73

Notes	● The amount of wastewater discharged is calculated based on 75% of water consumption. The disposal of general waste includes an overall disposal of 519 tonnes of dregs. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, the total amount invested in energy saving and environmental protection amounted to RMB2.1959 million, of which RMB950,000 was invested for new pollutant treatment facilities: including sewage pretreatment facilities and deodorization facilities in the workshop; and RMB750,000 for transformation from old ones to new ones: mainly to increase the height of 5 exhaust pipes to 15m. Implementation of water-saving measures and the use of new dual-effect enrichment equipment could save about 11,000 tonnes of water per year. In 2017, water consumption decreased by 4.32% year-on-year, and overall energy consumption decreased by 2.27% year-on-year.

9 Xiamen Traditional Chinese Medicine Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
2432.45	654.61	0	46631.98	0	2.5	12.8	7.4	1368.15	1.0798

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
12.6932	7.5116	3.935	0.56	0	0	0	30.25	275.04	9734.68

Notes	● The amount of wastewater discharged is calculated based on commissioned inspection data. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB628,500 was invested in environmental protection. Consumption of water, electricity and steam decreased by 4%, 6.7% and 8.7% respectively year-on-year. Reuse of sewage water after treatment could save 50,000 tonnes of fresh water.

10 Chiatai Qingchunbao Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
7630	1576.88	443.60	0	0	0	80.974	84.5	5700	68.49

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
44.86	29.84	39.82	1.20	0	177.44	8299.86	559.11	10538.11	11093.35

Notes	● The amount of wastewater discharged is calculated based on the measured wastewater discharge from the Company's sewage treatment station. The general waste disposal volume includes 5100 tonnes of Chinese medicine dregs. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB5.331 million was invested in environmental protection. In order to utilize waste heat and save natural gas, a waste gas recovery and utilization device for natural gas boilers was added. The consumption level of natural gas was basically the same as in 2016 when the production standards for drugs were increased.

11 Hangzhou Huqingyutang Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
3605.85	930.32	0	71926.11	0	7.72	4.66	1.83	4279	11.49

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
17.47	16	4.07	0.10	0	0	0	137.15	42.74	14456.67

Notes	● The amount of wastewater discharged is based on the invoiced amount of sewage treatment plants in the Yuhang Development Zone throughout the year. The general waste disposal volume includes 4190 tonnes of Chinese medicine dregs. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB597,000 was invested in environmental protection, of which RMB75,000 was invested in water-splashing precipitator designed and produced by the Company, the use efficiency was good and a patent was applied; the water and electricity consumption decreased by 1.85% and 4.06% respectively year-on-year.

12 Liaoning SPH Herbapex Pharmaceutical (Group) Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
6807.62	429.12	0	0	8710	4.08	30	5.1	6300	0.48

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
14.4	11.52	13.82	0	0	31439.62	60970	22957.61	18162.22	3018.86

Notes	● According to the production characteristics of the enterprise, the amount of wastewater discharged is calculated based on 80% of the fresh water consumption. The Company has commissioned a third-party to conduct monitoring. As N-NH3 in wastewater has not been detected, the amount of N-NH3 of the wastewater discharged is counted as 0. The general waste disposal volume includes dregs, cinders, and household waste. Exhaust gas emissions of sulfur dioxide, nitrogen oxides, and particulate matter are calculated based on the emission factor of the Ministry of Environmental Protection. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, the total amount invested in energy saving and environmental protection amounted to RMB112,000, of which RMB50,000 was invested for operation and maintenance of pollution facilities and RMB60,000 for solid waste disposal fees. The overall energy consumption decreased by 38.4% year-on-year, and the consumption of water, electricity and coal decreased by 54.1%, 8.5% and 13.1% respectively year-on-year.

13 SPH Dong Ying (Jiangsu) Pharmaceutical Co., Ltd.

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
392.6	161.61	0.36	5688.6	0	0	22.9	16	18	0.84

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Total greenhouse gas emissions / tonne	
								Direct emission	Indirect emission
2.65	1.64	0.11	0.03	0	0	0	6.36	127.88	626.88

Notes	● The amount of wastewater discharged is calculated based on 62% of water withdrawal. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, an amount of RMB1.5684 million was invested in environmental protection, which was mainly used for the renovation of the sewage project. After the renovation, the sewage treatment effect was significantly improved, and the amount of COD in wastewater discharged decreased by 60% year-on-year.

13-1 SPH Changzhou Kony Pharmaceutical Co., Ltd

Comprehensive energy consumption/ tonne of standard coal	Electricity consumption / 10,000 kWh	Natural Gas (Gaseous)/ 10,000 cubic meters	Outsourcing thermal power/ Million kJ	Coal consumption/ Tonne	Liquefied petroleum gas/ Tonne	Gasoline consumption/ Tonne	Diesel fuel consumption/ Tonne	General waste disposal volume/ Tonne	Hazardous waste disposal volume/ Tonne
1535	528	73.84	0	0	0	0	18.29	130	85.89

Water consumption / 10,000 tonnes	Amount of wastewater discharged / 10,000 tonnes	Amount of COD in wastewater discharged / tonne	Amount of N-NH3 in wastewater discharged / tonne	Total amount of non-methane hydrocarbon in exhaust gas emitted/kg	Amount of sulfur dioxide in exhaust gas emitted / kg	Amount of nitrogen oxide in exhaust gas emitted / kg	Amount of particulate matter in exhaust gas emitted/kg	Amount of volatile organic compounds in exhaust gas emitted / kg	Total greenhouse gas emissions / tonne	
									Direct emission	Indirect emission
5.64	2.38	5.94	0.83	58.77	7.2	1948.8	0	54.37	1654.16	3.71

Notes	● The amount of wastewater discharged is calculated based on the actual reading of the sewage flow meter. ● Calculation of greenhouse gas emissions: Refer to "Guidelines for Reporting of Performance Indicators of Environmental Key Data" and "Guidelines for Calculation Methods and Reporting of Greenhouse Gas Emissions from Industrial and Other Industrial Enterprises".

Overall description:
In 2017, a cumulative amount of RMB3.6 million was invested in environmental protection, which was mainly the operating costs of wastewater treatment stations. In September 2017, RMB300,000 was invested to install LED solar street lights to reduce electricity consumption.

Note: The statistical scope of the above indicators includes 13 drug manufacturers directly subordinated to the Group and their subordinate drug manufacturers.

