globalhealth intelligence

9 Healthcare Developments to watch in Latin America in 2015

Forward

Latin America's healthcare market is evolving in ways that will present new opportunities for foreign firms willing to invest in the region. The following report outlines 4 key themes driving change in customer behavior and market context and 5 developments in specific segments of the healthcare market with important implications for investors.

Evolving Context and Customers

- **Demographics shifts –** The impact on healthcare as Latin America shifts from newborns to elderly care. As their populations age, Latin America governments are grappling with inadequate public heath care infrastructure to meet the needs of the elderly. Opportunities exist for the private sector to provide non-hospital care, technology-driven health care solutions, and cost-effective preventive care.
- **Chronic diseases –** The shadow lurking in the Latin America's future. Non-communicable diseases account for 8 out of every 10 deaths in Latin America, with the leading causes being cardiovascular disorders, diabetes, cancers and chronic respiratory diseases. Chronic disease prevention efforts will drive growth in certain healthcare segments, including medical imaging, screening services, diagnostics, as well as obesity prevention efforts.
- **Technology innovation –** Efficiency gains and the advent of personalized medical treatments beckon—eventually. The convergence between healthcare and technology is beginning to take hold in Latin America. Two types of transformative changes hold out great promise: on the one hand, public health care expenditures stand to benefit from significant efficiencies, notably through the expansion of telemedicine. One the other hand, the spread of mobile health apps will revolutionize doctor-patient care.
- **Policy changes –** Brazil invites foreign investment to private healthcare. In January Brazil announced a potentially game-changing decision to allow foreign investment in the private healthcare sector for the first time. The winners will be companies making smart investments to professionalize management practices, standardize operating procedures, and capture a greater share of paying health care customers currently relying on the underperforming public healthcare system.

Opportunities in a Changing Competitive Landscape

- **Latin America pharmaceutical sales to grow 12% per year through 2017.** Pharmaceutical sales growth will continue thanks to the increased use of generics; the consolidation of pharmacies and the expansion of supermarket chains as retail outlets for pharmaceutical products; and the expansion of private health insurance, which will give more patients access to pharmaceuticals they wouldn't otherwise be able to afford out of pocket.
- **Generics are expected to account for 65% of Latin America's retail pharmaceutical drug sales by 2016.** As healthcare expenditures continue to increase, governments, insurers, and consumers are coming under ever-greater pressure to curb costs, which is fuelling the growth of lower-cost generic drugs. The biggest winners have been local producers of generic drugs as well as large pharmacy and retail chains.
- **The consolidation of pharmacy retailing will generate investment opportunities for medical service providers and retailers.** Latin America's pharmacy distribution market is experiencing considerable structural changes, as the leading pharmacy chains leverage their buying power, logistics prowess, and brand reputation to consolidate their position in the market. The most successful chains are expanding both in terms of geography and breadth of services by diversifying into basic medical services, integrating vertically, and consolidating their distribution channels.
- **The hidden potential of Latin America's hospitals.** Latin America is home to over 16,000 hospitals, two thirds of which are located in Brazil and Mexico. Their relative geographic concentration, number of hospital beds, and degree of specialization all point to attractive opportunities for companies selling sophisticated medical devices, hospital services, and technology solutions.
- **Imported medical devices account for over $10 billion in Latin America.** The $10 billion-a-year medical device market in Latin America remains attractive as demand is driven almost exclusively by the private healthcare sector and there is little-to-no local competition to jeopardize margins.

The report's insights are intended to enable decision makers to seize the right opportunities and inform their go-to-market strategies throughout the region accordingly.

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The Evolving Context and Customers

Demographics Shifts – The Impact on Healthcare as Latin America Shifts from Newborns to Elderly Care

In the 1950's Latin America was characterized for having a relatively high population growth rate of 2.8%[i]. Urbanization, greater access to education and a larger proportion of women in the workforce lowered population growth to this year's historic rate of only 1.2%[ii]. The expansion and modernization of healthcare access continues to lower mortality rates in Latin America, raising life expectancy levels to near North American rates. With fewer mouths to feed and more wage earners in the average home, Latin America has recently begun to bask in a 2-to-3 decade demographic sweetspot, much like Japan experienced in the 1970s-90s, the US is now concluding.

The demographic dividend lifts household savings and discretionary spending and also expands the tax base, enabling governments to invest in much needed healthcare infrastructure. Latin America is aging and quickly. The fastest household growing demographic is "empty nesters", Latin seniors who demand more independence and invest more in their health than previous generations of Grandparents.

The Economic Commission for Latin America and the Caribbean (ECLAC) predicts that the elderly (population aged over 65) will rise at a rate three times higher than the growth rate for the population as a whole in 2000-2025 and six times higher in 2025-2050, representing 136 million people by 2050.

The vast majority of the region's population is only now commencing its phase of optimal demographics including Brazil, Mexico and Colombia. However, Cuba, Uruguay, Argentina and Chile are further ahead and their experiences can provide some foreshadowing of how the rest of the region will develop.

Socio-economic inequalities and a disconnected rural population are two challenges facing the region's aging countries. While Latin American poverty levels dropped by half over the past decade, 36% of the region's population still lives on less than US$ 5.00 per day. v 21% of Latin Americans live in rural areas (and as high as 57% of the population in Caribbean and Central American states).vi Rising income levels have changed voter priority in maturing countries like Uruguay and Chile from an economic focus to a quality of life perspective. Middle aged Chileans want more government spending on healthcare combined with better access to all. The recent election of President Bachelet's leftist coalition in Chile was in part fueled by a middle class criticism of the country's private health sector from hospitals to insurance.

Japan, the U.S. and Europe offer examples of transforming health systems brought on by an aging population. In all three markets, the share of GDP spent on healthcare services and products rose.

In none of these markets was public health infrastructure sufficiently robust to cope with growing demand, so private enterprise stepped in, particularly in non-hospital care such as **clinics, ambulatory services, hospice care, nursing facilities, and home care**. That opened the market for private healthcare to help pay for the "non-essentials" that the public system could not afford.

