

The Role of the Private Sector in Expanding Health Access to the Base of the Pyramid



**International
Finance Corporation**
World Bank Group

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IFC's purpose is to create opportunities for people to escape poverty and improve their lives by developing more outlets for inclusive and sustainable growth. To ensure equitable access to healthcare, we are committed to supporting companies that are providing health services to the poor in commercially viable ways. To this end, IFC conducted a study on how to help the private sector expand access to health services to the base of the pyramid. The study examined Brazil, China, India, Indonesia, Mexico, Nigeria and Turkey—countries with significant health markets yet large underserved populations. Three health segments were analyzed: healthcare service provision, distribution of drugs and medical equipment, and medical technology. The findings that follow will be especially important to future projects.

Inclusive health models facilitate healthcare delivery to low-income and to rural populations in developing countries. Inclusive health models reach the base of the pyramid (BOP), defined as those living on less than \$8 PPP a day¹ or those who lack access to basic goods and services. Inclusive health models can be hospitals or pharmacies in rural areas, pharmaceutical or device manufacturers producing quality low-cost products, or technology providers deploying new solutions such as portable diagnostic equipment or telemedicine to reach new markets.

The BOP constitutes a large customer base and a viable commercial segment. Globally the BOP represents 4 billion people spending over \$158 PPP billion annually on health services.² Among the countries studied, the BOP makes up most of the population—for example, between 70% and 80% in Brazil and Mexico and at least 95% in India, Indonesia, and Nigeria. The size of the market for BOP health services is large—ranging from \$4.2 billion

in Nigeria to \$41.2 billion in India. Table 1 below shows the total size and health spend of the BOP in each country. Figure 1 (on next page) shows per capita spend and growth over the past few years. The overall market for health services and products is growing in these countries.

TABLE 1: TOTAL BOP POPULATION SIZE AND HEALTH SPEND

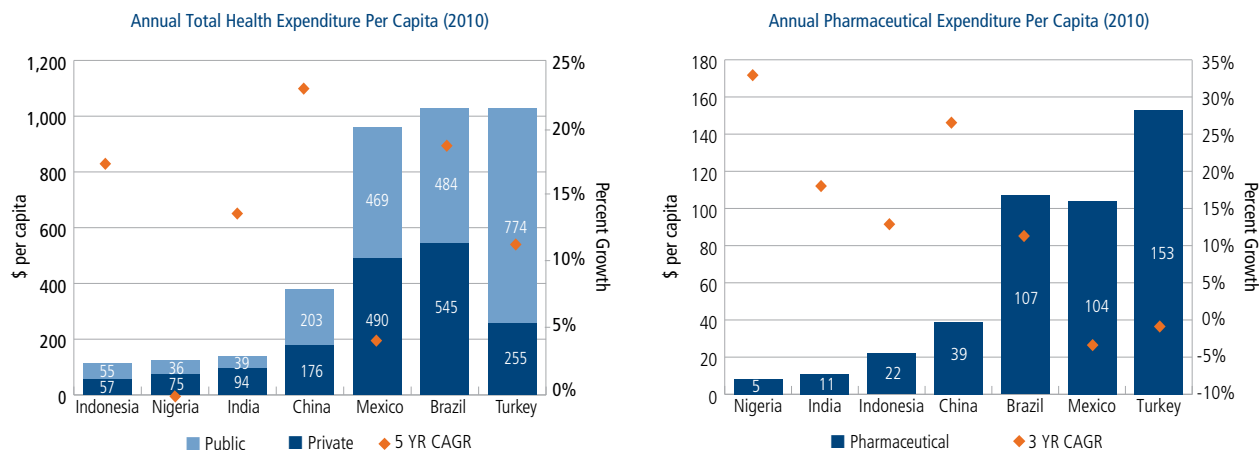
	TOTAL BOP (IN MILLIONS)	HEALTH SPEND (\$ MILLIONS PPP)
India	924	41,178
Indonesia	207	4,330
Nigeria	126	4,183
Brazil	125	34,250
Mexico	72	10,582

Source: WRI (World Resources Institute) and IFC (International Finance Corporation). 2008. "The Next 4 Billion: Market Size and Business Strategy at the Base of the Pyramid." Washington, DC.

1 Base of the pyramid is defined as per "The Next 4 Billion" report as those earning <US\$3,000 per annum on a PPP basis in 2002 US\$ equivalent. PPP, or purchasing power parity, is a rate of exchange between two currencies that gives them equal purchasing powers in their own economies.

