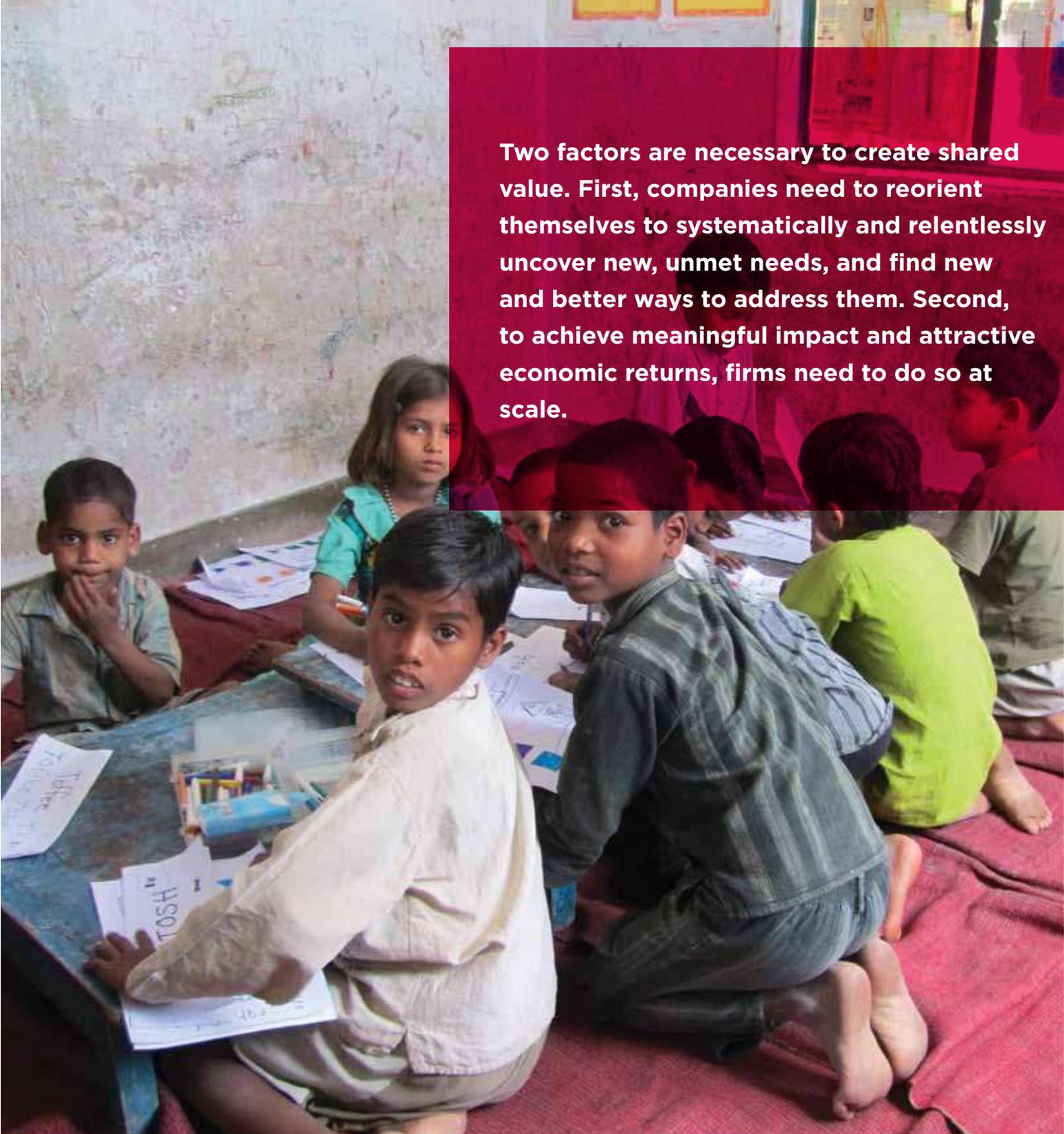


# Shared Value Opportunities in Global Health

A group of children are sitting on the floor in a classroom, engaged in an activity. They are surrounded by papers and a box of crayons. The children are looking towards the camera with various expressions of interest and focus. The background shows a simple classroom setting with a white wall and some posters.

**Two factors are necessary to create shared value. First, companies need to reorient themselves to systematically and relentlessly uncover new, unmet needs, and find new and better ways to address them. Second, to achieve meaningful impact and attractive economic returns, firms need to do so at scale.**

## Companies create shared value in global health when they compete on the basis of improving health outcomes for the underserved.

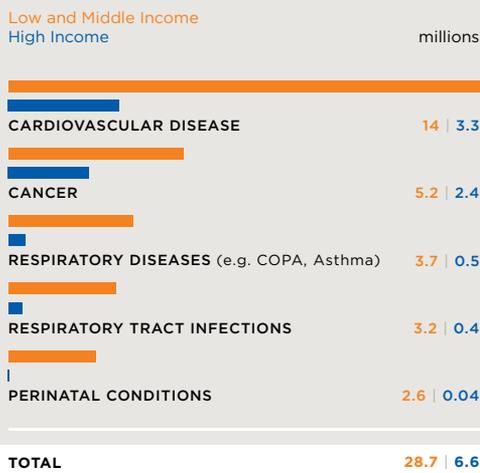
Rather than competing for market share among well-funded payers and wealthy patients, companies view their success in terms of their ability to improve health outcomes by building and serving new markets. To achieve that success, companies must think differently about how they run their businesses.

