China Digital Healthcare Market

Independent Market Report

Confidential For

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For and on behalf of
Frost & Sullivan (Beijing) Inc., Shanghai Branch Co.

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Frost & Sullivan
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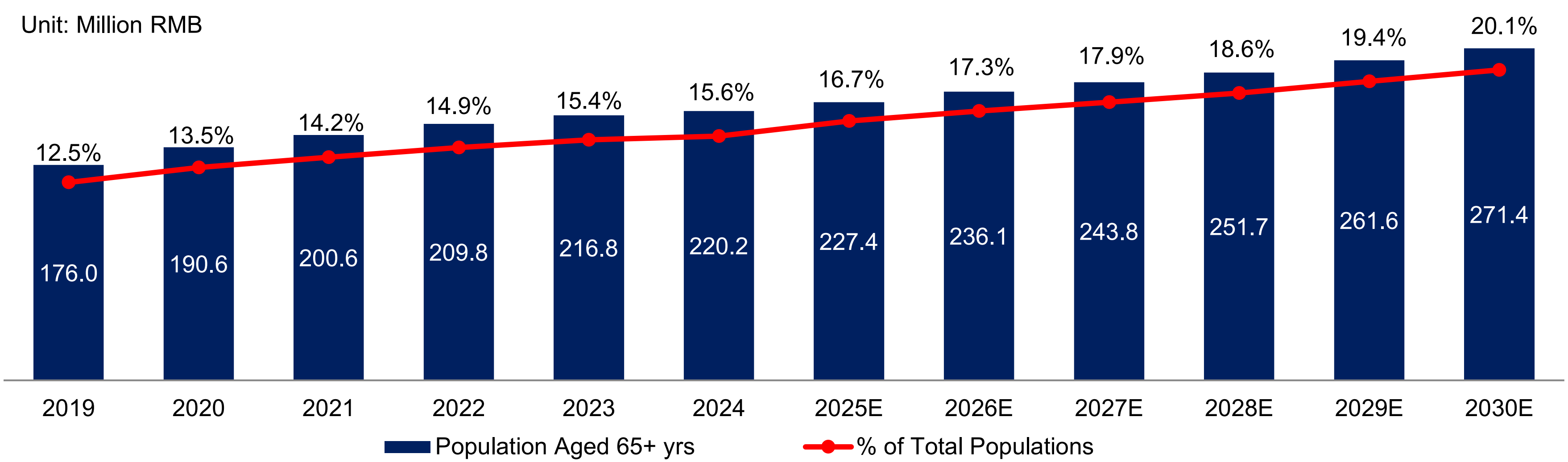
Updated

China Aging Population Trend, 2019-2030E

- With the implementation of the 'One Child Policy' and increasing life expectancy, China has entered an aging society. From 2019 to 2024, the population is aging rapidly in China with people aged above 65 growing at a CAGR of 4.6%. According to the National Bureau of Statistics of China (NBSC), the number of individuals aged above 65 years old is estimated to be RMB220.2 million in 2024. The number of individuals aged above 65 years old is growing at a fairly fast pace and is expected to continue the growth in the future. This number is expected to reach RMB271.4 million by 2030, representing a CAGR of 3.5% from 2024 to 2030.

China Aging Population Trend, 2019-2030E

Period	CAGR
2019-2024	4.6%
2024-2030E	3.5%



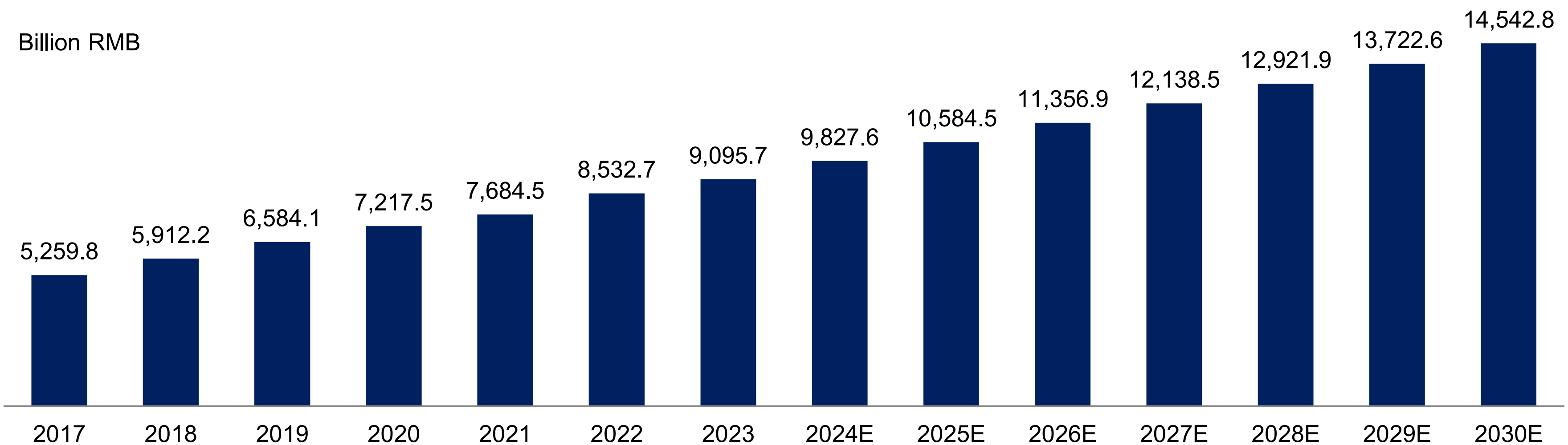
Source: NBSC, Frost & Sullivan Analysis

China Healthcare Expenditure, 2017-2030E

- The total healthcare expenditure of China has experienced steady growth. From 2017 to 2023, the total healthcare expenditure of China has increased from RMB 5,259.8 billion to RMB 9,095.7 billion, representing a CAGR of 9.6%. Furthermore, the rapid increase in China's healthcare expenditures will continue in the near future. The total healthcare expenditure of China is forecasted to reach RMB 14,542.8 billion by 2030, which represents a CAGR of 6.9% from 2023 to 2030.

China Healthcare Expenditure, 2017-2030E

Period	CAGR
2017-2023	9.6%
2023-2030E	6.9%



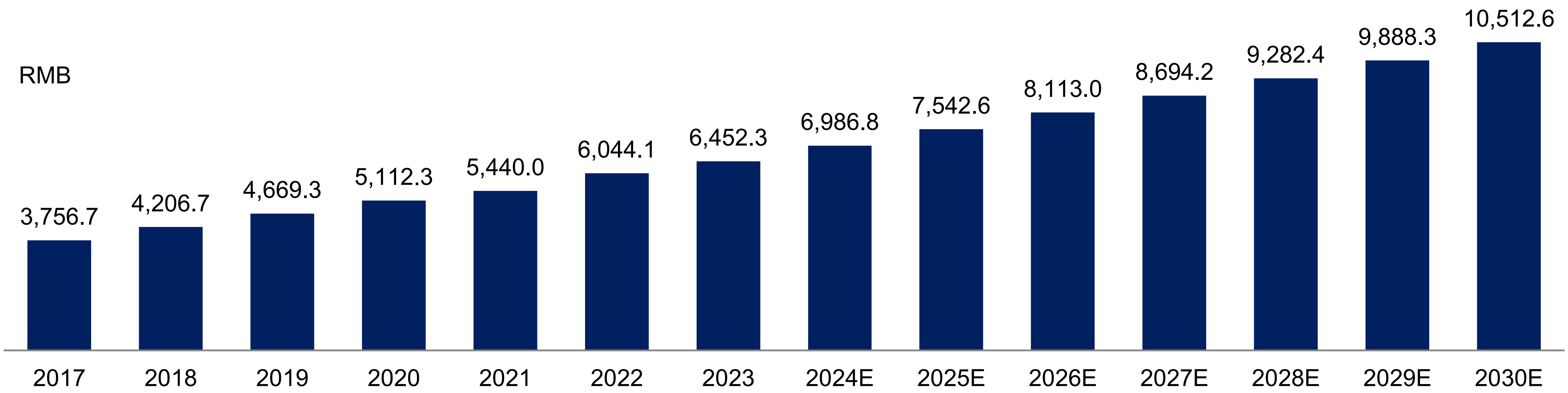
Source: World Bank, Frost & Sullivan Analysis

Healthcare Expenditure Per Capita in China, 2017-2030E

- The per capita healthcare expenditure in China has grown rapidly in recent years.
- According to information from the National Bureau of Statistics and EIU, from 2017 to 2023, the per capita healthcare expenditure has grown from RMB 3,756.7 to RMB 6,452.3, representing a CAGR of 9.4% in this period. The per capita healthcare expenditure is expected to reach 10,512.6 in 2030, representing a CAGR of 7.2% from 2023 to 2030.

Healthcare Expenditure Per Capita, 2017-2030E

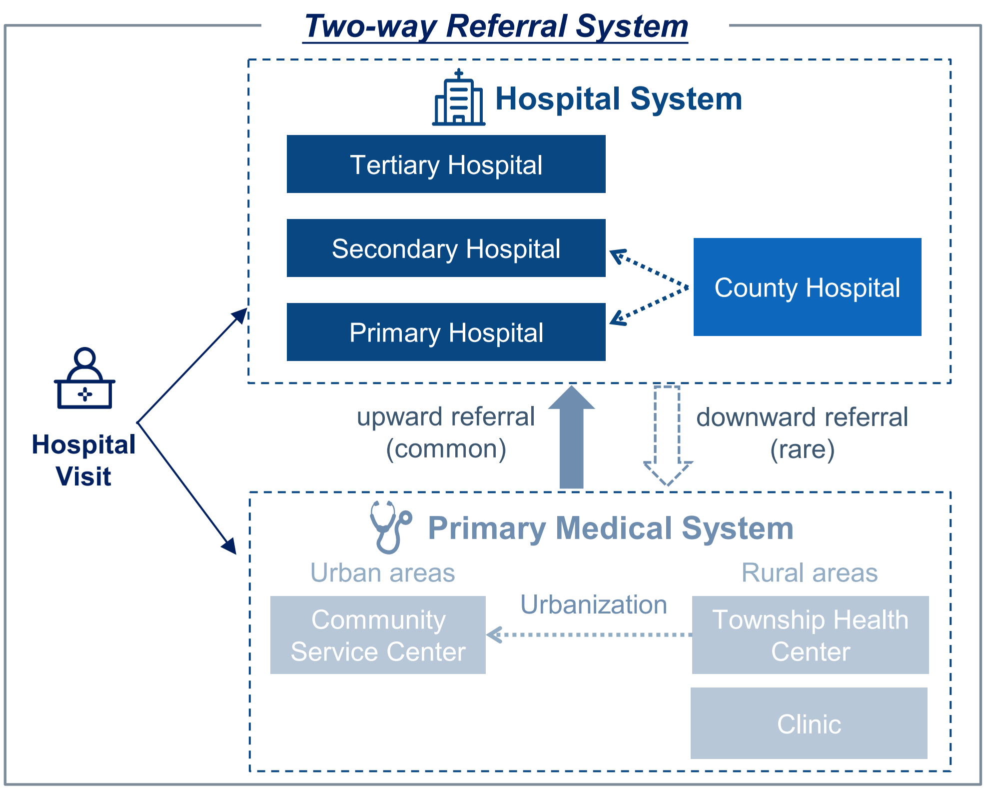
Period	CAGR
2017-2023	9.4%
2023-2030E	7.2%



Source: NBSC, Frost & Sullivan Analysis

Overview of China Hierarchical Medical System

- China's medical system mainly comprises three players: hospitals, primary medical institutions and professional public healthcare institutions. Hospitals and primary medical institutions are the providers of disease diagnosis and treatment whereas professional public healthcare institutions focus on disease prevention and public health supervision.
- China’s hospitals are classified into tertiary, secondary, primary and unrated hospitals. Tertiary hospitals are the most premium hospital class with the most abundant and professional medical resource. Most of county hospitals are secondary or primary hospitals, serving rural residents.
- Two-way referral system is introduced to the medical system to improve the efficiency of medical service by integrating the medical resource.



Value of two-way referral system

- Two-way referrals system allocates the China’s medical resource in a more efficient manner.
  - Community medical institutions are responsible for common minor diseases.
  - Difficult ad serious diseases, exacerbations or complex changes of existing diseases would be transfer to large hospitals.
  - The patients would be transferred back to community medical institution for rehabilitation when the condition of the patient becomes stable.
- Two-way referral system can alleviate the shortage of medical resources in large hospitals, improve the utilization rate of community medica resource, and ultimately help solve the issues of the difficulty and expensiveness of medical treatment.

Source: Frost & Sullivan Analysis

Overview of Healthcare Reform in China-I

- In early 2009, the China Central Communist Party along with the China State Council announced a comprehensive healthcare reform initiative through a program titled “Opinions on Deepening Pharmaceutical and Healthcare System Reform” (关于深化医药卫生体制改革的意见). The plan primarily targets four fundamental healthcare systems in China.

Public Health Services System

This system focuses on preventing disease and promoting health. The public health services system will provide services such as immunizations, regular physical check-ups (for senior citizens over 65 years old and children under three years old), pre-natal and post-natal check-ups for women, prevention of infectious or chronic diseases and other preventative and fitness programs.

Public Medical Insurance System

This system covers drugs and medical treatments for the majority of the population. The healthcare reform plan will retain the framework of the current public medical insurance schemes under the national program, but will be expanded to cover more of the population and increase the scope of treatments, raise the cap on claim payments and cover more claims at higher percentages.

Public Health Delivery System

One of the primary goals of the plan is to build more healthcare facilities and to improve the training of healthcare professionals. Beyond additional public wellness centers, the reform plan aims to place a medical clinic in every village and a hospital in every prefecture by 2011.

Drug Supply System

This system regulates pricing and how drugs will be procured, prescribed and dispensed at healthcare facilities. The healthcare reform plan will focus on pricing, procurement, prescription and dispensing of essential drugs.

Healthcare Reform

Source: Government Notice, Frost & Sullivan Analysis

Overview of Healthcare Reform in China-II

The ultimate goal of healthcare reform: everyone can have access to and afford basic healthcare services

The 13th Five-year Plan

In December 2016, the 13th five-year plan for medical development was released, proposing a new round of healthcare reform plan:

- Further improve the medical system, including primary-level medical and health services, hierarchical diagnosis and treatment, medical quality and safety management, and vigorously develop nongovernmental hospitals.
- Establish a primary universal medical insurance system, accelerate the development of commercial health insurance, promote payment system reform, and improve the drug supply security system.
- Reform the pharmaceutical system, encourage the innovation of drugs and medical devices, accelerate the evaluation of the consistency of the quality and efficacy of generic drugs, implement the 'two-invoice' reform of drug procurement, and improve the drug price negotiation mechanism.
- Strengthen maternal and child health care and birth services, develop elderly health services, promote the health of targeted populations such as the poor, and improve family planning policies.

Medium- and Long-term Goals by 2020

In the long run, healthcare reform will concentrate on public hospitals, which is a core part of the medical system. The reform will solve current problems by improving the medical insurance system:

- Provide all citizens with 100% public health care by 2020.
- Improve the efficiency of public hospitals by using effective management methods and advanced technologies.
- Increase the supply of medical services by expanding the size of the hospital.
- Avoid waste by optimizing medical insurance structure and improving medical insurance efficiency.

Healthy China 2030 Planning Outline

The State Council issued the outline of *Healthy China 2030 Planning* on Oct 2016:

By 2030, the system for promoting universal health will be better, the development of the health field will be more coordinated, the healthy lifestyle will be popularized, the quality of health services and the level of health protection will continue to improve, the health industry will prosper and develop, the health equity will be basically achieved, and the main health indicators entered the ranks of high-income countries.

The outline establishes the main indicators of healthy China 2030 planning:

- People's health continues to improve.
- Main health risk factors are effectively controlled.
- Health service capacity will be greatly improved.
- Significant expansion of the health industry.
- Improve the health system.

2016 — **2018** — **2020** — **2030**

Source: Government Notice, Frost & Sullivan Analysis

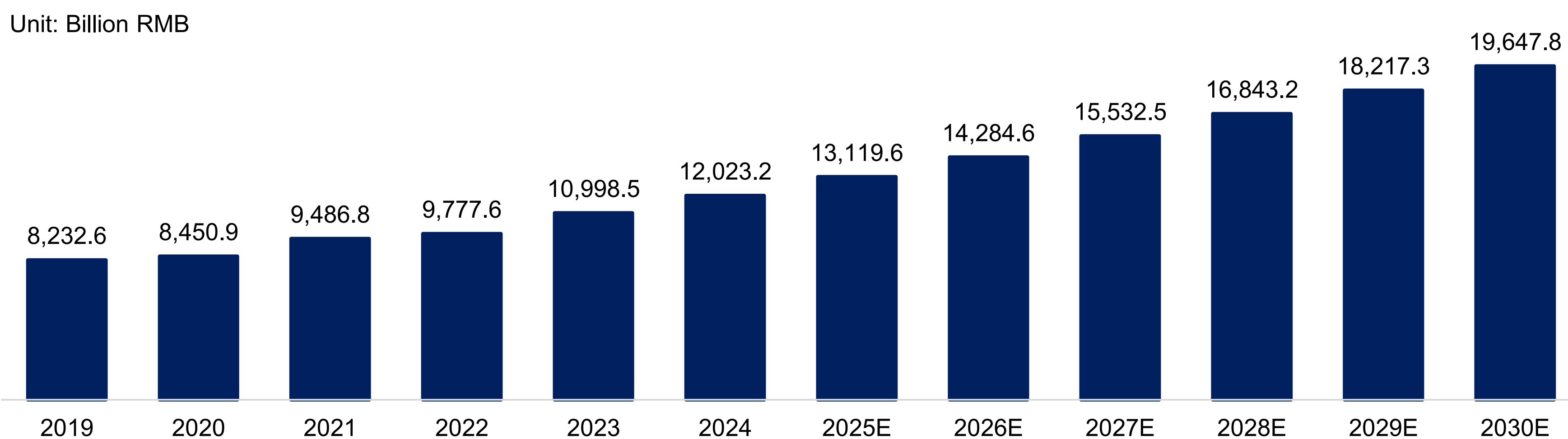
Updated

China Healthcare and Wellness Market, 2019-2030E

- China healthcare and wellness market encompasses two main segments: (i) the healthcare and wellness services industry, which includes services related to health maintenance, recovery, and promotion, and (ii) the healthcare product industry, which involves sales in retail pharmacy, hospital, primary medical institution. It has experienced steady growth. In 2024, the market size reached RMB12,023.2 billion. The market size is expected to rise to RMB19,647.8 billion by 2030 with a CAGR of 8.5% from 2024 to 2030.

China Healthcare and Wellness Market, 2019-2030E

Time period	CAGR
2019-2024	7.9%
2024-2030E	8.5%



Source: MOFCOM, Annual reports, Public information, Frost & Sullivan Analysis

Future Trends of China Healthcare and Wellness Market

Digital Connection between Online and Offline	• With the continuous promotion and development of Internet medical care, corresponding solutions have become more intelligent and convenient. Specifically, from the perspective of medical service providers, digital solutions can integrate and connect personal health data, which can not only provide more accurate services on the medical side, but also help medical service providers better understand their own operations. It is conducive to the reorganization and optimal utilization of medical resources and simplifies management difficulties; from the patient side, online appointment registration, drug procurement, and follow-up visits will greatly reduce the time and cost required for medical treatment and help simplify the time when patients seek medical services. eliminate cumbersome procedures while optimizing and improving the patient's medical experience. Overall, the interconnection of online and offline medical services has improved the overall efficiency of the medical system and improved the accessibility of medical resources. Therefore, the trend of online and offline medical digital connections will continue to promote the continued development of medical digital solutions in the future.
Digital Interconnection between Healthcare Institutions	• As more and more stakeholders participate in the digital health process, the need for collaboration and data connectivity among different stakeholders has become more common and important in the digital health industry. Digital interconnection opens up medical information sharing and mutual transfer channels to form a medical service network that can help the implementation of hierarchical diagnosis and improve the convenience of chronic disease management for patients. In addition, it also provides a technical foundation for telemedicine. Through digital interconnection, connections between medical institutions at different levels can be realized to form a regional cooperative medical service network. Therefore, the increasing demand for digital interconnection between medical institutions will enable the further development of digital healthcare solutions.

Source: Frost & Sullivan Analysis

Future Trends of China Healthcare and Wellness Market

Digital Sales of Medical Products

- Digital sales mainly consists of digital distribution and digital retail. From the perspective of distribution, the use of online distribution platforms will make the overall distribution and procurement more convenient and efficient, simplifying the complexity of product sales and purchases. At the same time, online digital resources will be easier to integrate, facilitating price adjustment and control, which can effectively help relevant companies improve their capabilities in supply chain. From the perspective of retail, prescription outflow has restructured the drug purchase value chain and consumer drug purchase channels. Since it allows insured patients to obtain medicines in a variety of flexible ways, more of the share of prescription drugs will flow to offline retail pharmacies and online retail pharmacies. Online retail pharmacies can provide more services, and an increasing number of consumers prefer online sales that are more efficient and faster. This trend will gradually shift the sales share from offline to online, therefore, the importance of digital healthcare solutions in drug sales will continue to increase.

Source: Frost & Sullivan Analysis

Overview of Medical Service and Consumer Healthcare Service

- The general healthcare services include **healthcare services** and **consumer healthcare services**.
- **Healthcare services** refer to the services provided by medical service institution for examination, diagnosis, treatment, rehabilitation as well as the provision of drugs and medical equipment related to these services. **Consumer healthcare services** are closely related to healthy life, focusing on establish healthy life-style, elderly healthcare services, health consultation, improving health protection, etc.

Healthcare Services

- Healthcare services means medical and health care services provided to a Person, including, but not limited to physician services, hospital services, skilled nursing facility services, rehabilitation services, home health care services, residential and medicine or healthcare equipment.

- Adjuvant examination
- Group consultation & diagnosis
- Treatment and pharmacy
- Follow-up consultation
- Rehabilitation
- Nursing during entire process

Consumer Healthcare Services

- Consumer healthcare services generally refer to non-public funded, non-therapeutic, market-oriented healthcare projects that payers select themselves. In order to maintain and promote body health and even meet aesthetic demands, consumer healthcare services is not aimed at patients, but consumers.

- Physical examination
- Health lecture and education
- Vacationing convalescence
- Plastic surgery and face-lifting
- Cancer screening and detection
- Daily healthcare supplement

Source: Frost & Sullivan Analysis

Value Chain of General Healthcare Service Market

Healthcare Provider End

Healthcare Specialists

- Diagnosis of patients
- Provide medical care and services

Healthcare Institutions

- Platform where healthcare providers communicate with patients

Overarching Parties

Supervisor

- Government entities that supervises and ensures legitimacy of the healthcare service system

Supporting Systems

- Give support throughout the flow of healthcare services, such as payment platform, logistics, software, etc

Manufacturer

- Research & Development
- Manufacturing

Distributor & Retailer

- Distribution of drug or medical device
- Drug/medical device retail

Consumption End

Patients/Users

- People receiving or registered to receive medical treatment

Payers

- Entity that pays for medical or healthcare service

Source: Frost & Sullivan Analysis

China Healthcare Service System

Overview

- At present, China's healthcare providers consist of hospitals, primary healthcare institutions, and other healthcare institutions, among which hospitals play the most important role.
- There were 38,355 hospitals in China by the end of 2023. With regards to the ownership, China's hospitals are mainly categorized as public hospitals and private hospitals. With regards to the specialization, China's hospitals consist of general hospitals, specialized hospitals, TCM hospitals, and other hospitals. With regards to the tier of hospitals, China's hospitals are categorized as Class I hospitals, Class II hospitals and Class III hospitals. Each tier has three levels – A, B and C, for example, Grade A Primary hospital, Grade B Primary hospital. Class and levels are evaluated according to the hospital's size, technique level, medical equipment, management level, service quality and etc.
- There were 1016,238 primary healthcare institutions in China by the end of 2023, including community health centers/stations, rural health centers, village clinics and others.

Chinese Healthcare Service System, 2023

Primary Healthcare Institutions (1016,238)

- Community Health Centers/Stations (社区卫生服务中心/站) (37,177)
- Rural Health Centers (乡镇卫生院) (33,753)
- Village Clinics (村卫生室) (581,964)
- Others (363,344)

Hospitals (38,355)

- Public Hospitals (11,772)
- Private Hospitals (26,583)
- Class III Hospitals (3,855)
- Class II Hospitals (11,946)
- Class I Hospitals (13,252)
- Unrated Hospitals (9,302)

Other Healthcare Institutions (16,192)

- Center of Disease Control (3,426)
- Women &Children Care Institutions (3,063)
- Preventive Institutions Of Special Disease (823)
- Others (8,880)

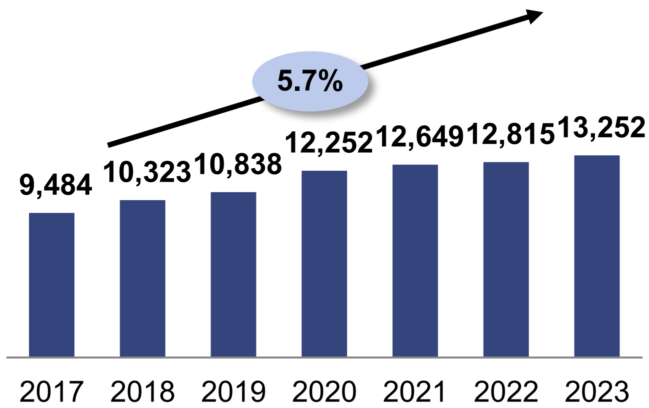
Source: NHFPC, Frost & Sullivan Analysis

Chinese Healthcare Service System

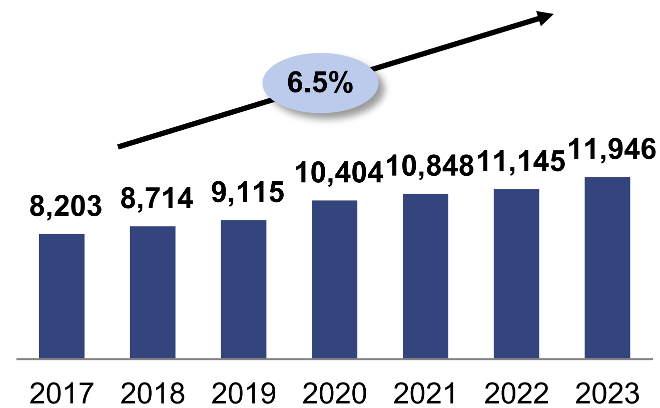
Recent Developments, 2017-2023

- The total number of hospitals in each tier and the total number of primary healthcare institution have both been growing, with the number of hospitals growing at a higher rate.

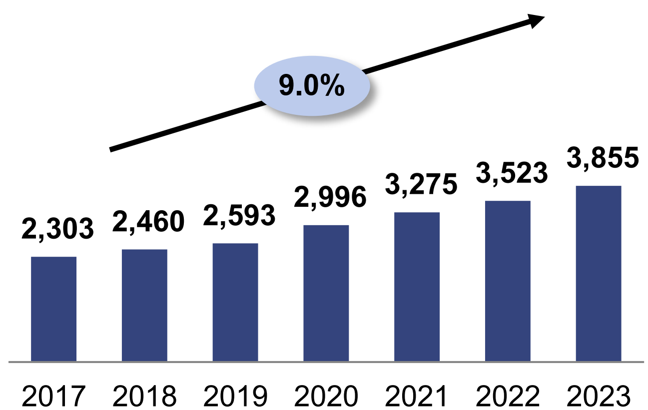
Total Number of Class I Hospitals, 2017-2023



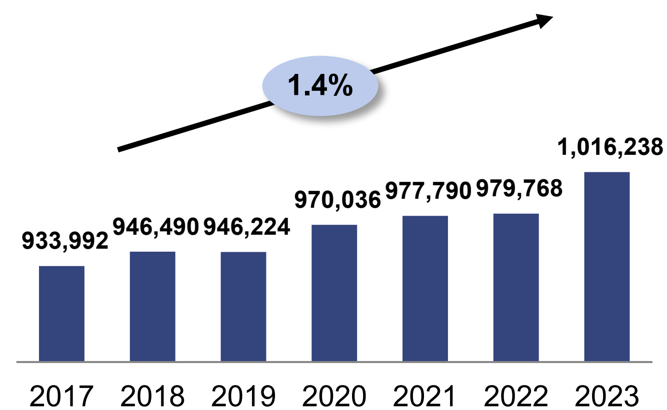
Total Number of Class II Hospitals, 2017-2023



Total Number of Class III Hospitals, 2017-2023



Total Number of Primary Healthcare Institutions, 2017-2023

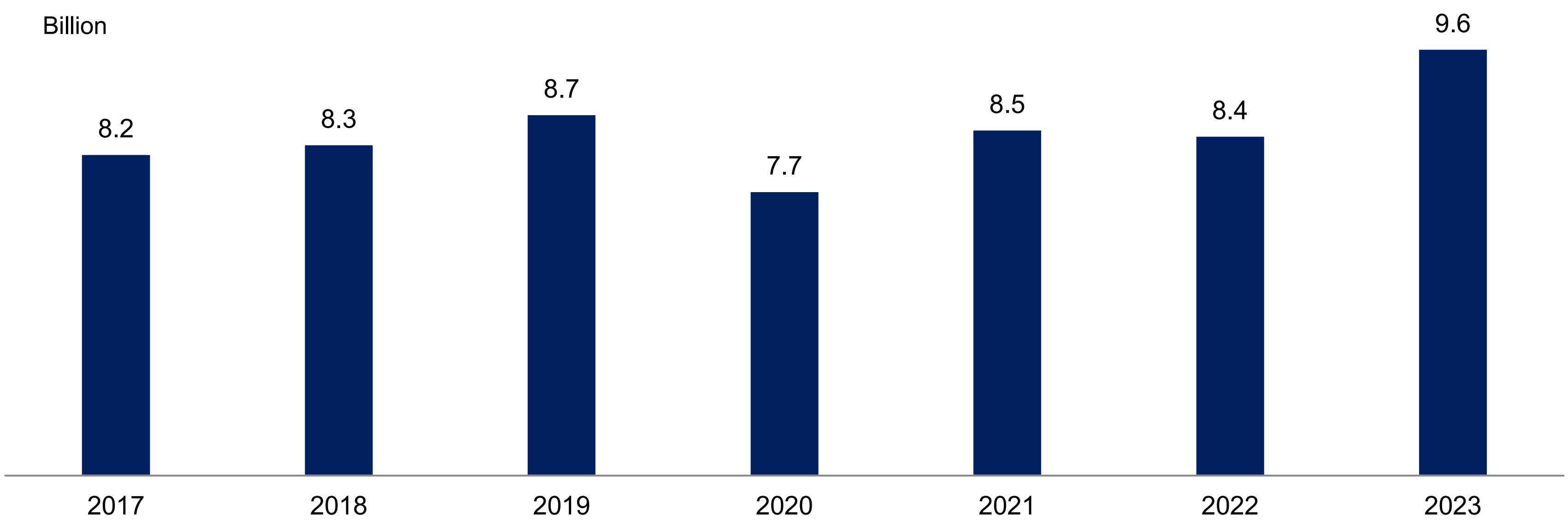


Source: NHFPC, Frost & Sullivan Analysis

Total Healthcare Institution Visits in China, 2017-2023

- Total healthcare institution visits include outpatient visits, emergency visits, physical check-ups, immunization visits and health management, etc. In China, the total healthcare institution visits has reached 8.2 billion in 2017 and increase to 9.6 billion in 2023.
- Due to COVID-19, the increasing concern about nosocomial infection and complicated hospital visit procedures adversely affected the total healthcare institution visits in China. Consequently, the total healthcare institution visits dropped to 7.7 billion by 2020 and partially recovered to 8.4 billion in 2022 and 9.6 billion in 2023.

