HEALTHCARE

POLICY

Politiques de Santé

Health Services, Management and Policy Research
Services de santé, gestion et recherche de politique

Volume 1 • Number 1

HEALTHCARE QUARTERLY: Best practices, policy and innovations in the administration of healthcare. For administrators, academics, insurers, suppliers and policy leaders. *Edited by* Dr. Peggy Leatt, University of North Carolina, Chapel Hill ✦ CANADIAN JOURNAL OF NURSING LEADERSHIP covering politics, policy, theory and innovations that contribute to leadership in nursing administration, practice, teaching and research. Peer reviewed. *Edited by* Dr. Dorothy Pringle, University of Toronto, Toronto ✦ HEALTHCARE PAPERS: Review of new models in healthcare. Bridging the gap between the world of academia and the world of healthcare management and policy. Authors explore the potential of new ideas. *Edited by* Dr. Peggy Leatt, University of North Carolina, Chapel Hill. ✦ HEALTHCARE POLICY: Healthcare policy research and translation. Peer reviewed. For health system managers, practitioners, politicians and their administrators, and educators and academics. Authors come from a broad range of disciplines including social sciences, humanities, ethics, law, management sciences, and knowledge translation. *Edited by* Dr. Brian Hutchison, McMaster University, Hamilton. ✦ ELECTRONIC HEALTHCARE: Best practices, policy and innovations exploring e-models, e-practices and e-products for e-health. For administrators, academics, insurers, suppliers and policy pundits. *Edited by* Dr. Michael Guerriere, University of Toronto, Toronto and Denis Protti, University of Victoria, Victoria. ✦ LAW & GOVERNANCE: Within the framework of the law and the role of governance providing policies, programs, practices and opinions for the providers, administrators and insurers of healthcare services. *Editorial Chair.* Dr. Kevin Smith, McMaster University, Hamilton. ✦ HRRESOURCES: Cases, commentary and policy reviews for healthcare clinicians, human resources managers and the policy leaders, insurers, academics, administrators, boards and advisors of all healthcare organizations. *Editorial Chair.* Dr. Louise Lemieux-Charles, University of Toronto, Toronto. ✦ JOURNAL OF WORLD HEALTH & POPULATION: Best practices, policy and innovations in the administration of healthcare in developing communities and countries. For administrators, academics, researchers and policy leaders. Includes peer reviewed research papers. *Edited by* Dr. John Paul, University of North Carolina, Chapel Hill. ✦ LONGWOODS.COM: Enabling excellence in healthcare. Providing electronic access to news, information, career opportunities, conference schedules, research, case studies, policy reviews and commentary that cover politics, policy, theory, best practices and innovations in healthcare.

Getting Started

Following a long gestation – but rapid labour – *Healthcare Policy* has arrived. In "Journey to a Journal," Morris Barer chronicles the journal's unfolding while characteristically failing to acknowledge his own role as prime mover. We owe much to Morris and the many others who helped bring the journal to life.

Healthcare Policy aims to bridge the worlds of research and decision-making while recognizing the magnitude of the challenge. Although decision-makers and health researchers often address the same questions, their timetables, prime imperatives (getting things done versus getting things right) and reward systems diverge. As a result, decision-makers may fail to bring relevant research evidence to bear in their decisions, and researchers may obscure policy-relevant findings in a cloud of caveats and calls for further research.

Reflecting the journal's determination to cross the cultural divides of health research, policy making, management and service delivery, our editorial team and manuscript review process include both researchers and decision-makers. Our quest is for research, analysis and information that speak to both audiences.

With any new venture, the question, "If you build it, will they come?" looms large. Time will tell regarding readership, but for manuscript submissions, the answer is a resounding yes. Since the call for submissions was issued in January, we have received 45 unsolicited manuscripts. This has generated a heavy workload for the journal's editorial team and our small army of reviewers, but we wouldn't want it any other way.

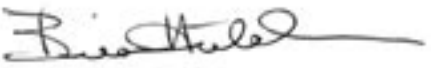
The content of this inaugural issue focuses heavily on knowledge transfer, with papers on knowledge synthesis to inform decision-making (Lomas), journalists' perspectives on their relationships with researchers (Waddell and colleagues), the role and functioning of Canadian health policy research centres (Mekel and Shortt) and interaction between health services researchers and policy makers (Martens and Roos). Anton Hart's interview with Brian Postl, CEO of the Winnipeg Regional Health Authority, offers a healthcare manager's view of the place of research evidence in decision-making.

Three commentaries in this issue examine the origins, meaning and potential policy responses to the recent Supreme Court ruling in the *Chaoulli* case. I encourage you to read all three; each offers a distinctive take on this major challenge to Canadian

medicare. Bob Evans, in the first of his regular columns, adopts a broad historical perspective (showing, once again, that everything is related to everything else). Flood and Lewis dissect the court's decision and then go on to outline potential political and legislative responses, emphasizing the need to "solve the problems of quality and access." Beland comments on the decision and its likely consequences from a Quebec vantage point. All provide food for discussion and debate.

Readers will notice that all contributors to this first issue of *Healthcare Policy* are from Canada. Although the journal will continue to have a distinct Canadian flavour, we welcome and will seek out international submissions that are relevant to the Canadian context.

Please stay tuned.



BRIAN HUTCHISON, MD. MSC. FCFP
Editor-in-chief

—

C'est parti!

Après une longue gestation – mais un accouchement rapide – *Politiques de santé* est enfin arrivé. Dans Journey to a Journal, Morris Barer relate le développement de la revue, tout en oubliant, comme à son habitude, de mentionner le rôle de premier plan qu'il y a joué. Nous devons une fière chandelle à Morris et aux nombreuses autres personnes qui ont contribué à la réalisation de la revue.

Tout en reconnaissant qu'il s'agit là d'un défi de taille, *Politiques de santé* se veut un pont entre les chercheurs et les décideurs du domaine de la santé. Bien que ces deux catégories d'intervenants examinent souvent les mêmes questions, leurs horaires, leurs priorités (faire les choses contre bien faire les choses) et leurs systèmes de récompense sont souvent divergents. Les décideurs ne tiennent donc pas compte des résultats des travaux de recherche lorsqu'ils prennent des décisions, et les chercheurs peuvent voiler des résultats pertinents pour les politiques dans une nuée de mises en garde et de recommandations pour des travaux de recherche plus poussés.

Étant donné que la revue cherche à combler les fossés culturels qui existent entre la recherche, l'élaboration de politiques, la gestion et la prestation de services en

matière de santé, notre équipe de rédaction se compose à la fois de chercheurs et de décideurs, et cette diversité se reflète également dans notre processus d'examen des manuscrits. Nous voulons avant tout présenter des travaux de recherche, des analyses et des renseignements susceptibles d'intéresser les deux camps.

À l'instar de toute nouvelle initiative, la question à savoir « Si on le construit, est-ce qu'ils viendront? » est incontournable. Pour ce qui est de l'étendue du lectorat, seul le temps pourra le dire, mais en ce qui concerne la soumission de manuscrits, la réponse est un oui retentissant. Depuis que nous avons lancé notre demande de communications en janvier, nous avons reçu 45 manuscrits non sollicités. Cela a créé une lourde charge de travail pour l'équipe de rédaction de la revue et notre petite armée d'examinateurs, mais nous n'échangerions pas cela pour rien au monde.

Le contenu de ce numéro inaugural met fortement l'accent sur le transfert des connaissances, avec des articles sur la synthèse des connaissances en vue d'éclairer la prise de décisions (Lomas), les points de vue de journalistes sur leurs relations avec des chercheurs (Waddell et collègues), le rôle et le fonctionnement des centres canadiens de recherche sur les politiques de santé (Mekel et Shortt) et l'interaction entre les chercheurs et les décideurs en matière de santé (Martens et Roos). L'entrevue d'Anton Hart avec Brian Postl, PDG de l'Office régional de la santé de Winnipeg, nous livre le point de vue d'un gestionnaire en soins de santé sur le rôle que jouent les résultats de la recherche dans la prise de décisions.

Dans ce numéro, trois analyses examinent les origines et la signification de la récente décision de la Cour suprême dans l'affaire Chaoulli, ainsi que les politiques susceptibles d'en découler. Je vous encourage à lire les trois car chacune d'elles présente un point de vue différent sur cet important défi pour le régime canadien d'assurance maladie. Dans la première de ses chroniques régulières, Bob Evans brosse un vaste tableau historique et démontre, encore une fois, que tout est imbriqué. Flood et Lewis dissèquent la décision de la Cour puis présentent un résumé des politiques et des mesures législatives susceptibles d'en découler, en mettant l'accent sur le besoin de « résoudre les problèmes de qualité et d'accès. » Enfin, M. Béland présente un point de vue québécois et nous fait part de ses commentaires sur la décision et ses répercussions potentielles. Ils fournissent tous matière à réflexion et à discussion.

Les lecteurs remarqueront que tous les collaborateurs de ce premier numéro de Politique de santé sont canadiens. Bien que le journal continuera d'avoir une saveur distinctement canadienne, nous invitons les intéressés internationaux à nous envoyer des articles pertinents pour le contexte canadien.

Restez à l'écoute!

BRIAN HUTCHISON, MD. MSC. FCFP
Rédacteur en chef

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Journey to a Journal

A vision to create a forum for Canadian health services and policy research – tracing the origins of Healthcare Policy.

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It is impossible, and not all that important, to pinpoint the minute when the idea of a new Canadian health services/policy research journal first occurred to someone in the Canadian research or policy/management community. My memory of this goes back to the 1980s, when I first became acutely aware of the special challenges faced by Canadian researchers looking to get their work beyond grey literature and into peer-reviewed journals that would actually be seen by at least a few Canadians for whom the work might be relevant. Conversations in which I was involved about the idea of a journal date back at least to the early 1990s. Not that there were no places to publish our work. But the Canadian journals were either not in a position to accept very many papers (e.g., *Canadian Medical Association Journal)* or were quite specialized (e.g., *Canadian Journal on Aging)*. The resulting frustration with the need to write largely for an international audience and, accordingly, to find the "local" hook (particularly with respect to American journals) grew throughout the 1990s, culminating in efforts to organize a meeting to discuss the matter as the decade was closing.

In April 2000, a meeting was convened in Toronto. This meeting was highly informal, with invitees determined by informal networks and conversations, a relatively open-ended agenda and only a partial record (of which I am aware) of who attended. But, thanks to the work of Alina Gildiner, there are notes from that meeting. I recall about 20 to 25 participants, a mix of researchers, publishers and decision-makers (from government). Participants represented both the health services and population health communities; at the time, the dominant vision was of a journal that would serve both communities, since they shared common frustrations and common interests in seeing additional outlets available for their work. While some of the time at that meeting was spent agonizing over the absence of a Canadian home for excellent Canadian research papers that would be of primary interest to a Canadian research, policy and management audience, attention was also given to what it might take to see additional publication opportunities born. Among the topics discussed were the structure, mission, scope and content for a journal, the possible composition of an editorial team and board, and how on earth one would find the funds to support such a journal.

Emphasis at that meeting was placed on the need for a forum for good applied work that would find an apt audience among Canadian policy makers and managers (*Health Affairs* and *Canadian Public Policy* were offered up as potential models, with the need to accept papers in both official languages also receiving emphasis). The absence of a quality peer-reviewed publication outlet dedicated to timely, applied work meant that Canadian policy debate often proceeded in innocence of an evidence base, even when relevant evidence existed. The "living next door to an elephant" problem was also noted. Not only did Canadian research need to be bent to make it relevant to a US audience to get published in American journals, but Canadian policy makers and managers are inundated by US-sourced health policy and management journals and magazines. This situation was seen to have an insidious influence on how those communities come to think about the art of the possible, and about what they consider to be in the "policy choice" set.

The notion of a journal as a communications centrepiece for a broad network or member-based association, that also holds conferences and publishes proceedings, commentaries by decision-makers and other documents, was tabled. One concrete suggestion was to create a journal structured in a way similar to *Science*, with commentaries and interpretations in addition to key research papers. The main questions were seen to be whether a) there was genuine commitment from enough readers, contributors, subscribers and other potential funders to make the project worth pursuing; b) it might be made into a first-class, perhaps unique, journal; and c) it could be financially viable for a publisher.

In retrospect, the most remarkable aspect of this meeting was the extent to which key parts of the vision that surfaced there can be found in what has emerged now,

five years later. At the time of the meeting, the establishment o f Canadian Institute of Health Research (CIHR) was imminent, and its scope was widely expected to embrace both health services/policy research and population health research, although the complement of institutes was not yet known. The implications of that significant change in the health research funding scene in Canada, and the potential facilitating role of CIHR in furthering the journal agenda, received some – though not a lot of – attention. One thing that was noted was that if health services and population health research were to be supported in a significant way by CIHR, this was likely to bring many more researchers into the fold, generating large numbers of new research papers with nowhere in Canada to call home.

The establishment of two CIHR institutes with mandates encompassing the breadth of interests represented at that April 2000 meeting provided momentum for continued discussion of, and due diligence around, the journal "file." One of the earliest initiatives by the Institute of Health Services and Policy Research (IHSPR) was to commission some market research. In early 2001, Pat Baranek, Terry Sullivan and Raisa Deber surveyed a sample of leading Canadian health services and population health researchers, policy makers and managers, conducted interviews with a number of potential publishers and other stakeholders and undertook some limited analyses of then-current publication avenues. Their report, completed in May 2001, provided the first systematic evidence on the key issues that had surfaced during the April 2000 meeting.

Both researcher and decision-maker respondents indicated a need for a new journal that … would contain a mix of peer-reviewed research, policy commentaries, reviews, research syntheses, data/information updates and some theme-related issues.

A majority of researcher respondents indicated occasional or frequent difficulty, and frustration, with finding an appropriate publication outlet for their work. Both researcher and decision-maker respondents indicated a need for a new journal that would target both audiences, and that would contain a mix of peer-reviewed research, policy commentaries, reviews, research syntheses, data/information updates and some theme-related issues, encompassing health policy, health services research, healthcare management and organization, population health and knowledge-translation research related to all these areas. Respondents estimated the likely size of the potential audience as 2,000 to 5,000 readers. A majority favoured publishing material in the language of submission, with bilingual abstracts and the inclusion of material relevant to Canadian healthcare or the health of Canadians, regardless of its country of origin.

Importantly, researchers expressed a willingness to send new work, and to redirect work that is currently sent to other (even Canadian) venues, to a new journal.

In early 2002, the leadership of IHSPR and the Institute of Population and Public Health (IPPH) began some exploratory conversations with potential publishers. In the fall of that year, the two institutes held a joint advisory board meeting at which a key topic of conversation was "the journal." In subsequent discussions, it became clear that there was insufficient support among the IPPH advisory board members to continue exploring a journal that would serve both fields of inquiry. IPPH was already committed to supporting and strengthening the *Canadian Journal of Public Health*, a key publishing outlet for its community. Even among the IHSPR board members, support for a new journal was far from unanimous. However, as a result of extensive discussion at an early-2003 board meeting, the advisory board recommended more detailed field work. By this time, the advisory board had evolved into a collection of working groups, one of which – the Knowledge Translation Working Group (IAB–KTWG), ably chaired by Laurence Thompson – took this project under its wing. Pat Baranek was commissioned to undertake two pieces of work in 2003. The first involved a survey of a larger number of researchers and decision-makers to gauge interest in, and commitment to, additional publication outlets; the second involved the solicitation of expressions of interest, and cost estimates and publishing models, from potential publishers.

For those interested in the details, Baranek's first 2003 report is available from IHSPR (for a copy of the report please contact Kim Gaudreau at kgaudreau@cihr-irsc.gc.ca). In brief, 280 individuals randomly sampled from the databases of the IHSPR and the Canadian Health Economics Research Association were sent a survey, and a telephone interview was conducted with an additional 30 individuals randomly drawn from the IHSPR database. In addition to questions about the general interest in a new publication outlet, respondents were asked about their preferences from among five specific options:

- an agreement with an existing Canadian journal to expand its acceptance rate of health services/policy research
- a similar arrangement with an existing international journal
- an annual supplement to an existing Canadian journal, dedicated to health services/policy research
- a similar arrangement with an existing international journal
- a new Canadian journal dedicated to health services/policy research.

Again, there was significant support for a new publishing outlet: 78% indicated that this was either necessary or somewhat necessary. Researcher respondents were more strongly supportive than were non-academic respondents, but even among the latter, a majority felt there was a need for a new outlet. Support was also stronger

among junior and mid-career academics than among senior researchers. Slightly over one-half of respondents favoured a new stand-alone Canadian journal; the second most frequent choice (<20%) preferred an arrangement with an existing Canadian journal to expand its acceptance rate. Almost 90% of respondents expressed willingness to submit their best work in response to the new opportunity, subject to its being (or quickly becoming) a "quality publication."

In the second phase of her 2003 work (the results of which could not be made public because they included proprietary information provided by prospective publishing houses), Baranek contacted 14 publishers or potential journal owners to solicit interest in submitting a formal proposal for developing a new publication venue. Four proposals were received by the December 2003 deadline. The IAB–KTWG developed a set of evaluation criteria and then undertook a review of the four proposals against those predetermined criteria. This working group presented a recommendation to the full advisory board at its February 2004 meeting, which was accepted. Following this, discussions began between IHSPR staff and the recommended publishing house, Longwoods Publishing Corporation.

Discussions with Longwoods over the next six months focused on a variety of logistical and financial matters, including indexing, frequency of publication, electronic versus paper formats, sources of revenue, linkages with the Canadian Association for Health Services and Policy Research (CAHSPR), communication strategy and editorial team structure and composition. These discussions culminated in a significant financial commitment by IHSPR to the early years of the journal, and the release in September 2004 of the first official announcement regarding the new publication. This announcement (http://www.cihr-irsc.gc.ca/e/24637.html) served a number of purposes, including a call for nominations and suggestions regarding the editorial team, and an opportunity to be involved in naming the journal. A second communication, in January 2005 (http://www.cihr-irsc.gc.ca/e/25912.html) announced the journal's name, a call for submissions and introduction of the editorial team.

Since that time, the editorial team has been hard at work on the early issues of *Healthcare Policy*, and Longwoods has been engaged in discussions with CAHSPR and other potential partners. With this first issue, we are off and running. From here on, the history of this journal will be written by you, those who submit papers, those who review papers, those who make other contributions to its content and those who choose to include it among their "must reads" four times a year. This initiative has been a long time coming, but with this spectacular first issue, worth the wait. Enjoy the read.

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L'histoire d'une revue

Il serait impossible, et même plutôt inutile, de se rappeler le moment exact où l'idée d'une nouvelle revue scientifique sur la recherche en services et en politiques de santé a germé dans la tête d'un chercheur ou d'un gestionnaire de la santé au Canada. Mes souvenirs à ce propos remontent aux années 80, lorsque j'ai pris profondément conscience des difficultés particulières auxquelles faisaient face les chercheurs canadiens désireux de sortir de la littérature grise pour publier dans des revues scientifiques évaluées par des pairs, et ainsi courir la chance de capter l'attention d'au moins quelques Canadiens intéressés par leurs travaux. Les premières conversations (du moins celles que j'ai eues) concernant une possible revue scientifique datent du début des années 90 au moins. Ce n'est pas qu'il n'existait pas d'endroit où publier, mais les revues canadiennes n'étaient pas en mesure d'accepter un grand nombre d'articles (p. ex. Journal de l'Association médicale canadienne) ou étaient trop spécialisées (p. ex. R*evue canadienne du vieillissement*). L'obligation d'écrire pour un lectorat en grande partie international et, par extension, de devoir y chercher des occasions « locales » (surtout dans le cas des revues américaines) a engendré une frustration qui a augmenté tout au long des années 90, jus qu' à un point culminant marqué par des efforts en vue d'organiser une réunion sur la question à la fin de la décennie.

Cette réunion a eu lieu à Toronto en avril 2000. Il s'agissait d'une rencontre très informelle, dont les invités avaient été choisis en raison de leur appartenance à des réseaux informels ou suite à des conversations, avec un ordre du jour relativement malléable et une liste incomplète (j'en suis conscient) des participants. Malgré tout, grâce à Alina Gildiner, il existe des notes sur cette réunion. Je me rappelle qu'il y avait autour de 20 à 25 participants, soit un mélange de chercheurs, d'éditeurs et de décideurs (du gouvernement). Les collectivités des services de santé et de la santé des populations y étaient toutes deux représentées. À l'époque, la majorité avait en tête une revue desservant les deux collectivités, étant donné leurs frustrations communes et leur même désir d'élargir leurs possibilités de publication. Bien que la réunion n'ait parfois servi qu'à déplorer l'absence d'un véhicule canadien pour la publication d'excellents articles de recherche canadiens pouvant grandement intéresser des chercheurs, des décideurs et des gestionnaires canadiens, les participants ont également réfléchi aux conditions qui pourraient favoriser l'apparition de nouvelles possibilités de publication. La structure, la mission, le champ d'intérêt et le contenu d'une éventuelle revue ont été discutés, tout comme la composition possible d'une équipe et d'un conseil de rédaction et les moyens de dénicher les fonds pour une telle entreprise.

L'accent a été mis sur le besoin d'un forum pour la diffusion de bons travaux de recherche appliquée, où les scientifiques trouveraient un auditoire intéressé parmi les

décideurs et les gestionnaires canadiens (*Health Affairs* et *Analyse de politique* ont été offerts comme modèles possibles); la nécessité d'accepter des articles dans les deux langues officielles a également retenu l'attention. L'absence d'un véhicule de diffusion de qualité, soumis à une évaluation par les pairs et consacré à la recherche appliquée récente, fait en sorte que les débats d'orientation au Canada ont souvent lieu dans l'ignorance des données factuelles, même lorsque de telles données existent et sont pertinentes. On a aussi soulevé le problème de « l'éléphant américain qui habite juste à côté ». Outre le fait que notre recherche devait être orientée vers les intérêts des Américains pour être publiée dans les revues américaines, nos décideurs et nos gestionnaires canadiens étaient inondés de publications sur la politique et la gestion de la santé provenant des États-Unis. On a jugé que cette situation avait une influence insidieuse sur ce que nos décideurs et gestionnaires considèrent comme possible et pertinent.

On a également abordé le principe d'une publication jouant le rôle de carrefour des communications pour un vaste réseau ou une fédération, qui tient également des conférences et publie des actes, des commentaires de décideurs et d'autres documents. On a suggéré concrètement de créer une publication structurée d'après le modèle de *Science*, contenant des commentaires et interprétations en plus d'articles de recherche importants. Selon les participants, les principales questions à se poser étaient les suivantes : a) existe-t-il un engagement véritable de la part d'un nombre suffisant de lecteurs, de collaborateurs, d'abonnés et d'autres sources de financement potentielles pour qu'il vaille la peine de donner suite au projet? b) pourrait-on produire une publication de premier plan, voire unique en son genre? et c) une telle publication pourrait-elle s'avérer rentable pour un éditeur?

En rétrospective, l'aspect le plus remarquable de cette réunion réside dans le fait que des éléments importants de la vision exprimée alors sont sensiblement les mêmes qui reviennent aujourd'hui, cinq ans plus tard. Lorsque cette réunion a eu lieu, l'établissement des IRSC était imminent et on prévoyait que leur mandat engloberait la recherche sur les services/politiques de santé ainsi que la recherche sur la santé des populations, même si on ne savait pas encore quelles seraient les composantes des instituts. On a sous-estimé à l'époque les implications de cet important changement dans le financement de la recherche en santé au Canada, ainsi que le rôle de facilitateur que pourraient jouer les IRSC dans l'avancement de notre projet de publication. On avait seulement observé que si les IRSC devaient soutenir de façon significative la recherche sur les services de santé et la santé des populations, cela augmenterait le bassin de chercheurs, lesquels généreraient une grande quantité de nouveaux articles de recherche sans véhicule de diffusion au Canada.

L'établissement de deux instituts des IRSC dont le mandat couvrait l'ensemble des intérêts représentés à la réunion d'avril 2000 a relancé les discussions sur le projet de publication et a motivé ses promoteurs. L'une des premières initiatives de l'Institut des

services et des politiques de la santé (ISPS) a été de commander une étude de marché. Au début de 2001, Pat Baranek, Terry Sullivan et Raisa Deber ont fait enquête auprès d'importants décideurs, gestionnaires et chercheurs en services de santé et en santé des populations, et ont interviewé un certain nombre d'éditeurs éventuels et d'autres intervenants, en plus d'entreprendre une analyse limitée des possibilités qui s'offraient alors en matière de publication. Leur rapport, terminé en mai 2001, a fourni les premières données factuelles systématiques sur les questions clés abordées à la réunion d'avril 2000.

La majorité des chercheurs ayant participé à l'enquête ont indiqué qu'ils éprouvaient, fréquemment ou à l'occasion, de la difficulté et de la frustration dans la recherche d'un véhicule de diffusion approprié pour leurs travaux. Les chercheurs et les décideurs ont exprimé l'opinion qu'il existait un besoin pour une nouvelle publication ciblant les deux groupes et comportant un amalgame de recherche évaluée par des pairs, des commentaires sur les grandes orientations, des critiques, des synthèses de recherche, des mises à jour de données/d'information et certaines questions thématiques; cette publication devrait traiter de la politique de la santé, de la recherche sur les services de santé, de la gestion et de l'organisation des soins de santé, de la santé des populations et de la recherche sur l'application des connaissances dans tous ces domaines. Les répondants à l'enquête ont estimé que le lectorat potentiel se situait quelque part entre 2 500 et 5 000 lecteurs. Une majorité a préconisé la publication des articles dans leur langue originale avec des résumés bilingues et l'inclusion d'information pertinente à l'égard des soins de santé au Canada ou de la santé des Canadiens, quel que soit le pays d'origine de cette information. Il est à noter que les chercheurs ont exprimé leur volonté d'envoyer de nouveaux articles, ou de rediriger des articles actuellement envoyés ailleurs (même à l'intérieur du Canada) vers la nouvelle publication.

