Healthcare market report CHINA 2019



Copyright

This document is protected by copyright law. Reproduction of this document without written permission of the author is strictly prohibited. Distribution of this document is permitted but restricted to employees and directors the purchasing legal entity only. You may download, display, print and reproduce this material in unaltered form only (retaining this notice) for non-commercial use within your organisation. Distribution beyond this scope is strictly prohibited. All rights reserved.

Legal disclaimer

The information, statements, statistics and commentary (together "the information") contained in this document have been prepared by Asia Care Group Limited from publicly available data. If assumptions have been used, they will be clearly documented, reasoned and attributed to Asia Care Group Limited. Asia Care Group Limited do not express an opinion on the accuracy or completeness of the information and accept no liability for any decisions made by companies and organisations that have purchased this document.

Contents

Introductory section 1. The social determinants of health Epidemiological and demographic trends 2. 3. Healthcare Manpower 4. Healthcare financing 5. The health insurance market 6. The acute care market 7. Digital and e-health 8. The pharmaceutical market

Introductory section

An overview of the healthcare landscape in China

~ Asia Care Group ~

- Life Expectancy, China, 2000-2016
- Structural view of the entities involved in China's health system
- Descriptions of the key offices involved in China's health policy decisionmaking
- Population with urban basic medical care insurance, 2011-2018
- Coverage basic medical insurance, 2013 2018
- Explanation of social health insurance schemes
- Old age dependency ratio as a percentage of the working age population, 2009-2025(F)
- Funding sources for every 100mil of hospital revenue, 2018 or nearest year
- Explanation of the hospital classification system
- Number of hospitals by public and private ownership, 2013-2017
- Average percentage of income saved by region, 2012-2017
- GDP growth rate, 2008-2017
- Events of note and policy decision from 2016-present

Section 1: The social determinants of health

An overview of the social and macroeconomic factors affecting healthcare

- GDP ('000 ¥) and growth rate, 2008-2017
- Regional GDP (¥) per capita and GDP PPP per capita (int \$) 2008-2017
- Regional GDP growth rates from 2009 to 2017
- Population distribution across the different economic regions in China, 2017
- Average annual disposable income, 2017
- Growth in annual disposable income, 2013 vs 2017
- Per capita disposable income by region from 2013 to 2017
- Per capita expenditure by region from 2013 to 2017
- Total per capita disposable income vs total per capita expenditure by region,
 2017
- CAGR 2013-2017 of per capita disposable income, expenditure and gross amount saved by region
- Average percentage of per capita savings by region, 2013-2017
- Disposable income compared to expenditure per capita, 2013-2017
- Consumer confidence levels (annualized), 2013-2017
- Annual per capita expenditure pattern, 2013-2017
- CAGR of per capita expenditure pattern, 2013-2017

Section 1: The social determinants of health

An overview of the social and macroeconomic factors affecting healthcare

- Composite price index all items vs healthcare, 2008-2017
- CPI compared to health care inflation from a fixed base 2009 to 2018
- Stratification of income in China (in int. \$, PPP), 2008-2015
- Stratification of income, China benchmarked against developed countries, 2015
- GDP per capita (PPP, in INT \$): China and 6 developed countries 2000-2015
- Gini coefficient: China and selected developing countries
- Median residential property price per m2 in top 6 cities in China, 2013 vs 2018
- Median residential property price per m2 in top 6 cities in China, 2013 vs 2018
- Urban and rural employment (in tens of thousands)

Section 2: Epidemiological and demographic trends *The changing burden of disease and healthcare need*

- Percentage of the population aged 65 and over (projected to 2030)
- Top 10 cause of mortality in urban and rural china, 2017
- Growth rate of causes of mortality and morbidity from selected diseases in urban china, 2007-2017
- Growth rate of causes of mortality and morbidity from selected diseases in rural china, 2007-2017
- Percentage of the population (over 15) with A chronic condition, 1998-2013
- Percentage of the population with A chronic condition by age group, 2013
- Age-standardized mortality and prevalence rate of cerebrovascular disease by region, 2014
- Age-standardized mortality and incidence rate of cancer by region, 2014
- Surveillance of risk factors, 2015
- Prevalence of diabetes
- Prevalence of obesity
- Prevalence of hypertension
- Percentage of people with disabilities, 2010

