



China: State of the Healthcare Industry after Covid-19

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Jens Ewert, Deloitte China LSHC Industry Leader



Agenda



China healthcare market



China's current healthcare system has some large gaps to bridge

Many shortcoming are not new but remain difficult to tackle given the size and reach in China

Population changes

Changing disease spectrum caused by aging population, urbanization, and environmental.

Changes Chronic, oncologic, immunological diseases are increasing the burden into the system.

Raising demand for healthcare

Raising awareness and desire for high quality care both in terms of outcome and experiences

Required structural rebalancing

Current healthcare system focusing on treatment rather than health management is not sustainable, and contains very large gaps between regions

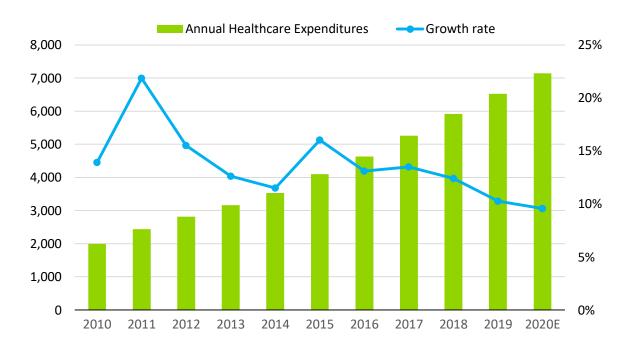
Managing talent shortages

China has among the lowest HCP per capita as a major economy, and highly specialized talents such as pathology, nursery, etc. are still in big shortages

China's healthcare expenditures increase

Its perspective of affordability to its huge population is core and critical

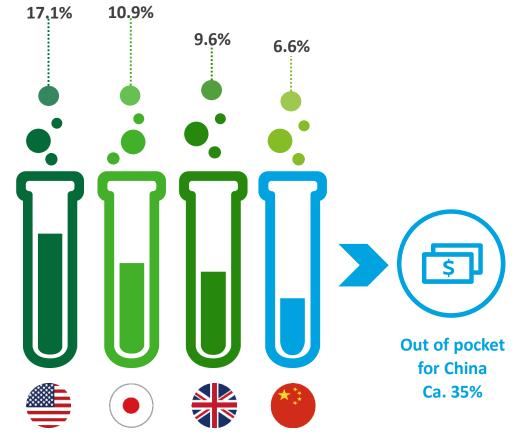
China Healthcare Expenditures BnRMB (2010-2020E)



The total healthcare expenditure refers to the total monetary amount of health resources that a country or region raises from the whole society for the development of health service activities in a certain period of time.

Source: National Bureau of Statistics of China, desk research, Deloitte Research

Healthcare expense in GDP%



An increasing focus on innovation and accessibility

We have seen a paradigm shift - a fast acceleration in recent years



Drug registration

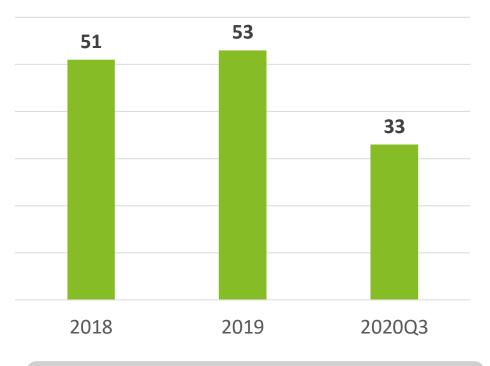
Accelerated commercialization and clinical adoption of innovative drugs



Market access

Volume for large price cut trade-offs made all stakeholders revenue pressure

Approved new drugs in China



Covid impact seems slowing down somewhat new drug approvals

Market Trends in China since Covid-19



COVID-19 outbreak brings new challenges and opportunities to the industry

The challenges are also the opportunities of emerging industries



Roaring awareness of disease prevention

The pandemic has significantly increased the public's attention and awareness of disease prevention and early treatment