Two factors are necessary to create shared value. First, companies need to reorient themselves to systematically and relentlessly uncover new, unmet needs, and find new and better ways to address them. Second, to achieve meaningful impact and attractive economic returns, firms need to do so at scale.<sup>36</sup>

Low- and middle-income countries have vast unmet needs. In 2010, 34 million people were living with HIV/AIDS, two-thirds of whom were in Sub-Saharan Africa.<sup>37</sup> Low- and middle-income countries account for nearly 80 percent of the burden from such NCDs as cardiovascular disease, diabetes, cancer, and chronic respiratory diseases, which together caused 63 percent of all deaths

in 2008.<sup>38</sup> Estimates put the number of people in Asia, Africa, and Latin America suffering from asthma in 2004 at more than 130 million, with particularly high rates reported in Peru, Brazil, and South Africa.<sup>39</sup> More than 55 percent of the nearly 13 million cancer cases recorded in 2008 were in low- and middle-income countries; by 2030, those countries are expected to account for two-thirds of an estimated 21 million cases.<sup>40,41</sup> Seventy percent of the estimated 285 million people with diabetes in 2010 lived in these nations, and diabetes rates are expected to nearly double by 2030, with low- and middle-income countries seeing the largest increases.<sup>42</sup> In India and China, diabetes, heart disease, and stroke are expected to cost more than \$750 billion from 2005 to 2015.<sup>43</sup> Overall, estimates suggest that NCDs could cost more than \$30 trillion over the next 20 years and could lead to a global loss of output of \$47 trillion.<sup>44</sup>

**Figure 7:**  
**Top Five Non-Injury Causes of Death in 2008**



Source: Causes of Death 2008, World Health Organization

Addressing unmet health needs in these markets will not be easy, even for companies that excel at innovation, market adaptability, and stakeholder management. While most of the conversation about the private sector’s role in global health has centered on gaps in upstream R&D activities, many of the problems to overcome are downstream, delivery-based challenges. Five key barriers to scaling business in low- and middle-income countries are identified in the literature: missing skills and knowledge, limited market information, ineffective regulation, inadequate infrastructure, and limited access to financial products and services.<sup>45</sup> In addition to these factors, health technology firms are challenged to adapt their often complex products for countries with limited resources or patient ability to pay. Local health systems also may not be capable of delivering their products safely and effectively.

Companies are addressing these barriers through specific approaches across three levels of shared value that have an increasingly external emphasis. First, companies can **reconceive their products and markets**, devising new ways of addressing unmet health needs and developing more affordable and appropriate products. Second, they can **redefine productivity in the value chain**, to reach underserved groups affordably and at scale. Third, they can **enable local cluster development**, strengthening the systems, infrastructure, and context that allow products to be delivered competitively and sold widely.

**Figure 8: Levels of Shared Value Creation for the Health Technology Sector**

1 Reconceiving Products and Markets	2 Redefining Productivity in the Value Chain	3 Enabling Local Cluster Development
<ul style="list-style-type: none"> <li>• R&amp;D for drugs, vaccines, and devices that fill unmet health needs</li> <li>• Adaptation of existing products to reduce complexity and cost</li> <li>• Tailored product offerings to meet local market conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Collaborative and homegrown R&amp;D to reduce cost and risk</li> <li>• Efficient, local supply chains and manufacturing to reduce production costs</li> <li>• Locally-adapted sales and distribution to penetrate new markets and better meet patient needs</li> </ul>	<ul style="list-style-type: none"> <li>• Behavior-change campaigns to increase the sophistication of demand for health care</li> <li>• Health system strengthening to enable delivery of needed products and services</li> <li>• Advocacy and capacity building to strengthen policy and the regulatory environment</li> </ul>

Corporate efforts to reconceive **products and markets** are perhaps the most advanced across the three levels of shared value (see Table 1). Many firms have adopted tiered or discounted pricing for poor consumers.<sup>46</sup> In addition, companies are redeveloping existing product lines to meet the needs of these new markets, either by lowering unit costs or improving functionality in resource-poor environments. The most compelling initiatives are the result of companies thinking more broadly about the needs and behaviors of specific segments of the population, and developing ways to address them affordably and at scale. In general, successful approaches are **patient-centered, affordable, and tailored to local conditions**.