Section 2: Epidemiological and demographic trends *The changing burden of disease and healthcare need*

- Premature death per 100,000 by disease classification in china from 1990 to 2017
- Disability adjusted life years per 100,000 china compared to 5 other emerging economies
- Disability adjusted life years per 100,000 1997-2017
- Prevalence of communicable diseases in china per 100,000 from 1992-2017
- All cause mortality of under 5's per 100,000 in china compared to 5 emerging economies from 1990 to 2017

Section 3: Healthcare workforce *The changing supply and demand landscape for healthcare workers in China*

- Doctor to population ratio per 1,000 population, China versus OECD average and nine benchmark countries, 2010 VS 2016
- Number of nurses per 1,000 population in China and selected countries, 2011
 VS 2015
- Number of registered doctors and nurses in China, 2012-17
- Number of pharmacists & clinical laboratory technologists in China, 2012-17
- Doctor and nurse density per 1,000 elderly population (over 65) projected to 2030
- Number of doctors by specialty, 2005 vs 2017
- Medical workforce distribution in urban & rural hospitals, 2017
- Medical workforce distribution in urban & rural primary care facilities, 2017
- Distribution of doctors by region, 2017
- Doctors density per 1,000 population by region, 2017
- Annual income of doctors in China, 2017
- Annual income of nurses in China, 2017
- Distribution of doctors and nurses in public and private hospitals, 2017
- Perceived trustworthiness of doctors, china, 2013 vs 2015

Section 4: Healthcare Financing *Key expenditure trends that affect system dynamics*

~ Asia Care Group ~

- China's health expenditure in billion (¥) and as a percentage of GDP, by financing source, 2012-17
- CAGR of china's health expenditure
- China's health expenditure in billion (¥) by region and CAGR of the regional expenditure, 2011-16
- China's government health expenditure in billion (¥)by region and CAGR of the regional expenditure, 2013-18
- China's social health expenditure in billion (¥) by region and CAGR of the regional expenditure, 2013-18
- China's health expenditure by region and CAGR of the regional expenditure, 2011-16
- China's total health expenditure projected to 2030 in billion (us\$)
- The proportion of China's expenditure on primary and acute care, 2016 China's health expenditure by public and private health sector, 2017
- China's health expenditure by public and private health sector, 2017
- Revenue of public hospitals in china by tier classification, 2012 vs 2017

Section 4: Healthcare Financing *Key expenditure trends that affect system dynamics*

- Revenue of public hospitals in China by functionality, 2012 vs 2017
- Financial subsidy income of public hospitals, 2010-2017
- The average cost of one patient day across all public hospitals, 2010-2017
- Average out-of-pocket expenses for inpatients in public hospitals, 2010-2017
- Average out-of-pocket expenses for outpatients in public hospitals, 2010-2017
- Medical expenses of individual inpatients to public hospitals in major years in china(2010-2017
- Medical expenses of individual outpatients to public hospitals in major years in china(2010-2017)
- Average profit of all public hospitals in China, 2010-2017
- The average per capita medical expenses for hospitalization for common diseases, 2012 compared to 2017

Section 5: The health insurance market *The composition and structure of the private health insurance market*

- China gross health premium (RMB), 2012 2025E
- Gross premium of private health insurance by region (RMB), 2012 2018
- Eastern coastal, gross premium (RMB), 2012 vs 2018
- Northern coastal, gross premium (RMB), 2012 vs 2018
- Southern coastal, gross premium (RMB), 2012 vs 2018
- Northeast, gross premium (RMB), 2012 vs 2018
- Middle yellow river, gross premium (RMB), 2012 vs 2018
- Middle Yangtze river, gross premium (RMB), 2012 vs 2018
- Southwest, gross premium (RMB), 2012 vs 2018
- Great northwest, gross premium (RMB), 2012 vs 2018
- Percentage of population with private health insurance (individual or group policies), 2017 or latest year
- Percentage of population with private health insurance (individual or group policies) in china, 2013 – 2025E
- Health insurance provider market shares by premium income, 2016

Section 5: The health insurance market *The composition and structure of the private health insurance market*

