



November 19, 2008

Fact Sheet

Prescription Data Mining

The Prescription Project promotes evidence-based prescribing and works to eliminate conflicts of interest in medicine due to pharmaceutical marketing to physicians.

It is promoting policy change by working with

- *State and Federal Policymakers*
- *Academic Medical Centers*
- *Professional Medical Societies*
- *Private Payers*

Created with The Pew Charitable Trusts, the Project is led by Community Catalyst in partnership with the Institute on Medicine as a Profession.

The Problem

Pharmaceutical companies buy doctors' prescribing records from pharmacies and use the information to target their marketing to physicians. This practice negatively affects:

- **Public Health:** Marketing based on prescriber data often involves biased and inaccurate information about health risks, and encourages the prescription of new drugs that might be riskier to patients than already established treatments.
- **Cost:** Marketing based on prescriber data is a key factor in the skyrocketing costs of prescription drugs and the increased usage of expensive brand-name medicines.
- **Privacy:** Sales of prescriber data take place without the consent, and generally without the knowledge, of physicians. Patient records may also be inadequately protected, particularly in small communities with few physicians or few patients with particular diagnoses.

The pharmaceutical industry spent \$29 billion on promoting and marketing prescription drugs in 2005, with \$7.2 billion spent on marketing directly to physicians.ⁱ (\$29 billion includes detailing, advertisements in medical journals, direct-to-consumer advertising and drug samples.) The industry employs over 90,000 drug representatives and spends up to about \$8,800 per doctor, per year marketing its products directly to physicians.ⁱⁱ

New and expensive drugs are often promoted over less expensive drugs that are equally or more effective. According to the data mining industry itself, "research has shown that winning just one more prescription per week from each prescriber yields an annual gain of \$52 million in sales."³

How Does Data Mining Work?

When a patient fills a prescription at a major pharmacy, a record of that prescription (minus patient name) is sold to companies – so-called *health information organizations* – that pool information from multiple pharmacies. The bundled information is combined with individual physician identities purchased from the American Medical Association to create prescriber profiles (name, specialty, practice site, which and how many prescriptions written, etc.) that are sold to the drug companies.

Drug companies then give the information to their salespeople, who use it to tailor marketing strategies, messages, gifts and other inducements for individual physicians.ⁱⁱⁱ As a result, many patients are prescribed expensive medicines that are no better, and may be worse, than other available medicines or non-pharmacological therapies.^{iv}

For example, Dendrite International touts its data mining product as follows: “[N]ow, pharmaceutical manufacturers who partner with Dendrite can gain a level of insight that allows them to predict and influence physician prescribing behavior like never before.”^v

Addressing the Problem

Physician organizations, patient advocacy groups, and legislators have highlighted problems associated with data mining and have taken steps to minimize its use for commercial marketing purposes in the following states:

New Hampshire: The Prescription Privacy Law (2006) prevents patient and prescriber identifying data from being sold or used for advertising, marketing, promotion or any activity intended to influence sales or market share of a pharmaceutical product (<http://www.qencourt.state.nh.us/rsa/html/XXX/318/318-47-f.htm>). The law was passed as a consumer protection and public health measure, and seeks to ensure privacy in prescribing.

Vermont: As part of a comprehensive package to control the costs of prescription drugs and regulate inappropriate marketing tactics, Vermont recently passed legislation that provides strong privacy protections by limiting the use of personally identifiable prescription information for marketing purposes unless doctors and other health care providers explicitly agree to waive the protections. The law includes a physician *opt-in* provision at the time of licensure or renewal.

This provision, managed by the state’s professional licensing board, allows a prescriber to choose to have his or her identifying information used for marketing and promotion of prescription drugs. The Vermont Medical Society supports the measure.^{vi}

Maine: Maine also passed legislation requiring its Board of Licensure to include confidentiality protection of prescribing data as part of its licensure and license

renewal process.^{vii} The Board must inform applicants that their prescription drug information is used for marketing purposes and how the prescribers may “opt out,” a weaker alternative to the prescribing data protection systems in Vermont and New Hampshire.

Other states, including Hawaii, Maryland, Massachusetts, Nevada, New York, Washington, and the District of Columbia, have introduced legislation to limit data-mining.

All existing or proposed legislation restricts only the sale and use of patient or prescriber data specifically for marketing or commercial purposes. They do not restrict the sale and use of such identifiable data for other purposes, including for insurance reimbursement, dispensing prescriptions, utilization review, public health research, law enforcement purposes, controlled substances monitoring, adverse effects reporting, or compliance with Medicaid or private insurance formularies and rules.