Hospital based treatment model seen as risky

Hospital had / have either been redirected to Covid treatment centers, or closed to reduce and limit the spreading, thus increasing the risk perception



Increasing policy supports for innovation

The COVID-19 further accelerated government's efforts to promote innovations in healthcare and life science



Rapid development of online channel

Under COVID-19,
government's
encourage and
consumer's behavior
change has given
online channel
unprecedented
significance in the
healthcare ecosystem

Source: Monitor Deloitte analysis

Government focus on cost controls accelerates during Covid-times

Volume based procurement scheme now cover 112 products with total saving 53.9Bn RMB annually

1st Medical Device VBP

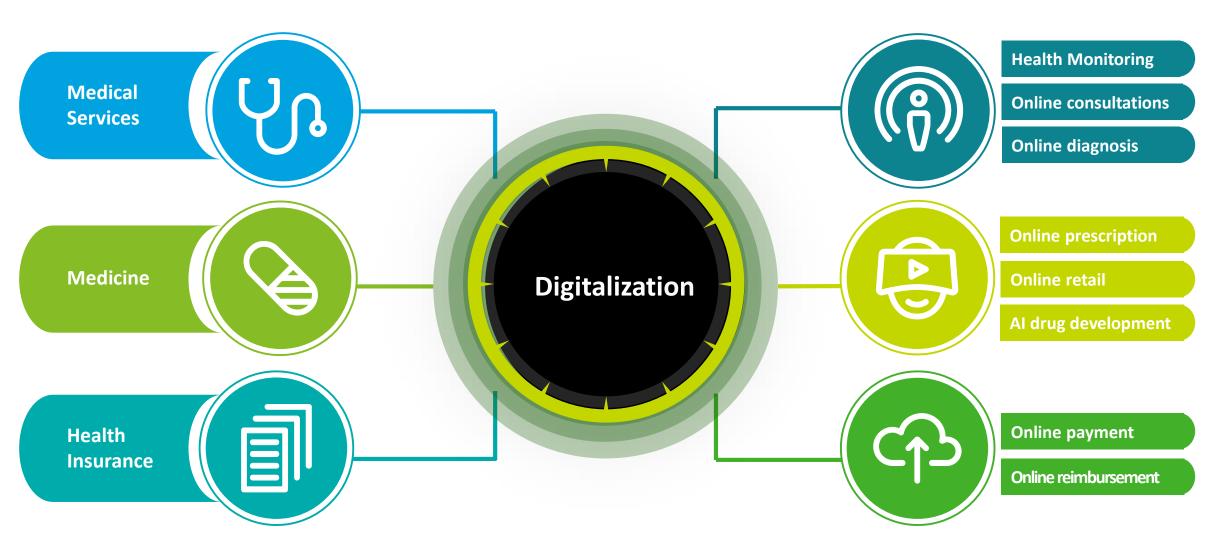
A Volume-Based Procurement on high value medical devices has been announced, the price of heart stent has dropped by over 90%, with lowest price of 469 RMB.

Implications To Originators Implementation Status Agile commercial organization and resource • In September 2019, govt. announced national ~5.5Bn RMB procured allocation at local level rollout of VBP in the form of regional alliances • In January 2020, govt. announced the 2nd batch ~9.0Bn RMB procured of VBP, expanding the drug list to include 32 Winning in retail, DTP and online channels more drugs which are gaining momentum In August 2020, govt. announced the 3rd batch of VBP, expanding the drug list to include 55 ~22.6Bn RMB procured 3 Demonstrating patient value "beyond the pills" more drugs In Nov. 2020, govt. announced the 1st VBP on medical devices, the average price down to 700 BD alliance to counter the VBP impact to ~10Bn RMB saved from 13,000 RMB originator products