The list of enterprises is as follows

SN	Name of enterprises directly under the Group	Name of subsidiaries of drug manufacturers directly under the Group
1	Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd.	1-1 Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd., General Factory
		1-2 Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd., No. 2 Subsidiary
		1-3 Shanghai Harvest Pharmaceutical Co., Ltd.
		1-4 Shanghai Fuda Pharmaceutical Co., Ltd.
		1-5 Shanghai Sine Tianping Pharmaceutical Co., Ltd.
		1-6 Shanghai Sine Jiufu Pharmaceutical Co., Ltd.
		1-7 Shanghai Sine Yanan Pharmaceutical Co., Ltd.
		1-8 Shanghai Sine Wanxiang Pharmaceutical Co., Ltd.
		1-9 Shanghai Sine Jinzhu Pharmaceutical Co., Ltd.
		10 Shandong Sine Pharmaceutical Co., Ltd.
2	Shanghai SPH No. 1 Biochemical and Pharmaceutical Co., Ltd.	2-1 Shanghai Sunway Biotech Co., Ltd.
		2-2 Shanghai Ziyuan Pharmaceutical Co., Ltd.
		2-3 Shanghai Great Wall Pharmaceutical Co., Ltd.
3	Shanghai SPH New Asiatic Pharmaceutical Co., Ltd.	-1 Shanghai SPH New Asiatic Pharmaceutical Co., Ltd., Asia Pioneer Pharmaceutical Factory
		3-2 Shanghai SPH New Asiatic Pharmaceutical Co., Ltd., New Asiatic Pharmaceutical Factory
		3-3 Shanghai New Asiatic Pharmaceutical Minhang Co., Ltd.
		3-4 Liaoning Medya Pharmaceutical Co., Ltd.
4	Shanghai Traditional Chinese Medicine Co., Ltd.	4-1 Shanghai Leiyunshang Pharmaceutical Co., Ltd.
		4-2 Shanghai Leiyunshang Fengbang Pharmaceutical Co., Ltd.
		4-3 Shanghai SPH Xingling Sci. & Tech. Pharmaceutical Co., Ltd.
		4-4 Shanghai Dehua Traditional Chinese Medicines Co., Ltd.
		4-5 Shanghai Yutiancheng Chinese Herbal Medicine Company Limited
		4-6 Shanghai Huapu Chinese Herbal Medicine Company Limited
		4-7 Shanghai Xinde Chinese Herbal Medicine Company
		4-8 Shanghai Huaying Pharmaceutical Co., Ltd.
		4-9 Shanghai SPH Shenxiang Health Pharmaceutical Co., Ltd.
5	Shanghai Zhongxi Sunve Pharmaceutical Co., Ltd.	5-1 Shanghai Zhongxi Sunve Pharmaceutical Co., Ltd.
		5-2 Shanghai SPH Zhongxi Pharmaceutical Co., Ltd.
		5-3 Shanghai Jinhe Bio-Pharmaceutical Co., Ltd.
6	Shanghai Zhonghua Pharmaceutical Co., Ltd.	6-1 Shanghai Zhonghua Nantong Pharmaceutical Co., Ltd.

SN	Name of enterprises directly under the Group	Name of subsidiaries of drug manufacturers directly under the Group
7	SPH Changzhou Pharmaceutical Co., Ltd.	7-1 Changzhou Pharmaceutical Factory Co., Ltd.
		7-2 Changzhou Wuxin Pharmaceutical Co., Ltd.
		7-3 Nantong Changyou Pharmaceutical Technology Co., Ltd.
		7-4 Chifeng Arker Pharmaceutical Technology Co., Ltd.
		7-5 Chifeng Mysun Pharmaceutical Co., Ltd.
8	SPH Qingdao Growful Pharmaceutical Co., Ltd.	
9	Xiamen Traditional Chinese Medicine Co., Ltd.	
10	Chiatai Qingchunbao Pharmaceutical Co., Ltd.	
11	Hangzhou Huqingyutang Pharmaceutical Co., Ltd.	
12	Liaoning SPH Herbapex Pharmaceutical (Group) Co., Ltd.	
13	SPH Dong Ying (Jiangsu) Pharmaceutical Co., Ltd.	13-1 SPH Changzhou Kony Pharmaceutical Co., Ltd

3 Descriptions

Since the Company did not have records on travel distance of vehicles, paper consumption statistics, correct statistics on the amount of anaerobic COD removed from the sewage treatment, the number of trees planted and other relevant information, the SOx, NOx, and particulate matter generated from vehicle fuel consumption, CO_2 indirectly generated from paper consumption, methane generated from removal of COD during the anaerobic processes, and CO_2 recovered from planting trees were not tentatively calculated. In 2018, Shanghai Pharmaceuticals will require companies to establish relevant records to more comprehensively and accurately calculate and disclose relevant pollution emissions and greenhouse gas emissions.

4 Key pollutant-discharging units identified in the documents of environmental protection departments for 2017

According to the documents of Environmental Protection Bureau of Shanghai Pudong New District, the key district Units under Monitoring in 2017 were the 3 production sites, namely Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd., General Factory, Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd., No. 2 Subsidiary and Shanghai Harvest Pharmaceutical Co., Ltd. According to the documents of Environmental Protection Bureau of Yuhang District, Hangzhou, the key pollution source units of Yuhang District in 2017 included Hangzhou Huqingyutang Pharmaceutical Co., Ltd. According to the "Regulations for Management of List of Key Pollutant-discharging Units" promulgated by the Ministry of Ecology and Environment on 15 November 2017, it specifies that only municipal environmental protection departments with districts can determine key pollutant-discharging units. Therefore, none of the above documents stipulates the key pollutant-discharging units. Based on the related notices and regulations on the environmental protection issued by China Securities Regulatory Commission, it is necessary to supplement the environmental management information of the key pollutant discharge units determined by the municipal-level environmental protection department in 2018, including 5 production units, they are Shanghai Pharma SINE Pharmaceutical Factory Co., Ltd., Shanghai Pharma New Asia Pharmaceutical Co., Ltd. (ASIA PIONER Pharmaceutical Factory), Shanghai Zhongxi Sunve Pharmaceutical Co., Ltd., Shanghai SPH No. 1 Biochemical and Pharmaceutical (Jianchuan), Shanghai Pharma Changzhou Pharmaceutical Factory Co., Ltd. Among them, Shanghai Pharma SINE Pharmaceutical Factory Co., Ltd. refers to Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd., General Factory which is located at 905 Xinjinqiao Road, Pudong New District, Shanghai.

Pollutant Discharge of Key Units under Monitoring or Key Pollution Source Units in 2017

