



## Welcome to the New Economy: from brick to click in the healthcare market

By Jeanette Marchant—London, UK

The Internet offers the opportunity to revolutionize the way companies do business, not only by opening up a new medium to advertise products and services but also to streamline the purchasing and supply chain, thereby cutting transaction costs. New initiatives in healthcare e-commerce are exploring the commercial benefits of business-to-business (B2B) exchanges for medical products, but companies may have to be prepared to spend some time in the slow lane of the information superhighway before the rewards are tangible.

"B2B solutions are highly complex," says David Perry, president and CEO of Ventro Corp., which builds and operates vertical marketplace companies ([www.ventro.com](http://www.ventro.com)). "Solving marketplace problems requires much more than a mass of buyers and sellers and a Web site."

Millennium Research Group predicts that by 2004 over \$27 billion in medical equipment and supplies (8% of total purchases) will be bought online in the U.S.—the hub of activity in healthcare e-commerce. Elsewhere, the growth is likely to be slower, although a number of international healthcare companies are already gearing up to take advantage of global e-commerce by establishing the Global Healthcare Exchange (GHX), a Web site that will facilitate the exchange of information related to buying, selling, and distributing medical equipment, devices, and supplies.

The independent Internet-based trading exchange debuted in March 2000 as a product of an alliance between Johnson & Johnson, GE Medical Systems, Baxter International, Abbott Labs, and Medtronic. Some 30 companies had joined the exchange by the end of August, according to Bruce Johnson, vice president of marketing for the GHX, which has its headquarters in Chicago.

Due to go live in the third quarter of 2000 in the U.S., the GHX will expand globally in 2001. Exchanges are already being set up in Europe and Asia, says Jones. Some of the specific challenges in the global marketplace have been the translation and double-byte enabling of software to allow for Asian characters. It is also necessary

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to take into consideration special purchasing requirements at national levels, such as the National Health Service procurement arrangements in the U.K. Each healthcare structure is different in Europe, dictating a myriad of purchasing processes.

Initial funding for the exchange has come from equity investments by the founding companies, and future operations will be financed by participating suppliers. Customers, which will have access to most products used by providers, will not be charged a transaction fee. By simplifying business processes and providing a single source for customers' healthcare requirements, the exchange aims to increase efficiencies in the supply chain and reduce costs. "Buyers will be able to access prices since customers will have easy access to companies' main Web sites. In terms of pricing, companies will still compete on product capabilities," says Jones.

### Ventro's business model

Ventro is targeting the European life sciences industry in its initial bid to expand globally from its U.S. base. "We view Europe as the first step," says Mark Lane, vice president of marketing for Ventro Europe Ltd. "Once we produce the architecture which meets the diverse business needs of Europe—language, different tax and transaction systems—we will use it as a proxy for the rest of the world."

Ventro Life Sciences (known as Chemdex in the U.S.) acts as an intermediary in the fragmented supply chain for laboratory products by taking the content of the supplier's catalog and loading it into the marketplace. "Nothing is put on the marketplace until it has been quality checked," says Lane. "We create a neutral marketplace. We need to be sure that buyers are protected and get good information. We also help suppliers to adequately represent themselves."

Life science researchers have access to additional datasheets through links from the Ventro site direct to suppliers' sites, as well as a support service run by Ventro. "If a life science researcher wants to ask a question he can ring the help desk and talk to real people."

"Ventro has a supply-centric approach," says Lane. Suppliers pay a transaction fee—between 5% and 12% of the value of the transaction—for Ventro Life Sciences' services, from invoicing to cash collection.

The company is focusing on the four major countries in the \$7 billion European pharmaceutical life science markets—the U.K., Germany, France and Switzerland—and is developing specific country requirements that address the different languages, tax regulations, and shipping requirements.

To realize the benefits of a streamlined supply chain, a critical mass of buyers and suppliers is essential, says Lane. To this end, Ventro Life Sciences has signed a strategic alliance with Merck Eurolab, the largest distributor of life science products in Europe with a 10% market share, with a view to establishing more contracts before beginning trading in the first quarter of next year.

### Targeting Latin America

The Latin American healthcare market is considered to have enormous potential, according to Laura Gill, chief operating officer and founder of eHealth Latin America ([www.ehealthla.com](http://www.ehealthla.com)). "Latin America is the largest market for e-commerce outside of the U.S. It is still virgin territory; it has no legacy in healthcare," says Gill. Unlike the U.S., where older technology in many instances poses compatibility problems, Latin America's computers are comparatively new systems, making it easier to build platforms.

"Across Latin America, the use of cellular technology is normal. People may have no money, but they'll have three cell phones," she says. Whereas access to the Web was \$200 a few months ago, deregulation in Latin America has enabled free or inexpensive access to the Internet. "The number of people with access to the Internet has tripled in the first three months of the year in Brazil."

The lack of infrastructure for cross-border transactions—"FedEx doesn't exist; there is no real post office"—will impede the development of e-commerce in Latin America, although Gill believes that this will change.

## Technological barriers

While technology is a driving force in Latin America, antiquated or even nonexistent computers in other markets pose obstacles to developing online procurement. "Some U.K. purchasers don't have access to computers," says Dominic Weiss, chief operating officer of MedCompany ([www.medcompany.com](http://www.medcompany.com)) which offers competitively priced CE-Marked hospital disposables under its own label online. Dutch and Scandinavian hospitals tend to be better equipped with computer technology. Of the 8000 hospitals in Europe, some 30–40 have shown an interest in MedCompany. "We only need 5% to have significant volumes," says Dominic Weiss, who reckons to be generating sufficient income to cover fixed costs within 12–18 months.