**Table 1: Reconceiving Products and Markets**

Area of Activity	Approaches	Examples
<b>R&amp;D for drugs, vaccines, and devices that fill unmet health needs</b>	<ul style="list-style-type: none"> <li>• New technologies for diagnosis, prevention, or treatment</li> <li>• New delivery mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Daiichi Sankyo</b>, through its generics subsidiary, Ranbaxy Labs, partnered with the Indian government to develop new tuberculosis drugs</li> <li>• <b>Boehringer-Ingelheim</b> developed extended-release, once daily Viramune® (nevirapine) for HIV treatment that aims to replace twice daily, immediate-release tablets of nevirapine, reducing the pill burden</li> </ul>
<b>Adaptation of existing products to reduce complexity and cost</b>	<ul style="list-style-type: none"> <li>• Re-engineering / reformulation to improve functionality</li> <li>• Redesign to lower unit cost</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Dr. Reddy</b> invested in a cardiovascular disease polypill, the “Red Heart Pill” which combines several products and could be widely distributed to lower the risk of the disease</li> <li>• <b>GE</b>, through its healthymagination platform, developed an ECG machine suitable for mobile use in difficult environments (see company profile)</li> <li>• <b>Medtronic</b> developed a leadless pacemaker that can be monitored remotely, where seeing a specialist regularly can be difficult (see company profile)</li> <li>• <b>Abbott’s</b> True Care business in India launched a combination of two antibiotics specifically developed to address the issue of drug-resistant typhoid</li> </ul>
<b>Tailored product offerings to meet local market conditions</b>	<ul style="list-style-type: none"> <li>• Product portfolio selection</li> <li>• Tiered pricing</li> <li>• Adapted packaging to reduce unit cost or improve safety</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Novartis</b> selected a portfolio of patented, generic, over-the-counter and consumer products for its Arogya Parivar business in rural India (see company profile)</li> <li>• <b>GSK</b> set prices for its patented products in the least developed countries at a maximum of 25 percent of the price in the U.K. or France</li> <li>• <b>Merck KGaA, Johnson &amp; Johnson</b> and <b>GSK</b> are working with technology company Sproxil to roll out a mobile phone-based drug authentication system in Nigeria, Kenya and India; <b>May &amp; Baker Nigeria</b> is working with HP and mPedigree on a similar system</li> <li>• <b>GSK</b> repackaged its Ventolin® asthma medication from a 200-dose pre-filled inhaler at \$5 each to packs of two to three doses retailing for just a few cents</li> </ul>

## COMPANY PROFILE

GE's healthmagination initiative was founded as a platform to coordinate research and development across the company, with the aim of launching products that would lower-cost, enhance quality, and expand access. The company set ambitious targets of investing \$3 billion to develop more than 100 healthmagination products that would improve on cost, quality, and access targets by 15 percent each by 2015.

Establishing healthmagination in May 2009 was an essential step in setting the broad corporate focus on in-country, for-country innovation. The company recognized that, given the highly localized nature of health needs, it needed to give local teams the independence to innovate inside a market, for that market. The company's view was that reverse innovation demanded a decentralized, local-market focus — one that fundamentally conflicts with the centralized, product-focused structure that for years had been the standard way to compete globally. Local teams in China, India, and other emerging markets were given unprecedented autonomy to innovate for their markets. By taking an experiment-and-learn approach, the teams spent a little and learned a lot.

GE saw a need to grow its business in India, as the country represented only 2 percent of GE Healthcare's revenue in 2010. GE also noted the rapid growth in cardiovascular disease in the country, including the 70 percent of people living in rural areas, who may not have consistent access to electricity. The company developed its MAC line of electrocardiogram (ECG) machines, a more portable and affordable version of the common cardiac diagnostic device to extend access to rural areas. The machines have simplified operations, run on a highly efficient battery, and sell for as low as \$500, compared with GE Healthcare's hospital-based units, which can cost tens of thousands of dollars more. GE has sold 10,000 of the units to date, with individual physicians purchasing 90 percent of the ECGs so far. GE leaders cite the importance of proximity to local markets in facilitating the adaptations needed to innovate in emerging markets.

**GE:**  
Adapting Existing  
Products to Reduce  
Complexity and  
Cost<sup>47</sup>





As companies learn how to deliver reconceived products to new markets, investments to **boost value chain productivity** will become more common (see Table 2). Innovative partnerships are emerging to share the risks and reduce the costs of R&D, such as ViiV Healthcare. Firms are experimenting with a range of new approaches to improve the efficiency and reliability of their manufacturing and sourcing. Gilead, for example, has entered into licensing contracts with 12 Indian active pharmaceutical ingredient manufacturers, which has reduced its supply costs by 67 percent.<sup>48</sup> Companies like Abbott, Novartis, and Stryker are also developing increasingly effective and differentiated approaches to sales and distribution.

The potential for shared value is by no means limited to health outcomes. Companies interviewed for this paper noted positive effects on local job creation in particular.<sup>49</sup> From a health perspective, though, the main opportunity for shared value lies in aligning the value chain to deliver on the promise of well-adapted, affordable products and services. Successful investments in this area **improve reliability, reduce costs, and leverage local expertise.**

