SECTOR OVERVIEW

1. **Health care investment environment**. Despite the strong economic growth witnessed in the People's Republic of China (PRC) and India since 2005, health care in both countries is still undergoing development. In both countries, the share of gross domestic product (GDP) devoted to health care hovers around 5%, well below developed-market norms of 10% or higher. Overall health care spending in these countries lags significantly behind the global average of \$1,025 per capita. For example, the PRC spends less than \$322 per capita a year on health care, while India spends \$58 per capita.¹

2. A move from these low levels of health care utilization toward developed-economy norms is expected as a result of rising per capita GDP, rising middle-class incomes, higher public sector spending on health care, increasing prevalence of noncommunicable diseases, and greater consumer awareness of high-quality health care offerings. The annual growth rate of health care expenditures in the PRC and India is projected to remain in the 12%–15% range.

- 3. Four trends in the PRC and India are driving the expansion of health care markets:
 - (i) **Affordability.** Health care is becoming more affordable thanks to rising per capita income, growing government health care coverage, and growing private health insurance.
 - (a) Rising per capita income: a direct correlation exists between disposable income and spending on health care. The PRC's household disposable income grew at a compound annual growth rate (CAGR) of 12% from 2005 to 2015, with a stable proportion spent on health care. Similarly, the disposable income of Indian consumers has increased by a CAGR of 14% during 2003–2013.²
 - (b) Growing public health care coverage: over 95% of the population in the PRC is now eligible for basic government-sponsored health care coverage. The PRC government is seeking to increase insurance subsidies, aiming to bring down out-of-pocket spending from 33% to 30% of total health expenditures. The Indian government has committed to providing coverage for all citizens below the poverty line (37% of total Indian population) through a national health insurance scheme and is preparing to expand this to cover close to 500 million people.
 - (c) Growing private health insurance: fueled by expansion of both local and foreign insurance companies entering the markets, private health insurance penetration is expected to increase meaningfully from the current levels of 30% in the PRC's urban areas and from 10%–15% in India.
 - (ii) **Accessibility.** Consumer access to health care is improving thanks to more government spending, better medical infrastructure, and a broader reach to rural areas and smaller cities.

¹ World Health Organization. 2015. *World Health Statistics 2015*. Geneva.

² Handbook of Indian Statistics, Reserve Bank of India

- (a) More government spending: the PRC's health care spending increased from 18% in 2006 to 30% in 2014. The Indian government increased the health care allocation by 15% in fiscal year 2017, and encourages private investment by developing public–private partnerships models.
- (b) Better medical infrastructure: the shortage of hospital beds and trained doctors and nurses in the PRC and India is severe. New delivery models such as day-care centers and various single-specialty hospitals are attempting to meet specific needs. Advanced sector-specific digital technologies are starting to have a positive impact on the costs, efficiency, and quality of health care.
- (c) Broader reach to rural areas and smaller cities: access to health care is extremely limited in many rural areas of the PRC and India, despite substantial demand. The PRC government is refurbishing 4,000 county hospitals, 6,000 township hospitals, and 25,000 clinics to strengthen its rural health care network. Similarly, in India, private service providers are expanding in tier II and tier III cities, providing broader access.
- (iii) Ailments. Disease prevalence is shifting in the PRC and India akin to developed countries as a result of changing lifestyles, chronic diseases, and communicable diseases.
 - (a) Changing lifestyles: the PRC and India are experiencing a rapid rise in the prevalence of noncommunicable diseases because of demographic changes.
 - (b) Chronic diseases: demographic trends and lifestyle changes are driving an increase in chronic diseases such as cancer, cardiovascular and central nervous system disorders, and diabetes. The PRC and India account for 30% of all new cancer cases worldwide, and for 35% of cancer deaths globally. They contribute more than 40% of the world's diabetic population. Many pharmaceutical companies have products that are well positioned to treat these diseases and capture significant growth as a result.
 - (c) Communicable diseases: several Asian countries are witnessing a high occurrence of communicable diseases such as tuberculosis, vector-borne diseases like kala-azar and malaria, waterborne diseases like cholera, diarrheal diseases, leptospirosis, and the vaccine-preventable measles and tetanus.
- (iv) Awareness. Awareness of the potential for and benefits of better health care is growing thanks to an increase in literacy, focus on preventive care, and stronger health care branding.
 - (a) Increasing literacy: general health awareness, availability of patient outcome data, and sophistication among consumers are becoming more widespread and help promote the use of health services.
 - (b) Focus on preventive care: broader access to and awareness of preventive

health care, including regular checkups, is resulting in better health.