- Total health insurance premium and payout ratios, 2014 2018
- Health premium income of insurance companies by individuals and group policies, 2016
- Health insurance payout to premium ratio of insurance companies, 2017
- Total insurance gross premium and total gross health premium, 2014 2018
- Business share of life and health insurance of major insurance companies, 2016
- Market share of insurance companies by gross life & health premiums and respective gross health premium, 2016
- Benefits schedules of selected insurance products
- On mandatory liability reserves in china
- Business portfolio & operating ratio, Anbang (2016)
- Business portfolio & operating ratio, Pingan (2016)
- Business portfolio & operating ratio, China Life (2016)

Section 5: The health insurance market *The composition and structure of the private health insurance market*

- Total health insurance premium and payout ratios, 2014 2018
- Health premium income of insurance companies by individuals and group policies, 2016
- Health insurance payout to premium ratio of insurance companies, 2017
- Total insurance gross premium and total gross health premium, 2014 2018
- Business share of life and health insurance of major insurance companies, 2016
- Market share of insurance companies by gross life & health premiums and respective gross health premium, 2016
- Benefits schedules of selected insurance products
- On mandatory liability reserves in china
- Business portfolio & operating ratio, Anbang (2016)
- Business portfolio & operating ratio, Pingan (2016)
- Business portfolio & operating ratio, China Life (2016)

Section 5: The health insurance market *The composition and structure of the private health insurance market*

- Business portfolio & operating ratio, PICC (2016)
- Business portfolio & operating ratio, New China Life (2016)
- Business portfolio & operating ratio, Taikang (2016)
- Business portfolio & operating ratio, China Pacific (2016)
- Life, accident & health insurance distribution channels, 2017
- Insurance sold online by category (by premium), 2017
- Number of insurance agents, china 2012 2017
- Insurance complaints and resolution rate, 2013 2017
- Private medical insurance inflation rate, 2010 2017

Section 6: The acute care sector *Trends in hospitalization and the use and structure of secondary care*

- Primary care facilities (public & private), 2013 2017
- Composition of public hospital financing, 2007-2017
- Proportion of hospitals by public and private operator, 2013 2017
- Medical workforce distribution in public & private hospitals, 2017
- Number of beds in public & private hospitals, 2012 2017
- Number of beds versus admissions (public & private), 2013 2017
- Total number of inpatient beds by regions (public & private hospitals), 2017
- Annual inpatient admission to (public & private hospitals), 2010 2017
- Distribution of inpatient admissions by (public & private hospitals), 2013 2017
- Beds per 1,000 population (public & private hospitals)
- Beds per 1,000 population (public & private hospitals), 2012 vs 2017
- Northern coastal, beds per 1,000 population (public & private hospitals), 2012
 vs 2017
- Northeast, beds per 1,000 population (public & private hospitals), 2012 vs
 2017

Section 6: The acute care sector *Trends in hospitalization and the use and structure of secondary care*

~ Asia Care Group ~

- Eastern coastal, beds per 1,000 population (public & private hospitals), 2012
 vs 2017
- Middle yellow river, beds per 1,000 population (public & private hospitals), 2012 vs 2017
- Middle Yangtze river, beds per 1,000 population (public & private hospitals),
 2012 vs 2017
- Southwest, beds per 1,000 population (public & private hospitals), 2012 vs
 2017
- Great northwest, beds per 1,000 population (public & private hospitals), 2012 vs 2017
- Public bed occupancy, all regions, 2012 20126e
- Private bed occupancy, all regions, 2012 20126e
- Northeast, public bed occupancy, 2012 20126e
- Northeast, private bed occupancy, 2012 20126e
- Northern coastal, public bed occupancy, 2012 20126e
- Northern coastal, private bed occupancy, 2012 20126e
- Eastern coastal, public bed occupancy, 2012 20126e