Name of key pollutant-discharging units	Name of key pollutants	Discharge mode	Discharge conditio	Discharge concentration/ mg/L	Total dischargeamount	Excessive discharge	Implemented standards for discharge of pollutants	Approved total amount of discharge / Tonne	Supervision and operation of pollution prevention & treatment facilities
Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd., General Factory	COD	Continuous	Main outlet	24	5.5	Yes	Standards of Pollution Discharge Standard of Bio-pharmacy Industry (DB31/373-2010) and Water Quality Standard on Discharge of Sewage into Cities and Towns Sewer (DB31/445-2009)	5.5	Builds a sewage treatment station with the daily capacity of 1,200t sewage. After through anaerobic biochemical treatment, the waste water of the whole factory is discharged into Bailonggang Purification Plant for further treatment. In 2017, the sewage treatment station has been put into normal operation.
	Ammonia nitrogen			0.308	0.07	No		2.15	
Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd., No. 2 Subsidiary	COD	Interval	Main outlet	232	12.1	No	Standard B under the Wastewater Quality Standards for Discharge to Municipal Sewers (GB / T31962-2015)	The environmental protection department has not approved the total amount of pollutants discharged by the company	Established a biochemical sewage treatment station in the factory with daily treatment of 200 tonnes, and discharged the treated sewage into Bailonggang Sewage Treatment Plant for further treatment. The biochemical sewage treatment station was running normally in 2017.
	Ammonia nitrogen			6.04	0.32	No			
Shanghai Harvest Pharmaceutical Co., Ltd.	COD	Continuous	Main outlet	20	1.36	No	Standard under the Mixed-type Pharmaceutical Industry Water Pollutant Discharge Standard (GB 21908-2008)	2.876	Established a biochemical sewage treatment station in the factory with daily treatment of xxx tonnes, and discharged the treated sewage into Bailonggang Sewage Treatment Plant for further treatment. The wastewater treatment faciliites were running normally in 2017.
	Ammonia nitrogen			0.2	0.018	No		1.128	
Hangzhou Huqingyutang Pharmaceutical Co., Ltd.	COD	Continuous	Main outlet	719	115.04	No	Takeover standards of Hangzhou Yuhang Water Co., Ltd.'s sewage treatment plant in development zone	12.14	Established a sewage pretreatment pool with capacity of 1,000 cubic meters, and discharged, after pretreatment, the waste water generated in the production into Hangzhou Yuhang Water Co., Ltd.'s sewage treatment plant in development zone for further treatment. The pretreatment facility was running normally in 2017.
	Ammonia nitrogen			11.4	1.82	No		0.72	
Shanghai Pharma New Asia Pharmaceutical Co., Ltd. (ASIA PIONER Pharmaceutical Factory)	COD	Continuous	Total discharge outlet	24.95	10.91	No	Pollution Discharge Standard of Bio-pharmacy Industry (DB31/373-2010)	The total pollutant discharge of the enterprise was not approved by environmental protection department in 2017	Builds an integrated sewage treatment station with the daily capacity of 4,000t sewage in the plant. After processed by the integrated sewage treatment station and being up to standard, the waste water of the whole factory is discharged into Bailonggang Sewage Treatment Plant for further treatment. In 2017, the biochemical sewage treatment station has been put into normal operation.
	Ammonia nitrogen			7.632	3.34	No			

Name of key pollutant-discharging units	Name of key pollutants	Discharge mode	Discharge conditio	Discharge concentration/ mg/L	Total dischargeamount	Excessive discharge	Implemented standards for discharge of pollutants	Approved total amount of discharge / Tonne	Supervision and operation of pollution prevention & treatment facilities
Shanghai Zhongxi Sunve Pharmaceutical Co., Ltd.	COD	Continuous	Total discharge outlet	24	1.93	No	Standards of Water Quality Standard on Discharge of Sewage into Cities and Towns Sewer (GB/T 31962-2015)	9.44	Builds a sewage treatment station with the daily capacity of 150t and 300t sewage. After processed by the biochemical sewage treatment station, the waste water of the whole factory is discharged into Shanghai Fengjin Environmental Construction Management Co., Ltd. for further treatment. In 2017, the sewage treatment station has been put into normal operation.
	Ammonia nitrogen			5.4	0.43	No		0.97	
Shanghai SPH No. 1 Biochemical and Pharmaceutical (Jianchuan)	COD	Continuous	Total discharge outlet	37.4	2.1714	No	DB 31/373-2006 Pollution Discharge Standard of Bio-pharmacy Industry	4.939	Builds a sewage treatment station with the daily capacity of 330t sewage. After processed by the biochemical sewage treatment station, the waste water of the whole factory is discharged into Bailonggang Sewage Treatment Plant for further treatment. And now, there are 3 sets of 4t/h gas-fired boilers, 1 set of 10t/h standby gas-fired boiler, activated carbon adsorption and UV-photolysis treatment plant.
	Ammonia nitrogen			0.02	0.2809	No		0.383	
	SO2	Continuous	Organized discharge	6.667	0.0175	No	DB 31/387-2014 Emission Standard of Air Pollutants for Boilers (No.1 Modification List)	0.383	
	NOx			67.33	42.8467	No		/	
	Volatile organic compound (VOCs)	Continuous	Organized discharge	7.41	0.6771	No	DB 31/933-2015 Emission Standard of Air Pollutants	0.061	
Shanghai Pharma Changzhou Pharmaceutical Factory Co., Ltd.	COD	Interval	Total discharge outlet	111	23.31	No	Contract signed with the Changzhou Southeast Industrial Wastewater Treatment Plant Co., Ltd.	105	Builds a sewage treatment station with the daily capacity of 1,500sewage. After processed via anaerobic +facultative + aerobic biochemical sewage treatment station, the waste water of the whole factory is discharged into Changzhou Southeast Industrial Wastewater Treatment Plant Co., Ltd. for further treatment. In 2017, the sewage treatment station has been put into normal operation.
	Ammonia nitrogen			28.1	5.90	No		9.45	

1. Environmental impact assessment on construction project and other administrative licensing situations for environmental protection of the construction project

The company has repeatedly issued the notice documents to arrange subordinate enterprises to complete the works of management organization perfection, application of pollutant discharging license, "three simultaneities" of construction project, pollution facilities construction, discharge outlet control, hazardous wastes management, VOC renovation work, pollutant discharge monitoring, self-monitoring capability improvement, project independent acceptance, etc.

In 2017, Zhongxi Sunve and Changzhou Pharmaceutical completed the application of pollutant discharging license according to regulatory requirements, and the SINE Pharmaceutical Factory also obtained the Approval Opinions on the Acceptance of Jinqiao Base Renovation and Expansion Projects of Shanghai Pharma SINE Pharmaceutical Factory Co., Ltd.

2. Contingency plan of emergent environmental incident

The company and the major affiliated pollutant discharging units have built and recorded the contingency plan of emergent environmental incident, regularly conducted its exercises, constantly summarized and improved the contingency plan via exercises to enhance the ability of the company and subsidiaries to cope with the emergent environmental incident.

3. Environmental self-detection solution

SINE Pharmaceutical Factory installs automatic detection units in the total sewage outlet to detect COD, PH, flow and other data per hour, and makes it networking into the platform of environmental protection agency. The third party environment detection company is responsible for the professional detection of the PH, COD, ammonia nitrogen, animal & vegetable oil, suspended solid and other data every quarter. Based on relevant regulations, SINE Pharmaceutical Factory and Shanghai Pharma New Asia Pharmaceutical Co., Ltd. have completed the preparation of environmental self-detection solution at the end of 2017.

4. Others

Changzhou Pharmaceutical has established the ISO14000 environment management system and passed the review of Beijing Huaxia Certification Center in 2017, and furthermore, the company has completed and passed the "water-saving circulation & emission-reduction projects of pharmaceutical workshop" of the Changzhou Water Conservancy Bureau in 2017, which lays a solid foundation for the standardization of production management and implementation of sustainable development.

