

Appreciation: David L. Sackett (1934–2015)

David Sackett's Unintended Impacts on Health Policy

JOHN N. LAVIS^{*,†} and PETER TUGWELL[‡]

^{*}*McMaster University;* [†]*Harvard T.H. Chan School of Public Health;*
[‡]*University of Ottawa*

DAVID (DAVE) SACKETT'S DEATH IN MAY 2015 PROMPTED much public reflection about his legacy for the practice of medicine, yet his legacy extends well beyond clinical practice to the fields of public health and health systems and the broad domain of health policy, including policies for clinical care (eg, listing prescription drugs on a public formulary), policies for public health (eg, mandating immunizations for toddlers), and policies for health systems (eg, setting the scope of practice for pharmacists). All these were topics that Dave never addressed directly, although many others did address them using approaches that he had pioneered or championed. Our focus here is on Dave's legacy for health policy, which was, as far as either of us knows, both unintended and unappreciated by him. We cite 4 examples of how Dave's contributions to the evidence-based medicine (EBM) movement¹—which he would be the first to acknowledge that he made alongside many other giants in the field (a number of whom he trained and mentored)—cleared the path for what became the pursuit of evidence-informed health policymaking.

First, Dave argued forcefully that research evidence should be a key input to decision making. In the clinical world in which he worked, research evidence was one circle in the EBM Venn diagram, with clinical condition and patient preferences being the other two circles.² In the policy world that he influenced, research evidence was an important element of another circle, typically labeled “ideas” and including both knowledge and beliefs about “what is” and values about “what ought to be” (with research evidence providing the knowledge about “what is”). Institutions (ie, rules about how policy decisions are made and the legacies of past policy choices) and interests (ie, groups that could win

or lose depending on the decision made) were the other two circles.³ Dave never wanted the clinical condition and patient preferences to be forgotten, just as policymakers need to work within institutional constraints and contend with pressures from interest groups. But he wanted to be sure that research evidence was one of the principal inputs to clinical decision making, just as we increasingly recognize that it should be in policymaking.

Second, Dave maintained that some types of research evidence were more reliable than others. In the clinical world, questions about treatment were first and foremost about “what works.” Dave saw systematic reviews of effects (typically, systematic reviews of randomized controlled trials) as the top of what he called the “evidence pyramid” for questions about “what works.”⁴ In the policy world, in which the insights and the approaches he advanced and augmented are enjoying increased influence, many more types of questions need to be answered, including what the problem and its causes are, which policy option will best address the problem’s main causes, and how the preferred policy option should be implemented. Here systematic reviews remain critical.³ Systematic reviews of effects help policymakers understand the likely benefits and harms of policy options. Systematic reviews of qualitative and mixed-methods studies help elucidate stakeholders’ views of and experiences with a problem, options to address it, and the barriers and facilitators to implementation. Systematic reviews of process evaluations can help show how and why an option works (which can inform efforts to adapt options tried elsewhere). Dave’s “evidence pyramid” in EBM became a set of evidence pyramids, each for a different question (and there are many questions) in the policy world.³

Third, Dave made the case for going beyond reliable types of research evidence to examine carefully the quality and applicability of a particular piece of research evidence. In the clinical world, Dave promoted critical appraisal of the validity of research evidence and critical reflection about whether there was any good reason why the results would not apply to a particular patient.⁵ In the policy world, in which his writing influenced the work of both policy scholars and policymakers, the quality of research evidence and its “local” applicability matter a great deal. Many policymakers and stakeholders want to know whether the systematic review they are drawing on is of high quality, which could be determined by using AMSTAR (A Measurement Tool to Assess Systematic Reviews), and, better yet, whether the evidence contained in the review

is of high quality, which could be measured using GRADE (Grading of Recommendations Assessment, Development and Evaluation). They also want to know whether they are likely to get similar results when they introduce a policy option into their own “local” health system, and a variety of local applicability checklists have been developed to help make such assessments. Dave’s critical appraisal methodologies have now been adapted to and are being used in the policy world.

Fourth and finally, Dave pioneered supports for the use of research evidence in decision making and encouraged both continued refinements and new innovations. In the clinical world, Dave’s use of the US National Library of Medicine’s Grateful Med to find research evidence has now been superseded by instantaneous online access to federated searches of preappraised research evidence through sources like ACCESSSS (Access to Evidence-based Summaries, Synopses, Syntheses, and Studies).⁴ Dave’s jerry-rigged “evidence cart”—containing a computer, compact discs of key evidence databases, and a projector, among other resources—which he and his residents dragged from bedside to bedside during their rounds, has now been replaced by iPhone apps containing clinical decision-support systems. But Dave’s recognition that the use of research evidence had to be actively supported has stood the test of time. In the policy world, in which this took longer to be recognized, several supports are now available to busy policymakers and stakeholders. They range from “one-stop shops” for research evidence (eg, Health Systems Evidence) and rapid-response services to evidence brief–informed stakeholder dialogues and training to help policymakers and stakeholders find and use research evidence efficiently.³

We recognize that these examples of Dave Sackett’s legacy for health policy are highly selective, raise attribution challenges, and ignore the critical role of intermediaries between the clinical and policy worlds, such as that of Jonathan Lomas, who adapted Dave’s insights for the peer-reviewed policy literature, and that of Daniel Fox, who did the same for state governments in the United States. With Dave’s death, though, we have an opportunity to look back at where those working in the field of evidence-informed health policymaking have come from and to note 4 parallels to the field of EBM that Dave shaped so powerfully. While he may never have intended that these parallels be established or never appreciated them, in the sense of both seeing them and liking what he saw, they are impossible to ignore. Imagine what might have happened had he founded a department of health policy, instead of

a department of clinical epidemiology and biostatistics, at McMaster University nearly half a century ago.

References

1. Sackett DL, Rosenberg WM, Gray JAM, Haynes RB, Richardson WS. Evidence-based medicine: what it is and what it isn't. *BMJ*. 1996;312:71-72.
2. Sackett DL, Richardson WS, Rosenberg WM, Haynes RB. *Evidence-Based Medicine: How to Practice and Teach EBM*. Edinburgh, Scotland: Churchill Livingstone; 1997.
3. Lavis JN. How can we support the use of systematic reviews in policymaking? *PLOS Med*. 2009;6(11):e1000141. doi:10.1371/journal.pmed.1000141.
4. Sackett DL, Haynes RB, Tugwell P. *Clinical Epidemiology: A Basic Science for Clinical Medicine*. 1st ed. Boston, MA: Little, Brown.
5. McMaster University, Department of Clinical Epidemiology and Biostatistics. How to read clinical journals: I. Why to read them and how to start reading them critically. *Can. Med. Assoc. J*. 1981;124: 555-558.

Address correspondence to: John N. Lavis, McMaster University, MML-417, 1280 Main St West, Hamilton, ON L8S 4L6 (email: lavisj@mcmaster.ca).