Total Healthcare Institution[1] Visits in China, 2017-2023



Note 1: healthcare institutions includes hospitals, primary healthcare institutions and other healthcare institutions

Source: Frost & Sullivan Analysis

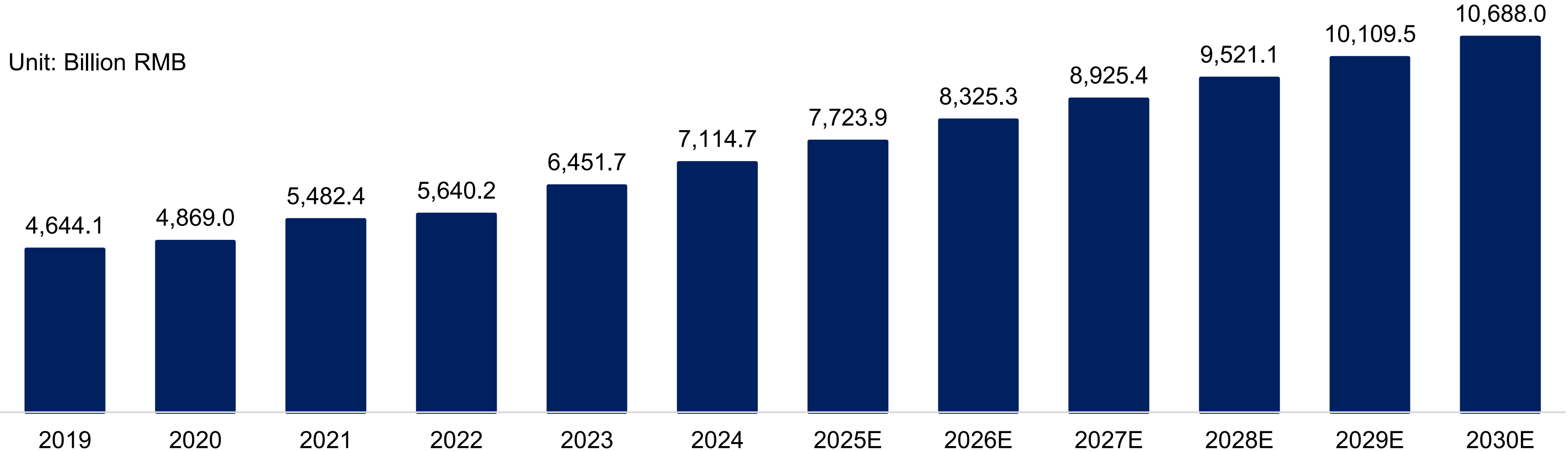
Updated

China Healthcare and Wellness Service Market, 2019-2030E

- China healthcare and wellness service market is an important part of China healthcare and wellness market, it includes the services provided by medical institutions to patients, including examination, diagnosis, treatment, rehabilitation, preventive healthcare etc.. In 2024, the market size reached RMB7,114.7 billion. The market size is expected to rise to RMB10,688.0 billion by 2030 with a CAGR of 7.0% from 2024 to 2030.

China Healthcare and Wellness Service Market, 2019-2030E

Time period	CAGR
2019-2024	8.9%
2024-2030E	7.0%



Note: 2022&2023 are estimated as the yearbook is unpublished officially.

Source: MOFCOM, Annual reports, Public information, Frost & Sullivan Analysis

Pain Points of China Healthcare Market

- China has undergone concerted development over the last two decades to improve healthcare system through national reimbursement reform, infrastructure investments and market expansion of private hospitals and commercial insurances. Despite health sector expansion, major health disparities and systemic issues still exists.

Patients	**Great healthcare demand**	◆ Patient number in China is rising, incidents of many diseases are increasing rapidly. This has caused great difficulties for patients to get medical services.
	Poor patient experience	◆ Treatment outcomes of many diseases remained dissatisfied. Also there're no further follow-ups or any instructions after patient visit.
Doctors	**Imbalanced distribution**	◆ As most doctor resources concentrating in big hospitals, there's a great shortage of doctor resources especially in remote areas. Meanwhile, patients flood into big hospitals, increasing doctor's workload.
	Low diagnosis efficiency	◆ Traditional diagnosis process is complicated. Doctors need to analyze large number of patient medical records and medical test results for accurate diagnosis.
Hospitals	**Limited medical resources**	◆ With the increase of patient number, the demand of screening, medical instruments and facilities has brought great pressure to hospitals, overloading the urban medical system.
	Medical record management	◆ The widely used paper medical records couldn't accurately reflect patient disease status. Hospitals are using different data record systems, record mistakes and missing are also unavoidable.
Life Science Companies	**Long R&D cycle**	◆ Life science companies need to finish thousands of experiments, and prove effectiveness and safety in clinical trials. The whole R&D cycle is extremely long and expensive.
	Inefficient marketing methods	◆ Many life science companies are lack of market research, unfamiliar with latest trends. The traditional marketing methods are of less control of the marketing channels and are also less efficient.
Insurance Companies	**Homogeneous products**	◆ There's a fierce competition among the homogeneous commercial insurances, lacking of product variety. The commercial insurance coverage is mostly limited in healthy populations.
	Low insurance profitability	◆ There's low connection between insurance companies and hospitals, it's difficult to control cost. The insurance auditing is mostly based on experience, the loss risk caused by auditing mistake is high.

Source: Frost & Sullivan Analysis

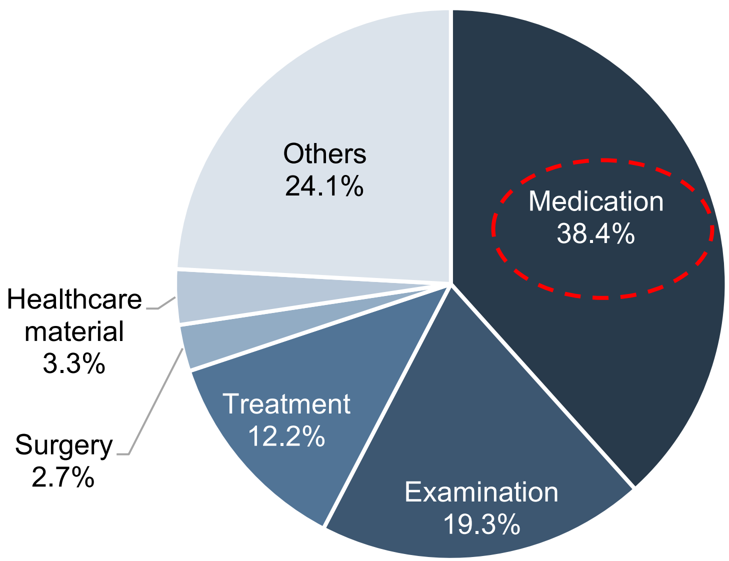
Updated

Pain Points of China Healthcare Service System

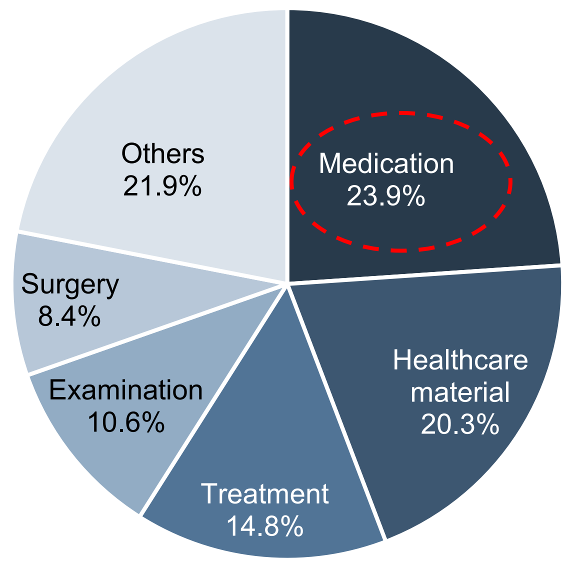
Hospitals' Demands for Diversification of Revenue Stream

- Even though average revenue in China public hospitals has been experiencing gradual growth year by year, when breakdown by source, it shows that public hospital revenue highly rely on sales of drugs.
- In 2023, in public hospitals, the proportion of drug sales accounted for 38.1% in outpatient and 22.3% in inpatient. In both cases, drug sales is the largest contributor of hospital revenue. However, the volume-based procurement and zero-markup policies on drugs have reduced the profitability of pharmaceutical sales, imposing considerable financial challenges to public hospitals. To reduce the reliance on drug sales and enhance profitability, it is imperative for Chinese public hospitals to adjust their revenue structure by diversifying the revenue source. This can be achieved by exploring new revenue sources, such as online diagnosis and boosting the contribution of service provisions to their overall revenue.

Breakdown of Outpatient Revenue in Public Hospitals, 2022



Breakdown of Inpatient Revenue in Public Hospitals, 2022

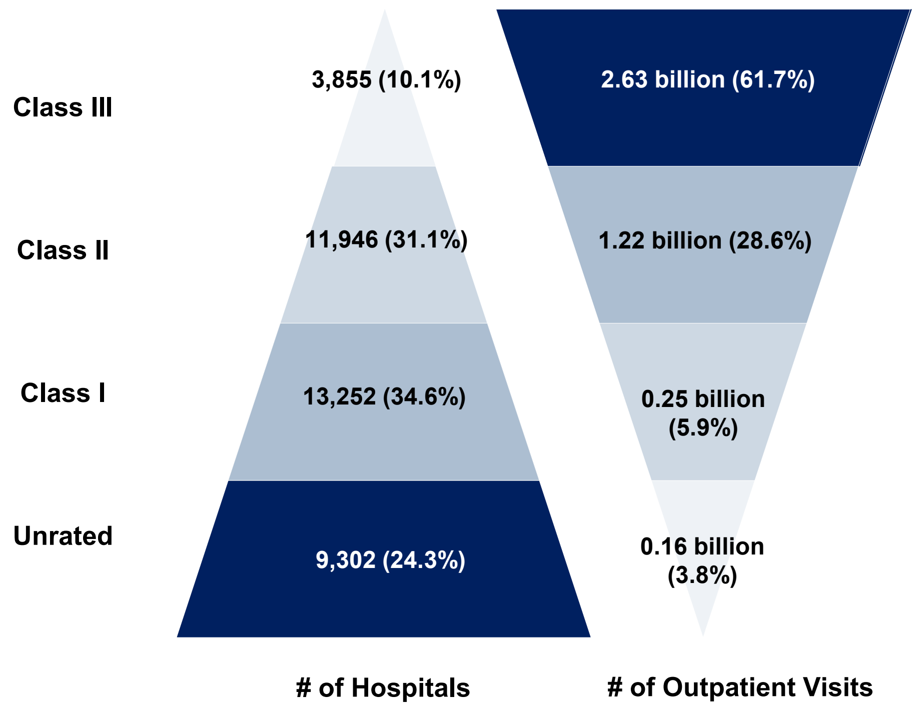


Source: Frost & Sullivan Analysis

Inversion of Medical Resources and Demands

- China's medical resources are concentrated in large Class III hospitals and patients also preferentially seek healthcare services in big hospitals whether they have a cancer or a cold, which leads to the severe inversion of medical resource and diagnosis demands.
- There were only 10.1% (3,855) Class III hospitals out of 38,355 hospitals in China in 2023.

Severe Inversion of Medical Resource and Diagnosis Demand, 2023



Source: NHC, Frost & Sullivan Analysis

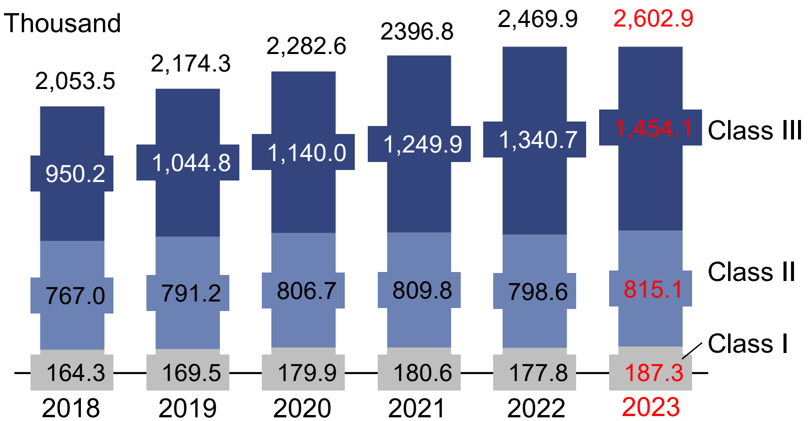
Pain Points of China Healthcare Service System - Supplier

Uneven Distribution of Medical Resources by Hospital Class

- The total number of healthcare personals (certified (assistant) doctors and registered nurses) in class III hospitals is much higher than that in class II hospitals and class I hospitals. For hospitals at the same level, the total number of registered nurses is higher than the total number of certified (assistant) doctors.

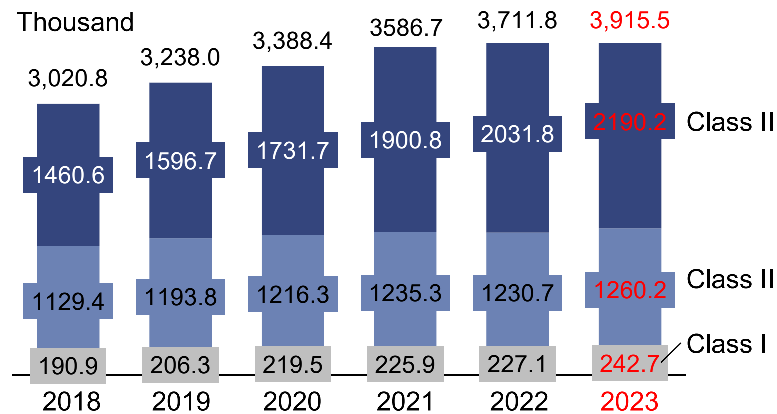
Number of Certified (Assistant) Doctors by Hospital Class, 2018-2023

Class	2018-2023 CAGR
Total Hospital	4.9%
Class III	8.9%
Class II	1.2%
Class I	2.7%
Ungraded	-3.2%



Number of Registered Nurse by Hospital Class, 2018-2023

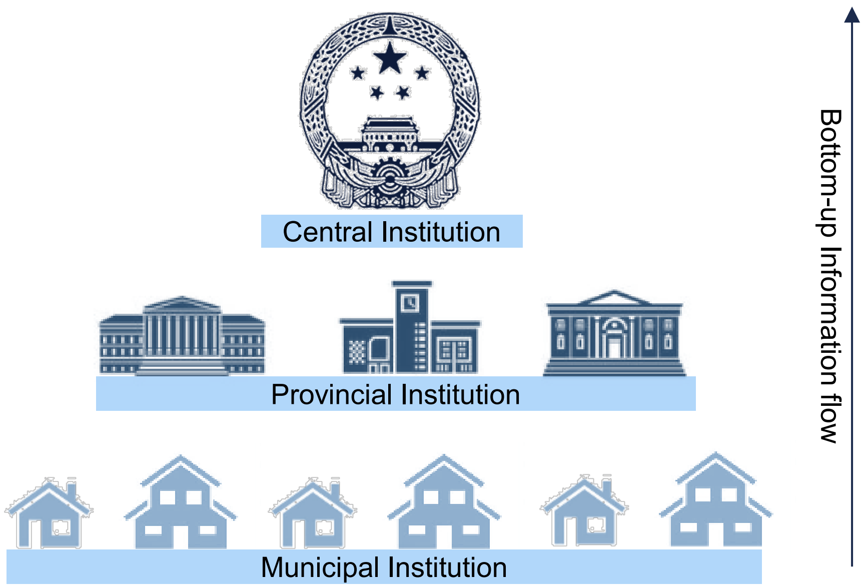
Class	2018-2023 CAGR
Total Hospital	5.3%
Class III	8.4%
Class II	2.2%
Class I	4.9%
Ungraded	-1.5%



Source: NHC, Frost & Sullivan Analysis

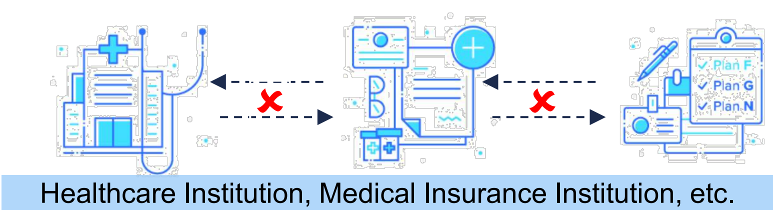
Pain Points of China Information Digitization Market

Vertical Information Spreading Problem



- **Lack of top-level design and targeted regulations** leaves data unstandardized, which makes inter provincial information sharing difficult and reduce efficiency.
- **Repeated construction** exists among institutions at different levels, which greatly reduces the effectiveness of information transmission.
- **Unidirectional information spreading process** indicates that data from all provincial and municipal institutions can be uploaded to the information center of the National Health Commission, but the data integrated by the platform cannot be transferred back to subordinate agencies for application.

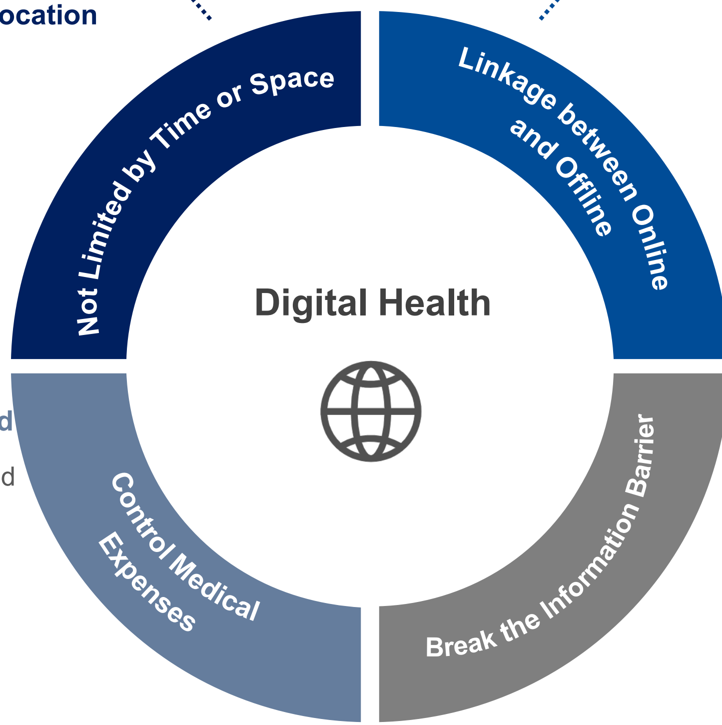
Horizontal Information Sharing Problem



- **Low compatibility among systems of different agencies** including healthcare institutions and medical insurance institutions makes information unshared.

Source: Frost & Sullivan Analysis

Digital Health to Solve Current Industry Pain Points



Improve medical resource allocation

Online medical platforms can effectively integrate resources and break time and geographical restrictions. On the platform, doctors can use debris time for consultation and follow-up, increasing the supply of medical resources. The platform can match supply and demand, so that patients in remote areas can also enjoy high-quality medical services.

Optimize medical procedures

Online medical platforms can realize the transfer of some offline services to online, such as time-consuming and laborious projects such as appointment registration, result check, payment, etc. In the hospital, patients only need to complete the diagnosis and treatment process, which shortens the time for medical treatment and improves the medical experience.

Save costs for insurance fund

The Internet platform can accumulate and store information, such as health data, diagnosis and treatment data etc. Integrating data and leveraging artificial intelligence can provide support for cost containment for medical expense and insurance fund.

Weaken the information asymmetry

Information barriers often exist between patients and doctors, and diagnosis and treatment are often based on patient's preliminary knowledge and previous experience, which may lead to misdiagnosis. Through the online platform, patients can seek experts in different fields for comparative consultation and consultation according to their own needs.

Source: Frost & Sullivan Analysis

History of Digital Health Development

Stage 1: Information Digitization (1990s – now)

- Starting from around 1990, medical institutions started large-scale development of utilizing digital methods to collect, store, process, extract and exchange information for patient diagnosis and management and administration.
- Information digitization has generally experienced 3 phases: stand-alone/single-user application phase, department-level and whole hospital-level system application phase, and inter-hospital and regional system application phase, gradually breaking information isolated islands between hospitals, realizing the interconnection of various data and greatly promoting the operation efficiency.

Stage 2: Internet Healthcare (2000s – now)

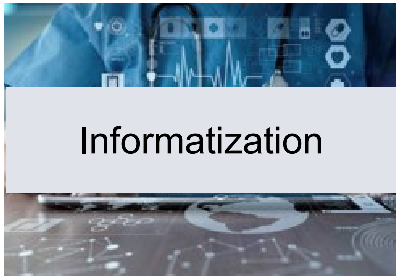
- The Internet healthcare stage, is a preliminary attempt to resolve the imbalance between limited medical resources and increasing medical needs. It can be further divided into the earlier stage and the later stage.
- Since 2000, companies have tried to use the Internet as a carrier, mainly providing basic medical services, such as appointments, consultations, and e-commerce. Due to the limitations of regulations and low acceptance levels, at this time, medical treatment and prescription drug services are remained untouched.
- In 2015, the State Council issued the "Guiding Opinions on Actively Promoting Internet + Actions", marking the formal establishment and implementation of Internet diagnosis and treatment. In the same year, the first Internet hospital was established in Wuzhen and the first electronic prescription was issued. Internet hospitals have broken the geographical limitations. However, treatment is still emphasized rather than comprehensive health management.

Stage 3: Digital Health Platform (2018 – now)

- The National Health and Wellness Conference has established the strategy to give priority to the development of people ’s health. With the continuous advancement of digital technologies, the digital health platform has been built. Also, due to the pandemic, access to basic medical insurance of online diagnosis and treatment is realized and participants in the field of digital health have established closer links and deeper symbiotic relationships. Full health coverage and comprehensive closed loop services will become the main goal of the digital health platform.

Source: Frost & Sullivan Analysis

Milestones in the Development of Digital Health Policies



1997.07	2009.03	2019.11
Regulations for the management of software evaluation of HIS 《中国卫生部医院信息系统软件评审管理办法（试行）》 • Strengthening the integrated management of HIS	Opinions on deepening the healthcare system reform 《中共中央国务院关于深化医药卫生体制改革的意见》 • Driving hospital information construction with a focus on electronic medical record	Programme of work for pilot construction of Regional Medical Center 《区域医疗中心建设试点工作方案》 • Starting to form online professional alliances centered on regional medical services

2017.06	2019.09	2020.02
Guidance on further deepening the reform of basic medical insurance payment 《关于进一步深化基本医疗保险支付方式改革的指导意见》 • Starting to carry out payment based on DRGs in pilot regions	Guidance on improving policy for “Internet + medical” service price and medical insurance payment 《关于完善 “互联网+”医疗服务价格和医保支付政策的指导意见》 • Issuing equal payment policy for online and offline projects	Notice on the comprehensive promotion and application of medical insurance electronic voucher 《关于全面推广应用医保电子凭证的通知》 • Promoting medical insurance electronic voucher nationwide

2014.08	2016.10	2020.02
Opinions of the National Health and Family Planning Commission on promoting telemedicine services in medical institutions 《国家卫生计生委关于推进医疗机构远程医疗服务的意见》 • Promoting telemedicine platform to all regions	The Plan for a Healthy China 2030 《健康中国2030规划纲要》 • Incorporating healthcare industry into national strategies for the first time，promoting “Internet + healthcare” development mode	Notice on strengthening information construction to support the control of coronavirus 《关于加强信息化支撑新型冠状病毒感染的肺炎疫情防控工作的通知》 • Applying information technology to support the prevention

Source: Frost & Sullivan Analysis

Digital Health Maintenance Platform

- Digital health maintenance platform unites institutions to provide all-round health services for people with digital platform.

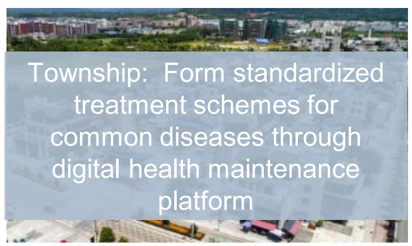
Stages of Medical Reform

Stage1
Profit-driven
Medical services aim to maximize profit

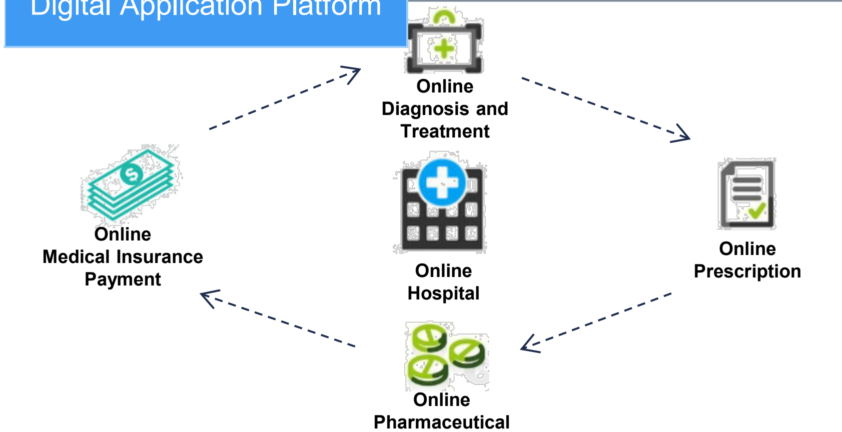
Stage 2
Treatment-oriented
Medial institutions focus on rescuing lives and curing diseases

Stage 3
Precaution-based
Putting prevention first while integrating prevention and treatment at the same time

Regional Health Service Community



+ Digital Application Platform



Online Management
- Promote the construction of primary-level healthcare information systems
- Promote the integration of medical resources

Online Physical Checkup
- Promote primary-level physical examination and higher-level diagnosis
- Promote the intercommunication of diagnostic results

Online Service
- Provide diversified medical care services
- Bring family physicians into full play

Online Pharmacy
- Improve drug availability to meet the diversified needs of patients with chronic diseases

Source: Frost & Sullivan Analysis

Favorable Policies/ Regulations(1/6)

Healthcare Service Market

Release Date	Issuing Authority	Policies	Comments
Jun, 2016	State Council	*Guiding Opinions of the General Office of the State Council on Promoting and Regulating the Application and Development of Big Data in Health and Medical Care,* 《国务院办公厅关于促进和规范健康医疗大数据应用发展的指导意见》	• Standardize and promote the integration, sharing and open application of healthcare big data. • Promote the interconnection and fusion of governmental healthcare information systems and public healthcare data, and actively create a development environment that promotes the safety and standardization of healthcare big data.
Oct, 2016	State Council	*"Healthy China 2030" Blueprint* 《"健康中国2030"规划纲要》	• Emphasize the construction of a health informatization service system, especially promoting the application of healthcare big data. • Strengthen the construction of regulations and standard systems related to healthcare big data, focus on content security ,data security, technical security, and strengthen privacy protection.
April, 2018	NHC	*Standards and Specifications on National Hospital Informatization Construction (Trial)* 《全国医院信息化建设标准与规范（试行）》	• The standards give out specific requirements on informatization construction of Class II and certain Class III hospitals, covering clinical service and hospital management • Such a policy promotes the digitalization and standardization of hospital information system, which is beneficial for the system effectiveness
April, 2018	State Council	*Opinions of the General Office of the State Council on Promoting the Development of "Internet + Health Care"* 《关于推进"互联网+医疗健康"发展的国务院意见》	• The opinions promote the integrated development of the Internet and medical health services, accelerate the sharing of medical and health information • The opinions is expected to improve the "Internet + Health Care" standardized system and strengthen industry supervision and information security

Source: Government websites, Frost & Sullivan Analysis

Favorable Policies/ Regulations(2/6)

Healthcare Service Market

Release Date	Issuing Authority	Policies	Comments
Jul, 2018	NHC, NATCM	*Regulations on Management of Internet Hospitals,* 《互联网医院管理》 *Administrative Measures on Online Healthcare Service,*《互联网医疗管理办法》 *Administrative Standards on Remote Healthcare Service,*《远程医疗服务管理规范》	• The regulations give out detailed requirement on market access, practice discipline, and supervision of Internet hospitals, online medical services as well as remote healthcare service • It is expected that digital healthcare service will be more standardized, promoting a more effective, high quality and secure online healthcare service environment
Aug, 2018	NHC, NATCM	*Notice on Further Improving the Key Work Related to the Hierarchical Diagnosis and Treatment System Construction,*《关于进一步做好分级诊疗制度建设有关重点工作的通知》	• The policy emphasizes on establishing a tiered system of diagnosis and treatment, which promotes reasonable allocation of medical resource and development of primary healthcare service. • Such a tiered system of diagnosis and treatment highly relies on digital healthcare service, which will alleviate the pressure of the offline healthcare system
Aug, 2018	NHC	*Notice on Further Promoting the Informatization of Medical Institutions with Electronic Medical Records as the Core,* 《关于进一步推进以电子病历为核心的医疗机构信息化建设工作的通知》	• The policy aims to establish and improve the electronic medical record system and promote a wider coverage of such system. It also set specific goal for class III hospital to realize full coverage by the end of 2020. • A priority is given to certain medical functions such as outpatient, pharmacy, nursing, etc. in establishing the electronic medical record system.
Aug, 2019	NHSA	*Guiding Opinions on Improving the Policies of "Internet+" Medical Service Prices and Health Insurance Payment,*《关于完善"互联网+"医疗服务价格和医保支付政策的指导意见》	• The price of 'Internet+' medical services is similar to the price of items in the offline payment under the unified management. Medical insurance payment related policies will be equally applied to online and offline projects.
Oct, 2019	NMPA	*Technical Specifications on National Healthcare Security DRGs Grouping and Payment,*《国家医疗保障DRG 分组与付费技术规范》 *Grouping Scheme for China Healthcare Security Diagnosis Related Groups, (CHS-DRG)*,《国家医疗保障DRG（CHS-DRG）分组方案》	• The technical specification outlines the standards for DRG basic principle, range of application, definition of terminology, grouping tactics and rate-determining methods. • The grouping scheme includes 26 major diagnosis category and 376 adjacent diagnosis related groups.