**Table 2: Redefining Productivity in the Value Chain**

Area of Activity	Approaches	Examples
<b>Collaborative and homegrown R&amp;D to reduce cost and risk</b>	<ul style="list-style-type: none"> <li>Investment in new or existing local research institutions</li> <li>Collaborative approaches to reduce cost and share development risk</li> </ul>	<ul style="list-style-type: none"> <li><b>Stryker</b> hired and trained indigenous R&amp;D talent to develop India-specific products (see company profile)</li> <li><b>Novo Nordisk</b> established an R&amp;D center in China, allowing it to tap into the knowledge of Chinese scientists to develop locally-appropriate insulin products</li> <li>Hilleman Labs, a joint venture between <b>Merck</b> and Wellcome Trust, was created to develop and bring to market affordable vaccines for low- and middle-income countries</li> <li><b>Pfizer</b> and <b>GSK</b> created a new, jointly-owned company, ViiV Healthcare, that combines compounds owned by both firms to create a viable pipeline for new HIV medicines</li> </ul>
<b>Efficient, local supply chains and manufacturing to reduce production costs</b>	<ul style="list-style-type: none"> <li>Supply chain strengthening</li> <li>Licensing</li> <li>Local production facilities</li> <li>Improved manufacturing practices</li> </ul>	<ul style="list-style-type: none"> <li><b>Gilead</b> licensed production of active pharmaceutical ingredients for HIV medication to 12 Indian companies, reducing supply risk and creating price competition to drive down costs (see below)</li> <li><b>Cipla</b> has established manufacturing plants in Uganda and Sierra Leone in order to better serve markets in Sub-Saharan Africa</li> <li>The Clinton Health Access Initiative improved <b>Aspen Pharmcare</b> and other generic companies' manufacturing processes, established local suppliers of critical reagents, and facilitated new API (active pharmaceutical ingredient) supplier entry to reduce the price of efavirenz (an HIV medication) by 69 percent</li> </ul>
<b>Locally-adapted sales and distribution to penetrate new markets and better meet patient needs</b>	<ul style="list-style-type: none"> <li>Sales force reconfiguration</li> <li>New distribution approaches</li> </ul>	<ul style="list-style-type: none"> <li><b>Abbott</b> has adapted its sales force to reach low-income populations in remote areas of India (see company profile)</li> <li><b>GSK</b> is working with its distributors to share the risk of switching to a higher volume model to ensure that price reductions are passed on to patients</li> <li><b>Pfizer's</b> initiative, <i>Comunidad más saludable</i> ("Healthier Community"), in Venezuela trains community sales representatives to target health clinics in low-income neighborhoods to promote Pfizer products, along with discount coupons for patients to increase access</li> </ul>

## COMPANY PROFILE

### **Abbott:** Adapting the Sales Force to Penetrate India's Remote Areas<sup>50</sup>

When Abbott bought the branded generic drugs business of Piramal, a major Indian producer, it had high expectations. The company anticipated establishing a leading position in the growing, branded generics market in India, which represented \$8 billion in sales in 2011 and is expected to more than double by 2015. Abbott projects more than \$2.5 billion in annual pharmaceutical sales in India by 2020.

To reach these goals, the company needed new approaches to penetrate India's small towns and rural areas, which represent 42% of the pharmaceutical market. A key component in the Piramal domestic formulations purchase was the True Care business unit, which brings high-quality and affordable medicines to people in remote areas of urban and rural India – currently some 10,000 towns and villages.

The unit takes an innovative approach to developing a sales force: It hires sales representatives who are graduates from non-scientific disciplines, have local language skills, and ties to the communities they will target. The company provides intensive training, performance

incentives, and coaching in areas like sales and science.

Local sales representatives are more effective in selling and promoting health in their communities. The sales force conducts a large number of education programs on basic diseases for health care practitioners. More than 38,000 health care practitioners took part in such programs in the past year.

True Care has achieved impressive results. In the last four years, 58 million patients have been reached. However, hurdles remain. The business continues to adapt the product portfolio to address the local disease burden and to find an appropriate balance between profitability and access. In particular, it has been challenging to adapt True Care to Abbott's operational standards, while competing within the local context. Abbott recognizes that driving both growth and access in these markets is a long-term effort that will require new approaches to meet these challenges in the years ahead."



## COMPANY PROFILE

A leader in orthopedic care, Stryker set its sights on gaining market share in India five years ago, with an ambition to develop appropriate devices and orthopedic implants locally. The market potential was huge — approximately 80,000 highly arthritic patients forego knee-replacement surgery each year.

The company started with an investment in building indigenous R&D talent. It commonly recruits from such fields as automotive engineering, because existing skills are lacking. The company has provided experiential learning opportunities to its trainees and taught them to seek out health needs. Through a partnership with Stanford's Biodesign group, the Sanjay Gandhi Postgraduate Institute of Medical Sciences, and the All India Institute of Medical Sciences (AIIMS), Stryker's investment in training at its new Global Technology Center has already paid off. One knee system, with proven clinical history, has already been developed and launched at an affordable price for the local market. Stryker hopes that other India-specific

product and business-model innovations will result in more appropriate local solutions. Currently, the country imports up to 80 percent of medical devices.

Stryker's investments in R&D and new relationships have unlocked a key insight — trained surgeons are woefully inadequate and training for knee-joint surgery is nonexistent in the country. Through hands-on training, demonstrations, and a train-the-trainer model, more than 100 surgeons have been trained during the last two years. Now the company is tackling the greatest challenge — health care infrastructure. Stryker is planning to help smaller hospitals throughout the country build high-quality operating rooms with state-of-the-art technology, such as video linkages among operating rooms and with other hospitals so that surgeons can review their work with peers and continue to learn.