Zhongxi Sunve has obtained significant energy saving achievements via the energy management to the power of U1 power house, U3 power house and hydraulic energy, and furthermore, passed the examination and approval of ISO14000, ISO9000, ISO18000 management system and energy management system.

5 Packaging for finished products

SPH Dong Ying (Jiangsu) Pharmaceutical Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage(kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	Cisatracurium Besilate	66.28	45.2274	/	/
Raw material	Perindopril tert-butylamine	91.91	42.1535	/	/
Auxiliary materials	Mannitol	900	670.7	/	/
Auxiliary materials	Medicinal charcoal	10	6.878	/	/
Auxiliary materials	Lactose	200	198	/	/
Auxiliary materials	Magnesium stearate	15	13.86	/	/
Packaging materials	Freeze-dried sterile powder for injection with chlorinated butyl rubber plug	808.15 million pieces	674.5 million pieces	/	/
Packaging materials	Aluminum composite cover for antibiotic bottle	771 million pieces	669.38 million pieces	/	/
Packaging materials	Polyvinyl chloride solid medicinal PVC sheet	2520	2949.3251	/	/
Packaging materials	Drug packaging aluminum foil for 2mg Perindopril tert-butylamine tablets	477.6	518.87097	/	/

Shanghai Pharma Group Changzhou Kony Pharmaceutical Co., Ltd

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	Acyclovir crude	23500	21045	/	/
Raw material	N-benzyloxycarbonyl-L-valine	44960	37810	/	/
Raw material	Dicyclohexylcarbodiimide	31500	31320	/	/
Raw material	N,N-dimethylformamide N	60000	352800	294000	83.3
Raw material	Methanol	240260	501760	264600	52.7
Packaging materials	Medicinal low density polyethylene bags	14800 pieces	14600 pieces	/	/

SPH Changzhou Pharmaceutical Factory

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	Reserpine	29	32.76	/	/
Raw material	Dihydrazide sulfate	6060	1192	/	/
Auxiliary materials	Starch	800035	111578.4	/	/
Packaging materials	30ml medicinal high density polyethylene bottle	6150400 pieces	5960000 pieces	/	/
Packaging materials	15ml medicinal high density polyethylene bottle	36594500 pieces	13500000 pieces	/	/

Nantong Changyou Pharmaceutical Technology Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	(3R)-3-tert-butyldimethylglyoxylglutarate R-mandelate	12000	11276.5	/	/
Auxiliary materials	Methanol	115000	156132.5	58549.7	37.50%
Auxiliary materials	Triethylamine	12500	12031.2	0	0
Auxiliary materials	Toluene	40000	55055.9	26080.0	47.37%
Packaging materials	Medicinal transparent polyethylene bags	16000 pieces	12000 pieces	0	0

SPH Qingdao Growful Pharmaceutical Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	Common Bletilla Tuber	8307	4607	/	/
Raw material	Cuttlebone Sepium	15730	11978	/	/
Raw material	Yanhusuo Tuber	13960	5528	/	/
Raw material	Pilose Asiabell Root	41370	24525	/	/
Raw material	Chinese Goldthread Rhizome	12332	14715	/	/
Raw material	Ginseng	6400	6131	/	/
Raw material	Ferric chloride	150000	123600	/	/
Raw material	Syrup	130000	133764	/	/
Raw material	Sodium hydroxide	75675	76092	/	/
Auxiliary materials	Coating agent	1340	1632	/	/
Auxiliary materials	Starch	5000	2590	/	/
Auxiliary materials	Opadry	4000	4360	/	/
Auxiliary materials	Magnesium stearate	1500	850	/	/
Auxiliary materials	Ethanol	477800	1945900	1664900	85.56%
Packaging materials	Medicinal high density polyethylene bottle	3125700 pieces	1020000 pieces	/	/
Packaging materials	Medicinal PVC (175 Transparent)	27917	23980	/	/
Packaging materials	Medicinal composite film	3880	5055	/	/
Packaging materials	Medicinal PVC (180 Orange yellow)	22218	33110	/	/
Packaging materials	Medicinal composite film	21032.6	20441.9	/	/

Shanghai Zhongxi Sunve Pharmaceutical Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	Hydroxychloroquine sulfate	42813.7	39470.056	/	/
Raw material	Aripiprazole	1037.82	605.994	/	/
Raw material	Diloxetine hydrochloride	885.02	1223.73	/	/
Auxiliary materials	Corn starch	17064.26	13575.815	/	/
Auxiliary materials	Magnesium stearate	938.205000	799.05	/	/
Auxiliary materials	Lactose	10400	10469.044	/	/
Packaging materials	Medicinal aluminum foil for hydroxychloroquine sulfate tablets (0.1g)	13752.9	10833.035	/	/
Packaging materials	Polyester / aluminum / polyethylene medicinal composite film and bag (Aripiprazole tablets)	9199.1	9135.67	/	/
Packaging materials	Medicinal aluminum foil for duloxetine hydrochloride enteric-coated tablets (20mg)	1068.3	1347.16	/	/

Xiamen Traditional Chinese Medicine Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount(kg)	Recycling rate (%)
Raw material	Sanchi	37,068.00	51,727.00	/	/
Raw material	Artificial Bezoar	4,200.00	4,605.42	/	/
Raw material	Artificial Forest Musk Abelmosk	138.00	147.76	/	/
Auxiliary materials	Corn starch	15,300.00	11,984.60	/	/
Auxiliary materials	Magnesium stearate	4,099.60	4,400.27	/	/
Packaging materials	Medicinal aluminum foil for Xin Huang Tablet (234mm)	10,798.50	9,259.00	/	/
Packaging materials	Composite film for Xin Huang Tablet【145*150mm(36 pieces)】	13,837.30	13,755.35	/	/
Packaging materials	Medicinal aluminum foil for Pill of Eight Treasures capsules (170mm)	1,918.20	1,808.90	/	/

Shanghai Leiyunshang Fengbang Pharmaceutical Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	Hypoglaucous Collett Yam Rhizome	11760	11280	/	/
Raw material	Liquorice Root	6216	5640	/	/
Raw material	Combined Spicebush Root	3360	2820	/	/
Auxiliary materials	Sucrose	3000	2350	/	/
Packaging materials	Medicinal high density polyethylene bottle	5390000 pieces	5170000 pieces	/	/

Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd., General Factory

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	Metformin Hydrochloride	58200	57554	/	/
Raw material	Rabeprazole Sodium	320	337	/	/
Raw material	Methotrexate	88	227.68	/	/
Raw material	Digoxin	100	91.796	/	/
Raw material	Spironolactone	250	280	/	/
Raw material	Salbutamol Sulfate	42	42	/	/
Auxiliary materials	Corn starch	52925	53908	/	/
Auxiliary materials	White sugar	4000	5650	/	/
Auxiliary materials	Pregelatinization starch	54825	53778	/	/
Auxiliary materials	Magnesium stearate	2915	2600	/	/
Auxiliary materials	White dextrin	3200	2825	/	/
Auxiliary materials	Magnesium oxide	2500	2825	/	/
Auxiliary materials	Mannitol （Imported）	2900	2425	/	/
Auxiliary materials	Polyvinylpyrrolidone k29/32	648.7	449.1	/	/
Auxiliary materials	Isopropanol	14003	13863	/	/
Auxiliary materials	Film coating premix HEY5403747	1050	800	/	/
Auxiliary materials	Titanium dioxide	50	100	/	/
Auxiliary materials	Carboxymethyl starch sodium / made in China	200	150	/	/
Auxiliary materials	Hypromellose /E5-LV	5300	4778	/	/
Auxiliary materials	Calcium carbonate	75	204	/	/
Auxiliary materials	Cross-linked PVPxl	1996	1747	/	/
Auxiliary materials	Carmellose sodium（SH-SJJ-4000）	5000	4828	/	/
Auxiliary materials	Hypromellose K100M	45000	38095	/	/
Auxiliary materials	Microcrystalline cellulose PH302 Asahi Kasei	14950	14207	/	/
Auxiliary materials	99.5% Ethanol	3060	3250	/	/
Auxiliary materials	HFA-134a	23332	22374	/	/
Auxiliary materials	Maltodextrin	11150	11221	/	/
Auxiliary materials	Skim milk powder	61600	65134.504	/	/
Auxiliary materials	Oligofructose P95	10000	7458.95	/	/
Auxiliary materials	Fresh milk essence (powder)	350	238.9	/	/
Auxiliary materials	Glucose (water free)	5900	5927.2129	/	/
Auxiliary materials	Yeast extract	8989	7667.7425	/	/
Auxiliary materials	Tryptone	8615	8822.908	/	/
Auxiliary materials	Peptone	2000	2238.837	/	/
Auxiliary materials	Dipotassium phosphate	550	630.6424	/	/
Auxiliary materials	Ammonium sulfate	850	940.94	/	/
Auxiliary materials	Isomerisation lactose fluid	10000	9459.912	/	/
Auxiliary materials	Vitamin C Sodium	150	243.75	/	/

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Packaging materials	Medicinal high density polyethylene bottle for oral solid dosage 60ml/01B	4118.84 million pieces	3971.142 million pieces	/	/
Packaging materials	Medicinal aluminum foil for rabeprazole（SPH）	1945.5	2043.9	/	/
Packaging materials	Rabeprazole 250 double aluminum	8276	8629	/	/
Packaging materials	Lei Bei composite film（155mm）	8339.8	7744.8	/	/
Packaging materials	Medicinal high density polyethylene bottle for oral solid dosage 25ml	9534 pieces	9360 pieces	/	/
Packaging materials	Medicinal aluminum platinum for Digoxin 30 tablets	1773.2	1415.5	/	/
Packaging materials	Polyvinyl chloride solid medicinal hard patch (digoxin)	13012.2	8351.4	/	/
Packaging materials	Medicinal high density polyethylene bottle for oral solid dosage 70ml/01B	414 million pieces	424.58 million pieces	/	/
Packaging materials	Medicinal high density polyethylene bottle for oral solid dosage 50ml/01B	15048 million pieces	24288.334	/	/
Packaging materials	Bifidobacterium triple active bacteria powder composite film 1g*12 columns *6 pieces	6554.5	6261.5	/	/
Packaging materials	Bifidobacterium triple active bacteria powder composite film 1g*12 columns *7 pieces	9645	9181.2	/	/
Packaging materials	Bifidobacterium triple active bacteria powder composite film 1g*12 columns *9 pieces	6291	5202.7	/	/
Packaging materials	Bifidobacterium triple active bacteria powder composite film 2g*12 columns *6 pieces	4393	3526.5	/	/

Shanghai Sine Tianping Pharmaceutical Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	Sulfasalazine	215900	215900	0	0
Auxiliary materials	Pregelatinization starch	47000	47000	0	0
Auxiliary materials	Starch	22400	22400	0	0
Auxiliary materials	Magnesium stearate	2600	2600	0	0
Auxiliary materials	Carboxymethyl starch sodium	8600	8600	0	0
Packaging materials	Aluminum foil for 60 tablets of Salazide	10300	10300	0	0
Packaging materials	PVC for 60 tablets of Salazide	61500	61500	0	0
Packaging materials	Medicinal high density polyethylene bottle for 60 tablets of Salazide	5125000 pieces	5125000 pieces	0	0
Packaging materials	Medicinal high density polyethylene bottle for 100 tablets of Salazide	1598000 pieces	1598000 pieces	0	0

Shanghai SPH Sine Pharmaceutical Laboratories Co., Ltd., No. 2 Subsidiary

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	Warfarin sodium	900	900	/	/
Raw material	Amiodarone hydrochloride	12480	12480	/	/
Auxiliary materials	Dextrin	5400	5400	/	/
Auxiliary materials	Pregelatinization Starch	5400	5400	/	/
Auxiliary materials	Microcrystalline cellulose	12600	12600	/	/
Auxiliary materials	Corn starch	9000	8997.3	/	/
Auxiliary materials	Magnesium stearate	200	187.2	/	/
Packaging materials	Medicinal high density polyethylene bottle	600 million pieces	600 million pieces	/	/
Packaging materials	Medicinal PVC	11000	11000	/	/
Packaging materials	Medicinal aluminum foil	1650	1650	/	/

Shanghai Sine Jinzhu Pharmaceutical Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount(kg)	Recycling rate(%)
Raw material	Salbutamol Sulfate	100	85.568	/	/
Auxiliary materials	Sodium chloride	2000kg	62	/	/
Packaging materials	Low boron glass ampoules	2067.9332 million pieces	2067.9332 million pieces	/	/

Shanghai Fuda Pharmaceutical Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	Sulfasalazine	24800	24800	/	/
Raw material	Spironolactone	600	600	/	/
Auxiliary materials	Corn starch	6718	6718	/	/
Auxiliary materials	Dextrin	996	996	/	/
Auxiliary materials	Low-substituted hydroxypropyl cellulose	1146	1146	/	/
Auxiliary materials	Magnesium stearate	330	330	/	/
Auxiliary materials	Carboxymethyl starch sodium	300	300	/	/
Auxiliary materials	Coated powder	4150	4150	/	/
Auxiliary materials	Calcium hydrogen phosphate	900	897.6	/	/
Packaging materials	Medicinal PVC	18260	18260	/	/
Packaging materials	Medicinal high density polyethylene bottle	28.8 million pieces	28.8 million pieces	/	/
Packaging materials	Medicinal aluminum foil	2656	2656	/	/