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Au début de 2002, la direction de l'ISPS et de l'Institut de la santé publique et des populations (ISPP) a commencé à sonder le terrain auprès d'éditeurs potentiels. Durant l'automne de la même année, les deux instituts ont tenu une séance conjointe de leurs conseils consultatifs au cours de laquelle « la publication » a figuré parmi

les principaux points à l'ordre du jour. Au cours des discussions qui ont suivi, il est devenu évident que l'appui des membres du conseil consultatif de l'ISPP n'était pas suffisant pour continuer d'explorer la possibilité d'une publication qui couvrirait les deux champs de recherche. L'ISPP s'était déjà engagé à soutenir et à consolider *La revue canadienne de santé publique*, un véhicule de diffusion clé pour sa collectivité. Même parmi les membres du conseil de l'ISPS, la nouvelle publication était loin de faire l'unanimité. Cependant, au début de 2003, à la suite de discussions plus approfondies à une réunion du conseil, ce dernier a recommandé l'exécution de travaux plus détaillés sur le terrain. À l'époque, le conseil consultatif s'était scindé en plusieurs groupes de travail, dont le Groupe de travail sur l'application des connaissances, habilement présidé par Laurence Thompson, qui a pris le projet sous son aile. Pat Baranek a été chargée de deux missions en 2003. La première était de mener une enquête auprès d'un nombre important de chercheurs et de décideurs afin de mesurer leur intérêt à l'égard de nouveaux véhicules de diffusion et leur engagement à soutenir un tel projet; sa deuxième mission consistait en une demande de manifestation d'intérêt, avec modèles de publications et indication des coûts estimatifs, auprès d'éditeurs potentiels.

Ceux qui désirent plus de détails peuvent s'adresser à l'ISPS pour obtenir une copie du premier rapport de 2003 de P. Baranek (s.v.p. envoyer votre demande à Kim Gaudreau, adresse courriel : kgaudreau@cihr-irsc.gc.ca). En bref, des questionnaires ont été envoyés à 280 personnes choisies au hasard à partir des bases de données de l'ISPS et de l'Association canadienne pour la recherche en économie de la santé, et des entrevues téléphoniques ont été effectuées auprès de 30 personnes également choisies au hasard dans la base de données de l'ISPS. En plus des questions visant à mesurer leur intérêt général à l'égard d'une nouvelle publication, on a demandé aux répondants quelle était leur option préférée parmi les cinq options suivantes :

- entente avec une revue canadienne en vue de faire accepter davantage d'articles sur la recherche dans le domaine des services et des politiques de santé;
- entente similaire avec une revue internationale;
- publication d'un supplément annuel sur les services et politiques de santé dans une revue canadienne existante;
- publication d'un supplément annuel semblable dans une revue internationale;
- publication d'une nouvelle revue canadienne vouée à la recherche sur les services et politiques de santé.

Encore une fois, la publication d'une nouvelle revue a été fortement appuyée : 78 % des répondants ont indiqué que cela était nécessaire ou plutôt nécessaire. Les chercheurs étaient plus fortement en faveur que les répondants hors du milieu universitaire, mais même parmi cette dernière catégorie, une majorité des répondants ont indiqué qu'une nouvelle revue était une nécessité. Le soutien a aussi été plus marqué

parmi les universitaires en début de carrière ou à mi-carrière que parmi les chercheurs chevronnés. Un peu plus de la moitié des répondants ont dit préférer une nouvelle publication canadienne indépendante; la deuxième option la plus populaire (<20 %) était l'arrangement avec une publication canadienne pour faire accepter plus d'articles. Près de 90 % des répondants ont exprimé leur intention de soumettre leurs meilleurs travaux pour publication dans la nouvelle revue, pourvu que celle-ci soit (ou devienne rapidement) une « publication de qualité ».

Dans la seconde étape de ses travaux de 2003 (dont les résultats n'ont pu être rendus publics parce qu'ils incluaient des renseignements exclusifs fournis par des maisons d'édition éventuelles), P. Baranek a pris contact avec 14 maisons d'édition ou propriétaires de revue potentiels afin de solliciter des manifestations d'intérêt pour l'élaboration d'un projet officiel de nouvelle publication. Quatre projets ont été soumis dans le délai fixé à décembre 2003. Les quatre projets ont été évalués sur la base de critères d'évaluation prédéterminés. À la réunion du conseil consultatif de février 2004, le groupe de travail a soumis une recommandation qui a été acceptée. Par la suite, des discussions ont été amorcées entre le personnel de l'ISPS et la maison d'édition recommandée, Longwoods Publishing Corporation.

Au cours des six mois qui ont suivi, des discussions ont eu lieu avec Longwoods sur diverses questions logistiques et financières, y compris l'indexage, la fréquence de publication, le format (électronique ou papier), les sources de revenus, les rapports avec l'Association canadienne pour la recherche sur les services et les politiques de la santé (ACRSPS), la stratégie de communication de même que la structure et la composition du comité de rédaction. Ces discussions ont mené à un engagement financier important de l'ISPS à l'égard de la nouvelle publication durant ses premières années, ainsi que sur la première annonce officielle relative à la nouvelle publication en septembre 2004. Cette annonce (http://www.cihr-irsc.gc.ca/f/24637.html) a servi à plusieurs fins, notamment au lancement d'un appel de candidatures et de suggestions pour le nouveau comité de rédaction ainsi qu'à une invitation à participer à la recherche d'un titre pour la nouvelle revue. Dans une autre communication (http://www.cihr-irsc.gc.ca/f/25912.html), en janvier 2005, on a annoncé le titre de la nouvelle publication, en plus de lancer une invitation à soumettre des articles et de présenter les membres du nouveau comité de rédaction.

Depuis ce temps, le comité de rédaction a travaillé fort à la production des premiers numéros de Politique de santé, et Longwoods a été invité à participer à des discussions avec l'ACRSPS et d'autres partenaires potentiels. Notre premier numéro a été notre rampe de lancement. À partir de maintenant, l'histoire de cette publication appartient à ceux qui soumettront et évalueront les articles, à ceux qui contribueront au contenu de la revue et à ceux qui la liront fidèlement quatre fois par année. Nous attendons depuis longtemps l'aboutissement de ce projet, mais ce premier numéro spectaculaire prouve que l'attente n'a pas été vaine. Bonne lecture.

The Commitment to Knowledge Transfer

The launch of a new journal reinforces the commitment to disseminating new thinking and ideas.

by ALAN BERNSTEIN, OC, FRSC
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Wait times, and healthcare issues more broadly, are the number one concern for Canadians. Indeed, our publicly funded healthcare system has become a defining Canadian value, and politicians tamper with it at their peril. And yet, as we all know, no healthcare system is perfect. Changing values, technologies and other circumstances demand constant, critical, objective and evidence-based change, within a broad framework of a publicly funded system. And that is one reason that the launch of *Healthcare Policy* is so important.

I hope this journal will become the journal of record for researchers, policy makers, politicians and, ultimately, the public, guiding both decision-making and policy development affecting the evolution of Canada's healthcare system. I also hope that this journal will be international in scope, for Canada has much to learn from other countries (and vice versa).

Dr. Morris Barer, Scientific Director of the Canadian Institutes of Health Research's (CIHR) Institute of Health Services and Policy Research, his staff, the Institute's Advisory Board, Anton Hart and Longwoods Publishing all deserve special recognition for their vision and commitment turning this dream into a reality.

Healthcare Policy truly reflects the broad vision and mandate of CIHR, including the funding of research across the entire health spectrum and our commitment to knowledge translation (KT). As part of our KT strategy, CIHR is committed to "accelerate the capture of the benefits of research for Canadians through improved health, more effective services and products, and a strengthened healthcare system." *Healthcare Policy* will be an important instrument in helping us achieve this important commitment.

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Les temps d'attente, et les questions de soins de santé plus globalement, préoccupent au plus haut point les Canadiens. En effet, notre système de soins de santé public est devenu une valeur qui définit notre identité comme Canadiens, et les élus jouent avec ce système à leurs risques et périls. Pourtant, nous le savons tous, aucun système de soins de santé n'est parfait. Les valeurs, les technologies et les autres circonstances changeantes exigent une adaptation constante, critique, objective et fondée sur les faits, dans le vaste contexte d'un système à financement public. C'est là une des raisons pourquoi le lancement de *Politiques de santé* est si important.

J'espère que ce journal deviendra la publication officielle des chercheurs, des responsables des politiques, des élus et, enfin, du public, pour guider la prise de décision et l'élaboration des politiques qui touchent l'évolution du système de soins de santé du Canada. J'espère aussi qu'il aura un rayonnement international, car le Canada a beaucoup à apprendre des autres pays (et vice versa).

Le Dr Morris Barer, le directeur scientifique de l'Institut des services et des politiques de la santé des Instituts de recherche en santé du Canada (IRSC), son personnel, le conseil consultatif de l'Institut, Anton Hart et Longwoods Publishing méritent tous des félicitations particulières pour leur vision et leur engagement, qui ont permis de réaliser ce rêve.

Politiques de santé reflète véritablement la vision globale et le vaste mandat des IRSC, y compris le financement de la recherche dans tout le spectre de la santé et notre engagement à l'égard de l'application des connaissances. Dans le cadre de notre stratégie d'application des connaissances, nous sommes résolus à « accélérer la concrétisation des avantages de la recherche pour les Canadiens, à savoir une meilleure santé, des services et produits de santé plus efficaces, et un système de santé plus vigoureux ». *Politiques de santé* sera un important instrument qui nous aidera à réaliser cet engagement.

Baneful Legacy: Medicare and Mr. Trudeau

The Constitution created by the Trudeau government is now threatening Canada's medicare system. What can be done to defend it?

by ROBERT G. EVANS
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Well, the bomb ticking away at the heart of Mr. Trudeau's Constitution has finally gone off. An arrogant, ignorant and irresponsible court – jurisdictionally arrogant, substantively ignorant and politically irresponsible – has determined (by a vote of four to three) that medicare must be restructured to show due respect for the rights of those with money – and the rights of private corporations to make profits – regardless of the wishes of Canadians or the impact on our most important social institution. *Fiat justitia, ruat caela*. But if the heavens fall, what kind of justice is that? Ask those underneath.

"Judges," said Bacon, "ought to remember that their office is *jus dicere*, not *jus dare*; to interpret law, and not to make law, or give law. They must be lions under the throne, as Solomon's throne was upheld by lions" (Essays, "Of Judicature"). In fact, of course, their judgments inevitably do make new law, but always subject to the legislative authority of the Crown in Parliament. Ultimate sovereign power rests with the representatives of the electorate.

Or it did. Our new Constitution, of which Mr. Trudeau (among many others) was so proud, in effect permits the lions to climb onto the throne and thrust aside the sovereign. In the enthusiasm for individual rights, few can have imagined that these could be used to bring down medicare. It is difficult yet to say with any certainty how much damage has been done, and whether we are now committed in due course to

an American-style catastrophe. How severely will the allegedly guaranteed right to "security of the person" be abridged for the unhealthy and unwealthy? Much depends on the response by provincial and federal governments. But whatever public–private hybrid emerges will be less equitable and more costly than our present healthcare system. And there will be no road back.

The Constitution did originally provide for the ultimate assertion of parliamentary sovereignty through the "notwithstanding" clause. In some mysterious way, however, the Constitution has been silently amended, over the last two decades, to remove this last protection. How did this happen? The amendment was never formally proposed, nor its possible consequences debated; indeed, it has left no track in the written law. Yet, there seems universal agreement that it would be political suicide for any government, for any reason, to invoke the "notwithstanding" clause. Even Premier Ralph Klein, surely the most secure politician in Canada, backed away.

If ever there was an occasion for a government to reassert its ultimate sovereignty, nominally protected in the Constitution, with a reasonable expectation of strong public support, surely the time is now. But I wouldn't bet on it.

The disappearance of the "notwithstanding" clause has left parliamentary sovereignty conditional upon judicial deference. This is not a trivial defence, as illustrated in *Auton*.[1] But when it fails, four sovereign individuals, representing no one but themselves and responsible only to their own consciences, can dictate the future direction of our healthcare system. This looks more like judicial tyranny than democracy. "There is no social program that we have that more defines Canadianism or that is more important to the people of our country."[2] Well, so what? We think otherwise.

The Constitution is currently the most prominent part of Mr. Trudeau's legacy to medicare, but as always there is a history. At the end of the 1980s, surveys found higher levels of public satisfaction with healthcare among Canadians than in any other country surveyed. Ten years later, we barely ranked above the Americans. The reductions in federal transfers to the provinces, both the slow erosion of the 1980s and the much larger cuts of the 1990s (reductions made possible by the termination of federal cost sharing through the federally initiated EPF agreements of the late 1970s), led to major cuts in provincial hospital spending (real, per capita) in the early 1990s. Whether or not the system really was underfunded as a result is in fact debatable – the cost pressures were associated with a considerable reduction, long overdue, in unnecessary inpatient care. But there is no doubt in the media, or in the perceptions of the general public: the system is broken.

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1. *Auton (Guardian ad litem of) v. British Columbia (Attorney General)*, [2004] 3 SC.R 657
2. Premier David Peterson of Ontario, opening the International Conference on Quality Assurance and Effectiveness in Health Care, Toronto, November 8–10, 1989.

The decline in public confidence in the healthcare system, though not in the fundamental principles of medicare, created a golden opportunity for those who, for ideological or economic reasons, have always rejected those principles. Insurance companies, entrepreneurial physicians and private corporate providers more generally have always sought ways to circumvent restraints on their access to patients' resources. There is a great deal of money to be made by wrecking medicare. Meanwhile, those at the top of the income distribution have everything to gain from private payment, preferred access – and lower taxes. These interests, and their representatives, have generated a flood of lurid anecdotes, selective reporting and outright disinformation about medicare's failings and the need for private care, all uncritically recycled by the media. "If it bleeds, it leads." The daily successes experienced by millions of satisfied patients go unreported. What impact did this long-term campaign have on the members of the Supreme Court, and the social milieu in which they are immersed?

The cuts, as we all know, were motivated by the steady increase in the federal debt, following the recession of 1982 and the even bigger one of 1990–93, with slow and incomplete recovery between. By 1995–96 federal debt charges were nearly $50 billion per year, 37.6% of budgetary revenues, and the federal debt amounted to 69.3% of GDP.[3] What is rarely noticed, however, is that the net federal debt-to-GDP ratio actually began to rise in the mid-1970s. The long post-war decline reached a trough of 5.7% in 1974, but then began a slow and steady climb to 13.5% in 1981. The share of federal revenues absorbed by debt charges, 11.7% in 1973–74, had doubled to 25.1% in 1981–82 – just before the first big recession hit.

All of this was on Mr. Trudeau's watch. The federal operating budget, in surplus for all but two years from 1961–62 to 1974–75, then went into deficit and stayed there until 1987–88. Subsequent surpluses were too small to reverse the massive momentum built up by the accumulated debt; not until the huge operating surpluses of the mid-1990s did the federal government begin to regain fiscal ground. Those huge surpluses, however, required the large cuts in federal expenditures – and transfers.

The debt accumulation prior to the recessions of the 1980s was relatively small in light of what was to come. But the deficits of the later 1970s, interacting with historically high interest rates, weakened the federal fiscal position just before the economic weather turned foul. What if, in 1981–82, debt charges had been taking 5% of federal revenues instead of 25%? The brutal deficit-fighting of the 1990s, with its massive impact on the healthcare system, would at least have been much less severe.

So, what swung the federal operating budget sharply into deficit in 1975–76? Well- and conventionally trained economists, including those in the Department of Finance, were inclined to blame the rising costs of social programs, particularly public

3. Data here and subsequently are from Finance Canada, Fiscal Reference Tables, 2004.

health insurance. They tend to be suspicious of social spending generally, and deeply suspicious of "free" public services. They are ever alert for "allocative distortions" and "welfare burdens" generated (under powerful, rarely explicit and usually inappropriate assumptions) by such programs. Distributional questions – who gets what – are implicitly irrelevant, even though they are at the heart of all social policy.

A pair of humble number-grubbers at Statistics Canada, however, pointed out (to the discomfiture of Finance Canada) that the real answer was – tax cuts![4] Social spending surged in the late 1960s and early 1970s, but federal revenue growth was sufficient that the debt burden continued to fall. After 1974–75, spending growth actually flattened out relative to GDP, but revenues over GDP fell and remained permanently lower in response to major changes to the income tax.

Mr. Trudeau's government had stumbled, presumably inadvertently, onto the formula since used so deliberately and effectively by many right-wing governments: cut taxes, create a deficit, lament it and be "forced" to cut social spending. The result? Higher take-home incomes for the wealthy and fortunate, and lower public benefits for the unwealthy or unfortunate. Mr. Trudeau surely did not foresee or intend the ultimate effects of his tax changes. Those effects depended, *inter alia*, on the contributing impact of two major recessions. But the trail starts with him.

While apparently not hostile to the fundamental principles of medicare, Mr. Trudeau seems to have been more or less indifferent. That indifference has had very long-term and very negative consequences. The architects of medicare viewed universal coverage of hospital and medical services as only the first stage in the construction of a healthcare financing system that would be effective and efficient as well as equitable. Coverage should be extended to dental and pharmaceutical services – there was never any logic to their exclusion. And, armed with fiscal leverage, governments should take on the major task of structural reform of the delivery system itself. With the election of Mr. Trudeau, this follow-on agenda was quietly abandoned. We are now suffering the consequences.

Prescription drugs provide the leading example. Last year Canadians spent, on average, $562.05 each on prescription drugs, 13.8% of total healthcare costs.[5] Physicians and hospitals accounted for 12.8% and 29.9%, respectively. In 1975 prescriptions cost us $33.34, only 6.3% of the total, while doctors and hospitals took up 15.1% and 44.7%. Over the last 30 years, the share of our national income spent on prescription drugs has tripled, from 0.44% to 1.39%. Spending on doctors and hospitals, by contrast, has risen from 4.19% of GDP to 4.32% – essentially unchanged.

4. Mimoto, H. and P. Cross. 1991 (June). "The Growth of the Federal Debt." *Canadian Economic Observer*: 3.1–3.9.

5. Data here and subsequently are from the Canadian Institute for Health Information (2004), "National Health Expenditure Trends in Canada, 1975–2004." Ottawa: CIHI.

The point is well understood by students of healthcare finance. Sole-source public financing permits (but does not guarantee) global cost control; mixed and fragmented public and private financing promotes unconstrained cost escalation. Before medicare, spending in both Canada and the United States was escalating in parallel; the introduction of medicare was associated with an abrupt halt in the Canadian trend. Pharmaceuticals in Canada, financed in essentially the same multi-source way as American healthcare generally, show exactly the same pattern of continuing escalation.

These facts require constant reiteration, because the disinformation industry constantly promotes the message that public healthcare is "fiscally unsustainable" and that the only viable solution is a shift to more private coverage. Bluntly, this is a lie. Cost control has worked, when governments are on the hook for those costs and must tackle the political challenges they present. But a federal government with no responsibility for drug costs makes expensive regulatory concessions to the industry – backed by foreign governments. Provinces able to shift rising costs onto users, do so. Those costs come back again, of course, but are some later government's problem. So the escalation goes on, and by now Canadian patients, businesses and taxpayers pay several billion dollars a year in inflated drug costs.

It didn't have to be this way. Mr. Trudeau's government could easily have brought in pharmacare in the early 1970s. The sector was still relatively small and already partly funded by governments. Full public funding would have added another 6.5% to public sector health costs, well under one year's growth. In fact, the public share of drug costs went up sharply in the 1970s, anyway – but bought no control.

Today, however, Big Pharma is an international monster, vastly more wealthy and powerful than 30 years ago. It is hedged about with the barbed wire of trade agreements – for which its members provided good advice – and backed by the full weight of American trade policy. It has good friends in both Congress and the presidency.

Big Pharma is fully aware of, and bitterly opposed to, the cost-containment potential of universal programs. Every dollar of public or private cost is a dollar of their sales and, at the margin, mostly profit. A Canadian pharmacare program now, modelled on medicare, would not only be vastly more expensive, but would meet vastly more powerful resistance on many fronts. Big Pharma epitomizes Joel Bakan's description of the modern corporation as an amoral, sociopathic organization, profit- and power-driven, that seeks to escape all forms of social control (and in the United States has largely succeeded).[6] The chance that Mr. Trudeau's government threw away is probably lost forever.

That was then; this is now. Mr. Trudeau is history. What's the point?

Well, history can repeat itself, and when the same forces are at work, it does.

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6. Bakan, J. 2004. *The Corporation: The Pathological Pursuit of Profit and Power*. New York: Free Press.

Ignoring the threat of the private health insurance industry now can have the same long-run consequences as ignoring the pharmaceutical industry then. If private insurance becomes as solidly entrenched in Canada as it is in the United States, generating a similar scale of administrative waste – "costs without benefits"[7] – we will never get it out again. We will be permanently saddled with another inefficient and inequitable component in our financing mix, a component whose primary functions are to undermine cost control and to redistribute health costs from the healthy and wealthy to the unhealthy and unwealthy.

It was our great good fortune, when medicare was being introduced, that the private industry was insufficiently developed to put up much political resistance. Nor were there trade agreements, backed by foreign sanctions, protecting corporate rights to profit against the policies of duly elected democratic governments. That time is gone.

Mr. Trudeau's legacy underlines powerfully the very large, though sometimes very long-term, costs of failure to take appropriate action at critical times. The present threat to medicare has its origins in decisions taken, and especially not taken, 20 and 30 years ago. That threat is real and very serious and, most importantly, its effects will be irreversible. We, and our governments, need to be thinking immediately and very hard about how to salvage the situation.

Indeed, that same message comes from the advocates of private healthcare, when they tell us not to be unduly alarmed – that the Supreme Court's decision will not undermine medicare and may even strengthen it. When the right wing says: "Don't worry, be happy," we should worry a lot – and act. Now is no time to shrug.

What to do? My preferred choice, obviously, would be to disinter the "notwithstanding" clause, but that, as Sir Humphrey would say, would be a "courageous" decision. Just for starters, then, consider the tax-expenditure subsidy for employer-paid private health insurance – much less politically sensitive, and wholly within the jurisdiction of the federal government. Canadian governments actually cover about a third of the costs of these premiums by treating them as tax-free benefits. This subsidy could be removed selectively for, or perhaps more accurately not extended to, employer-paid health insurance that parallels medicare (as Quebec did when mandating employer-paid private pharmaceutical insurance). Taxing employer-paid premiums in the hands of the employee is no "magic bullet," but should at least inhibit the spread of private coverage. This could be done quickly, and the announcement alone would send a very strong signal of intent to defend. If we can no longer ban private coverage, for heaven's sake let's not subsidize it!

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7. Woolhandler, S., T. Campbell and D.U. Himmelstein. 2003. "Costs of Health Care Administration in the United States and Canada." *New England Journal of Medicine* 349 (8): 768–75.

Courting Trouble: The Supreme Court's Embrace of Private Health Insurance

Use and misuse of social science evidence by the Supreme Court – how should Canadian governments respond?

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In a narrow and bitter 4–3 decision, the Supreme Court of Canada in the *Chaoulli*[1] decision struck down Quebec laws prohibiting the sale of private health insurance on the basis that they violate Quebec's *Charter of Human Rights and Freedoms*. Three of the four judges in the majority also found that the provisions, in light of wait times in the public sector, violate s. 7 of the *Canadian Charter of Rights and Freedoms* – which provides for a right to life, liberty and security of the person. But three other judges, in a blistering dissent, found that the insurance restrictions violated neither the Quebec nor the Canadian charters.

1. *Chaoulli v. Quebec* (Attorney General) 2005 SCC 35 (hereinafter Chaoulli). A copy of the judgment and various related materials is available at <http://www.law.utoronto.ca/healthlaw/>.

The Chaoulli decision is confusing and complex but to clarify there are three separate judgments:

1. The majority judgment, written by Justice Deschamps finding the Quebec legislation to be in breach of the Quebec Charter (which is similar to but not exactly the same as the Canadian Charter) ["the Deschamps judgment"] the result of which was concurred with by Chief Justice McLachlin and Justices Major and Bastarache ["the majority judgment"].
2. The judgment written by Chief Justice McLachlin and Justice Major on behalf of themselves and Justice Bastarache which finds the Quebec laws prohibiting private health insurance not only contravene the Quebec Charter but also are in contravention of section 7 of the Canadian Charter ["the McLachlin/Major judgment"]. The significance of this judgment is that it puts in question the constitutionality of measures taken in other provinces to prevent the flourishing of a two-tier system.
3. The minority judgment written by Justice Binne and LeBel on behalf of themselves and Justice Fish finding that Quebec's laws violated neither the Quebec nor Canadian Charter ["the minority judgment"].

In this brief review, we discuss the use and misuse of social science evidence by the court and consider how Canadian governments should respond to this decision.

One of the most concerning aspects of the Deschamps and McLachlin/Major judgments is their treatment of evidence presented by social scientists. The social scientists called all testified about the detrimental effects of allowing a two-tier system. All were dismissed in the harshest of terms and condemned for making arguments based on logic or theory rather than grounded in economic studies or upon the experience of other countries.[2] Indeed, McLachlin C.J. and Major J. conclude that governmental policy was "arbitrary," given in their view the lack of evidence supporting the contention that to allow parallel private insurance would undermine the operation of publicly funded medicare.

