THE ROLE, USE AND MISUSE OF EVIDENCE

By Jordan Max

LAST ISSUE, we looked at ways to improve how we identify, define and validate a regulatory policy problem. Let's now look at how evidence can be used to support regulatory policy development.

There is a tendency to make use of data only to substantiate or justify an intended action or theory. From a scientific perspective, this approach is unethical and could jeopardize an entire venture. If we're seeking to address a perceived issue or "problem," we first need to do some fact-finding and explore the issue at hand: Where is it situated? How did it come to be? What information do we know? What information do we need to know but don't have? And, what information do we not have and not even know we need?
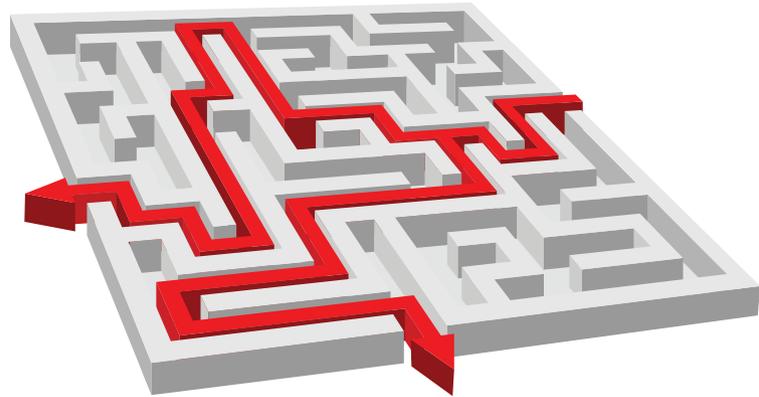
Having good evidence from many different sources and vantage points provides a more grounded analysis than ideology, history or gut feel. It allows for apples-to-apples comparisons to other jurisdictions and models, helps to isolate key variables, actors and drivers, and helps to better understand the system(s) surrounding or generating a perceived problem. It also serves as an objective buffer to counter evidence put forward by others.

There are many available sources of evidence and data to help us understand a perceived problem. These sources can include quantitative statistics; behavioural observations of participants; qualitative experiential data of participants; inputs; outputs; academic studies; regulatory best practices; internal systems (e.g. licence holder databases, and licence holder or Certificate of Authorization directories); practice advisory and enforcement questions; complaints; case law and precedents; big data and business intelligence; econometrics; market studies and intelligence from think tanks, interest groups and researchers; inter-jurisdictional comparisons; "before and after" data; stakeholder surveys, focus groups and interviews; media stories; events; discussions; and opinions.

Gathering data or evidence is the first key step. We need to verify and validate that information by checking if the total evidence captures the entire ecosystem of actors or agents and processes, how relevant or authoritative the evidence or data is, and how well the evidence or data can predict the future. Variables must be analyzed for their relevance to the phenomena.

PEO INTEGRATION

Some other Ontario profession regulators (see sidebar) are using evidence and data not only to improve their program management, but also to support regulatory policy development. It's noteworthy that system data is being used both across an organization (for example, complaints categories and risk factors in such areas as quality assurance) and proactively to avoid future complaints, through education and other methods.

Perhaps most importantly, we need to hear from licence holders who are actively practising professional engineering about what is really happening in the field. This is an area in which PEO needs to increase its knowledge base. If we rely only on reacting to issues and complaints as our exclusive source of information, we can't be sure we have an accurate picture of what and how practitioners are practising and the challenges they face. So, PEO may be wise to initiate feedback and input from practitioners and engineering clients proactively to get a more accurate read of the engineering working environment and emerging issues–before they become a problem.

LIMITATIONS OF EVIDENCE

We are dealing with people, not machines. Evidence and data can only tell us *how* things happen or don't happen. To complete the picture, we need experiential information from users and actors on *why* they make the decisions or actions they do (rationally, or otherwise).

I can't overstate the importance of establishing causal links of problems to their origins and systems. We must be alert to the dangers of making unsubstantiated statements, such as "there is a need to…" or "this will lead to…," without a solid understanding of the system and contributing factors, facts and how we think it will work. We need to distinguish root causes from symptoms and effects. For example, if we look at the number of complaints made to PEO about licence holders, we could cite the symptom as the low number of complaints relative to the number of practitioners. Is that

a good thing or a bad thing? Do we think it is an accurate reflection of the incidence of misconduct among licence holders, or is it an underestimation due to other systemic barriers or factors that make complaining difficult? The potential *causes* of low numbers of complaints could be:

- perceived systemic barriers/onerous to file complaints;
- absence of whistleblower protection;
- relatively few active practitioners, but higher incidence of complaints against them;
- "grey area" issues addressed first by practice advisory calls and professional practice guidelines, standards and bulletins;
- clients resolve problems with engineers through civil law instead of PEO processes;
- statistics and disciplinary actions not well publicized; and
- lack of understanding of duty to report.