Note: *Incomes quoted in US dollars

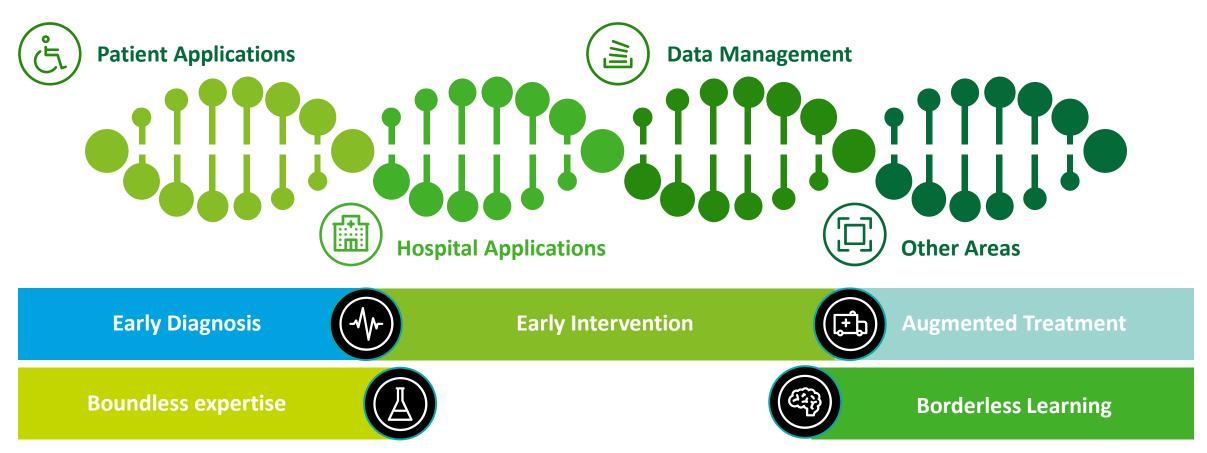
China's Healthcare Industry goes 'Digital'

Policies, markets and pandemic are promoting the digitalization of all healthcare sectors



Deployment of new technologies will fasten a larger digitalization of Healthcare in China

5G With its core characteristics of : higher speed, increased data capacities, augmented security – while this new communication technology should primarily benefit the telco operators



China's technology champions are stating:

Huawei began 5G+ healthcare research in 2016," said Zhang Wenlin, president of the Corporate Strategy Department at Huawei. "Since then, Huawei has built hundreds of 5G+ healthcare pilot projects based on our 5G indoor solution. Now, we have already contributed to the commercial implementation of many healthcare applications, including telemedicine (MDT cares), imaging telediagnosis, ECG tele-diagnosis, ultrasonic diagnosis, and training online."

China unique mobile technologies eco-system is allowing new industry entrants

China's unique eco-system fostering the use of mobile technologies and adherence in general to new technologies is providing fertile ground to fast China for China & China in China solutions

Tech giants involvement in healthcare



Tracking & Tracing/ Online consultation/ AI based algorithm for drug research & discovery

Alibaba developed an Al algorithm, which can "identify the image of coronavirus infected pneumonia in 20 seconds, with an accuracy rate of 96%." By the beginning of March, the algorithm has been applied to 26 hospitals in 16 provinces and cities, and was expected to expand to more than 100 hospitals.



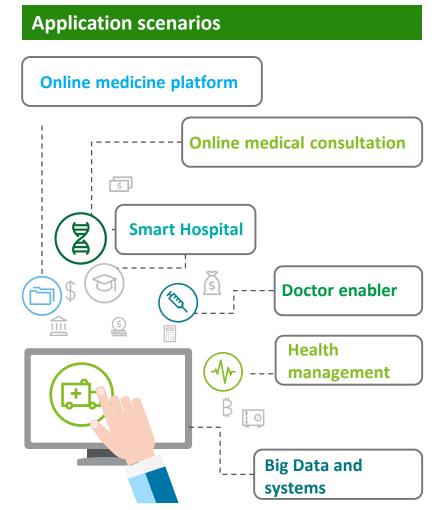
Drug development technologies, Al based drug research & discovery and related discovery models

 Huawei developed a cloud computing tool to screen drugs and find candidates for clinical trials. Launched a rapid gene detection technology (January) and analytic AI tools. Launched cloud platform for gene identification with one-click automatic service for clinical diagnosis and monitoring during the epidemic. Partner with Zhejiang University releasing AI knowledge maps for coronavirus scientific research.



