

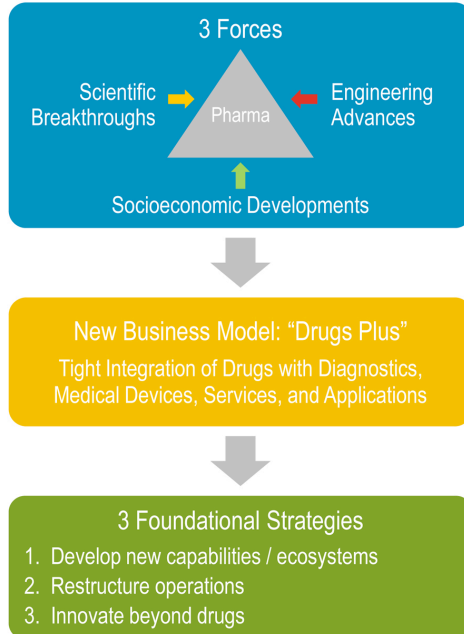
Drugs Plus: The New Pharma Business Model

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The travails of the pharmaceutical industry are well-documented, as is the search for remedies that will lift the industry out of the doldrums.¹ While there is no panacea for patent expirations and pricing pressures in the short term, exciting opportunities are opening up for the industry to strengthen its offerings, assuming it is willing to embrace the challenges and changes that come with it.

Three forces—scientific breakthroughs, engineering advances, and socioeconomic developments—are necessitating change and creating opportunities for the industry to develop richer and more valuable offerings where drugs will be only one component of a more comprehensive offering, tightly integrated with combinations of diagnostics, medical devices, services, and applications that address patients' needs. These forces are resulting in a new business model we call “Drugs Plus.” To implement it, pharma companies must deploy three foundational strategies. The evolution of the pharma industry is depicted in Figure 1.

Figure 1. Evolution of “Drugs Plus” Business Model



Source: Cisco IBSG, 2011

Three Forces Reshaping the Pharma Industry

The future of the pharma industry will be shaped by the intersection of scientific breakthroughs, advances in engineering, and socioeconomic factors. While these forces will develop at different paces, all will play an important role in the industry's future.

1. Scientific breakthroughs will enable the transition from intuitive to precision medicine based on:
 - Molecular medicine to characterize diseases and their causes
 - Molecular diagnostics for rapid and accurate diagnoses
 - Materials science and miniaturization of mass-produced diagnostics and devices
2. Engineering advances will enable remote capture of diagnostic data and delivery of care-at-a-distance services through:
 - Ubiquitous, secure broadband infrastructure
 - Pervasive communications and collaboration technologies, including video
 - Wide range of versatile, secure, and affordable communications devices such as smartphones, tablets, and televisions that have the intelligence of PCs
3. Socioeconomic developments will increase demand for healthcare and exacerbate economic pressures due to:
 - Aging populations and rising middle class in the developed world, and healthcare labor shortages
 - Exploding costs of healthcare
 - Growing global disease burden, including obesity, diabetes, and more

“Drugs Plus” Model

On their own, drugs do not reach anywhere near their inherent potential to improve the health of patients. Why? In our disjointed healthcare system, factors such as suboptimal drug selection, poor patient compliance, inadequate follow-up, and other issues get in the way—all of which undermine value (real and perceived) and, ultimately, therapeutics pricing.

The Drugs Plus model takes that as a starting point for developing strategies that enable patients to achieve the full benefits inherent in the drug therapy, thereby differentiating the product in the market place and putting pharma companies in a position to:

- Garner greater market share
- Receive higher initial reimbursement and smaller price reductions over time
- Enjoy better protection against generics (without corresponding Drugs Plus offerings) following patent expiration

Three Foundational Strategies

Pharma companies must start now to position themselves for the future as these three forces play out. Doing so entails pursuing a three-pronged strategy.