**Stryker:**  
Homegrown R&D  
for Orthopedic  
Care in India<sup>51</sup>

Perhaps most interesting from a global health perspective is the growing trend of companies **investing in the clusters** in which they operate. When pharmaceutical and medical device companies invest in health care clusters within low- and middle-income countries — to improve patient awareness and demand, health systems, and the policy and regulatory environment — they not only bolster their own ability to reach new markets, but they also provide value to society that goes beyond the immediate benefit of their medicines or devices to patients.

However, many cluster efforts remain subscale, disjointed, and reactive, addressing acute problems when they arise but stopping short of creating fundamental change. Innovations that could alter the economics of health care provision, such as staged payment schemes and insurance, for example, remain rare. Nonetheless, existing investments in health care systems are likely to grow over time as companies build a presence in the market and begin to understand what works. In general, successful cluster-building efforts **enable the effective and safe delivery of products and services to new populations; improve patient and health system ability to pay; and promote health-seeking behavior**, by overcoming barriers such as lack of knowledge, poverty, or geographic distance to a health care provider.

**Table 3: Enabling Local Cluster Development**

Area of Activity	Approaches	Examples
<b>Behavior-change campaigns to increase the sophistication of demand for health care</b>	<ul style="list-style-type: none"> <li>• Social marketing to increase health-seeking behaviour by patients</li> <li>• Patient education about disease management</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Eli Lilly's</b> partnership with Population Services International in India will create new awareness about diabetes in two Indian cities (see company profile)</li> <li>• <b>Medtronic's</b> Beijing Patient Care Center educates patients, physicians, and caregivers about cardiovascular therapies to address the lack of time that physicians have with chronic disease patients</li> </ul>
<b>Health system strengthening to enable delivery of needed products and services</b>	<ul style="list-style-type: none"> <li>• Improvements to infrastructure and to the capacity of management and staff</li> <li>• Financing innovations in insurance and payer coverage</li> </ul>	<ul style="list-style-type: none"> <li>• <b>AstraZeneca</b> invested in provider training and awareness to increase breast-cancer treatment in Kenya (see company profile)</li> <li>• Through its Amplicare program, <b>Roche</b> is training health professionals on the use of innovative new diagnostics</li> <li>• <b>Sanofi-Aventis</b> is working with the microfinance organization, PlaNet Finance, to develop microloans that support antimalarial purchases in Madagascar</li> </ul>
<b>Advocacy and capacity building to strengthen policy and the regulatory environment</b>	<ul style="list-style-type: none"> <li>• National guideline development</li> <li>• Regulatory capacity and efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Novo Nordisk</b> and the World Diabetes Foundation worked with the Chinese Ministry of Health to improve case management guidelines for diabetes (see company profile)</li> <li>• <b>Abbott</b> worked to build the capacity of Chinese regulatory authorities to assess and approve the contents of nutritional products</li> </ul>

While companies often start with one shared value approach — reduced prices for example — they frequently discover barriers and opportunities that demand complementary shared value investment.

Gilead Sciences provides an example of how a company that starts with one activity, in this case licensed manufacturing, can uncover a need for complementary investments in other shared value approaches. As the company behind several antiretroviral drugs containing the chemical tenofovir, Gilead broke new ground with its licensing approach that allowed for large-scale manufacturing of tenofovir-based products by Indian generic manufacturers. Through voluntary licenses to 12 generic companies operating in India, the price of these products in low-income countries has dropped dramatically, and 1.8 million patients living with HIV now use tenofovir-based products.

## COMPANY PROFILE

Of the nearly half-million deaths from breast cancer in 2008, 64 percent occurred in low- and middle-income countries.<sup>53</sup> Breast cancer is a complex disease to treat, as it requires individual specialist attention and regular visits to a hospital or other health facility. Delivering breast-cancer care and treatment in resource-constrained settings is especially challenging as these locations lack disease surveillance, awareness of the disease, and specialists. The cost of treatment can also be out of reach for most patients.

Against this backdrop, AstraZeneca recently launched *Pambazuka* (“Sunrise”) to expand access to breast-cancer treatment in Kenya, where fewer than 20 percent of potential patients are ever treated. Through careful analysis of the country’s referral system, the company identified the root causes of this low treatment rate: lack of awareness of symptoms and treatment options among patients and health workers, poor access to quality diagnosis, and a relatively high cost of treatment. *Pambazuka* aims to address these barriers by providing one-day breast-cancer management workshops for surgeons, doctors, and nurses in Kenya’s

three largest cities. Working with the Africa Cancer Foundation, the program also aims to strengthen patient support and awareness by providing one-day trainings for volunteers and counselors who are involved in patient care. In addition, AstraZeneca has significantly reduced the price of its breast-cancer products — lowering the price of Arimidex 59 percent and Nolvadex 32 percent — in order to make them more affordable.

Though the program is still at an early stage and measurable results are not yet available, it still aims to be profitable as it is based on a similar initiative that AstraZeneca launched last year in South Africa. AstraZeneca seeks to learn from its experience with *Pambazuka* to develop similar programs in other developing countries where the increasing cancer burden is posing a significant challenge to health care systems that typically have not been set up to provide treatment for chronic conditions.