Writing for the majority on the Quebec Charter, Justice Deschamps states: "Some patients die as a result of long waits for treatment in the public system when they could have gained prompt access to care in the private sector."[3] This sweeping claim is based on anecdotal evidence from physician witnesses. If this is true, then surely the physicians in question, if they were not able to prioritize the needs of the desperately ill above others, would have brought this to the attention of relevant institutions and the relevant ministries of health. There would be lawsuits brought by the families of those who died.

2. *Chaoulli*, paragraph 136.

3. *Chaoulli*, paragraph 37.

The McLachlin/Major judgment is on a firmer evidentiary footing in discussing the psychological effects of dealing with anxiety and uncertainty irrespective of final outcome. But as the minority (Justices Binne, LeBel and Fish) succinctly point out, how much of a wait is too long from a constitutional perspective? The McLachlin/Major judgment speaks in such general terms here that there is the possibility that any waiting time could justify a s. 7 Canadian Charter challenge. The patient at the heart of this litigation, George Zelotis, waited a year for a hip operation but remarkably, given that waiting times was the seminal issue in the judgment, the majority does not discuss his case.

Having established that wait times are too long and that Canadians die and suffer harm as a result of a government-imposed monopoly in healthcare insurance, the Deschamps and McLachlin/Major judgments assume that the ability to purchase private insurance will remedy this problem. Moreover the McLachlin/Major judgment concludes that allowing private insurance will benefit "ordinary" Canadians and not just the elite who can afford to fly to the United States and pay out of pocket for private care. Many will be familiar with the literature about the distributive consequences of private insurance and the cream-skimming and risk-rating behaviour of private insurers, and they will be surprised to learn of the benefits of private insurance that were heretofore unknown. The irony is that George Zelotis, the 73-year-old patient with hip and heart conditions, whose unsuccessful efforts to buy private insurance sparked these proceedings, would not, in all likelihood, qualify for private insurance if it were available.

The majority then considers whether or not allowing two-tier private insurance would detrimentally affect publicly funded medicare. Justice Deschamps superficially discusses the healthcare systems in Austria, Germany, the Netherlands, the United Kingdom, New Zealand, Australia and Sweden. Drawing on the Kirby report (Standing Committee on Social Affairs, Science and Technology 2002) the McLachlin/Major judgment provides a quick tour of the benefits of the healthcare systems of Sweden, Germany and the United Kingdom. There is also passing reference to Australia, Singapore and the United States. They conclude that "many western democracies that do not impose a monopoly on the delivery of healthcare have successfully delivered to their citizens medical services that are superior to and more affordable than the services that are presently available in Canada."[4]

Through their comparative analysis of healthcare systems, the Deschamps and McLachlin/Major judgments amply demonstrate why courts should be extremely cautious about wading into these difficult policy choices. The fundamental error is to conflate all healthcare systems with some role for private insurance into one group. In fact, there are at least four distinct ways of financing healthcare,[5] and European

4. *Chaoulli*, paragraph 140.

countries such as the Netherlands and Germany are better classified not as two-tier systems (which allow parallel private coverage for services ostensibly covered by the public system) but as group-based. In these systems, private insurance does not perform a duplicate role as would be allowed by the *Chaoulli* decision, permitting people to jump queues for treatment. Instead, private insurance is required to provide full coverage for certain segments of the population. For example, in the Netherlands, an individual earning less than $30,000 (Cdn$48,886) must contribute to and is eligible for social insurance (like medicare). All others must rely totally on private insurance (Wassem et al. 2004). Moreover, physicians don't have an incentive in the Netherlands to prefer patients with private insurance over those with social insurance, as the fees or tariffs paid are the same. In Germany, wealthier patients can opt to stay in the social insurance scheme or take out private insurance, but private insurance must cover all their needs, and one cannot easily opt back into the social insurance scheme. Private insurers in Europe are often heavily regulated to stop them from cream-skimming and risk-rating. To be clear, this kind of system will not evolve in Quebec as a result of striking down the ban on private health insurance.

Systems that have two-tier systems, such as is likely to emerge in Quebec post-*Chaoulli*, include New Zealand and the United Kingdom. In those countries, private insurance duplicates coverage of services that are provided publicly. Consideration of the specific experiences of these jurisdictions shows that historically, both countries have wrestled with waiting lists that are much longer than those within Canada (Tuohy et al. 2004). The length of waiting times in these two-tier systems strongly refutes the linkage made by the majority between long waiting lists and Canada's public monopoly on insurance. But neither the Deschamps or McLachlin/Major judgments consider evidence of long waiting times in these jurisdictions at all.

The McLachlin/Major judgment describes as merely "theoretical" the concern that a private-pay tier will undermine the public system. But the experiences of other jurisdictions demonstrate that this is a concern through the various measures they take to counteract it. For example, the McLachlin/Major judgment discusses how there is a small amount of private insurance in Sweden but fails to mention that physicians are prevented from working in both the public and the private sectors. Swedish physicians must choose one or the other, and the inability to operate largely in the public system with a top-up from the private sector provides a brake on the extent to which the private sector can develop at the expense of the public system. Similar measures are taken in other two-tier systems, namely those of Luxembourg, Greece and Italy (Colombo and Tapay 2004). This is also what many provinces in Canada do as well (Tuohy et al. 2004). Are all these governments misguided as to the problems of a parallel private

5. Tuohy et al. (2004) identify four basic models of structuring the relationship between public and private financing; parallel public and private systems; co-payment; group-based; and sectoral.

sector? If not, then surely it is not "arbitrary" to take the next step and simply ban private insurance for essential hospital and physician services.

What went wrong, then? How could the majority of the Supreme Court have reached this outcome? There are, in our view, two reasons.

The first reason has to do with the quality of evidence about public and private interactions across healthcare systems. It is impossible to run a randomized, controlled trial to show irrefutably the effects of two-tier insurance. Indeed, it is a feature of systems with greater levels of private finance that they are more often in turmoil (Tuohy et al. 2004). Nonetheless, there is still a strong body of evidence about the distributive effects and inefficiencies of private insurance and clear evidence from countries such as the United Kingdom and New Zealand that eliminating a monopoly in public insurance will *not* eliminate waiting lists.

The second reason has to do with presentation of policy evidence in an adversarial environment. In an often-quoted essay, Lorne Fuller (in Winston 2002) argues that judges are good at determining bi-polar disputes and struggle much more with polycentric issues.[6] That is usually why, at least in theory, courts will be cautious about wading into complex policy areas. Indeed, on issues of resource allocation, courts have evinced a strongly deferential position, most notably on the part of the Supreme Court in the *Auton* decision concerning funding of a controversial treatment for autistic children.[7] But in a courtroom, a judge is as likely to be swayed by the direct testimony of physicians or patients as by systemic research, particularly where the research is neither clear nor overwhelming and has to counter a judge's own strongly held intuition or liberal values. In our society, there is a powerful presumption that competitive private markets are inherently efficient and virtuous. The intuition of many people, underscored by the liberal values enshrined in the Charter, is that allowing private markets will alleviate pressure on the public system. Those in health policy need to understand that judges will not necessarily share the presumption that healthcare is a public good rather than a market commodity. The court will start from the perspective of the rights of an individual, and although accepting that rights are not inviolable, will not easily be persuaded that government policy that treads on such rights is necessary.

Political and Legislative Responses

Now that the spectre of accelerated privatization looms large, provincial governments have several strategic options to pursue. The issues are by no means straightforward, and the battle is likely to be fought in three arenas, each with its own dynamics.

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6. Also see L.A. Chayes (1976), "The Role of the Judge in Public Law Litigation," in the *Harvard Law Review* 98: 1281.

7. *Auton (Guardian ad litem of) v. British Columbia (Attorney General)*, [2004] 3 SCR 657

The first dimension is democratic. Medicare was forged in the political arena in Saskatchewan and prevailed over fierce opposition. The pro-medicare camp still commands the political high ground, and it should capitalize on this advantage. Though it is plausible to infer that some governments in Canada would be content to see medicare fade away as an icon and political litmus test, it is still risky in most parts of the country for a politician to declare that a tax-funded, single-tier system is a bad idea. Insisting that all candidates for provincial or federal office disclose their views would seem to be an important tactic. The central questions are:

- Should better-off Canadians be able to purchase faster service from doctors and hospitals?
- Would you support a two-tier system if the result is that waiting times in the public sector worsen?
- As a matter of principle, do you support the development of a private and parallel system for physician and hospital services? Do we have too much or too little private care now?

Sorting out the politics is necessary, but not sufficient. The second dimension is to solve the problems of quality and access, the latter of which created the pretext for *Chaoulli* and which also portends future Charter challenges now that the court has left the door ajar. The purpose here is to improve the public system so that even well-heeled people lose interest in the private option.

First, the best defence to a s. 7 challenge will be to fix waiting lists and restore Canadians' confidence in the timeliness of medicare. Provinces must implement consolidated, standardized, province-wide wait list management systems: no more lists held in physicians' offices and opaque prioritization processes. Ottawa could and should insist on this as an addendum to the recent Accords. The next step will be to amend the *Canada Health Act* to mandate such measures (Flood and Choudhry 2004). Ironically, the Chaoulli decision now provides the leverage that governments need to implement such measures rapidly, regardless of the opposition they may face (Lewis 2005).

Second, the majority of the Supreme Court criticized the fact that there was no real appeal mechanism in Quebec for people languishing on waiting lists. Every province should establish highly accessible tribunals or patient commissioners to review cases swiftly and fairly (Pitfield 2003; Defining the Medicare Basket Project 2003). There should be some discretion to grant relief to individuals where the psychological effects of waiting are extreme, to head off further challenges under s. 7, or even to approve treatments that do not, strictly speaking, meet the usual eligibility criteria. Canada is a wealthy country, and erring on the side of generosity and compassion in delivering healthcare while pursuing reforms to eliminate waste and excess in the

system, seems a reasonable compromise.

Third, there is great confusion about the evidence on public versus private, both in the minds of both the majority of Supreme Court justices and of Canadians. The *Chaoulli* decision makes inevitable further Charter challenges to similar laws in other provinces, but the question of whether they will or should succeed remains contested. The composition of the Supreme Court is changing with the addition of two new justices. A reconstituted court may come to a different conclusion. In anticipation, federal and provincial governments, in conjunction with health policy analysts, must marshall the best possible evidence on public–private financing and the detrimental effects on the public system of a second, private tier. At the very minimum, the forces in favour of privatization should not prevail because the best evidence was not presented to the relevant court.

Fourth, provincial governments need to create a thick firewall between the public and the private system. They should insist that providers choose one or the other, exclusively. It should also be made clear that public hospital capacity will be available to private patients on a purely discretionary basis, and that there will be no subsidization of this private option from the public purse. Ensure that they enforce the spirit and letter of the Alberta legislation that prohibits patients from getting faster public-sector service as a result of getting a private-sector diagnosis.

Fifth, if for whatever reason, the public system is compromised by a growing departure of doctors and other key personnel to the private sector, provinces should consider a two-tier tuition system to mirror the two-tier healthcare system. Currently, medical school tuition can run as high as $47,000 annually (at Dalhousie) for international students. All health sciences students should be given the option: commit to practising in the public system for a defined period of time and pay low tuition fees, or make no such commitment and pay the actual costs of the education. Public policy should not exclude students who want to retain the option of going private, but nor should it subsidize them.

Beyond these short-term measures, more systematic change is required. We need to revisit Canada's approach to health human resources (HHR). It is, we contend, wiser to produce a modest oversupply than a modest undersupply. Scarcity breeds wait times, tilts bargaining power heavily in favour of providers, leads to bidding wars among jurisdictions that drive up costs without adding service and tempts Canada to engage in the unseemly practice of raiding personnel from developing nations. Aside from physicians, it is relatively inexpensive to produce healthcare personnel. And even though educating physicians is costly, European countries have for years produced more than they needed, with an estimated 100,000 unemployed in 1995 (Orellana 2001) and more recent rates estimated at 3–4% in Sweden, 7–8% in Greece, 5–10% in Spain and as high as 20% in Italy (Avgerinos et al. 2004). Involuntary unemployment is unfortunate, and we are aware of the pitfalls inherent in merely adding more

fee-for-service doctors to a system already vulnerable to supply-induced demand. On the other hand, shortages drive up salaries and compromise public confidence. Conceivably, a modest surplus combined with payment reforms, policies to prevent the over-concentration of personnel in large urban centres and other measures could create competition for quality, increase willingness to locate in underserviced areas and impose some semblance of market discipline on wages and salaries. As an initial step, economists and planners should undertake modelling exercises that project the costs and consequences of switching from a "just enough" approach to HHR to a "just a little too much."

Romanow (Commission on the Future of Health Care in Canada 2002), Kirby (Standing Committee on Social Affairs, Science and Technology 2002), Mazankowski (Alberta Premier's Advisory Council on Health 2002), Fyke (Commission on Medicare 2001) and Clair (Maioni 2001) have all emphasized the need to accelerate changes to the division of labour. Doctors are doing what nurses can ably do (Horrocks et al. 2003). Highly educated, high-priced surgeons are performing routine, high-volume procedures that technicians perform elsewhere – notably, cataract surgery – while their advanced knowledge and cognitive skills are underused. Primary healthcare reform is by common consensus moving at a glacial pace; even more discouragingly, ambitious, comprehensive models (Ontario Health Services Restructuring Commission 1999) have been diluted into physician-extender compromises. The result is a sub-optimal use of skills and often-demoralized personnel.

As many have also argued, we must tie funding to both organizational innovation and meeting performance standards. We must create incentives to speed up the adoption of comprehensive primary healthcare. We must withhold funding from jurisdictions and institutions that do not have wait time management systems or that fail to follow up with patients on the long wait time tail. We must also renegotiate agreements with medical associations and repatriate the power to establish comparative earning power among physician categories. If there is a shortage of family doctors, it is partly because new graduates are leaving family medicine residencies unfilled; the same holds true for geriatrics. Meanwhile, plastic surgery and dermatology residencies are oversubscribed, and there is already an oversupply of neurosurgeons. If the medical associations' internal collective bargaining process does not value what the public system needs, others must be at the table to bring about change.

Conclusion

The prime minister of Canada, among others, has downplayed the Chaoulli decision, arguing that it will not fundamentally affect medicare. It is true that technically the reach of the decision is confined to Quebec, but it will have repercussions far beyond those borders. First, because the court is split on the critical issue of the application

of the *Canadian Charter of Rights and Freedoms* to laws prohibiting private insurance, the question will likely soon be tested in the provinces of Alberta, British Columbia and Prince Edward Island, which have similar laws. Second, there is the prospect that other provincial laws that effectively suppress a private-pay sector will be subject to a Charter challenge. Justice Deschamps, writing the majority judgment on the Quebec Charter, seemingly approves of legislative provisions in other provinces that stop short of expressly prohibiting private insurance. However, Chief Justice McLachlin with Justices Major and Bastarache, who find Quebec's insurance provision to be in breach of the Canadian Charter, do not comment on these other measures. This leaves open the possibility that provisions such as those that exist in Ontario, Nova Scotia and Manitoba (which prevent physicians' from charging privately more than they would receive from the public plan) may also be subjected to a Charter challenge.

More importantly, the *Chaoulli* decision, a ruling of the Supreme Court of Canada, will have a strong normative effect on the future tenor of the public–private debate. We are already starting to see the effects of this in editorials in the major newspapers. The ground has shifted, and the forces in favour of privatization have achieved a significant victory. They can now add an enormously strong plank to their heretofore rather weak arguments: they have been legitimated by the Supreme Court of Canada. The new role that the courts may play in healthcare is of crucial importance not only to the courts, but to the Canadian public and their governments. For years, health policy analysts have battled the "zombie" ideas of user-pays, private insurance and two-tiers (Evans et al. 1995). There is now a new venue for the debate, and health policy analysts cannot ignore it.

The Supreme Court decision, however misguided, has brought medicare to a new crossroads. We have proposed political, policy and legislative antidotes to the potential consequences of the Chaoulli judgment. Our preference is for politics and policy. Medicare's future should be deliberated in the political arena. Better that 32 million Canadians determine the structure and fate of medicare than seven (or nine) judges – a prescription shared by the dissenting minority.

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Le jugement Chaoulli ou comment brader un droit public qui garantissait un droit aux individus

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«Trouver une forme d'association qui défende et protège de toute la force commune la personne et les biens de chaque associé, et par laquelle chacun s'unissant à tous n'obéisse pourtant qu'à lui-même et reste aussi libre qu'auparavant.» Tel est le problème fondamental dont le contrat social donne la solution.

JEAN-JACQUES ROUSSEAU, Le contrat social, page 51

A présent, ce qu'on voulait, c'était que les dirigeants fussent identifiés au peuple... . La nation n'avait nul besoin d'être protégée contre sa propre volonté... . Mais...l'idée que les peuples n'ont pas besoin de limiter leur pouvoir sur eux-mêmes pouvait sembler axiomatique lorsqu'un gouvernement démocratique n'existait encore que dans nos rêves... Se protéger contre la tyrannie du magistrat ne suffit donc pas... . Trouver le juste milieu entre indépendance individuelle et contrôle social— est un domaine où presque tout reste à explorer... . Ce que doivent être ces règles est le problème majeur des sociétés humaines.

JOHN STUART MILL, De la liberté, page 65,67

En surface, les positions de Flood et Lewis(2005) et de Evans (2005) sur le jugement Chaoulli exposée dans leurs textes publiés dans ce numéro de *Politiques de santé – Healthcare Policy* se ressemblent. Le style de Evans est plutôt flamboyant, celui de Flood et Lewis, plutôt posé, mais les trois auteurs s'accordent pour condamner le jugement de la Cour suprême. Il est mal fondé en fait et en logique et l'arène juridique n'est pas constituée pour s'y voir dérouler un débat essentiellement politique. Les deux textes se complètent aussi. Flood et Lewis analyse le contenu du jugement majoritaire pour critiquer l'usage qu'il fait des sciences sociales et de l'opinion des quelques médecins appelés à témoigner devant la Cour, analyse qui rejoint plusieurs de commentaires publiés dans la presse (Béland 2005) et sur des sites Internet canadiens (Longwoods eLetter 2005). Ils proposent quelques actions et mesures pour limiter les conséquences du jugement Chaoulli sur le régime canadien d'assurance maladie public et universel. Evans raconte l'histoire des budgets fédéral et provinciaux et du financement du régime d'assurance maladie depuis les années 1970, en notant ici et là les occasions manquées d'élargir la couverture du régime aux services autres que strictement médicaux et hospitaliers.

Nos trois protagonistes s'opposent sur la suite des choses. Flood et Lewis se perdent en conjecture sur les façons de limiter les dégâts. Ont-ils exclus le recourt à la clause dérogatoire par principe ou par réalisme? Evans le propose sans état d'âme et sans illusion—le gouvernement libéral actuel du Québec a refusé d'y recourir. [Vous souvient-il de cet autre gouvernement libéral du Québec qui l'a invoquée à l'occasion de l'examen de quelques articles d'une loi linguistique invalidés par la Cour suprême? Quelques premiers ministres provinciaux, disciples hypnotisés de Trudeau (encore lui!), ont définitivement diabolisé la clause dérogatoire et trouvé une raison de plus de faire échouer l'accord du Lac Meech.]

Le Canada tout entier s'est enferré dans l'extrême de la logique libérale sur la question de la Charte des droits de telle sorte que tout recourt à la clause dérogatoire est anathème. Toute déclaration des juges de la Cour suprême depuis les Chartes québécoise ou canadienne devient automatiquement sacralisé, les juges fussent-ils dans l'erreur. Le débat, qui doit être continu, sur l'équilibre entre indépendance individuelle et contrôle social est dès lors émasculé.

Et cette fois-ci, les juges de la majorité y sont tombés dans l'erreur. La question est la suivante : est-ce que M. Zeliotis, celui au nom duquel tout ça a eu lieu, a souffert de la tyrannie de la majorité en ne pouvant souscrire à une assurance privée? Les cours du Québec et les juges de la minorité de la Cour suprême ont noté que M. Zeliotis n'avait pas de cause. Dans son cas précis, il a été établi que le retard à obtenir des soins dépendait de sa condition physique et psychologique et des retards qu'il a lui-même provoqués. Les juges de la majorité se sont aussi abstenus de se demander si M. Zeliotis, aurait eu accès à une assurance privée, puisqu'il s'est enquis d'une telle assurance après le diagnostic médical, pas avant.

Le droit de M. Zeliotis de recourir à l'assurance privée est examiné par la Cour en fonction des effets des délais d'attente dans le régime public sur sa santé et sa sécurité (Chaoulli c. Québec, 2005). Or, le droit de M. Zeliotis d'obtenir des soins est un droit créé par la présence d'un régime public et universel d'assurance maladie. Ce droit n'existerait tout simplement pas si le Canada en était encore aux régimes privés d'assurance-maladie. En conséquence, la Cour suprême a reconnu à M. Zeliotis, et à tous les québécois, le droit de souscrire à un régime d'assurance privée parce qu'ils ne pourraient pas obtenir des soins requis assez rapidement sous un régime public, tandis que ce droit universel n'existe tout simplement pas dans un régime d'assurance privé, régime que la Cour suprême promeut! M. Zeliotis n'a donc pas souffert de la tyrannie de la majorité. Au contraire, l'existence d'un droit collectif, soit la couverture universel et public des services médicaux et hospitaliers, est la seule garantie qui existe pour assurer l'exercice d'un droit individuel, soit l'accès raisonnable à ces services. Ici, le contrat social offre toute la protection nécessaire contre la volonté de quelques-uns de le pervertir à leur profit. Un peu plus de Jean-Jacques Rousseau, un peu moins de John Stuart Mill, ferait l'affaire. Conclusion : il y a dans ce cas tyrannie de magistrats, ceux et celles de la Cour suprême. Tout justifie le recours par le gouvernement du Québec à la clause dérogatoire.

Les juges sont des magistrats, et quoique l'on puisse dire de la théorie de la séparation des pouvoirs, les juges sont nommés par le politique et font parti de l'appareillage qui nous gouverne. À ce titre, il y a tout aussi bien nécessité de protéger le peuple contre leur tyrannie que de celle des politiques. Et dans le cas Chaoulli qui nous occupe, le jugement majoritaire est suffisamment mauvais pour que l'équilibre des pouvoirs, cette question jamais résolue, réclame que la «magistrature politique», soit le Parlement, protège le peuple contre les excès de la «magistrature juridique». Puisse l'appel d'Evans ait quelques échos et que s'en suive une révision de la sacralisation des juges et la levée de l'anathème sur la clause dérogatoire.

Stoïques devant la mystique juridico-politique de la sacralisation des Chartes, Flood et Lewis en sont réduits à des propositions dont quelques-unes ne laissent pas de me surprendre. Je n'en mentionnerai qu'une seule. Les auteurs insistent pour qu'Ottawa impose aux provinces un système de gestion de listes d'attente. Et je vois d'ici tous mes bons amis du Canada anglais opiner du bonnet. Quelle ironie! Les inepties d'un appareil de gouvernement fédéral, la Cour suprême, seraient corrigées par l'accroissement des pouvoirs d'un autre appareil fédéral, soit le politique, tandis la province du Québec avait fait son devoir en interdisant les régimes d'assurance privée et que les cours du Québec avaient rejeté les prétentions de Chaoulli et Zeliotis. Qui plus est, le Québec a implanté récemment une série de mesures pour assurer une gestion efficace des plaintes des citoyens. Flood et Lewis proposeront-ils, chaque fois qu'un organisme fédéral gaffe, une invasion par un autre organisme fédéral d'un champ de juridiction provincial? Je ne comprends pas cette obsession de plusieurs de vouloir

accroître le pouvoir des fédéraux dans le domaine de la santé. L' Australie, l'autre gouvernement fédéral qui possède de vastes pouvoirs dans le domaine de la santé, a-t-elle une histoire si exemplaire qu'un fédéralisme centralisateur apparaît tout de go comme supérieur au régime canadien plus décentralisé? Pourtant, la répartition décentralisée du pouvoir au Canada interdit à tout gouvernement fédéral de rayer d'un trait de plume notre régime public dans toutes les provinces, comme la droite australienne l'a pratiqué systématiquement depuis plus d'un quart de siècle.

Les propositions à plus long terme de Flood et Lewis ont plus de sens. Sans les nommer une à une, signalons qu'elles soulignent la nécessité de s'assurer que le régime public et universel d'assurance maladie s'adapte à l'évolution des besoins de soins de la population et au développement des sciences et de la technologie de la santé. On a vu monté l'insatisfaction de la population canadienne vis-à-vis le régime au cours des dernières années. Il n'est pas faux de voir dans le jugement majoritaire de la Cour suprême un ras-le-bol populiste, certes, mais réel. L'appui au régime public et universel peut se fragiliser rapidement. Evans souligne assez que le régime coûte cher aux riches, plus en santé que les autres. Les données de Mustard et al (1998) montrent aussi comment à partir du cinquième décile des revenus la contribution fiscale au régime est égale ou inférieure aux bénéfices que ces gens en tirent. Il suffit d'un coup de bascule pour que leur appui évapore : des dépenses publiques insuffisantes pendant un assez grand nombre d'années, l'effritement de l'idée canadienne d'un bon gouvernement qui tient de la logique du contrat social plutôt que de la maximisation du bonheur individuel, soit l'élection, ne serait qu'en désespoir de cause, d'un gouvernement fédéral conservateur, soit le maintien pendant quelques années encore d'un gouvernement Martin-Stronach, soit quelques scandales et négligences ici et là. On s'illusionne à penser que cette conjonction d'évènements est tout simplement improbable. Aussi, plutôt que d'invoquer comme une incantation, à chaque coup dur, l'identité canadienne investit dans le régime d'assurance maladie, il vaudrait mieux, pour le défendre, investir dans le régime lui-même.

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François Béland

The Chaoulli Judgment or How to Sell Off a Public Right

The problem is to find a form of association which will defend and protect with the whole common force the person and goods of each associate, and in which each, while uniting himself with all, may still obey himself alone, and remain as free as before. This is the fundamental problem of which the Social Contract provides the solution.

