Did Abraham Flexner spark the founding of CMAJ?

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he Canadian Medical Association (CMA) formed in 1867, but its journal did not appear until 44 years later. Why 1911?

Scholars have already documented the essential factors: a longstanding willingness of the CMA to found a national journal, the availability of a talented editor in Andrew Macphail and the voluntary termination of two regional periodicals. Here I argue that the *Canadian Medical Association Journal (CMAJ)* began in 1911 as a nationalistic response to the Flexner report of 1910 (*Medical education in the United States and Canada: a report to the Carnegie Foundation for the Advancement of Teaching*). Abundant evidence lies in volume one of *CMAJ*.

Prompted by concerns about uneven quality and the lack of up-to-date science in medical schools, the American Medical Association's Council on Medical Education invited the Carnegie Foundation for the Advancement of Teaching to conduct a survey of medical education in North America in 1909. Educator Abraham Flexner, who was hand-picked by the Carnegie Foundation's president, spent 18 months visiting 155 medical schools across North America. In his view and that of the council, students should be selected through rigorous admission standards, taught basic sciences by full-time university professors in well-equipped laboratories and granted liberal access to clinical cases in hospitals. The gold standard — his "one bright spot" — was Johns Hopkins University.3

By 1920, a decade after the Flexner report was released, the number of schools in the United States had declined from 147 to 85 and was still falling. Underfunded institutions suffered most, especially schools for women and African Americans.⁴ Some closures may have been inevitable because of rising costs; others were the result of mergers.⁵ Whether Flexner caused these changes or heralded them, his report was a blueprint for medical education in the following decades.

Years later, Flexner gloated over his ability to size up an institution in a few hours: rifling admission files, strolling the wards, sniffing the atmosphere, deceiving his hosts and even bribing caretakers to open locked doors. "Caustic, arrogant, and uncompromising," Flexner made ene-

mies everywhere; his "aggressive, articulate, and outspoken" judgments guaranteed their visibility.⁷

The results of Flexner's three short visits to the eight Canadian schools, in March, May and October of 1909, occupied seven pages near the end of his report, which was released in April 1910.2 If not perfect, Toronto and McGill were "excellent" and committed to improvement. Manitoba was good, with "beautifully kept" specimens and "admirable" hospital relations; it served its region well. Queen's earned a bare pass: low entrance standards and paltry clinical opportunities were redeemed by a new laboratory with "intelligent" methods. Flexner judged Laval in Montréal (the future Université de Montréal) as having "indefinite" admission standards, "meager" equipment and poor university connections. The branch in Quebec City was similar although better connected to its university; however, clinical opportunities were of "limited quality," except for abundant obstetric cases.

Flexner reserved his harshest criticisms for the Halifax Medical College in Nova Scotia and the University of Western Ontario in London, Ont. "Feeble" Halifax offered fair basic science instruction, but hospital appointments were "made by the government for its own reasons," thus forcing the college to grant professorships to unworthy practitioners. Western's admission standards were "nominal," clinical facilities "entirely inadequate," and laboratories "wretched," while library books were "locked in cases," for which only the janitor held the key. No instruction was provided in physiology, pharmacology or clinical microscopy, and there was no dispensary. It was "as bad as anything to be found on this side of the line."

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KEY POINTS

- Abraham Flexner's influential report on the state of North American medical schools in 1910 created a stir among Canadian medical educators.
- Canadian physicians protested Flexner's cavalier methods and unfair judgments, yet Canadian medical educators used the report as the impetus to improve their schools.
- The Flexner report helped physicians realize the need for a platform for nation-wide dialogue and thus was a key factor in the founding of the CMAJ in 1911.

Flexner concluded that at least three Canadian schools should close. None did.

On July 7, 1910, at the 57th meeting of the Nova Scotia Medical Society in Yarmouth, Dr. D.A. Campbell defended the Halifax school and protested its "unfair" characterization as "commercial." His speech was published in both the *Maritime Medical News* (July)⁸ and the *Montreal Medical Journal* (September),⁹ the two journals that would fold into the new national successor. Macphail would leave the *Montreal Medical Journal* to edit *CMAJ*, a transition that he himself had suggested and been eagerly awaiting since 1907.¹⁰

In December 1910, Albert Le Sage, editor of the *Union Médicale du Canada*, heaped vitriol on Flexner for his "ineptitude" and the "grave errors" about Laval that he had disseminated so widely, thereby impugning the "prestige" of a fine school. Why had Flexner not bothered to read the materials provided, the editor asked. Then he answered: Because he was "incapable of understanding" documents in French. But Le Sage was also angry that Macphail had reprinted the unfair criticisms next to the glowing report on McGill in the *Montreal Medical Journal*. Medical professor L.E. Fortier's robust defence of the Laval school followed. 12

CMAJ came out with both arms swinging in January 1911.