Figure 1a: Percentage of Latin American population by age group, historic and forecast[iii]

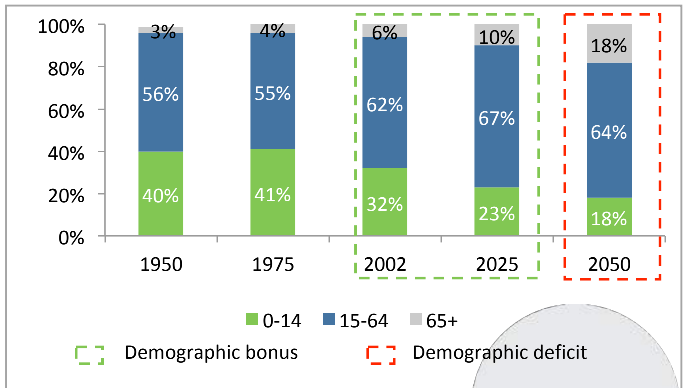
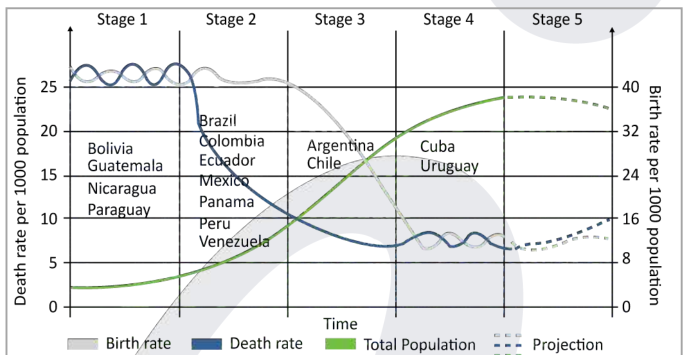


Figure 1b: The demographic transition by country[iv]



Latin America's fiscal discipline, or lack thereof, is likely to prevent public health from adequately addressing the additional costs of an aging population. That paves the way for massive potential growth in the private sector in fields such as **telemedicine, healthcare IT, medical devices and medical technologies** that help personalize medicine or improve the efficiency of doctors and nurses.

Drawing upon imported and home grown notions of "healthy old age", elderly Latin Americans are far more focused today on preventive care and health promotion, than they were only twenty years ago. The market for healthy eating, exercise and diets among the elderly is booming.

[i] AMI analysis based on information from The Economic Commission for Latin America and the Caribbean (ECLAC) http://www.eclac.org/publicaciones/xml/0/32650/OD-3-Demographic.pdf
[ii] AMI analysis based on information from The Economic Commission for Latin America and the Caribbean (ECLAC) http://www.cepal.org/cgi-bin/getProd.asp?xml=/publicaciones/xml/0/32650/P32650.xml&xsl=/celade/tpl-i/p9f.xsl&base=/celade/tpl-i/top-bottom.xslt and the United Nations
[iii] AMI analysis based on information from The Economic Commission for Latin America and the Caribbean (ECLAC) report "Demographic Observatory No.3: Population projection"; the United Nations' Economic & Social Affairs report "World Population to 2300"; and the report "Population Dynamics in Latin America" by Jorge A. Brea
[iv] AMI analysis based on information from The Economic Commission for Latin America and the Caribbean (ECLAC) report "Demographic Observatory No.3: Population projection"; the United Nations' Economic & Social Affairs report "World Population to 2300"; and the report "Population Dynamics in Latin America" by Jorge A. Brea
[v] AMI analysis based on information from The World Bank (http://povertydata.worldbank.org/poverty/region/LAC)
[vi] AMI analysis based on information from The World Bank (http://data.worldbank.org/topic/agriculture-and-rural-development)

Chronic Diseases – The Shadow Lurking in Latin America's Future

Chronic diseases represent over 60% of annual deaths worldwide, [1] with leading causes being cardiovascular disorders, diabetes, cancers and chronic respiratory diseases. While non-communicable diseases were the cause of 78% of deaths in Latin America in 2008, the World Health Organization estimates that this will rise to approximately 84% of deaths by 2030.

Obesity is at the heart of the discussion around these deadly diseases as it is a trigger for chronic health conditions such as diabetes, high blood pressure, and high cholesterol, while also increasing the likelihood of the onset of heart disease, strokes, certain forms of cancer and respiratory and gastrointestinal diseases, among others. Obesity is estimated to be responsible for between 1%-3% of total health expenditures in most countries, while accounting for a whopping 5%-10% in the United States. [2]

Hence the talk of global obesity "epidemic", since it affects both developed economies and emerging markets indiscriminately. While a correlation exists between obesity, income and education—wherein households with higher education and those with greater income tend to present a lower likelihood of obesity—countries like Mexico and the United States have a homogenous rate of obesity across all segments of the population, regardless of income or education. A significant concern is that no OECD country has seen a reversal of this trend since the obesity epidemic began.

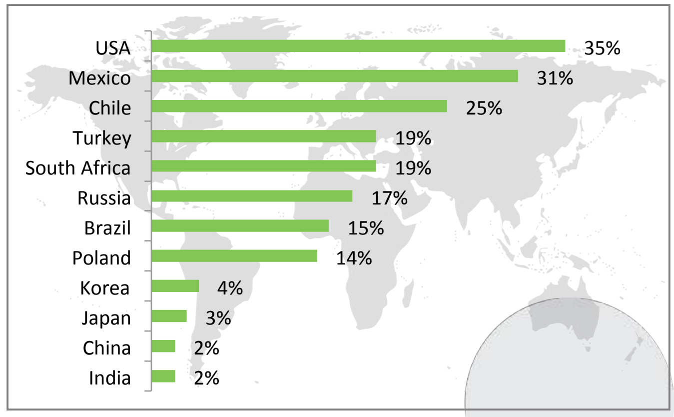
Mexico has the highest obesity growth rate in the world and has the highest proportion of child obesity and the second highest proportion of adult obesity globally. In response to this, in 2013 the Mexican government launched one of the most comprehensive strategies to address the problem, including awareness-raising, healthcare technologies for physicians, regulatory measures affecting food advertising, labeling of processed food, as well as taxation of unhealthy foods. The results of such a campaign will likely increase awareness—and thus early detection—of obesity.