Tracking & tracing and self monitoring technologies and self-registration tools

Since January 26, WeChat launched a "national epidemic dynamic" page to provide comprehensive functions, such as medical popularization, real-time epidemic statistics, fever outpatient map, etc. Launched a "symptom self screening" tool, which helps users with suspected symptoms to obtain guidance through AI. Opened its own cloud computing, AI and big data capabilities to provide technical support for free.

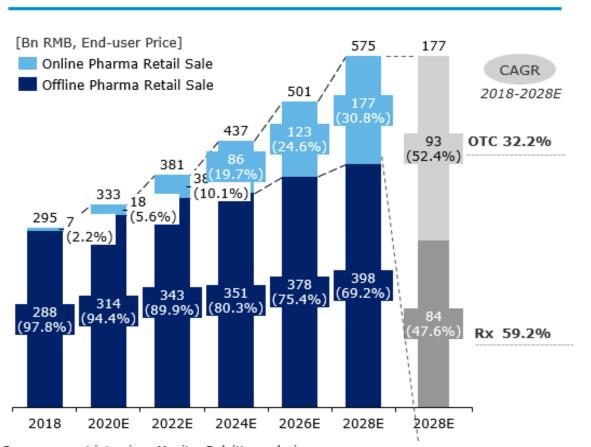


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New distribution channels are on the rise for Pharma's operating in China

While barriers continue to exist in China: Rx Online purchasing and Initial (1st) prescriptions are yet constraint (regulatory), retail & online retail show high promises

Rx Potential Market Size Forecast



Retail pharma market becomes more important to pharma companies – while the traditional channel of Hospital remain the largest

- Patients trust increasing
- BMI (Insurance & payment) connectivity enlarged
- Rx product restrictions will evolve

But

Prescription restrictions (1st diagnosis) unlikely to change soon



Source: expert interview, Monitor Deloitte analysis

Rethinking commercial engagement models for Pharma

Pharmaceutical companies need to develop tailored strategies for innovative and mature products in China and significantly redefine their commercial engagement model

Innovative Products

Speed of access broadening and "second-time launch" mindset are essential



Price-volume tradeoff after NRDL inclusion need to be carefully assessed

Need to **establish "second time launch" mindset** for innovative products by enhancing commercialization capabilities to harness full NRDL inclusion potential

Broaden market access through digital channels and engagement model

Mature Products

Critical to broaden market and improve adherence



Need to **expand commercial omni-channel** and reach broader lower tier market

Patient centric engagement with the aim of improving patient access and medication compliance is critical to prolong lifecycle of mature products

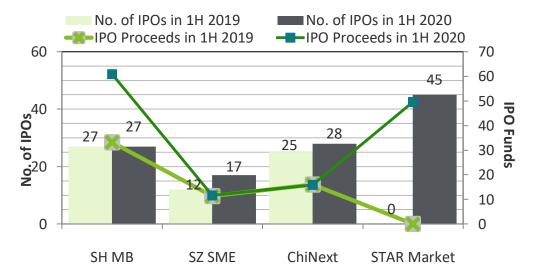
Strategically **ramp down investment**, and exit selective markets and even products