Section 6: The acute care sector *Trends in hospitalization*

and the use and structure of <u>secondary care</u>

~ Asia Care Group ~

- Southern coastal, beds per 1,000 population (public & private hospitals), 2012 vs 2017
- Southern coastal, public bed occupancy, 2012 20126e
- Southern coastal, private bed occupancy, 2012 20126e
- Middle Yangtze river, public bed occupancy, 2012 20126e
- Middle Yangtze river, private bed occupancy, 2012 20126e
- Middle yellow river, public bed occupancy, 2012 20126e
- Middle yellow river, private bed occupancy, 2012 20126e
- Southwest, public bed occupancy, 2012 20126e
- Southwest, private bed occupancy, 2012 20126e
- Great northwest, public bed occupancy, 2012 20126e
- Great northwest, private bed occupancy, 2012 20126e
- Average length of stay by (public and private hospitals), 2013 2017
- Number of general and specialist hospitals (public & private), 2017
- Distribution of hospitals by number of beds (public & private), 2017
- GR of public & private bed occupancy, 2012 2026e
- Average length of stay by (public and private hospitals), 2013 2017

Section 6: The acute care sector *Trends in hospitalization and the use and structure of secondary care*

- Number of general and specialist hospitals (public & private), 2017
- Distribution of hospitals by number of beds (public & private), 2017
- Number of specialist hospitals, 2017
- Number of specialist hospitals, 2017 (con't)
- Number of public specialist hospitals, 2007 vs 2017
- Number of private specialist hospitals, 2007 vs 2017
- Number of private specialist hospitals, 2007 vs 2017
- Number specialist hospitals by regions (public & private), 2012 vs 2017
- Number private specialist hospitals, 2012 vs 2017
- Number private specialist hospitals by regions, 2012 vs 2017
- Public hospitals inpatient admission by condition, 2011 vs 2015
- Average length of stay of selected conditions (public hospitals), 2017
- Average length of stay (days, public & private), 2017
- Average charge of selected conditions (public hospitals), 2017
- Average inpatient charge by cost category (public & private hospitals), 2011 2017

Section 6: The acute care sector *Trends in hospitalization and the use and structure of secondary care*

- Hospital average revenue per bed (public & private hospitals), 2013 2016
- Cumulative increase in price level, average inpatient and outpatient charges (public & private hospitals), 2013 – 2017
- Distribution of discharge by age (public hospitals), 2017
- Distribution of discharge by gender (public hospitals), 2017

Section 7: Digital and ehealth *Trends in market access, sales and distribution*

- Internet penetration rate, 2018 to 2025
- Smartphone penetration rate, 2018 to 2025
- Internet economy market size, 2019
- Digital payment services adoption rate, 2018
- E-commerce market size, 2018
- Online media market size, 2018
- The value of the Chinese telemedicine market, 2016 2025e
- Number of people who seek a 2nd medical opinion in tier 1 cities, 2014 –
 2026e
- Market worth of 2nd opinion market, 2014 2026e
- IPO's and major healthtech funding activity, 2010-2019
- Major mergers/acquisitions in the healthtech space, 2010-2019
- Number of members, PIngAn Good Doctor, 2019
- Number of members, WeDoctor, 2019

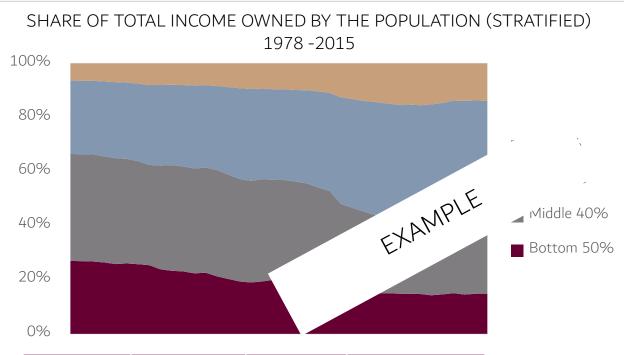
Section 8: The pharmaceutical market *Trends in market* access, sales and distribution

~ Asia Care Group ~

- Pharmaceutical market size , China, 2018
- Sales of pharmaceuticals in China as a percentage of global pharmaceutical sales, 2018
- Chinese pharmaceutical industry value chain
- Operating revenue of China's pharmaceutical industry
- Biomedical R&D expenditures by public and private industry
- Revenue breakdown of the pharmaceutical industry in China, by therapeutic category
- Number of foreign drug applications submitted in China
- Leading biotech and pharmaceutical companies on the Fortune China 500 ranking
- Largest Chinese pharmaceutical companies operating in China, by profit
- Largest Chinese pharmaceutical companies operating in China by market value
- Leading pharmaceutical companies operating in China by market value growth rate
- Pharmaceutical companies operating China with shrinking market value
- Revenue of China National Pharmaceutical Group
- Revenue of top market players