Chronic disease prevention will drive growth in certain healthcare segments

Prevention remains a vast area of opportunity throughout Latin America, a region typically characterized by diets heavy in calories, people who exercise insufficiently, and sedentary lifestyles. In this area, food manufacturers can introduce healthier items and communicate more responsibly with consumers. For example, in Mexico Coca-Cola promotes the need to exercise and do sports in every commercial, using the "Haz deporte" slogan ("work out"). Being transparent with consumers and promoting strong values is a way for brands to distinguish themselves from the masses and earn customer loyalty by relating to customers on an emotional level. Pharmaceutical companies, typically associated with cutthroat practices and big profits, can also benefit from stronger ties to prevention-related campaigns—both from a brand visibility as well as brand reputation standpoint.

Meanwhile, Latin America is expected to become the region with the highest rate of cancer death worldwide. Estimates show that 1 million people will succumb to cancer annually by 2030, with 1.7 million cases being diagnosed annually.[3] Improving access to healthcare and the quality of detection methods will likely be an area of future growth. This trend has significant implications:

Figure 2a: Adult obesity in the world, as a percentage of total population



Source: Global Health Intelligence analysis based on information from the OECD Health
Data 2010, and WHO Infobase.

- Medical imaging equipment manufacturers stand to benefit, with demand set to grow for devices such as x-rays, CT scans, PET scans, MRI scans, and Ultrasounds.
- Providers of services such as endoscopies, tissue sampling (biopsies), laboratory tests (blood samples, etc.), and cancer screenings also stand to benefit handsomely.

It is estimated that diabetes currently affects over 15 million people in Latin America, a number that will reach 20 million by 2023.[4]

- As awareness and detection increase, the need for diagnostics equipment required for blood tests and analysis will follow suit, and demand for oral medication, insulin and other injectables, is set to grow.
- In the coming years, both local and international laboratories will see an increase in demand for drugs designed to treat cancer, diabetes, and heart diseases. However, the high costs of certain specialized medication may hamper their expansion, notwithstanding the need for these new treatments.

Demand in these healthcare segments will boost local manufacturing of medication, which is expected to keep growing, placing further strain on international laboratories. Given their limited R&D budgets, local manufacturers will continue to focus on the production of generics, birth control hormones, non-narcotic analgesics, antidepressants and anti-rheumatics.

Given this landscape, some global players may seek to increase their local presence. This may come in the form of direct market entry or through partnerships with well-established distributors and medical technology integrators. Time-to-market will remain a factor of consideration in this competitive marketplace, for which local expertise will help in the understanding of channel challenges such as solutions integrations, management of domestic production costs and regulatory risks, as well as the capitalization from distribution synergies within already existing networks.

[1] 2005 data from the World Health Organization, cited in Franco Sassi, Fit not Fat: Obesity and the Economics of Prevention, OECD, 2010, p28.
[2] OECD, Obesity Update, June 2014.
[3] Americas: Country Profiles, 2013, Pan American Health Organization, cited in "Report: 2013 Cancer Rates Alarmingly High in Caribbean," The University of Medicine and Health Sciences, St. Kitts, 13 January 2014, <https://www.umhs-sk.org/blog/report-2013-cancer-rates-alarmingly-high-in-caribbean/Caribbean-Medical-Schools>
[4] OneTouch, Diabetes en América Latina, <http://www.onetouchla.com/col/vida-diabetes/conoce-diabetes/sobre-diabetes/diabetes-en-america-latina>

Technology innovation – Efficiency Gains and the Advent of Personalized Medical Treatments Beckon — Eventually

The convergence between healthcare and technology is making its mark globally - and is beginning to take hold in Latin America. The adoption of new digital health information technologies such as electronic medical records (EMRs), telemedicine, mobile health applications, and electronic medical prescriptions will change how physicians, patients and hospitals interact, which will require adjustments to sales and marketing channels and in some cases, entirely new business models.

1. Efficiency gains in public health care expenditures

Notoriously slow and inefficient, public health care institutions throughout the region could stand to benefit from two promising technological innovations:

- **Telemedicine:** With 20% of the region's population living in rural areas – approximately 122 million people – building traditional healthcare infrastructure to attend the needs of rural patients is extremely costly. Telemedicine can help reduce some of that burden and global companies are beginning to tap in to the potential market. Since 2011, telemedicine investments in global markets have grown more than 20% per year, reaching $27.3 billion in 2016. Argentina and Brazil are the most advanced with the design and implementation of such programs, while Mexico, Peru and Colombia are also considering large investments in the field. Such markets represent an interesting opportunity for medical equipment manufacturers who supply integrated technology solutions.
- **"Big data" analysis:** The use of data management tools is one of the most exiting breakthroughs in the industry and is raising great expectations among hospitals across the United States and other more mature healthcare markets. Big data analysis—as modern data management methods are commonly referred to—enables more informed diagnostics, more targeted treatment options and the detection of patterns among patients across hospitals, which yields new insights as well as potential best practices and cost savings.[5] The data management tools being developed to extract value from big data remain costly and their use is not yet widespread even among U.S. hospitals. Yet early movers may reap many dividends, especially with government customers looking to save cost and boost health care cost efficiencies.

2. The personalization of medical treatments

Technological innovation is giving rise to a new trend: personalized medical care at scale. Mobile health applications are set to spread throughout Latin America and other emerging markets, while the advent of customized medical devices and health care accessories is on the horizon with as 3D printing technology becomes commercially viable.

- **Mobile health apps:** the use of mobiles and health apps are on the rise among patients across the globe: smartphone apps enable users to monitor many aspects of their health, including measuring their heart rate, counting calories, and blood sugar levels. New apps also allow for more complex regimens like managing chronic diseases, such as diabetes. According to mobile tech consultancy Research2Guidance, there are now almost 100,000 mobile health apps. The top 10 apps generating over 4 million free downloads every day.6 In Latin America the use of smartphones is increasing rapidly as the numbers of these devices are expected to double by 2017, accounting for 40% of the region's total population.7 The impact of the massive use of smartphones in the region along with a new generation of tech-savvy youngsters will open the door for a closer interaction between hospital and patients (e.g., monitoring serious health conditions through alerts to prevent the worsening medical conditions).
- **3D printing for medical applications:** 3D printing is one of the most promising advancements and is set to gain greater traction and acceptance in the medical technology industry. Several companies are using this technology to manufacture medical devices such as hearing aids, tissue implants, and prosthetics. To date 3D printing has had the greatest impact on personalized surgery and pre-surgical planning.[8]

The days when organs and body parts are printed at the patient's bedside are not far off, though its spread beyond the wealthiest patients will depend on overcoming significant market entry barriers and other obstacles. These include technological challenges such as the lack of available models and blueprints, and the inability to manufacture at scale cost efficiently. The advent of 3D printing solutions is unlikely to disrupt Latin America's health care sector in the near future, offering a longer horizon for maximizing profits from traditional medical devices sales.