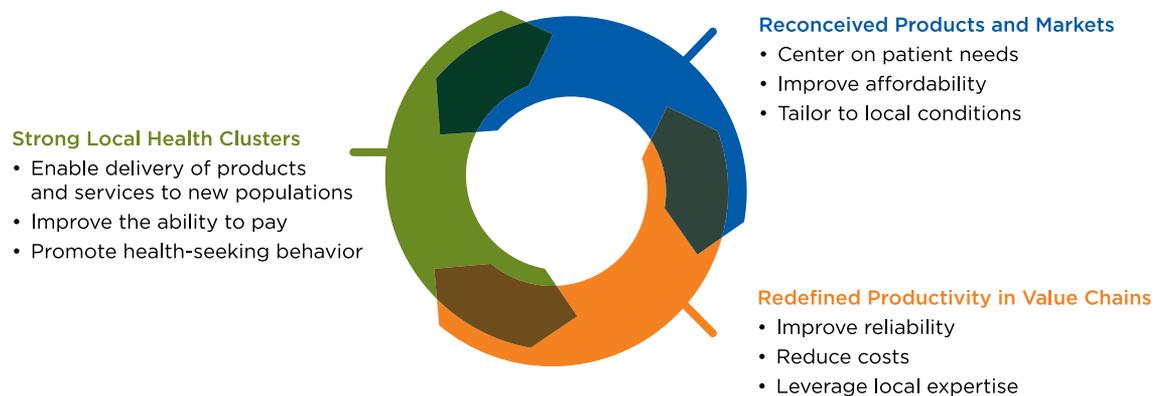
### **AstraZeneca:** Health System Strengthening to Pilot Breast-Cancer Treatment in Kenya<sup>52</sup>

The initiative is now profitable as the company collects a small royalty from the sale of generic copies of its products.

Gilead also retains the ability to sell its branded products. To increase uptake and support for its 11 distributors operating in 132 countries, Gilead identified the need for local cluster development through patient and provider educational materials, treatment guidelines, and inventory management tools. The company is providing the necessary information to local ministries of health and piloting an SMS-based mHealth platform called HIV Link that allows rural community health care workers to communicate with HIV experts via mobile phone.

Efforts to create shared value across the three levels are also mutually reinforcing (see Figure 9). Productive and lower-cost value chains are essential to connecting redesigned product portfolios to underserved markets. Strong clusters can enable firms to serve population segments that were previously out of reach, and can open up new, lower-cost manufacturing and distribution options.

**Figure 9: Efforts to Create Shared Value are Mutually Reinforcing**



Leading firms are beginning to design multi-level approaches to harness this multiplier effect. Medtronic, for example, is investing in redesigned devices for use in resource-poor settings, diagnostic capabilities to ensure they are used appropriately, and advocacy to increase global attention to the non-communicable diseases. Stryker also started with product R&D but is now investing in its cluster through surgeon training and equipping small hospitals with improved operating rooms in India. GSK, Novartis, and Novo Nordisk each employ a combination of approaches across all three levels of shared value.

The right combination of shared value approaches will be unique to a particular company and market. Factors such as disease burden, payer dynamics, regulations, health system strength, and cultural attitudes to health care vary both between and within countries. For a company like GSK, with a competitive advantage in vaccines, working through the GAVI Alliance to reach the underserved populations in the 48 least developed countries makes strategic sense. For others, such as Roche, whose strength lies more in complex-to-administer oncology drugs, middle-income segments in more developed countries (that are nonetheless underserved) are a more relevant starting point.

Identifying the specific populations that companies are best placed to serve can be challenging. Market data and analytics are incomplete and hard to find.<sup>56</sup> The definition and classification of unmet needs varies from country to country.<sup>57</sup> Nevertheless, companies must apply their expertise

## COMPANY PROFILE

Medtronic's business model traditionally focused on the development and marketing of medical devices in North America and Europe.<sup>55</sup> In recent years, the company shifted to a strategy that prioritizes expansion in low- and middle-income countries. The company launched the Medtronic Global NCD Initiative with a target of reaching 25 million patients per year by 2020. Most of this growth will be in treating NCDs and their complications. Achieving its goal will require investments in all three approaches to shared value, and a major shift in the company culture. The company's product offerings must be reengineered to fit lower-tech health systems. For example, seeing a specialist regularly is difficult in many poorer countries. Innovations like a leadless pacemaker that can be monitored or controlled remotely therefore have significant

potential to enhance the quality of care, and could also be implanted with less invasive procedures. Other product reengineering opportunities being explored include lower-cost disposable insulin pumps, and new drug delivery approaches for Alzheimer's disease.

Medtronic also sees a need to improve the clusters associated with upstream diagnosis and care. Executives at Medtronic's cardiac business in India realized that the primary access challenge was related to diagnosing the need for a pacemaker, not in the device itself. The company partners with organizations attempting to bridge this gap, such as Maestros, a provider of telemedicine-based EKG interpretation services that will improve access to cardiac screening.

**Medtronic:**  
Adaptation  
of Existing  
Products Leads  
to Health System  
Strengthening<sup>54</sup>

in segmentation and innovation to these new markets to uncover the most promising opportunities and design effective strategies to seize them.<sup>58</sup>

As companies penetrate more deeply into lower income and rural markets in India, China, Brazil, and South Africa, or in least developed countries such as Kenya, more barriers are confronted. To address these barriers and move further into the shared value frontier, companies will further innovate and adopt more comprehensive strategies that utilize approaches within all three levels of shared value creation.