JEAN-JACQUES ROUSSEAU, The Social Contract

What was now wanted was, that the rulers should be identified with the people.... The nation did not need to be protected against its own will... But...the notion, that the people have no need to limit their power over themselves, might seem axiomatic, when popular government was a thing only dreamed about... Protection, therefore, against the tyranny of the magistrate is not enough... How to make the fitting adjustment between individual independence and social control – is a subject on which nearly everything remains to be done... What these rules should be, is the principal question in human affairs.

JOHN STUART MILL, On Liberty

On the surface, the positions of Flood and Lewis and Evans on the Chaoulli judgment, expounded in their articles for this issue of *Healthcare Policy/Politiques de santé*, are quite similar. Although Evans's style is rather flamboyant, and while Flood and Lewis's is more staid, all three agree in their condemnation of the Supreme Court's judgment. The Chaoulli judgment is factually and logically flawed, and the legal arena is not set up to hold an essentially political debate. The two texts also complement one another. Flood and Lewis analyze the majority judgment and criticise the use it makes of social sciences and the opinion of a few physicians who testified before the Court. Their analysis reflects many commentaries that have been published in the press (Béland 2005) and on Canadian Internet sites (Longwoods eLetter 2005). They suggest some actions and steps to take to limit the consequences of the Chaoulli judgment on Canada's public and universal medicare system. Evans relates the history of federal and provincial budgets and of medicare

funding since the 1970s and notes the missed opportunities to extend medicare coverage beyond strictly medical or hospital services.

The authors then disagree on what will follow. Flood and Lewis get lost in conjecture about ways to limit the damage. Do they avoid mentioning the notwithstanding clause as a matter of principle or realism? Evans certainly suggests its use without qualms. As a matter of fact, the current Liberal government of Quebec refused to use the notwithstanding clause. [Remember the other Liberal government of Quebec that invoked the use of the notwithstanding clause after a few sections of a language law were struck down by the Supreme Court? A few provincial premiers, mesmerized Trudeau followers (him again!) definitely demonized the notwithstanding clause and found one more reason to sink the Meech Lake Accord.]

The entire country got so caught up in the extremes of the Liberal logic on the Charter of Rights issue that any recourse to the notwithstanding clause is anathema. Any one statement made by the Supreme Court judges since the adoption of the Quebec and Canadian Charters automatically becomes enshrined, even when the judges are wrong. The debate, which must be ongoing, on the balance between individual freedom and social control is emasculated from that moment on.

And this time, the judges in the majority were wrong. The question is this: did Mr. Zeliotis, the man for whom all of this happened, suffer from the tyranny of the majority by not being able to buy private insurance? The Quebec courts and the Supreme Court minority judges observed that Mr. Zeliotis did not have cause of action. In his specific case, it was established that the delay in obtaining care was a result of his physical and psychological state and delays which he himself caused. The majority judges also abstained from asking themselves if Mr. Zeliotis would have access to private insurance since he inquired about private insurance after his medical diagnosis, not before.

The Court weighed Mr. Zeliotis's right to use private insurance against the consequences of waiting times in the public system on his health and safety (Chaoulli v. Québec, 2005). Yet, Mr. Zeliotis's right to obtain healthcare is a right created by the presence of a public and universal medicare system. This right would simply not exist if healthcare insurance were still available only through private carriers on a private market in Canada. As a result, the Supreme Court recognized Mr. Zeliotis's right, as well as the right of all Quebecers, to buy private coverage since he could not obtain the required healthcare fast enough under the public system, even though this universal right simply does not exist in a private insurance system, a system which the Supreme Court promotes! Therefore, Mr. Zeliotis did not suffer from the majority's tyranny. On the contrary, the existence of a collective right, that is, universal and public coverage of medical and hospital services, is the only guarantee that exists to ensure that an individual right can be exercised, that is, reasonable access to those services. Here, the social contract offers all the necessary protection against the will of a few who want

to corrupt it for their benefit. A little more Jean-Jacques Rousseau, a little less John Stuart Mill, would do. Conclusion: this is a case of the tyranny of judges, the judges of the Supreme Court. The Quebec government is fully justified to use the notwithstanding clause.

Judges are magistrates, and whatever is said about the separation of powers theory, judges are appointed through politics and are part of the machinery that governs us. It is therefore just as necessary to protect the nation from judges' tyranny as it is to protect the nation from politicians. In the case of Chaoulli, the majority judgment is bad enough that the balance of power, that never resolved issue, demands that the "political magistrates" (Parliament) protect the nation against the excesses of the "legal magistrates." May the echoes of Evans's appeal be heard, the judges's enshrinement reviewed and the curse on the notwithstanding clause lifted.

Stoic before the legal-political enshrinement of the Charters, Flood and Lewis can only make suggestions, a few of which cannot but surprise me. I will mention only one. The authors insist that Ottawa impose a waiting-list management system on the provinces. I can picture all my good friends from English Canada nodding in agreement. How ironic! The ineptitudes of a federal governmental machine, the Supreme Court, would be corrected by enhancing the powers of another federal machine, that is, the political one. However, Quebec carried out its duty by banning private insurance systems, and the Quebec courts rejected the claims of Chaoulli and Zeliotis. Furthermore, Quebec recently implemented measures to manage citizens's complaints effectively. Will Flood and Lewis suggest every time a federal body blunders that another federal body take over a provincial jurisdiction? I do not understand this widespread obsession with enhancing federal power in healthcare. Does Australia, which also has a federal government with vast powers in healthcare, have such an exemplary history in healthcare policy that a centralizing federalism appears so clearly superior to the more decentralized Canadian system? Yet, the decentralized division of power in Canada prevents any federal government from wiping out every provincial medicare program with a stroke of a pen as the Australian right-wing has systematically done for over a quarter-century.

whatever is said about the separation of powers theory, judges are appointed through politics and are part of the machinery that governs us

Flood and Lewis' s long-term suggestions make more sense. Without going through them one at a time, let me point out that they stress that the public and universal medicare system must adapt to the changing healthcare needs of the population

and to the advancement in health and technology sciences. Canadians have shown increasing dissatisfaction with the system over the last few years. It would be fair to speculate that the majority judgment of the Supreme Court is a populist but genuine reflection of that disgust. Support for public and universal medicare can quickly dwindle. Evans also points out that the system is costly for the rich, who are healthier than others. The data from Mustard et al. (1998) also show that, as of the fifth income decile, tax dollars paid into the healthcare system are equal to or less than the benefits taxpayers reap from healthcare. It wouldn't take much to tip the scales and lose their support: too little public expenditure over too many years, or the erosion of the Canadian idea that a good government is founded on the logic of social contract rather than on the maximization of individual happiness, or an election, out of despair, of a Conservative federal government, or a few more years of a Martin-Stronach government, or some scandals and negligence here and there. We are fooling ourselves if we think that these events are unlikely. Rather than constantly bringing up medicare and the Canadian identity over and over again like some kind of incantation every time the medicare system gets hit, it would be wiser, in the interest of defending it, to invest in the system itself.

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Reflections on a Conversation *with* Brian Postl: Can Healthcare Research Make a Difference to Policy and Practice?

by ANTON HART
Publisher, Longwoods Publishing Corporation

"Research is key in the process of change." That's how Dr. Brian Postl begins a conversation on strategies to ensure a stable and reliable bridge between researchers and policy makers in healthcare. He suggests "evidence" as one of four themes that the journal *Healthcare Policy* should consider as it looks at knowledge and its impact on policy and practice. And he is quick to agree that we need to reach audiences that influence the policy and decision-makers; the direct approach won't be enough. He believes there are untapped ways and means to share the collected evidence and change behaviour. Finally, he underscores the importance of real cases – using evidence – as valuable translation tools.

Here is, in effect, knowledge transfer (KT) 101:

1. Offer the best solutions and evidence;
2. Target a selective range of audiences to make the point;
3. Use multiple tools to transfer and translate; and
4. Present the information so that it is meaningful.

Dr. Postl is the right spokesman on these strategies. He is a decision-maker, researcher, teacher and policy maker. He is currently president and chief executive officer of the Winnipeg Regional Health Authority, which comprises nine facilities

and multiple community agencies, services and programs. Before that, he was vice-president of clinical services at the Winnipeg Hospital Authority, with prior academic and clinical appointments – all in Winnipeg – focused on paediatrics and community health.

He continues to teach undergraduate, post-graduate and graduate trainees. He stays active as a clinician through the Children's Hospital Northern Referral and Medical clinics, and as visiting paediatrician to Rankin Inlet, Nunavut, and Grand Rapids and Easterville, Manitoba. Research interests include Aboriginal child health, health policy and human resources planning. He has written or co-written more than 55 publications. He has also served on a number of health-related boards, including those of the Canadian Institute for Health Information, the Canadian Patient Safety Institute, the Canadian Health Services Research Foundation, Canada Health Infoway and the Health Council of Canada.

Academics and leaders in healthcare who travel across Canada have come to recognize that the problems, environments and solutions to healthcare challenges are often the same across the country. "We need to share."

Dr. Postl was recently appointed the prime minister's federal adviser on wait times. In that role, he will facilitate dialogue and work with the provincial and territorial governments and others to help realize the commitments made in the federal government's 10-year plan to strengthen healthcare. In a telephone discussion, we focused on this new advisory role and its challenges. It was a fitting focus for a discussion on research transfer and translation and the role of research in effecting change.

Dr. Postl will look to research to tell him and the policy makers what we know, what we need to develop and what is required to support the decisions that must be made. In this context, the journal *Healthcare Policy* is important because it offers a medium through which evidence can be developed and shared, a place that can reflect the living models from jurisdictions across Canada and a medium that can present the evidence and de-politicize it for all the participants in the system or, more realistically, 13 systems. Evidence takes on an even more important role, he suggests, when we consider the vested interests, the emotions governing the process and the political context in which elections are won or lost on these very issues.

In the process of effecting change, Dr. Postl will target a range of participants that influence the healthcare system. He suggests that we are easily drawn to limiting debate among researchers and senior decision-makers. It's not enough. What we don't do well, he says, is target those individuals or audiences that *influence* the decision-makers. The public influences the politicians, he notes, but we are not comfortable, not trained and not ready to talk to the media and other watchers, knowing they can often be critical. Yet many reporters and health columnists are well read and highly respected for their commentaries. We need to be accessible to them. They, in turn, will help us reach the policy makers. This is a lesson brought home by the last federal election; according to a trusted Ottawa source, the Liberal Party's strategy to focus on wait times was initiated and supported by polls. Public opinion matters.

But how to reach the people? There are, of course, new initiatives underway within the system, and as a member of the board of the Canadian Health Services Research Foundation (CHSRF), he is aware of these – including the EXTRA program that trains health system managers across Canada in the skills that will help them use research better in their day-to-day work. He is also aware of the knowledge transfer tools used by the Canadian Institutes of Health Research, the Canadian Institute for Health Information and other agencies. It will be important in his work as federal adviser on wait times to apply the best strategies now in use but also to explore new ideas in the process.

Unexplored are the more controlled media strategies to reach the public. These might typically include mass media advertising, a national media tour from coast to coast by some of our more articulate researchers, or even healthcare's version of CBC's "Ideas" or even "Quirks and Quarks." He recognizes that new ideas and opportunities must be used to attain a higher public profile if we are going to reach the politicians and their constituents.

Lastly, he recommends that this journal promote case studies – academically developed and well written. They would address how the cases evolved, the participants, the successes and the failures. Academics and leaders in healthcare who travel across Canada have come to recognize that the problems, environments and solutions to healthcare challenges are often the same across the country. "We need to share," he says. A database of cases that the decision-makers can refer to and relate to is important and valuable. We discussed briefly the patient safety movement and its current importance on so many agendas. This issue, says Dr. Postl, is driven by evidence and has become an important priority as a result of collaboration between the researchers and those who make policy and practice decisions. The issue has also seen a lot of press.

Can healthcare research make a difference to policy and practice? Yes, says Dr. Postl. Have the evidence; identify the key players and those who influence them; use effective (and new) ways and means of reaching these target groups; and, in the process, use practical, understandable and meaningful communications tools.

Healthcare Policy will play an ongoing role in this process as researchers and policy and practice leaders continue to consider ways and means to work together. But there are many other issues that need to be explored: the power of collaboration from beginning to end – so eloquently put forward by Jonathan Lomas in this issue; teaching strategies that, according to academic guru Noel Tichy, should be pervasive in all organizations; and the need for sensitivity in a complex environment made up of ethical, legal, social, regulatory, economic, scientific and political factors. This volatile mix is fuelled by new discoveries and diminishing resources – competing for headlines at the same time. There will be no shortage of ideas for the pages of this journal as it strives to engage researchers, policy makers and practice leaders in a dialogue to apply evidence to the decision-making process.

Are There Socio-Economic Differences in Caesarean Section Rates in Canada?

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Abstract

Caesarean section rates have risen in recent years, sparking renewed debate about the circumstances under which such deliveries are being, and should be, performed. Some commentators suggest that increasing rates may, in part, be explained by women in higher-income brackets requesting elective caesareans (the so-called "too posh to push" hypothesis). After adjusting for maternal age, Canadian data do not support this theory. In fact, age-adjusted caesarean section rates were significantly lower in Canada's highest-income neighbourhoods than in the lowest-income areas in 2002–03.

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Rising caesarean section rates have helped rekindle the debate over when and under what circumstances caesarean section births should be performed, both in Canada and elsewhere. In some circumstances, caesarean sections are clearly essential, life-saving operations, and some studies have suggested potential long-term benefits for scheduled caesarean sections for certain groups of women (Dodd et al. 2004).

However, like other surgical procedures, caesarean sections are not risk-free. The associated risks include increased chances of haemorrhage, longer recovery from childbirth and increased odds of severe pain and infection (House of Commons Health Committee 2003; Hannah 2004; Jackson and Paterson-Brown 2001).

In the long term, studies have shown that women who have had a caesarean delivery are at increased risk for certain reproductive problems (e.g., ectopic pregnancies), serious problems pertaining to the placenta (e.g., placenta accreta and placenta previa) or uterine rupture (Minkoff and Chervenak 2003). Babies born by caesarean section may also be at increased risk. For example, respiratory problems following birth (Minkoff and Chervenak 2003; House of Commons Health Committee 2003) and difficulties initiating breastfeeding (DiGirolamo et al. 2001; Bond and Holloway 1992) have been highlighted as concerns for infants born by caesarean section. Given these and other risks, the Society for Obstetricians and Gynaecologists of Canada (2004) recently stated that caesarean sections should be performed only when medically indicated.

In spite of this guidance and similar guidelines from some other countries (National Collaborating Centre for Women's and Children's Health 2004), it has been suggested that a driver of rising caesarean section rates is the so-called "too posh to push" phenomenon in which women, particularly wealthier women, request surgery even though they do not have recognized medical indications for the procedure (Song 2004). A few high-profile cases and statistics showing higher caesarean section rates in private hospitals in Australia, Brazil and other countries have fuelled the

debate (Roberts et al. 2000; Potter et al. 2001; Béhague et al. 2002). Researchers in the United Kingdom, however, have recently rejected this argument based on an analysis of National Health Service hospital data. They found that women in the lowest-income group were less likely to have elective caesarean sections, but there was no significant difference between women in the four other income quintiles (Barley et al. 2004).

To determine whether Canadian caesarean section rates are related to socio-economic status, we investigated whether women in high-income urban neighbourhoods are more likely to have surgical deliveries than other women.

Study Design and Methods

Data source and study population

Women who gave birth in Canadian hospitals between April 1, 2002 and March 31, 2003 were identified using the Hospital Morbidity Database of the Canadian Institute for Health Information. Using an approach developed by Statistics Canada that assigns neighbourhoods to five equally sized quintiles based on income data reported on the 2001 Census, we derived patients' socio-economic status based on their residential postal codes (Wilkins 2004). Women who gave birth in the territories and Quebec, as well as those with invalid residential postal codes, were excluded, as socio-economic characteristics could not be reliably assigned on the basis of available data, using this approach.

Data analysis

Caesarean section rates were calculated for each neighbourhood income quintile. Given that maternal age has a strong independent relationship to the odds of having a caesarean section and that higher-income mothers tend to be older, age-standardized rates were also calculated for each quintile. The standard population used in this calculation was all Canadian residents who gave birth in Canadian hospitals between April 1, 2002 and March 31, 2003.

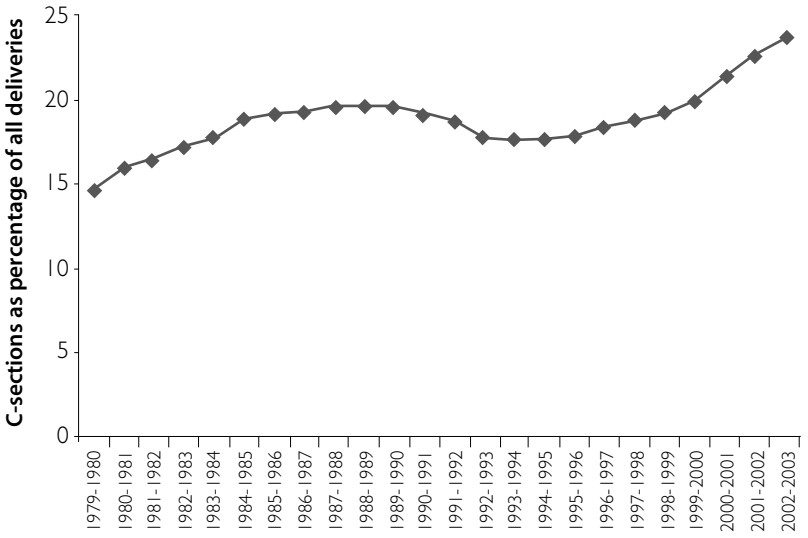
Separate analyses were performed for all deliveries and for deliveries by patients residing in urban areas only. Using data for urban areas only minimizes potential socio-economic misclassification (Willkins 2004), and as such we focus on these results in this paper.

Results

Currently, more than one in five births in Canada are delivered by caesarean section. Rates vary across the country (from 15% to 33% by health region in 2002–03), but

the national rate has been rising since the mid-1990s (Canadian Institute for Health Information 2005). As Figure 1 shows, Canada's caesarean section rate grew by six percentage points (from 17.7% to 23.7%) between 1992–93 and 2002–03. Increases in the rate of primary caesarean sections and a decline in the rate at which women deliver vaginally following previous caesarean section births both contributed to this trend (Canadian Institute for Health Information 2004).

FIGURE 1. Trend in Canadian caesarean section rates, 1979–80 to 2002–03

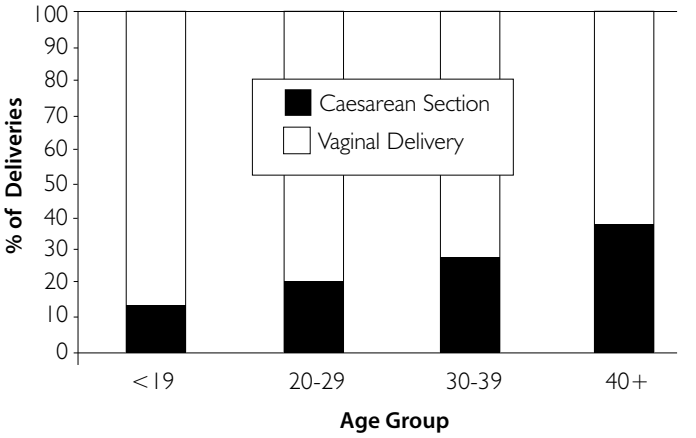


Source: Hospital Morbidity Database, CIHI

As in other countries, caesarean section rates are higher for older mothers. Urban mothers younger than 19 years of age had a 14% caesarean section rate in 2002–03; the rate for those 40 years of age or older was 38% (see Figure 2). Younger mothers were also more likely to live in low-income neighbourhoods. Two in five of those younger than 19 years (41%) lived in areas ranked in the bottom fifth of the income distribution. The rate for older mothers was much less – only 19% of new mothers 40 years or age or older lived in the lowest-income neighbourhoods.

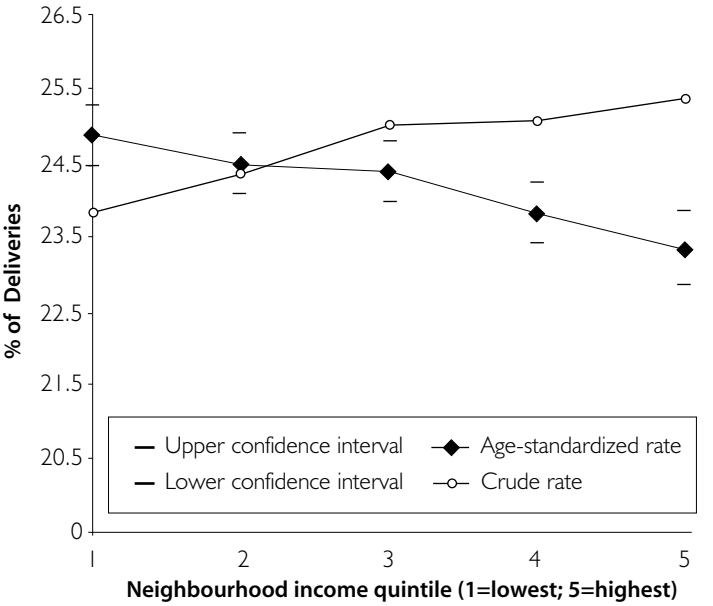
This finding emphasizes the importance of taking age profiles into account in analyses of the relationship between socio-economic status and caesarean section rates. In fact, women in the lowest-income urban neighbourhoods had lower crude caesarean section rates in 2002–03 (see Figure 3). However, when adjusted for age,

FIGURE 2. Mode of delivery in urban areas by maternal age, 2002–03



Source: Hospital Morbidity Database, CIHI

FIGURE 3. Crude and age-adjusted caesarean section rates in urban areas by neighbourhood income quintile, 2002–03



* Excludes Quebec and Terrritories
Sources: Hospital Morbidity Database, CIHI; Postal Code Conversion File Plus based on 2001 Census, Statistics Canada

this relationship reversed. Based on this analysis, women living in the lowest-income areas were significantly more likely to have caesarean deliveries (24.9% rate for areas in the lowest-income quintile) than those in the most prosperous areas (23.3% rate in the highest-income quintile neighbourhoods) ($p<0.05$). A similar trend was found when rural areas were included in the analysis.

Conclusion

While Canadian data do not distinguish between elective and medically indicated delivery procedures, analysis of Canadian hospital data for 2002–03 does not support widespread "too posh to push" concerns. After adjusting for maternal age, women in Canada's highest-income urban neighbourhoods are significantly less likely to have caesarean sections than those in the lowest-income areas.

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INVITED PAPER

Using Research to Inform Healthcare Managers' And Policy Makers' Questions: From Summative to Interpretive Synthesis

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Abstract

This paper highlights the importance of research synthesis for healthcare managers' and policy makers' questions and the difficulty of generalizing from the methods used to answer clinicians' questions. Social science research has a central role in such syntheses because of the context-dependent nature of managers' and policy makers' questions, which generally encompass a far broader spectrum than the circumscribed "what works?" questions of clinically oriented reviews. A major challenge is in moving from purely researcher-driven processes, which summarize research, to co-production processes, which allow managers and policy makers to join with researchers in interpreting implications for the healthcare system. Additional challenges lie in clearly defining the function, role and objective of the synthesis; handling flexibility around finalizing the question; harnessing a manageable scope of literature to review; adopting rules to select the final sample of research; creating useful messages; and developing a format that is responsive to the needs and preferences of the audience. One inevitable conclusion is that research synthesis for managers and policy makers will, compared to that for clinicians, leave much discretion in the hands of the synthesiser(s). This raises the interesting issue of how to engender, in the absence of "methodological checklists," trust and credibility in both the people doing the synthesis and the processes they use.

The remarkable success of the Cochrane Collaboration as a tool to define clinical effectiveness has encouraged others in the healthcare system to pay attention to the importance of evidence-based decision-making (Moynihan 2004; Walshe and Rundall 2001; Klein 2000; Black 2001). With this success has come increased interest from, and pressure on, healthcare managers and policy makers to have available rigorous, useful syntheses of research relevant to their work. Research funding agencies are now seeing synthesis as part of their remit (Canadian Health Services Research Foundation [CHSRF] 2005; Canadian Institutes of Health Research [CIHR] 2005) and are even leading the charge in exploring new ways of doing synthesis for healthcare managers and policy makers (CHSRF and NHS Service Delivery 2005). Indeed, this growth of interest is not restricted just to healthcare (Davies et al. 2000); those in the management community more generally are "exploring ways in which evidence-informed management reviews might be achieved [with] the process of systematic review used in the medical sciences" (Tranfield et al. 2003).

Unfortunately, the questions, context and content of healthcare management and policy are generally broader and more diffuse than those of the clinical world. Studies on program or intervention effectiveness – the main focus of the Cochrane or Campbell Collaborations, and most other programs of systematic review – are only one part of the larger landscape of potential research support for managers and policy makers (Walshe and Rundall 2001; Klein 2000; Black 2001; Tranfield et al. 2003; Tunis et al. 2003). This paper evaluates the nature of the questions asked of research by managers and policy makers, outlines why these questions are just as important to address with synthesized research as those of the clinician, and highlights some of the methodological challenges in doing such synthesis. The goal is to alert the decision-making community to this issue and add to the emerging debate in this area among researchers.

