

## Big Data is Spying on Our Doctors

By Alan Cassels | March 2016 issue

## Collected information helps sway doctors to prescribe certain drugs

People often ask me if, given my research on pharmaceuticals, I could tell them why every time they go to the doctor, they always end up with another prescription. It's impossible to answer that in a sound bite because many factors drive prescribing, including marketing, new research, patient demand, physician workloads and so on. The easy answer: it's complicated.

Let me boil this issue down to one important ingredient: espionage. That's right, spying. Both Canada and the US allow electronic spying on our doctors by companies that track, analyze and sell our physicians' prescribing data.

This, of course, compounds the problems of our drug-addled health care systems, where Canada and the US spend more money per person on pharmaceuticals than every other country in the world and upwards of two thirds of our physician visits end in a prescription drug.

Those in positions of authority say this "intelligence gathering" regarding our doctors is a problem. Some US states have tried to outlaw it, without success. Everywhere in Canada, except BC, Manitoba and Quebec (where doctors can opt out), pharmacies collect complete data on our doctors' prescriptions and sell them to a data company like IMS Health, which then repackages them to sell to the drug industry. These doctor-specific prescribing profiles are like gold in the hands of pharmaceutical marketers, the medical equivalent of having our doctors' offices wiretapped, where every script they write tells the companies what kind of doctor you are, what marketing campaigns are (or are not) working on you and ultimately how much you are making for the company. Companies then become very efficient at finding what buttons they need to push to get the doctor to write scripts for their drugs.

It's a massive problem and the evidence supports me. We know that 60 to $70 \%$ of Canadian doctors regularly see drug reps and the evidence around doctor-drug industry interactions show that the more contact doctors have with the drug industry, the worse prescribers they are, across a range of objective measures. Their
prescribing is more expensive, they are more likely to prescribe brand name drugs when cheaper generic drugs are available and they tend to prescribe newer drugs faster before their full safety profile can be known. Most of us would accept that our doctors rely on clean, clear information about pharmaceuticals to do their jobs properly and that pharma marketing inevitably taints it. Big Data pushes this into the stratosphere with insights that work to turn our physicians' thinking about new drugs into toxic sludge.

Consider this scenario: The drug salesman prepares to visit your doctor with a spreadsheet of prescribing data. He finds she tends to favour the antidepressant Cymbalta over others (even though it's more expensive and probably not more effective than good, old generic Prozac). The drug salesman, representing the maker of a newer antidepressant, Pristiq, knows a lot about this doctor. He knows exactly how much Prozac, Cymbalta, Zoloft, Effexor or Pristiq she writes. He knows he has to use those data to put the best spin on Pristiq while knocking Cymbalta down a few steps. "Oh doctor, did you see this new warning about the suicidal side effects of Cymbalta?" or "Pristiq is so exciting all the psychiatrists in
town are using it." The drug rep might also have details covering the doctor's personal information and, of course, a record of every single prescription she has ever written.

An article from Bloomberg last month talked about a new US company, Zephyr Health: "Zephyr builds digital dossiers on individual doctors. It starts with basic information on prescription patterns from data clearinghouses such as IMS Health and Symphony Health Solutions. Then its software, with some human assistance, scours the Web for more details." The article describes how Zephyr parses the speaker's lists of medical conferences and finds who is "well-regarded" by peers. It looks for those who sit on guideline writing committees or who might be ripe to become one of the company's KOLs (Key Opinion Leaders). Zephyr's approach ranks doctors on their perceived "influence and ability to drive sales" so when a new drug arrives that "needs the right kind of marketing and promotion," Zephyr is there to help the companies quickly target the right people.

In Canada, the data company IMS Health Canada sells a product called "Xponent," which deploys a "perfected geospatial methodology" to help "companies gain unequalled insights into prescription demographics and prescribing choices." How it works would be purely farcical if it wasn't so Orwellian: "IMS Xponent ranks and aggregates Rx volumes for each doctor, market and product combination [and] helps companies develop brand strategies based on unique customer attributes, identify and act on changes in behaviour and measure market share trends within key customer segments." Given our somewhat sacred relationship between patients and doctors, you would think we'd have built up solid safeguards around the sale of the doctors' prescribing information.

Murray Long, a retired privacy consultant in Perth, Ontario, attended a parliamentary committee hearing in 2006 when groups such as the Canadian Medical Association (lobbying to curtail such practices) and IMS (lobbying to maintain them) were examining Canada's data privacy laws. Against the private interests lobbying to maintain "their right to unfettered access to this data," the CMA maintained that national law should,
at least, be brought in line with Quebec's act, which allows doctors to "opt out" if they didn't want their prescribing information to be sold to commercial entities. That failed. And many other factors have conspired to keep it that way. Murray Long thinks the issue in Canada is "as dead as a dodo, at least at the federal level" and even though it's clearly not in the public interest in his mind to allow drug companies to buy that information, "we're continuing to keep our heads in the sand."

The way this war will be won is at the provincial level. According to Murray Long, to start to counter this, a complaint would have to be made to the federal Privacy Commissioner, but you would have to "swim very hard upstream" to convince the Commissioner to reverse previous decisions that say prescribing data is not a doctor's personal information. He told me, "The best venues to see some controls on IMS access to this data are likely within the provinces."

In BC, we can thank the NDP government in the early 1990's for specifically disallowing "information related to a practitioner" to be used "for the purpose of market research." This may have kept the gate closed for the meantime, but there are still many who would like to see BC's "doctor-level" prescribing information collected and sold to the drug companies. On March 11, the Data Effect Conference in Vancouver will discuss, among other things, ways to leverage BC's rich store of healthcare data into "multibillion dollar public and private investments in health care." Will the conference attendees be figuring out how to appease Big Data by engineering what they want: direct access to our physicians' prescribing records?

Meanwhile, groups like IMS Health Canada and Zephyr Health are tracking and spying on our doctors and constructing even more insidious ways to market their wares. Again, why are we such incredibly heavy users of pharmaceuticals in Canada and the US? It's complicated, but could it be at least partly due to the fact we've allowed the spies to insert themselves into the practice of medicine?

Where are the rebel doctors when we need them? Who will stand up to this lunacy and stop what is obviously a harmful, deceitful
and deadly method of gathering intelligence on our doctors and using it against us? Will the Canadian Medical Association ever go to war against the spies? I'm putting this out there. Maybe we need a campaign and I've got a handy slogan: "Stop Spying on our Doctors."


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