China has successfully reduced absolute poverty over a short period, but the majority of the population are still classed as "low income", after adjustments for purchasing power

~ Asia Care Group ~



	1978	2015	Difference over time
Top 1%	6%	14%	8%
Next 9%	27%	41%	14%
Middle 40%	40%	30%	-10%
Bottom 50%	27%	15%	-12%

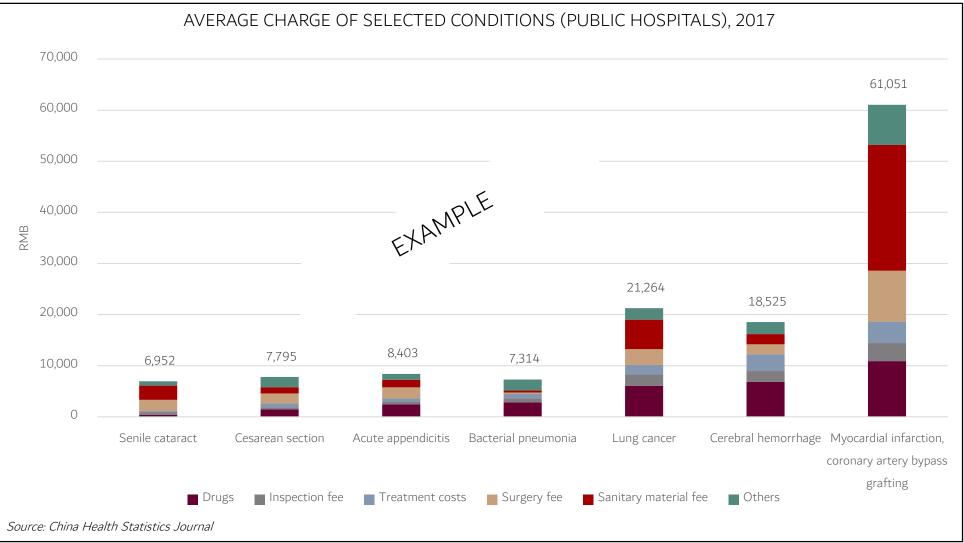
Source: World Inequality Database

 Wealth inequity has increased dramatically across China. The top 10% of the population, defined by income level, have seen rapid increases in the proportion of the countries' total income that they own and control. For the remaining 90%, the proportion of wealth owned has decreased. So whilst China is becoming richer, with growth in GDP overall, the distribution of this increased wealth skews heavily towards the richest in society.

This situation poses a number of opportunities and challenges for healthcare companies. The richest in society, with increasing disposable income, are a core market for many international hospitals and insurance firms. However, the market is – in many regions- already saturated, making market entry prone to fierce competition. Creating services and solutions for the mass market – a relatively undersaturated space – means managing the very real affordability issues facing this segment of society.

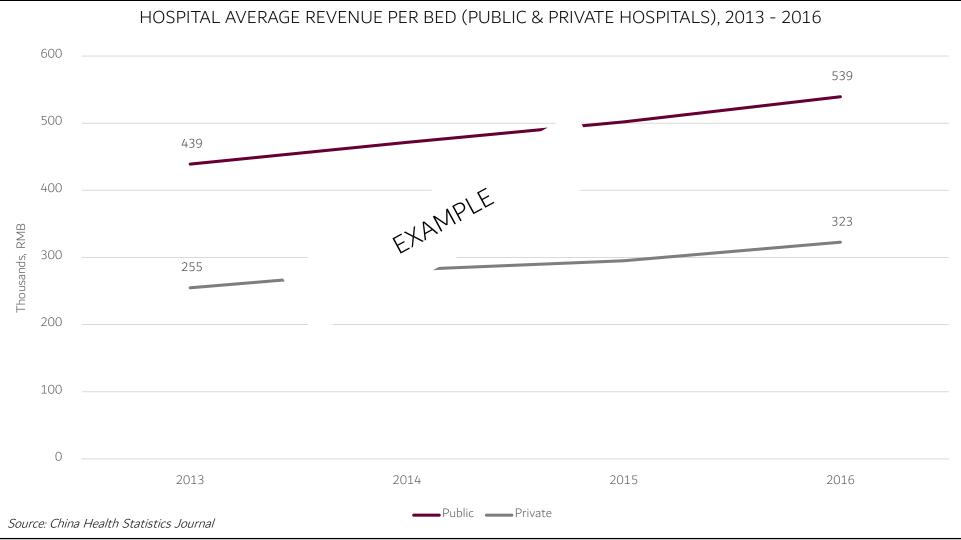
A detailed breakdown of the charges for select conditions, highlights an increasing tendency to charge high fees for medical devices and consumables