Managers and Policy Makers Don't Ask the Same Questions As Clinicians

The main functions of managers and policy makers – understanding their local context and values, creating an organizational culture, building consensus on actions – are not functions routinely incorporated into the world of clinical research. These are the concerns of social scientists. For example, sociologists evaluate the role of institutions in determining behaviours, anthropologists examine the influence of norms and cultural determinants of action, psychologists outline cognitive constraints and heuristics, organizational theorists design workplaces, and political scientists predict the interplay and outcomes of the complex web of interests and ideologies (Fulop et al. 2001; Lemieux-Charles et al. 2004).

In a recent exercise, the author tested the nature of managers' and policy makers' questions empirically by asking them to identify their priority issues and define where a synthesis of research might help (see Table 1) (Dault et al. 2004). Only some of their questions were of the circumscribed "what works?" variety that dominate most systematic review work in the clinical area (Cook et al. 1997; Egger et al. 2001). Many questions concerned the context and overall organization of service delivery – a finding that replicates prior work on intensive care research priorities in England (Vella et al. 2000) or more general questions of the UK civil service (Davies 2005).

TABLE 1. Sample of managers' and policy makers' questions for which a synthesis of research was deemed a priority

Healthcare Workforce: What is the value of interprofessional team care in different settings, and can it be implemented under current regulatory and funding conditions in Canada?

Healthcare Workplace: What are the gender, cultural and generational factors that are influencing the work experiences and expectations of healthcare professionals?

Access: What are the most effective governance and management models for minimizing waiting times for specialized and diagnostic services?

Managing for Quality and Safety: What are the most effective physical, procedural, behavioural and system innovations to improve patient safety?

Public Expectations: What role do the media play in influencing public attitudes and expectations for health services?

Sustainability of Funding and Ethical Resource Allocation: What are the differences in ethical bases, if any, of methods for allocating resources for the care of populations and for the care of individuals?

Governance and Accountability: What are the organizational frameworks or models for performance accountability that are currently in use?

Managing and Adapting to Change: What intra-organizational management structures in other industries have successfully improved organizational and system efficiency by breaking down inter-professional and inter-organizational silos?

Linking Care Across Place, Time and Settings: What is the effectiveness and efficiency of current chronic disease management models in Canada?

Linking Public Health to Health Services: What public health training do front-line healthcare workers in Canada receive, and how does this compare with training models elsewhere?

Excerpted from M. Dault, J. Lomas and M. Barer, *Listening for Direction II. National Consultation on Health Services and Policy Issues for 2004-2007*. Ottawa: Canadian Health Services Research Foundation, 2004.

In addition to the question "what works to reduce problem x?" managers and policy makers appear to have at least two other types of questions:

1. *What do we know about problem x?* This is the general interest question of the decision-maker. Is it a problem? If so, what is causing it, how extensive is it, who is it affecting and what are some feasible options to address it?

2. *What will be/now are the issues around doing action y?* This is the context question, sometimes asked before embarking on action plans, sometimes after, to aid in finding remedies to the unforeseen. Who opposes, who supports and why? What else is affected, and how (side effects)? What else should we do in concert with this action?

The Value-Added Role of Synthesis for Managers' and Policy Makers' Questions

If we believe that research evidence on these questions makes for better decisions, and we are aware that research is more reliable, useful and usable when its numerous studies are synthesized into coherent messages, then why restrict this benefit to the question "what works?" which is dominant in the clinical world? After all, clinical action does not occur in isolation; neither does it operate inside a maintenance-free organizational machine. Knowing how to set policies for, and how best to manage the context around, service delivery is as important to patient outcomes as is the front-line application of effective clinical interventions. Policy and management also save lives (or cause deaths), albeit in a less visible and direct fashion than clinical care.

For example, Deveraux and colleagues (2002) have estimated that the US government policy of encouraging for-profit rather than not-for-profit ownership of haemodialysis centres creates 1,200 to 4,000 additional patient deaths each year. West (2002) has shown that in 61 English hospitals, performance that is one standard deviation above the mean in human resource management, as measured by routine conduct of employee performance reviews, is associated with 12.3% fewer deaths after hip fracture. In the United States, management's initiative to formalize training for teamwork among hospital emergency room staff members reduced clinical error rates from 30.9% to 4.4% in less than 12 months (Morey et al. 2002).

Such contextual factors – attitudes about profit and privatization, human resource policies, the environment for teamwork – are increasingly important in explaining the success or failure of clinical interventions delivered by care providers and their organizations. Ironically, the importance of good management and policy for good care emerges from studies of guideline implementation efforts that "failed." These efforts to put clinical research synthesis into practice – in the form of practice guidelines – focused too narrowly on the clinicians' world and not broadly enough on the management and policy contexts influencing it.

For example, a recent study of general practitioners (GPs) failed to find an effect of a guideline implementation strategy because the control group improved compliance as much as the experimental group. The most parsimonious explanation that the authors could find for this clinical trial "failure," supported by in-depth qualitative

interviews with participating general practitioners, was a widespread response of all GPs to increase their accountability because of new government policies on clinical governance (Harrison et al. 2003). Policy context, not the specific local intervention strategy, was the dominant factor in explaining practice behaviour and good care.

As stated by the study's authors, "few studies of guideline implementation have reported either the timing of the interventions and data collection, or raw before and after data...implying an assumption that context is irrelevant" (Harrison et al. 2003: 152–53). Sheldon (2001) has made the same point. This overriding influence of context may go a long way towards explaining why the latest systematic review of clinical behaviour change interventions, now capturing 235 methodologically sound but clinically focused studies, continues to offer no clear advice for managers on how to improve the quality of care. Grimshaw and colleagues (2004: 66) concluded: "This review highlights the fact that despite 30 years of research in this area, we still lack a robust, generalizable evidence base to inform decisions about strategies to promote the introduction of guidelines or other evidence-based measures into practice."

Synthesis that addresses the broader contextual factors of the managers' and policy makers' world therefore appears to be the logical next step in the search for more effective ways to bring research evidence into health system practice. But how well developed are the methods for such synthesis?

Matching Methods to Function, Role and Objective

Methods must be driven by function, role and objective. The dog (function, role and objective) should wag the tail (methods), not vice versa.

Function

First, we should not assume that the methods developed for the function of synthesizing clinical research on "what works?" are applicable to synthesizing social science research on managers' and policy makers' broader questions. A clinically focused systematic review of research studies may tell us that on average, across multiple settings and contexts, doing "x" works better than what we are doing now. It may, if accompanied by an economic evaluation, also tell us whether "x" is worth doing. But such reviews rarely indicate how to create the policies and the organizational context to implement them and make them work for a particular setting.

Many years of methods development have gone into syntheses with the function of answering "what works?" questions. The methods dilemma now for health services researchers is to come to some broad agreement on how to do synthesis when the function is to assemble social science knowledge that addresses questions beyond "what works?"

Role

The role of a synthesis is determined largely by the intended audience and the context for its production and use. The three most prevalent roles are:

- *Defining the future research agenda* by identifying the current state of knowledge and highlighting the gaps. For example, the Canadian Institutes of Health Research (2005) recently released a call for work that does "a systematic scan of existing evidence in a broad thematic area for the purposes of identifying areas in which sufficient evidence exists to conduct a synthesis or systematic review and where insufficient evidence exists such that primary research is necessary." On a small scale, this is done by every researcher who includes a literature review to justify a specific project proposed in a grant application. On a larger scale, research funding bodies commission or create for themselves "state of the science" reviews or "scoping papers" to guide future funding programs. In either case, the methods around this role for synthesis are not the concern here, as the primary audience is the researcher or the research funder, and not the manager or the policy maker.
- *Creating a rapid response* to a request for the research knowledge pertinent to a specific planned and soon-to-be-made decision. This is closer to the "client–contractor" situation, in which the synthesis is done not just for an identifiable audience, but often for identifiable individuals in the healthcare system with clearly circumscribed needs. "Rapid response" programs and units are emerging to serve this need (NHS Service Delivery and Organization Research and Development Program 2005). The driving force is the user's context, including the timeline, which may be as short as days or weeks, severely limiting the opportunity for reflective co-production between the client and the contractor.
- *Contributing to an accumulating library* or database of research overviews in a defined area for some as yet unspecified future decision. Creating a stockpile of syntheses on potentially relevant topics for an audience of unidentified decision-makers is a worthwhile objective. The Cochrane database operates under this objective, largely for clinical effectiveness issues. Some are now calling for a similar repository for managers' and policy makers' issues (Lavis et al. 2005). In this role for synthesis, more time is available for careful planning and undertaking of the task, using comprehensive methods and processes that reflect both the researchers' and the decision-makers' perspectives. It is this role for synthesis that is the focus of this paper.

Objective

Finally, some authors have distinguished between two broad objectives for a research synthesis (Noblitt and Hare 1988; Forbes and Griffiths 2002; Dixon-Woods et al. 2005). Others express a distinction between, on the one hand, an integrative or

summative objective involving "the quantification and systematic integration of data" and an interpretive objective involving "some form of creative process where new constructs are fashioned." These authors go on to comment that "the choice of the form of synthesis is likely to be crucially related to the form and nature of the research questions being asked" (Dixon-Woods et al. 2005: 46–47).

These two different objectives have clear implications for methods. Summative syntheses are most appropriate where the context in which the conclusions are to be implemented is absent or a minor concern – often the case for the globally created clinical effectiveness syntheses on "what works?" questions. Knowledge of, and the involvement of those knowledgeable about, particular implementation contexts is not a central part of the methods for such work. The entire process of synthesis can readily be undertaken by researchers working on the world literatures, largely in isolation from the system(s) to which their work may have some application. In the parlance of the knowledge translation literature, this form of synthesis is part of the "push" strategy of getting research into practice (Lavis et al. 2004).

This situation contrasts with interpretive syntheses, where the objective is not only to compile and aggregate data, but also to interpret it for application into one or more contexts – precisely the kind of broader objective relevant to the world of the manager or policy maker. Syntheses done under this objective need to bring in more contextual social science research, where the methods for aggregation and application are less well developed and even incorporate the documented experiences of those in the system knowledgeable about that context, an area where methods are even less well developed.

In this domain, the interpretive skills of the researcher are severely limited compared to those of the manager or policy maker. Hence, this objective implies the development of "creative process" methods that can combine the empirical study perspective of the researcher with the pragmatic experience perspective of the managers and policy makers themselves. The policy-synthesis program of the Canadian Health Services Research Foundation was constructed under this objective as it "brings together the best available evidence, practical experience of decision-makers and expert knowledge of researchers to provide evidence-based policy advice" (CHSRF 2000). In knowledge translation parlance, this is more like "evidence-informed decision-making" (Tranfield et al. 2003) and closer to the "linkage and exchange" strategy wherein the synthesis is a co-production between researchers and decision-makers (Lomas 2001).

Therefore, just as a clinical trial must define its primary outcome measure to determine the choice of analysis, so too must a synthesis focus on its primary function, role and objective to determine methodological choices. This is particularly important given the nascent state of knowledge on synthesis methodology. We need to accumulate better information on which methods are most appropriate for which circumstances. Obviously, if the role is to produce a rapid response for a specific

decision due in a few weeks, the synthesis cannot use the same comprehensive methods as those that would be employed for a planned contribution to an accumulating library with no specific time constraint. Also, as stated, methods that incorporate the managers and policy makers in the process are more central to an interpretive objective than they are to a summative objective for synthesis.

The focus in the rest of this paper is on syntheses with the function of addressing the broad questions of managers and policy makers, the role of contributing to an accumulating library relevant for managers and policy makers and the objective of providing interpretive advice. The task is ambitious. It is not only to emulate for the questions of managers and policy makers what the Cochrane Collaboration and Library has created for clinical effectiveness questions, but also to expand this base to include the key implications of research for healthcare management and policy.

The Methodological Challenges

The current dominant methodology for aggregating research into a synthesized form is that developed under the label "systematic review," which dates back, in fact, to the early 1980s and work done in psychology (Moynihan 2004; Light and Pillemer 1984). The essence of this approach is to minimize the bias of the reviewer by imposing some specific methodological requirements for explicitness and transparency on the question being posed and the methods used to compile, analyze and report on the included studies. These methods were largely developed as an antidote to the traditional narrative review by a content expert (Oxman et al. 1994), which is "subject to criticism for its lack of transparency" (Dixon-Woods et al.: 47).

More recently, these general requirements have been translated by the Cochrane Collaboration and others into more specific "methodological rules" for synthesizing the literature on "what works?" questions (Cook et al. 1997; Cochrane Collaboration 2004; NHS Centre for Reviews and Dissemination 2001). These requirements are more restrictive than the general expectations of transparency, explicitness and replicability of the original proponents of systematic review methodology. They have come under increasing scrutiny by those concerned with using synthesis to answer broader questions beyond "what works?" (CHSRF and NHS Service Delivery 2005; Tranfield et al. 2003; Forbes and Griffiths 2002; Dixon-Wood et al. 2005; Mays et al. 2001; Mays et al. in press; Pawson 2002; Pawson et al. 2005; Britten et al. 2002; Greenhalgh 2004; Greenhalgh et al. 2005). For example, Dixon-Woods et al. (2005: 52) conclude their review of "alternative synthesis methods" with the statement that "there is an urgent need for rigorous methods for synthesizing evidence of diverse types generated by diverse methodologies...to meet the needs of policy makers and practitioners, who need to be able to benefit from the range of evidence available."

Such rigorous methods for alternative forms of synthesis are being developed

by these and other authors – realist synthesis (Pawson 2002; Pawson et al. 2005), meta-ethnography (Noblitt and Hare 1988; Britten et al. 2002) and meta-narrative mapping (Greenhalgh 2004; Greenhalgh et al. 2005) are some of the examples. The development of all these approaches is still in an early, exploratory stage. However, a number of common areas of debate have already emerged that distinguish the task of assembling the evidence base for a variety of management and policy questions, posed within many different contexts, from the traditional systematic review of clinical effectiveness research. If managers and policy makers are to gain full benefit from the research, then issues in at least five interconnected areas of synthesis methodology need to be addressed. The differences from systematic reviews done under the more restrictive rules of a Cochrane-style clinical effectiveness question are highlighted in each of these areas.

The synthesis question(s)

On one side are the synthesis questions that researchers see can be answered straightforwardly. Unfortunately, these very often involve moving the target to hit the bullet, i.e., creating the questions to fit whatever research is available, rather than vice versa. On the other side are the questions around which managers and policy makers want some help. Unsurprisingly, these are usually framed without consideration for the research that is available to answer them. Negotiating the question(s) between these poles is therefore an inevitable element of doing a relevant synthesis with recommendations for feasible action – managers and policy makers know what is being asked for at the counter; researchers know what is available in the stock room. Somewhere between the two lie the ingredients for a reliable and usable product.

managers and policy makers know what is being asked for at the counter; researchers know what is available in the stock room. Somewhere between the two lie the ingredients for a reliable and usable product.

Having said that, we have remarkably little information about how such negotiations should be conducted: in what structures, over what timeframe and using which helpful processes? An intriguing solution, adopted by the Word Health Organization's Health Evidence Network (HEN), is to have an ongoing, Web-based call for questions from decision-makers and then have a panel or board that selects and finalizes "the best" questions for synthesis based on criteria that are sensitive to the availability of research (World Health Organization Regional Office for Europe 2004). "Iterative

commissioning" (Lilford et al. 1999) and "linkage and exchange (Lomas 2001) have also been proposed to address this issue. Some evidence is accumulating on the value of such jointly negotiated questions (Denis and Lomas 2003), but much is left to learn.

Neither do we know the consequences of not setting the question in stone, but rather modifying and adapting it as concepts and issues emerge from the literature-gathering process or as the policy context around the issue changes. Yet, many of the newer forms of synthesis have already established that the question does evolve as one moves into the literature and as one clarifies the needs of managers and policy makers in a series of iterative interactions (Greenhalgh et al. 2005). By way of contrast, the checklists of the Cochrane Collaboration (2004) require a clearly specified and unchanging question.

The scope of the information sources

The challenge of defining the scope of the information sources to cover for management-oriented research, compared to clinical effectiveness research, is well put by Walshe and Rundall (2001: 443-44) when they observe that

> …overall, the tightly defined, well-organized, highly quantitative and relatively generalizable research base for many clinical professions provides a strong and secure foundation for...the production of guidelines and protocols. In contrast, the loosely defined, methodologically heterogeneous, widely distributed and hard to generalize research base for healthcare management is much more difficult to use in the same way.
>
> These amorphous literature boundaries are even more so for healthcare policy.

Pragmatism, based on available time, expertise, funds and interest is therefore inevitable. But what principles should guide this pragmatism? For example, given the importance of practical experience and case studies in elucidating context-dependent implementation challenges in the management or policy worlds, under what circumstances should the extra-academic "grey" literature of unpublished work be included? Is there a case sometimes for survey work or focus groups to capture the tacit knowledge present in the experiences of managers or policy makers who have already tried a particular change? This approach was taken as a supplement to the systematic review on guideline implementation described above (Grimshaw et al. 2004) and is built into some networks that use published evidence as the starting point for discussions of research implementation (Russell et al. 2004).

What is clear is that the scope of information covered by a management or policy-oriented interpretive synthesis will be subject to a series of pragmatic considerations.

What is not as clear is identifying these considerations and their relative importance. As Greenhalgh et al. (2005: 420) state, "An interpretive model acknowledges that picking out a series of story threads from a heterogeneous and unbounded mass of literature involves choices that are irrevocably subjective and negotiable." This stance contrasts with that of the clinical effectiveness reviews, in which the scope is far less subjective and defined by a specific intervention.

On a further pragmatic note, the relative reliance on formal literature search techniques, or on key informants and experts as the sources for the studies and literatures, is under review. The broader and more diffuse the question, the harder it is to capture within a series of search terms for use with Medline or other literature databases. In these cases, it may be more efficient to rely on interrogation of knowledgeable experts in the area, at least as a supplement to more formalized methods of literature identification.

The sample

Defining the sample of studies to include within the defined scope is perhaps where the clinically oriented systematic reviews of intervention effectiveness most clearly diverge in philosophy from approaches sensitive to the needs of managers and policy makers. Indeed, there is no sample for a clinical intervention systematic review; only the full population of published and unpublished relevant studies will do. Finding every last research report on the question and being conscientious and comprehensive in constructing the population of studies is central to how the Cochrane Collaboration, for example, minimizes publication or other bias (Cochrane Collaboration 2004).

The task of minimizing bias in the selection of studies is not so easy for the social sciences. As described above, even defining the sampling frame – of which literatures to draw upon and what disciplines and methods to include – is fraught with difficulty when the questions move beyond straightforward clinical effectiveness issues of "what works?" Precisely because there is no clear boundary on the sample frame, there is potentially an infinite number of studies in a search. How, then, does one decide when to stop looking in the defined literatures? When is the sample enough to constitute external validity and generalizability? The usual approach is to use saturation, i.e., searching ceases when no or only marginal further value is added to the accumulated concepts, theories or models. Are there other approaches?

Still unaddressed is the issue of internal validity for the accumulated studies. What quality or other criteria define their inclusion in the final sample? The checklists for including studies relevant to clinical effectiveness questions circumvent the problem by establishing clear "hierarchies of evidence." Others have tried to develop such checklists for both quantitative and qualitative studies but, as one commentary points out, "they all suffer from the drawback that they do not spell out in detail how

each criterion should be applied: in particular how to discern whether or not a sufficient standard has been reached.... Much rests on the judgement of the reviewer" (Mays et al. 2001).

Creating main messages

A further conceptual as well as methodological issue is the form of the conclusions – in essence, the interpretation of the output from the literature for management or policy advice. This step has not usually been included as part of a traditional summative systematic review. Do these "main messages" adhere closely to the research, or do they, as an interpretive synthesis, adapt to the particular context for which the synthesis is being done by stretching to "bounded reality" implications for management or policy? The average researcher gets decidedly uncomfortable when asked to go beyond his or her data. But the average manager or policy maker is always pressing the researcher for the "best guess" recommendation, arguing that such a guess is inevitable in the policy world and will often be more informed when coming from the expert researcher than when coming from the generalist decision-maker.

Perhaps this is where participants revisit the collaborative negotiation used to define the question(s) being addressed by the synthesis and reinforce the co-production synthesis model. The researchers producing the synthesis and the potential health system users of it can once again pool their relative expertise. Researchers can temper overly ambitious decision-makers with the strength of the evidence behind particular implications or recommendations. Decision-makers can temper overly cautious researchers by relegating the "more research is needed" preoccupation to the appropriate appendix.

The format

Generally, any format should reflect the needs and preferences of the audience; but what are the needs and preferences of managers when it comes to research synthesis? Although some have pointed out the power of quantification in influencing policy (Reuter 1986), it is not clear that anything other than narrative description will be possible for many areas where there is either incomparability in study designs or a dominance of qualitative research.

Where possible, a judicious mix of quantitative estimates, tabular summary and narrative explanation may create the best of all worlds – but what to do when this is not possible, and what forms of quantitative estimates or tabular presentation are understandable and preferred by managers and policy makers? Although there has been a lot of research on this question for clinician audiences – creating, for example, such data representations as "number needed to treat" (Laupacis et al. 1988), only a

handful of similar studies are available for managers and policy makers. One such study makes clear that "graded entry" formats, in which increasingly less summarized and more detailed information is gradually uncovered for the reader, meet the varied needs of multiple forms of decision-makers (Lavis et al. 2005). One such graded entry approach is the 1:3:25 format of the Canadian Health Services Research Foundation, which provides brief main messages (in one page), an executive summary (three pages) and then a maximum 25-page full report and appendices (CHSRF 2001).

Conclusion

To date, the research synthesis needs of managers and policy makers have not been addressed with the same enthusiasm and application as those of clinicians, despite evidence that their activities are also influential on health outcomes. However, there is a growing literature on synthesis techniques that address managers' and policy makers' unique concerns, particularly those that go beyond the finely honed methods of summative systematic reviews to answer well-defined clinical effectiveness questions. Admittedly, the task is more challenging – demanding and often impatient clients, questions that need ongoing negotiation and depend as much on context as on content, literatures with unclear boundaries, multiple relevant methodologies and few generally agreed upon standards for quality. There are, however, those who are rising to these challenges and trying to develop methods for interpretive synthesis for managers and policy makers. These methods have the potential to get social science and health services research contributing to healthcare management and policy as effectively as the Cochrane Collaboration brings epidemiologic and economic research to the provision of clinical care.

However, a series of methodological and conceptual issues remains before this potential can be realized. Not the least of these issues is the willingness of academic peers and potential users of synthesis to tolerate a far greater degree of discretion to those producing interpretative rather than summative syntheses. This willingness contrasts with the relatively rigid checklist approach that has historically been the case for summative systematic reviews. Questions need to be flexible and designed (and sometimes re-designed) in collaboration with users. The scope of literatures covered has to be defined pragmatically, and significant judgment needs to be exercised as to the source, number and quality of studies assembled for synthesis. Finally, recommendations and implications need to emerge from a judicious mix of the expertise and experience of both those working with the research evidence and those working within the system.

None of this should circumvent the need to minimize bias and be transparent about the criteria used to guide such discretion – the fundamental tenets of systematic research synthesis. Nor should we be excused from evaluating the impact of those

choices, whenever possible, in order to advance and develop methods of synthesis. But checklists are unlikely to be the order of the day, and perfect replicability may be more of an aim than a destination in social science–oriented, interpretive research synthesis. For this reason, the conduct of two or more independently conducted syntheses on the same topic, using the same or even different methods, would be an interesting first step in evaluating generalizability. This measure may go some way in reassuring (or not) managers and policy makers concerned about the degree of bias that may remain after the exercise of this significant discretion.

Furthermore, attention needs to be given to ways of reassuring users of such interpretive syntheses that the individuals producing them are exercising their significant judgment and discretion in a relatively unbiased and trustworthy fashion. As Black and Carter (2001) have asked, "While the need to ensure that doctors and other clinicians are accountable for their actions is widely accepted both within and outside the profession, should we not have similar expectations of academic researchers and scientists?" While formal certification or licensing may be going too far, those who fund synthesis work may wish to consider some form of *a priori* pre-qualification for potential applicants. In addition, during the conduct of a synthesis and following completion, peer review – where peers are from both the research and decision-making communities – can also provide reassurance on adequate control of bias and trustworthy exercise of discretion.

Let us not, however, become too precious in our search for the perfect method for assembling interpretive syntheses for managers' and policy makers' questions: "Don't let the best become the enemy of the good." The need to bring evidence more effectively into healthcare management and policy continues unabated, and independent of our methodological sophistication.

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INVITED PAPER

When Health Services Researchers and Policy Makers Interact: Tales from the Tectonic Plates

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Abstract

There has been a strong push over the last decade for health services researchers to become "relevant," to work with policy makers to translate evidence into action. What has been learned from this interaction? The pooled experiences of health services researchers across the country, including those at the Manitoba Centre for Health Policy (MCHP), suggest five key lessons. First, policy makers pay more attention to research findings if they have invested their own funds and time. Second, researchers must make major investments in building relationships with policy makers, because there are inevitable tensions between what the two parties need and do.

Third, researchers must be able to figure out and communicate the real meaning of their results. Fourth, health services researchers need a "back-pocket" mindset, as they cannot count on immediate uptake of results; because the issues never go away, evidence, if known and easily retrievable, is likely to have an eventual impact. Finally, getting evidence into the policy process does not come cheaply or easily, but it can be done. The overriding lesson learned by health services researchers is the importance of relationship-building, whether in formalizing contractual relationships, building and maintaining personal trust, having a communications strategy or increasing the involvement of users in the research process.

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In the world of health services research, one hopes to see research evidence become action in the form of a new policy, program or decision. Sometimes these hopes are realized. Of course, researchers are well aware that research evidence is only one factor in decision-making – there are also the political realities of the day, economic constraints, lobbyists, habits, traditions and values (Davies 2004; Davies 2005). Sometimes the "tectonic plates" of researchers and decision-makers move slowly past each other with little noticeable change in the landscape for decades. Other times there is a great deal of friction, resulting in major tidal waves or volcanic eruptions on the policy scene, or in the relationships between these two groups. What are the lessons that health services researchers have learned at the interface? How have relationships changed between researchers and decision-makers over time?

