

Open Medicine at five years

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► **THE LAUNCH OF OPEN MEDICINE FIVE YEARS AGO** combined traditional scholarly values with modern norms of open access to information. Those of us who had worked within the framework of conventional medical journal publishing had observed how editorial independence in scholarly publishing could be eroded by the influence of revenue-driven and professional interests.¹ We saw an opportunity to create a different kind of journal. Our re-emerging editorial team adopted the principles of editorial autonomy and open access to research. We created a journal built on technological innovation, collaborative education and enterprise—one that would “give back” to the community of open source software and open access scholarly publishing. In our first month, our website was visited by tens of thousands of readers, while attracting press coverage from across Canada and beyond. *Scientific American*,² along with a number of bloggers, took particular note of one of *Open Medicine*’s inaugural papers, which compared health care expenditures and outcomes in the United States and Canada.³ *Open Medicine* content has been sparking interest among journalists, researchers, and the general public ever since.

Open Medicine provides an independent forum to debate issues related to medical practice, health research, and health policy for the Canadian and international medical community. It represents a significant achievement on the part of our editorial team and all of our supporters—especially in view of the fact that almost all processes are volunteer-driven and rely heavily on the dedication of team members to the value of making medical research findings accessible to all. With new opportunities on the horizon, we look to the next five years

with optimism and excitement. Although our content has been appearing in MEDLINE only for one year, our H-index—a measure of the impact of published work—is already a respectable 12. Between the journal’s launch and 24 April 2012, we received 508 manuscript submissions and published 146 individual articles, including in-house editorials, and have received consistently robust coverage in the lay media.

Open Medicine’s commitment to editorial independence has allowed us to provide frank commentary and analysis on ethical and policy issues such as conflict of interest^{4–6} and evidence-based policies on harm reduction.^{7,8} Our editorial independence has also allowed us to respond flexibly to current issues in biomedical publishing. Examples include editorials and guidance on policies concerning ghostwriting,⁹ financial conflict of interest^{10,11} and systematic review registration.¹² We have endorsed and implemented, for authors and peer reviewers, the recommended guidelines from the EQUATOR Network, which are intended to improve the quality of reporting of health-related research.¹³ *Open Medicine* participated in the simultaneous, broad publication of the PRISMA guidelines (for systematic reviews and meta-analysis) in 2009¹⁴ and the CONSORT 2010 update (randomized controlled clinical trials)¹⁵ as a step toward increasing the adoption of these guidelines by authors, peer reviewers and editors.

Open Medicine has contributed to technical advances and experiments that are key to the transformation of health care publishing. *Open Medicine* is the first refereed journal to publish the content of a scoping review¹⁶ and a systematic review with meta-analysis¹⁷ in a wiki format. Both articles were peer reviewed, revised and edited before publication on our site in html and PDF format. We concurrently created a wiki version of these reviews, testing the potential for research reports to become “living documents” to be updated by the scientific and broader community. We have been engaged in the development and sharing of additional code to optimize the commenting system for our published articles and have customized a program designed to help render the journal’s articles suitable for submission to PubMed Central, which requires meeting National Library of Medicine standards (www.nlm.nih.gov/pubs/factsheets/j_sel_fa.html). All of this was accomplished through the use of free and open source software^{18,19}; in turn, these developments can be used to improve the functionality of other publications. We have contributed to an easing of the learning curve in open electronic publishing, which has been successful in many areas outside of biomedical

science, and have outlined the process, issues, and responsibilities involved in turning a medical research article into an open access wiki.²⁰ These technological innovations have paid off in terms of increased readership: as Table 1 shows, traffic to openmedicine.ca has steadily risen over time.

Table 1
Snapshot of website traffic to Open Medicine

Date	Unique sites	Monthly hits
March 2009	8092	181 971
March 2010	17 174	350 554
March 2011	17 206	375 756
March 2012	18 435	403 006

Open Medicine has mentored three editorial fellows, all of whom have graduated to our editorial team. *Open Medicine* also fosters a student peer review group, based at the University of Calgary. Under the mentorship of associate editors based in Calgary, graduate students in the Department of Community Health Sciences have been involved in the peer review process for the journal. The group meets on an ad hoc basis to review manuscripts submitted to *Open Medicine*; the students independently review the manuscripts before meeting to discuss their comments and reach a consensus on recommendations for the editors. Overall, the students have found that this experience gives them insight into the peer review and editorial process, allows them to develop critical appraisal skills, teaches them aspects of health research that may be beyond their current domain of study, and helps them refine their own manuscript writing.²¹ The journal also supports the *Open Medicine* Clinical Audit prize at the University of Notre Dame Australia. The winner is able to work with an *Open Medicine* editor to develop his or her clinical audit report for publication in a peer reviewed journal, be supported through the peer review process, and attend an editorial meeting to learn how and why manuscripts are selected by a journal's editorial team.

Although our open access publishing platform removes many barriers to the timely dissemination of new research, we have struggled to create a sustainable economic model for publishing the journal. The core editorial group is a volunteer, collaborative, professional team. The journal receives funding from individuals and from various Canadian research libraries who generously support our open access vision. More recently, we have implemented modest publication fees to allow us to sustain the production of high-quality articles by paying for professional copy-editing and article production. At this

point, we are considering a variety of economic models aimed at sustaining and expanding the journal, including leveraging developing partnerships with like-minded organizations.

We recognize that we are not alone in our principled stand. *PLoS Medicine*, launched in 2004, continues to be an inspiration in its open access policies and its independence from the interests of professional associations and advertisers. But *Open Medicine*, born of an urgent national need for an alternative publishing model in general medicine, has been able to demonstrate how this re-assertion of scholarly principles can also be achieved on a far more modest and immediate scale.²² Through the phases of peer review, revision, and preparation for publication, the work of our team adds value to the research we publish through personal attention, careful editing, high-quality production, media coverage, and wide dissemination. Authors retain copyright of their work. We remain committed to these values and look forward to forging new partnerships that will leverage our role as the only open access, adaptable, peer-reviewed general medical journal in Canada. We will continue to advocate for the growing recognition of policies that are transforming the landscape of health research. *Open Medicine* is more than a repository for information—it offers a voice for the health care values we believe in: equality, accountability, and accessibility. We want our platform to reflect the real health challenges and solutions in Canada and around the world.

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