Source: Government websites, Frost & Sullivan Analysis

Favorable Policies/ Regulations(3/6)

Healthcare Service Market

Release Date	Issuing Authority	Policies	Comments
Apr, 2020	NDRC, COINT	*Implementation Plan for Promoting the Actions of "Migrating to Cloud, Using Digital Tools and Enabling Intelligence" and Fostering the Development of New Economy,*《关于推进"上云用数赋智"行动 培育新经济发展实施方案》	• Develop to further implement the digital economy strategy, accelerate industrialization of digital technologies and digitalization of various industries, foster the development of new economy. • Promote the establishment of the national pilot zones for innovative development of digital economy, create a new pattern in which new growth drivers can guide economic development.
Sep, 2020	State Council	*Opinions of the General Office of the State Council on Accelerating the Development of Emerging Consumption Driven by New Business Models,*《国务院办公厅关于以新业态新模式引领新型消费加快发展的意见》	• Actively develop Internet health and medical services, and vigorously promote services such as scheduled diagnosis and treatment, Internet diagnosis and treatment, electronic prescription circulation, and drug online sales.
Nov, 2021	MIIT	*"The 14th Five-year Plan" for the Development of Software and Information Technology Services*,《"十四五"软件和信息技术服务业发展规划》	• Emphasize software is the soul of the new generation of information technology, the foundation for the development of the digital economy, and the key support for the construction of a manufacturing power, a network power, and a digital China. • Develop software and information technology service industry is of great significance in accelerating the construction of modern industrial system. • Emphasize the prospective layout of emerging platform software, accelerate the cultivation of software technologies and products with international competitiveness in the fields of cloud computing, big data, artificial intelligence 5G, blockchain, industrial internet. • Develop a number of technologically leading software products and solutions in key fields such as industry, communications, finance, healthcare, emergency, agriculture, public security, transportation, and electricity.

Source: Government websites, Frost & Sullivan Analysis

Favorable Policies/ Regulations(4/6)

Healthcare Service Market

Release Date	Issuing Authority	Policies	Comments
Dec, 2021	State Council	*Notice on the State Council of Issuing the Plan for Digital Economy Development During "the 14th Five-Year" Period,*《国务院关于印发"十四五"数字经济发展规划的通知》	• Accelerate the development of digital health services. • Accelerate the improvement of databases such as electronic health records and electronic prescriptions, and promote the co-construction and sharing of medical data. • Promote the digital and intelligent transformation of medical institutions, accelerate the construction of smart hospitals, and promote telemedicine. Accurately meet and meet the multi-level, diversified and personalized medical and health service needs of the masses, develop remote, customized, smarter than digital health new formats, and improve the service level of "Internet + medical and health".
Apr, 2022	State Council	*Notice of the General Office of the State Council on Issuing the National Health Plan for the 14th Five-Year Plan,*《国务院办公厅关于印发"十四五"国民健康规划的通知》	• Optimize the "Internet +" contracting services, fully connect residents' electronic health files and electronic medical records, gradually access a wider range of health data, and provide contracted residents with health consultation, appointment referrals, chronic disease follow-up, health management and online expanded prescriptions. • Promote "Internet + chronic disease (diabetes, hypertension) management" and realize online follow-up of chronic diseases, prescription circulation, medical insurance settlement, and drug distribution.

Source: Government websites, Frost & Sullivan Analysis

Favorable Policies/ Regulations(5/6)

Healthcare Service Market

Release Date	Issuing Authority	Policies	Comments
Apr, 2022	State Council	*Notice of the General Office of the State Council on Issuing the National Health Plan for the 14th Five-Year Plan,* 《国务院办公厅关于印发“十四五”国民健康规划的通知》	• Implement standards and specifications for medical and health institutions digitalization. Relying on physical medical institutions to construct Internet hospitals, provide remote monitoring and remote treatment for key groups of contracted service population and key follow-up patients, and promote the establishment of an integrated online and offline medical service model covering pre-diagnosis, diagnosis, and post-diagnosis. Support medical consortiums to use Internet technology to conveniently carry out appointment diagnosis and treatment, two-way referral, telemedicine and other services. • Promote "Internet + chronic disease (diabetes, hypertension) management" and realize online follow-up diagnosis, prescription outflow, medical insurance settlement and drug delivery.
Nov, 2022	NHC, NDCPA, NATCM	*Notice of Issuing the Plan for National Health Informatization During "the 14th Five-Year" Plan*,《关于印发“十四五”全民健康信息化规划的通知》	• Summarize the experience of "Internet + medical health" in supporting the prevention and control of COVID-19, institutionalize and normalize it, improve the "Internet + medical health" service system, further expand the "Internet + medical health" service model, optimize resource allocation, and improve services efficiency, reduce service costs, and meet the people's growing healthcare needs.
Feb, 2023	State Council, Central Office	*Opinions on Deepening Reforms to Promote the Healthy Development of the Rural Medical and HealthcareSystem*,《关于进一步深化改革促进乡村医疗卫生体系健康发展的意见》	• Accelerate the medical and health service digitalization in the rural area. Improve the regional health information standardization system, including promoting the sharing of personal information, electronic medical records, and public health information. • Promote the development of "Internet + Healthcare", construct remote medical service system in the rural area, and promote remote consultations, appointment referrals, online follow-ups, and remote examinations.

Source: *Government websites, Frost & Sullivan Analysis*

Favorable Policies/ Regulations(6/6)

Healthcare Service Market

Release Date	Issuing Authority	Policies	Comments
Jul, 2023	NHC, NDRC, MoF, MoHRSS, NHSA, NMPA	*Notice on Issuing the Key Tasks for Deepening the Reform of Healthcare System in the Second Half of 2023*,《关于印发深化医药卫生体制改革2023年下半年重点工作任务的通知》	• Launch a three-year action plan for nationwide medical information sharing and exchange among healthcare institutions. Promote smart hospitals constructions and tiered evaluation work. • Advance the pilot projects for “5G + Healthcare”, AI in medical areas, and “Blockchain + Healthcare”.
Dec, 2023	MoFCOM, NDRC, MoE, MIIT, MoHRSS, MoHURD, MoT, MCT, NHC, PBC, CBRIC, NDA	*Guiding Opinions of the Ministry of Commerce and other Ministries on Accelerating the Digitalization of Life Services*,《商务部等12部门关于加快生活服务数字化赋能的指导意见》	• Promote digital applications in the medical and healthcare fields. Accelerate the development and popularization of digital medical applications, improve "Internet + Healthcare" service levels, and optimize services such as Internet hospitals, remote medical service, online healthcare consultation, and health management. • Advance the construction of medical data and facilitate information sharing. Improve the electronic health records, electronic prescriptions and other databases. • Optimize the diagnosis and treatment process. Promote the integration of next-generation information technology with medical services, providing patients with full-process, personalized and intelligent services which covering before, during and after diagnosis.

Source: Government websites, Frost & Sullivan Analysis

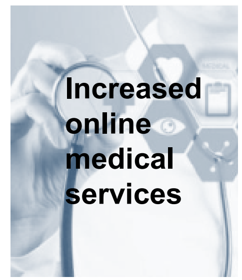
Impact of COVID-19 on Digital Health

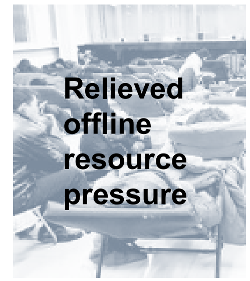
- During the pandemic, digital health development drives policy reconstruction, optimizes supply-side resource allocation, and accelerates demand-side cognitive behavior cultivation.

Favorable policies for digital health have been introduced

Time	Policy Document	Impact
Feb 2020	Notice on Strengthening Informationization to Support the Prevention and Control of Coronavirus	Promote **online voluntary consulting**
	Notice on "Internet + Diagnosis and Treatment" Consultation Service in the Prevention and Control of Coronavirus	Give full play to the role of online consultation in prevention and control, scientifically organize **online diagnosis and treatment**
Mar 2020	Guiding Opinions on Promoting "Internet +" Medical Insurance Services in Coronavirus Prevention	Internet medical treatment is included in **medical insurance**

Medical resources allocation has been optimized





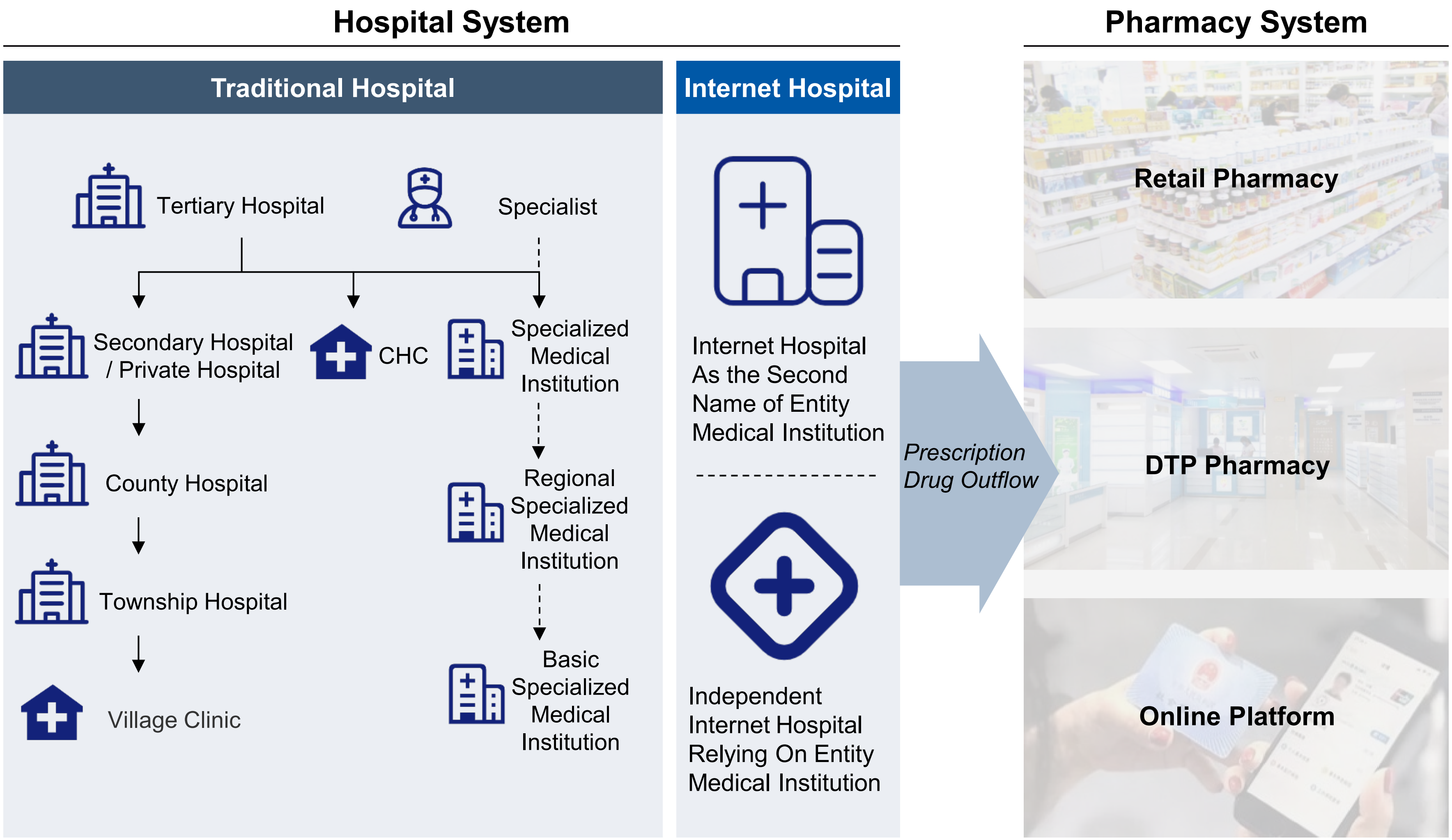
Consumer habits cultivation has been accelerated

- The online diagnosis and treatment of the hospitals under the administration of the National Health Commission has increased **17 times** over the same period last year.

Source: NHC, Frost & Sullivan Analysis

Table of Content

Analysis of Healthcare Product Sales Channels in China

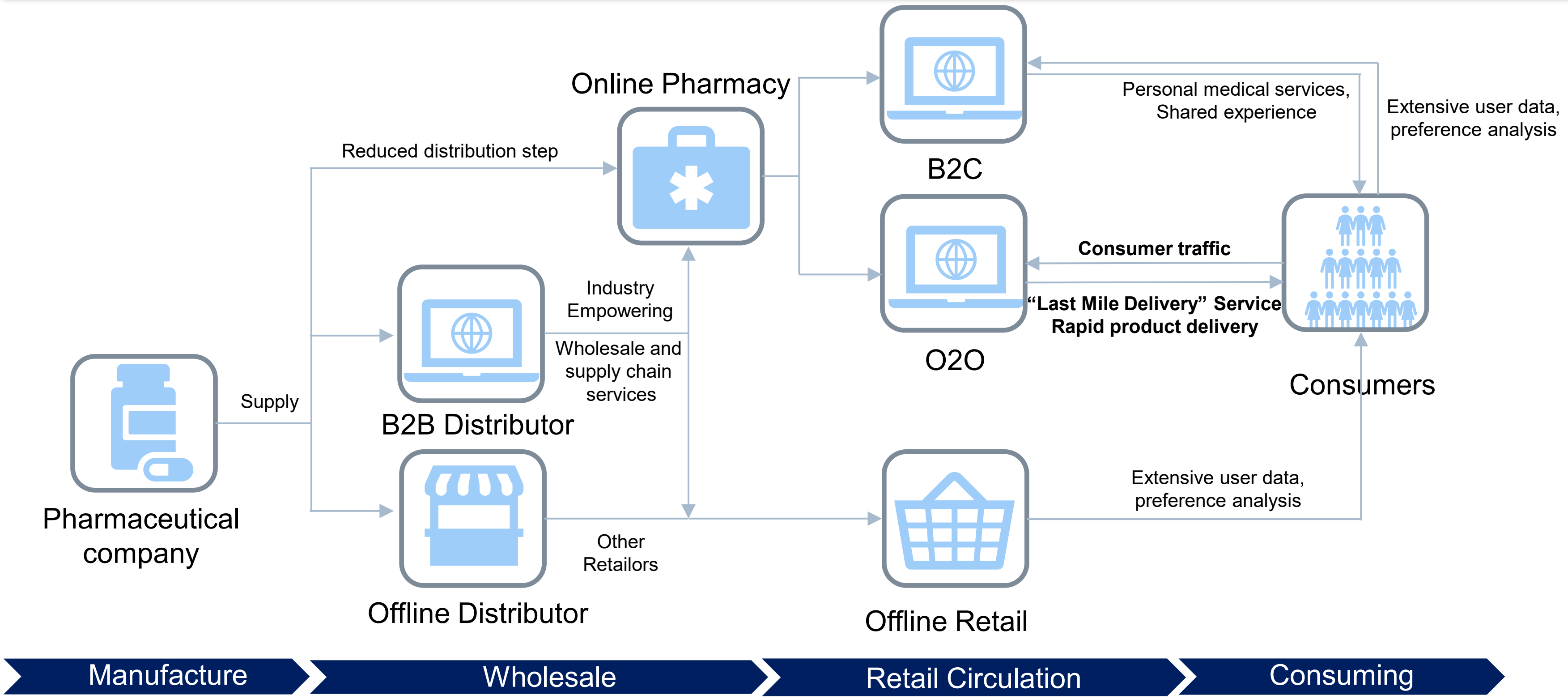


Note: CHC=Community Health Centre; DTP=Direct To Patient

Source: Frost & Sullivan analysis

China Healthcare Product Distribution Ecosystem

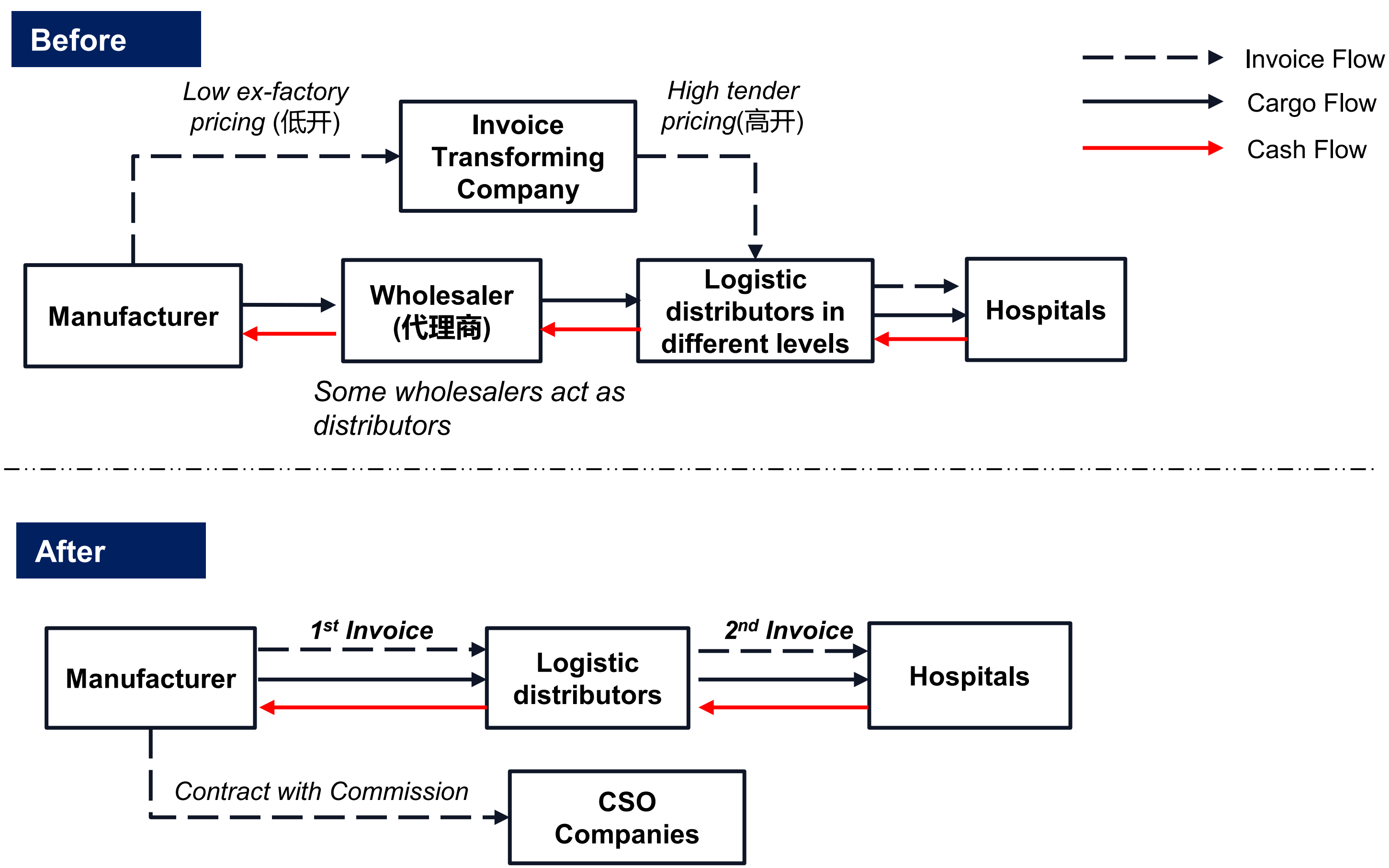
- With the government policy liberalized, numbers of pharmaceutical enterprises tend to develop online channels, which efficiently optimizes process and allocations, as well as satisfying the increasing health demand of consumers. Typical pharmaceutical e-commerce includes B2B,B2C and O2O.
- Relying on the inherent advantages of online platform and analysis of market feedback and user data, the pharmaceutical online sales platform based on the Internet technology can directly connect with the upstream brand or large distributors while provide the downstream businesses and consumers with low-cost and high-quality products. The full-process supply system can effectively improve the efficiency of the supply chain, shorten the distance between the brand and consumers, sink the brand's professional service to consumers, and continuously tap new demands while serving consumers well.



Source: Frost & Sullivan analysis

The Two-Invoice System

- The two-invoice system, aiming to improve transparency in drug prices and eliminate excessive profit margins associated with multi-tier distribution models, has important implications for pharma companies, distribution companies as well as CSOs.



Source: Frost & Sullivan Analysis

Zero-markup Drug Policy

Policy Evolvement	Execution Outcome
1954 Establishment of drug markup policy • Hospitals were allowed to add 15% drug markup to make up for the lack of financial subsidies.	• Hospitals prescribed high price drugs to obtain revenue, increasing the economic burden of patients.
2009 NDRC Implementation opinions on the establishment of basic pharmaceutical system 《关于建立国家基本药物制度的实施意见》 • Zero markup drug policy began to be implemented in primary medical and health institutions.	• Due to the lack of government subsidies and the shortage of basic drugs, the implementation effect is not ideal.
2012 NDRC Notice on promoting pharmaceutical price reform in county level public hospitals 《关于推进县级公立医院医药价格改革工作的通知》 • Zero markup drug policy began to be implemented in county level institutions.	• Drugs changed from the source of income to the source of cost. Therefore, hospitals had to purchase drugs independently, so their bargaining power became stronger.
2017 NDRC Notice on promoting the comprehensive reform of public hospitals 《关于全面推开公立医院综合改革工作的通知》 • Zero markup drug policy began to be implemented in all institutions.	• All public hospitals at all levels in China had ended the drug markup before the end of September, 2017.

Policy Impact for Stakeholders

Patients

- Reduce medical expenditure, soothing the nervous relationship between patients and doctors

Hospitals

- Reduce revenue and increase funding gap
- Lead to the transition of "depending on the drug as main revenue source "to "depending on the medical skill as main revenue source"

Medical Insurance System

- Reduce medical insurance expenditure and expand coverage

Healthcare System

- Conducive to the return of public welfare of public medical institutions

Source: NDRC, Frost & Sullivan Analysis

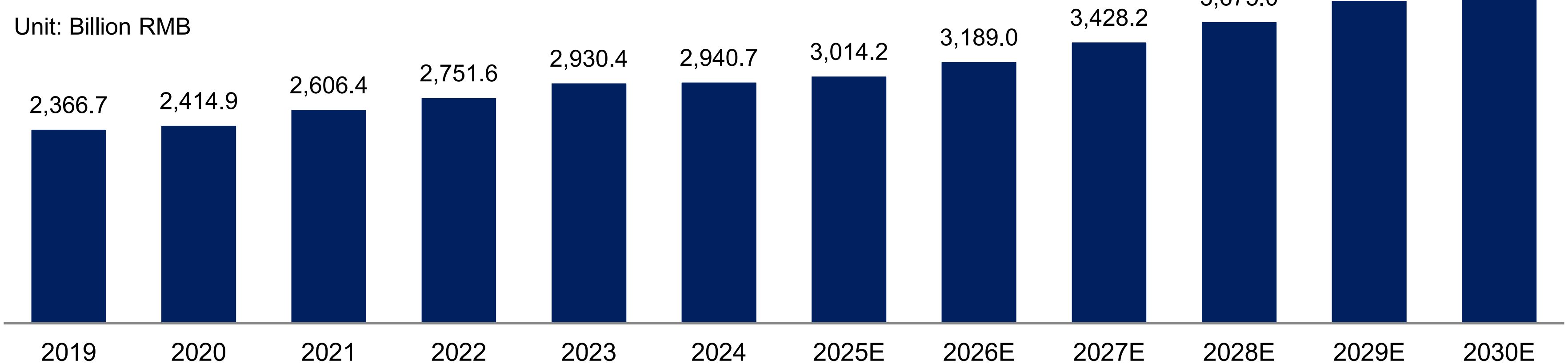
Updated

China Healthcare Product Distribution Market, 2019-2030E

- The market of China healthcare product distribution market, which refers to the revenue of the distribution of pharmaceutical and healthcare products to medical institutions, retail pharmacies, other distributors, other manufacturers. It also can be categoried by wholesale business and retail business. Wholesale business refers to the process of distributors selling bulk healthcare products from manufacturers to hospitals, primary medical institutions, etc. Retail business refers to the process of retail pharmacies purchase healthcare products from distributors or manufacturers and sell them to individual consumers.
- The market has increased from RMB2,366.7 billion in 2019 to RMB2,940.7 billion in 2024 with a CAGR of 4.4%. The market is projected to be RMB4,199.6 billion in 2030, representing a CAGR of 6.1% from 2024 to 2030.

China Healthcare Product Distribution Market, 2019-2030E

Period	CAGR
2019-2024	4.4%
2024-2030E	6.1%



Note: the 2023 data have been updated based on the 2023 Statistical Report on Pharmaceutical Circulation Industry, published by the Ministry of Commerce of the People's Republic of China

Source: MOFCOM, Annual reports, Public information, Frost & Sullivan analysis

Favorable Policies Regarding Prescription Outflow

Date	Issuing Authority	Policies	Comments
April, 2018	State Council	*Opinions of the General Office of the State Council on Promoting the Development of "Internet + Health Care"* 关于推进“互联网+医疗健康”发展的国务院意见	• The opinions state that doctors are allowed to prescribe drugs for some common and chronic diseases online after they have access to the patient's medical records and medical institutions and pharmaceutical companies can entrust qualified third-party agencies for delivery
Oct, 2018	State Council	*Notice on the issuance of key tasks for Deepening the Reform of the Pharmaceutical and Healthcare System in the second half of 2018* 关于印发深化医药卫生体制改革2018年下半年重点工作任务的通知	• The policy gives clear requirement regarding prescription outflow that patients are allowed to choose where to purchase drugs, which means hospitals are not the only source
Nov, 2018	Ministry of Commerce	*Guiding Opinions on the Classification and Classification Management of National Retail Pharmacies (Draft for Solicitation of Comments)* 全国零售药店分类分级管理指导意见（征求意见稿）	• The opinions divide retail pharmacies into two categories according to the degree of drug safety risk, operating conditions, drug supply capacity, and the ratio of medical technicians • The first category pharmacies only deal with category B over-the-counter drugs; the second category pharmacies can deal with over-the-counter drugs, Prescription drugs and Chinese herbal medicines that meet the scope of business license
Mar, 2020	NHC, NMIA	*Guidance on the Development of "Internet+" Medical Insurance Services During the Prevention and Control of the New Coronavirus Outbreak* 关于推进新冠肺炎疫情防控期间开展“互联网+”医保服务的指导意见	• The guidance points out that doctors are allowed to provide online prescriptions for the insured. The insured patients are allowed to collect drugs through various flexible ways of offline delivery.
Dec. 2020	NMPA	*Notice on Regulating the Use of Licensed Pharmacists in Pharmaceutical Retail Enterprises* 关于规范药品零售企业配备使用执业药师的通知	• The notice persists and supports to improve the professional qualification admission system for licensed pharmacists • The target of enhancing supervision and inspection responsibilities are mentioned in this notice, in order to standardize the quality of pharmaceutical professional in the retailing companies.

Source: Government Websites, Frost & Sullivan analysis

Favorable Policies

Online Prescription

Date	Issuing Authority	Policies	Comments
Apr, 2018	General Office of the State Council	*Opinions of the General Office of the State Council on Promoting the Development of "Internet + Healthcare"* 国务院办公厅关于促进"互联网+医疗健康"发展的意见	• Doctors are allowed to prescribe drugs for some common and chronic diseases online after they have access to the patient's medical records.
Aug, 2018	National Health Commission	*Notice on Future Promoting the Informatization Construction of Medical Institutions with Electronic Medical Records as the Core* 关于进一步推进以电子病历为核心的医疗机构信息化建设工作的通知	• Doctors are allowed to prescribe drugs for some common and chronic diseases online after they have access to the patient's medical records and pharmacists are allowed to review the patient's prescriptions online and deliver drugs.
Sep, 2019	National Development and Reform Commission	*Action Plan for Promoting High Quality Development of Health Industry (2019-2022)* 促进健康产业高质量发展行动纲要（2019-2022）	• Encouraging online prescription service and third-party distribution of drugs and accelerating the development of pharmaceutical e-commerce by supporting pharmacy delivery services.
Mar, 2020	National Health Commission; National Healthcare Security Administration	*Guidance on the Development of "Internet+" Medical Insurance Services During the Prevention and Control of the New Coronavirus Outbreak*关于推进新冠肺炎疫情防控期间开展"互联网+"医保服务的指导意见	• Doctors are allowed to provide online prescriptions for the insured. The insured patients are allowed to collect drugs through various flexible ways of offline delivery.
May, 2021	NHC, NMIA	*Guiding Opinions on Establishing and Improving the "Dual Channel" Management Mechanism for Drugs in National Medical Insurance Negotiations* 关于建立完善国家医保谈判药品"双通道"管理机制的指导意见	• "Dual channel" refers to the mechanism through which two channels, designated medical institutions and designated retail pharmacies, meet the reasonable needs of negotiated drug supply guarantees and clinical use, and are simultaneously included in the medical insurance payment mechanism.

Source: Government Websites, Frost & Sullivan analysis

Favorable Policies

Online Prescription

Date	Issuing Authority	Policies	Comments
Jul, 2021	NHSA	*Opinions of National Healthcare Security Administration on Optimizing Convenient Services in Medical Insurance,* 国家医疗保障局关于优化医保领域便民服务的意见	• Promote "Internet + Medical services", follow the principle of online and offline fairness and medical insurance payment policies, improve agreement management and settlement processes based on service characteristics, actively explore information sharing, and realize integrated services of prescription outflow, online payment, and door-to-door drug delivery. The medical insurance departments in each region need to speed up the improvement of local "Internet + Medical services" management of medical insurance payment agreements.
Aug, 2021	NHC, NHSA	*Notice on the Issuance of Long-term Prescription Management Standards (Trial)*，关于印发长期处方管理规范（试行）的通知	• Primary healthcare institutions, which do not meet corresponding conditions qualifications, can prescribe under the guidance of higher tiers healthcare institutions through remote consultations, online follow-ups, and hospital consultation etc.
Dec, 2022	NDRC	*Implementation Plan for Expanding Domestic Demand Strategy during the "14th Five-Year Plan "Period,* "十四五"扩大内需战略实施方案	• Develop "Internet + Healthcare" services, promote the development of scheduled diagnosis, e-prescription outflow, and online drug sales etc., and include qualified Internet medical service items into the scope of medical insurance payment.
Feb, 2023	NHSA	*Notice of NHSA on Further Improving the Integration of Designated Retail Pharmacies into Outpatient overall Management,* 国家医疗保障局办公室关于进一步做好定点零售药店纳入门诊统筹管理的通知	• Enhance prescription outflow management. Relying on the national unified medical insurance information platform, accelerate the implementation of the e-prescription center of medical insurance information platform, and facilitate the smooth outflow of e-prescriptions from designated medical institutions to designated retail pharmacies. Designated medical institutions can issue long-term prescriptions to eligible patients up to 12 weeks.
Jul, 2023	NHSA, MoF, STA	*Notice on the Implementation of basic healthcare security for Urban and Rural Residents in 2023,* 关于做好2023年城乡居民基本医疗保障工作的通知	• To further improve and standardize the management of "dual channels for drug negotiation", establish and improve a province-wide unified, efficient and standardized prescription outflow mechanism to promote "Dual-channel" e-prescription outflow to improve drug supply by relying on the national unified e-prescription center of medical insurance information platform.