Shanghai Leiyunshang Pharmaceutical Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	Salvia miltiorrhiza	1278003.8	1213440	/	/
Raw material	Patchouli oil	240	260	/	/
Auxiliary materials	Corn starch	30745	28478	/	/
Auxiliary materials	Salvia miltiorrhiza tablet coating premix	18500	16422	/	/
Auxiliary materials	Polyethylene glycol 6000	1960	2080	/	/
Packaging materials	60ml Medicinal high density polyethylene bottle	6123000 pieces	5843080 pieces	/	/
Packaging materials	60 tablets of Huodan Diwan bottle with cover	710000 pieces	757964 pieces	/	/
Packaging materials	10 tablets / tubes of Liushenwan bottle with cover	10502000 pieces	8284800 sets	/	/

Hangzhou Huqingyutang Pharmaceutical Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	Red ginseng	75590.55	734755.28	/	/
Raw material	Isodon amethystoides	1511811.02	1402204.72	/	/
Raw material	Submature Bitter Orange	193710.24	140220.47	/	/
Raw material	Loquat Leaf	85506.00	72500.00		
Raw material	Stemona Root	20935.00	19000.00		
Raw material	Chinese Goldthread Rhizome	200.00	84.00	/	/
Raw material	Baikal Skullcap Root	100.00	84.00	/	/
Auxiliary materials	Starch	33070.87	34488.19	/	/
Auxiliary materials	Magnesium stearate	1237.80	901.42	/	/
Auxiliary materials	Sucrose	611130.00	600000.00		
Auxiliary materials	Tannic acid	800.00	500.00		
Auxiliary materials	Refined honey	5000.00	1100.00	/	/
Packaging materials	Medicinal high density polyethylene bottle	5683874 pieces	5467870 pieces	/	/
Packaging materials	Medicinal Polyester Bottle (pieces)	6351080 pieces	6126408 pieces		

Shanghai SPH No. 1 Biochemical and Pharmaceutical Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased（kg）	Material usage（kg）	Recycling amount(kg)	Recycling rate(%)
Raw material	Tanshinone IIA	2304	2112		
Raw material	Pericarpium Trichosanthis	94000	72000		
Raw material	Chymotrypsinogen	1500	1499.225		
Raw material	Dibutyl cyclic phosphate adenosine calcium	671.659	774.957		
Auxiliary materials	Glucose (for injection)	7175	7500		
Auxiliary materials	Dichloromethane (Industrial)	65000	70200		
Auxiliary materials	Hydrochloric acid（CP）	22120	22190		
Auxiliary materials	Ethanol（Food grade）	669860	652279.75		
Auxiliary materials	Mannitol injection（250ml:50g）	1000	3380		
Auxiliary materials	Dextran 20	675	500		
Packaging materials	Low boron glass ampoules(2ml)	15147.6 million pieces	13444.8 million pieces		
Packaging materials	Low boron glass ampoules(5ml)	427.68 million pieces	403.92 million pieces		
Packaging materials	Low boron glass control injection bottle（2ml）	4939.935 million pieces	4181.261 million pieces		
Packaging materials	Freeze-dried halogenated butyl rubber plug for injection（Φ13）	5578.25 million pieces	3888.25 million pieces		

Shanghai Xingling Sci. & Tech. Pharmaceutical Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased（kg）	Material usage（kg）	Recycling amount（kg）	Recycling rate（%）
Raw material	Ginkgo Leaf	700800	700800	/	/
Raw material	Ginkgo ketoester	645.12	645.12	/	/
Auxiliary materials	Ethanol	391020	383917	/	/
Auxiliary materials	Macroporous resin	9600	10800	/	/
Auxiliary materials	Polyamide resin	4800	6000	/	/
Auxiliary materials	Cyclohexane	16200	15300	/	/
Auxiliary materials	Corn starch	200	1382.4	/	/
Auxiliary materials	Microcrystalline cellulose	175	268.8	/	/
Auxiliary materials	Carboxymethyl starch sodium	150	192	/	/
Auxiliary materials	Film coating premix	75	230.4	/	/
Packaging materials	Ginkgo ketoester paper bucket	1900	1782	/	/
Packaging materials	20ml Medicinal high density polyethylene bottle	1001870 pieces	1243696 pieces	/	/

Shanghai New Asiatic Pharmaceutical (Minhang) Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	Benazepril hydrochloride	1340	1336.79	/	/
Raw material	Amoxicillin Potassium Clavulanate (7:1)	9800	9758.05	/	/
Auxiliary materials	Microcrystalline cellulose (Import PH102)	10380	10374	/	/
Auxiliary materials	Lactose (Import 200M)	19025	19012	/	/
Auxiliary materials	Low-substituted hydroxypropyl cellulose	1580	1568	/	/
Auxiliary materials	Hypromellose	1000	980	/	/
Auxiliary materials	Ethanol (water free)	6966	6958	/	/
Auxiliary materials	Ethanol	10780	10780	/	/
Auxiliary materials	Coated powde (OY-22967)	1080	1078	/	/
Auxiliary materials	Carboxymethyl starch sodium	1575	1568	/	/
Auxiliary materials	Magnesium stearate	250	245	/	/
Auxiliary materials	Croscarmellose Sodium	2000	1995	/	/
Auxiliary materials	Silicon dioxide (solid phase)	1675	1662.5	/	/
Packaging materials	Molding material 250	16700	16660	/	/
Packaging materials	Medicinal aluminum foil for benazepril hydrochloride tablets	5700	5684	/	/
Packaging materials	Medicinal composite film for amoxicillin potassium clavulanate dispersible tablets (0.5g)	11000	10640	/	/

Chiatai Qingchunbao Pharmaceutical Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Raw material	Red ginseng	25000	24306	0	0
Raw material	Radix Ophiopogonis (from Zhejiang)	25000	24306	0	0
Raw material	Salvia miltiorrhiza	264000	260550	0	0
Auxiliary materials	Activated carbon	2000	1928	0	0
Auxiliary materials	Polysorbate 80	1300	1215	0	0
Auxiliary materials	Sodium chloride	1000	910	0	0
Packaging materials	50ml Infusion bottle (Type B)	4636262 pieces	4861260 pieces	0	0
Packaging materials	10ml Ampoule bottle	18000000 pieces	17370000 pieces	0	0

Shanghai SPH New Asiatic Pharmaceutical Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased（kg）	Material usage（kg）	Recycling amount（kg）	Recycling rate（%）
Raw material	Ceftriaxone	63563.22	62430.14	/	/
Raw material	Meropenem	207.51	344.82	/	/
Raw material	Cefotiam Hydrochloride	27883.55	20247.6	/	/
Raw material	Ceftazidime	4530	3599	/	/
Raw material	Praxilene Sodium Sulbactam	13276	10950.048	/	/
Raw material	Cefamandole Nafate	3737.71	2702.64	/	/
Raw material	Amphotericin B	14.065	6.862	/	/
Raw material	Cefixime	1875	1856.6	/	/
Auxiliary materials	Anhydrous sodium carbonate	4640	4742.347	/	/
Auxiliary materials	Sodium deoxycholate	7.04	18	/	/
Auxiliary materials	Lecithin	110	136	/	/
Auxiliary materials	Pregelatinization Starch	675	660	/	/
Auxiliary materials	Talcum powder	350	330	/	/
Packaging materials	10ml molded bottles	5322.36 million pieces	5620.788 million pieces	/	/
Packaging materials	25ml molded bottles	338.64 million pieces	235.681 million pieces	/	/
Packaging materials	30ml molded bottles	792.07 million pieces	796.7568 million pieces	/	/
Packaging materials	25ml glass vials	70.4 million pieces	70.6365 million pieces	/	/
Packaging materials	Coated butyl rubber plug	5937.84 million pieces	5922.35 million pieces	/	/
Packaging materials	Butyl rubber plug	846.97 million pieces	754.1 million pieces	/	/
Packaging materials	Freeze-dried butyl rubber plug	76.8 million pieces	72 million pieces	/	/

Liaoning SPH Herbapex Pharmaceutical (Group) Co., Ltd.

