

Drugs

The Big Business of Selling Rx Records

► **Big Data firms comb prescription records to sell them to advertisers**

► **"This is the holy grail for every pharmaceutical company"**

Since the days of 19th century remedies such as castor oil laxatives and mercury syphilis tablets, pharmacists and patients have had a tacit understanding: Whatever you buy is confidential. No longer. Drugmakers and Internet companies are quietly joining forces to link pharmacy records with registrations at websites to target ads to people reflecting their health conditions and their prescription drugs. ►

◀ In a process known as a matchback, third-party companies assign patients unique numerical codes based on their prescription-drug records. Websites use the same process to assign codes to registered users. Then databases can be linked—without names changing hands. That lets pharmaceutical companies identify groups who use a specific medicine and send them tailored Web ads.

Drug companies say the technique complies with federal medical privacy laws because patients' names are concealed. Still, critics see it as a breach of confidentiality. "Marketers are treating our health data as if we were buying a pair of pants or a book," says Jeff Chester, executive director of the Center for Digital Democracy, a privacy group in Washington. "That's unconscionable."

Matchbacks represent the cutting edge of medical data analytics, an industry that consultant McKinsey projects will surpass \$10 billion in annual revenue by 2020. Data brokers such as **IMS Health Holdings**, one of the biggest, have amassed hundreds of millions of prescription records, buying data from drug insurance benefit managers such as **Express Scripts Holding** and **CVS Health**. The brokers use algorithms to substitute patients' names with unique codes. (Benefit managers retain their original files, with the names.) Most U.S. consumers who've filled a prescription at a drugstore in recent years have been assigned a permanent code.

"It involves tracking patients over time anonymously," says Jody Fisher,

director of U.S. product management for IMS, which has dossiers on more than 500 million patients worldwide. "It helps all stakeholders identify patterns of behavior that make delivery of health care more efficient."

For decades, retailers have hired marketing firms to link the names on sales receipts to lists of people who were sent coupons, aiming to boost sales of everything from soap to oatmeal. Now that data mining has enabled pharmacy companies to adopt the practice, some critics say technological advances are undoing protections provided by the Health Insurance Portability and Accountability Act, the federal medical privacy law. Spokespeople for Express Scripts and CVS say the prescription information they sell is anonymous and complies with HIPAA.

Besides IMS, other data shops that perform matchbacks include **Symphony Health Solutions** and startup **Crossix Solutions**. A Symphony spokeswoman didn't respond to messages. Crossix performs matchbacks only for websites whose users opt in, often by registering, says co-founder Asaf Evenhaim. The company uses multiple layers of anonymization to ensure that patient identities can't be learned, he says. "There's a difference between making a link and knowing who a person is," he says.

Matchbacks have solved one of Big Pharma's biggest marketing headaches: the layers of physicians, pharmacists, and insurers that stood between drugmakers and patients in the past. "This is the holy grail for every pharmaceutical company, to know that there's a way to look back to actual script information," says targeted-ad pioneer Helene Monat.

Sanofi uses matchbacks to promote the drugs Lantus, Apidra, and Auvi-Q, which treat diabetes and allergic reactions known as anaphylaxis, says spokeswoman Stacy Burch. **AstraZeneca** uses matchbacks for all its products and digital-advertising channels, according to spokeswoman Alisha Martin. But **GlaxoSmithKline** has stopped using the method over concerns that the practice may violate consumer privacy and that websites aren't properly informing users of its use, spokeswoman Sarah Alspach says. Websites must "uphold appropriate privacy standards" and be transparent about how data are used, she says.

Since 2011, **Yahoo!**, the biggest U.S. Web portal, has used IMS to perform matchbacks and target online ads to groups of registered users who are located in areas with a high incidence of specific health conditions, says

spokeswoman Suzanne Phillion. About 100 million people have records in the databases of IMS and Yahoo, says Bill Drummy, chief executive officer of ad agency Heartbeat Ideas, who's worked with both companies. Yahoo and IMS declined to comment on the number. "There are certain sensitive medical categories which we exclude from any ad targeting, and all ads and ad targeting are in full compliance with HIPAA," Phillion wrote in an e-mail.

Using matchbacks can add as much as \$100,000 to the cost of a digital drug-advertising campaign, Drummy says. From 12 percent to 25 percent of prospects who visit a brand website go on to seek a prescription for that drug from a doctor, an insight gleaned by performing matchbacks, he says. So drugmakers' interest in the process is unlikely to cool. Says Jim Curtis, chief revenue officer of Remedy Health Media: "It used to be very innovative, and now it is a necessity." —*Jordan Robertson and Shannon Pettypiece*

The bottom line Medical data analytics will surpass \$10 billion in annual revenue by 2020, according to a McKinsey forecast.

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