Source: Government Websites, Frost & Sullivan analysis

Favorable Policies

Online Retail of Prescription drug

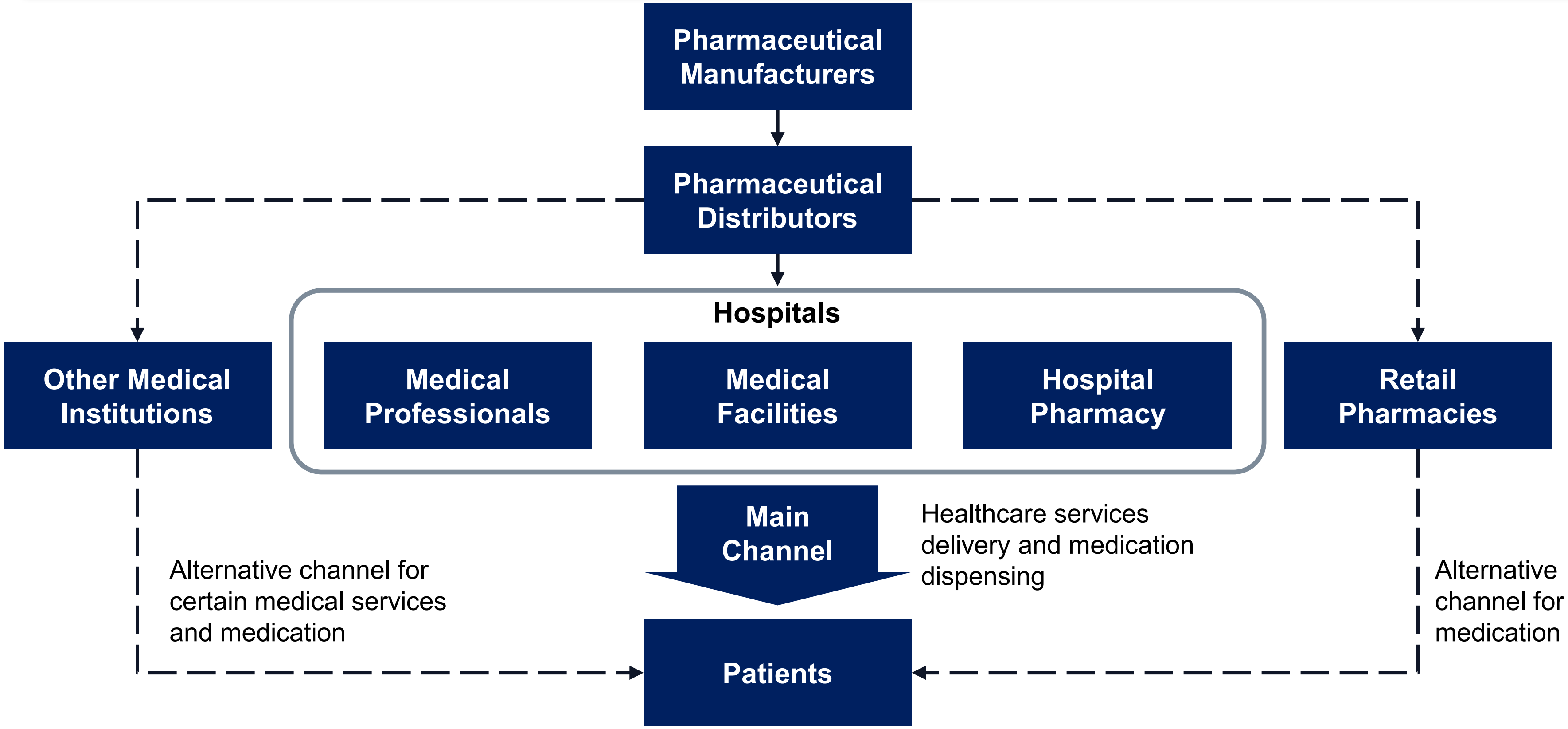
Date	Issuing Authority	Policies	Comments
Oct, 2016	State Council	*Outline of the "Healthy China 2030" Plan* "健康中国2030"规划纲要	• This plan encourages the improvement of "treatment-rehabilitation-long-term care" service chain • The plan also promotes pharmaceutical and medical device distribution companies to extend services to the upstream and downstream of the supply chain, and strengthen key technological breakthroughs such as chronic disease prevention and control, precision medicine, and smart medical care
Apr. 2018	State Council	*Opinions of the General Office of the State Council on Promoting the Development of "Internet + Healthcare"* 国务院办公厅关于促进"互联网+医疗健康"发展的意见	• This opinion indicates that the prescriptions for perennial diseases and chronic diseases issued online, after being reviewed by a pharmacist, can be entrusted to a qualified third-party agency for delivery
Aug. 2019	SAMR	*Drug Administration Law of the People's Republic of China* 中华人民共和国药品管理法	• The law stipulates that vaccines, blood products, narcotic drugs, psychotropic drugs, toxic drugs for medical use, radioactive drugs and other drugs subject to special state management shall not be sold on the Internet, but no restriction to the other drugs
Jul. 2021	NHSA	*Opinions on optimizing convenient services in the field of medical insurance* 关于优化医保领域便民服务的意见	• The opinions promote "Internet + medical services", following the principle of online and offline fairness and medical insurance payment policies, including the improvement of protocol management and settlement processes based on service characteristics • The opinions suggest actively exploring information sharing, and realization of integrated services for prescription circulation, online payment and settlement, as well as the home delivery of medicines

Source: Government Websites, Frost & Sullivan analysis

Table of Content

Healthcare Services Delivery and Medication Dispensing System in China

- In current PRC healthcare system, hospital is the center of healthcare services delivery as well as medication dispensing. However, primary care, chronic care, urgent care, critical care and surgery are offered through the main channel between hospitals and patients with medical dispensing, which leads to the overloaded of pharmaceutical circulation in China.
- In the future, there should be alternative channel for certain medical services and medication through online channel or retail pharmacies to reduce the burden of the centralized healthcare service delivery and medication dispensing system.



Source: Frost & Sullivan analysis

Overview of Healthcare Distribution Business Models

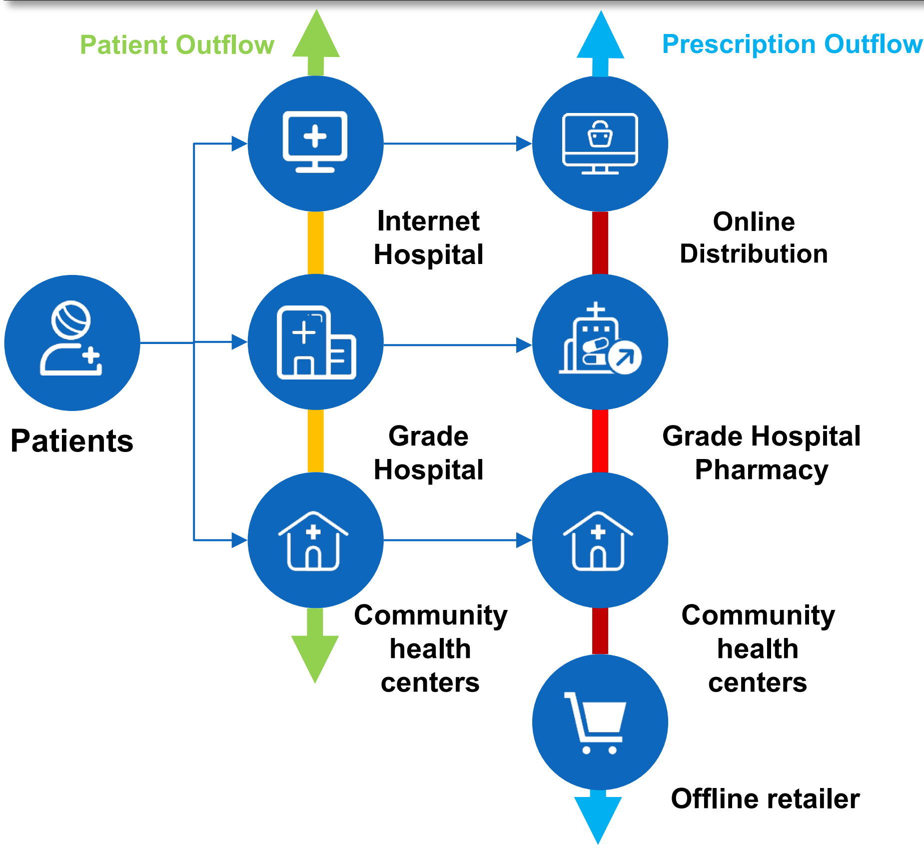
- As the concept of "Internet+" gradually penetrates in the pharmaceutical industry, healthcare Distribution is booming. Healthcare Distribution refers to the behavior of profit-oriented market economy entities such as medical institutions and medical information service providers that rely on modern information technologies such as computers and network technologies (mainly the Internet) to exchange pharmaceutical products and provide related services. Healthcare Distribution mainly includes two models: Online Distribution pharmacies and online distributors.

	Online Distribution pharmacies			Online distributors	
Category	**Self-operated B2C**	**Platform B2C**	**Pharmaceutical O2O**	Government led platform	Pharmaceutical B2B
Operation Model	Pharma chain companies self-built official website to realize deals with consumers	Third-party B2C platform provides virtual trading services to buyers and sellers	Order online, Take medicine offline	Non-profit drug centralized bidding and procurement platform	Electronic procurement between raw material suppliers, factories, wholesalers and retailers
Source of Revenue	Sales spreads, Trading commissions, Advertising	Trading commissions, Advertising	Medicine sales, Trading commissions, Offline diversion	Non-profit-making	Trading commissions, Advertising, Distribution fees
Representative Enterprise	JD京东健康 AliHealth 阿里健康 叮当快药		美团 美团买药 叮当快药 JD京东健康	Local government medical index procurement platform	药师帮 1药城 药京采

Source: *Frost & Sullivan analysis*

Opportunities for Healthcare Online Distribution Market under the Influence of Prescriptions Outflow

- In the past, most patients in the hospital would buy prescription drugs in the hospital pharmacy. The policy of separation of medicines makes patients tend to go to community health service centers, offline drug retail stores, and medical Online Distribution channels to purchase prescription drugs after obtaining prescriptions.
- With the recognition of Internet hospitals and remote diagnosis services, healthcare Online Distribution will become the mainstream, not only to prepare for the prescription outflow, but also an important method for compliant sales of prescription drugs and gaining market growth.



Comparative advantages of medical Online Distribution

A Wide Variety Of Medicines

The average SKU of a traditional offline pharmacies is about 2,000-3,000. There is no ceiling for the SKU of healthcare Online Distribution. Many healthcare Online Distribution platforms have more than 50,000 SKUs

Strong price competitiveness

Healthcare Online Distribution can reduce the traditional circulation of drugs, lower the price of drugs, and provide more competitive drug prices to C-end users

Good user experience

Now most of Online Distribution companies provide 7x24 hours O2O services

Source: Government Websites, Frost & Sullivan analysis

Overview of China B2B Healthcare market

- B2B mode is also a major part of the online healthcare distribution market. B2B medical e-commerce platform mainly serves for institutions, and its purchasers are mainly hospitals, primary medical institutions, retail pharmacies etc . Revenue comes from trading commissions, advertising and promotion of upstream pharmaceutical enterprises. Although it has the rapid growth in volume ,B2B healthcare e-commerce market model has been questioned .There are two typical modes of B2B healthcare e-commerce: the government-led mode and the pharmaceutical enterprises-led mode.

Typical Modes of B2B Pharmaceutical E-commerce

Government-led Mode

- Non-profit drug centralized bidding and procurement platform.

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Pharmaceutical enterprises-led Mode

- Electronic procurement between raw material suppliers, factories, wholesalers and retailers.
- The network trading platform with rich categories can greatly improve the trading efficiency, the speed of information transmission and reduce circulation chains.
- Buyer and seller gather on the same platform to share the basic cost and reduce the cost of customer acquisition.
- Large order with long period may represent insecure business model for traditional pharmaceutical manufacturers

药京采 药品终端网 药师帮

Status quo of the B2B Market

Growth of B2B market

- B2B mode accounts for most of the total sales of pharmaceutical e-commerce in China. The transaction volume of B2B pharmaceutical e-commerce is higher than that of B2C, and the growth rate is lower than that of B2C pharmaceutical e-commerce.

Dilemma of the B2B Market

- No feasible profit Model. The B2B business model currently act as a distributor for the retail supply, which is similar to traditional agents. The purchasing decisions of business users are more based on specific business needs and realization of business purpose.
- Iterative products lead to rising in cost. The application of “ToB” is different from “ToC”.The product safety and stability will be concerned. The introduction of new products or services, training, internal promotion and other aspects of users will bring management costs.

Source: Frost & Sullivan analysis

Updated

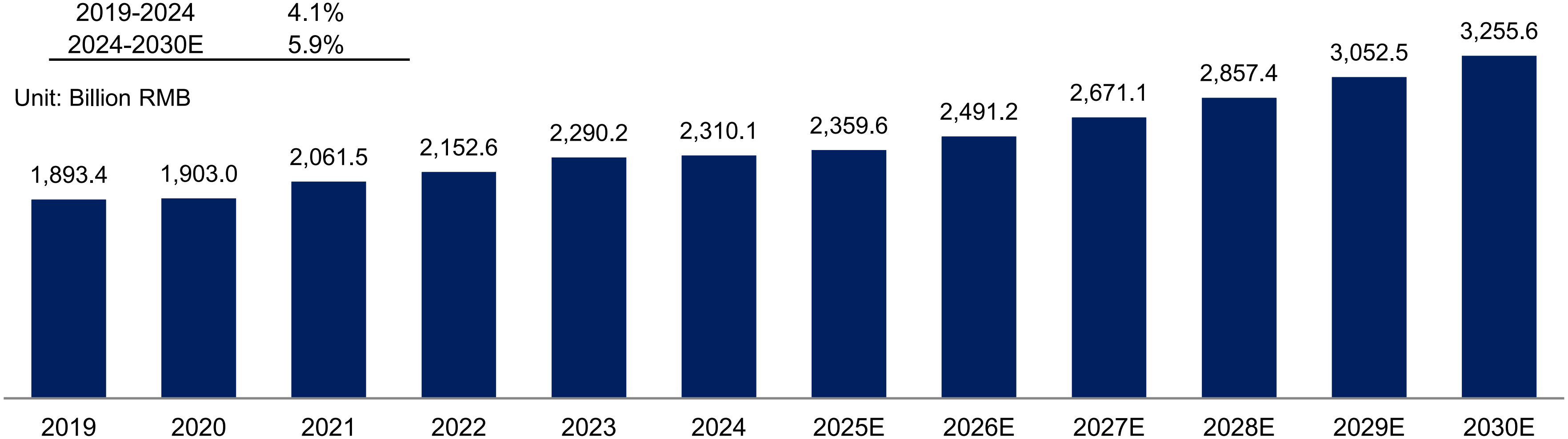
China Healthcare Product Wholesale Market, 2019-2030E

- The market of China healthcare product wholesale market, which refers to the revenue of the distribution of pharmaceutical and healthcare products to medical institutions and other wholesalers. The market is highly competitive, with a considerable market share held by the major companies. In 2024, the primary revenue from the top four leading players accounted for more than 50% of the entire China healthcare product wholesale market. Conversely, smaller and medium-sized companies display a fragmented market by sharing the rest of market with a small market share. The market has increased from RMB1,893.4 billion in 2019 to RMB2,310.1 billion in 2024 with a CAGR of 4.1%. The market is projected to be RMB3,255.6 billion in 2030, representing a CAGR of 5.9% from 2024 to 2030.

China Healthcare Product Wholesale Market, 2019-2030E

Period	CAGR
2019-2024	4.1%
2024-2030E	5.9%

Unit: Billion RMB



Note: the 2023 data have been updated based on the 2023 Statistical Report on Pharmaceutical Circulation Industry, published by the Ministry of Commerce of the People's Republic of China

Source: MOFCOM, Annual reports, Public information, Frost & Sullivan analysis

Updated

Competitive Landscape of Healthcare Product Wholesale Market

- In healthcare product wholesale industry, The top five market players collectively accounted for around 57.0% of the market share in terms of revenue in 2024. In this industry, revenue generated from the company ranking 100th is around RMB1 billion. The Company's healthcare product wholesale revenue RMB0.4 billion makes it rank around 500 in the market among over 15.0 thousand healthcare product wholesale companies in 2024, accounting for 0.02% of the healthcare product wholesale market.
- As of 2024/12/31, the representative competitive landscape of digital healthcare product wholesale market are listed as following:

Major Player	Background	2024 Wholesale Revenue (billion RMB)	Number of Downstream Customers	Covered Area	Market share
国药集团 SINOPHARM	A listed company on HKEx, established in 1998, headquartered in Beijing, mainly focusing on the provision of healthcare products distribution services.	562.3	Commercial customer 2,000+	31 provinces	24.3%
SPH 上海医药 SHANGHAI PHARMA	A listed company on SSE and HKEx, established in 1994, headquartered in Shanghai, business covers the entire pharmaceutical industry chain, including drug research and development, manufacturing, distribution and retail.	275.3	N/A	25 provinces	11.9%
華潤医药 CR PHARMA	A listed company on HKEx, established in 2007, headquartered in Hong Kong, focusing on providing pharmaceutical research and development, production, wholesale, distribution, retail chain and hospital distribution services..	257.7	140 thousand	28 provinces	11.2%
九州通 JOINTOWN	A listed company on SSE, established in 2000, headquartered in Wuhan, Hubei Province, mainly focusing on the provision of wholesaling and retailing of pharmaceuticals and medical equipment.	145.5	505.8 thousand	90%+ of administrative region in China	6.3%
重药控股股份有限公司 CQP C.Q.Pharmaceutical Holding Co.,Ltd.	A listed company on SSE, established in 1999, headquartered in Chongqing, covering hospital sales, commercial wholesale, retail chain, terminal distribution, warehousing logistics and supply chain value-added services for medicines, medical devices, Chinese herbal medicines and healthcare products.	76.6	N/A	31 provinces	3.3%
健康160	Established and operated the largest online registration platform in China, and also focused on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province.	0.4	801	260+ cities	0.02%

Note: As of December 31, 2024

Source: Company websites, Public information, Frost & Sullivan Analysis

Entry Barriers of China Healthcare Product Wholesale Market

Growing Government Regulations	• The healthcare product wholesale market in China is highly regulated and is subject to extensive supervision from various government authorities to ensure the safety, quality, and efficacy of pharmaceuticals and healthcare products. Authorities are increasingly vigilant in overseeing the distribution process to safeguard public health, encompassing various aspects including product labeling, transportation, storage, post-market surveillance, and etc. As a result, the entry barriers into the healthcare distribution market continues to rise.
Establishment of Brand Awareness	• Due to the unique nature of pharmaceuticals, downstream buyers in the healthcare product wholesale market have stringent requirements when choosing their collaborators, placing significant emphasis on product quality and delivery capabilities. Leading players in this industry have dedicated years to accumulate essential expertise, resources, and experience, nurturing strong brand recognition and establishing trustworthy partnerships. New entrants would face the challenge of accumulating experience and establishing a reputable brand image that inspires trust.
Establishment of Standardized Management Systems	• Due to the development of online healthcare services, and the expansion of pharmaceutical e-commerce, the demand of healthcare product wholesale in China has rapidly changed, becoming more diverse, fragmented, and localized. As a result, the establishment of standardized management systems has further highlighted its role in this industry, enhancing the quality and efficiency of the logistics services. The profound data insights, industry expertise, and technological barriers built by established industry leaders make it challenging for new entrants to replicate such systems and surpass in the short term.

Source: Frost & Sullivan Analysis

Growth Drivers of China Healthcare Product Wholesale Market

Fragmented Procurement from Primary Healthcare Institutions	• Primary healthcare institutions will have a growing significance in residents‘ medical consultations, medicine purchases, medical tests, treatment and other aspects, as medical resources are increasingly directed towards the primary level. Primary healthcare institutions procure smaller quantities of pharmaceuticals compared to large-scale hospitals due to limited funds and a preference for lower inventory levels. This leads to frequent, fragmented pharmaceutical purchases with varying product demands. Consequently, efficient and timely distribution becomes critical. The fragmented procurement process highlights the importance of seamless coordination between upstream and downstream entities across different locations, thereby driving the demand for effective healthcare distribution.
Aging Population and Changing Disease Patterns	• According to the statistics from the National Bureau of Statistics, individuals aged above 65 years old reached 209.8 million in 2022, which accounted for 14.9% of the total population. And the population aged above 65 years old is expected to continue its growth momentum in the future. Asides from that, the prevalence of chronic health problems, such as cardiovascular disease and metabolic disease, grew rapidly over the last decade and is expected to continue to grow significantly in the future due to the change of lifestyle. The aging trend and changing disease patterns will create huge demand for pharmaceutical and healthcare products in China.
Favorable Policies on Prescriptions Outflow	• In recent years, the Chinese government has implemented a series of favorable policies to support prescription outflow, accelerating the development of healthcare distribution market. From the elimination of drug mark-ups, the establishment of dual-channel systems to adjustments in medical insurance accounts, and the issuance of the *“Notice on Further Strengthening the Inclusion of Designated Retail Pharmacies in Outpatient Comprehensive Management” 《关于进一步做好定点零售药店纳入门诊统筹管理的通知》* in 2023, all of these policies will effectively accelerate the outflow of prescriptions from hospitals to retail pharmacies.

Source: Frost & Sullivan Analysis

Future Trends of China Healthcare Product Wholesale Market

Increasing Demand of High-quality Medication	• The implementation of a hierarchical medical system has incentivized patients to seek healthcare services at local healthcare institutions, resulting in an increased demand for high-quality pharmaceutical products, especially new drugs from lower-tier cities. Meanwhile, pharmaceuticals companies also increasingly focus on exploring the sales potential of the broad market. Consequently, there is an increasing demand of healthcare distribution for innovative and new drugs which lacks in low-tier cities.
Emerging Technological and Digital Solutions	• The rapid advancement of technology has paved the way for emerging digital solutions, significantly enhancing the operational efficiency of the healthcare product wholesale market by improving supply chain capabilities, standardizing inventory management, optimizing logistics solutions, and etc. Online platforms can also replace the traditional multi-level distribution system, forming virtual alliances among buyers, thereby enhancing their bargaining power and reducing procurement costs. Furthermore, the integration of industry data analysis has emerged as a crucial strategy in the healthcare distribution market. By leveraging data-driven insights, businesses can identify untapped opportunities and make informed decisions, driving growth and development.

Source: Frost & Sullivan Analysis

Table of Content

Development Stage of Retail Pharmacy

- Retail pharmacy has gone through a three-stage process of development, and the business model will continue to evolve over time with the innovative Internet technologies emerging.
- Major development stages include traditional offline pharmacy, pharmacy with hybrid sales model and digital retail pharmacy.

Stage I: Traditional Offline Pharmacy

Offline retail services

- Mainly provide services of selling drugs and medical devices, occasionally providing disease diagnosis services and assist in guiding the use of drugs.
- Pick up in store and not 24-hour open.
- Densely located in business districts.

Stage II: Pharmacy with Hybrid Sales Model

Start migration to online but still significantly weigh on offline

- Start to upgrade the function of traditional offline pharmacy to achieve information and intelligence at some degree, provide online drug sales and prescription services but still weight on offline.
- Pick up in store or home delivery, mostly not 24-hour open.
- Densely located in business districts.

Stage III: Digital Retail Pharmacy

Significantly weigh on online retail pharmacy

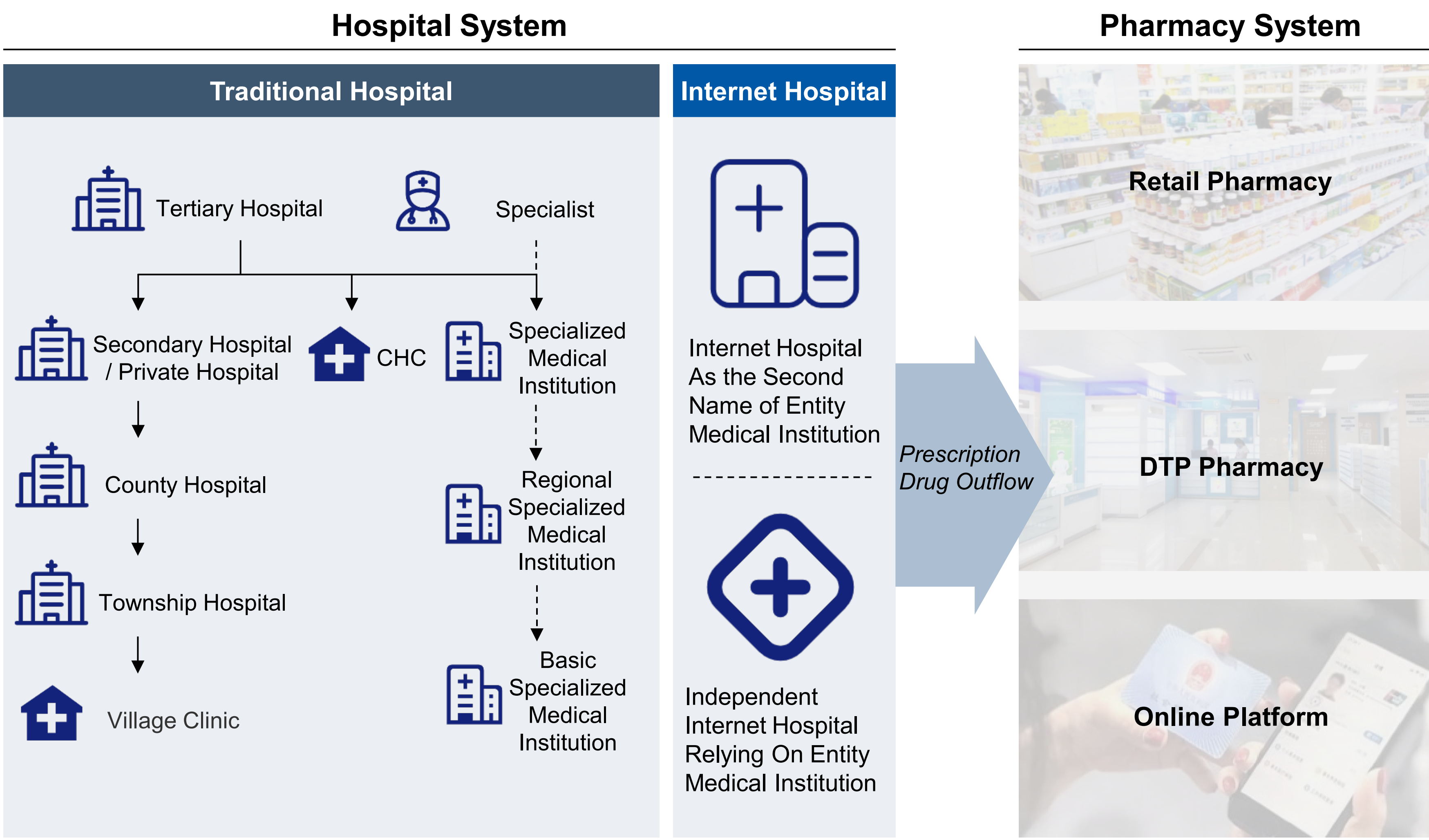
- Further upgrade the function of online drug sales, provide prescription services, and realize fast drug delivery.
- Occasionally value-added health management services for patients with chronic diseases.
- Mainly home delivery, and 24-hour open.
- Mainly online store.
- There are 2 categories of digital retail pharmacy, on-demand retail pharmacy and e-commerce retail pharmacy.

on-demand retail pharmacy:

E-commerce retail pharmacy:

Source: Frost & Sullivan Analysis

Analysis of Drug Sales Channels in China



Note: CHC=Community Health Centre; DTP=Direct To Patient

Source: Frost & Sullivan analysis

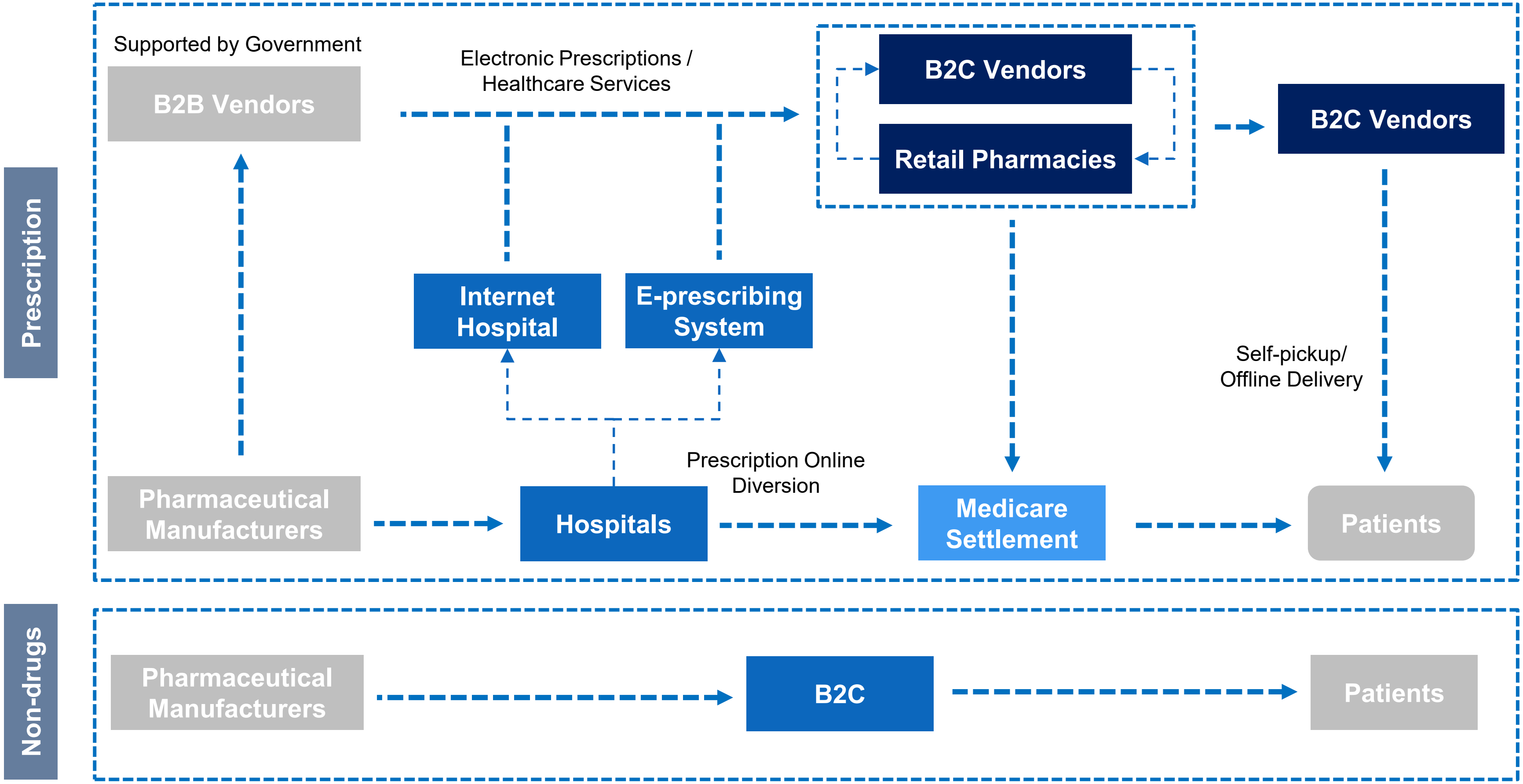
Comparison of Main Pharmacy Types

	Traditional Pharmacy	E-commerce Retail Pharmacy	On-demand digital retail pharmacy
Business Model	Mainly for products sale, occasionally providing disease diagnosis services and assist in guiding the use of drugs.	All business activities take place between pharmacy and consumer via Internet without disease diagnosis services.	Cultivate consumers' habits of purchasing drugs or consultation both online and offline with the new technology to quickly seize terminal individual users.
Available Services	• Purchase products, including drugs, medical devices and supplements; • Provide professional advice on the use of drugs or devices.	• Purchase products, including drugs, medical devices and supplements; • Provide professional advice on the use of drugs or devices.	• Purchase products, including drugs, medical devices and supplements; • Provide drug prescriptions, professional advice on the use of drugs or devices and health management services.
Density of Stores	Densely located in some areas	Sporadically distributed	Evenly distributed throughout the city
Store Location	Mainly distributed around hospitals, streets, business districts, and communities. Flagship stores will also be set up in places with heavy traffic such as train stations and airports.	Online stores with large-scale warehouses which mainly located in remote areas, covering an area more than 1,000 square meters.	Mostly set up in a commercial district with a large flow of people; The most cost-effective core location that meets the electronic fence planning standards.
Online Scale			
Delivery Method	Pick up in Store	Home delivery	Home delivery & Pick up in Store
Working Hours	Most not 24-hour open	24-hour open	24-hour open
Management Style	Chain Store Management	Information Management	Information & Chain Store Management