We should also distinguish the *effects* of the low complaint numbers, which could include:

- perception of very few "bad apples";
- PEO complacency about complaints and enforcement;
- few referrals to Discipline Committee; and
- member complacency or perception that PEO doesn't respond to complaints or enforce the *Professional Engineers Act*.

Using this example, good policy analysis upfront will help to sort the causes, symptoms and effects, and demonstrate whether we are getting a true picture of the real world.

There is a secondary caution: evidence is only as good as available data; it can't address new theories or ideas. Case in point: the treatment of stomach ulcers. Prior to 1981, the prevalent medical theory was that stomach (peptic) ulcers and gastritis were caused by excessive stomach acid production. Barry Marshall, an Australian doctor, hypothesized the cause of ulcers was bacterial, and his daring research with *Helicobacter pylori* (on himself) eventually led to his theory's acceptance and the 2005 Nobel Prize in Medicine.

While I would not advise professional engineers carry out similar experiments, it does provide a caution about relying exclusively on data. Public issues continue to evolve and what was an appropriate solution initially may be replaced by better solutions or better technology. A problem might have changed or even disappeared in the interim. If we were only to look at what has worked in the past, we might be ignoring new and disruptive approaches. After all, had Henry Ford asked horse owners how to improve transportation, they would have asked for faster horses.

Finally, we must accept that regulatory policy-making often uses a complex mix of politics and evidence. It is naïve to assume all decisions can be made strictly from a technocratic approach. Political considerations include ideology, strategy (i.e. PEO's strategic plan), case law, precedents, resource capacity and timing. Well-constructed and consensus-driven evidence, when combined with political and resource factors, can help identify the most effective solutions. Σ

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EXAMPLES OF USING EVIDENCE TO SUPPORT REGULATORY POLICY DEVELOPMENT

LAW SOCIETY OF UPPER CANADA
Focused practice reviews
In March 2004, convocation approved indicators for identifying who should be subject to practice review (see s. 27(2), By-Law 11). They include both the number and type of complaints and information received in the course of investigations or audits. A guide for members, providing details of the indicators, can be consulted. Lawyers experiencing difficulties in relation to their knowledge, skill, judgment, records, systems, office procedures, or attention to the interests of clients, may be referred to practice review via any of the Law Society of Upper Canada's (LSUC) regulatory units or LawPRO, an insurance company incorporated by LSUC that provides liability insurance to lawyers in Ontario.

Practice management reviews
On June 22, 2006, convocation approved expanding LSUC's practice review program to include a practice management review component. The expansion was implemented on January 1, 2007. Reflecting the society's emphasis on quality assurance in service of the public interest, the program is proactive and preventive–designed to support the goals of LSUC members to be efficient, effective and competent. Members one to eight years from the call to the bar and in private practice are eligible to participate.

In November 2008, convocation approved a risk-based random selection process, which ensures those selected also reflect the percentage of law firms presented in LSUC

conduct matters and LawPRO negligence claims for the profession, determined annually, and segregated by firm size.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO

As part of the College of Physicians and Surgeons of Ontario's (CPSO) policy review process, research is undertaken at several stages. CPSO conducts various types of research, including: jurisdictional research, legal research, and a literature review looking for any published articles on a subject or issue. Consultations, both internal and external, are another tool the college uses to gather evidence. CPSO's *Physicians' Relationships with Industry: Practice, Education and Research Policy* is a recent example of where evidence was used to inform the policy review process. A literature review was undertaken on key issues, which found a strong consensus on these key issues. Revisions were made to the current policy, in part, based on the findings from this literature review.

ONTARIO COLLEGE OF PHARMACISTS

As part of the Ontario College of Pharmacists' Quality Assurance Program, actively practising pharmacists are randomly selected to undergo a peer review assessment. The peer review comprises a clinical knowledge examination and an objective structured clinical examination (OSCE). Results from the first five years of the peer review showed that pharmacists who had recently (within the previous five years) completed the qualifying exam were successful in meeting the standards of the peer review. Based on these results, a policy was created that exempted pharmacists who had completed the qualifying exam within the previous five years. Similar data was then used to extend this exemption to 10 years.

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