[5] "Big data" in healthcare refers to electronic health data sets whose size and complexity are such that they are difficult (or impossible) to manage with traditional software programs; nor can they be easily managed with traditional or common data management tools and methods. See Scott Rupp, "2014 Health IT Trends: Technology Set to Tackle Inefficiency in Healthcare," Electronic Health Reporter, December 2013, <http://electronichealthreporter.com/2014-health-it-trends-technology-set-to-tackle-inefficiency-in-healthcare/>
[6] Alyssa Clark, "Top 5 high-tech health trends to watch in 2014," Healthcare Global, February 2014, <http://www.healthcareglobal.com/tech/1466/Top-5-hightech-health-trends-to-watch-in-2014>
[7] "América latina tendrá un 40% de smartphones para el 2017", <http://marketingmobileperu.com/penetracion-smartphones-america-latina-2014/>
[8] Meribah Knight, "3D printing is revolutionizing surgery," *Modern Healthcare*, March 2014, <http://www.modernhealthcare.com/article/20140324/INFO/303249992>

Policy Changes – Brazil Invites Foreign Investment to Private Healthcare

Brazil's President, Dilma Rousseff, announced in January that her government would allow foreign investment in the private healthcare sector for the first time. The government's decision is driven in part by the need to respond to the public discontent that erupted during protests in June 2013. Protesters demanded, among others, improvements to the public health system, especially to address the needs of lower-income citizens.

In response to the protests, the government announced plans to increase the number of doctors by hiring foreign staff and by requiring medical students to work for two years, rather than one, in the public health care system before graduating. This most recent opening announced in January marks a significant turning point for Brazil with broad implications for investment in the country's healthcare sector.

- Increased healthcare spending – The outlook for Brazil's health care sector, already promising, has now become more attractive. Spending had increased in recent years—from 8.9 percent of GDP in 2011 to 9.1 percent in 2013 and is now expected to continue growing with total spending on health care projected to rise to $255.5 billion by 2017.[9]
- Foreign firms to play in the hospital market – President Rousseff announcement has the potential to provoke a game-changing restructuring of the private health care market. Foreign health insurance companies have been able to operate in Brazil since the late 1990s, and since 2012 many have taken over Brazilian firms, with the consolidation likely to continue.[10] Hospitals and clinics, however, had remained off limits to foreign investors. This will now change and the first signs of interest from potential buyers have emerged, which is unsurprising: Brazil's concentrated hospital market and their revenue streams—outpatient care services generate up to ninety percent of hospitals' revenue—make for rich pickings.[11] Private equity investors are already looking to enter the market, with The Carlyle Group reportedly in negotiations to purchase the healthcare network Rede D'Or, the largest privately owned and independently operated healthcare system in the country.[12]
- Protocol standardization – Foreign investment in Brazil's hospitals is likely to accelerate the professionalization of hospital management practices, with the potential for significant improvements in the quality and cost efficiency of care. Many hospitals in Brazil are hampered by a lack of standardized processes as well as outdated management practices, governance structures, and IT systems. For example, only a few of Brazil's hospitals follow diagnostic protocols, drug guidelines, while many executive decisions appear to be based on intuition rather than data.[13]

  Most hospitals still do not use standard management reports, key performance indicators, fixed-cost evaluations, and other common management tools to measure their performance. There is much scope to improve performance and outcomes with smart investments in IT systems, management skills, and tools to monitor, control, and report key performance indicators.

- Sustainability of the SUS – In time, significant investments in Brazil's private healthcare sector has the potential to shift the burden of care away from the public health care system, the Sistema Único da Saúde (SUS), which could make a big difference in gradually stabilizing the public system's long-term financial health. The SUS is funded through federal and local taxes and employer and employee contributions; it is financially stressed: around 75 percent of the population depends on it, but only 47 percent of all health care spending comes from public funding.[14]

9 "2015 health care outlook: Brazil," Deloitte, 2014, <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Life-Sciences-Health-Care/gx-lshc-2015-health-care-outlook-brazil.pdf>
10 Ibid.
11 See "The Hidden potential of Latin America's hospitals," Global Health Intelligence.
12 "Healthcare sector open to foreign investment," SouthernPulse.info, 24 January 2015, <http://www.southernpulse.info/sp-pulses/healthcare-sector-open-to-foreign-investment>
13 "2014 global health care outlook: Shared challenges, shared opportunities," Deloitte, 2014, <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Life-Sciences-Health-Care/dttl-lshc-2014-global-health-care-sector-report.pdf>
14 "2014 global health care outlook: Shared challenges, shared opportunities," Deloitte, 2014, <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Life-Sciences-Health-Care/dttl-lshc-2014-global-health-care-sector-report.pdf>

Opportunities in a Changing Competitive Landscape

Latin America Pharmaceutical Sales to Grow 12% PerYear Through 2017

With pharmaceutical sales growing at 3% per year in mature markets such as North America, Europe and Japan, the successful drug manufacturers of tomorrow will continue to look to emerging markets to fuel their growth. Latin America and Asia stand out as the principal growth regions, each having expanded an average of 14% per year between 2008 and 2012 and expected to maintain an average pace of 12% per year through 2017 (see Figure 2a).[15]

The drivers of sustained growth in pharmaceutical sales throughout Latin America

Urbanization, greater access to education and a larger proportion of women in the workforce are helping to bolster income levels throughout Latin America, thus driving the expansion of pharmaceutical sales as people begin to spend more on healthcare beyond basic necessities. Between 2002 and 2009, Latin America's middle class grew by 60 million people (whereas in Asia, by comparison, the middle class grew by 49 million).[16]

Three important developments will continue to shape the market and fuel pharmaceutical sales growth in the coming years