Source: Frost & Sullivan analysis

Overview of China Digital Retail Pharmacy Industry

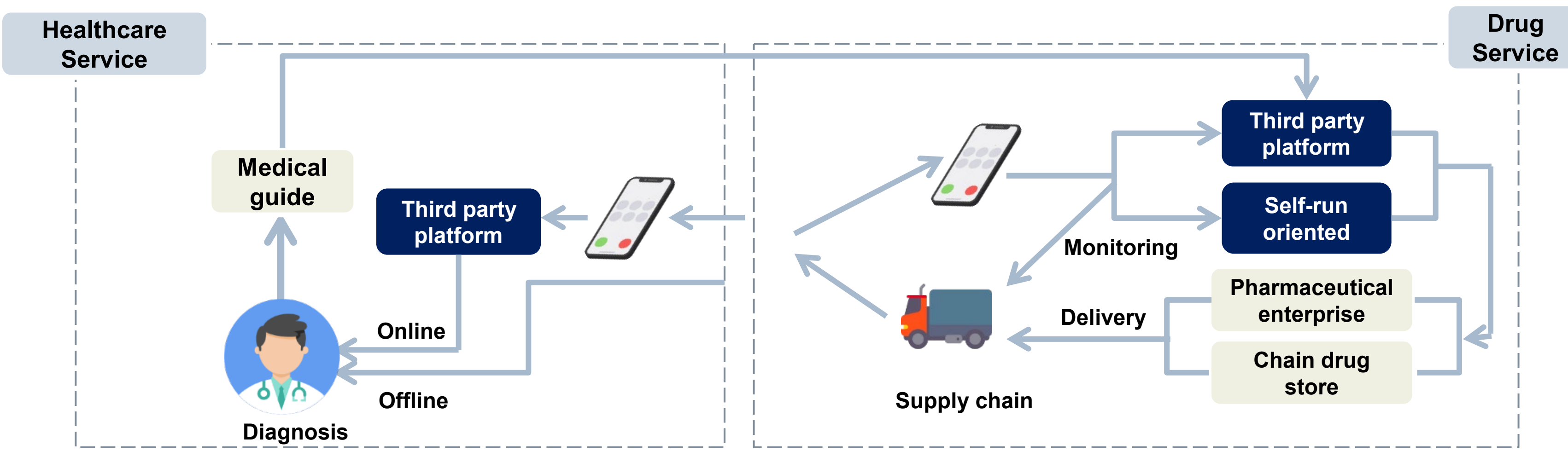
- The digital retail pharmacy industry is a part of pharmaceutical circulation, and the concentration of wholesale is higher than that of retail. The digital retail pharmacy industry is part of pharmaceutical circulation. The upstream of the digital retail pharmacy industry chain is pharmaceutical manufacturers. The midstream part includes vendors that mainly sells online drugs through business models such as B2B and B2C; the downstream part includes hospitals and patients.



Source: Frost & Sullivan Analysis

Value Chain of Online Retail Pharmacy Industry

- Online retail pharmacy refers to the sales of pharmaceutical and healthcare products including drugs, medical devices and nutrition products through Internet and other modern information technologies. The categories of online retail pharmacies include direct sales, marketplace and online-to-offline omnichannel initiative.
- With the government policy liberalized, numbers of pharmaceutical enterprises tend to develop online channels, which efficiently optimizes process and allocations, as well as satisfying the increasing health demand of consumers.
- Separation of healthcare services and drugs sales, which is promoted by government recent years, results in the blowout development of drug online sales.



- Traditional medical procedures, including registration, diagnosis, payment and taking medicine, make patients suffer from queue, long time in diagnosis and information opacity. Efficient and better user experience drives the development of online retail pharmacy platform. Patients with indisposition and chronic disease can choose diagnosis online.
- Obvious advantages when comparing drug online sales to offline, are competitive price and without restriction of time and space. The model cater the demands of contemporaries.
- The third party platform assist historical pharmaceutical enterprises in expanding their market, which can decrease the selling cost.

Source: Frost & Sullivan Analysis

Importance of Hospital Affiliated Pharmacy

Prescription Outflow

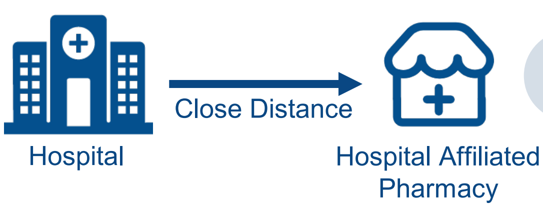
Advantageous Location

- **Close Distance**

  Hospital Affiliated Pharmacy (HAP) generally refers to retail pharmacies within 500 meters from hospitals, which is the first service point to undertake ex-hospital medication.

- **Large Patient Flow**

  HAPs are usually the most patient concentrated places outside the hospitals to meet the needs of drug purchase at the first place.



Wide Drug Coverage

- **Complementation of Hospitals**

  The drug coverage of HAPs is mainly focused on prescription drugs. Due to the policies of the government, many specific drugs, chronic disease drugs and adjuvant drugs, etc, are moving out of hospitals to HAPs.

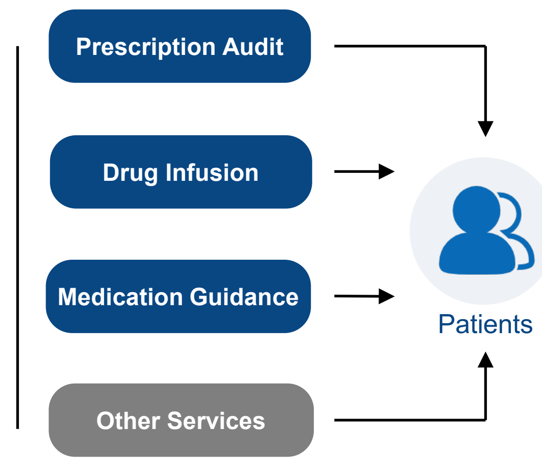
  As a good complementation of hospitals, HAPs also cover a wider range of drugs including high-value imported drugs and innovative drugs that haven't entered hospitals.

Specialty Drugs
Adjuvant Drugs
Chronic Disease Drugs
Innovative Drugs
Other Drugs

Higher Quality Service

- **Professional Pharmacists**

  HAPs are developing higher quality medical services to improve patient stickiness. HAPs are also hiring professional pharmacists to provide prescription audit, drug infusion and medication guidance services.



Source: Frost & Sullivan Analysis

Medical Services Generated from Prescription Outflow

Traditional Model

Traditional Hospital

- Medical Services
- Prescription Drug Sales

- In the traditional model, hospitals are monopolizing the prescription drug sales market.
- Hospitals are also under heavy workload of huge patient number.

Traditional Pharmacy

- Mainly OTC Drugs
- Healthcare Product Sales

- Traditional pharmacies are sales oriented with low level of specialization, almost no professional medical services.
- Some innovative drugs, imported drugs aren't available.

Prescription Outflow

Traditional Hospital

- Disease diagnosis, operation, inpatient service, etc
- Drug sales outflow, substantial reduction of hospital drug sales.

Internet Hospital

- Online medical consultation & prescription

Prescription Sharing Platforms

Paper Prescription

DTP Pharmacy

- Mainly focus on high value prescription drug sales

Retail Pharmacy

- Widely distributed, convenient to visit

Digital Retail Pharmacy

- Connected with online platforms

Medical Services Provided by Pharmacies

Professional Medication Guidance

Patient Follow-ups

Medical Insurance

Chronic Disease Management

Logistic Distribution

Other Services

Patients

Source: Frost & Sullivan Analysis

Healthcare Services Related to Prescription

- Medication is the core issue faced by each patient. Therefore, accurate prescription, drug information and administration of drugs are important for doctors and patients. Therefore, there are services related to prescription emerging under the needs of patients.

Rational Medication Monitoring System

1. Real-time monitoring function

- Drug interactions: combo therapies, same compositions…
- Physiological conditions of patients: children, pregnant women, elderly people…
- Administration of drugs: dosage, route of administration…

2. Drug query function

- Guidance of medication
- Compatibility issue
- Disease inquiries

…

3. Statistical review function

- Reproducing problem prescription: system will prompt if there is any issue in the prescription
- Statistics of problem prescription: the database consists of time, department, doctor, medicine, patient, and categories
- Medicament history review: senior medical staff will comment on the prescriptions, and put forward reasonable suggestions.

Services Provided by Licensed Pharmacist

1. Services

- Prescription adjustment
- Medication consultation
- Management of treatment
- Adverse reaction monitoring
- Health education

(Among them, the most tasks are focused on medication consultation, prescription adjustments, and health education.)

2. Information of medication consultation

- Drug name: generic name, trade name, alias.
- Medication method: route of administration, the time of taking and the special reminder before the medication, the dosage of the medication includes the first dose, the maintenance dose, the number of daily taking, the interval and the course of the treatment
- Adverse reactions: the adverse reaction related to the drug and drug interactions if prescribe combo therapies

Infusion Centers

Patients with breast cancer, gastric cancer, lung caner and other cancers usually need further targeted therapy or chemotherapy after tumor surgery. In the past, such treatments required regular hospitalization for infusion. Now infusion centers would be benefit for both patients and hospitals.

1. For patients

- Patients can receive special medicine infusion in the infusion centers during the day without being hospitalized, and they can go back home after infusion. It will ease the mental and economic pressures that patients have to endure for long-term hospitalization.

2. For hospitals

- For hospitals, special drug infusion services are improving the efficiency of hospital operations and saving resources for other use.

Source: Frost & Sullivan Analysis

Review of Drug Sales Policy in China

Two Invoice Policy

Release Date	Issuing Authority	Policies	Comments
Apr, 2016	State Council	*Notice on key tasks of deepening medical and health system reform in 2016*	• Required to optimize the order of drug purchase and sale, compress the circulation links, carry out the "two ticket system" on a pilot basis, and reduce the unreasonably high price of drugs.
Jan, 2017	State Council	*Opinions on further reform and improvement of drug production, circulation and use policy*	• Reform and improve the policy of drug production, circulation and use, improve the procurement mechanism of drugs, implement the "two invoice policy" reform of drug purchase and sales, reduce circulation links, and break the mechanism of relying on drugs to support medical care.

Pharmaceutical E-commerce Policy

Release Date	Issuing Authority	Policies	Comments
Apr, 2018	CFDA	*Measures for supervision and administration of drug online sales*	• Open up the third party pharmaceutical e-commerce
Nov, 2018	State Council	*Measures to promote the development of Internet plus medical industry*	• Gradually liberalize the policy and allow enterprises to promote prescription drugs for common and chronic diseases online.
Aug, 2019	The National People's Congress	*Pharmaceutical Administration Law of the People's Republic of China*	• The regulation on online sales of prescription drugs has been lifted, and it is clear that enterprises with "drug production license" or "drug business license" can operate prescription drug e-commerce business.

Source: Government websites, Frost & Sullivan Analysis

Regulations

Online Drug Sales

- Before 2018, regulations on online prescription drug sales have been "loosening" and "tightening" repeatedly. Until recently, the publish of *Pharmaceutical Administration Law of the People's Republic of China*《中华人民共和国药品管理法（2019修订）》lifts the constraint of online sales of prescription drugs.

Measures for the Supervision and Administration of Internet Food and Drug (Consultation Paper)
《互联网食品药品经营监督管理办法（征求意见稿）》
May 2014 by CFDA

- Internet drug sellers shall sell prescription drugs by prescription in accordance with the requirements of the provisions on the administration of drug classification.
- Licensed Doctors Online Service System (执业药师在线药事服务制度) is required to be set for the company that sells prescription drugs and class A OTC drugs.
- Licensed doctors are responsible for the audit and supervision of prescription drugs, and guidance for the rational use of drugs as well.

Measures for the Supervision and Administration of Internet Drugs (Consultation Paper)
《网络药品经营监督管理办法（征求意见稿）》
Nov. 2017 by CFDA

- Internet drug sellers are supposed to be the pharmaceutical production, wholesale and retail chain enterprises that have gotten the drug production and distribution qualifications. Other companies, institutions or individuals are not allowed to sell drugs on the Internet.
- Pharmaceutical production and wholesale enterprises are prohibited from selling drugs to the individual consumers on the Internet.
- Pharmaceutical retail chain enterprises are forbidden from selling prescription drugs and drugs with special management requirements on the Internet.

Pharmaceutical Administration Law of the People's Republic of China
《中华人民共和国药品管理法（2019修订）》
Aug, 2019 by Standing Committee of the National People's Congress

- Drugs subject to special state control such as vaccines, blood products, narcotic drugs, psychotropic drugs, toxic drugs for medical use, radioactive drugs and precursor chemicals of drugs may not be sold on the Internet. (Lifting the constraint of online sales of prescription drugs.)
- A marketing authorization holder and a drug distribution enterprise shall abide by the relevant provisions of this law on drug trading when selling drugs through the Internet.

Source: Government websites, Frost & Sullivan Analysis

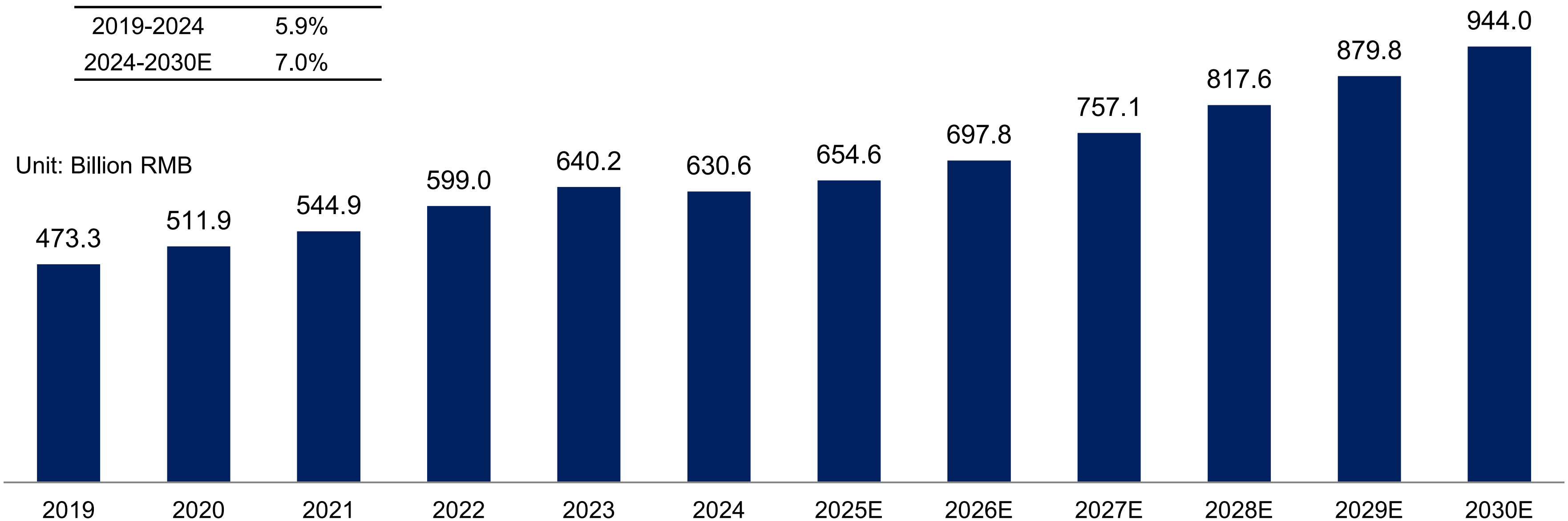
Updated

China Retail Pharmacy Market, 2019-2030E

- The retail pharmacy market in China refers to the revenue generated from the sale of pharmaceuticals, nutrition and healthcare products, medical devices, and other products for improving health and wellness across all retail pharmacies, including both online and offline establishments. This market has witnessed significant growth, increasing from RMB473.3 billion in 2019 to RMB630.6 billion in 2024, with CAGR of 5.9%. By 2030, it is projected that the China retail pharmacy market will reach RMB944.0 billion.

China Retail Pharmacy Market, 2019-2030E

Period	CAGR
2019-2024	5.9%
2024-2030E	7.0%



Note: the 2023 data have been updated based on the 2023 Statistical Report on Pharmaceutical Circulation Industry, published by the Ministry of Commerce of the People's Republic of China

Source: MOFCOM, Annual reports, Public information, Frost & Sullivan analysis

Competitive Landscape of Retail Pharmacy Market

- In retail pharmacy industry, the chain retail pharmacies dominant the market. Among more than 6,700 chain retail pharmacies in China, the CR5 is around 20%, CR50 is around 33% and CR100 is around 37% in 2023, which shows the highly fragment in this market. Meanwhile, the revenue generated from the company ranking 100th is around RMB200 million. Compared to company's revenue, company can rank 1,500~2,000 in the marke
- As of 20231231, the competitive landscape of digital retail pharmacy market are listed as following:

Major Player	Background	Retail Revenue (billion RMB)	Retail Pharmacies	Covered Area	Market share
国药集团 SINOPHARM 国大药房 GuoDa Drugstore	A listed company on HKEx, established in 1998, headquartered in Beijing, mainly focusing on the provision of healthcare products distribution services.	35.7	12,109	30 provinces	5.6%
好药师大药房 SMART PHARMACY	A listed company on SSE, established in 1999, headquartered in Wuhan, Hubei Province, mainly focusing on the provision of wholesaling and retailing of pharmaceuticals and medical equipment.	28.2	3,900	NA	4.4%
大参林 dashenlin	A listed chain retail pharmacy company on SSE, established in 1993, headquarter located in Guangzhou	20.5	14,074	20 provinces	3.2%
益丰大药房 Yifeng Pharmacy	A listed chain retail pharmacy company on SSE, established in 2001, headquarter located in Shanghai	20.2	13,250	10 provinces	3.2%
老百姓大药房 LBX PHARMACY	A listed chain retail pharmacy company on SSE, established in 2001, headquarter located in Changsha	19.3	13,574	18 provinces	3.0%
YXT Health 一心堂	A listed chain retail pharmacy company on SSE, established in 2000, headquarter located in Yunnan	12.6	10,255	10 provinces	2.0%

Source: Annual Report, Frost & Sullivan Analysis

Note: As of December 31, 2023.

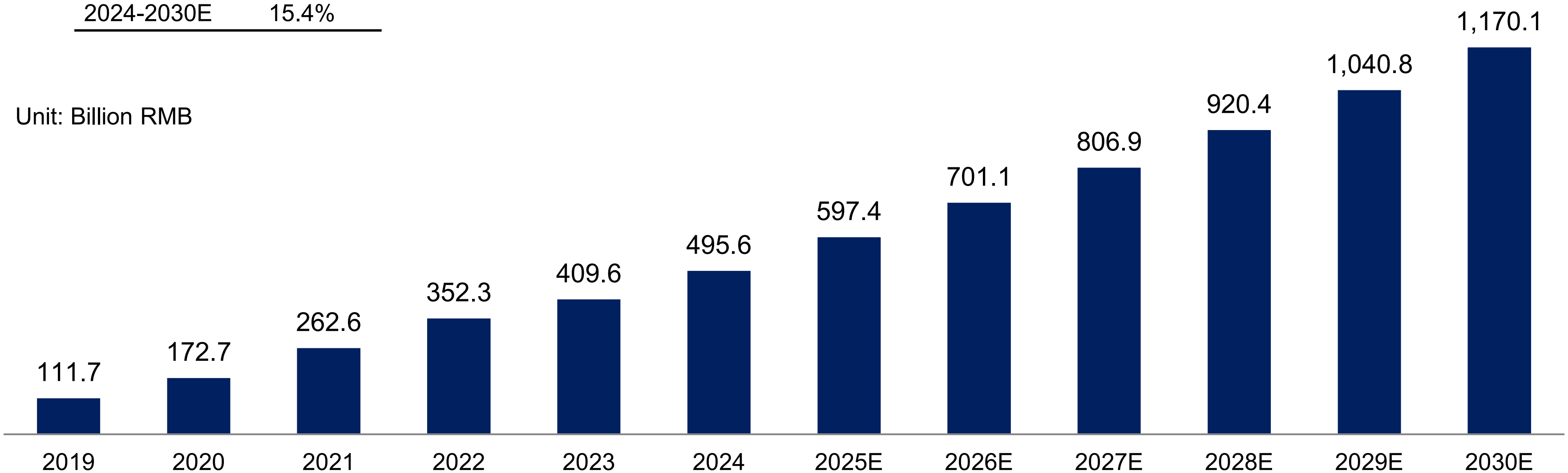
Updated

China Digital Retail Pharmacy Market, 2019-2030E

- The digital retail pharmacy market in China to the GMV generated by all online retail pharmacies, including e-commerce retail pharmacies and on-demand retail pharmacies. The market consists of both medicine and non-medicine products such as medical devices, daily supplies, cosmetics, nutrition products, etc.. This market has witnessed significant growth, increasing from RMB111.7 billion in 2019 to RMB 495.6 billion in 2024, with CAGR of 34.7%. By 2030, it is projected that the China retail pharmacy market will reach RMB1,170.1 billion.

China Digital Retail Pharmacy Market, 2019-2030E

Period	CAGR
2019-2024	34.7%
2024-2030E	15.4%



Source: MOFCOM, Annual reports, Public information, Frost & Sullivan analysis

Updated

Competitive Landscape of Digital Retail Pharmacy Market

- Among all major players in China digital retail pharmacy market, the major players leverage various business models and incorporate diverse business to form synergies.
- As of 2024/12/31, the competitive landscape of digital retail pharmacy market are listed as following:

Major Player	Background	2024 Revenue (billion RMB)	Market share	Cooperated Retail Pharmacies	MAU (million)	Repurchase rate	Average Number of Consultation per Day (thousand)
JDH 京东健康	A listed company on HKEx, established in 2019, headquartered in Beijing, mainly focusing on the provision of digital retail pharmacy, online and offline integrated medical services, and smart healthcare solutions and digital health.	48.8	9.8%	50,000+	14.4	~80%	450+
健康160	Established and operated the largest online registration platform in China, and also focused on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province	0.02	0.01%	3,100+	3.1	70.5%	5.4+
AliHealth 阿里健康	A listed company on HKEx, established in 2014, headquartered in Hangzhou, Zhejiang Province, mainly focusing on the provision of digital retail pharmacy, online consultation and health management.	27	5.4%	33,000+	12.5	~80%	420+
美团买药	A listed company on HKEx, established in 2010, headquartered in Beijing, mainly focusing on the provision of locally found products and retail services, including deliveries, dining and entertainment etc.	~30	6.1%	270,000+	NA	~70%	N/A
叮当健康	A listed company on HKEx established in 2014, headquartered in Beijing, mainly focusing on the provision of O2O healthcare services, including digital retail pharmacies.	3.3	0.7%	300,000+	NA	~50%	~22.5
平安好医生	A listed company on HKEx, established in 2014, headquartered in Shanghai, mainly focusing on family doctor services and O2O healthcare services.	2.4	0.5%	230,000+	~15	~50%	20+

Note: The company mainly focus on self-served pharmacies, the cooperated retail pharmacies are not applicable to it. As of December 31, 2024.

Source: Company websites, Public information, Frost & Sullivan Analysis

Entry Barriers of China Retail Pharmacy Market

Medical Insurance Payment Restrictions	• Medical insurance has not been completely opened up is the biggest problem currently, encountered by retail pharmacy, especially for new competitors. China's medical insurance policy still implements regional overall management, and consumer medical insurance payments can only be made in local pharmacies. The complete liberalization of medical insurance payments also requires the company's strong comprehensive strength and negotiation capabilities, which new competitors do not have
Strict Logistics Restrictions	• As a special commodity related to people's life and safety, the state has very strict laws and regulations on it, especially the storage management of medicines, which must pass the national GSP (Good Supply Practice) management standards. The area of warehouses, equipment and facilities, information systems, The plan for drug batch number management is quite demanding
Limited Opportunities for New Competitors	• The overall market is in a period of integration, and companies are facing the risk of being merged. China's retail pharmacy has gone through nearly two decades of development, and the market structure has basically solidified. Driven by the dual drive of capital and policies, the industry has entered a period of integration, and the concentration will also increase rapidly. It will be difficult for latecomers to squeeze the market

Source: Frost & Sullivan Analysis

Growth Drivers of China Retail Pharmacy Market

Favorable Policies	• In May of 2021, the State Administration of Medical Insurance, together with the National Health Commission, issued the "Guiding Opinions on Establishing and Improving the 'Dual Channel' Management Mechanism for Medicines under NRDL Negotiation List", to divert part of the prescriptions from the hospital to retail pharmacy outside the hospital. In addition, the prescriptions outflow has also accelerated the out-of-hospital digital and offline pharmaceutical retail.
Opening of Medical Insurance Payment	• The integration retail pharmacy with medical insurance payment can help reduce the burden of medication for patients. In addition, with the COVID-19 epidemic, the public is increasingly eager for online drug purchases and online medical insurance payments. The "Internet+ medical insurance" is gradually attempted to become the mainstream of medical insurance payment.
Improved User Experience	• Consumers are becoming more demanding when it comes to their experience with retail pharmacies. Patients now value the convenience of the pharmaceutical purchase process and the availability of supplemental medical consultations. They prefer having pharmaceutical and healthcare products delivered to their homes. Digital retail pharmacies provide a more convenient pharmaceutical purchase experience that meets this consumer demand.
Increasing Healthcare Consumption Capacity	• With the increase in the penetration rate of the Internet, the structure of netizens is tilted towards the middle and old ages, and people's willingness to consume medical care increases at the same time, leading to increasing consumption on digital retail pharmacy. In addition, with the increase in per capita disposable income, the ability of patients to pay has also continued to increase, resulting the increasing overall revenue of retail pharmacies.

Source: Frost & Sullivan Analysis

Future Trends of China Retail Pharmacy Market

Integration of Retail Pharmacy and Other Services	• The "pharmaceutical and healthcare product plus healthcare service" is conducive to the sales growth of retail pharmacy, especially in pharmaceutical products. The purchase of pharmaceutical and healthcare products and healthcare services are complementary to each other and platforms that can embody both elements are strongly positioned to capture greater demand compared with platforms with more singular business focus. Retail pharmacy that integrate insurance products also have huge market potential.
Increasing Market Expansion by Prescription Outflow	• The prescription outflow has restructured the value chain of drug purchases and consumer drug purchase channels, and since the insured patients are allowed to collect drugs through various flexible ways, the share of prescription drugs will mostly flow to offline retail pharmacies online retail pharmacy terminals.
Industry Consolidating by Strong Supply Chain	• Currently, there are multiple retail pharmacies in the industry, that will face integration in the future. Retail pharmacy with strong supply chain capabilities are in a good position to consolidate the fragmented offline retail pharmacy market, and online retail pharmacies which is weak in product supply or is lack of sufficient products, to gain better pricing negotiation power with upstream players and higher profits.
Tighter Supervision	• Due to the particularity of drugs, the supervision of drug retailers by the regulatory authorities will continue to tighten. Although policies such as prescription outflow and dual channel policies continue to stimulate the development of retail pharmacy, in order to ensure drug safety, the review and supervision of the qualifications of relevant pharmacies will remain strict.

Source: Frost & Sullivan Analysis

Entry Barriers of China Digital Retail Pharmacy Market

Customer Trust and Brand Recognition	• Due to the concerns about the quality of pharmaceutical and healthcare products, users tend to choose well-known digital retail platforms. First movers have acquired a large number of users because of their brand reputation and customer loyalty in the past few years. New entrants are hard to develop brand reputation and trust from customer in a short time. Thus, it is difficult for new entrants to obtain trust from existing digital retail pharmacy customers and acquire new customers from the market.
Concentrate Market	• The digital retail pharmacy market in China is highly competitive with established players already operating in the space, and is dominant by the large players like JD Health and Alibaba Health. New entrants would need to differentiate themselves and compete against these existing companies.
Legal and Regulatory Requirement	• Companies need to comply with specific regulations and obtain licenses to operate as a digital retail pharmacy in China. These requirements may involve complex procedures and strict criteria.

Source: Frost & Sullivan Analysis

Growth Drivers of China Digital Retail Pharmacy Market

Favorable Policies	• In February of 2022, General Office of the National Health Commission issued the "Rules for the Regulation of Internet Diagnosis and Treatment (for trial implementation)", to clarify the manner and content of regulation for digital retail pharmacy market including medical staff identification and credentialing, fee management and etc. A more transparent regulatory system to digital retail pharmacy market is implemented.
Transformation of User Habits	• The shift towards digital interaction and convenience has triggered a substantial change in consumer behavior. Factors such as increased smartphone usage, ease of access, and the demand for efficient and time-saving solutions have led to a growing preference for accessing pharmaceutical and healthcare products and services through the digital solutions. Especially the COVID-19 pandemic has further motivated contactless purchasing services through digital retail pharmacy, accelerating the penetration of digital retail pharmacy.
Increasing Healthcare Consumption Capacity	• With the increase in the penetration rate of the Internet, the structure of netizens is tilted towards the middle and old ages, and people's willingness to consume medical care increases at the same time, leading to increasing consumption on digital retail pharmacy. In addition, with the increase in per capita disposable income, the ability of patients to pay has also continued to increase, resulting the increasing overall revenue of retail pharmacies.