1. **Create new capabilities and ecosystems** for the development and delivery of Drugs Plus offerings. Many pharma companies lack the knowledge, skills, and capabilities to develop companion diagnostics, medical devices, services, and applications. To

remedy this shortcoming, they will need to hire staff, acquire companies, and partner with others.

2. **Restructure operations**—including sales/marketing, R&D, and manufacturing—to take advantage of technologies currently available to generate savings for funding innovation (non-drug-related). Restructuring may entail taking advantage of communications technologies by implementing platforms such as the Pharma Expert Gateway (PEG), using remote collaboration technologies to improve clinical trials, or employing video on the manufacturing floor to quicken the resolution of production issues.²

Developed by the Cisco® Internet Business Solutions Group (IBSG), PEG enables practicing physicians to engage pharma experts and key opinion leaders in high-quality, remote, real-time interactions via chat, voice, and video calls.

Such restructuring is important because it will free up resources for non-drug innovation and introduce foundational technologies into the enterprise.

3. **Innovate beyond drugs** using the capabilities and ecosystems discussed above to better understand the needs of patients and develop new services, apps, devices, and diagnostics that meet patients' needs. Here, pharma can learn from leading consumer products companies such as P&G, which has pioneered the practice of customer anthropology by, for example, spending time in a customer's home to observe how the company's products are used. Apple, which successfully transitioned from a products-only strategy to a "product+service" approach by offering iTunes via the iPhone and iPad, is another example worth emulating.

Harbingers of Change

Some life-science companies have started down the path of creating such new business models. The following examples hint at what's to come:

- Sanofi-aventis unveiled a glucometer that attaches to an iPhone and an app that helps diabetics manage their health.
- An innovative company has started using video capabilities of Cisco WebEx® collaboration technology to create a PEG solution that enables prescribing physicians to contact experts.
- Proteus developed a tiny, ingestible chip made from food ingredients that attaches to a pill to track medication compliance. This opens up the possibility of offering comprehensive, personalized compliance and educational services to patients.
- Dendreon, maker of a prostate cancer drug, has created an end-to-end approach for managing the extraction of cells from the patient's blood, treating cells with Dendreon's drugs in its facilities and infusing the treated blood back into the patient's bloodstream.
- Some companies have conducted investigator and advisory board meetings using Cisco TelePresence® technology to improve the productivity of staff and reduce travel costs.
- HopeLab created Re-Mission, an innovative, drug-compliance video game for adolescents with cancer with the intent of changing their mindset from that of "cancer victim" to "cancer fighter." Players go inside the body via a third-person shooter and attack

cancer cells and infections. Re-Mission was tested in clinical trials and passed with flying colors.³

Conclusion

The “drugs only” model no longer works. Pharma companies must now take advantage of scientific breakthroughs and engineering advances to develop more comprehensive offerings in which drugs are supported by companion diagnostics, medical devices, services, and smartphone apps. To successfully negotiate this challenging transition, pharma companies must significantly expand their capabilities and build strong ecosystems. At the same time, they should restructure operations to free up resources for investing in non-drug innovation and embrace technologies that are the foundations for new offerings.

For more information about the Cisco IBSG Global Life Sciences Practice, please visit our website, <http://www.cisco.com/web/about/ac79/health/index.html>, or contact:

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Endnotes

1. “Drug Firms Face Billions in Losses in '11 as Patents End,” Duff Wilson, *The New York Times*, March 6, 2011, http://www.nytimes.com/2011/03/07/business/07drug.html?_r=1&ref=business
2. “Transforming Life Sciences,” Jan Malek, Cisco Internet Business Solutions Group, July 2009, http://www.cisco.com/web/about/ac79/docs/pov/Transforming_Life_Sciences_POV.pdf
3. “A Video Game Improves Behavioral Outcomes in Adolescents and Young Adults With Cancer: A Randomized Trial,” Pamela M. Kato, et al, *Pediatrics*, Vol. 122, No. 2, pp. e305–e317, August 2008.

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