2 WRI (World Resources Institute) and IFC (International Finance Corporation). 2008. "The Next 4 Billion: Market Size and Business Strategy at the Base of the Pyramid." Washington, DC.

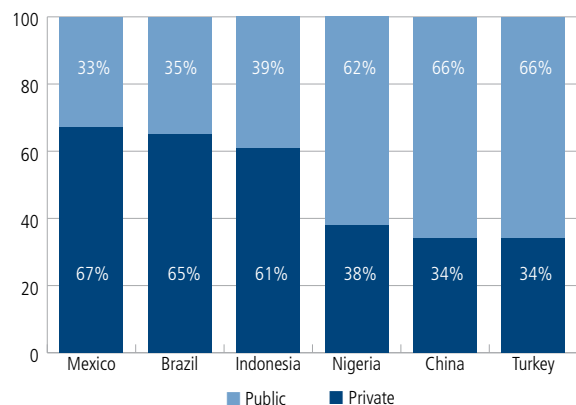
FIGURE 1: ANNUAL HEALTH EXPENDITURE AND PHARMA SPEND PER CAPITA (2010)



Source: WHO, Euromonitor Healthcare Market Overview (by Country), Espicom World Medical Markets Factbook 2012.
 Note: Health expenditure growth rate is a 5 year compound annual growth rate from 2006-2010. Pharma spend growth rate is 3 year compound annual growth rate from 2008-2010.

The private sector plays a critical role in delivering health services to the BOP. While the public sector contributes significantly to health infrastructure, a large share of hospitals are owned by the private sector (Figure 2). This is likely to continue as countries such as Turkey and China institute health reforms and incentives to encourage expansion of private hospitals to address capacity and quality issues. In many instances, private providers are contracted by the public sector or are partnering with the public sector to ensure patients can use government insurance schemes. However, in countries such as India and Indonesia, patients with limited incomes often choose to visit private facilities instead because of the travel distance and waiting times for treatment, or because they believe the quality of services is better at private facilities.

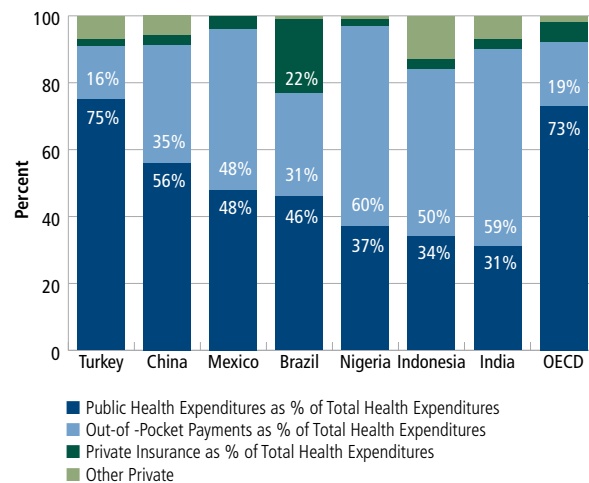
FIGURE 2: PERCENT OF HOSPITALS THAT ARE PRIVATELY OWNED



Sources: Turkish Ministry of Health; 2011 China Health Statistics Yearbook; Espicom World Medical Markets Factbook, 2012; PwC Analysis; Frost & Sullivan Southeast Asian Emerging Markets—Indonesia and Vietnam Healthcare Outlook 2012; Indonesia Health Profile 2012; Indonesia Ministry of Health; Nigeria National Bureau of Statistics, 2008.
 Note: Figures do not include outpatient units, clinics, specialty hospitals or other healthcare facilities. Data for Indonesia, Mexico, and Brazil is for 2011; data for Turkey and China is for 2010; data for Nigeria is for 2008.

The BOP already accesses health goods and services through the private sector. Public coverage is often limited in scope. In India, for example, only 25%³ of the population has public or private coverage, and public coverage is usually for inpatient procedures. Further, public facilities have limited capacities and the number of qualified medical professionals is low. As a result, patients often face long waiting times, are treated with lower quality medication, and may not receive the most accurate diagnosis and treatment options. These problems are compounded for patients who live in rural areas: distribution systems are weaker and healthcare facilities are general posts or clinics that provide basic or preventive treatment. In fact, many patients choose instead to visit pharmacies as the first point of care. As Figure 3 below shows, a significant amount of healthcare costs are paid for out-of-pocket by patients.