Source: Frost & Sullivan Analysis

Future Trends of China Digital Retail Pharmacy Market

Strengthened Linkage with Internet Hospitals	• With the development and increasing penetration of Internet hospitals, the number of e-prescriptions increased and resulting in the purchase demand of using e-prescription. Connecting digital retail pharmacy to the Internet hospitals can facilitate the whole process of medical consultation and medication online, bringing patients with great convenience.
Increasing Affordability	• As the national medical insurance starts to be introduced to some digital retail pharmacy platforms, the self-paid part of the purchase is significantly decreased. As a result, the payment gap between digital retail pharmacy and offline pharmacy decreases and the willingness of using digital retail pharmacy increases. With the further integration of medical insurance with digital retail pharmacy, the affordability rises leading to higher penetration and larger market potential.

Source: Frost & Sullivan Analysis

Table of Content

Overview of China Digital Healthcare Integrated Service Market

- Digital healthcare integrated service market is an emerging market with great growth potential as it can solve the pain points of current China's medical system. For instance, the digital healthcare integrated service can greatly reduce the waiting time of diagnosis process as Internet hospitals provide more transparent progress of diagnosis process as well as convenience in appointment and payment. Meanwhile, it facilitates online diagnosis through digital platform, allowing individuals from rural and distant areas to experience high-quality medical resources in large cities.
- Digital healthcare integrated service market comprises digital hospital operation solution market and digital medical and healthcare service market. It serves all the relevant parties involved in the diagnosis and treatment process, including public hospitals, private medical institutions, medical professionals, users and government.

Digital Healthcare Integrated Service

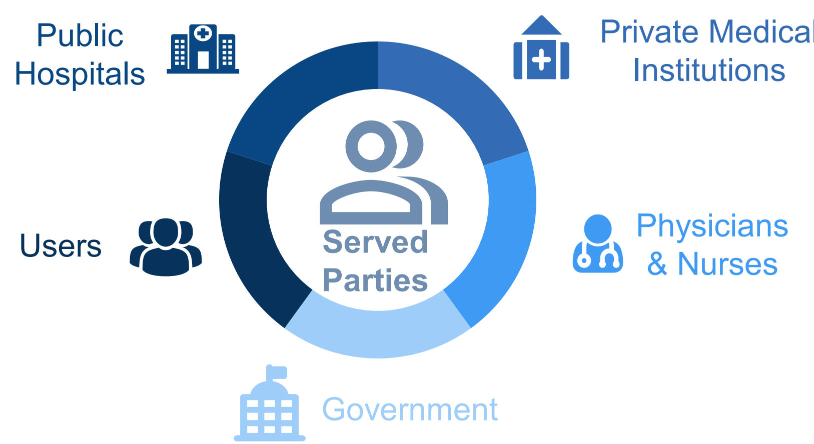
Digital Hospital Operation Solution

- Providing Cloud SaaS solutions to hospitals to facilitate hospital digitalization and to construct Internet hospitals to improve operational efficiency and providing specialty construction solutions to develop their brand image and reputation

Digital Medical and Healthcare Service Platform

- Providing a service platform to hospitals, private medical institutions and physicians to improve user experience and physician's personal brand image and reputation for marketing

Served Parties of Digital Healthcare Integrated Service Market



Source: Frost & Sullivan Analysis

Value of China Digital Healthcare Integrated Service Market

User

- Online consultation and diagnosis enables additional medical services from physicians to fulfill the demand of high-quality medical services, especially for patients from rural or distant areas.
- Hospital digitalization improve diagnosis and treatment efficiency through online appointment, payment and test results review.

Physician

- Online consultation and diagnosis increases physicians' legal income through online consultation fees.
- Digital medical and healthcare platform assists physicians to build their personal brand and to raise both online and offline consultation.

Public Hospital

- Cloud SaaS service facilitates hospital digitalization, using digital information to improve operational efficiency.
- Digital hospital operation solution empowers specialty construction, highlighting the advantageous departments.

Private Medical Institution

- Cloud SaaS service allows private medical institutions to enable digitalization in a cost-effective manner by avoiding the expensive digital infrastructure construction and IT labor cost.
- Digital medical and healthcare platform assists institutions in brand construction to highlight institutional strengths and feature, and uses their cheap online traffic collected from public hospitals to provide online traffic re-direction service to private medical institutions which desire more patients.

Government

- Digital hospital operation solutions promote two-way referral system, enabling a more efficient medical system.
- Hospital digitalization collects information of prescribed drugs and tests for each disease, assisting the medical insurance to better manage the budget and payment as well as avoiding excessive medical treatment.

Source: Frost & Sullivan Analysis

Values of Public Hospitals and Private Medical Institutions in Digital Healthcare Integrated Service

- Digital hospital operation can empower both public hospitals as well as private medical institutions from different aspects. As public hospitals have already possessed great reputation and brand image, which attracts excessive patient resource, the key value for public hospitals is to facilitate digitalization and specialty constructions. Meanwhile, the main value for private medical institutions is to build brand and redirect patients due to the low recognition of private medical institutions from the general public.

Values of Public Hospital

Digitalization Construction (1)

- Improve diagnosis and treatment efficiency to shorten the diagnosis and treatment duration
- Optimize the hospital operation efficiency to reduce the operating cost of hospitals

Specialty Construction (4)

- Emphasize the strength of the advantageous department of the hospitals to develop the department IP
- Increase the number of diagnosis and treatment using the developed department IP

Digital Hospital Operation

Values of Private Medical Institution

Brand Construction (2)

- Highlight the strength and features of the private medical institutions to build the institutional brand
- Develop institutional reputation in segmented area using branding

Online Traffic Redirection (3)

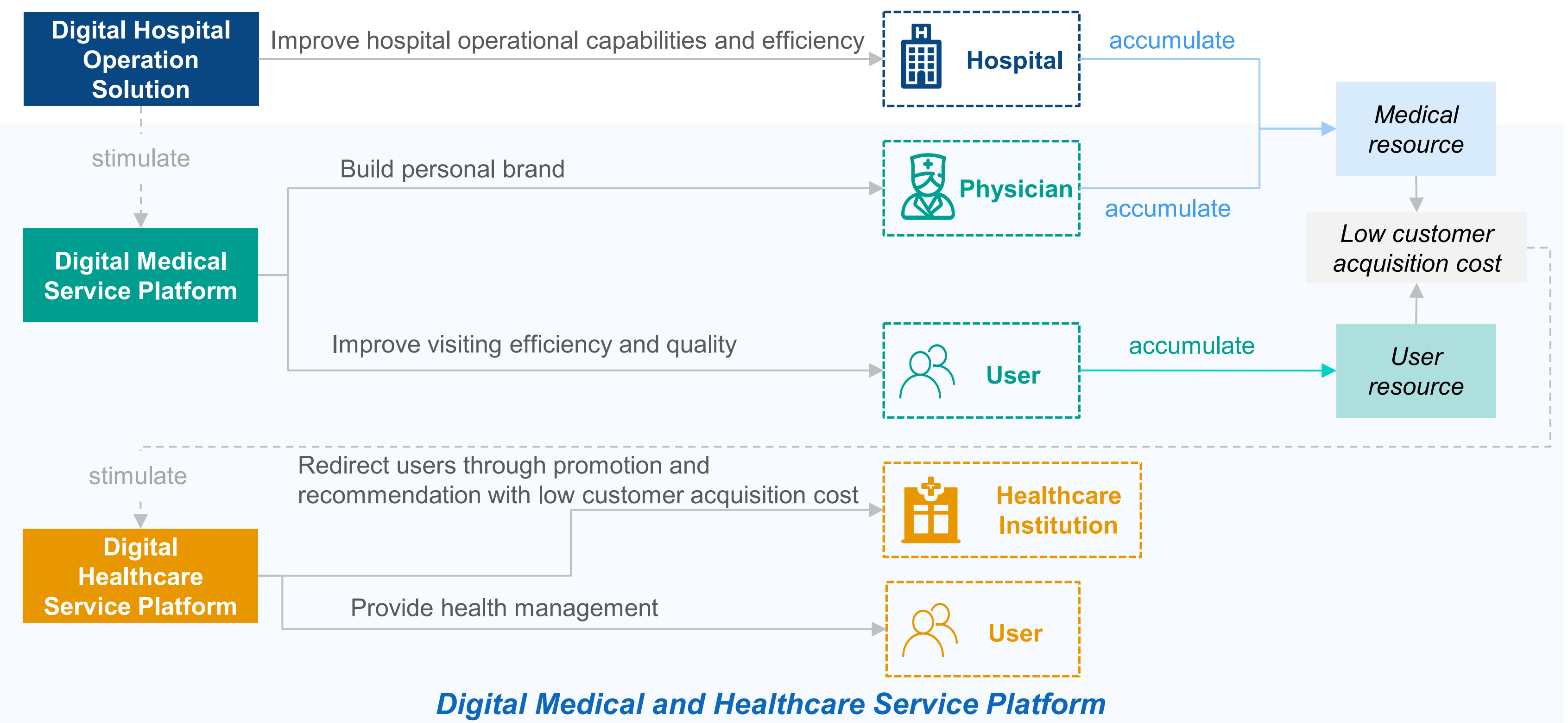
- Obtain cost-effective internet traffic and customer through the customer resources accumulated in public hospitals
- Increase the number of diagnosis and treatment using the cost-effective customer resources

Source: Frost & Sullivan Analysis

Ecosystem of Digital Healthcare Integrated Service

- Digital healthcare integrated service starts with digital hospital operation solution which accumulates hospital resource by providing them digital operation solutions. Digital hospital operation solution motivates digital medical service platform, as physicians can use the platform to build their personal brand to attract more patients, whereas users can have improved clinic experience by using online appointment and diagnosis. Thus, digital medical service accumulates physician resource and user recourse. The accumulated medical resource and user resource lead to low customer acquisition cost and further stimulates digital health service platform to redirect low-cost online traffic towards healthcare institutions.

Ecosystem of Digital Healthcare Integrated Service



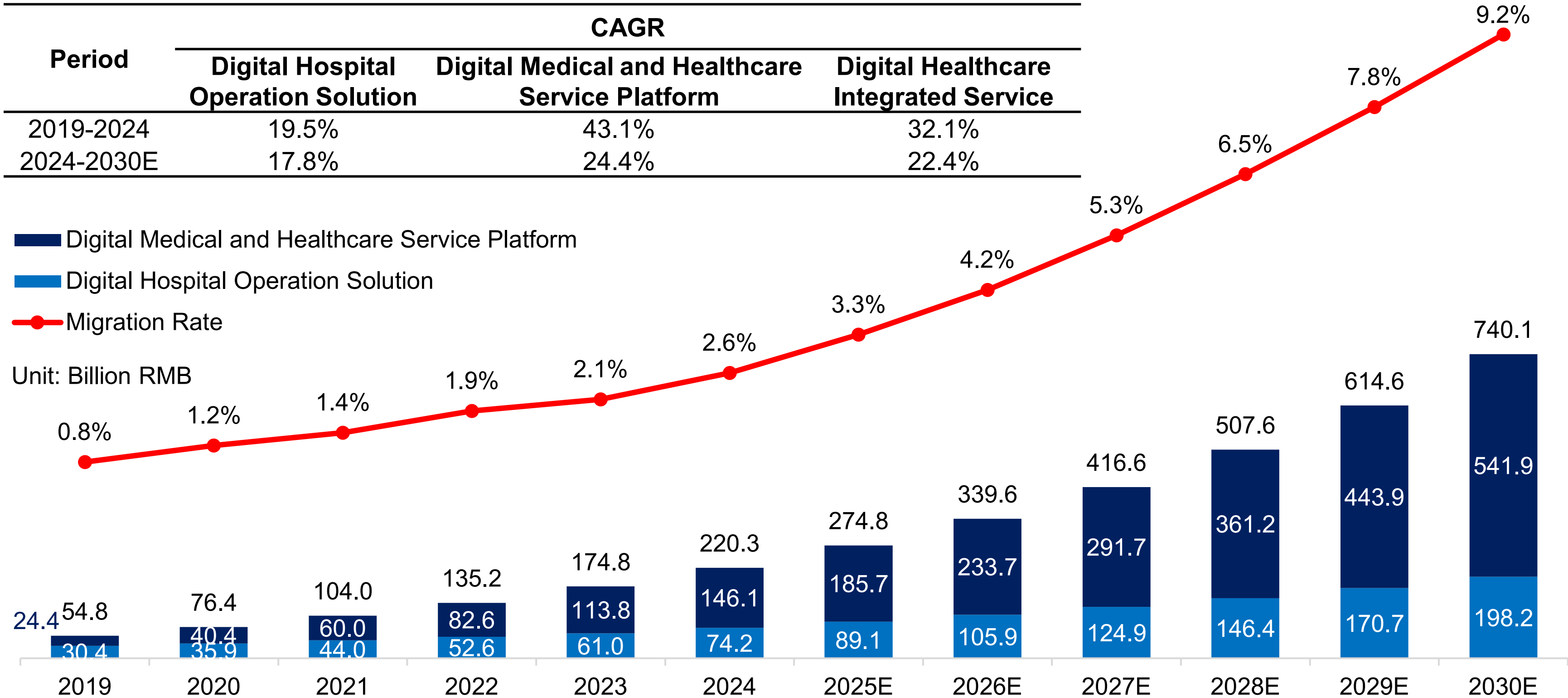
Source: Frost & Sullivan Analysis

China Digital Healthcare Integrated Service Market, 2019-2030E

- The China digital healthcare integrated service market consists of digital hospital operation solution market and digital medical and healthcare platform market. Because of the digital migration of healthcare industry, It has increased from RMB54.8 billion in 2019 to RMB220.3 billion in 2024 with a CAGR of 32.1%. The market size is expected to rise to RMB740.1 billion by 2030 with a CAGR of 22.4% from 2024 to 2030. The migration rate for digital healthcare integrated service in the healthcare industry (migration rate) is defined as the ratio of China digital healthcare integrated service market over China healthcare expenditure, it rose from 0.8% in 2019 to 2.6% in 2024, and is expected to grow to 9.2% by 2030.

China Digital Healthcare Integrated Service Market, 2019-2030E

Period	CAGR		
	Digital Hospital Operation Solution	Digital Medical and Healthcare Service Platform	Digital Healthcare Integrated Service
2019-2024	19.5%	43.1%	32.1%
2024-2030E	17.8%	24.4%	22.4%



Source: Annual reports, Public information, Frost & Sullivan analysis

Updated

Competitive Landscape of Digital Healthcare Integrated Service Market

Major Player	Background	Cooperated Hospitals	Cooperated Class III Hospitals	Connected Medical Professionals (thousand)	The Number of Online Appointment in 2024 (million)	2024 Revenue (million RMB)	Accumulated Number of Registered Users (million)
健康160	Established and operated the largest online registration platform in China, and also focused on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province.	14,400	3,424	898.3	131.5	194.2	54.1
熙康 XIKANG	A listed company on HKEx, established in 2011, headquartered in Shanghai, mainly focusing on the provision of cloud hospital platform services, cloud healthcare services and smart healthcare product.	2,986	720+	142	N/A	~460	50+
微医 WeDoctor	A non-listed company established in 2010, headquartered in Hangzhou, Zhejiang Province, mainly focusing on the provision of cloud hospital platform services and online appointment, registration and consultation.	8,100+	2,700+	318	115	~680	270+
圆心科技	A non-listed company established in 2015, headquartered in Beijing, mainly focusing on the provision of Internet hospital services, DTP pharmacies and medical insurance.	700+	500+	310	N/A	~160	13+

Note: 1. "+" indicates a minimum estimate (i.e., no less than the stated number); "~" denotes an approximate value, subject to slight variation
2. As of December 31, 2024

Updated

Competitive Landscape of Digital Healthcare Integrated Service Market

Major Player	Background	Cooperated Hospitals	Cooperated Class III Hospitals	Connected Medical Professionals (thousand)	The Number of Online Appointment in 2024 (million)	2024 Revenue (million RMB)	Accumulated Number of Registered Users (million)
健康160	Established and operated the largest online registration platform in China, and also focused on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province.	14,400	3,424	898.3	131.5	194.2	54.1
熙康 XIKANG	A listed company on HKEx, established in 2011, headquartered in Shanghai, mainly focusing on the provision of cloud hospital platform services, cloud healthcare services and smart healthcare product.	2,986	720+	142	N/A	~460	50+
方舟健客	A listed company on HKEx, Established in 2015, headquartered in Guangdong Province, mainly focusing on chronic disease management to address the needs of patients with chronic diseases.	N/A	N/A	223	N/A	~200	49.2
智云健康 ClouDr.	A listed company on HKEx, Established in 2014, headquartered in Zhejiang Province, mainly focusing on digital chronic disease management solutions.	2,738	822	107	N/A	~400	38.4
微医 WeDoctor	A non-listed company on HKEx, established in 2010, headquartered in Hangzhou, Zhejiang Province, mainly focusing on the provision of cloud hospital platform services and online appointment, registration and consultation.	8,100+	2,700+	318	115	~680	270+
健康之路 WWW.JKZL.COM	A listed company established in 2001, headquartered in Fuzhou, Fujian Province, mainly focusing on the provision of online marketing solutions, online appointment and registration, and health management.	11,762	3,000+	889	7	~1,000	205.5
圆心科技	A non-listed company established in 2015, headquartered in Beijing, mainly focusing on the provision of Internet hospital services, DTP pharmacies and medical insurance.	700+	500+	310	N/A	~160	13+

Note: 1. "+" indicates a minimum estimate (i.e., no less than the stated number); "~" denotes an approximate value, subject to slight variation
2. As of December 31, 2024
3. Fangzhou does not directly cooperate with medical professionals

Competitive Landscape of Digital Healthcare Integrated Service Market

Major Player	Background	Cooperated Hospitals
健康160	Established and operated the largest online registration platform in China, and also focused on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province.	14,258
健康之路 WWW.JKZL.COM	A non-listed company established in 2001, headquartered in Fuzhou, Fujian Province, mainly focusing on the provision of online marketing solutions, online appointment and registration, and health management.	11,000
微医 WeDoctor	A non-listed company established in 2010, headquartered in Hangzhou, Zhejiang Province, mainly focusing on the provision of cloud hospital platform services and online appointment, registration and consultation.	8,000+
智云健康 ClouDr.	A listed company on HKEx, Established in 2014, headquartered in Zhejiang Province, mainly focusing on digital chronic disease management solutions.	2,719
熙康 XIKANG	A listed company on HKEx, established in 2011, headquartered in Shanghai, mainly focusing on the provision of cloud hospital platform services, cloud healthcare services and smart healthcare product.	2,610
圆心科技	A non-listed company established in 2015, headquartered in Beijing, mainly focusing on the provision of Internet hospital services, DTP pharmacies and medical insurance.	480

Note: As of December 31, 2023.

Source: Company websites, Public information, Frost & Sullivan Analysis

Competitive Landscape of Digital Healthcare Integrated Service Market

Major Player	Background	Cooperated Class III Hospitals
健康160	Established and operated the largest online registration platform in China, and also focused on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province.	3,340
健康之路 WWW.JKZL.COM	A non-listed company established in 2001, headquartered in Fuzhou, Fujian Province, mainly focusing on the provision of online marketing solutions, online appointment and registration, and health management.	3000
微医 WeDoctor	A non-listed company established in 2010, headquartered in Hangzhou, Zhejiang Province, mainly focusing on the provision of cloud hospital platform services and online appointment, registration and consultation.	2,500+
智云健康 ClouDr.	A listed company on HKEx, Established in 2014, headquartered in Zhejiang Province, mainly focusing on digital chronic disease management solutions.	815
熙康 XIKANG	A listed company on HKEx, established in 2011, headquartered in Shanghai, mainly focusing on the provision of cloud hospital platform services, cloud healthcare services and smart healthcare product.	700
圆心科技	A non-listed company established in 2015, headquartered in Beijing, mainly focusing on the provision of Internet hospital services, DTP pharmacies and medical insurance.	400

Note: As of December 31, 2023.

Source: Company websites, Public information, Frost & Sullivan Analysis

Competitive Landscape of Digital Healthcare Integrated Service Market

Major Player	Background	Connected Medical Professionals (thousand)
健康之路 WWW.JKZL.COM	A non-listed company established in 2001, headquartered in Fuzhou, Fujian Province, mainly focusing on the provision of online marketing solutions, online appointment and registration, and health management.	850
健康160	Established and operated the largest online registration platform in China, and also focused on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province.	730+
微医 WeDoctor	A non-listed company established in 2010, headquartered in Hangzhou, Zhejiang Province, mainly focusing on the provision of cloud hospital platform services and online appointment, registration and consultation.	300+
圆心科技	A non-listed company established in 2015, headquartered in Beijing, mainly focusing on the provision of Internet hospital services, DTP pharmacies and medical insurance.	300
方舟健客	A listed company on HKEx, Established in 2015, headquartered in Guangdong Province, mainly focusing on chronic disease management to address the needs of patients with chronic diseases.	212
熙康 XIKANG	A listed company on HKEx, established in 2011, headquartered in Shanghai, mainly focusing on the provision of cloud hospital platform services, cloud healthcare services and smart healthcare product.	130
智云健康 CloudDr.	A listed company on HKEx, Established in 2014, headquartered in Zhejiang Province, mainly focusing on digital chronic disease management solutions.	102.6

Note: As of December 31, 2023.

Sou[illegible]ny websites, Public information, Frost & Sullivan Analysis

Competitive Landscape of Digital Healthcare Integrated Service

Major Player	Background	The Number of Online Appointment in 2023 (million)
健康160	Established and operated the largest online registration platform in China, and also focused on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province.	43.7
健康之路 WWW.JKZL.COM	A non-listed company established in 2001, headquartered in Fuzhou, Fujian Province, mainly focusing on the provision of online marketing solutions, online appointment and registration, and health management.	7.6
微医 WeDoctor	A non-listed company established in 2010, headquartered in Hangzhou, Zhejiang Province, mainly focusing on the provision of cloud hospital platform services and online appointment, registration and consultation.	5
熙康 XIKANG	A listed company on HKEx, established in 2011, headquartered in Shanghai, mainly focusing on the provision of cloud hospital platform services, cloud healthcare services and smart healthcare product.	N/A
方舟健客	A listed company on HKEx, Established in 2015, headquartered in Guangdong Province, mainly focusing on chronic disease management to address the needs of patients with chronic diseases.	N/A
智云健康 ClouDr.	A listed company on HKEx, Established in 2014, headquartered in Zhejiang Province, mainly focusing on digital chronic disease management solutions.	N/A
	A non-listed company established in 2015, headquartered in Beijing, mainly focusing on the provision of Internet hospital services, DTP pharmacies and medical insurance.	N/A

Competitive Landscape of Digital Healthcare Integrated Service

Major Player	Background	Accumulated Number of Registered Users (million)
微医 WeDoctor	A non-listed company established in 2010, headquartered in Hangzhou, Zhejiang Province, mainly focusing on the provision of cloud hospital platform services and online appointment, registration and consultation.	~230
健康之路 WWW.JKZL.COM	A non-listed company established in 2001, headquartered in Fuzhou, Fujian Province, mainly focusing on the provision of online marketing solutions, online appointment and registration, and health management.	180
熙康 XIKANG	A listed company on HKEx, established in 2011, headquartered in Shanghai, mainly focusing on the provision of cloud hospital platform services, cloud healthcare services and smart healthcare product.	47.2+
健康160	Established and operated the largest online registration platform in China, and also focused on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province.	46.6
方舟健客	A listed company on HKEx, Established in 2015, headquartered in Guangdong Province, mainly focusing on chronic disease management to address the needs of patients with chronic diseases.	42.7
智云健康 ClouDr.	A listed company on HKEx, Established in 2014, headquartered in Zhejiang Province, mainly focusing on digital chronic disease management solutions.	31.2
圆心科技	A non-listed company established in 2015, headquartered in Beijing, mainly focusing on the provision of Internet hospital services, DTP pharmacies and medical insurance.	~11

Competitive Landscape of Digital Healthcare Integrated Service Market

Major Player	Background	Revenue under the market (million RMB)
健康之路 WWW.JKZL.COM	A non-listed company established in 2001, headquartered in Fuzhou, Fujian Province, mainly focusing on the provision of online marketing solutions, online appointment and registration, and health management.	~1,000
智云健康 ClouDr.	A listed company on HKEx, Established in 2014, headquartered in Zhejiang Province, mainly focusing on digital chronic disease management solutions.	~620
微医 WeDoctor	A non-listed company established in 2010, headquartered in Hangzhou, Zhejiang Province, mainly focusing on the provision of cloud hospital platform services and online appointment, registration and consultation.	~600
熙康 XIKANG	A listed company on HKEx, established in 2011, headquartered in Shanghai, mainly focusing on the provision of cloud hospital platform services, cloud healthcare services and smart healthcare product.	501.2
方舟健客	A listed company on HKEx, Established in 2015, headquartered in Guangdong Province, mainly focusing on chronic disease management to address the needs of patients with chronic diseases.	~300
健康160	Established and operated the largest online registration platform in China, and also focused on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province.	177.6
圆心科技	A non-listed company established in 2015, headquartered in Beijing, mainly focusing on the provision of Internet hospital services, DTP pharmacies and medical insurance.	130

Growth Drivers of Digital Healthcare Integrated Service Market

Favorable Policies	• In recent years, China has implemented a series of policies to promote the development of the healthcare and wellness service industry, especially the "Internet + Healthcare" initiative. For example, the Opinions on Promoting the Development of *"Internet+ Healthcare" (《關於促進"互聯網+醫療健康"發展的意見》)* issued by the State Council in April 2018 aims to provide quality services to a larger population at the national level. The digital healthcare integrated services played a crucial role, especially during the COVID-19 outbreak, by enabling necessary medical services to be delivered online.
Innovative Technology of Digital Health	• Empowered by advancements in digital technologies, such as big data analysis and cloud solution platforms, digital healthcare integrated services redefine the standards of healthcare by offering patients convenient and efficient healthcare services. This allows more patients to access high-quality medical resources, valuable health information, and engage in effective communication with physicians. Simultaneously, hospitals and physicians of various levels can share their valuable medical knowledge and expertise.
Growing Health Awareness and Increasing Healthcare Expenditure Per Capita	• The rise in disposable income per capita has led to increased healthcare expenditure and improved health awareness. Consequently, diagnosis and treatment rates, particularly for chronic diseases, have improved. The affluent population also exhibits a higher demand for health maintenance. Digitization is seen as an efficient method to meet these healthcare needs and is expected to experience rapid growth in the coming years
Evolving Behavioral Patterns	• With the penetration of smart phones, increasing number of application and more diversified app functions, the digital solutions starts to change the individual's in various scenarios, including medical services. It promotes the traditional offline medical services transform into a digital way in a more efficient manner. The COVID-19 pandemic further accelerated the adoption of digital medical services to alleviate offline resource pressure and extend healthcare access to remote areas. These changes are expected to further increase the penetration rate of digital healthcare services and contribute to the development of the digital healthcare integrated service market.

Source: Frost & Sullivan Analysis

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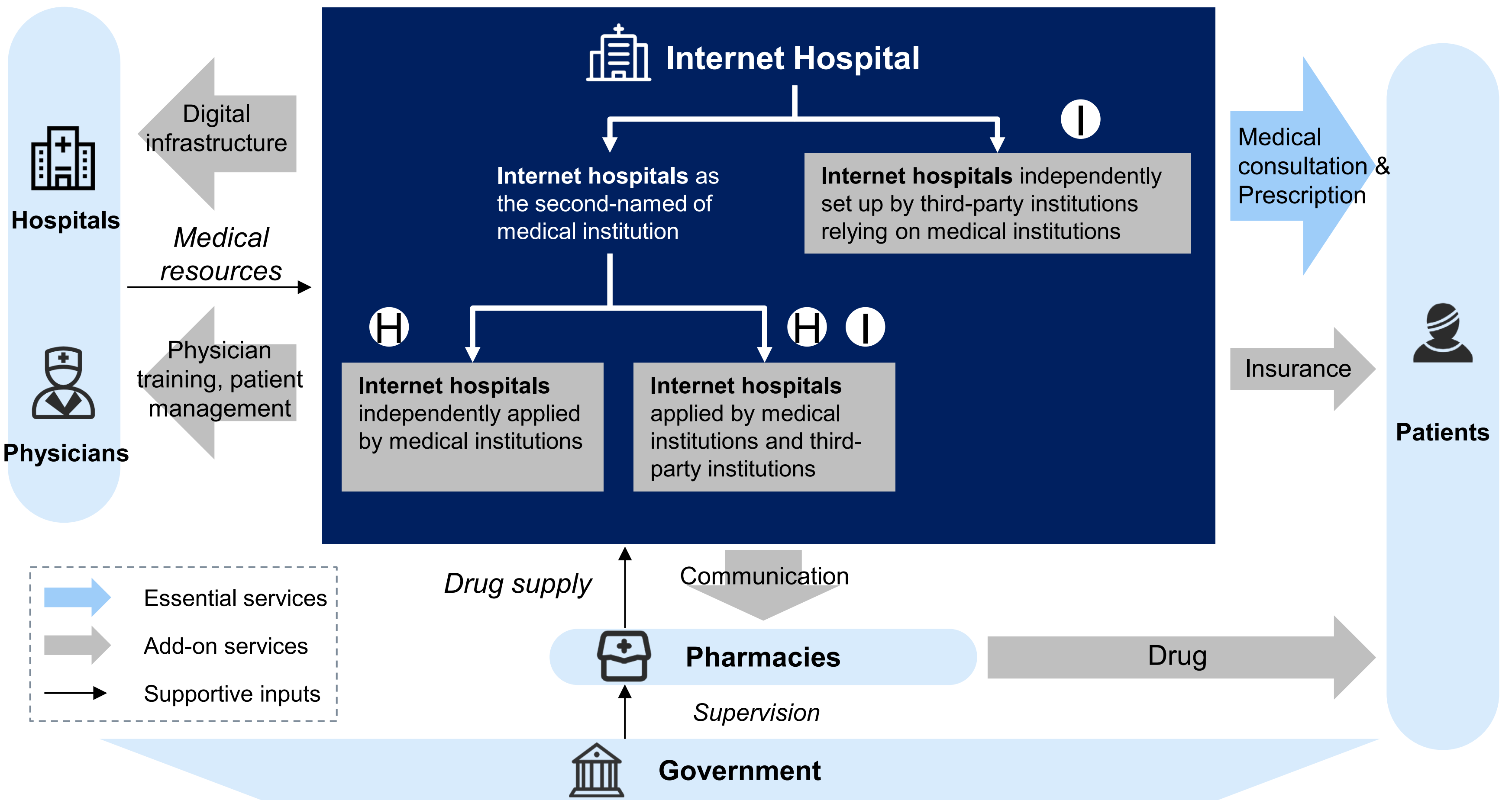
Overview of Internet Hospitals

- Internet Hospital is a licensed online medical institution that provides consultation and prescription services to patients online by integrating the resources of hospitals and doctors.