In Canada, there are many health services researchers and centres working with policy makers and planners to translate[1] research evidence[2] into action. This paper is intended to share the collective wisdom of researchers interacting with public policy decision-makers. Some examples are drawn from the experience of the Manitoba Centre for Health Policy (MCHP), a unit within the Department of Community

1. The Canadian Institutes of Health Research (CIHR) defines knowledge translation (KT) as "the exchange, synthesis and ethically sound application of knowledge – within a complex system of interactions among researchers and users – to accelerate the capture of the benefits of research for Canadians through improved health, more effective services and products and strengthened health care systems." (CIHR 2003).

2. Pertinent to this paper, a recent Canadian Health Services Research Foundation report (Lomas et al. 2005: 6) discusses the notion of "evidence" as follows: "The role of science in the case of context-free guidance is to indicate what we know works in general; in the case of context-sensitive guidance it is to illuminate both what works and how (or whether) it might be implemented in the specific circumstances under consideration."

Health Sciences in the University of Manitoba's Faculty of Medicine. Other examples are drawn from leaders in health services research across the country, who were interviewed by telephone, in person or through email by one author (PJM).

Lesson #1: If They Build It, They Will Come[3]

Many health services research organizations have discovered that policy makers pay more attention to research findings if they have invested their own funds and time. As Noralou Roos, founding director of the Manitoba Centre for Health Policy, states:

> In the 20 years before the establishment of MCHP, my colleagues and I functioned as typical academics. Our work was widely published academically, but no one in local organizations or in any position of responsibility at Manitoba Health [the provincial department of health] paid attention to the results. But when Manitoba Health invested its own funds, they began to pay attention to what was actually being produced.

The importance of a long-term contract cannot be underestimated. It allows continuity across staffing changes in key positions within government, or even changes in the government itself. New people, and new governments, require time to understand the value of an arms-length research organization producing publicly released evidence for decision-making. As Stephen Bornstein, director of the Newfoundland and Labrador Centre for Applied Health Research at Memorial University, notes:

> There's no memory in government. People in the upper positions (like ADMs or DMs) rarely last more than two years, so you start from scratch each time. I've found that it has less to do with the type of government than it has to do with the person in the role, especially in a smaller province, and whether or not this person can formulate research questions.

Charlyn Black, director of the Centre for Health Services and Policy Research at the University of British Columbia, also comments on looking for the key individuals:

> I'd say you have to work with decision-makers who are committed to understanding and working with evidence, and who value evidence enough to make the commitment to work with academics, because the work we do is fundamentally different from the internal issues of government.

3. Apologies to the movie, *Field of Dreams*, ©1989 Universal Studios, with its famous line, "If you build it, they will come."

An ongoing contractual relationship with government also guarantees stability to maintain a highly skilled and specialized workforce. This is difficult to sustain through fluctuating peer-reviewed grant funding. However, if a health services research centre relies solely upon government funding, it may be perceived and criticized as a paid consultant rather than a rigorous research institute. A track record of external funding from traditional academic sources is essential to a centre's ongoing credibility in the research world. For example, MCHP receives about half its funding from Manitoba Health, with the rest coming from peer-reviewed granting agencies such as the Canadian Institutes of Health Research (CIHR).

Lesson #2: Relationships—The More We Get Together, the Happier We'll Be (or Not)

If policy makers fund health services research, the "tectonic plate" interface can be fraught with friction. It sometimes seems there is no good news in health services research. If, for example, complication rates drop from 10% to 5%, the headlines will scream, "Hospitals injure five out of every 100 patients they admit." Such headlines lead to demands for more funding for the healthcare system and calls for the minister to take action. Inhouse research can be kept internal within governments, but the assumption that the same rules will apply to independent academic research can create problems. How does a researcher maintain an acceptable boundary? Policy makers want rapid responses to queries, research they can use, links to groups that will give their work credibility and avoidance of embarrassment to the government. Researchers want time in which to study a question thoroughly or work on creative new approaches, and the ability to keep their academic integrity and freedom to publish. Researchers know their work must hold up in the "court" of peer review.

It is no wonder, then, that tensions could – and indeed, probably should – arise between researchers and policy makers. So, how does a researcher balance these conflicting pressures?

MCHP has developed some experience in dealing with this situation through a series of contracts with Manitoba Health. After completing one "confidential" project in the early 1990s, MCHP decided not to do future confidential projects and included a clause in its contract stating that all work would become publicly available. After three years of experiencing delays in scheduling a joint release of reports, MCHP further negotiated a clause stating that MCHP can release its report at any time after 60 days of the draft report's delivery to government. During this period, MCHP also briefs stakeholders on the results. While the government, opposition leaders and other stakeholders are given the final report just prior to public release, the news release and four-page summary sheets stay internal to MCHP until release.

Strong relationships between researchers and decision-makers can ease the tectonic plate pressure buildup. Beyond the more formalized contractual relationships, there is the need for ongoing personal relationship-building. As Stephen Bornstein reflects:

> Deal with top levels of government on a regular basis, with the "easy stuff." Cultivate the relationship. For example, we have a bi-monthly seminar on research ideas. They talk about what they would like to hear about, and then we put together an information session on this topic. It builds up a sense of trust.

It must be recognized that such relationship-building takes time and commitment on the part of both the researcher and the decision-maker. As Ingrid Sketris, Professor at Dalhousie University and Researcher at IMPART (Initiative for Medication Management, Policy Analysis, Research and Training), observes:

> You need ongoing communication, and it takes a long time to build and nurture the relationship. When I don't nurture the relationship – if I've been too busy, or away for several weeks – then there's a greater chance of miscommunication. And newer researchers or students need support in communicating with decision-makers. Decision-makers are not necessarily gentle in their criticism.

Greg Stoddart, founding coordinator of McMaster University's Centre for Health Economics and Policy Analysis, echoes these comments:

> The overriding message for health services researchers is that there is no substitute for personal contact. You need to adjust your schedule, make time, meet with people personally, sit and talk. It's pretty tough to get the contacts if you're new. Also, you can't always predict the needs of policy-related research in terms of timing. So you need to adjust your schedule. You may have a great chance to do the research, but you need to get it done by next month!

Sometimes it is difficult to maintain informal personal relationships between researchers and policy makers. Greg Stoddart describes one example of changing a relationship from the personal to the structural:

> One great example of "institutionalizing the interaction" is the late Bernie O'Brien's work with McMaster University, St. Joseph's Health Care and the Ministry of Health and Long-Term Care in Ontario. They created the Program for Assessment of Technology in Health (PATH). This provides health technology assessment findings in real time to policy makers, with four

> or five "deliverables" throughout the year. The information is brought to the table, and the policy makers make the decision. So PATH managed to institutionalize researcher-to-decision-maker relationships with less dependence on the personal contact.

MCHP has a slightly different approach, including regularly scheduled meetings with the deputy minister of health and a high-level bureaucrat identified as the liaison between MCHP and the Ministry of Health. This liaison acts as the official go-between and has effectively produced an "institutionalized" relationship that promotes mutual understanding.

Lesson #3: Don't Let the Message Get "Lost in Translation"

Various theories and frameworks have been described to help demystify knowledge translation (KT) and improve translation of research knowledge (Lyons and Warner 2005; Bowen et al. in press; Lavis et al. 2003). Grimshaw et al. (2004) attest to the importance of relationships and tailored KT activities for each stakeholder group. As John McLaughlin, senior scientist and head of the Program in Epidemiology and Biostatistics at the Samuel Lunenfeld Research Institute, points out:

> The "tower of Babel" – we've all climbed it. There are different languages that separate groups like policy makers and researchers use. So we all need to plan and evaluate the medium, the message and the messenger to get our research evidence into decision-making.

Like many other health services research centres, MCHP has taken many different approaches to KT, including full reports and summaries, Web-based materials, presentations and media releases. As Les Roos, Director of the Repository at MCHP, observes:

> There are many different layers of research communication – the public, the decision-makers locally, provincially, nationally and internationally, other researchers, practitioners – and each may need a very different mode to translate this research.

The best "mode" for provincial and regional decision-makers may be the face-to-face briefing or the interactive workshop. Pre-release briefings to key policy makers help avoid confusion and misinterpretation of the results. Moreover, it gives them a chance to digest the information, prepare thoughtful responses and be ready to answer the media and the public. As Ingrid Sketris notes, "If you have unexpected or difficult

findings, you need to give the decision-makers enough breathing space to deal with them."

Policy making takes place in a public context, and researchers need to be aware of the importance of the public "sound bite." What is the essence of the research study, in five bullet points or less? The search for these "golden nuggets" requires researchers to go beyond the executive summary and identify the critical messages.

At MCHP, we have talented writers whose job it is to remain true to the science while distilling the message into what we term the "four-pager," written in lay language rather than in academic terms. These four-pagers have proven their usefulness in a variety of ways, including handouts for workshop attendees and mail-outs to media, the public and, particularly, to other researchers who want a quick read of the findings before deciding whether to delve into the full report. For high-profile reports, MCHP writes an "op-ed." This is a newspaper submission of half a page or less, written by MCHP and providing the distinct advantage of "getting the story right." However, there have been downsides. When reporters expect an op-ed, they sometimes focus their coverage on critical responses to the report, or bury the story on a back page. Often the media want to play up the unusual, outrageous or highly controversial finding, whereas the researcher wants to portray the "usual" view (the mean, median or "big picture") and would qualify the unusual or controversial finding.

Communications training and mock media sessions are helpful to researchers prior to public release, and even prior to government briefings, to ensure that the four or five key messages are refined and practised. Practising those "golden nuggets" is critical. As Ingrid Sketris succinctly states, "Practise the messages that you want to get across. Anticipate the reactions of the other 'players' and practise answering them."

Different communications strategies are required for different groups, and ways to create relationships between academics and the policy makers are critical. Another successful way in which MCHP has "translated" health services research is through creating special supplements in journals such as *Medical Care* (in 1995 and 1999), *Canadian Journal of Public Health* (in 2002 and 2005) and *Healthcare Management Forum* (in 2002). Supplements bring together a series of complementary papers, with the whole having more impact than a series of individually published pieces. Moreover, the forewords in these supplements are written by high-profile national and provincial figures, and help situate health services research as important to policy makers.

Health services researchers are experts in the realm of odds ratios, complex tables with 95% confidence intervals, multiple regression modelling and age- and sex-adjusted rates. Most decision-makers are not experts in any of this. But they listen to stories. Or, as writer and political activist Muriel Rukeyser once stated, "The universe is made of stories, not atoms." Story-telling has been used for millennia as a teaching tool. Health services researchers need to learn the art of evidence-based story-telling.[4] This may mean drawing a simple graph rather than presenting data in complex tables,

or using an analogy to drive home the point. At MCHP, we have worked extensively with planners from each regional health authority through a five-year, CIHR-funded research collaboration referred to as *The Need to Know*™ Team (directed by Patricia Martens). We challenge the planners within our team to look for the stories in the data when we produce collaborative research reports. For example, in our project on mental illness (Martens et al. 2004), one story that speaks to policy makers is the high percentage (75%) of nursing home clients who had a diagnosis of mental illness within the five years previous to admission. This information begins discussion around the staffing and services available to nursing home residents. *The Need to Know*™ Team members also facilitate roundtable discussions on MCHP research reports at our annual MCHP Rural and Northern Healthcare Day, to find the evidence-based stories that speak to the policy makers for that region.

Evidence-based story-telling can emphasize research results. For example, by constructing two "virtual Winnipeg schools," one with 100 adolescents in the poorest socioeconomic area and one with 100 adolescents in the richest, we brought home the scale of disparity documented in the tables and graphs (Martens, Brownell et al. 2002). In the poorest classroom you would find eight students who had been hospitalized for respiratory infection in the first year of life compared to three in the richest; 28 versus 12 would be living in a lone-parent family; 41 versus 11 would have parents lacking a high school education; and 28 versus 4 would have changed schools at least once during the year.

But ultimately, researchers must be cognizant of the tensions between effective KT and academic rigour. As Louise Potvin, scientific director of the Centre Léa-Roback sur les inégalités socials de santé de Montréal, observes:

> We are seeing a perversion in health services research – increased KT perhaps, but a perversion. We are attracting more attention, more dollars to do research. But researchers try to go for the headlines. Is it better to be cited by *The Economist*, or by *Lancet*? I personally prefer *Lancet*. As researchers, we are to produce knowledge. The perversion in decision-making is reliance on and expectations of single studies, rather than the slow building up of evidence in a scientific way. This builds false expectations on both sides.

4. Michael Rachlis uses the term "evidence-based story-telling," attributed to Neil Postman, in his book, *Prescription for Excellence: How Innovation Is Saving Canada's Health Care System* (Toronto: HarperCollins, 2004).

Lesson #4: Keep a "Back-Pocket" Mindset about Evidence Because the High-Profile Issues Never Go Away

Health services researchers need to cultivate a "back-pocket" mindset. We cannot be discouraged if our evidence is not immediately adopted by policy makers. We do, however, need to ensure its wide dissemination and its ongoing accessibility for when the issue re-emerges. For example, an MCHP report on rural hospital performance indicators (Stewart et al. 2000; Martens, Mitchell et al. 2002) found excess hospital capacity in some areas, and rural hospitals with either low occupancy rates or with clients better suited to long-term care. No real changes followed this report's release. However, three years later, policy makers were reviewing the evidence in this report, and it is increasingly likely that the evidence will be used for action. As Greg Stoddart aptly points out:

> The upside of working in the researcher/public policy interface is that the researcher is committed to making a difference in the world. But all of us have had lots of experience where it doesn't, where other things are more binding – like values versus information/evidence. Policy makers are free to impose values, and values may override some evidence. Therefore, research may not necessarily carry the day. But in the best possible world, you as a health services researcher may have improved policy making, and hopefully improved the health of the population.

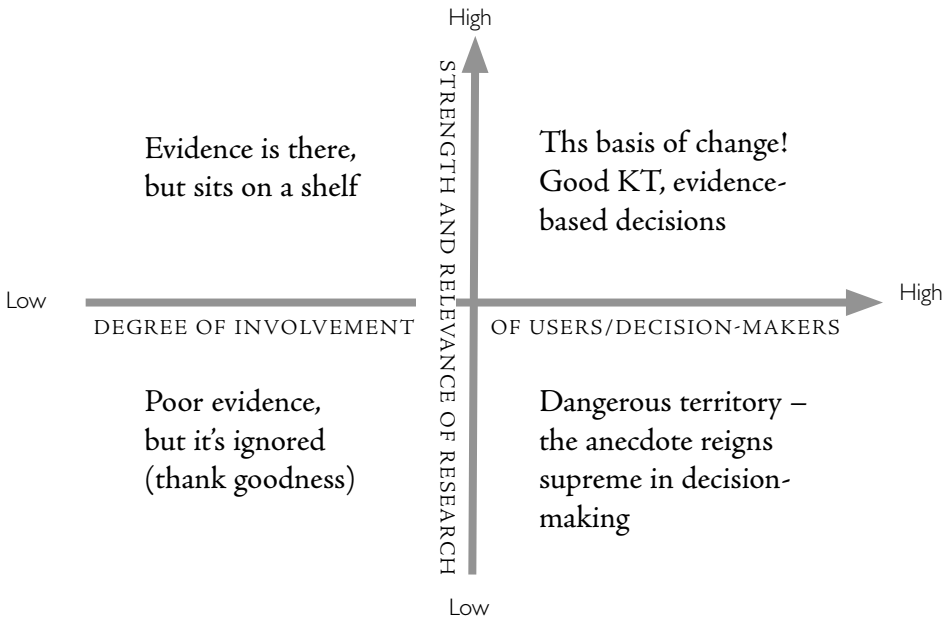
Researchers with "back-pocket" mindsets will be able to reintroduce research that stands the tests of time into public or government debates, long after the original evidence was gathered. And in the policy arena, timing is everything – even the timing of knowing when to bring research out of the "back pocket." As Charlyn Black observes, "Be creative and flexible with bringing evidence forward, so that it can play a role in an evolving context. There's opportunity for research findings to have multiple lives as the context changes."

Lesson #5: Sound and Fury, or Making a Difference? A Lesson about User Involvement

Figure 1 illustrates a hypothesized grid of researcher/user involvement and its relationship to policy influence. In the south-west quadrant, low user involvement and poor research design results in research that will probably be ignored. The most dangerous quadrant is likely the south-east, where the anecdote reigns supreme. There may be a high degree of user involvement but a low degree of research validity. An

example of this situation is anecdotal "evidence" (usually based on only one case) brought to a board or planning group. In the north-west quadrant, researchers create highly valid research but do not engage their users in any way, either before, during or after, and the evidence may simply sit on the shelf. The north-east quadrant is hypothesized as effective in producing evidence-based change, where a high degree of both user and researcher involvement from start to finish ensures highly valid research and highly policy-relevant research. These factors yield the highest probability that the evidence will be translated into action. However, researchers need to be aware of the time and resource implications of establishing a sense of trust to enable this type of collaboration (Bowen et al. in press; Denis and Lomas 2003). Since 2001, CIHR's *The Need to Know*™ Team of MCHP academics and regional planners has come to consensus on research topics of particular relevance to rural and northern policy makers and planners. The team co-creates the research and ensures its dissemination and application at the regional level. However, this process takes funding – in this case, essentially $650,000 annually when including the three research "deliverables" supported under the Manitoba Health contract over the five-year period.

FIGURE 1. A hypothesized grid of the degree to which research validity and user involvement affect policy and planning



Conclusions

The basic lessons from the tectonic plates of researcher/policy maker interactions are simple – finding a way to have policy makers feel a sense of vested interest in results, building relationships, communicating results, producing the evidence despite the setbacks and involving the users in the research process itself. Are we getting any better at this? John McLaughlin states:

> At one level, there is a recognized primacy of evidence-based decision-making in our culture. But on the other level, the search for evidence is no longer a priority. But if evidence isn't right there, decisions still have to be made right then. Resources need to be assigned to doing reviews, yet doing reviews and guidelines isn't something you can get tenure on.

According to Renee Lyons, director of the Atlantic Health Promotion Research Centre, the most profound changes in the past decade are the concept of KT and of interdisciplinary research:

> The two major differences in the past five years of CIHR are in collaboration across nodes, and in knowledge translation emphasis. But the dance is not always smooth between researchers and decision-makers or granting agencies. Our research group has actually produced a tool to enable people to examine the KT potential of their research.

Other researchers feel that some progress has been made in certain research areas, but progress (if any) has been painfully slow on other fronts. Greg Stoddart comments:

> Has researcher–decision-maker interaction changed over time?... I don't think there's a real overall trend. It ebbs and flows. It varies over time by ideology of the government in power. Sometimes the agenda is based upon values, and facts don't always fit the script. However, there does seem to be an increased interest in cost-effectiveness, the cost of new drugs and new technologies. I'm also pleased that there is an increase in language around the social determinants of health. But somehow the topic of health human resources seems to go no further ahead, and sometimes backwards, as does the issue surrounding the financing of the healthcare system.

Still others wonder if we perceive differences only because of our own personal, ongoing relationships over time. Louise Potvin suggests:

> When you ask if we have more, less or different interactions between health services researchers and decision-makers, it seems to many people that there is an increase. But this may actually be a "cohort effect" as we all age. On the other hand, there does seem to be an opening up of researchers to engage with those not in the research community in the last decade or so. But what is "impacted" – the way people think? Behave?

So, how do we measure impact in health services research? Often our research is only one factor amidst a complex environment of political or structural change, making it difficult to attribute any change to our evidence alone. Charlyn Black notes:

> If you do get decision-makers to make change based on your research, it's important to recognize that there are opportunities to then evaluate the impact of these changes. We need to build in potential to critically evaluate the impact of research evidence when it has been used to influence change, as part of an evolving research agenda between ourselves and policy makers.

It is debatable whether the relationship between researchers and policy makers has changed over time. It is even debatable if we can measure whether better relationships change the quality of decisions made. Yet, it is clear that an overriding lesson learned by health services researchers is the importance of relationship-building, whether in formalizing contractual relationships, building and maintaining personal trust, having a communications strategy or increasing the involvement of users in the research process. Easing the friction at the "tectonic plate" means ensuring research credibility within the real-world realm of policy making, and it is only through this frictional contact that we increase the probability that our evidence will be understood and will lead to policy action.

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PEER REVIEWED PAPER

Drug Expenditure Trends in the Canadian Provinces: Magnitude and Causes from 1998 to 2004

Tendances en matière de dépenses en médicaments dans les provinces canadiennes : l'ampleur et les causes, de 1998 à 2004

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Abstract

This analysis uses a consistent pan-Canadian dataset – Canadian CompuScript from IMS Health, Canada – to quantify trends in per capita drug expenditures within each Canadian province over the period of 1998 to 2004. The impacts of changes in six potential determinants of drug expenditure are calculated for every province. Each of the six detailed cost drivers falls into one of three broad categories: volume effects, price effects and therapeutic choices. Despite wide variation in expenditure levels, the rate and causes of provincial expenditure trends over time were roughly comparable. From 1998 to 2004, per capita expenditures on oral solid prescription drugs grew at a rate of over 10% per year in most provinces – several times faster than economic growth over the same period. This rapid expenditure growth has largely been due to increased utilization of medicines and a trend towards prescribing higher-cost drugs over time. Price changes had little impact on drug spending in all provinces.

Résumé

Cette analyse, servant à évaluer quantitativement les tendances dans les dépenses en médicaments par personne pour chaque province canadienne durant la période de 1998 à 2004, a été effectuée à l'aide d'une base de données pancanadienne cohérente, soit CompuScript Canada de IMS Health. On a calculé séparément pour chaque province l'incidence des changements affectant six causes potentielles de dépenses en médicaments. Ces six facteurs de coûts détaillés se divisent en trois grandes catégories : les effets du volume, les effets du prix et les choix thérapeutiques. En dépit de la grande différence entre les sommes consacrées aux médicaments d'une province à l'autre, le rythme et les causes des tendances provinciales en matière de dépenses par rapport au temps étaient à peu près comparables. De 1998 à 2004, les dépenses par personne pour les ordonnances de comprimés oraux ont connu une croissance de plus de 10 % par an dans la plupart des provinces, ce qui est beaucoup plus élevé que la croissance économique durant la même période. Cette croissance rapide est largement due à l'accroissement de l'usage des médicaments et à la tendance à long terme vers la prescription de médicaments coûteux. L'augmentation des prix a une incidence minime sur les dépenses en médicaments dans toutes les provinces.

Prescription drugs are used to treat an increasing range of health problems and have become a major component of the Canadian healthcare system. Indeed, costing over $18 billion per year, they are second only to hospitals in terms of healthcare spending. They are also the fastest-growing component of healthcare expenditures, having increased by more than 10% per year for the past decade (Canadian Institute for Health Information [CIHI] 2005). Prudent management of drug expenditures is critical for the sustainability not only of pharmacare programs, but also of the healthcare system as a whole. For example, if policy could hold prescription drug expenditure constant for just one year, the savings (compared to current trends) could pay for 6,000 new doctors or 18,000 new nurses. What is perhaps most surprising about Canadians' expenditure on prescription drugs is not the size of this investment in healthcare, but lack of data concerning the nature of the investment: who is using prescription drugs; what medicines do they receive; and what outcomes result? Answers to these questions are essential to healthcare policy formulation and budget planning.

In this paper, I quantify the magnitude and causes of trends in prescription drug expenditure for each Canadian province and for each of three leading therapeutic categories. The purpose is to highlight utilization and pricing dynamics that may be worthy of investigation, and to illustrate the potential value of investing in even more detailed information about drug utilization and expenditure patterns (and the factors influencing them). Recent reports have examined the determinants of spending under provincial drug plans (Morgan 2002; Patented Medicine Prices Review Board [PMPRB] 2002), national expenditure trends (Morgan 2004a) and variations in the level of spending across provinces (Morgan 2004b). No report, however, has quantified comparable, market-level cost dynamics within Canadian provinces. The analysis presented here is based on the best available data for interprovincial analysis of population-level drug utilization and expenditure patterns – Canadian CompuScript from IMS Health, Canada. These data are used to quantify the relative and absolute impacts of various drug utilization and pricing patterns that influence per capita drug expenditures within each province over the period of 1998 to 2004.

Data

In recognition of the important role that prescription drug utilization plays in our healthcare system, a growing number of provinces are developing drug information systems that track the use of medicines by all residents. Ideally, these data systems will be used in conjunction with other data on individuals' health and healthcare use, such that the return on investment from pharmaceuticals can be suitably monitored. Just as financial analysts monitor returns on stock market investments, researchers and policy makers could study the variety of fundamentally important issues in this

sector – drug access, use, safety, costs and benefits. Such information would assist in the design of policies to ensure that the right drugs are getting to the right patients.

Despite their great potential, provincial/territorial data systems are in their infancy. Only a few provinces (British Columbia, Saskatchewan and Manitoba) currently have systems that capture population-based drug utilization information, in contrast to datasets that track only those members of particular drug plans. While many more provinces have plans for population-based systems in the meantime, policy and practice can currently be informed, in part, by analysis of market-level expenditure trends and consumption patterns using data such as those collected by the Canadian Institute for Health Information (CIHI 2005) or those collected by private market-research companies. This study utilizes one such dataset – the Canadian CompuScript data from IMS Health, Canada – to depict a variety of drug use and expenditure dynamics for each province. The advantage of using an equivalent dataset across provinces is that it provides an opportunity to compare expenditure levels and trends across jurisdictions and to benchmark regional findings against the national average (until such time as "best practices" can be identified for benchmarking purposes).