1. First, Consumption patterns will continue to lean towards an increased use of generics throughout the region, a trend driven by governments seeking to broaden healthcare access at reduced costs. Local producers of generic drugs are becoming the driving force of the pharmaceutical market, manufacturing branded products as well as private labels for pharmacy chains. Local producers are growing at a staggering 28% per year enabling generics to be sold in domestic markets 70% more economically than their patented counterparts.[17]
2. The consolidation of pharmacies and the continued expansion of retail/supermarket chains will accentuate this trend moving forward. A study conducted by Nadro, a Mexican medical wholesaler, indicates that pharmacy chains and supermarkets went from controlling 69% of Mexican pharmaceutical sales in 2007 to 88% in 2014, reducing the participation of independent owners. Wal-Mart's dabbling in the pharmacy market in Mexico and Femsa's acquisition of Mexican local pharmacy chains Farmacias Yza and Farmacias FM Moderna are testimony to how modern retail chains are taking hold of pharmaceutical distribution.[18] Consolidation of the pharmaceutical retail segment will lead to fewer potential distributors —of greater gross revenue— for drug and over-the-counter manufacturers, thus simplifying the sales process and simultaneously increasing the reliance on a few retailers. This will lead to a number of consequences:
   a. Consolidation will translate into a severe disruption of longstanding practices by established product manufacturers, who have made the most of the inefficiencies of a fragmented marketplace. More aggressive negotiations between retailers and their suppliers are expected to ensue, posing a potential risk to unsuspecting suppliers.
   b. The growth of pharmacy chains will also squeeze wholesale margins forcing this segment to reinvent itself. Thanks to their vast negotiation powers, large retailers may seek to bypass this segment altogether.
3. Meanwhile, private health insurance is gaining traction and the market for "middle income" private clinics and hospitals is booming. As this happens, the market for medical devices and equipment will continue to grow, presenting additional sales opportunities for manufacturers.

Figure 5a: Share of global pharmaceutical spending by region 2013-2017

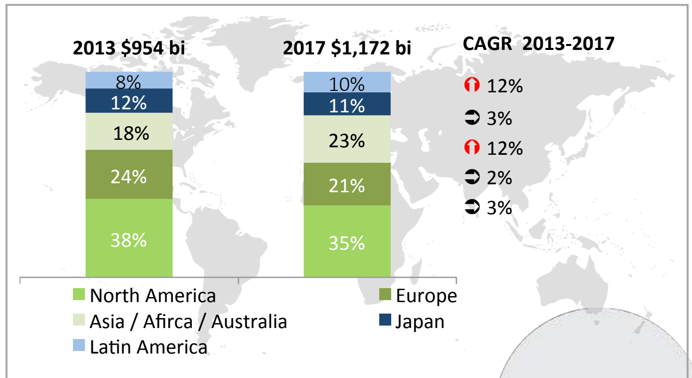
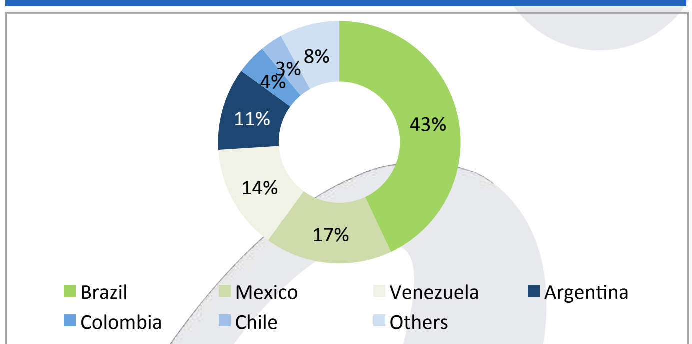


Figure 5b: Share Latin America pharmaceutical sales 2012, US$ 73 bi [19]



Source: Global Health Intelligence analysis based on information from IMS Health

Smart investment destinations

Ultimately for pharmaceutical companies, Latin America is a strong bet for future growth. A few markets stand out within the region: Brazil will continue to be the primary driver of healthcare expenditure in the region, accounting for ~43% of the region's pharmaceutical sales between 2013-2017, followed by Mexico as the region's second largest market with ~17% of the region's sales. Brazil is expected to become the world's fifth largest pharmaceutical market by 2016.

Colombia and Peru present strong growth prospects, albeit from a small base. Chile maintains the characteristics of a more mature market, with consistent and stable growth. In contrast, the economic woes and inflationary pressures currently besetting countries such as Argentina and Venezuela are causing varying degrees of distortion to the market values, pricing and margins in these countries. As a result, it is difficult to predict how these markets will fare, though the picture looks grimmer than for their neighbors.

Smart money will continue to look at Brazil and Mexico as the region's pillars, seeking additional growth from rising markets such as Colombia and Peru.

[15] AMI analysis based on information from IMS Health World Review, 2013, http://www.samf.com.ar/sites/default/files/MERCADOS%20-%20LATAM%20Y%20ARGENTINA%20-%20IMS%20-%20JUL.2013.pdf.
[16] AMI analysis based on information from Francisco Ferreira, et al., *Economic Mobility and the Rise of the Latin American Middle Class*, The World Bank, November 2012.
[17] AMI analysis based on information from Sanjeev Argawal, et al., "Capturing the Brazilian pharma opportunity," *McKinsey Insights and Publications*, April 2012, http://www.mckinsey.com/insights/health_systems_and_services/capturing_the_brazilian_pharma_opportunity.
[18] Coca-Cola's largest independent bottler in the world and owner of OXXO convenience stores.
[19] AMI analysis based on information from IMS Health World Review 2013 and Sociedad Argentina de Marketing Farmaceutico.

Generics are Expected to Account for 65% of Latin America's Retail Pharmaceutical Drug Sales by 2016

As healthcare expenditures continue to expand, governments, insurers, consumers and health systems are coming under ever-greater pressure to curb costs. Latin American governments are acutely aware of this trend as healthcare expenditures in the region are expected to grow by 6.8% per year in 2014-2017, compared to a global annual average of 5.3% over the same period. Against this backdrop, two market forces will drive the growth of the generic drugs market in the region in the coming years.