Enhancing digital capability of 3A hospitals in patient engagements and information storage 辦江大李县李凡附有第一县代 辦 江 才 第 - 县 代 👛 商赢互联网医院 On-line hospitals 03 Digital service (e.g. appointment, EMR) Cross-institution ERM connection LinkDoc **Increasing digital coverage of HCPs** 丁香园 医肺消 Academic community 春雨医生 Virtual consulting 🔐 好大夫在线 Productivity tool → 灵医智惠 腾讯觅影 AI/ diagnoses tool Booming on-line pharmacies, started with OTC and gradually expanded to RX E-commerce platforms 京东大药房 阿里健康大药房 🟏 益丰药网 叮当 快药 Pharmacy O2O 但客 其正品药上健客 jianke.com LinkDoc Cloud-based DTP Rising tech- and data-driven commercial insurers Data-driven medical policy design △、众安保险 **一** 华泰保险 Outcome-based reimbursement Patient & HCP engagement platform

Capital raising and attraction continued to be high

Number of IPOs rose sharply and average proceeds edged up, with the latest being JD-Health

117 IPOs mainland in 2020 H1, Raised RMB 138.1bn, with growth rate of 83% and 129% respectively



Number of China LSHC IPOs in HK, A-Share and US Stock (2020 IPO as of Aug.20)



Source: CSRC and Deloitte's estimates and analysis as at 30 June 2020, assumes 12 companies listed from 16 June to 30 June 2020.

HK Stock: 7 companies (Raised 15.3 Billion RMB)

















































US Stock: 7 companies (Raised 7.3 Billion RMB)



















Source: Public data, VBDATA, VCBeat Research

The sum up — The 'Future of Health in China v1.0'

The 8 trends that will re-define the future of health in China



Aging population and chronic diseases accelerate upgrade in senior care



The rise of public and private health big data enterprises

Expanded adoption of Al and automation



E-commerce directly connecting products with patients / consumers

Smart health deliveries with tele / virtual medicines



Exploding genomics and next-generation therapies

Platform-based business model innovation

An emerging new health ecosystem defined with cross-sector convergence

Outlook and conclusion



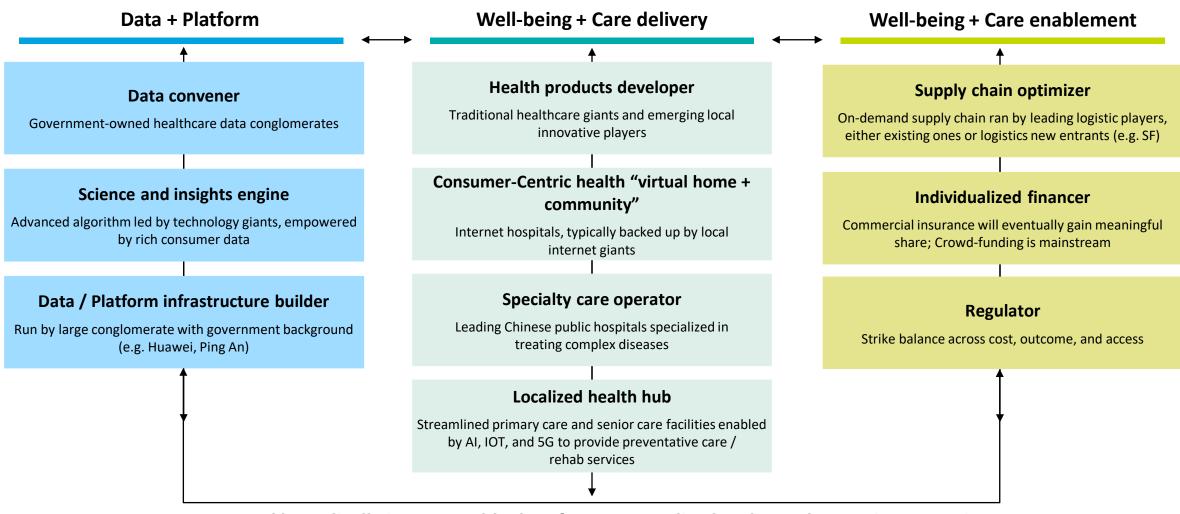
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The future of health will be driven by digital transformation enabled by radically interoperable data and open, secure platforms