The AMA’s inadequate response

The response of the American Medical Association (AMA) to concerns about data-mining has been weak. The AMA plays a key role in enabling the data-mining industry by selling its physician database to data-mining companies. The AMA “Physician Masterfile” contains the name, identity, practice location, training site, licensure and disciplinary history for nearly every U.S. physician^{viii} – even the two-thirds of doctors who are not AMA members. Sale of Masterfile data brought the AMA \$44.5 million in 2005. Although the AMA initiated an option in 2006 to allow physicians to “opt out” of this program, the process is cumbersome and few physicians are aware of the option. Moreover, even when a doctor “opts out,” the AMA continues to sell that doctor’s personally identifiable prescribing information. Pharmaceutical companies may still use the information to target their marketing efforts, as long as they pledge not to provide that individual prescriber’s data directly to salespeople. Furthermore, the collection of prescribing data and identities through pharmacies is not affected by the AMA policies.

Industry Challenges

The data mining industry has challenged the New Hampshire, Maine, and Vermont statutes. The Federal District Court of New Hampshire overturned the law on constitutional free speech grounds. The State of New Hampshire appealed the decision, asserting that the state has a substantial interest in protecting the confidentiality of prescriber data from use for drug marketing purposes. On November 19, 2008, the Court of Appeals for the First Circuit overturned the ruling of the district court, and unanimously upheld the New Hampshire law. The Court found that the law regulates conduct, rather than protected speech, and that it is further justified by the state’s substantial interest in promoting containment of prescription drugs costs.

“There is a second basis for our decision. Even if the Prescription Information Law amounts to a regulation of protected speech — a proposition with which we disagree

— it passes constitutional muster. In combating this novel threat to the cost-effective delivery of health care, New Hampshire has acted with as much forethought and precision as the circumstances permit and the Constitution demands.^{ix}

The challenge in Maine is covered by the First Circuit's ruling and it is therefore very likely that the Maine law will be upheld. The Vermont lawsuit is governed by the law of the Second Circuit Court of Appeals, which has not yet ruled on this issue. That lawsuit will continue, although it is likely to be affected by the forceful reasoning of the First Circuit panel in the New Hampshire case.

The data mining and pharmaceutical industries have also opposed these initiatives in state legislatures. They argue that allowing companies like IMS and Verispan to profit from collecting and analyzing individual prescriber data for marketing purposes serves a public interest because it is then available (at a price) for research and to track drug safety problems.^x However, all state legislation passed or proposed explicitly allows for the collection of this data for non-marketing purposes, and the data are available for such purposes through other sources, such as pharmacies, Medicare and Medicaid.

Other materials on data mining, including a legal analysis, model policy, policy brief, and a myths and rebuttals piece are available on the Prescription Project website and <http://www.reducedrugprices.org/advertising.asp>

ⁱ Donohue, J., Cevasco, M., Rosenthal, M. A Decade of Direct-to-Consumer Advertising of Prescription Drugs. *New England Journal of Medicine*. 2007; 357: 673-681.

ⁱⁱ U.S. Department of Health and Human Resources. Physician Supply and Demand: Projections to 2020. Available at: <http://bhpr.hrsa.gov/healthworkforce/reports/physiciansupplydemand/currentphysicianworkforce.htm>. Accessed August 22, 2007.

ⁱⁱⁱ National Physicians Alliance, Issue Brief: The Sale of Physician Prescribing Data Raises Health Care Costs – the National Physicians Alliance Calls for a Ban

^{iv} Schaefer, B. Restuccia, R. Mining Our Own Business. *Kennebec Journal*. April 13, 2007. Available at: <http://kennebecjournal.maintoday.com/view/columns/3795317.html> Accessed August 15, 2007.

^v Defendant's Memorandum of Law in Support of its Objection to Plaintiff's Motion for Preliminary Injunction, *IMS v. Ayotte*, No. 06-CV-280-PB, at 13 (D.N.H. filed April 30, 2007). (Memorandum filed September 1, 2006).

^{vi} Vermont Medical Society Statement on Governor Douglas' Signing of S.115. Vermont Medical Society Website. 2007. Available at: http://www.nlarx.com/policy/pdfs/VMSSStatement_Gov_Signing_S115_RxBill.pdf. Accessed August 15, 2007.

^{vii} Maine Public Law, Chapter 460. Available at: <http://janus.state.me.us/legis/LawMakerWeb/externalsiteframe.asp?ID=280022219&LD=4&Type=1&SessionID=7>. Accessed August 27, 2007.

^{viii} American Medical Association. Description of AMA Physician Masterfile Data Elements. 2004. Available at: https://profiles.ama-assn.org/amaprofiles/info/pdf/mfile_elements.pdf Accessed: August 25, 2007.

^{ix} IMS Health Inc. and Verispan, LLC v. Kelly A. Ayote, New Hampshire Attorney General, (1st Cir. 2008). Available at: <http://www.ca1.uscourts.gov/pdf/opinions/07-1945P-01A.pdf>

^x Turner, M., Duncan, J, Varghese, R., Walker, P. The impact of provider-identifiable data on healthcare quality and cost. April, 2007; 29-35