

# Internet Pharmacies

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## INTRODUCTION

The advent of Internet technology has affected the pharmaceutical industry in at least two ways. First, *existing* companies have implemented Internet solutions for efficiency and performance reasons. These solutions may convey benefits across the entire manufacturer—wholesaler—pharmacy supply chain (e.g., inventory tracking and management), or focus at one level (e.g., providing customer information from a pharmacy Web site). Second, *new* businesses have been established to capitalize on the opportunities made possible by Internet technology. The new businesses may be related to others, as in the case where storefront pharmacies have established online companies to expand their market scope.

Two other new business types represent more radical change and are controversial. The first uses the Internet to deliver information about specific drugs through spam (unsolicited commercial or bulk e-mail). Relatively little is known about such pharmacies, although they account for a large and growing proportion of all spam (PRWeb, 2004). They often promote dubious products and cures, may not require a prescription, and actual delivery is not assured (Barrett, 2001). Some customers buy from such pharmacies in spite of these problems. Because there is a dearth of research on pharmacies using spam, and given that their ethics and standards are at best highly questionable, they are not considered here.

A second type of pharmacy has gained prominence since 1999. The Internet pharmacies in question are start-ups that operate wholly online and have no connection to existing pharmacies. For the most part, these Internet pharmacies export prescription drugs from a lower cost country to one or more where higher costs prevail. In North America, many Internet pharmacies have sprung up in western Canada to supply drugs to U.S. consumers. International trade in prescription drugs is also seen elsewhere, again motivated by different price levels.<sup>1</sup> The North America experience is discussed next.

Canadian Internet pharmacies have achieved success since 1999, but face an uncertain future. Their emergence is traced below and the major points of controversy identified. The analysis reveals that the application of Internet technology in these pharmacies was quite straightforward. More problematic is the complex, politi-

cal environment in which Internet pharmacies operate, and the fact that the strategy adopted challenges established legal and ethical standards. These issues are addressed in the final sections where the future of Internet pharmacies is examined.

## BACKGROUND

When price differences exist between markets, new supply channels sometimes emerge to exploit the opportunity. This practice is labeled “gray marketing” or “parallel trade.” This section begins by defining these terms and explaining why price differences for prescription drugs exist between Canada and the United States. Then attention turns to the exploitation of these price differences through technology. Canadian entrepreneurs have combined Internet and other technologies to enable U.S. customers to buy their prescription drugs in a simple, efficient and secure manner.

## Pricing Differences

Gray marketing involves the selling of trademarked goods through channels of distribution that are not authorized by the trademark holders (Duhan & Sheffert, 1988, p. 76). In order for gray markets to work, there must be a source of supply, easy access from one market to another, and sufficient price differentials to make the business profitable (Eagle, Kitchen, & Rose, 2003). Gray marketing is a growing problem in many industries and locations (Mathur, 1995), imposing costs on the affected parties, including a dilution of exclusivity, free riding, damage to channel relationships, undermining segmented pricing schemes, reputation, and legal liability (Antia, Bergen, & Dutton, 2004, pp. 65-66). Parallel trade is the term frequently used when gray marketing is international in its scope.

Prescription drugs lend themselves to gray marketing/parallel trade. For the most part, they are readily available, ship easily, and are priced differently in proximate markets. North America provides a good example of this situation. The drugs on sale in Canada are essentially the same branded products as those offered in the United States. The high value-to-weight ratio means that distribution of the product is straightforward. In fact, many of

the prescription drugs available in Canada are manufactured in the United States and shipped to Canadian wholesalers for onward distribution to pharmacies. Yet Canadian and U.S. prescription drug prices vary significantly. This results from different regulatory regimes. In the US, drug manufacturers are essentially free to set their prices without interference from government. In Canada, governments influence prices. At the federal level, the Patented Medicine Prices Review Board (PMPRB) ensures that drug prices charged by manufacturers are not excessive. In 2001, PMPRB reported that drug prices were 69% higher in the United States than Canada (Gross, 2003). Canadian provinces also influence prices through a formulary, which list drugs that are reimbursable under Pharmacare programs.<sup>2</sup> In this way, provinces provide incentives for pharmaceutical companies to set prices at levels that are financially attractive for inclusion in the formulary. Thus, the necessary conditions for parallel trade in prescription drugs—a ready supply, good access, and sharp price differences—exist in the case of Canada and the United States.

## Internet Pharmacies

How have Canadian entrepreneurs capitalized on the opportunity described above to sell prescription drugs to U.S. customers? Recognizing that this would require customer change, they designed business processes to make interactions simple, efficient, and secure. E-commerce technology plays a vital role, but the fax machine, mail and courier systems are also important, particularly in the transmission of prescription and medical information and in product shipment.

Customer contact is usually made through a Web site that provides information about the pharmacy and a

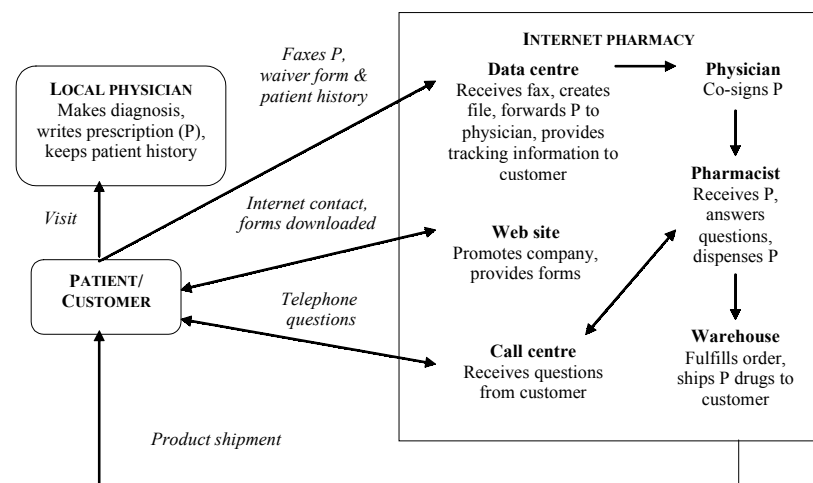
searchable product database. After finding the prescription drug required and downloading the necessary documents, the customer mails or faxes a completed order form, liability waiver and prescription to the Internet pharmacy (see Figure 1). The information is transmitted from the pharmacy data centre to a physician (licensed in Canada and paid by the pharmacy) to review the information and write a Canadian prescription. This step is a legal requirement. The prescription then goes to the pharmacist to be dispensed. New prescriptions usually take two to three weeks to fill and be delivered, whereas refills take 1 to 2 weeks. Any questions are handled through the pharmacy call centre. Internet pharmacies source the drugs they sell through the normal supply chain. In other words, they purchase product from pharmaceutical wholesalers in Canada, which are supplied by multinational manufacturers.

The number of Canadian Internet pharmacies has grown from four in 1999, to 120 in 2003. The new industry is particularly associated with the province of Manitoba (55 pharmacies), with others located in Alberta and British Columbia. It is estimated that Internet pharmacies' sales to U.S. consumers in 2003 were in the \$566 to \$605 million range, more than twice those achieved in 2002 (Hollis & Anis, 2004).

## STAKEHOLDER ISSUES

Attention now turns to the response of various stakeholders to Internet pharmacies and their parallel trade operations. Reactions of the following groups are described—U.S. customers, pharmaceutical companies, legal and political groups, medical and pharmacy bodies,

Figure 1. Prescription drug transaction process (Adapted from Janega, 2003)



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