With offices in the U.K. and Italy, MedCompany is targeting specific clinical areas, beginning with respiratory, infusion, and thoracic drainage care. Once the MedCompany brands have been established, the company will provide a wider range of products, building on the clinical model. Although operating at a pan-European level, the company's business development managers are working closely with customers at a local level, highlighting the need for cultural awareness, local language requirements, and different purchasing arrangements within healthcare systems.

## Pharmaceuticals pose more problems

Pharmaceutical companies have been slower than medical device suppliers to embrace e-commerce. While most major companies have a presence on the Web, they have been cautious about marketing and selling medicines online. Among reasons attributed to this by Dr. George Poste, chief executive officer of Health Technology Networks (U.S.) and former chief science and technology officer at SmithKline Beecham, are regulatory constraints and a reluctance to disrupt the supply chain.

According to Poste, writing in *FT Life Sciences* ([www.ft.com/ftsurveys/spa856.htm](http://www.ft.com/ftsurveys/spa856.htm)), pharmaceutical companies will inevitably need to compensate for lower prices demanded by purchasers as a result of greater pricing transparency through e-pharmacy sites by reducing transaction costs. An e-supply chain, cutting out wholesalers and pharmacists, will offset margin pressures, he says, and redefine companies' sales strategies.

The challenge for governments, according to Poste, is to accommodate the benefits of the Internet at the same time as protecting consumers and retaining national governance over healthcare. Healthcare e-commerce transcends national boundaries and poses new problems for regulatory authorities, especially for prescription drugs, which are more heavily regulated than medical devices.

The U.S. Food and Drug Administration has already flexed its muscles to crack down on the illegal sale of prescription drugs via the Web. Early in 2000, it sent warning letters to foreign-based online pharmacies that were selling drugs to U.S. citizens without a prescription. In March, the agency joined forces with the Thai authorities to close down online pharmacies in Thailand that were supplying American customers. China has banned pharmaceutical trading on the Internet.

In Europe, general principles on electronic commerce are embodied in Directive 2000/31/EC, which is due to be implemented in E.U. member states by January 2002. Meanwhile, E.U. policy on the marketing and sale of medicines on the Internet is up for discussion. Among options put forward in a report commissioned by the European Parliament are the modification of current E.U. legislation on pharmaceutical advertising and commerce, and the creation of a regulatory monitoring body to oversee Internet activities.

Since direct-to-consumer advertising of prescription drugs is banned in Europe, pharmaceutical companies do not have the same freedom to integrate communication with doctors and consumers as in the U.S. To comply with differing national regulations, some companies use flag symbols to signify country-specific information or use pass-

word-protected areas to limit access to healthcare professionals. In Europe, in particular, security is of paramount importance when restricting access to prescription information. For example, a Bristol-Myers Squibb site, [www.d4t.co.uk](http://www.d4t.co.uk), fell foul of the U.K. Code of Practice in November 1999 for alleged inadequate security checks to restricted information on its HIV treatment, Zerit (stavudine).

"The only way to comply with different laws is to produce different sites for different target audiences," according to Dominic Marchant, founder and managing director of DJM Internet Consultancy in the U.K. ([www.djmweb.com](http://www.djmweb.com)). Provided each website's audience is defined on the homepage, companies avoid contravening national legislation.

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"Nonetheless, this does not allow companies to publish information that contravenes the laws of that particular legislative area. It does, however, allow U.S. companies to publish information in a globally accessible medium and still only conform to U.S. legislation."

A further issue has been raised by advertising appearing in independently produced electronic journals, such as the electronic version of the *British Medical Journal* (eBMJ). Abbreviated advertisements, whose content and size are tightly controlled by U.K. regulations and can only appear in publications for healthcare professionals, are not permitted in electronic journals, according to the U.K. Prescription Medicines Code of Practice Authority. Advertising for a specific product is limited to three pages in hard-copy journals, but amendments to the code allow three links from an advertisement, or banner, in an electronic journal provided it is no larger than 10% of the size of the screen, or two links if it exceeds 10%.

## Self-regulation is recognized as key

Self-regulation is advocated by industry and professional groups, and a number of international groups have been active in drawing up codes of conduct. The Washington, DC-based International Healthcare Coalition launched its e-ethics code in May 2000 ([www.ihealthcoalition.org/ethics/ethics.html](http://www.ihealthcoalition.org/ethics/ethics.html)), while the Swiss foundation operating out of Geneva, Health On the Net Foundation ([www.hon.ch](http://www.hon.ch)), has developed a code of conduct for medical and health Web users which has become a widely accepted standard worldwide.

An issue being addressed by U.S. group purchasing organizations and e-commerce companies is the need to develop universally accepted data standards. Four of the largest GPOs as well as e-commerce companies Neoforma.com, medibuy.com, and empactHealth.com have formed an E-Standards Work Group to promote the adoption of open data exchange standards and advocate use of standards such as Universal Product Numbers (UPH) and Health Identification Numbers (HIN). The group is working on a common product classification system and taxonomy for identifying all medical-surgical products to facilitate the flow of orders between providers, distributors and suppliers. They will then tackle all other non-pharmaceutical products. A system similar to universal identification numbers already exists for pharmaceutical products.

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