

Preserving the Efficacy and Pricing Power of Pharmaceuticals

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A CEO's Epiphany

A few years ago, the CEO of a high-tech company met with a client CEO to sign a new order for hardware and software. The contract details had been negotiated in advance and the high-tech company's salespeople expected this to be a routine meeting.

At the start of the meeting, the client turned to the high-tech CEO and said, "We were very impressed by the demo you showed us when we visited your headquarters. I'm excited that you're going to show us how to use your equipment in the same way your company uses it."

"It's great to see your enthusiasm," the high-tech CEO responded. "I just want to make sure, however, that there is no misunderstanding. We're selling you hardware and software; it's up to you to use them in a way that works for your business."

"Wow!" said the client CEO. "That's not quite what I had in mind. My people have never used your technology, and if we have to figure it out on our own, this equipment that we're about to buy from you will sit in a warehouse for the next six months."

"Have you thought about using consultants to speed things up?" asked the high-tech CEO, who by now had become somewhat worried.

"Your technology is so new, external consultants don't have any more experience in using it than we do," answered the client CEO. "I guess we should take some time to figure this out before we place an order."

The high-tech CEO could see the order slipping away, but more important, he realized that he had just uncovered an opportunity to help clients, deepen customer relations, and speed adoption of his company's technology. Taking a deep breath, he made a decision.

"I get it," he said. "We were not in the service business five minutes ago, but we are now. I will have a team of our people here Monday morning to work with you, and they're not going to leave until you're satisfied."

It would be ideal if a similar dialogue took place regularly between pharmaceutical companies and patients / physicians to determine which services pharma companies should provide. Unfortunately, it does not, and therein lies the problem—for patients, physicians, and pharma companies.

How Pharma Companies Can Preserve the Value of Pharmaceuticals

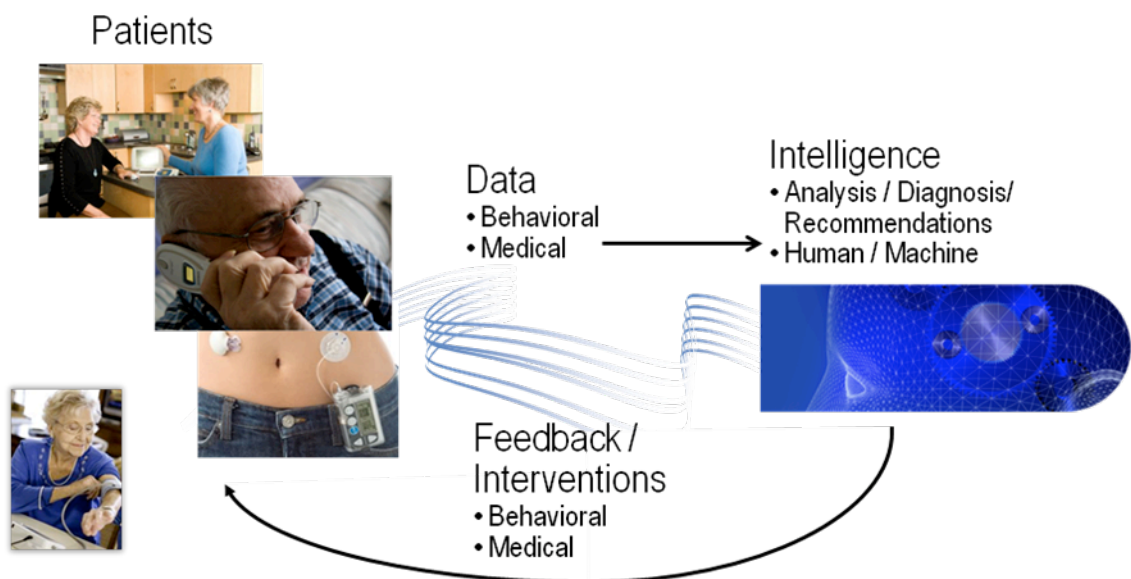
The premise of therapies encapsulated in pills is simple: the physician prescribes the best medication; the patient fills the prescription and takes the drug as directed; and the physician and patient meet regularly to evaluate outcomes and modify the prescribed therapy as required.