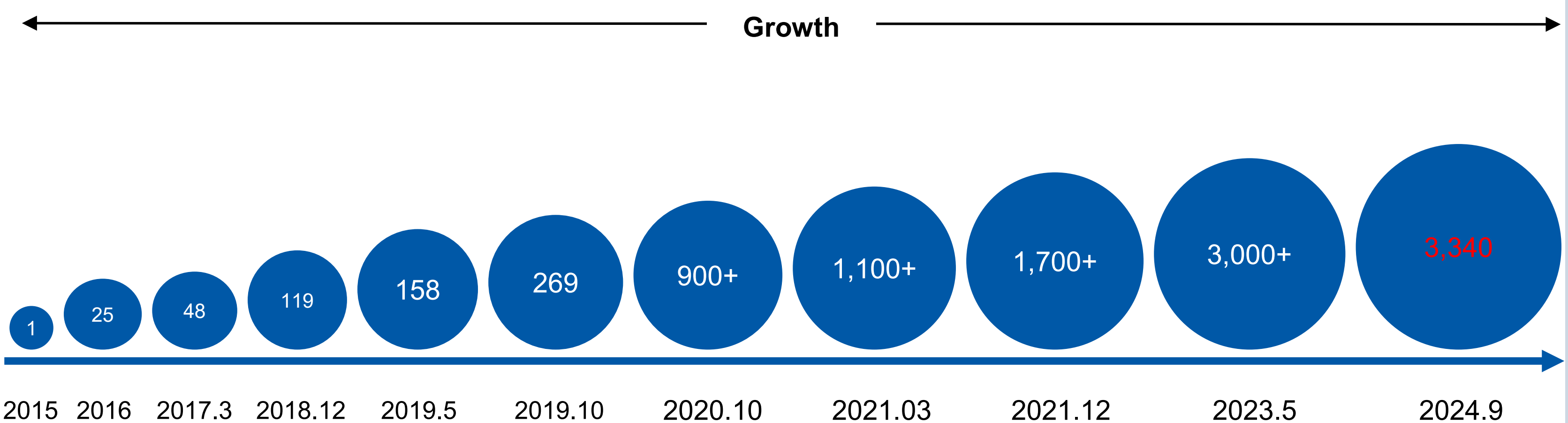
Source: Frost & Sullivan Analysis

Updated

Growth of Internet Hospitals

- The number of internet hospitals in China has experienced growth since the first one launched in 2015, and the growth has been accelerated in the recent few years. Remarkably, The number of internet hospitals has increased from 158 in May 2019 to around 900 in October 2020, with an approximately 5.7 times growth within merely half year, and further increased to over 1,700 in December 2021.

Number of Internet Hospitals in China



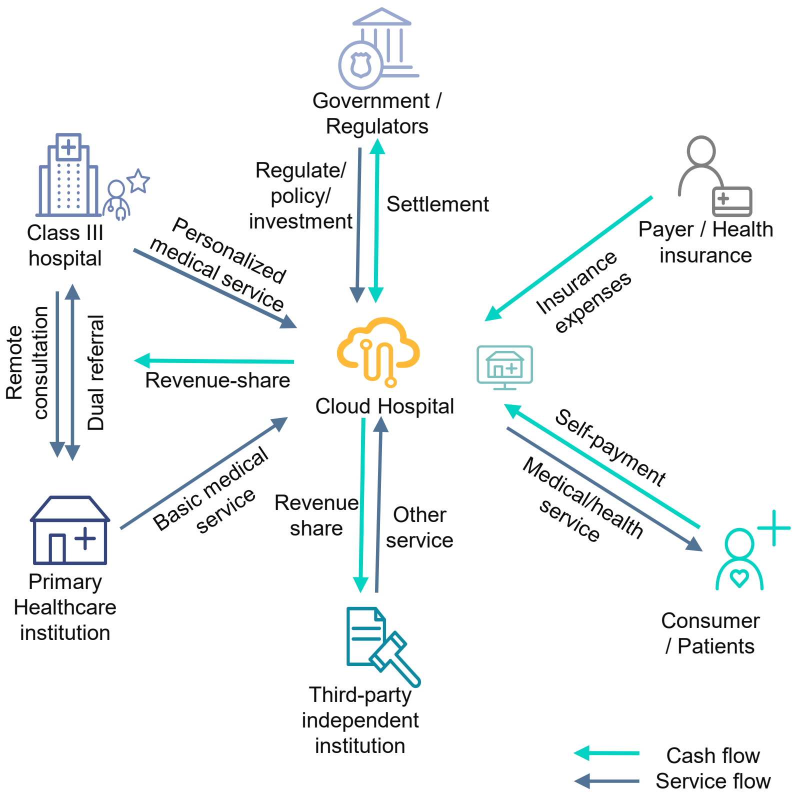
- ☐ Fluctuated policy environment
- ☐ Industry is less defined
- ☐ Market practice is less guided

- ✓ Favorable policy environment
- ✓ Clearer definition of the industry
- ✓ More guidance on market practice

Source: NHC, Frost & Sullivan

Paradigm of Cloud Hospital

- Cloud hospital is internet hospital platform constructed through cloud server. It relies on the medical resource of physical hospitals and digital technologies to expand medical services from offline to online. Meanwhile, some internet hospitals act as an integrated third-party medical platform to share medica resource from various hospitals and maximize the efficiency and quality of medical service.



4 Key Features of Digital Medical Service

Integrated Healthcare System facilitates dual referral, improves treatment efficiency and relieves the pressure of diagnosis and treatment of Class III hospitals.

Online consultation provides convenience to patients by offering e-prescription which allows drug purchase from online retail pharmacies.

Continuous health services, as well as dynamic health records, has made it a reality to establish full value chain of family doctor service system.

New collaborative medical service process can be categorized by hospital departments, which make service system become more standardized and specialized.

Source: Frost & Sullivan Analysis

Overview of Municipal-based Healthcare System

- Digital healthcare platforms may contribute to demand, supplier and payer to form regional healthcare system, which is currently municipal scale.
- As regional patient flow, healthcare institutions clusters and local healthcare insurance system are all located in same region of a city, the structure of payers, suppliers and demands shows the trend of municipality.
- Empowered by comprehensive services for payers, suppliers and demands in healthcare system, municipal-based healthcare system is supposed to be the core driver for the reform of healthcare system.

Demands:
Municipal-based patient flow

Current status

- As the patients from lower-tier cities and counties are tend to get better medical service, they prefer the initial diagnosis in advanced hospitals (Class III), which are usually far from their residence and sometimes overreached.
- The healthcare resource in city of different tier are extremely differential.

Future trend

- Because of the improvement of public healthcare accessibility, patients prefer follow-up consultation of chronic diseases in the city they live.
- Combined with hierarchical diagnosis and treatment system, the referral and follow-up consultation show the trend of primary-level and municipal-based.

Supplier:
Municipal-based hospital cluster

Current status

- As the supplier of healthcare service, the planning, construction, operation and management of local healthcare institutions are all regulated by local government (municipal or provincial).
- Healthcare institution including public hospitals of different classes, community healthcare clinics and other specialized hospitals are quite isolate, which leads to the inadequate healthcare system.

Future trend

- Based on the advantage of systematisms and centrality of local hospital cluster, the municipal-based healthcare system will be established to improve the insufficiency of healthcare resources.

Payer:
Municipal-based insurance system

Current status

- The reimbursement coverage of national health insurance varies obviously from city to city.
- The fund raising and insurance compensation of national healthcare insurance is based on city-level or district-level.

Future trend

- The payment from insurance will be issued and controlled on municipal level. Government will perform as both “supplier” and “payer” in future China.

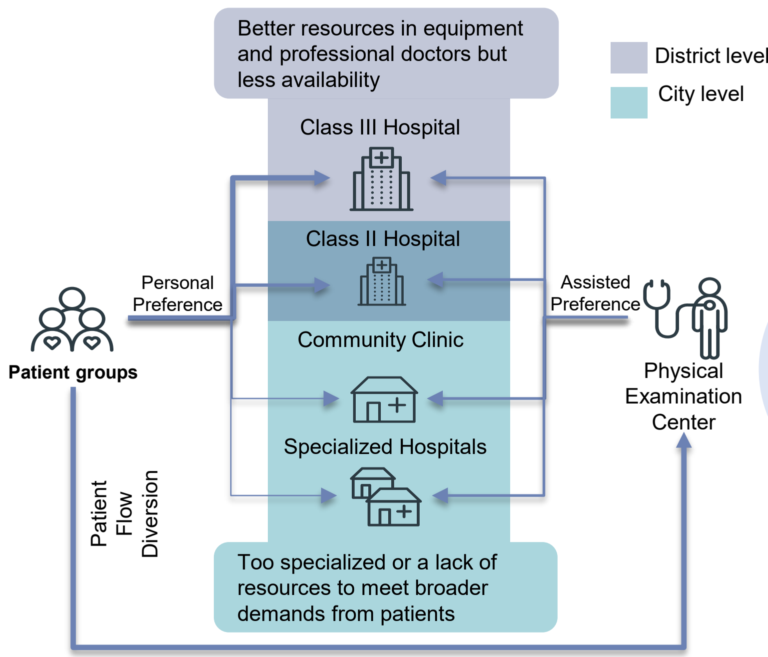
Source: Frost & Sullivan Analysis

Municipal-based Healthcare System

Municipal-based Patient Flow

- Generally, patients prefer to get healthcare service nearby in city they live, while disequilibrium of healthcare resource between cities forced patient to seek high-class public hospitals far from home. In the future, similar to municipal-based healthcare system in the USA, patients will be referred to higher healthcare institution by gatekeeper (family doctor) only if necessary. Otherwise, they will receive medical treatment in municipal primary healthcare institution, followed mandatory or semi-mandatory referrals.

Current patient flow



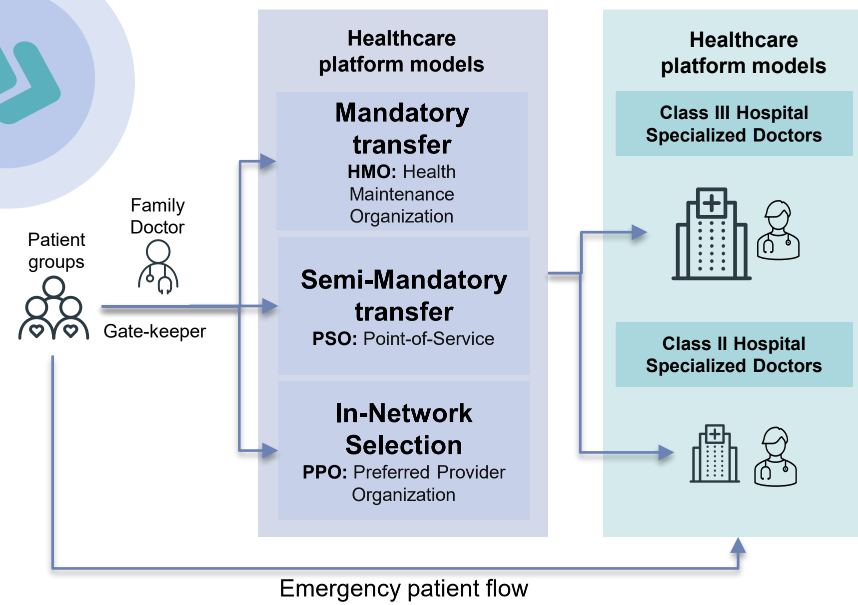
Inefficiencies of current healthcare system:

- Patients with all levels of need rush into class II and class III hospitals, which results in inefficient use of resource.
- Because of the crowding in class II and class III hospitals, patients with severe disease and need of specialized doctors do not have readily accessible service.
- **The referral and follow-up consultation show the trend of primary-level and municipal-based.**

Benefits of assistance of healthcare network:

- Patients will have readily available family doctor to meet their first needs
- Based on preliminary diagnostic results from family doctors, patients can be redirect to the suitable healthcare institute to further assist their needs
- Infectious disease or severe disease can be spotted immediately and contained by transferring patients to the appropriate hospital

Patient flow in USA



Source: Frost & Sullivan Analysis

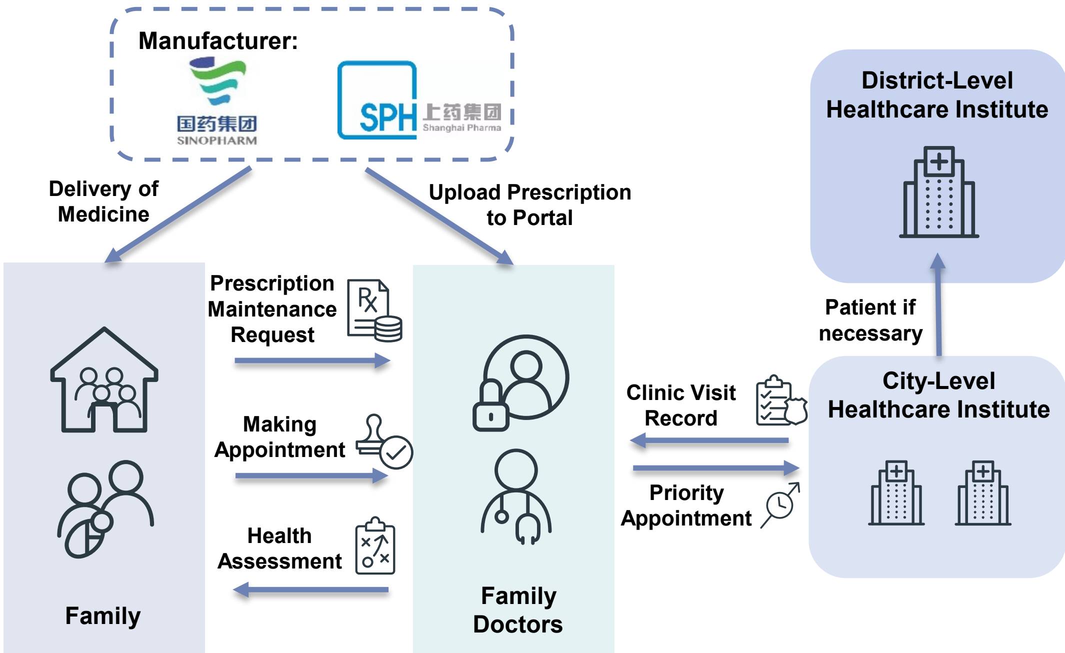
Multiple-based Healthcare System

Case Study: "1+1+1" Model– an example of realized municipal-based patient flow in Shanghai

- To optimize the healthcare service model and make the best use of national healthcare funding, hierarchical diagnosis and treatment system arises. Being the first city with reformation of comprehensive healthcare system, in June 2015, Shanghai first proposed the "1+1+1" contract service lead and service-level based healthcare service reformation.
- Along with advance multiple-based system like "1+1+1" contract service model, patients with mild disease can be treated adequately and tend to be follow the suggestion from general doctors to seek regional medical service. Thus, patient flow can be restricted in city-level.

"1+1+1" contract service model

- Residents can voluntarily sign contracts with 1 family doctor from community clinic with 1 district-level healthcare hospital and 1 city-level healthcare hospital.
- Residents with illness can first get medical service from readily available family doctors and then based on preliminary diagnostic results, can be redirected to appropriate district-level or city-level hospital in contract with assisted and accelerated transfer.



Benefits of "1+1+1" model

1 Prescription Maintenance

Prescription from district-level/city-level hospital can be shared with community clinic with discounted payment of 7.03 Yuan in average

2 Convenient Referral

Transfer to hospital will be accelerated and patient prioritize to get service from specialized doctors

3 Residence Health Management

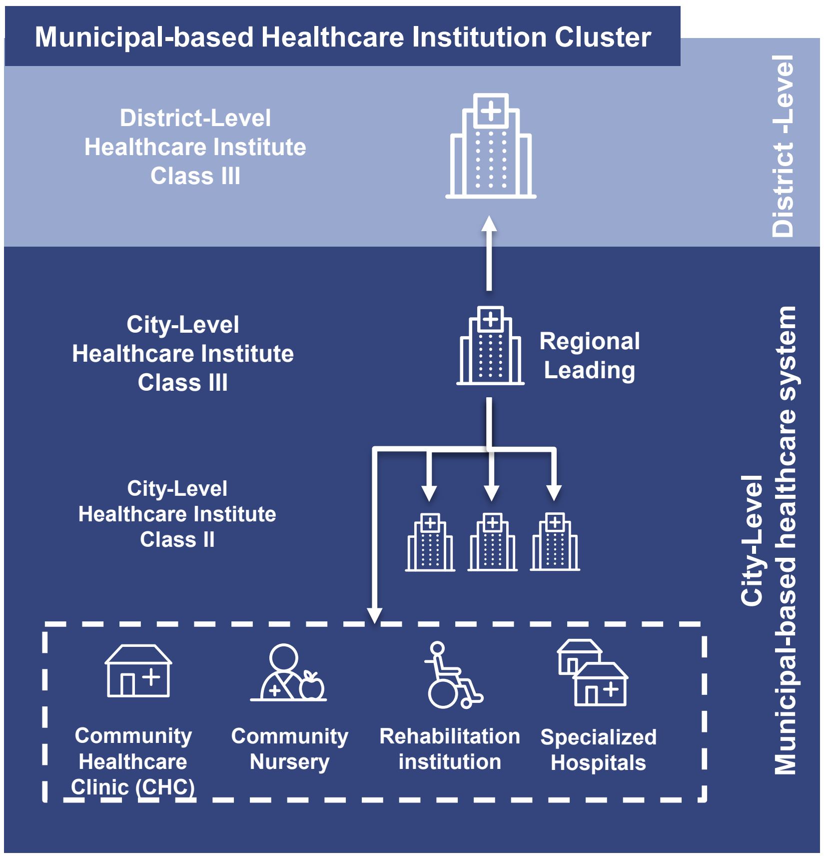
Based on electronic record, family doctors can better assess the health status of residents and quantify standard test results

Source: Frost & Sullivan Analysis

Municipal-based Healthcare System

Municipal-based Healthcare Institution Cluster

- Leading by Class III public hospitals, Municipal-based healthcare system consist of several Class II public hospital community healthcare clinic (CHC), nursery center, specialized hospitals and professional rehabilitation institutions.
- In the future, the regional healthcare system will be based on city-level hospital cluster, sharing healthcare resources with all members in the area.



Hospital-to-hospital management

Optimize hospital-to-hospital management, improve the efficiency of information interchange.

Intra-cluster rules

Establish mechanism of obligation and profit distribution, .

Healthcare resource sharing

Optimize healthcare professionals distribution system, improve medical resourcing and healthcare information sharing.

1. **Healthcare resource sharing**
2. **Farm-out & collaboration**
3. **Bonding by intra-group property**

Source: Frost & Sullivan Analysis

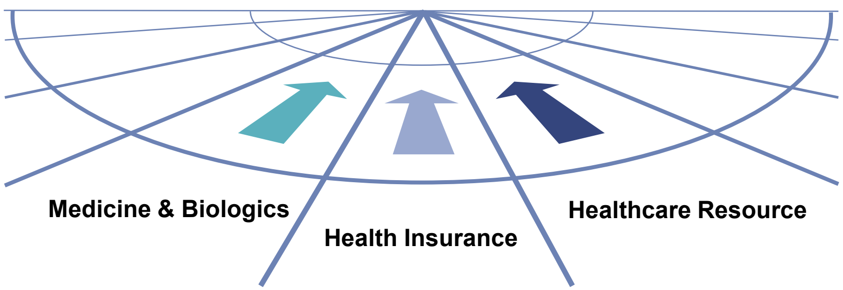
Municipal-based Healthcare System

Municipal-based Insurance System

- The reimbursement coverage of national health insurance varies obviously from city to city, and the deductible lines, capping lines, and reimbursement ratios are also quite different between different cities. Government subsidies will be more generous in developed area, otherwise less. Thus, public health policy is different from city to city, the insurance compensation system is becoming a municipal-based system in the future.
- In most areas in China, cities are used as the overall planning area for employee health insurance and urban resident health insurance. Most of new rural cooperative medical insurance system is based on counties as the overall planning area.

Co-movement of 3 Healthcare Factors

Online co-movement of "medicine, insurance and healthcare"



Favorable policies

1 Online Diagnosis and Treatment

- Establish Internet hospital, issue digital prescription.
- Online initial consultation and follow-up consultation are permitted.

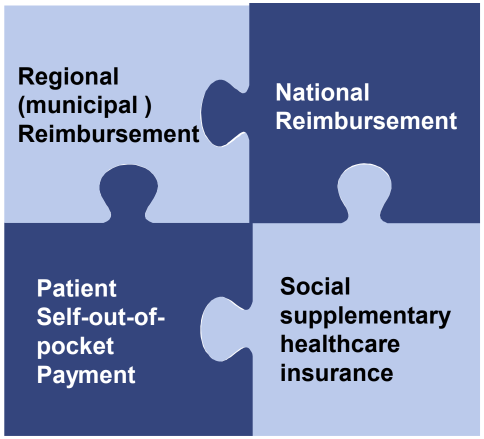
2 Healthcare Insurance

- Online payment and insurance compensation in follow-up consultation.

3 Medicine and Medical Devices Sales

- Online sales permission of prescription medicine on third-party platforms.

Breakdown of Regional Healthcare payment

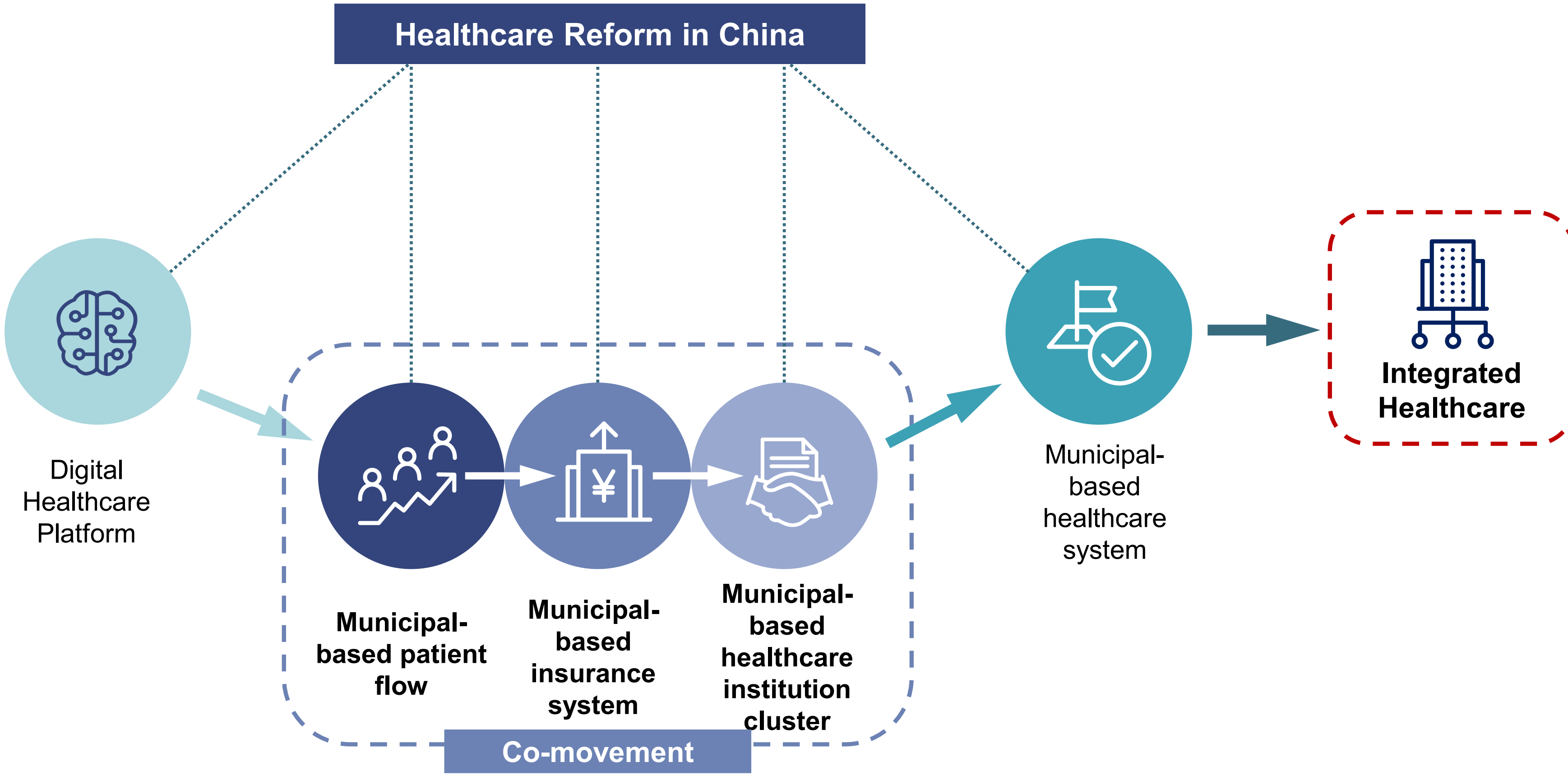


- The medical industry is a typical three-party market of supply, demand and payer. As the main payer of healthcare service, various healthcare insurances raise their fund municipally and spend money via insurance compensation system on city-level as well.
- Medical services are subject to supervision by both national regulators and local medical regulators municipally.

Source: Frost & Sullivan Analysis

Municipal-based Healthcare System Enhance

- Due to obviously difference between cities with financial differentiation, disequilibrium of regional healthcare supply-demand is becoming a acute problem.
- The co-movement of Municipal-based patient flow, insurance system and healthcare institution cluster lead to the formation of municipal-based healthcare system, which contribute to healthcare reform in China by integrated healthcare alliance.



Source: Frost & Sullivan Analysis

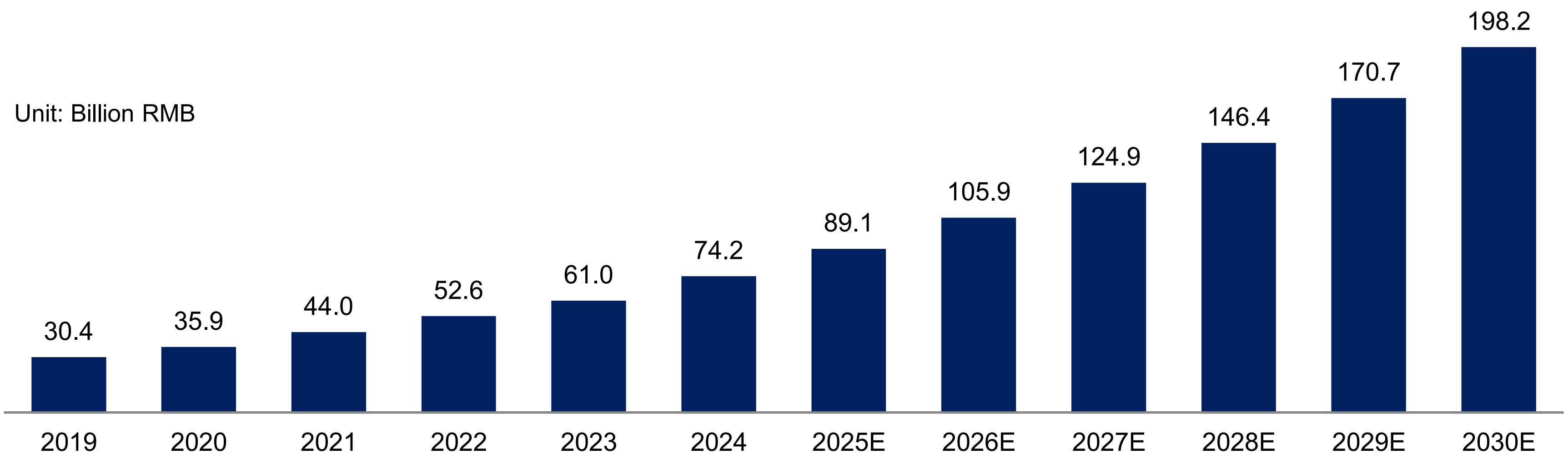
Updated

China Digital Hospital Operation Solution Market, 2019-2030E

- With the promotion of digitalization of hospital operation, China digital hospital operation solution market has surged since 2019. It increased from RMB30.4 billion in 2019 to RMB74.2 billion in 2024 at a CAGR of 19.5%. The market size is expected to rise to RMB198.2 billion by 2030 with a CAGR of 17.8% from 2024 to 2030.

China Digital Hospital Operation Solution Market , 2019-2030E

Period	CAGR
2019-2024	19.5%
2024-2030E	17.8%



Source: Annual reports, Public information, Frost & Sullivan analysis

Growth Drivers of China Digital Hospital Operation Solution Market

Favorable Policies	• In the recent years, a serious of policies relevant to digital hospital operation solution were introduced. These policies encourage the internet hospital development as well as the hospital digitalization, which raise the demand of digital hospital operation solution.
Hospitals' need for Cost-effective Digitalization Solution	• Due to limited profitability of hospitals after China's healthcare reform, hospitals require to reduce the operational cost to minimize the adverse effects of profitability result from the lower hospital income. Hospitals, especially small or private hospitals, have the needs for digitalization but have limited budget to the digitalization infrastructure. Thus, small hospitals desire low-cost solutions to facilitate digitalization construction. Digital hospital operation solution is cost-effective, since it provides Cloud SaaS solutions preventing the requirement of expensive digitalization infrastructure.
Multi-practicing Demands	• As physicians in China are allowed to engage in multi-practice, they seek platforms that enable them to practice in multiple locations and increase their income. The demand for multi-practicing stimulates the construction of Internet hospitals by medical institutions, as they aim to attract high-profile medical professionals to their platforms

Source: Frost & Sullivan Analysis

Future Trends of China Digital Hospital Operation Solution Market

Increasing Penetration of Internet Hospitals	• The rise of internet hospitals leads to a growing number of follow-up visits transfer from offline hospitals to online internet hospitals. Additionally, the increased awareness and utilization of internet hospitals has led to a surge in online consultations. This trend is expected to continue, driving further penetration of internet hospitals. As such, hospitals require more digital hospital operation solutions to facilitate their digital transformation.
Customized Digital Hospital Operation Solution	• Given the diverse requirements of public hospitals and private medical institutions in terms of institutional operation, digital hospital operation solutions are poised to offer customized services through the integration of selected modules for each individual customer.
Enhancing Specialty Construction	• The development of hospital marketing has led to a greater demand for digital hospital operation solutions that can aid hospitals in constructing and developing their advantageous specialties, highlighting their strengths and ultimately attracting more patients.
More Balanced Distribution of Medical Resources	• The emergence of Internet hospitals allows patients from rural and distant areas to experience more premium medical resource by consulting physicians from higher class hospitals. It alleviates the uneven distribution of medical resources and benefits patients from less developed areas.