On the one hand, the expiration of 46 patents in the United States will invite greater competition to provide low-cost alternatives for many popular drugs. Generics are on average 50%-75% more economical than their patented counterparts and have become popular in countries where consumers are more price-conscious such as Venezuela and Argentina, among others.

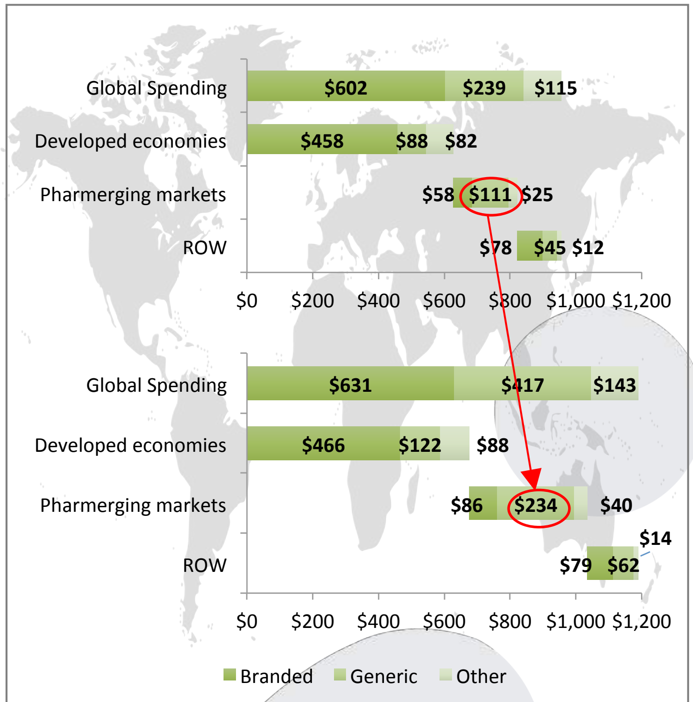
On the other hand, generics have become the option of choice for governments who subsidize heavily the health system, notably Brazil, Argentina and Colombia.[20] Insurance companies and governments are exercising tighter control over the type of drugs administered to patients. In most cases, governments in Latin America promote the use of generics primarily through legislation. In the case of Chile, at the beginning of 2014, congress approved a bill that forces doctors to write prescriptions both with the patent and generic name.[21] The bill also forced pharmacies to always ensure generics are available to the public.

As a result of government support and more price-conscious consumers, the use of generics is expected to increase 16% per year in Latin America, reaching 65% of total drug sales by 2016.

While generics offer medical distributors and pharmacies the opportunity to increase their sales volumes, the profit margins remain much lower than for patented drugs. So far the biggest winners have been local producers of generic drugs as well as large pharmacy and retail chains.

- Local generics manufacturers have been growing at a dizzying 28% per year, selling generics in their domestic markets 70% more economically than their patented counterparts (both branded products as well as private labels for pharmacy chains).[22]
- Meanwhile, large chains have leveraged their buying power and logistics networks to sell greater volumes of generics at the expense of smaller medical distributors and pharmacies, who have come under greater financial pressure. Many pharmacies have been forced to operate with less cash as they see their profits dwindle as generic drugs become ever more prevalent.

Figure 6a: Forecasted pharmaceutical spending by class of drug and type of market, 2011 vs. 2016 forecast[23]



[20] "Se les acaba el argumenta a los genéricos," *El Economista*, 13 may 2012, <http://eleconomista.com.mx/columnas/salud-negocios/2012/05/13/se-les-acaba-argumento-genericos>
[21] "Nueva Ley en Chile impulsa medicamentos genéricos," *Arsenal Terapéutico*, 8 January 2014, <http://www.arsenalterapeutico.com/2014/01/08/chile-nueva-ley-en-chile-impulsa-medicamentos-genericos>
[22] AMI analysis based on information from McKinsey, Capturing the Brazil Pharma Opportunity, April 2012, <http://www.mckinsey.com/insights/health_systems_and_services/capturing_the_brazilian_pharma_opportunity>
[23] "Se les acaba el argumenta a los genéricos," *El Economista*, 13 may 2012, <http://eleconomista.com.mx/columnas/salud-negocios/2012/05/13/se-les-acaba-argumento-genericos>

The Consolidation of Pharmacy Retailing will Generate Investment Opportunities for Medical Service Providers and Retailers

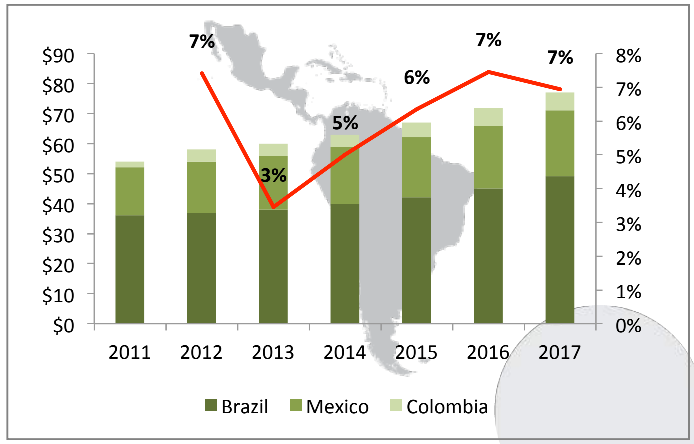
Latin American pharmacy chains are expanding both in terms of geography and breadth of services. In Chile, Colombia and Peru, over 75% of pharmacy retailing is controlled by no more than 3 or 4 large players. As these markets consolidate around a handful of dominant chains, foreign giants are likely to take note and show interest to enter the region.