In real life, communications between patient and caregiver typically occur during periodic office visits, delaying patient feedback and changes to therapy. The end result is that the quality of care suffers: the effectiveness of pharmaceuticals is degraded and their cost-benefit ratio is reduced. Critical elements missing from patient-caregiver interactions include:

- Physicians not having immediate access to the latest and most comprehensive information about pharmaceuticals at the time of prescribing
- Caregivers not having access to timely and comprehensive feedback about the efficacy and side effects that individual patients experience from the therapy
- Caregivers having limited feedback about patient compliance: did the patient order / reorder the prescription or take the medication as prescribed?
- Physicians not having the ability to intervene quickly and easily due to a lack of timely patient feedback

These problems call for a “feedback loop” solution that captures appropriate medical and behavioral data from patients and transmits it to an analytics engine, which analyzes the data and either alerts caregivers or provides appropriate feedback directly to patients. Automatic feedback could, for instance, include Short Message Service (SMS) text messages that remind patients to take a medication or provide them with links to educational materials online. A feedback loop is illustrated in Figure 1.

Figure 1. Feedback Loop Solutions Enable Patients, Physicians, and Pharma Companies To Collaborate on Patient Care



Source: Cisco IBSG, 2010

Key elements of a feedback loop solution include:

- Automated collection and transmission of disease-specific medical and behavioral data from patients' remote medical devices, electronic pill boxes,¹ or digital pills,² for example, at regular time intervals
- Data repositories, such as electronic medical records (EMRs) or personal health records (PHRs)
- Analytics engine that analyzes data and alerts caregivers of issues when necessary, or automatically sends patients personalized reminders and information as appropriate
- Range of services that can be activated manually by the caregiver or automatically by the analytics engine
- Security and privacy safeguards to protect patient data and ensure privacy and authenticity of reminders, recommendations, and care instructions
- Access to web-based patient communities
- Collaboration tools that facilitate ongoing interaction and coordination of care among patients, relatives, and caregivers

Such capabilities were not feasible before ubiquitous connectivity, social networking, and smartphones. Today they are. The key challenge for pharma companies in developing feedback loop solutions lies in carefully designing disease-specific services based on a deep understanding of the needs of patients and physicians.

How Pharma Companies Can Create and Fund New Offerings

Pharma companies can create many services and supporting technology infrastructures to provide services to patients and physicians (see Figure 2). In designing them, it is useful to develop a roadmap with successive stages that reflect increasing customer relevancy and complexity:

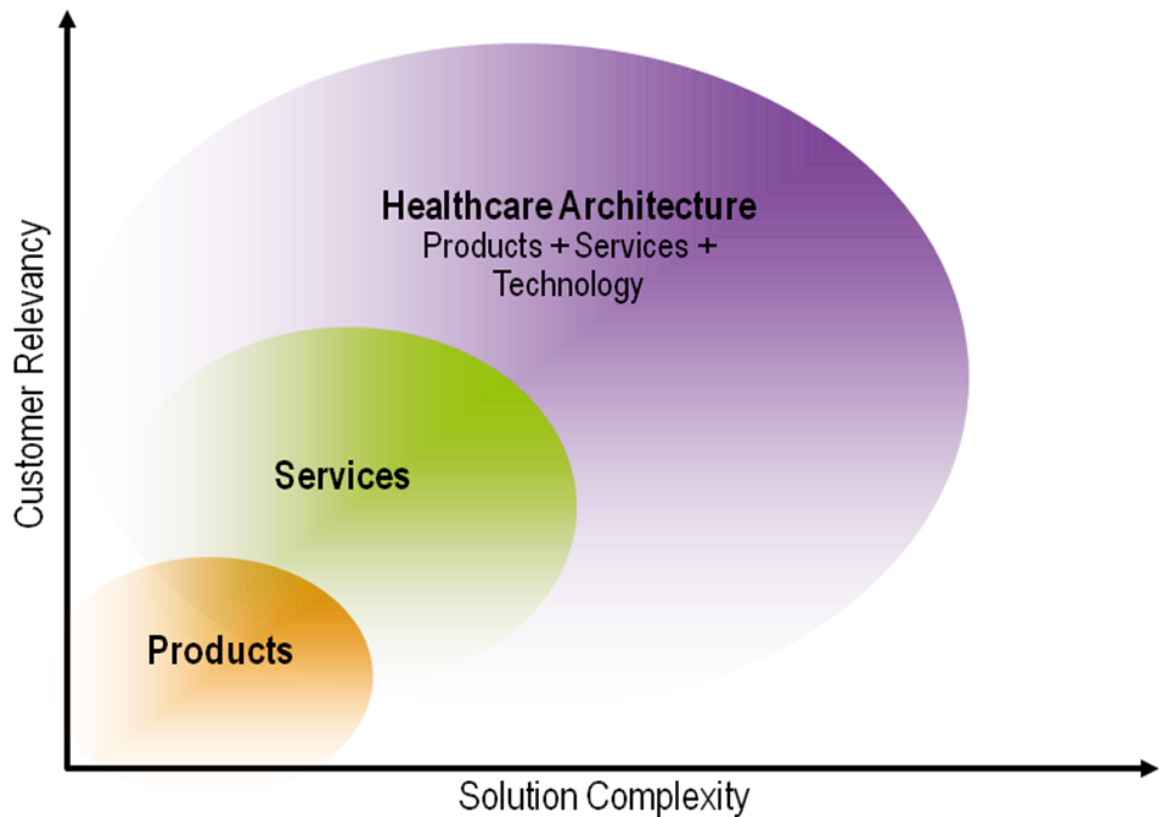
1. Products, which form the core of pharma companies' business
2. Products and services, where the product's value is augmented by the feedback loop and associated services that facilitate patient-caregiver interactions
3. Healthcare architectures that enable delivery of a wide range of services to multiple constituents

¹ Electronic pill boxes are computerized pill boxes that patients can keep at home to dole out their drugs on schedule and in the correct doses.

² Digital pills are ingestible pill capsules fitted with a tiny microchip and antenna that remind patients when it's time to take their pills, and then alert doctors or family members each time a pill is taken, or not.

www.dailymail.co.uk/sciencetech/article-1302814/NHS-launch-intelligent-pill-texts-you-forgotten-dos.html,
www.popsci.com/science/article/2010-03/chip-equipped-pill-tells-your-doctor-when-you-dont-take-your-medicine

Figure 2. Evolution of Healthcare Architecture—from Products to Services to Integration



Source: Cisco IBSG, 2010

The technology infrastructure and services required for solutions based on a feedback loop go beyond the traditional skills of pharma companies. Pharma companies will need to collaborate with technology, medical device, and content development companies in the creation of such solutions.

Funding will also be a challenge, as governments and private payers most likely will continue to be reluctant to provide reimbursement. Pharma companies should therefore expect to fund solutions development and ongoing service provisioning from their sales and marketing budgets. This may seem unattractive at first, but it is important to remember that providing such services may represent the best way for pharma companies to improve the efficacy of—and realize revenue potential for—their products. These solutions may also preserve pricing power and slow the rapid migration to generics once a drug patent expires.

Conclusion

Pharma companies today provide no meaningful support to physicians and patients. Therefore, it stands to reason that the efficacy of pharmaceutical products is just a shadow of what it could be. Effective feedback loop-based solutions with appropriate services can go a long way in increasing the value of pharmaceutical products. Furthermore, the importance of such solutions will only grow as financially strapped governments and private payers look to maximize the value they receive for their pharmaceutical spending.

Creating feedback loop-based solutions and delivering appropriate services are challenging tasks that require sophisticated technology infrastructures and multichannel content. Having a roadmap for getting from “here” to “there” and collaborating with technology companies, content providers, physicians, and patients are essential to pharma companies’ success.

For more information about the Cisco Internet Business Solutions Group Global Life Sciences Practice, please visit our website at

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