China's future health ecosystem

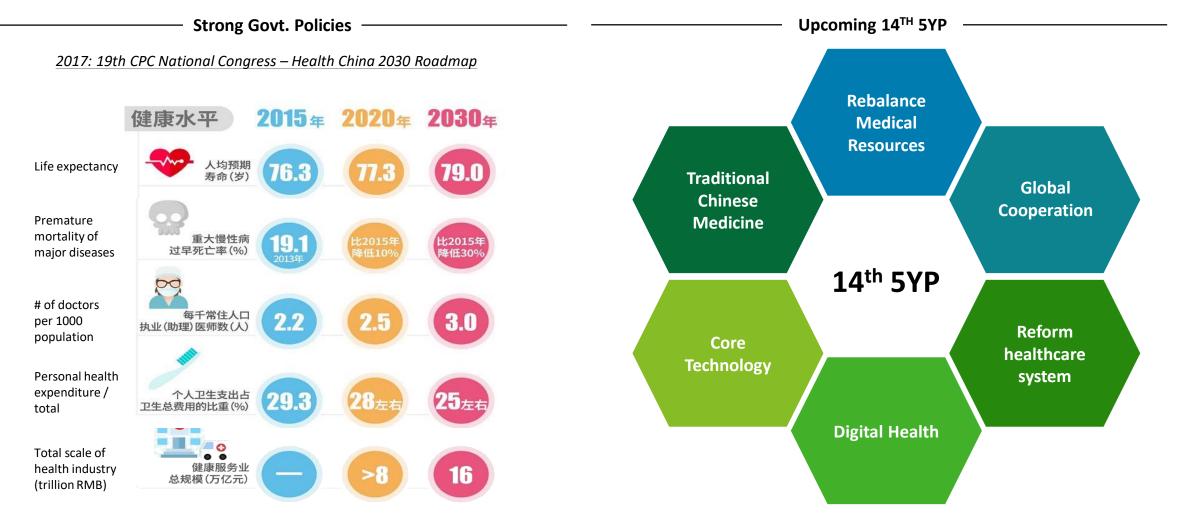
In the future China healthcare system will look very different: 10 wining business archetypes



Powered by radically interoperable data for a personalized and seamless patient experience

China government's ambitions for healthcare sector

The upcoming 14th 5-Year Plan, is more than likely to set out specific goals and allocate resources



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Question & Answers

Deloitte links: downloadable resources

Please scan the QR codes below to access the relevant reports. For more industry reports, please look at Deloitte's Life Sciences & Health Care website: https://www2.deloitte.com/cn/en/industries/life-sciences-healthcare



Snapshot survey of COVID-19 impact on China pharma industry



Six predictions for China's pharma & healthcare sector



China as a digital transformation sandbox: A prescription for pharma multinationals



China Future of Health 1.0

Deloitte China Your Life Science Healthcare Industry contacts

Key Contacts



Jens Ewert
Industry Leader
China Life Sciences & Health Care
jensewert@deloitte.com.cn



Scan the QR code to add me on WeChat

Core Team Contacts

Andrew Yu

Consulting Leader China Life Sciences & Health Care andryu@deloitte.com.cn

Lawrence Jin

Assurance & Audit Leader China Life Sciences & Health Care lawrjin@deloitte.com.cn

Bob Chen

Financial Advisory Leader China Life Sciences & Health Care bobchen@deloitte.com.cn

Yvonne Wu

Risk Advisory Leader China Life Sciences & Health Care yvwu@deloitte.com.cn

James Zhao

Tax & Legal Leader China Life Sciences & Health Care jazhao@deloitte.com.cn

Linda Pu

Program Manager China Life Sciences & Health Care linpu@deloitte.com.cn

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