Modern chains such as Super Farmacias Guadalajara in Mexico or Drogaria Araujo in Brazil have more in common with small supermarkets (or convenience stores) than they do with their roots as single-purpose drugstores. Today, their outlets typically carry a range of products such as dairy, snacks, home care products, personal care items, and non-perishable foods. They also offer convenient services such as cell phone top-ups, bus cards, and payment of utility bills, and even some basic banking and government services.[24]

Latin America's pharmacy distribution market is experiencing considerable structural changes, as the leading pharmacy chains leverage their buying power, logistics prowess, and brand reputation to consolidate their position in the market. A recent study by Nadro, a Mexican medical wholesaler, revealed that pharmacy chains and supermarkets went from controlling 69% of Mexico's pharmaceutical sales in 2007 to 88% in 2014. Moreover, as these chains continue to spread to provincial cities and smaller urban areas throughout the countryside, they are going to drive the consolidation of the retail business, impacting not just pharmacies, but retail distribution in general. Right now, the sector's consolidation and diversification is playing out in three ways:

1. Diversification into basic medical services: The expansion of low-cost and, in some cases, free medical checkups and exams onsite within the premises of pharmacy outlets is set to continue. This trend of offering basic medical services within the pharmacy infrastructure is expected to soon also include a range of basic diagnostic services. The dominant chains are well placed to diversify into these adjacent service offerings since they can leverage the proximity to their client base through their expanding network of outlets to provide fast and efficient service at a low cost.[25]
2. Vertical integration of the production chain: Pharmacy chains are venturing into the production of private label generic drugs, becoming producers and distributors of pharmaceuticals. In Mexico alone the sale of pharmacy-branded generics is greater than that of other generics brands and is expected to continue growing at over 20% per year.[26]
3. Consolidation of the distribution channels: The worldwide trend of medical distributors and pharmacy retailers forging tighter bonds is beginning to take place in Latin America as well. Some of the largest medicine distributors work exclusively with one large pharmacy chain: in Chile Sofocar and Farmacias Cruz Verde have struck an alliance; in Peru, Quimica Suiza and Boticas BTL; in Brazil Profarma and CSB Drogarias; in Mexico Farmacias Del Ahorro and Fármacos Nacionales.

Figure 7a: Pharmaceutical sales in leading Latin American countries, US$ millions[27]



To date CVS and Alliance Boots are among the few international companies that have entered the region through the acquisition of established local players. CVS acquired Drogaria Onofre in Brazil, whereas Alliance Boots purchased Farmacias Benavides in Mexico and FASA in Chile. As the pharmacy retail sector consolidates, however, local chains that are dominant in their markets will become ever more appealing to foreign investors who have thus far remained relatively quiet in the region.

[24] "La evolución de las farmacias en México y los cambios en sus consumidores," *America Retail*, June 2013, http://america-retail.com/industria-y-mercado/la-evolucion-de-las-farmacias-en-mexico-y-los-cambios-en-sus-consumidores
[25] Mexicanos prefieren consultar en farmacias que en IMSS of ISSTE, Sipse.com, July 2013, http://sipse.com/mexico/mexicanos-prefieren-consultar-en-farmacias-que-en-imss-o-issste-43269.html
[26] "Tendencia Farmacéutica: Cadenas de Megafarmacias y compra de registros de medicamentos para marcas propias", Miradaprofesional.com, http://www.miradaprofesional.com/ampliarpagina.php?db=logueos_miradaprofesional&id=660&pag=Editorial&npag=1&noticias=n1&comentarios=c1&destacada=1#.U3J3fvldVik
[27] Global Health Intelligence analysis based on data from Latin Trade.

The Hidden Potential of Latin America's Hospitals

Global medical device manufacturers have long relied on their core home markets for revenue and profits. The United States and European markets, with approximately 5,700 and 8,000 hospitals respectively, have been the traditional focus of the world's leading medical device manufacturers. These advanced markets are highly competitive and well served; future growth will either be organic or rely on technological advancement. Both of these factors make it difficult to quickly boost sales or profit margins.

The potential of international markets is often overlooked. While it is true that hospital spending and healthcare expenditures in emerging markets lag behind those of the U.S. and Europe, the size of the opportunity warrants a closer look.

Latin America is home to over 16,000 hospitals. Brazil has over 40% of the region's establishments and has more institutions than the US. Meanwhile, Mexico is the world's 7th largest hospital market with over 3,900 hospitals, 60% of which are private.

Analyzing hospital demographics can uncover a wealth of opportunities. Factors such as geographic concentration, size of institutions and degree of specialization are key to developing a successful growth strategy.

For example, half of all Brazilian hospitals are located in just six states, and one-in-five hospitals have more than 100 beds. In other words, companies selling sophisticated medical devices, hospital services, and technology solutions can learn to target hospitals that fall within their typical client base with a smart and focused regional in-country strategy.

Specifically, recent data on hospital infrastructure in Brazil suggests there is room for growth in outsourced medical services, notably in managing hospitals' pharmacy, medical and patient records, sterilization of materials and laundry services.

Similarly, over one quarter of Mexican hospitals are located in just three states, and 10% of hospital physicians are pediatricians. This means that companies introducing a treatment or device aimed at the pediatric market have a potential audience of nearly 20,000 doctors with a targeted approach.

Despite the opportunities, few global medical device manufacturers have taken the lead on making Latin America a priority. As such, the market is generally highly concentrated with a few players holding a cornerstone to the industry. Local R&D is weak and manufacturing is generally limited to second-generation products, by fear of piracy or intellectual property infringement.

Consequently, the region remains largely dependent on imports for more sophisticated products.

Making the right investment is the first step in establishing a market presence with long-term growth prospects in the region. A fast mover wanting to disrupt the current state of affairs could do so with a few thoughtful bets on concentrated markets such as Brazil, Mexico, Colombia, Chile or Peru.

Figure 8a: Number of hospitals by level of development [28]

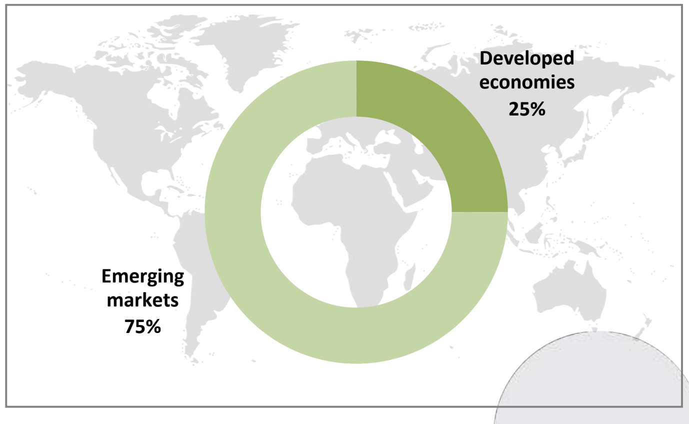
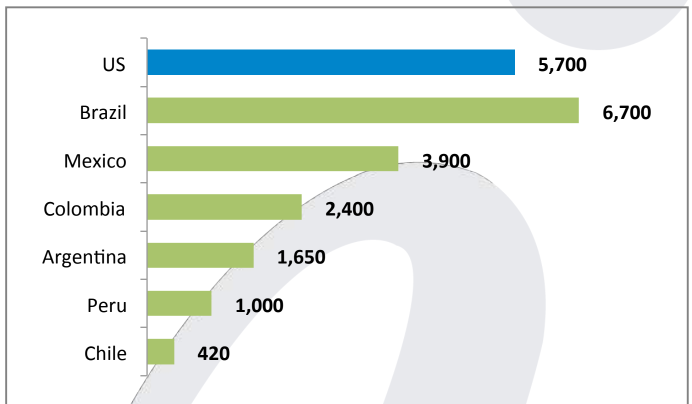