Some companies are expanding the shared value frontier. In rural India, for example, Novartis aims to expand the reach of Arogya Parivar to 100 million people. GSK India employs more than 100 staff dedicated to expanding its penetration into rural areas, and is investing in strengthening the health infrastructure in six states to support this process. Similarly, Sanofi-Aventis and GSK are already starting to explicitly add least developed countries to their business focus. Building on its success in China, Novo Nordisk is considering taking a focused approach to diabetes in a range of developing countries including Bangladesh and Nigeria.

## GENERIC COMPANIES: AFFORDABLE PRODUCTS, EFFICIENT VALUE CHAINS, BUT LIMITS TO SHARED VALUE<sup>59</sup>

Generic pharmaceutical manufacturers are better placed than their traditional, R&D-led counterparts to create shared value in global health in several ways. Due to efficient, local supply chains and manufacturing, they can keep operating costs low and local production volumes high, which often allows them to price more competitively than R&D-led firms. It may also be easier for them to compose a broad product portfolio, since many are able to source or manufacture a wide range of compounds, while traditional pharmaceutical companies may be optimized for those chemical entities and therapeutic areas for which they hold patents. As a result, generics companies often enjoy a competitive advantage in developing tailored product offerings that align with local market conditions in low- and middle-income countries.

However, generics companies' ability to beat traditional firms on price also makes them significantly less well-placed to work in other ways. Most lack the capability or investment capital to conduct R&D for new technologies that fill unmet health needs. Moreover, smaller generics manufacturers have little footprint outside their home markets, and may therefore struggle to develop competitive, locally-adapted sales and distribution channels. Of 12 low- and middle-income country-based generics companies analyzed by IMS in 2011, 9 generated more than half their revenues from their domestic markets.<sup>60</sup> Also, their relatively thin margins mean they may have limited capacity to invest in strengthening the cluster in order to expand their markets and reach new patients.

These differences are beginning to blur as the structure of the industry changes. Leading generics companies are moving into territory in which traditional pharmaceutical

companies have enjoyed an advantage. Leading generics firms have begun to invest in product development capabilities, initially focused on adaptation of existing products to reduce complexity and cost. Dr. Reddy, for example, leveraged its ability to manufacture a broad range of chemicals to formulate its single-dose Red Heart Pill, which is easier to administer correctly. Cipla is moving into unpatented biopharmaceuticals through the production of "bio-similars" with even the possibility of "bio-betters", drugs better than the originators, in addition to development of CFC-free inhalers, a new delivery mechanism.<sup>61,62</sup>

Additionally, the industries themselves are converging. Two different types of generics companies can already be discerned: commodity manufacturers that continue to compete exclusively on price, and larger "branded generics" firms that seek to build trusted brands for which they can charge a premium. Many generics companies have entered supply alliances with originals manufacturers to provide active pharmaceutical ingredients or to manufacture patented medicines locally under license. Finally, there has been a wave of recent mergers, such as Daiichi Sankyo's purchase of Ranbaxy or Sanofi-Aventis' acquisition of Zentiva. Indeed, 6 of the top 10 generics manufacturers are also leading traditional R&D-led firms, with a collective global market share of 20 percent by value.<sup>63</sup>

## COMPANY PROFILE

In 2007, Novartis launched a new initiative called Arogya Parivar (AP), which focuses on rural Indians earning between \$1 and \$5 per day. It has set a goal of developing a sustainable, scalable business to reach this underserved group. In designing the business, Novartis carefully analyzed the local disease burden, and developed a tailored portfolio of affordable medicines, drawing from its originals, generics, and over-the-counter businesses. It recruited local sales teams to work in areas where workers knew the culture and spoke the dialect, providing access to crucial market intelligence and reducing mistrust among potential customers. In parallel, Novartis invested in an arm's-length program for community health education, in order to tackle the chronic lack of health-seeking behavior that it had identified as a key barrier.

Rural India is a massively underserved health market. While approximately 70 percent of the Indian population lives outside urban areas, they account for just 22 percent of health spending and many do not seek formal health care at all. Among those who do seek health care, people commonly wait to visit a clinic or hospital until a condition becomes acute, rather than seeking treatment more quickly. More than two-thirds of health spending is out-of-pocket.

Not all of the challenges were well understood at the beginning. In particular, the company initially underestimated the extent to which infrastructure issues would impede growth. The unreliability of the supply chain reduced patients' trust in the system and willingness to return for care, so Novartis invested in developing a dense network of local distributors, in order to reduce stock-outs. Through the Credit for Health Initiative, it is also working with local microfinance partners to counter a lack of finance that was limiting the development of new clinics and health providers. Finally,

to bridge the infrastructure gap in the short term, AP organizes frequent health camps to bring physicians into rural areas. In addition to expanding health care access, these camps can provide an additional sales channel for AP's portfolio of products (the choice of medicine is at the doctors' discretion and not limited to Novartis products), as well as a small source of income for the doctors who participate.