(c) Stronger health care branding: companies are focusing on field force additions and productivity to promote their brands directly to doctors. Also, companies are spending on marketing and promotional activities to create awareness of their health care brands.

4. These four growth drivers combine to create a diverse set of investment opportunities across the range of health subsectors. The primary areas of interest are biotechnology, pharmaceuticals, medical devices, diagnostics, digital health care, hospitals, and other health care providers.

5. **Biopharmaceuticals.** The PRC and Indian markets are compelling thanks to their rapidly growing consumer base. For example, the PRC's domestic pharmaceutical market is expected to grow at a CAGR of 13% between 2015 and 2020.³ Similarly, the Indian market is expected to grow at a CAGR of 15% between 2015 and 2020 (footnote 3). The PRC has become the second largest pharma market, while India is expected to become the 11th largest pharma market worldwide.

6. The regulatory framework in the PRC is supportive of innovative new drug discovery compared with low-end generic products, as shown in the recent reform of the China Food and Drug Administration. The new policy will allow research and development institutions to apply for drug approvals in their own names and outsource the manufacturing to a different company, which will reduce drug development costs, time, and risks. The reform will make clinical trials, licensing, and partner and technology transfer easier. This improvement in regulation, combined with a stronger talent pool and a maturing product pipeline, will increase investment opportunities in the PRC's drug development and innovation field.

7. In contrast to the PRC, India has embraced its role as a global generic pharma powerhouse. India is the largest exporter of generic medicines globally and, at 175, has the highest number of Food and Drug Administration-approved facilities outside the United States.

8. **Medical devices and enabling technology**. The markets for medical devices in the PRC and India are relatively underdeveloped in contrast to pharmaceuticals. Given the rising prevalence of chronic and serious diseases as well as an expanding middle class that can afford to pay more for better care, the medical device market in the PRC is expected to grow by 15% annually between 2013 and 2018. The middle and lower-tier medical device segments account for 75% of the PRC market, providing growth opportunities for the makers of lower-cost but quality products for the masses.

9. On the other hand, India remains dependent on imported supplies for 75% of its medical device needs, since domestic suppliers are focused on low-value products such as needles, catheters, and blood collection tubes. India has about 700 medical device makers, which makes the segment interesting for consolidation and potential "roll-up" strategies.

10. One high-growth area is diagnostic devices. Rapid easy-to-use, point-of-case testing makes it possible for physicians to quickly receive test results of critically ill patients, facilitating better care and patient outcomes. These devices can be used to maximize the service outreach to rural PRC and India. Thus, investing in targeted diagnostics innovation may be attractive.

³ Orbimed Asia Partners III, LP private placement memorandum August 2016.

11. **Hospitals and health care services.** The hospitals and health care delivery market in the PRC grew at a CAGR of 9% from 2008 to 2012. In India, the private sector accounts for the majority of hospital beds and is estimated to grow at a CAGR of 12%. Growth has been fueled by increasing demand for quality health care services, specialization, and diversification from public hospitals, and by loosening regulations. Brownfield hospitals and joint ventures with local physician groups are potentially attractive strategies for quick market entry.

12. Specialty hospitals are also attractive and rapidly growing because these companies form chains to replicate operations easily and grow through geographic expansion. Specialty hospital treatment ranges from low-risk areas such as eye care, skin, and mother–child care, to high-end areas such as cardiology, oncology, and transplant medicine.

13. The health care diagnostics market in the PRC and India is growing rapidly thanks to the development of hospital infrastructure and a shift toward organized players. For example, the organized diagnostics lab chains in India now account for 15% of the laboratory market. But they are expected to grow faster than hospital-based labs and stand-alone centers thanks to strong brand recognition, perceived superior quality, and accuracy of tests.

14. Another area is contract research and/or manufacturing. Asia's lower cost structures have given rise to a more efficient model that embraces outsourcing of key research, development, and manufacturing functions. On average, the pre-clinical drug development cost in the PRC can be 25% to 50% lower than in the United States. India has similar cost advantages because of lower labor cost. For example, the full cost of a PhD-level chemist in the United States averages \$250,000 to \$300,000 per year. An equivalent researcher costs approximately \$25,000 in the PRC, and \$40,000 in India. In addition to labor, locally sourced equipment, production facilities, and other fixed costs create additional savings in capital expenditures.

15. The PRC is more dominant in outsourcing of discovery chemistry and biology, while India is stronger at manufacturing. Several large PRC contract research organizations offer quality integrated services and have strong relationships with major pharmaceutical companies in the United States.