With its first issue in January 1911, *CMAJ* came out with both arms swinging. In soaring prose, Macphail explained the need for a medical journal to serve Canadian medical needs; he reassured surviving regional journals of no competition.¹³ In solidarity with this medical unity, another editorial reported that the excellent Toronto and McGill schools had announced reciprocity for each other's students, committing to exchanges and hoping that future possibilities might extend across the country and even to Britain.¹⁴

Still in this first issue, anonymous writers for both Queen's and the Halifax Medical College protested Flexner's mistakes and the dangerous implications of his report. Flexner had spent only "part of an afternoon" at Queen's in Kingston, and his count of 80 clinical beds was out by a colossal factor of 6.15

The Haligonian writer took a different tack.¹⁶ Praising Flexner's good intentions to expose "incredible" inadequacies of "flimsy" schools, he acknowledged local imperfections, blaming them on hostilities between the school and Dalhousie University. But then he too decried the "prejudiced, inaccurate, and misleading" report.

The laboratories were neither "utterly wretched" nor "ill smelling." Flexner had provoked surprise and resentment among many Halifax graduates of outstanding ability and their patients. Students would shun the school or leave. The writer warned that without drastic action, this well-publicized denigration could kill the college, further shrinking inadequate numbers of Maritime physicians. ¹⁶

In the March 1911 issue of *CMAJ*, an editorial demanded changes in Halifax's hospital with specialists and residencies to enhance education and advance science.¹⁷ The following month, the Carnegie report was invoked once again to argue that any "medical school should possess its own hospital."¹⁸

Also in April, under the title "The vindication of Laval," the CMAJ editor proclaimed, "Medical education in Canada has nothing to fear from the fiercest light which can be brought to bear upon it. If defects are revealed, they will be remedied. Nothing is desired but the best."19 Referring sarcastically to the privilege of having been inspected formally by the Carnegie foundation, he described the ensuing disappointment of work "carelessly done." This editorial included Flexner's letter of apology to Dean E.P. Lachapelle of Laval in Montréal, expressing "profound regret" for having used the wrong catalogue to assess the school. (Flexner also published a correction in JAMA.20) In closing, Macphail remarked, "The report has been so justly discredited in so many respects that it is difficult to know what importance to attach to the parts which have not been so successfully challenged."19

Laval had good reason to feel vindicated; with this editorial, Macphail had effectively apologized for his insult to Laval in the *Montreal Medical Journal*. In return, a few weeks later, Le Sage urged his francophone colleagues to join the Canadian Medical Association for its interesting new journal edited by the "experienced" and "cultivated" Macphail.²¹ The medical nation was uniting across geographic and linguistic boundaries.

In the October 1911 issue of *CMAJ*, Canadian schools described improvements and plans for the new semester.²² Again the "misleading" Carnegie report was attacked for its "injustice." But the emergency it had created in Nova Scotia prompted Dalhousie to come "to the rescue of a sorely crippled institution," saving medical education in Halifax for posterity and the region. Manitoba weighed in, proud of its good grade from Flexner but cheekily daring to suggest that Flexner had gone too far in emphasizing laboratory diagnostics over bedside skills. Finally, Western defended itself, adopting Flexner's own language: "On this side of the line … no

other medical college in the Dominion was so unfairly reported. ... [I]ts resources have been limited ... but its ideals are high" — the very assessment Flexner had made of Johns Hopkins. "Instead of combating the report," however, the London professors had "at once set about making improvements."²²

Canadian schools may have resented Flexner's cavalier method and his erroneous judgments, but they shared his pedagogic vision and used his report to implement long-desired changes. In November 1911, the *CMAJ* editor approved the ending of the nation's last proprietary school (Halifax).²³ Far from being a profitable enterprise, good medical education had become an expensive, university-based scientific endeavour. These same sentiments were echoed in a follow-up report two years later.²⁴

Shared academic goals notwithstanding, the Canadian profession rejected the outsider's intrusion. Le Sage of Montréal had been blunt: "Vous êtes bien Américain M. ABRAHAM FLEXNER ... à moins que vous ne soyez autre chose. ... Pour nous vous n'êtes qu'un bluffeur!" Macphail agreed, but he elevated the ad hominem attack to a national challenge: 55

[W]e are beginning to hear of American medicine and American surgery. ... It is time now to realize that Canada too ... is differing more and more from the United States ... and from the European peoples from which it sprung. A Canadian type of nationality and a Canadian type of disease are in the process of formation, and Canadian physicians are quietly and surely laying the foundations for a Canadian medicine of the future. ... [T]eachers ... must do their utmost to educate men not only imbued with the scientific spirit, but also well equipped for the extremely practical work which is before them.