Four years since its inception, the initiative is beginning to see real results. It broke even in its 31st month of operation and is now generating profits. Nascent evidence is emerging about improved health outcomes, although the company acknowledges that more work is required for effective measurement. To date, the initiative covers 42 million people in 33,000 villages across 10 Indian states. After the health camps arrived, doctor visits in these villages tripled, from 9 percent to 23 percent of local populations.

Novartis has ambitious plans to scale and replicate AP, and has created the Social Business Group to oversee the process. Within India, the company has set a goal of reaching 100 million people in 100,000 villages across all 23 Indian states over the coming years. It is also seeking to replicate the model in other Asian and African countries, starting with Kenya and Vietnam. The firm recognizes that only some of what has been learned in India is applicable elsewhere, and that its efforts must be tailored to each new location. While low levels of health-seeking behavior are expected to be a common challenge, the method of addressing this problem will differ according to local needs, regulatory environments, and cultures. Similarly, the product portfolio will need to be aligned with local disease burdens and market structures, and in Kenya's case, with a lower ability to pay.

### **Novartis: Overcoming Barriers in Rural India<sup>64</sup>**

## COMPANY PROFILE

### **Novo Nordisk: Early Engagement on Diabetes Treatment in China<sup>65</sup>**

Novo Nordisk was one of the first Western firms to enter the Chinese insulin market in 1994. By 2010, the company had grown its market share to 63 percent (about 13 percentage points higher than its global share) in what has become a \$1 billion market. It has saved an estimated 140,000 life years in the process. Early engagement across all three levels of shared value has contributed to this success.

The company has invested heavily in developing appropriate products that are well adapted to local needs. Its first local production facility

government to develop and update national standard treatment guidelines. It has instituted a far-reaching physician-training program for diabetes diagnosis and care, both directly through its sales representatives and in partnership with the WDF and Chinese government. It has also pursued a high-profile awareness campaign to help improve patient management of the disease.

Beyond China, Novo Nordisk has identified a range of developing countries, including India, Bangladesh, and Nigeria, where a similar, comprehensive diabetes strategy may be viable. Finally, in China itself, it sees significant potential: 70 percent of Chinese diabetics are still not diagnosed, and of those that are, just one in 10 successfully manages

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opened in Tianjin in 1995, allowing it to gain production efficiencies and respond more quickly to market demand. In 2002, it was the first non-Chinese pharmaceutical company to establish an R&D center in China, which has allowed it to gain a competitive advantage through improved market understanding. In addition, the R&D center allows it to tap into a highly qualified talent pool of Chinese scientists, many of whom have returned from leading universities around the world to work in China.

Novo Nordisk has also invested in a broad range of cluster-strengthening initiatives. It worked with the World Diabetes Foundation (WDF), a nonprofit created and partly funded by the company, as well as with the Chinese

his or her condition. Changing these numbers holds enormous promise for both Chinese society and Novo Nordisk's shareholders.

## COMPANY PROFILE

Through its Developing Countries and Market Access business unit (DCMA), GlaxoSmithKline (GSK) is among the few companies researched for this report that are directly seeking to build a business in the world's least developed countries (LDCs). DCMA was created in 2010 and reports to the company's Emerging Markets division. The group is still relatively small: It currently accounts for around 3 percent of total emerging markets revenues. However, it has ambitious expansion plans, owing to GSK's competitive advantage in vaccines, antibiotics, and anti-infectives. The company intends to grow annual sales volumes from 60 million dose equivalents of these and other key products in 2010 to 300 million by 2015.

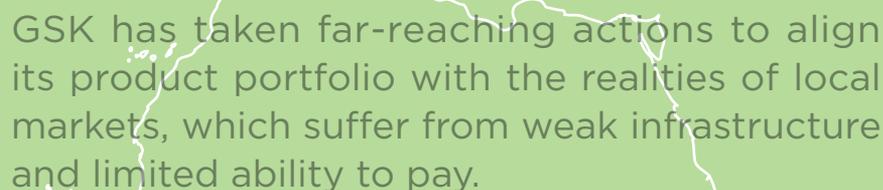
GSK has taken far-reaching actions to align its product portfolio with the realities of local markets, which suffer from weak infrastructure and limited ability to pay. The company is working to repackage or reformulate existing products — for example, packaging its Ventolin® asthma medication in one- or two-dose units that sell for a few cents each, rather than the 200-dose inhalers that sell for around \$5 each in developed countries. Finally, the company is an industry leader in tiered pricing: It has committed to sell its patented products in LDCs for no more than 25 percent of the price in the U.K. and France.

To support the delivery of targeted products, the company is adapting its value chain and making investments in the health clusters of

LDCs. Local sales personnel are increasingly offered incentives based on volume, rather than incentives traditionally based on revenue. It is experimenting with risk-sharing agreements with distributors in several African countries. As new, lower-cost products are being rolled out, the company is working with its distributors to ensure that price reductions are passed on to patients. Also, GSK has committed to reinvest 20 percent of the profits generated in LDCs into health systems and infrastructure, including clinics and training for health professionals.

GSK's DCMA business unit expects to contribute around \$300M to the company's top line in 2015.

**GlaxoSmithKline:**  
Platform for  
Shared Value in  
Least Developed  
Countries<sup>66</sup>



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