~ Asia Care Group ~



Despite changes to occupancy, revenue per bed has increased significantly in both public and private hospitals, pointing towards rapid medical inflation

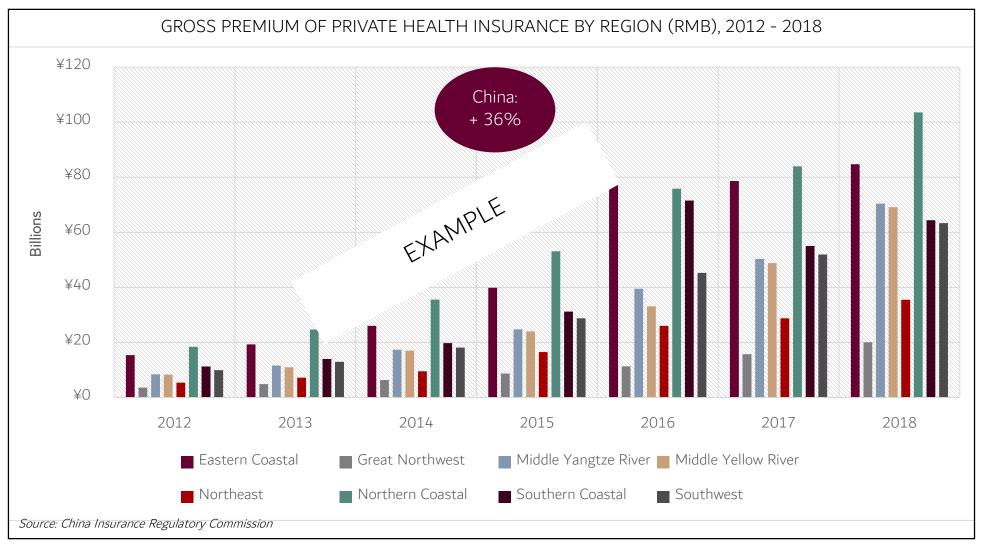
~ Asia Care Group ~

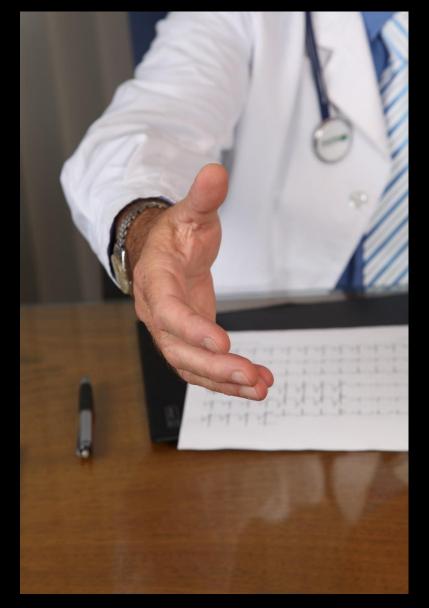


Copyright of Asia Care Group. Asia Care Group is a Hong Kong Limited Liability Company. All rights reserved.

There has been significant growth in the private health insurance market, with a compound annual growth rate of 36% over a six year period

~ Asia Care Group ~





Thalia Georgiou Managing Partner, Healthcare Thalia.Georgiou@asiacaregroup.com

Candace Albert Senior Managing Consultant, Healthcare <u>Candace.Albert@asiacaregroup.com</u>

www.asiacaregroup.com