Source: Frost & Sullivan Analysis

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Overview of Digital Medical Service Platform in China

- With the advancement of digital technology, medical services that conventionally take place offline is enabled online. The entire process from registration to medicine pick-up can be digitalized, resolving the current pain points of medical services. In specific, patients from areas with limited medical resources will be able to seek for diagnosis online, overcoming the problem of uneven distribution of medical resources. In addition, patients who suffer from less severe disease can ask for diagnosis online rather than go to high-class hospitals, which alleviate stress of top hospitals, sparing more resources for treating intractable diseases and promoting a tiered medical system.
- Doctors from large hospitals can build their personal brand using the integrated brand development tools to help patients better know their strength, raise their number of registrations/consultation and increase their income through registration online consultation.

Flow of Digital Medical Service

	01 Registration	02 Diagnosis	03 Prescription	04 Medicine Pick-up
Patients	Making online appointment/ registration	Consult the doctors online	Get electronic prescription	Place drug orders online and get delivered
Doctors	Manage registrations/appointments online	Diagnose patients and give guidance online	Give out electronic prescriptions	Monitor patients to follow the treatments

Online Communication

Digital Medical Service Platform

Doctor's Branding Service

Doctors: Prepare medical knowledge popularization videos, articles and etc. using integrated branding platform

Propagation →

← Registration

Patients: Review doctors' channel or articles to learn medical knowledge, know the strength of each doctor and motivate future registration of specific doctors

Source: Frost & Sullivan Analysis

Development of China Digital Medical Service Market

before 2014

1 Unregulated Stage

With wider internet accessibility, pioneer attempts are given by some medical institutions to leverage internet on medical service. Digital medical service at this stage are less diverse and underregulated, and mainly focus on simple inquiry and online review systems.

2014

2 Sprouting Stage

The concept of 'remote healthcare service' was first proposed from national level through Opinions on Promoting Remote Healthcare Service Offered by Healthcare Institutions (《卫生计生委关于推进医疗机构远程医疗服务的意见》), embleming the inception of early digital medical service.

2015

3 Exploratory Stage

The first batch of internet hospitals were established, including Wuzhen Internet Hospital, Yinchuan Intelligent Internet Hospital, etc. The conventional hospitals also attempted to extend medical service provision from offline to online.

2017

4 Policy Tightening Stage

A set of tightening policies[2] was released by the official, proposing the suspension of previously approved internet hospitals. Such an unfavorable policy environment initiated a difficult time for digital medical service market.

2018 - present

5 Regulated Acceleration Stage

Following the encouragement of 'Internet + Health Care' a set of three trial policies[1] was given out by NHC and NATCM, marking the onset of expediated development of digital medical service market with regulations guide the practice.

1:《互联网医院管理（试行）》《互联网医疗管理办法（试行）》《远程医疗服务管理规范（试行）》; 2: 《关于征求互联网诊疗管理办法（试行）（征求意见稿）》《关于推进互联网医疗服务发展的意见（征求意见稿）意见的函》

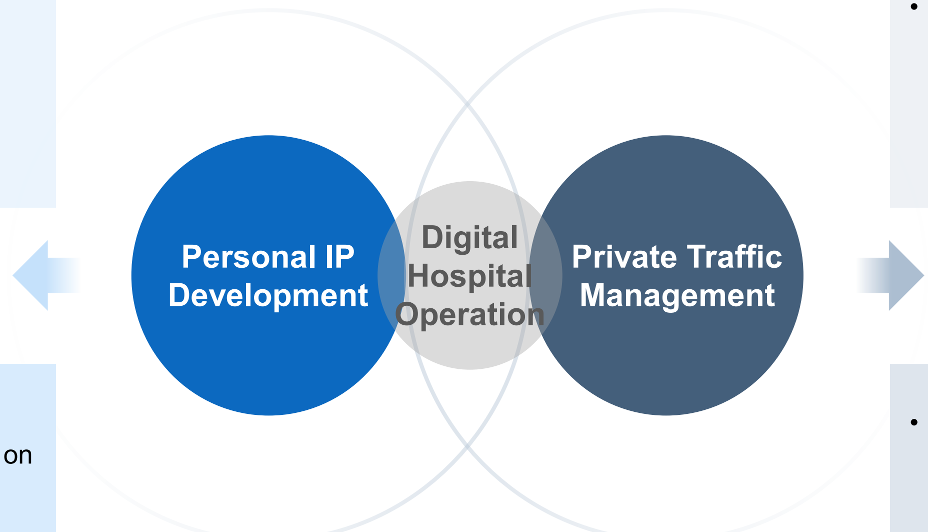
Source: Frost & Sullivan Analysis

Values of Doctors in Digital Medical Service Platform

- Digital hospital operation can empower doctors through personal IP construction and private traffic management and operation. It assists doctors to earn extra earnings from online consultation and maintain the relationship with patients to enable sustainable earnings from follow-up visits.

- Disease prevention and management popularization through short videos or advertorial on social media to develop personal brand of doctors.

- Personal reputation attracts more patient visits, especially on the online platforms, boosting doctors' extra income through online services.



- Forming chat groups of patients with the same symptom using private traffic to enhance the personal brand through sharing popularization content and online Q&A.

- Maintain a stable relationship with patients through reminders of consultation hour and daily interactions with patients within the private group.

Source: Frost & Sullivan Analysis

Consumer Healthcare Services

- Consumer healthcare service is closely related to healthy life, focusing on advocating healthy lifestyle, improving health protection, and building a healthy environment.

Feature

Steady growth rate

Health Insurance exclusion

Large pool of customers

Health insurance exclusion
- Products excluded from health insurance, independent pricing power, unaffected by fee control policy and production barriers

Large pool of potential customers
- The product has a large audience, but the penetration rate is relatively low, and there is more room for growth

Steady growth rate
- With the release of demand, a high growth rate can be maintained.

Category	
Medical Cosmetology	• Medical Cosmetology refers to a series of treatments for the purpose of changing the external shape and color of the human body and enhancing the beauty of the human body through medical means, including drugs, instruments, and operations.
Medical Tourism	• Medical tourism refers to people traveling abroad to obtain medical treatment. The motivation may be also for medical services unavailable or non-licensed in the home country.
Elderly Care	• Elderly care is the fulfillment of the special needs and requirements that are unique to senior citizens. This broad term encompasses such services as assisted living, adult day care, long term care, nursing homes, hospice care, and home care.
Health Consultation	• Health consultation is a meeting a patient have with a health consultant with the hope of getting advices on health enhancement but not receiving medical treatment.
Postpartum care service	• Postpartum care is a service provided to individuals in the postpartum period, to help with postpartum recuperation and restoration.
Rehabilitation service	• Rehabilitation encompasses a wide range of activities including rehabilitative medical care, physical, psychological and support services. People with disabilities should have access to both general medical care and appropriate rehabilitation services.

Source: Frost & Sullivan Analysis

Overview of Health Management

- Health management refers to a process of comprehensive management of individual or population health risk factors. Its purpose is to mobilize the enthusiasm of individuals and collectives, and to effectively use limited resources to achieve maximum health effects.

Health Management Process

1 Information collection

- Basic Information
- Health checkup
- Family history
- Past medical history
- Current illness
- Living habit

2 Physical assessment

- Current physical condition
- Probability of a certain disease in the future

3 Health education

- Healthy body
- Sound personality
- Mental health

4 Health intervention

- Dietary intervention
- Sports intervention
- Psychological intervention
- Nutritional intervention

Source: Frost & Sullivan Analysis

Personal Health Management

- Personal health management is to provide professional health management services such as health education, health evaluation, health promotion, health tracking, health supervision, and medical escort based on data analysis of personal living habits, personal medical history, personal health examination, etc.

Healthy people: The health-loving group has realized the importance of health, but due to insufficient health knowledge, they hope to receive scientific, professional, systematic, and personalized health education and guidance, and plan to pass regular health assessments to maintain a low risk of health hazards Level, enjoy a healthy life.

Sub-healthy people: People with symptoms such as weakness of limbs, exhaustion, and poor sleep. Due to different industries, pressure from social competition and family burdens, I understand that I am in a sub-healthy state but I don't know how to improve, and I strongly demand measures to improve work efficiency and overall health.

Diseased people: Groups who wish to actively participate in their own health improvement during treatment. The clinical treatment process needs to be accompanied by comprehensive improvements in the living environment and behavior, so as to monitor risk factors, reduce the risk level, delay the progress of the disease, and improve the quality of life.

Source: Literature Review, Frost & Sullivan Analysis

Overview of Digital Health Management

- Digital health management service refers to a series of products and services that promote health and prevent diseases by digital means. It covers the whole process of comprehensive monitoring, analysis, evaluation, consultation and guidance of health, and services provided to health insurance products.
- The emergence of digital technologies greatly promotes the development of digital health management services, benefiting not only patients but the overall population.

Evaluation

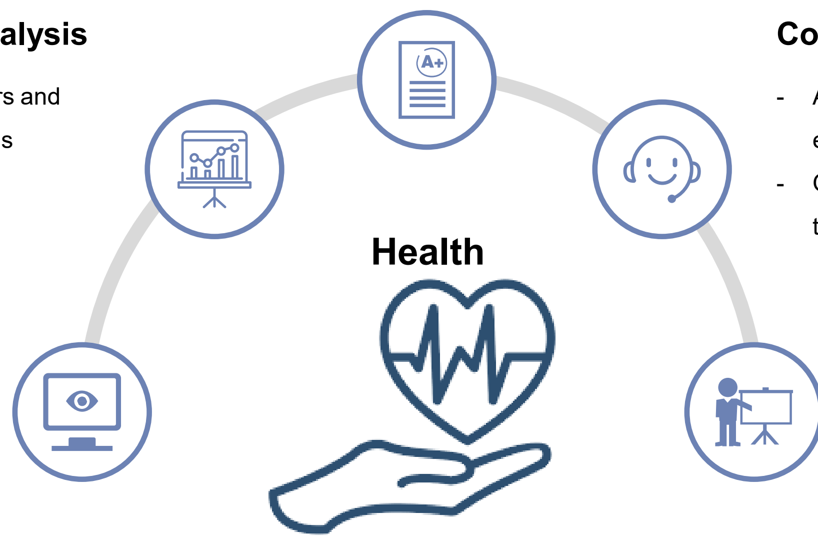
- Based on health related data collected and comprehensive algorism, remote risk assessment and overall evaluation are conducted

Analysis

- Signals detected through sensors and then uploaded to online platforms
- Health data analyzed by AI
- Visualized through APP

Consultation

- Advice is provided based on evaluation results
- Online interactions are realized through digital platforms



Monitoring

- Wearable health monitoring system: continuous glucose monitoring etc.
- Health applications that track condition and physical indicators

Guidance

- Doctors are able to engage with patients and come up with plans
- Raise health awareness and consciousness among population

Source: Frost & Sullivan Analysis

Pain Points of Personal Health Management

Weak Awareness of Personal Health Management	• In recent years, the incidence of chronic diseases in China has been increasing rapidly. The reason is that people's health literacy is weak. Unregulated diet, not paying attention to exercise, not paying attention to the adjustment of mental state, and being indifferent to the results of the physical examination, which lead to the high incidence of chronic diseases and the younger generation.
Single and Limited Functions of Smart Health Products	• At present, the form of smart health product development is generally relatively single, with limited functions and services, and there is a gap between the concept of diversified health. The dimensions of product data input are limited, there is a problem that only records cannot be intervened, and applications are limited.
Lack of Industry Standards for Health Management	• A standardized health management theoretical framework has not been formed, lacking systematic and authoritative theoretical support. The concept of healthy consumption and publicity are confused. There is no national standard for health assessment, identification and management. Health assessment, maintenance, and management techniques and methods are uneven. There are no industry associations and societies with the authority of health management.

Source: Frost & Sullivan Analysis

Updated

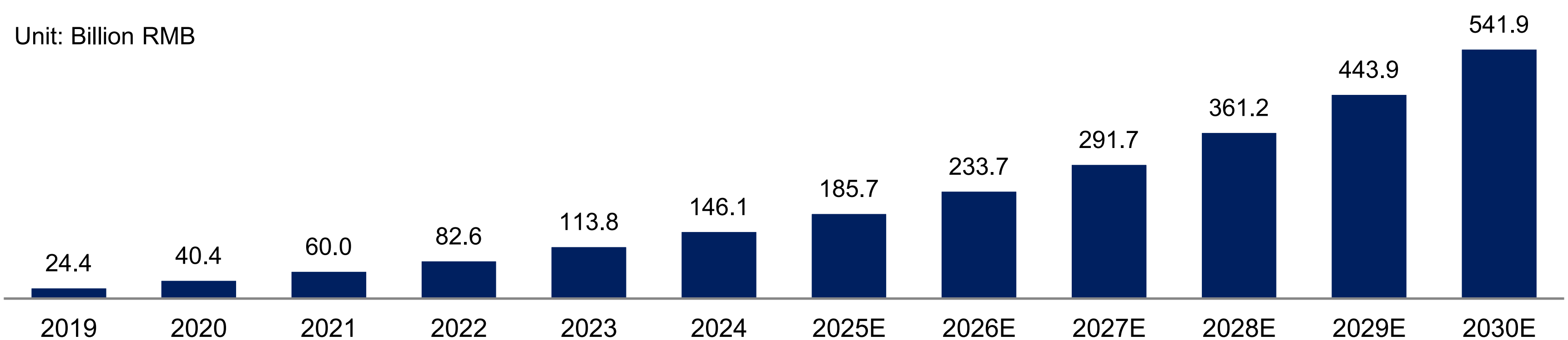
China Digital Medical and Healthcare Service Platform Market, 2019-2030E

- Digital medical and healthcare service platform market consists of digital medical service platform and digital healthcare service platform. Digital medical and healthcare service platform serves physicians with personal brand construction and patient management, meanwhile, it serves users with online appointment, diagnosis and treatment to improve treatment efficiency. In addition, it also serves healthcare institutions with online traffic redirection by leveraging precise online marketing and promotion to their users. Also, it suggests its users the appropriate institutions based on their requirement and user behavior.
- Because of the trend of digitalization, it is shown that market size of China's Digital Medical and Healthcare Service Platform has taken up a continuous increase from RMB24.4 billion in 2019, and have reached RMB146.1 billion in 2024, with a CAGR of 43.1%. It will further boost up to RMB541.9 billion in 2030 with a CAGR of 24.4%.

China Digital Medical and Healthcare Service Platform Market, 2019-2030E

Period	CAGR
2019-2024	43.1%
2024-2030E	24.4%

Unit: Billion RMB



Source: Annual reports, Public information, Frost & Sullivan Analysis

Entry Barriers of Digital Medical and Healthcare Service Platform Market

Platform Recognition and User Trust	• The nature of medical and healthcare services makes platform recognition and user trust crucial for the business sustainability of digital medical and healthcare service platforms. Building recognition and trust among users is a time-consuming and delicate process. Newly launched platforms often require a period of time to cultivate customer habits and construct their brand. Consequently, compared to well-established platforms, new entrants generally face greater challenges in promoting their brand and acquiring customers.
Connection with Medical Resources	• The availability of medical resources is essential for the overall operation and service delivery of digital medical and healthcare service platforms. This encompasses medical and healthcare institutions, medical professionals, and the range of medical and healthcare services offered. In addition to essential medical care, there is a growing demand for preventive healthcare services and health management services, designed to detect and cure diseases at an early stage. Therefore, market participants who encompass consumer healthcare services, such as physical examination and health management services, hold a pivotal advantage within the market landscape. In contrast, new entrants encounter challenges in furnishing comprehensive medical resources on their platforms.

Source: Frost & Sullivan Analysis

Growth Drivers of Digital Medical and Healthcare Service Platform Market

Increasing Demands for Digital Medical and Healthcare Services	• Affected by COVID-19, Chinese government has introduced policies to encourage remote consultation and medical services since February 2020, so that residents' medical habits have gradually shifted to online. At the same time, influenced by cultural and technological environment, younger consumer groups are more willing to try efficient digital medical treatment methods, and are more likely to pay attention to their own health status and seek medical treatment.
Prosperity and Synergy of Other Segments in Digital Healthcare Integrated Service	• Together with digital hospital operation solution, these solution and platforms will form a closed loop in the digital healthcare service market to form a synergy that can facilitate diverse medical and healthcare services with connections. The development of other segment will also contribute to the development of digital medical and healthcare service market.
Increased Awareness of Health	• Since *"Healthy China 2030" Blueprint* proposes the principle of focusing on disease prevention, as well as the chronic disease occurs at younger ages, individuals are paying more attention to health. The focus is shifting from disease treatment to disease prevention and health management. Consequently, there is increasing demand for individuals to periodically visit healthcare institutions, such as medical examination centers, dental clinics etc. By leveraging online traffic re-direction and precise marketing of , individuals can easily find suitable healthcare institutions and healthcare institutions can target their potential customers, which further promotes the growth of digital medical and healthcare service platform market.
Increased Attention on Consumer Experience	• As the medical and healthcare service market becomes increasingly competitive, customers are placing greater emphasis on service experience. This includes an improved appointment system, more detailed information about physicians, and advanced follow-up health management systems. A digital healthcare service platform can assist institutions in implementing all of these functions and ultimately benefit customers.

Source: Frost & Sullivan Analysis

行业主管部门及行业监管体制

序号	行业主管部门	主要管理职责	对数字医疗行业的监管机制
1	国家卫生健康委员会	拟订卫生健康事业发展法律法规草案、政策、规划，制定部门规章和标准并组织实施；统筹规划卫生健康资源配置，指导区域卫生健康规划的编制和实施；制定医疗机构、医疗服务行业管理办法并监督实施，建立医疗服务评价和监督管理体系；制定并组织实施医疗服务规范、标准和卫生健康专业技术人员执业规则、服务规范	发行人所在数字医疗行业受到国家卫生健康委员会的政策和战略驱动规划
2	中华人民共和国工业和信息化部	拟订实施行业规划、产业政策和标准；监测工业行业日常运行；推动重大技术装备发展和自主创新；管理通信业；指导推进信息化建设；协调维护国家信息安全等。	发行人所在数字医疗行业受到工业和信息化部的政策和战略驱动规划
3	国家药品监督管理局	组织全国临床检验质量管理和控制活动；开展全国医疗机构实验室室间质量评价；协助制定临床检验质量管理和控制相关技术规范和标准；提供相关工作建议和咨询、论证意见；落实临床检验质量管理和控制措施等	发行人所在的数字医疗行业受到国家药品监督管理局的政策、规划与标准驱动
4	国家医疗保障局	组织制定医疗保障筹资和待遇政策，完善动态调整和区域调剂平衡机制，统筹城乡医疗保障待遇标准，建立健全与筹资水平相适应的待遇调整机制。组织拟订并实施长期护理保险制度改革方案；组织制定城乡统一的药品、医用耗材、医疗服务项目、医疗服务设施等医保目录和支付标准，建立动态调整机制，制定医保目录准入谈判规则并组织实施；组织制定药品、医用耗材价格和医疗服务项目医疗服务设施收费等政策，建立医保支付医药服务价格合理确定和动态调整机制，推动建立市场主导的社会医药服务价格形成机制，建立价格信息监测和信息发布制度；制定药品、医用耗材的招标采购政策并监督实施，指导药品、医用耗材招标采购平台建设；制定定点医药机构协议和支付管理办法并组织实施，建立健全医疗保障信用评价体系和信息披露制度，监督管理纳入医保范围内的医疗服务行为和医疗费用，依法查处医疗保障领域违法违规行为	发行人所在数字医疗行业受到国家医疗保障局管理局的的政策、规划与标准驱动

Updated

Industry Landscape of Online Marketing Solutions

Major Player	Background	2024 Revenue (Million)
健康160	Established and operated the largest online registration platform in China, and also focusing on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province.	118.5
医脉通 medlive.cn	A listed company on HKEx, established in 2006, headquartered in Beijing, mainly focusing on digital medical marketing services for pharmaceutical and medical device companies; continuing medical education, clinical decision support and professional medical information for healthcare professionals; disease management services for patients.	512.5
MedSci	A listed company on HKEx, established in 2012, headquartered in Shanghai, mainly focusing on medical content creation and industry research services for pharmaceutical companies and medical device companies; clinical research and development services and medical academic services for healthcare professionals; real world study services pharmaceutical companies and medical device companies.	115.1
朗玛信息 longmaster	A listed company on SZSE, established in 1998, headquartered in Guiyang, Guizhou Province, mainly focusing on the provision of online marketing solutions and online appointment and consultation.	63.8
健康之路 WWW.JKZL.COM	A listed company on HKEx, established in 2001, headquartered in Fuzhou, Fujian Province, mainly focusing on the provision of online marketing solutions, online appointment and registration, and health management.	78.0
微医 WeDoctor	A non-listed company established in 2010, headquartered in Hangzhou, Zhejiang Province, mainly focusing on the provision of cloud hospital platform services and online appointment, registration and consultation.	~250
圆心科技	A non-listed company established in 2015, headquartered in Beijing, mainly focusing on the provision of Internet hospital services, DTP pharmacies and medical insurance.	~40

Note: As of December 31, 2024.

Source: Company websites, Public information, Frost & Sullivan Analysis

Updated

Industry Landscape of Digital Hospital Solutions

Major Player	Background	The Number of Cooperated Hospitals	2024 Revenue (Million)
健康160	Established and operated the largest online registration platform in China, and also focused on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province.	14,258	69.3
熙康 XIKANG	A listed company on HKEx, established in 2011, headquartered in Shanghai, mainly focusing on the provision of cloud hospital platform services, cloud healthcare services and smart healthcare product.	2,610	~100
卫宁健康 Winning Health	A listed company on SZSE, established in 2004, headquartered in Shanghai, mainly focusing on the provision of medical and healthcare informatization solutions, such as smart hospitals.	10,000 (including medical institutions)	2,782
嘉和美康 GOODWILL	A listed company on SSE, established in 2005, headquartered in Beijing, mainly focusing on the provision of electronic medical record platform, hospital data center and smart hospital solutions.	1600+ (including medical institutions)	591.9
智云健康 ClouDr.	A listed company on HKEx, Established in 2014, headquartered in Zhejiang Province, mainly focusing on digital chronic disease management solutions.	2,719	~2,400

Note: As of December 31, 2024.

Source: Company websites, Public information, Frost & Sullivan Analysis

Updated

Industry Landscape of Online Healthcare Services

Major Player	Background	The Number of Cooperated Hospitals	Connected Medical Professionals in 2024 (thousand)	Revenue Under Online Healthcare Services (Million)
健康160	Established and operated the largest online registration platform in China, and also focusing on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province.	14,400	898.3	3.6
熙康 XIKANG	A listed company on HKEx, established in 2011, headquartered in Shanghai, mainly focusing on the provision of cloud hospital platform services, cloud healthcare services and smart healthcare product.	2,986	142	403.5
朗玛信息 longmaster	A listed company on SZSE, established in 1998, headquartered in Guiyang, Guizhou Province, mainly focusing on the provision of online marketing solutions and online appointment and consultation.	1300+	2+	21.2
卫宁健康 Winning Health	A listed company on SZSE, established in 2004, headquartered in Shanghai, mainly focusing on the provision of medical and healthcare informatization solutions, such as smart hospitals.	11,000+ (including medical institutions)	N/A	336.8
健康之路 WWW.JKZL.COM	A listed company on HKEx, established in 2001, headquartered in Fuzhou, Fujian Province, mainly focusing on the provision of online marketing solutions, online appointment and registration, and health management.	11,762	889	137.6
微医 WeDoctor	A non-listed company established in 2010, headquartered in Hangzhou, Zhejiang Province, mainly focusing on the provision of cloud hospital platform services and online appointment, registration and consultation.	8,100+	318	~400
圆心科技	A non-listed company established in 2015, headquartered in Beijing, mainly focusing on the provision of Internet hospital services, DTP pharmacies and medical insurance.	700+	310	95

Note: As of December 31, 2024.

Source: Company websites, Public information, Frost & Sullivan Analysis

Industry Landscape

Sub-industry	Type of Marlet Players	Intensity of Competition and Industry Position of our Company
Online Marketing Solutions	Digital medical service companies, such as companies with online appointment and registration, digital medical information companies, such as companies provides healthcare information and articles, digital retail pharmacies, as well as social media.	Online marketing solutions involve third-party marketing solutions provided to medical institutions, physicians and healthcare products. The market is quite crowded because of the diversified types of market players involved, and their respective marketing emphasis varies. Digital medical service companies mainly focus on online marketing solutions for healthcare institutions, specialties, and physicians. Digital medical information companies mainly focus on healthcare information spreading, which can assist physician marketing and healthcare product marketing. Digital retail pharmacies can provide online marketing solutions to healthcare products. Social media mainly focus on marketing solutions to physicians and products. Company, as both digital medical service company and digital retail pharmacy, it covers all of online marketing solutions to medical institutions, physicians and healthcare products.
Digital Hospital Solutions	Specialized health-tech companies, which provides digitalization solutions to healthcare institutions through cloud or built-in platform, as well as healthcare IT solution providers, such as traditional IT solution companies with business footprint in the healthcare industry.	Digital hospital solutions involve digitalization platform, such as Internet hospital and hospital management system, provided to healthcare institutions to improve their efficiency and patient experience. The market is relatively concentrated at the top players within the region. As top players usually start their business in certain regions to form local synergies and then further expand to the surrounding areas, the current Chinese market are mainly dominant by few top players in their respective regions. Company ranked first in Shenzhen in terms of number of connected hospitals, and further expand its business to other cities like Changsha as well, which is also a top player in China.
Online Healthcare Services	Digital medical service companies which provide online medical consultation and diagnosis	Online healthcare services involve online medical consultation and diagnosis service. The market is quite fragmented with dozens of players, major players with a larger number of connected medical professionals are preferred indicating broader medical resources. Company is a leading player in terms of connected medical professionals with 686 million medical professionals as of 20221231.

Source: Frost & Sullivan Analysis

Major Player	Background	Cooperated Hospitals	Connected Medical Professionals (thousand)	Total Revenue (million)	Gross Profit Margin	Profit/Loss for the year (million)	Net asset/liability (million)	Accumulated Number of Registered Users (million)
健康160	Established and operated the largest online registration platform in China, and also focused on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province.	14,258	730+	628. 6	21.8%	-106,2	-40.6	46.6
智云健康 CloudDr.	A listed company on HKEx, Established in 2014, headquartered in Zhejiang Province, mainly focusing on digital chronic disease management solutions.	2,719	102.6	3,690.5	24.6%	-327.3	1,765.3	31.2
熙康 XIKANG	A listed company on HKEx, established in 2011, headquartered in Shanghai, mainly focusing on the provision of cloud hospital platform services, cloud healthcare services and smart healthcare product.	2,610	130	537.7	30.6%	-154.9	433.7	47.2+
方舟健客	A listed company on HKEx, Established in 2015, headquartered in Guangdong Province, mainly focusing on chronic disease management to address the needs of patients with chronic diseases.	N/A*	212	2,434.3	20.0%	-196.8	-1901.5	42.7
健康之路 WWW.JKZL.COM	A non-listed company established in 2001, headquartered in Fuzhou, Fujian Province, mainly focusing on the provision of online marketing solutions, online appointment and registration, and health management.	11,000	850	1,244.5	32.0%	-313.9	-50.4	180
叮当健康	A listed company on HKEx established in 2014, headquartered in Beijing, mainly focusing on the provision of O2O healthcare services, including digital retail pharmacies.	N/A	1.2+	4,856.8	31.1%	-230.9	3064.8	41.5
药师帮 www.ysbang.cn	Established in 2015, provide integrated digital pharmaceutical platform serving businesses outside of hospitals	N/A	N/A	16,972.3	10.3%	-3,206.5	1,883.5	0.65

Comparison for Digital Integrated Service Industry

Major Player	Background	Accumulated Number of Registered Users (million)	Revenue from digital integrated service (million)	Gross Profit Margin of digital integrated service	Profit/Loss for the year (million)	Net asset/liability as a Whole (million)
健康160	Established and operated the largest online registration platform in China, and also focused on the provision of cloud SaaS service, established in 2005, headquartered in Shenzhen, Guangdong Province.	46.6	177.6	72.4%	-106,2	-40.6
熙康 XIKANG	A listed company on HKEx, established in 2011, headquartered in Shanghai, mainly focusing on the provision of cloud hospital platform services, cloud healthcare services and smart healthcare product.	47.2+	537.7	30.6%	-154.9	433.7
方舟健客	A listed company on HKEx, Established in 2015, headquartered in Guangdong Province, mainly focusing on chronic disease management to address the needs of patients with chronic diseases.	42.7	91.4	Around 83.0%	-196.8	-1901.5

Note: As of December 31, 2023.

Comparison for Healthcare Product Distribution Industry

Major Player	Revenue from product sales (million)	Gross Profit Margin (%)	Net Profit Attributable to Shareholders of the Parent Company (Million)	Net asset/liability Attributable to Shareholders of the Parent Company (million)
The Company	451.0	1.9%	-106,2	-40.6
Baifeng Pharmaceutical Co., Ltd	295.6	13.7%	8.7	106.3
Ruilang Medicine Co., Ltd	1248.7	5.9%	9.7	155.8
Zhongrui Medicine Co., Ltd	600.7	13.4%	35.6	193.6
TongkeSupplyChainCo., Ltd	656.2	10.6%	-22.3	288.0

Confirmation - I

- In recent years, the competent authorities have issued a series of laws, regulations and industry norms to clarify the specific requirements to China's digital healthcare service providers. These raises the industry entry barriers, standardizes the company's operational mode, promotes healthy competition between service providers and enables a favorable environment for the development of the industry.
- We are a leading digital healthcare and wellness service platform in China.
- proficiently addressing diverse sectors within the healthcare and wellness industry in China
- Hierarchical medical system: Patients in China often lean towards seeking medical services from higher-tier hospitals, even for basic healthcare needs. This tendency has led to an uneven distribution of medical resources.
- We are a pioneering industry leader in the digital healthcare integrated service industry in China, according to Frost & Sullivan.
- we have established leadership in the digital healthcare integrated service industry in China
- Our roots are deeply planted in Shenzhen, where we have steadfastly established an unequivocal leadership position within the local digital healthcare integrated service industry.
- This accomplishment outperforms the industry average of the digital healthcare integrated service industry in China
- Additionally, we guide individual users who are readily willing to pay to appropriate medical and healthcare institutions for self-funded medical services, contributing to reducing public health expenditure.

Updated

Confirmation - II

- According to the "2023-2024 CHIMA CIO Report," 65.0% of Class III hospitals and 82.9% of hospitals classified as Class II or below had not yet adopted cloud services by the end of 2023. In addition, the market potential for the digital medical and healthcare service platform in China is driven by the rapidly growing number of online healthcare service users, which reached 417.7 million as of December 31, 2024, with a utilization rate of 37.7%, as well as the increasing online marketing expenses spent by private medical and healthcare institutions, which accounted for over 60% of their total marketing expenses in 2024.