Category of materials	Name of materials	Amount of materials purchased（kg）	Material usage（kg）	Recycling amount（kg）	Recycling rate（%）
Raw material	Figwort Root	87912	76212	/	/
Raw material	Sanchi	91619	76619	/	/
Raw material	Safflower	105908	128807	/	/
Raw material	Rehmannia root	149219	145097	/	/
Raw material	Asper-like Teasel Root	118009	108778	/	/
Raw material	Common Swisscentaury Root	56761	56670	/	/
Raw material	Chinese Angelica	19111	21324	/	/
Raw material	Milkvetch Root	9154	9746	/	/
Raw material	Malaytea Scurfpea Fruit	11745	10660	/	/
Raw material	Indian Buead Tuckahoe	20991	22689	/	/
Raw material	Common Yan Rhizome	23208	21680	/	/
Raw material	Prepared Milkvetch Root	18153	15320	/	/

Category of materials	Name of materials	Amount of materials purchased (kg)	Material usage (kg)	Recycling amount (kg)	Recycling rate (%)
Auxiliary materials	Sucrose	293000	316267	/	/
Auxiliary materials	Coated powder	8500	6900	/	/
Auxiliary materials	Dextrin	43000	35868	/	/
Auxiliary materials	Blood stasis capsule shells	6076	6001.301	/	/
Packaging materials	Medicinal PVC	130030	109710	/	/
Packaging materials	Medicinal aluminum foil	3041.6	2366.6	/	/
Packaging materials	Medicinal high density polyethylene bottle	10444710 pieces	10308900 pieces	/	/
Packaging materials	Composite film	8525.7	7490.4	/	/

6 Environment and natural resources

In respect of environmental and natural resources, Shanghai Pharmaceuticals complies with the Environmental Protection Law of the People's Republic of China and the provisions of laws and regulations related to the Company's [environment and natural resources] and actively takes the initiative to prevent and reduces environmental pollution and ecological damage.

Case 1, SPH Xiangzhong Medicine Valley

SPH Xiangzhong Ecological Medicine Valley, with a planned area of 7700 acres, located in Chenxi Village, Zhexi Town, Anhua County, Hunan Province, adjacent to Zhexi National Forest Park and Xuefeng Lake National Geopark, is a platform of the Company integrating scientific research, demonstration, display and science popularization centered on ecological science research, and focuses on ecological economy, under-forest economics, biodiversity standardization, standardization, and traceability of medicine base construction.

At the beginning of the preparation of the Medicine Valley, the Company focused on environmental monitoring and protection, and has been integrating the concept of ecology, organic and environmental protection throughout the entire planning and production of the site. For environmental monitoring, the Company regularly appointed qualified testing organizations to monitor the base environment. For environmental protection, the location of the Medicine Valley was a traditional breeding area for pigs, which had a greater impact on the environment. The construction of the Company's Medicine Valley drove the government to accelerate the ban on pig farms and breeding areas in Chenxi Village. The area has been classified as a breeding prohibition area. Chenxi Village also became the first pig farm demolition village in Anhua County. The original pig farm was demolished one year in advance, which indirectly protected the environment. For base planning, the Company has overall plans to adapt the actual conditions of each region to local conditions and fully integrate the geographical features of Chenshan Mountain: mountains, water, forests, terraces, with mountains as the body, water as the soul, and forest as the curtain, making ecological cultivation and species diversity complement each other. Combining the geographical features, plant growth and application characteristics, niche theory, and biodiversity concepts, the varieties and zoning can be rationally arranged. The core base will be planned and designed according to the structure of "one point, two platforms, seven regions and nine functional areas". Each area will have a Chinese fir forest or a small stream as a buffer zone to ensure a gradual progress to achieve one scene in one step on the basis of ecology and environmental protection. For example, the germplasm resource bank enhances the protection of germplasm resources, collects germplasm resources from and around Anhua County for centralized planning, and protects germplasm resources based on the increase of species diversity; the core experimental demonstration base is divided into five functional areas on the basis of the rational use of the original topography. Planting under the forest in forest lands will not destroy the forest, so the forest lands, slopes, and terraces complement each other. Before the construction of Medicine Valley, due to the unique structure of the species and lack of management for many years, the original forest land has grown too densely, with serious forest pests and diseases, and many trees have dried up. The terraced fields are overgrown with weeds and grasses and thatch is grown as high as 2 meters. After the construction of Medicine Valley, the Company has enhanced management, rationalized the distribution of medicinal materials, increased species diversity, which significantly reduces pests and diseases, controls weeds, ensures better growth of herbs, and rejuvenation of trees. For production in Medicine Valley, we has been upholding the eco-organic concept, all the production varieties are medicinal herbs in Hunan, and we never introduce ecologically aggressive species for the sake of economic benefit; we always test production inputs for the resource-saving and environmentally-friendly level. The operation of production processes strictly comply with the standard specification of organic agriculture to enhance the mix of varieties, enhance the natural attributes of the ecosystem, improve the ecological environment, ensure the quality and safety of products, and realize the organic unity of "ecological, economic and social" benefits.

Case 2. Liushenwan

Liushenwan is a key product of Shanghai Leiyunshang Pharmaceutical Co., Ltd., a subsidiary of Shanghai Pharmaceuticals. Its efficacy and indications are cool detoxification, anti-inflammatory and pain relief. It is used for curing erythematous throat ulceration , sore throat, throat throat-entwining wind and throat abscess, tonsillitis, pediatric furuncle, abscess and hemorrhoids, engorgement of breasts and unknown swelling. Forest musk is the key ingredient of Liushenwan, which is good for blood circulation, alleviates the symptoms of acute parametritis and pelvic cellulitis, and disperses blood stasis. It can be taken with borneol and pearls, with both the warming and cooling effect and soothing and curing effect to remove obstruction and stagnation.

Moschus is a Grade 1 National Key Protected Species, and the forest musk is taken from adult male Moschus. In China, there are only 50,000 male Moschus. Even if they are all killed, only 0.5 tonnes of Forest musk can be obtained. The source of Forest musk is in short supply, and bad adulterated products flood the market, seriously affecting the quality of traditional Chinese medicines and drug safety. Approval for production of Forest musk is granted by assessing a certain quota by the State Forestry and Grassland Administration according to the status of nationwide application for use and by passing the expert review. At the same time, the Chinese Wildlife Operation and Use Management Label is issued according to the quota to ensure the medical needs in Shanghai.