The Canadian CompuScript Audit is based on data collected from over 2,100 retail pharmacies (approximately 30% of the Canadian market), stratified by province. IMS Health projects these sample data to the entire population in each province, except Prince Edward Island and Newfoundland and Labrador (data for which are combined owing to small population sizes). IMS Health, Canada provided quarterly data on prescription- and dollar- and unit- volume of prescription drugs from 1998 to 2004. To ensure accurate measures of the quantity of drugs consumed over time, the analysis is restricted to oral solid prescription drugs only: quantity measures for liquids, injectables, inhalables or creams can vary in ways that counts of solids, such as capsules and tablets, do not. The oral solids included in this study accounted for approximately 80% of each provincial market over the study period.

To measure details of how drug utilization and pricing patterns differ across and within therapeutic categories, drug datasets must be accompanied by or linked with therapeutic classification codes. The data used in this study identify 5,287 brand and generic versions of 1,508 types of oral solid drugs identified by active ingredient and dosage. IMS Health groups all these drugs by primary indication into 185 mutually exclusive drug classes. The leading five drug classes – accounting for 37% of expenditure on oral solid prescriptions in 2004 – were statins, proton pump inhibitors, serotonin reuptake inhibitors, angiotensin-converting enzyme (ACE) inhibitors and calcium channel blockers. Drug classes are further aggregated into 40 broad treatment categories. The five largest categories of treatment – 60% of 2004 expenditure – were cardiovascular drugs, psychotherapeutics, antispasmodic drugs (GI drugs), cholesterol agents and systemic anti-infectives.

The cost information in the IMS data includes professional fees and retail mark-

ups. As there were no accurate means to remove the impact of professional fees on total expenditure, it must be noted that trends in prices reported here are affected in part by trends in length of prescriptions. The unit cost of a drug will be lower when prescriptions are "longer" because, holding constant the price charged for the drug itself, the professional fee paid per unit of the drug is lower if the prescription is for a larger numbers of units (e.g., a $9.00 dispensing fee raises the cost per tablet by $0.30 if the prescription is for 30 pills, and by only $0.09 if the prescription is for 100 pills).

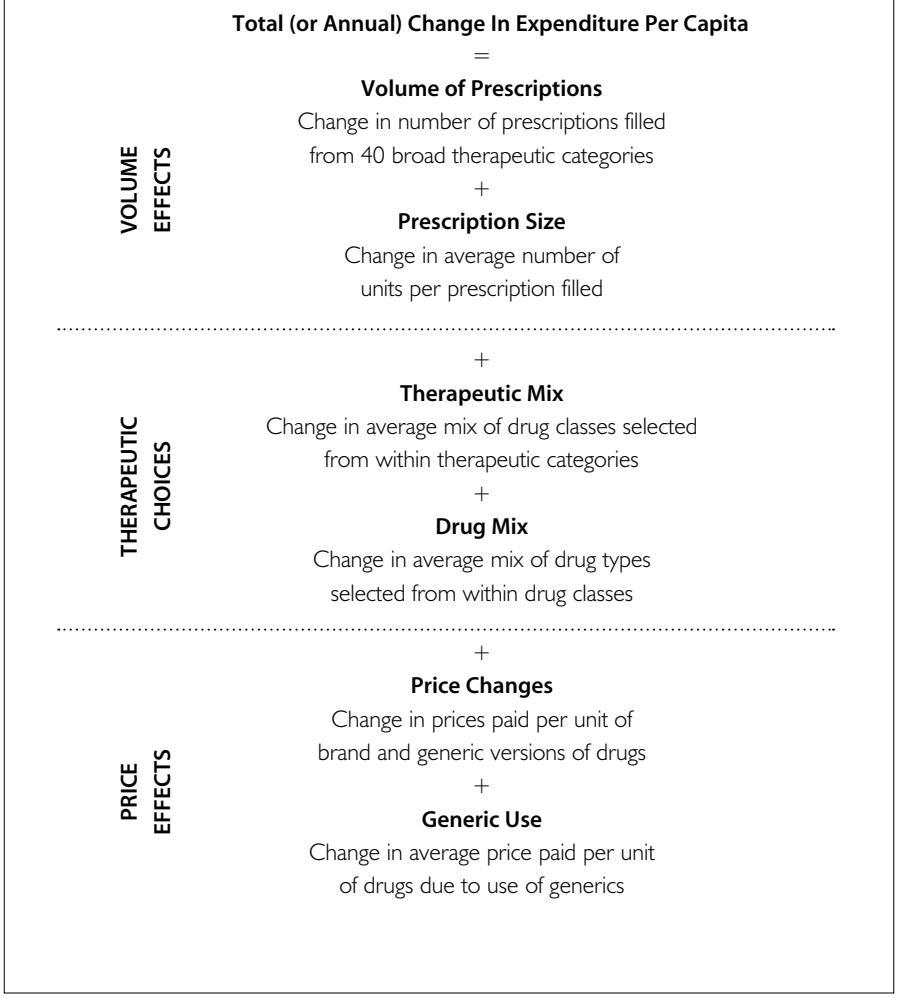
Methods: Measuring Potential Determinants of Drug Expenditure Trends

In order to describe expenditure trends, economists often divide total changes in expenditure into a price component and a quantity component (Berndt et al. 2000). The price component is typically calculated using a standard price index that tracks what it would cost to buy an unchanging basket of goods over time (e.g., the cost of a dozen eggs, a kilogram of bacon and three litres of beer). In the pharmaceutical context, for example, one might track what it would cost over time to purchase the "basket" of the drugs bought in a given year (say, 1998). Over time, actual expenditure may rise or fall compared to the cost of buying the original basket of goods. The difference between the hypothetical cost of buying the original basket of goods and the actual amount spent in a given period (say, in 2004) is attributed to change in quantity of goods purchased.

… health services researchers are adding more detail to drug spending analysis by recognizing that pharmaceuticals need not be viewed as a single monolithic market, but a spectrum of sub-markets

The problem with the simple price-versus-quantity description of drug-spending trends is that it attributes all changes in the rate, type and intensity of pharmacotherapy used by a population to changes in quantity. Fortunately, however, health services researchers are adding more detail to drug spending analysis by recognizing that pharmaceuticals need not be viewed as a single monolithic market, but a spectrum of sub-markets denoted by therapeutic category and even chemical or drug class (Anderson et al. 1993; Dubois et al. 2000; Express Scripts 2002; Mehl 1984; PMPRB 2002; Steinberg et al. 2000). By measuring prices and quantities of drugs used at different levels of therapeutic categorization, analysts can quantify the many dynamics that might be hidden within a simple price-versus-quantity analysis. For example, in

FIGURE 1. Determinants of per capita expenditure trends



addition to tracking the price of brand and generic versions of a given drug, one can also track changes in the average price of the brand and generic purchases combined. The differences between such measures would illustrate the impact of increased or reduced generic drug use over time (Morgan 2002, 2004a). Such dynamics are ignored by conventional economic analyses of drug-expenditure trends.

The conceptual framework used in this paper takes advantage of the therapeutic classifications in the IMS Health data to illustrate six different types of utilization and price dynamics in the Canadian pharmaceutical sector. This conceptual model for decomposing drug expenditure trends is illustrated in Figure 1. For ease of interpretation, this figure depicts the model in an additive fashion. Mathematically, this frame-

work is actually quantified by calculating Fisher's ideal price and quantity indexes at different levels of the therapeutic classification system. These indexes interact multiplicatively to explain exact total changes in expenditure (Morgan 2004a). Results presented below, however, have been converted to percentage terms, using logarithmic decompositions to preserve the expenditure equality in an additive form: that is, all percentage results reported below add up (in a conventional 1+1=2 sense) to explain the exact observed expenditure trends.

The six potential determinants of expenditure quantified in this study fall into three broad categories of cost drivers: volume effects, therapeutic choices and price effects. Volume effects are factors that relate to the absolute volume of prescription drug therapy received by a population. This includes the per capita volume of prescriptions received from broad categories of treatment and the average size of prescriptions that are filled. Average prescription size may compound or counteract the cost impact of changes in the number of prescriptions dispensed; trends may, for example, reflect the use of fewer but longer prescriptions over time. Changes in the volume of therapy used by a population are not necessarily a cause for concern, because policy should generally encourage access to medicines where appropriate. Analysis of utilization trends or regional variations may, however, indicate areas deserving of detailed investigation if there is potential for inappropriate or cost-ineffective use.

Therapeutic choices are factors that influence the cost of therapy through changes in the selection of the type or form of drug selected per course of treatment. Therapeutic choices include changes in the mix of drug classes from which drugs are prescribed and changes in the types of drugs selected within drug classes. The broader changes are referred to as "therapeutic mix" and reflect the cost impact of changes in market shares accruing to specific classes of drug within therapeutic categories. This includes such dynamics as the increased use of angiotensin II receptor antagonists within the therapeutic category of cardiovascular drugs. The narrower "drug mix" cost dynamic reflects changes in the selection of specific drug types within a drug class: e.g., changes from simvastatin to atorvastatin within the class of statin drugs (used to treat high cholesterol). Such cost drivers are less likely to have major effects on health outcomes than broader therapeutic choices; thus, finding that significant expenditure stems from changing drug mix may provoke prudent policy intervention to steer utilization towards cost-effective choices (Garber 2001). In contrast, finding that significant expenditure stems from changes in the broader therapeutic mix may provoke policies that focus on educating prescribers and patients about cost-effective treatment choices for a given condition, such as initiating treatment for hypertension with effective and low-cost diuretics (Therapeutics Initiative 2003).

Finally, price effects are factors that influence the cost of therapy received by a population without altering the quantity or type of drug used. Price factors include the change in price of products already on the market and changes in the rate at which

generic drugs are selected, when available. Such factors have no significant impact on the quality of health outcomes obtained per course of such therapy. As such, they are common targets for policy intervention, whether that involves price negotiations or generic substitution policies.

Findings

Table 1 lists the 1998 and 2004 levels of per capita expenditure on oral solid prescription drugs for Canada as a whole and for each province. The average annual growth in these per capita expenditures between 1998 and 2004 is broken down into the annual impact of each potential cost driver. These percentages report how much per capita drug spending would have changed in the given province if only the cost driver in question had altered over time while all other cost drivers were held at their 1998 levels. The sum of all six individual cost drivers will equal the total percentage change in spending for the given province. Subtotals are also provided for the groupings of volume effects, therapeutic choices and price effects.

In addition to previously documented variation in levels of expenditure (Morgan 2004b), rates of expenditure growth also varied across provinces between 1998 and 2004. Rates of growth were most rapid in Manitoba, Quebec and Alberta, and least rapid in Nova Scotia, Prince Edward Island/Newfoundland and Labrador (combined) and Saskatchewan. The rapid growth in per capita expenditures observed in Manitoba – where expenditure per capita almost tripled from $154 (well below the national average) to $435 (just above the national average) – may have been influenced in part by Internet pharmacy sales to the United States, some of which may be captured by the IMS data. The rapid growth in expenditure observed in Quebec is noteworthy because expenditure per capita in that province was among the highest in Canada in both 1998 and 2004.

Despite variations in expenditure levels and rates of growth, the relative sources of expenditure escalation over time were similar across provinces. Volume effects accounted for a majority of the increase in per capita expenditure on oral solid prescription drugs in every province. Most of these volume effects were due to the number of prescriptions purchased from across the 40 broad therapeutic categories. Increased prescription sizes added to total volume in all provinces except Quebec, where average length of prescriptions fell slightly. The impact of longer prescriptions was highest in Atlantic Canada, Saskatchewan and Alberta. Changes in the average size of prescription for a small number of high-volume drugs – including tamsulosin, donepezil, clopidogrel and alendronate – generated a significant cost impact in Alberta and Atlantic Canada; significant growth in the length of many classes of prescription was observed during 2002 in Saskatchewan.

Changes in therapeutic choices between 1998 and 2004 were sufficient to increase

TABLE 1. Magnitude and determinants of change in per capita expenditure on oral solid prescription drugs among Canadian provinces, 1998 to 2004*

Variable	Canada	BC	AB	SK	MB	ON	QC	NB	NS	PE/NL
Per capita spending in 1998	$213	$173	$191	$169	$154	$228	$228	$240	$260	$216
Per capita spending in 2004	$420	$331	$398	$312	$435	$422	$475	$486	$470	$395
Average Annual Growth (AAG)	11.9%	11.4%	13.0%	10.7%	18.9%	10.9%	13.0%	12.4%	10.4%	10.6%
AAG due to volume of prescriptions	8.2%	8.4%	7.2%	6.8%	11.2%	6.8%	10.3%	5.0%	4.2%	3.7%
AAG due to prescription size	0.2%	0.2%	3.2%	3.3%	1.2%	0.6%	–0.4%	3.5%	2.9%	3.5%
Subtotal Volume Effects	8.4%	8.6%	10.4%	10.1%	12.4%	7.4%	10.0%	8.5%	7.2%	7.2%
AAG due to therapeutic mix	2.9%	2.7%	2.6%	2.7%	3.3%	3.1%	2.9%	3.2%	2.7%	2.6%
AAG due to drug mix	1.0%	0.6%	0.9%	1.6%	1.8%	0.9%	1.3%	1.4%	0.9%	1.3%
Subtotal Therapeutic Choices	3.9%	3.3%	3.5%	4.3%	5.1%	4.0%	4.2%	4.7%	3.6%	3.8%
AAG due to price changes	0.6%	0.6%	0.3%	–2.5%	2.5%	0.5%	–0.6%	0.4%	0.7%	0.6%
AAG due to generic use	–1.0%	–1.2%	–1.1%	–1.2%	–1.1%	–0.9%	–0.6%	–1.1%	–1.1%	–1.1%
Subtotal Price Effects	–0.3%	–0.6%	–0.9%	–3.7%	1.4%	–0.5%	–1.2%	–0.7%	0.4%	–0.4%

*Total expenditures include drug costs, retail markups, and pharmacists' fees. Data are drawn from the Canadian CompuScript Audit (IMS Health, Canada). Cost drivers have been converted from index form using logarithmic decomposition so that they interact additively: the sums of individual elements equal subtotals, and the sum of subtotals equals total average annual change.

per capita expenditures by 3.3% to 5.1% per year, depending on the province. The cost impact of therapeutic choices was lowest in British Columbia, Alberta and Nova Scotia. In all provinces, decisions concerning the selection of classes of drug from which to prescribe (therapeutic mix) had a larger cost impact than the selection of drug types within classes (drug mix). This is because there are greater cost differences between treatment alternatives across drug classes (e.g., between thiazide diuretics

and ACE inhibitors for the treatment of hypertension) than there are between treatment alternatives within drug classes (e.g., between the ACE inhibitors enalapril or ramipril).

In contrast to volume effects and therapeutic choices, price effects had a modest impact on per capita expenditures at a provincial level. In most provinces, price inflation in and of itself increased per capita drug expenditures by less than 1% per year between 1998 and 2004. Furthermore, savings generated from the increased use of generic drugs outweighed the cost impact of observed price increases in most provinces. Manitoba was one exception to these rules. Average unit prices in Manitoba increased by an average rate of 2.5% per year between 1998 and 2004, largely owing to a 7% rise in unit prices during the second quarter of 1999 (data not shown). Again, the effects of Internet pharmacy sales to the United States may, in part, be responsible for anomalous findings for Manitoba. Other provinces with unusual price trends include Quebec and Saskatchewan, where prices actually fell over the period of analysis. The significant decline in prices in Saskatchewan appears to have been due to a 23% increase in average prescription size during the first quarter of 2002, which reduced average unit prices (including dispensing fees) by nearly 18% in the same quarter (data not shown). Similarly, during the third quarter of 2001 in Quebec, unit prices declined by 5% and prescription size increased by 5%; both measures remained otherwise relatively stable for Quebec over the period.

Leading Therapeutic Categories

Table 2 lists the 1998 and 2004 magnitude and broad sources of change in per capita expenditure in the leading three categories of oral solid prescription drugs for Canada and for each province: cardiovasculars, psychotherapeutics and antispasmodics. The cardiovascular category is dominated by medicines primarily indicated for treating hypertension. Trends in this category between 1998 and 2004 exhibit the impact of rapid growth in the use of ACE inhibitors – a trend started earlier in the 1990s (Wolf et al. 1999). By 1998, ACE inhibitors accounted for approximately one-third of prescriptions in this category. Annual purchase of ACE inhibitors and related angiotensin II receptor blockers (ARBs) grew by over 18 million prescriptions across Canada, to account for approximately half of the total volume of cardiovascular prescriptions written in 2004. This appears as a volume effect and as a therapeutic choice, the latter because the cost per prescription for ACE inhibitors and ARBs can be many times greater than that of beta-blockers or thiazide diuretics, which are also indicated for treating hypertension.

The expenditure trends in the category of psychotherapeutic agents reflect a pattern of expanded use and broad changes in the average type of drug prescribed in this segment. Because this therapeutic category of drugs contains tranquilizers, medicines

TABLE 2. Magnitude and determinants of change in per capita expenditure on oral solid prescription drugs among Canadian provinces, 1998 to 2004*

Cardiovascular Drugs									
Canada	**BC**	**AB**	**SK**	**MB**	**ON**	**QC**	**NB**	**NS**	**PE/NL**
Per capita spending in 1998									
$47	$36	$36	$41	$34	$51	$53	$54	$62	$53
Per capita spending in 2004									
$86	$66	$75	$77	$89	$86	$101	$97	$104	$89
Average Annual Growth (AAG)									
10.5%	11.0%	13.1%	11.0%	17.3%	9.0%	11.4%	10.4%	9.1%	9.1%
Volume Effects									
9.0%	9.6%	12.1%	9.1%	11.8%	7.5%	10.0%	9.0%	7.6%	7.7%
Therapeutic Choices									
1.3%	1.7%	1.0%	1.9%	2.6%	1.3%	1.6%	1.4%	0.9%	1.4%
Price Effects									
0.2%	–0.3%	–0.1%	0.0%	2.9%	0.2%	–0.2%	0.1%	0.6%	0.0%
Psychotherapeutic Drugs									
CA	**BC**	**AB**	**SK**	**MB**	**ON**	**QC**	**NB**	**NS**	**PE/NL**
Per capita spending in 1998									
$29	$31	$32	$22	$25	$28	$29	$35	$35	$26
Per capita spending in 2004									
$60	$60	$62	$43	$70	$55	$66	$75	$65	$57
Average Annual Growth (AAG)									
12.8%	11.7%	11.5%	12.0%	18.7%	11.7%	14.9%	13.9%	10.9%	13.8%
Volume Effects									
7.0%	7.8%	8.7%	5.5%	10.1%	5.9%	7.4%	6.4%	5.4%	6.6%
Therapeutic Choices									
6.4%	5.3%	4.2%	7.6%	8.0%	6.5%	7.4%	8.7%	6.6%	8.1%
Price Effects									
–0.6%	–1.4%	–1.4%	–1.1%	0.6%	–0.7%	0.1%	–1.2%	1.1%	–0.9%
Antispasmodic (GI) Drugs									
Canada	**BC**	**AB**	**SK**	**MB**	**ON**	**QC**	**NB**	**NS**	**PE/NL**
Per capita spending in 1998									
$24	$17	$21	$16	$14	$29	$20	$28	$37	$29
Per capita spending in 2004									
$45	$29	$47	$31	$39	$48	$47	$57	$62	$47
Average Annual Growth (AAG)									
11.2%	9.1%	14.4%	11.0%	18.1%	9.0%	14.8%	12.6%	9.1%	8.4%
Volume Effects									
8.9%	9.1%	11.6%	7.3%	13.9%	7.0%	11.6%	9.1%	7.2%	7.6%
Therapeutic Choices									
2.3%	0.3%	2.7%	3.7%	4.2%	1.8%	3.1%	3.6%	1.8%	0.6%
Price Effects									
0.0%	–0.3%	0.1%	–0.1%	0.0%	0.2%	0.0%	–0.1%	0.0%	0.1%

* See note on Table 1

to treat depression and medicines to manage psychoses, the therapeutic choices herein must be interpreted with caution. While the annual costs were driven substantially by the broadly defined therapeutic mix, this trend is primarily due to increased use of certain atypical anti-psychotics. This phenomenon is clinically important and has significant financial implications; it should not, however, be confused with changes in the drug mix within, say, the category of selective serotonin reuptake inhibitors (SSRIs, commonly used to treat depression). The more narrow drug mix patterns within the class of SSRIs were a modest contributor to drug expenditures in all provinces; however, increased use of SSRIs is the major cause of volume effects in the psychotherapeutic category.

Within the category of antispasmodic drugs, expenditure trends were dominated by market dynamics for drugs indicated for the treatment of ulcers, heartburn and gastroesophageal reflux disease. In 1998, nearly half the prescriptions written for this the broadly therapeutic category were for histamine-2 receptor antagonists (H2RAs), which are ulcer drugs first marketed in the late 1970s. However, by 2004, over half the prescriptions written for this therapeutic category were for proton pump inhibitors (PPIs). As with ACE inhibitors among cardiovascular drugs, rapid increase in the use of PPIs is reflected as volume effects and therapeutic choices for the category of antispasmodic drugs. This is because the cost of brand-name PPIs is much higher than the cost of generic H2RAs. A generic PPI became available in 2004, and it is expected that savings in this category should increase as more PPI products become available in lower-cost generic form.

Discussion

From 1998 to 2004, per capita expenditures on oral solid prescription drugs grew at a rate of over 10% per year in every province – several times faster than economic growth over the same period. Increases in the volume of prescription drugs purchased explained approximately two-thirds of the increase in per capita expenditure observed in all provinces. Without evidence concerning the appropriateness of prescribing, it is difficult to assess whether trends towards increased utilization will result in commensurate increases in health benefits. An educated guess may be that both over- and underuse of pharmaceuticals is occurring in Canadian provinces. However, educated guesses should not be used to formulate policy – particularly policies as important to the health of Canadians, and to the overall cost of the Canadian healthcare system, as investment in pharmaceutical care. It is therefore critical to develop systems to monitor drug utilization to be sure that the right patients are getting the right drugs. If policies and practices ensure such appropriate use, health gains will be achieved through increased use of prescribed medicines.

The cost of health gains achieved through the use of medicines (even those pre-

scribed appropriately) is determined largely by therapeutic choices. These decisions were second only to increased drug use in terms of their impact on per capita drug expenditures in all provinces. Moreover, in leading therapeutic categories, increased use of medicines was also influenced by changes in the types of products most heavily promoted for given conditions; thus, even the volume effects measured in this study may be influenced by the intensity with which newer, patented drug products are promoted. Notwithstanding that possibility, the cost impact of "pure" therapeutic choices – changes in the type of product selected from within broad therapeutic categories – was sufficient to increase per capita spending by about 3% per year in all provinces. Changes in the selection of specific drugs within drug classes added to this increase. The financial implications of these dynamics are significant: the combined effects of therapeutic choices for Ontario alone were sufficient to increase annual drug spending in that province by $700 million in 2004.

Drug policy can have an effect on market dynamics and, therefore, drug costs and health outcomes.

Drug policy can have an effect on market dynamics and, therefore, drug costs and health outcomes. The cost impacts of volume effects, and especially of therapeutic choices, were relatively low in British Columbia over the period studied. This finding may be due to the BC government's outcomes-based approach to covering comparable drugs and drug products (Morgan et al. 2004). Over the period of analysis, public subsidy for proton pump inhibitors, COX-2 inhibitors and atypical antipsychotics was restricted though a special authority process in British Columbia; this limited both the volume of prescriptions and the therapeutic-mix cost impact of these blockbuster drug categories. Similarly, in 1995 and 1997, the BC Pharmacare program implemented a reference drug program to limit the cost impact of product mix within leading therapeutic classes. Because major private insurance carriers in the province have adopted them, provincial drug-utilization dynamics may have been altered significantly by BC Pharmacare's coverage policies.

Whether one is concerned about drug products or the policies that affect their utilization, determining the impacts on patient health is critical to the interpretation of spending trends. Because health outcomes are the "return on investment" in pharmaceutical care, greater efforts need to be made to track them. Canada's federal, provincial and territorial ministers of health have begun to establish a National Prescription Drug Utilization Information System (NPDUIS) to "provide critical analyses of price, utilization and expenditure trends so that Canada's health system has more comprehensive, accurate information on how prescription drugs are being used and sources of cost increases" (PMPRB 2004). For the full benefit of national

standards and data systems to be realized, drug information systems must reach beyond public claims data to capture all prescription drug purchases of all Canadians. Moreover, drug utilization information must be linked to information about patient health and health services use so that decision-makers can formulate policy based on evidence of the full spectrum of patient outcomes and health system impacts that result from prescription-drug consumption. Doing so can help ensure that Canada's annual increase in prescription-drug expenditure generates as much health benefit as the 6,000 new doctors or 18,000 new nurses that could otherwise be purchased with the extra funds.

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PEER REVIEWED PAPER

Public Drug Plan Coverage for Children Across Canada: A Portrait of Too Many Colours

Régimes publics d'assurance-médicaments pour les enfants au Canada : Un portrait aux trop nombreuses facettes

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Abstract

Background: As debate continues regarding pharmacare in Canada, little discussion has addressed appropriate drug plan coverage for vulnerable populations, such as children. The primary objective of this study was to determine the extent of medication coverage for children in publicly administered programs in each province across Canada.

Methods: Data were collected on provincial, territorial and federal government drug plans, and 2003 formulary updates were obtained. A simulation model was constructed to demonstrate costs to a low-income family with an asthmatic child in each province. Programs were compared descriptively. The extent of interprovincial variation in 2003 formulary approvals was summarized statistically.