FIGURE 3: SOURCES OF HEALTH EXPENDITURE (PUBLIC AND PRIVATE)



Source: WHO Global Health Expenditures Database. Data is for 2011 except for Mexico (2009).

Companies are deploying various models to reach the base of the pyramid by expanding access to traditional health services or innovating to create new approaches.

SOLUTIONS IN FOCUS: Healthcare Delivery

In countries where public social systems are strongly in place, private institutions are working with public schemes to ensure patients have access. Therefore, services are affordable to the BOP. In other places, companies are using a tiered pricing approach to charge the full value of services rendered to patients who can pay and then are using revenues to cross-subsidize lower-income patients who only pay for a portion of services. Some use technology, such as mobile health platforms, to provide unlimited health consultations with qualified professionals in exchange for a flat payment. Finally, private clinics specifically targeting the BOP are emerging. These clinics locate in areas where the poor reside, such as urban slums. They introduce cost efficiencies into their operations and pass along the savings to patients while providing them with flexible payment terms.

SOLUTIONS IN FOCUS: Private Insurance

One of the biggest issues that the BOP faces is access to finance. This is particularly true in health, where health expenditures may be unexpected and large, and cause disruptions of household cash flows. To respond to this, a few private insurance companies are tailoring their products to meet the needs of the BOP, for example by developing micro-insurance offerings where individuals pay periodic installments to increase affordability and flexibility, or integrating insurance schemes into microcredit offerings. Finally, in some countries like Brazil and Mexico where private insurers are more active, insurers traditionally targeting higher-income individuals are adapting their offerings to reach a larger customer base that includes the BOP.

3 Public Health Foundation of India. 2011. "A Critical Assessment of the Existing Health Insurance Models in India." New Delhi, India.

SOLUTIONS IN FOCUS: Product Adaption to Local Conditions

Some companies are developing new product offerings to specifically meet the needs of the BOP. An example of this would be device manufacturers which are creating equipment that is affordable, portable and can be used in field conditions. Similarly, other companies are developing diagnostic equipment that provide low-cost, non-invasive solutions or can test at once for multiple common conditions, such as eye diseases or viruses—using equipment that can be operated with basic training and on-site.

Opportunities abound for the private sector to deliver inclusive health models which address the unmet or under-met needs of the BOP. The section below highlights some promising opportunities for domestic companies to expand or adapt their business models to provide more services to the BOP. They also represent areas where development finance institutions can focus in supporting companies servicing, or with the potential to service, the BOP. The opportunities take into account the following points: the BOP's biggest needs; any government regulations in place to support (or discourage) the private sector or foreign investment; any demonstrated market demand and anticipated growth; and evidence of domestic companies in each country that can capitalize on this market demand. They include private hospitals and pharmacy chains, intermediaries such as distributors and retailers, and domestic drug and device manufacturers providing affordable products for the BOP. They also include some relatively undeveloped but emerging opportunities for companies reaching the BOP, particularly private insurance, health information technology, and telemedicine.

In all countries studied, one opportunity is expansion of healthcare facilities that reach the BOP, including hospitals in Turkey and Nigeria, hospitals and outpatient facilities in Brazil, Mexico, India and Indonesia, and specialty hospitals in China. Another one is the domestic production of affordable drugs—with more developed industry in Turkey and growing presence in Nigeria and Indonesia. Several countries, including China, India, Brazil and Mexico are supporting the development of a domestic medical technology industry which can be leveraged to enhance production of affordable, quality medical equipment for the BOP. Another growing opportunity is that of health

IT and telemedicine, already present in China, Indonesia, Turkey, and Mexico as a way to enhance productivity, cost-efficiencies and quality of care. Finally private health insurance and pre-paid medicine models are nascent in most markets with evidence of activity, particularly in Nigeria, Brazil and Mexico.

Below are some highlights of opportunities for each country:

- In **Indonesia**, geographic constraints underscore the importance of **retailer and wholesaler networks** to expand BOP access to drugs. Drug distribution is particularly important because patients tend to visit pharmacies at the onset of illness and most out-of-pocket spend is for pharmaceuticals. Similarly, the field of **health information systems** is another opportunity to ensure the BOP, particularly those outside of the island of Java, have equitable access to care despite limited numbers of qualified medical personnel and facilities. This can be accomplished by using technology systems to enable basic facilities to leverage the capabilities of larger hospitals. A domestic industry of health IT providers is emerging to fill this gap.
- In **Brazil**, public coverage is more widespread than in other countries in this study, but regional disparities in supply exist. This opens the door to targeted opportunities in Northeast Brazil, including **distributors, pharmacy chains** partnering with the government program Farmacia Popular and **private hospitals** expanding within this region. Another opportunity presents itself for **medical device manufacturers** with affordable products that service public hospitals and clinics in Brazil. There is significant demand in this sector, with Brazil now the largest medical device market in Latin America with \$4.4 billion in sales in 2012 and estimated growth at 14% per year.⁴ Government provisions are in place to promote growth and innovation—most notably via the “Buy Brazilian Act” which promotes the production and purchase of locally developed products, and the “Productive Development Policy” to support life sciences innovation.
- In **Mexico**, regional disparities also exist. BOP needs can be addressed by focusing on service providers that are expanding access in rural areas and in the South. This includes **private hospital chains** working in cooperation with public insurance scheme Seguro Popular (SP) and **distributors** with agreements with SP or that are reaching rural areas. Finally, an emerging opportunity is that of **private health insurers** which are currently focused on higher-income portions of the population but which can look to the BOP as a future source of growth.

4 Espicom (2012) Brazil Medical Device Market Intelligence Report.

- In **India**, **private hospitals** are in high demand by patients of all income levels and 80% of all treatments occur in private facilities.⁵ One opportunity to expand BOP access to care is by supporting growth of hospital chains, particularly those outside of major urban areas. This trend is already emerging as hospital chains are setting up facilities in smaller cities, commonly referred to as Tier II and III cities. Another opportunity is domestic production of **medical devices**, a rapidly growing sector with estimated revenues of \$3 billion in 2011.⁶ Domestic competition is intensifying as manufacturers improve the quality and capabilities of their products. The region is emerging as an innovation hub for low-cost, high-volume products.
- In **China**, one key opportunity is the expansion of domestic production of **medical devices**, highlighted as an area of focus by the central government's 12th 5 year plan. This particularly addresses BOP needs since domestic producers focus more commonly on more affordable, basic devices and equipment. Further, market demand for medical devices is significant as China is one of the largest markets globally with 26% annual growth.⁷ Another area is that of **independent medical laboratories**, which service both private hospitals and small public healthcare facilities. The BOP visits basic healthcare facilities more commonly for treatment, as opposed to large hospitals that already have in-house diagnostic capabilities. The central government's plan also indicates its focus on the growth of private healthcare facilities and basic public facilities, suggesting growth opportunities for independent medical laboratories.
- In **Turkey**, the **medical equipment sector**, which experienced 17.6% growth between 2010 and 2011,⁸ is a potential area of growth. Government incentives are in place to promote domestic production, stimulate R&D, and align Turkey with European regulatory standards to reduce import reliance. In addition, the **health IT** sector is rapidly growing and expected to reach \$14.4 billion in 2016.⁹ There is an increased level of activity from

large telecom companies and specialized IT-based service providers. Given the comparative maturity of the Turkish healthcare system compared to other developing countries, this is an opportunity to enhance quality and productivity of health services to the BOP.

- In **Nigeria**, the BOP faces a wide range of issues, including weak infrastructure and drug counterfeiting, particularly in rural areas, which impact access to drugs. Therefore, one potential opportunity is **logistics and distribution** of pharmaceutical products and medical equipment. Another challenge is that the majority of the population remains uninsured and pays heavily out-of-pocket, indicating an opportunity to develop **health insurance** services that meet the needs of the BOP.

As each of these markets evolve in a number of areas—including the role and funding for the public healthcare system, engagement with the private sector, geographic and socioeconomic distribution of the population, and maturity of local industries—the opportunities and challenges will also continue to change. It is clear that the private sector will play an ongoing role in delivering health goods and services to customers in developing markets, including those living at the base of the pyramid. Opportunities abound to address the issues of quality, access and cost that will follow. Domestic companies should consider responding to this demand by developing and expanding models that improve production and distribution of drugs and devices, along with delivery of healthcare services.

5 Mahal, Ajay, Janmejy Singh, Vikram Lamba, Anil Gumber, and V. Selvaraju. 2002. "Who Benefits from Public Sector Health Spending in India? Results of Benefit Incidence Analysis." National Council of Applied Economic Research, New Delhi, India.

6 NIPER Ahmedabad Medical Devices Sector Analysis 2009.

7 Espicom, China National Statistics Bureau.

8 Espicom Business Intelligence, "Overview of the Medical Device Market in Turkey," 2012.

9 Business Monitor International, Turkey Information Technology Report Q2 2012.

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