In an oblique, but sharp reference to Flexner, he continued, "[C]linical teachers must remember always that they are training men who are to practise their profession mostly in town, village and country away from the well equipped laboratories of hospital and college." They must train students to use "the simpler and well-known clinical methods and not to rely so much on laboratory diagnosis." He referred to the example of "skiagraphs" (x-ray images): marvellous, yes, but useless "in the woods, on the railway" or "in a mining camp." He closed with a call for clinical reports: "each contributor to [this] journal may do much towards building up a real Canadian medicine." Fifteen years later, Macphail

was still complaining about "American methods in medical education."²⁶

It is no coincidence that the *CMAJ* centennial follows that of the Flexner report by a single year. Abraham Flexner had united the minds and mobilized the pens of medical practitioners and educators across the land, inciting them to finally launch a platform for nationwide dialogue. It was not the first nor would it be the last time that American scrutiny would goad Canadians to define and speak for themselves.

References

- Shortt SED. Sir Andrew Macphail: physician, philosopher, founding editor of CMAJ. Can Med Assoc J 1978;118:323-6.
- Flexner A. Medical education in the United States and Canada: a report to the Carnegie Foundation for the Advancement of Teaching, 1910; facsimile reprint New York (NY): Arno Press; 1972.
- Flexner A. I remember: the autobiography of Abraham Flexner. New York (NY): Simon and Schuster; 1940. p. 128.
- Ludmerer KM. Learning to heal: the development of American medical education. New York (NY): Basic Books; 1985. p. 168-90.
- Rothstein WG. American medical schools and the practice of medicine: a history. New York (NY): Oxford University Press; 1987. p. 145-7.
- Flexner A. I remember: the autobiography of Abraham Flexner. New York (NY): Simon and Schuster; 1940. p. 121-2
- Ludmerer KM. Learning to heal: the development of American medical education. New York (NY): Basic Books; 1985. p. 172.
- Campbell DA. Medical education in Nova Scotia. Maritime Medical News 1910;22:201-17.
- Campbell DA. Medical education in Nova Scotia. Montr Med J 1910;39:628-49.
- Robertson IR. Sir Andrew Macphail: the life and legacy of a Canadian man of letters. Montréal (QC), Kingston (ON): McGill–Queen's University Press; 2008. p. 47.
- Le Sage A. Le bluff Américain: Fondation Carnegie et Université Laval à Montréal. Ignorance et préjugés. Union Med Can 1910;39:683-6.
- Fortier LE. La Fondation Carnegie et l'Université Laval à Montréal. Union Med Can 1910;39:686-93.
- 13. Official notice. Can Med Assoc J 1911;1:57-8.
- 14. Reciprocity in teaching. *Can Med Assoc J* 1911;1:60-2.
- 15. Queen's and the Carnegie Report. Can Med Assoc J 1911;1:62-4.
- 16. Halifax Medical College. *Can Med Assoc J* 1911;1:64-70.
- 17. Hospital troubles in Halifax. Can Med Assoc J 1911;1:254-8.
- Medical school and hospital. Can Med Assoc J 1911;1:350-4.
 The vindication of Laval. Can Med Assoc J 1911:1:354-6.
- 20. Flexner A. A correction of the Carnegie Foundation Report on
- Medical Education in Montréal. JAMA 1911; LVI:445.
- L'association médicale canadienne. Union Med Can 1911;40:335.
- Editorials: Medical teaching in Halifax, Opening of the session, University of Toronto, McGill University, Manitoba Medical College, University of Laval at Montréal, Western University. Can Med Assoc J 1911;1:983-94.
- 23. The proprietary school. *Can Med Assoc J* 1911;1:1091-3.
- Editorials: The medical schools and On medical education. Can Med Assoc J 1913;3:977-96.
- 25. Canadian medicine. Can Med Assoc J 1911;1:149-51.
- Robertson IR. Sir Andrew Macphail: the life and legacy of a Canadian man of letters. Montréal (QC), Kingston ON): McGill–Queen's University Press, 2008; p. 237-9.

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