In recent years, Shanghai Leiyunshang Pharmaceutical Co., Ltd., has used artificial Forest musk instead of natural Forest musk to produce artificial Liushenwan, which not only protects endangered medicinal plant and animal resources, but also satisfies the treatment needs of the majority of patients.

Case 3: Paclitaxel, Docetaxel

In the 1970s, the National Cancer Institute discovered that paclitaxel extracted from the barks, roots and leaves of Taxus has a unique inhibitory function on tumor cells. Therefore, the Taxus tree species has received much attention. Driven by economic interests, in the early 1990s, the resources of Taxus were severely damaged in some areas, and wild resources were collected in a frenzy and dried up. Taxus has been extinct in many areas and species conservation has been greatly threatened. In 1999, Taxus was included in the protection of the "Grade 1 National Key Rare and Endangered Plants" and the exploitation of wild resources was restricted.

For active pharmaceutical ingredients, Paclitaxel and Docetaxel, produced by Shanghai Jinhe Bio-Pharmaceutical Co., Ltd., a subsidiary of Shanghai Pharmaceuticals, Based on the concepts of green, environmental protection and sustainable development, at the initial design of the products, the precursor compound of Paclitaxel was selected as the initial Raw materials, and prepared using semi-synthetic methods. The precursor compound is extracted from the branches and leaves of Taxus using advanced techniques such as water extraction, fine filtration, and low-toxic solvent refining through continuous optimization process. The extraction process has obtained national invention patents. At the same time, the production process avoids depletion of trees due to extraction of Paclitaxel from the barks and roots of the Taxus. This is in line with the direction of national industrial development, which ensures the regeneration and utilization of plant resources and lays a foundation for the promotion and sustainable development of enterprises and is conducive to cancer patients.

7 Significant benefits brought by normalized green offices

1. Video conference:

From January to December of 2017, the Company held 137 video conferences. The total duration of the video conferences were 342 hours and the average duration of the video conferences was 2.5 hours.

Supposing three attendees outside Shanghai and average travelling expense of RMB4,000/person, the Company saved travel costs of more than RMB1.64 million in 2017.

2. Server virtualization:

The Company installed over 130 virtual servers. The resource utilization rate was improved significantly after the application of virtualization technology.

CPU resource utilization	↑6 times
Memory utilization	↑3 times
Storage capacity utilization	↑3 times
Network bandwidth utilization	↑4 times
Power consumption	↑9 times
UPS power	↑5 times
CRAC power	↑3 times
Machine room area	↑6 times

3. Collaborative office management OA

Up to now, the Group's OA has over 20,000 users, initiated over 1.87 million processes, and uploaded more than 1.63 million files. If each file has 10 pages on average and each electronic file is printed twice for distribution, it is equivalent to cumulative savings of more than 32.6 million pieces of paper.

Chapter 9
Our Responsibility, Our Promise 2017

- Let people take medicine of high quality and make the medicine affordable: Shanghai Pharmaceuticals is patient-oriented, adheres to innovation, efficacy, safety and compliance, closely integrates medical development and clinical needs, and is open to cooperation and works together with partners. We continue to seek new ways and methods for the diagnosis and treatment of major diseases and chronic diseases, provide safe and effective branded therapeutic drugs, continue to increase investment in R&D, pave the way for innovative development in the pharmaceutical industry, and accelerate the development of major innovative drugs, gene therapy and cell therapy products, and microecological products. We will continue to strive for excellence and continuously improve the energy level of production technology and equipment, production management and quality management with world-class standards to ensure the quality and safety of drugs.
- Let people take medicine with ease: Shanghai Pharmaceuticals has basically established the nation's second drug and medical device distribution service platform and innovation platform, and has a modern drug distribution system that covers 24 provinces and cities in China and has a high level of intensification and informatization. In the future, through (1) the innovative drug distribution approach, we will continue to provide services for the reform of medical institutions, and simplify the process of drug purchase by patients and improve service experience by means of leading supply chain management, information technology, and logistics technology; (2) upgrading global resource allocation, we will build a new structure of integrated services with large channels, expand international perspectives, and enhance the overall capabilities of one-stop service, integrated cooperation, and seamless management through cooperation in technology and services, and continue to introduce the world's most valuable innovative therapeutic drugs with optimal efficiency through the establishment of an internationally competitive import variety operating platform; (3) accelerating the development of new online and offline retail models, and building a "backtracking cloud" service platform, focusing on the data of the whole process of production, distribution, and use, we establish an electronic traceability and regulatory public platform covering drugs, equipment, and other goods covering multiple regions to ensure the safe use of drugs of patients. Our ultimate goal is to transform Shanghai Pharmaceuticals' business platform into an intensive, high-end, and distinctive modern health service provider.
- Ensure that special needs of special groups are met: Shanghai Pharmaceuticals, as the group-based industrial company with the most abundant pharmaceutical approvals in China, will continue to ensure the normal supply of low-cost drugs in demand, and continue to bring good news to special groups and patients with rare diseases.
- Care for the community and help build a healthy China: Shanghai Pharmaceuticals pays close attention to the backward medical conditions in remote mountain areas of China and responds positively to the call from the government about healthy China and targeted poverty alleviation. We have invested RMB10 million to launch the establishment of a special fund for the "Shanghai Medical Care Guardian Plan" to build hope clinics in Yunnan, Guizhou and other mountain areas, train local village doctors, and help children with congenital heart diseases in Yunnan through free medical consultation and follow-up surgery. Shanghai Pharmaceuticals hopes to make full use of its expertise to improve local people's health.
- Sound governance and operations ensure the interests of investors: Shanghai Pharmaceuticals is an A+H listed company. It also takes into account the requirements of laws and regulations in China and Hong Kong, and maintains sound governance and operations. The management of the Company performs its duties diligently and take the initiative to create more value for shareholders.
- Respect the value of employees and create opportunities and platforms for employee development: Shanghai Pharmaceuticals constantly integrates internal and external recruitment channels and resources, enhances market allocation, and attracts various types of talents; pays high attention to the growth and development of employees, and provides employees with systematic learning development paths and training courses to achieve organizational empowerment; adheres to the concept of remuneration based on position, ability, performance and market, improves employee remuneration system, performance assessment system and welfare system, so that employees can share the development results.

SPH

SPH 上海医药集团股份有限公司
Shanghai Pharmaceuticals Holding Co.,Ltd.

Tel: +86-021-63730908 Address: No. 200 Taicang Road, Huangpu District, Shanghai
Website: www.sphchina.com

Official Weibo

Official WeChat

Has

Century-Old Shanghai Pharma
Trustworthy Medicine We Provide

Shanghai Pharmaceuticals Holding Co.,Ltd.

Tel: +86-021-63730908

Address: No. 200 Taicang Road, Huangpu District, Shanghai

Website: www.sphchina.com