Figure 8b: Number of hospitals by country[29]



[28] Global Health Intelligence based on local ministries and internal data collection, www.globalhealthintelligence.com
[29] Global Health Intelligence based on local ministries and internal data collection, www.globalhealthintelligence.com

Imported Medical Devices Account for Over $10 Billion in Latin America

In 2014, exports of medical devices to Latin America are expected to top $10 billion. Mexico, Brazil, Argentina and Colombia together accounted for more than 75% of imported devices. Mexico is the largest importer of the region with over $2.5 billion in 2014; spurred primarily by its proximity to the U.S., the North American Free Trade Agreement (NAFTA) and relatively low degree of local manufacturing. Brazil and Argentina are also large import countries, with ~$2 billion each.

Medical devices stand out because demand for innovative, high-tech solutions is largely driven by the private sector — in contrast to other types of healthcare expenditures, which are more evenly balanced between the private and public sector. With over 16,000 hospitals in the region, Latin America is an attractive market for many foreign manufacturers.

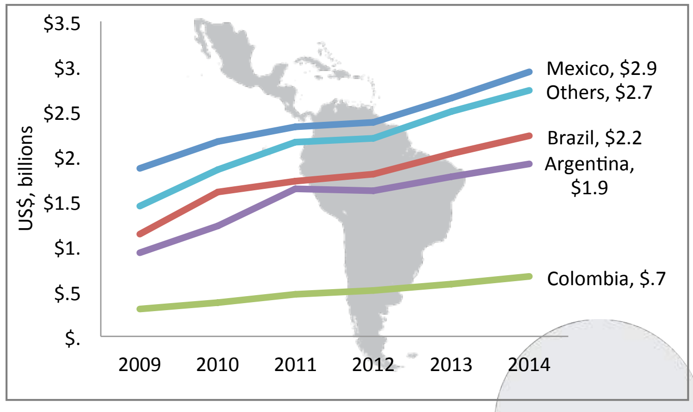
The weakening of currencies across the region will result in an overall drop in demand for imported, dollar-denominated devices and technologies; favoring locally manufactured equipment which may be less exposed to currency fluctuations. Foreign manufacturers and their local distributors will have to promote creative financing options in order to stay on top of the market and not lose share to less expensive products.

Imported devices trump local production

With the exception of Brazil, most countries in Latin America have little-to-no local manufacturing of medical devices or medical technology. Relatively small domestic markets have kept local players at bay, while weak intellectual property rights, questionable regulatory frameworks and a dearth of trained talent have held back foreign manufacturers from investing in the region. As a result, most countries rely almost exclusively on imports, especially for high-end, complex devices. A smart regional strategy will account for differences and clusters among local markets:

- Brazil is the region's largest market for medical devices: the country accounts for 50% of the U.S. exports of medical devices to Latin America and has a strong domestic manufacturing industry of its own. It has evolved into a mature market for medical devices, complete with a more developed regulatory system than in neighboring countries. While Brazil represents a vast opportunity, importing into Brazil and local regulation are complex and costly to manage. Local competition should not be underestimated. A proper market assessment can help navigate some of these challenges, helping make the right decisions.
- Though Mexico's market is second to Brazil in term of local demand for medical devices, it is in fact the region's largest importer. Its proximity to the U.S., highly developed road systems, integration into the NAFTA, and robust export manufacturing ("maquila") industry make Mexico a natural expansion when looking outside the US. Additionally, the state of Jalisco (Guadalajara region) has developed important capabilities in the healthcare space, primarily pharma and to a lesser degree devices.
- Beyond the top four markets — Brazil, Mexico, Argentina and Colombia — a second tier stands out, including Chile, Peru and Costa Rica. Each of these markets benefit from the right conditions to make them attractive to medical device suppliers and manufacturers, including respect for the rule of law, favorable customs and import regulations and higher levels of per capita spending on healthcare compared to regional standards. These can become lucrative, albeit niche export markets alongside the bigger regional players.

Figure 9a: Medical device imports by country[30]



[30] Global Health Intelligence based on data from SIAGOV, DIAN, AliceWeb, Indec, SIAVI.

About Global Health Intelligence

Global Health Intelligence provides ground breaking and accurate information about healthcare systems in Latin America and Asia in order to facilitate growth and understand the competitive landscape.

The data provided by Global Health Intelligence focuses on **Hospital demographics, Import data** and **Custom research** in order to help businesses succeed in emerging healthcare markets.

- **Hospital Demographics**
  GHI has the world's largest hospital database focused on emerging markets, covering data such as beds, medical practices, capital equipment, amongst others.

- **Import Data**
  GHI has the most expansive medical import statistics in Mexico, including data such as importer, exporter, quantity and value.

- **Custom Research**
  GHI has over 20 years of Market Intelligence experience in emerging markets, helping companies find answers to their complex questions.

Global Health Intelligence provides groundbreaking and accurate information about healthcare infrastructure and systems in emerging markets to help clients understand the competitive landscape and identify opportunities for market entry and sales growth.

By applying cutting-edge research processes and models, Global Health Intelligence develops, verifies, updates and complements over 2 million hospital data points per year, delivering them in an accessible, user-friendly format.

Customers include medical device manufacturers, medical technology providers, pharmaceutical businesses, equipment providers, and solutions integrators, amongst others.