Results: There was 39% variation between provinces with respect to 2003 formulary approvals (chi-square $p < 0.0001$) and 48% variation for 2003 paediatric-labelled products (chi-square $p < 0.0001$). Across Canada, only 8% of 2003 formulary approvals were indicated primarily for paediatric conditions. In the simulation model, costs were less than or equal to 3% of household income in provinces with plans for low-income families, catastrophic costs (Ontario) or for the population. Families who failed to qualify for low income plans or who resided in New Brunswick or Newfoundland faced costs up to 7% of household income.

Interpretation: With regard to pharmaceutical benefits for children, provincial drug programs vary considerably in terms of whom they cover, what drugs are covered and how much subscribers must pay out of pocket. Unlike seniors and social assistance recipients, the provinces do not agree on the importance of providing comprehensive coverage for all children. For many Canadian children, significant financial barriers exist to medication access.

Résumé

Historique : Bien que le débat au sujet de l'assurance-médicaments au Canada se poursuive, on accorde peu d'attention à la question des régimes adéquats d'assurance-médicaments pour les populations vulnérables, dont les enfants. L'objectif premier de cette étude consistait à déterminer l'ampleur de la couverture accordée aux enfants par les programmes publics d'assurance-médicaments dans chaque province canadienne.

Méthodes : On a recueilli des données relatives aux régimes d'assurance-médicaments des provinces, des territoires et du gouvernement fédéral et on a obtenu des formu-

laires actualisés pour 2003. Un modèle de simulation a été établi en vue de montrer les coûts qu'une famille à faible revenu ayant un enfant asthmatique doit payer dans chaque province. Les régimes ont été comparés de façon descriptive. On a résumé statistiquement l'étendue de la variation interprovinciale dans les formulaires approuvés en 2003.

Résultats : En ce qui a trait à l'accès aux médicaments pour les enfants, les régimes provinciaux d'assurance-médicaments varient considérablement quant aux personnes et aux médicaments couverts ainsi qu'au montant que les assurés doivent débourser. On a noté une variation de 39 % entre les provinces dans les formulaires approuvés en 2003 (chi carré $p < 0{,}0001$) et une variation de 48 % dans le cas des produits pédiatriques (chi carré $p < 0{,}0001$). Dans tout le Canada, seulement 8 % des formulaires approuvés en 2003 portaient essentiellement sur les affections pédiatriques.
Dans le modèle de simulation, les coûts correspondaient à 3 % ou moins du revenu familial dans les provinces qui disposent de régimes à l'intention des familles à faible revenu, de régimes de couverture des coûts catastrophiques (Ontario) ou de régimes pour toute la population. Les familles que ne sont pas admissibles aux régimes pour familles à faible revenu ou qui habitent au Nouveau-Brunswick ou à Terre-Neuve devaient payer des frais pouvant atteindre 7% du revenu familial.

Conclusion : En ce qui concerne les avantages accordés aux enfants en matière de médicaments, les régimes d'assurance-maladie provinciaux varient considérablement quant aux bénéficiaires et aux médicaments couverts ainsi qu'au déboursé. Comparativement aux bénéficiaires de prestations aux aînés ou de l'aide sociale, les enfants ne reçoivent aucune couverture complète et uniforme dans toutes les provinces. Bon nombre d'enfants canadiens n'ont donc pas accès aux médicaments dont ils ont besoin en raison de contraintes financières.

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A spate of reports scrutinizing the healthcare system in recent years (Health Canada 1997; Kirby 2002; Romanow 2002) have brought new life to the discussion concerning a national pharmacare program. A program that would ensure access to and affordability of needed medications, particularly for vulnerable populations, has repeatedly been cited as a priority by policy makers as well as stakeholder groups. This goal has yet to be realized, and the debate regarding what constitutes optimal pharmaceutical policy in Canada continues. Currently in Canada, payment for prescription medicines is financed by a combination of public and private

sources. In 2001, public plans, consisting of provincial and territorial drug programs, accounted for 46% of total prescription drug spending in Canada (Canadian Institute for Health Information 2004). Persons aged 65 and older accounted for 65% of the $4.44 billion spent on public drug programs in 2001. In contrast, persons aged 14 and under accounted for 2.1% (Health Canada 2001). While provincial policy makers agree on the importance of providing medication benefits to seniors, there is no agreement on the need to provide the same benefits to other vulnerable populations, including Canada's 7.5 million children. Thus, the low public spending on pharmaceutical benefits for children may reflect a lack of programs to meet children's needs.

A number of reports have exposed differences in provincial drug plan characteristics related to eligibility, cost-sharing and listed benefits (Canadian Institute for Health Information 2004; Health Canada 2000; Jacobs and Bachynsky 2000; Grootendorst 2002; Narine and Sen 1997; Currie and Nielson 1999; Willison et al. 1998; Morgan 2004). However, none has focused on access to benefits for the paediatric population. The primary objective of this study was to determine the extent of medication coverage for children in publicly administered programs in each province across Canada. This study also investigated the proportion of new drugs added to each provincial formulary in 2003 that included indications for paediatric conditions or allowed prescribing for children.

Methods

Data sources

All data were collected from primary government sources from January to April 2004. Initially, individual provincial, territorial and federal government websites were evaluated for information and details regarding public drug plans. The information collected included program names and types, eligibility requirements, amounts of premiums, deductibles and co-payments, details of plan restrictions and separate formularies. If the information required was not available from a government website, an email request or phone inquiry was made or a letter of request was sent. Appropriate provincial ministry representatives were identified through Web contacts and telephone calls. All information found on the websites was double-checked as often as required, using phone interviews with representatives of the provincial ministries of health. Where necessary, managers of specific or special programs were also contacted to inquire about and validate information. Useful secondary sources of information on provincial drug programs include the report, Drug Expenditures in Canada (Canadian Institute for Health Information 2004), Provincial Drug Benefit Programs (Canadian Pharmacists Association 2004) and the 2004 Guidebook on Government Prescription Drug Reimbursement Plans and Related Programs (Canadian Association for Pharmacy Distribution Management 2004).

Asthma simulation model

The various public drug plan characteristics were illustrated in a scenario analysis that simulated the out-of-pocket expenditures incurred in each province by a low-income, two-parent family with two children, in which one child suffered from moderate to severe asthma. The scenario was simulated for two or three levels of low annual household income for each province, typically $20,000 and $24,000, as these thresholds best exemplified expenditures when families met or failed to meet eligibility for benefits. A typical one-year treatment regimen in compliance with Canadian guidelines (Ernst et al. 1996) assuming optimal adherence was constructed and included:

- Flovent Diskus™ (fluticasone), 250 micrograms per inhalation, 1 puff BID, 60 blister pack, annual requirement of 12 packs
- Ventodisk™ (salbutamol), 200 micrograms per inhalation, administered as needed, 8 blister pack, 15 packs per carton, annual requirement of 2 cartons
- Serevent Diskus™ (salmeterol), 50 micrograms per inhalation, 1 puff BID, 60 doses per inhaler, annual requirement of 12 inhalers

For ease of comparison, a constant medication-regimen price was assigned based on the average of 2004 listed formulary prices for Ontario, Quebec, Saskatchewan and Alberta. The total price was inflated by a 10% allowable markup and a dispensing fee of $6.54 per refill was added, except for Prince Edward Island, where the provincial dispensing fee constituted the fixed co-pay in low-income families. The scenario analysis was based on 2004 total household income, and the following assumptions were made:

- The family's income was too high to qualify them for social assistance
- The family had no private insurance
- The children were not wards of the state
- The child's asthma drugs were the family's only prescription medications
- The family was aware of and made full use of provincial benefit plans where eligible
- The application process for participation in benefit plans was not a deterrent

Flovent Diskus™ and Ventodisk™ were listed as benefits in all provinces. Serevent Diskus™ was listed as a benefit in New Brunswick, Quebec, Manitoba, Alberta and the Yukon and as limited use in Ontario, Prince Edward Island, Nova Scotia, Saskatchewan and British Columbia. It was assumed that when a family qualified for benefits, the plan would pay for Serevent Diskus™ in those provinces where it was designated as limited use. This drug was not approved in Newfoundland.

Comparison of 2003 formulary updates

Formulary updates for 2003 were obtained for each province and territory, except Nunavut and the Northwest Territories. The 2003 formulary for the federal government plan, which covers First Nations residents across Canada and the armed forces, was also obtained. Where possible, a list of drugs added to a provincial formulary in 2003 was acquired directly from a representative of the respective ministry of health. Otherwise, under the advisement of ministry of health representatives, the formulary updates/bulletins for 2003 were used to create a database of all the drugs added to the provincial formulary in 2003. The individual 2003 formulary updates were compiled in a single database of all the prescription and non-prescription drugs added to the provincial and territorial formularies across Canada in 2003. It is possible that drugs that were added in 2003 in a given province may have already been listed in other provinces. No adjustments to the database were made for these drugs. Prescription diabetic medications and enteral nutritional products were included, whereas diabetic and injection supplies, such as test strips, glucometers, needles, lancets and syringes were excluded. Fibre supplements, electrolyte solutions, dermatological products, antivenom agents, masks and devices were excluded.

Listed drugs were flagged if they were approved for use in children or if their primary use was for a child's condition. The term "paediatric-labelled" is used to indicate medications that fulfill either of these two criteria. The 2003 Compendium of Pharmaceuticals and Specialties (Canadian Pharmacists Association 2003), Mosby's Drug Guide for Nurses (2003), drug monographs and information provided by drug manufacturers, as well as several Internet databases, including the Drug Product Database – Health Canada, and Medline Plus – *the National Library of Medicine*, were used to verify drug identification numbers, drug names, drug formulations and details of labelling.

Statistical analysis

Analyses were conducted on the full dataset of formulary additions, including multiple dosage forms and strengths, and not just on new chemical entities. This approach was chosen because the variety of formulations and strengths available for any particular drug relates to the extent of access to that medication. Descriptive statistics were used to describe differences in volume of listed products, products approved for use in children and products with a mainly paediatric indication across provinces and territories. The coefficient of variation, which is the standard deviation divided by the mean, and the extremal quotient (EQ), the ratio of maximum to minimum, were computed as point estimates of interregional variation for each variable. A correction factor of 0.02 was used in the case of zero-value denominators. The statistical significance of varia-

TABLE 1. Drug Programs that provide benefits to children

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT	NU
Universal program for all residents without private insurance. Deductibles not income-indexed.					√				√				
Income-indexed drug plan							√			√			
Income-indexed catastrophic drug plan for persons with very high costs relative to income or transitional plan for persons leaving social assistance	√		√			√		√	√*				
Social assistance/Welfare	√	√	√	√	√	√	√	√	√	√			√
Special family/child program for low-income families		√						√	√		√		
Specific program for:													
Cystic fibrosis	√	√		√						√			
Diabetes		√		√									
Human Growth Hormone	√	√		√									
Severely handicapped children				√		√					√		
Umbrella program for chronic disease like CF						√		√	√		√	√	√

Programs described are those in effect as of April 2004.
*Alberta's transitional program is not income-indexed and does not require cost-sharing.

tion for each variable was measured with a chi-square test, which compared observed variation to the mean across all provinces.

Results

Provincial drug program characteristics

The provincial prescription drug programs that provide medication benefits to children across Canada vary considerably. Table 1 summarizes the types of programs in which children are included or are the main focus. For many plans, benefits extend to whole families, and children gain access through their parents who meet the eligibility criteria. This applies to social assistance programs, income-indexed drug plans and special plans for low-income families. In addition, some provinces offer special programs for children with chronic diseases such as cystic fibrosis or who are severely handicapped. The prescription drugs paid for through the various provincial programs are those listed in the respective provincial formularies.

Only Quebec and Alberta provide universal coverage, defined as coverage for all residents of the province who are not privately insured. While cost-sharing exists in these plans, deductibles are not income-indexed. In Quebec, all forms of cost sharing are waived for individuals aged less than 18 years. Six provinces offer plans with cost-sharing arrangements that require subscribers to pay deductibles or co-payments that are tied to their household income or both. The catastrophic and transitional drug plans are a sub-set of the income-indexed plans, except for Alberta, which has a transitional program without cost-sharing. The line between regular income-indexed plans and "catastrophic" plans is thin and is essentially a function of the amount of cost-sharing required. The Manitoba plan, for example, is for persons "whose income is seriously affected by high prescription drug costs" (Manitoba Health 2004). "Catastrophic" plans are typically characterized by a requirement that drug costs be a substantial portion of income and by their very large deductible – a perverse arrangement, given that these plans are designed for those with the greatest medication needs. Transitional programs are plans that provide benefits to individuals leaving social assistance to return to the workforce. High deductibles and co-payments in catastrophic and transitional plans can pose a significant financial barrier, particularly for families with several members requiring multiple prescription medications, as in families where several children are afflicted with asthma. A description of cost-sharing components of specific plans, including premiums, deductibles, co-payments and restrictions, can be found in Table 2.

All provinces have a program for poor families receiving government assistance. None of these programs has a maximum annual benefit, but each province has different eligibility criteria, as the definition of low income varies. Also, some provinces waive the deductibles and co-payments for children's medications, as is the case for Saskatchewan families receiving social assistance and residents of Quebec.

Prince Edward Island, Saskatchewan, Alberta and Yukon have programs that are exclusively meant for children of low-income families who are not under the care or custody of the government. In Prince Edward Island and Saskatchewan, the programs offer access to the provincial formulary for children of families whose incomes qualify them. In Alberta, the Child Health Benefit program provides similar benefits for children of low-income families. There are no fees or annual maximum benefit restrictions associated with the program, and if the parents have private insurance this program will pay the co-payment. In Yukon, the Children's Drug and Optical Program provides access to prescription medications to children from low-income families. There are no premiums, co-payments or maximum annual benefit restrictions with this plan. Further, there are no deductibles for very low-income families or low-income large families. However, other families face annual deductibles, which reach a maximum of $500 per family.

Some provinces and territories, namely Ontario, Saskatchewan, Alberta, Yukon, the Northwest Territories and Nunavut, have an "umbrella" special program for

TABLE 2. Elements of cost-sharing in drug programs serving children

Program Name	Premiums/ Annual Fees	Deductibles	Co-payments	Restrictions
Newfoundland & Labrador				
Income Support	None	None	None	None
Special Needs	None	None	None	None
Prince Edward Island				
Financial assistance	None	None	None	None
Children-in-Care Program	None	None	None	None
Family Health Benefit Program	None	None	Pharmacy fee (<$7.50)	None
Diabetes control	None	None	None	None
Specific disease (diabetes, MS)	None	None	None	None
New Brunswick				
Plan F (Family & Community Services)	None	None	$2.00; maximum of $250 per family per year	None
Plan B (Cystic Fibrosis)	$50	None	20% up to $20; maximum of $500 per family per year	None
Plan T (Growth hormone)	$50	None	20% up to $20; maximum of $500 per family per year	None
Plan G (Special needs)	None	None	None	Case-by-case
Nova Scotia				
Community Services Pharmacare Atlantic Blue Cross Care pharmacies	None	None	$5.00	
Quebec				
Le régime général	None	None	None	None
Ontario				
Ontario Drug Benefits	None	None	$2.00	None
Trillium	None	$150 to $4,089	$2.00	None
Special drugs	None	None	None	None
Manitoba				
Pharmacare	None	2.21% to 3.31% of family income	None	Minimum $100 deductible
Saskatchewan				
Special support plan	None	3.4% of family income	Income-indexed	None
Family health benefit	None	$100 semi-annual	35%	None
Supplementary health	None	None	None	None
Specific diseases (e.g., CF)	None	None	None	None

continued

Program Name	Premiums/ Annual Fees	Deductibles	Co-payments	Restrictions
Alberta				
Non-group coverage	$86.10 to $123 per quarter per family	None	30% to maximum of $25	None
Supports for independence	None	None	None	Must use 1 pharmacy
Child Health benefit	None	None	None	None
Provincewide services (CF, human growth deficiencies)	None	None	None	Case-by-case, specific drugs
British Columbia				
Fair Pharmacare	None	0% to 3% of family income	30% until income-indexed family maximum reached	None
Plan C – social assistance	None	None	None	None
Plan D – cystic fibrosis	None	None	None	None
Plan F – severely handicapped	None	None	None	None
Northwest Territories				
Extended benefits for specified diseases	None	None	None	Specific diseases
Yukon				
Children's Drug and Optical	None	$250 per child or $500 per family	None	None
Chronic disease	None	$250 per child or $500 per family	None	Specific diseases
Nunavut				
Extended benefits for chronic conditions	None	None	None	Specific diseases

Programs described are those in effect as of April 2004.

various chronic diseases occurring in adults and children. These special programs usually have a separate drug benefit list from the provincial formulary, but if the indicated drug is found on the provincial formulary, it may be denoted as available only to clients of the special program. To be eligible, the client has to be clinically diagnosed with the condition that the program covers, without having to fulfill any financial or other criteria. Only the Yukon program has a fee associated with it, a $250 deductible, for a maximum of $500 per family.

In Ontario, the Special Drugs Program pays for drugs to treat cystic fibrosis, thalassaemia and growth failure due to insufficient growth hormone. In Saskatchewan, this type of program is called SAIL (Saskatchewan Aids to Independent Living) and

covers only one paediatric condition, namely, cystic fibrosis. In Alberta, the Province Wide Services program covers drugs for cystic fibrosis and paediatric growth hormone deficiency. In Yukon, the Chronic Disease Program provides drug coverage for several paediatric conditions such as attention deficit/hyperactivity disorder, cystic fibrosis, diabetes and others. In the Northwest Territories, the Extended Health Benefits for Specified Diseases program covers many paediatric conditions, including asthma, cystic fibrosis and spina bifida, among others.

In contrast to the chronic disease programs described above that serve both adults and children, Newfoundland, Prince Edward Island, New Brunswick, Saskatchewan and British Columbia have set up special programs for specific paediatric conditions. In Newfoundland, the Special Needs Program provides coverage for cystic fibrosis patients, and persons requiring growth hormone or special foods because of a metabolic disorder such as phenylketonuria. The program provides prescription drugs and any other necessary supplies. Prince Edward Island has individual programs for children suffering from diabetes, cystic fibrosis, growth hormone deficiency and meningitis. Prince Edward Island also provides a Nutrition Services Program for children at risk for nutritional deficiency and a Phenylketonuria Program. The Prince Edward Island programs have no cost or annual maximum benefits associated with them. New Brunswick has special programs for cystic fibrosis patients (Plan B) and for individuals with growth hormone deficiency (Plan T). Both programs have a yearly fee of $50 and a co-payment of 20% or a maximum of $20 (annual maximum of $500 per family). British Columbia has a specific program for cystic fibrosis patients (Plan D) that provides medications at no cost.

In addition to the above programs, New Brunswick, Ontario, British Columbia and Yukon have established programs for children with severe disabilities. Typically, these programs evaluate children's health and other needs on a case-by-case basis.

Asthma simulation model

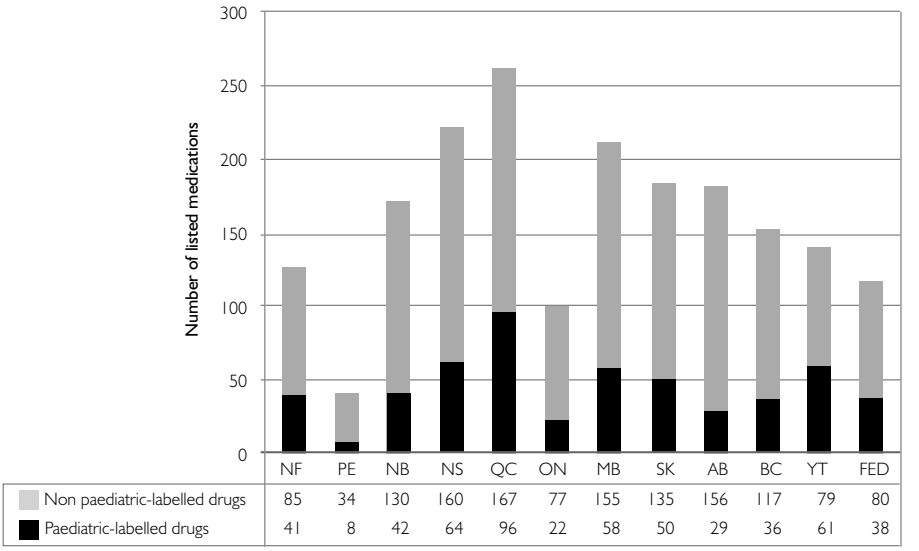
The scenario analysis in Table 3 indicates the out-of-pocket expenditures for low-income households in each province where one child requires multiple prescription medications for treatment of moderate to severe asthma. This scenario was selected as asthma is a common chronic health problem in children for which multiple expensive medications are routinely prescribed (Millar 1998; Mannino et al. 1998; Kozyrskyj et al. 2001). The scenario was simulated for two or three levels of low annual household income for each province, typically $20,000 and $24,000, as these thresholds often provided an informative contrast when families met or failed to meet eligibility for benefits. In many provinces or territories where plans existed for low-income families (Saskatchewan, Yukon), for catastrophic drug costs (Ontario) or for the population at large (Quebec, Manitoba, Alberta, British Columbia), total out-of-pocket expen-

TABLE 3. Asthma simulation model of out-of-pocket expenditures

Province	Out-of-Pocket Expenditure	Percent of Income	Comment
Newfoundland & Labrador			
$20,000	$1,401.33	7%	No benefits, regardless of income
$24,000	$1,401.33	6%	No benefits, regardless of income
Prince Edward Island			
$20,000	$195.00	1%	Fixed dispensing fees only
$24,000	$1,401.33	6%	No benefits
Nova Scotia			
$20,000 < 1 year after Social Assistance	$130.00	<1%	Fixed co-pay only
$20,000 >1 year after Social Assistance	$1,401.33	7%	No benefits
New Brunswick			
$20,000	$1,401.33	7%	No benefits, regardless of income
$24,000	$1,401.33	6%	No benefits, regardless of income
Quebec			
$20,000	$0.00	0%	Full benefits, regardless of income
$24,000	$0.00	0%	Full benefits, regardless of income
Ontario			
$20,000	$332.00	2%	Deductible is adjusted by income and family size + fixed co-pay
$24,000	$501.00	2%	
Manitoba			
$20,000	$341.60	2%	Deductible is adjusted by income and family size
$24,000	657.00	3%	Deductible is adjusted by income and family size
Saskatchewan			
low income (family benefit)*	$620.46		Deductible + co-pay
$24,000	$288.16	1%	Percent co-pay
Alberta			
$26,000	0.00	0%	Full benefits
$27,000	$617.78	2%	Fixed and percent co-pay
$35,000	$740.78	2%	Full premium + co-pay
British Columbia			
$20,000	$650.00	3%	Deductible + co-pay
$30,000	$840.40	3%	Deductible + co-pay
Yukon			
$30,000	$0.00	0%	Full benefits
$51,500	$500.00	1%	Deductible only
$52,000	$1,401.33	3%	No benefits

The above table simulates a family's out-of-pocket expenditures in each province in 2004 for the specified levels of household income for the following scenario: Two-parent household with 2 children where one suffers from moderate to severe asthma requiring treatment with Flovent Disku™, Ventodisk™ and Serevent Diskus™. It was assumed that 1) drug plans paid for drugs designated as limited use, 2) the family does not qualify for social assistance, 3) the family has no private insurance, 4) the children are not wards of the state and 5) the child's asthma drugs are the family's only prescription medications. * Low income is defined as low-income working families eligible for the Sakatchewan Child Benefit or the Saskatchewan Employment Supplement as determined by the Saskatchewan Health Drug Plan & Extended Benefits Branch.

FIGURE 1. Medications approved for formulary listing in 2003



Paediatric-labelled drugs include all medications approved for use in children in 2003.

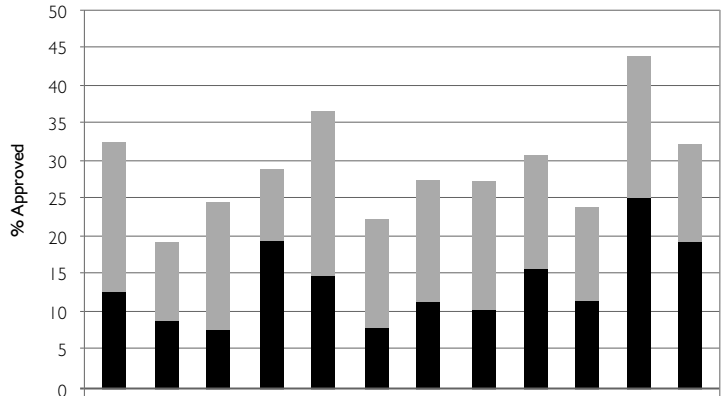
Variation in number of drugs listed: coefficient of variation = 39.3%, extremal quotient = 6.3, chi-square $p < 0.0001$. Variation in number of paediatric-labelled drugs: coefficient of variation = 48.4%, extremal quotient = 12.1, chi-square $p < 0.0001$.

ditures remained less than or equal to 3% of household income. In these provinces, low-income families received reasonably good coverage, regardless of their income level, assuming they knew about the program and were successful in applying. In Prince Edward Island and in Nova Scotia, families who met the eligibility for low income (less than $24,000) or who were within one year of receiving social assistance benefits, respectively, faced low financial barriers. Those low-income families who failed to meet eligibility in these provinces, or those who resided in New Brunswick or Newfoundland, faced formidable financial barriers, with out-of-pocket expenditures reaching up to 7% of household income.

Access to paediatric-labelled products

In 2003, 754 products were added on a cumulative basis to provincial/territorial formularies across Canada. The majority of these were multi-sourced, interchangeable, generic products with identical active ingredients in multiple strengths and formulations or were incrementally modified drugs (IMDs) consisting of the addition of a new strength or dosage form to an existing product. Only 265 additions (35%) were

FIGURE 2. Proportions of listed drugs approved for use in children



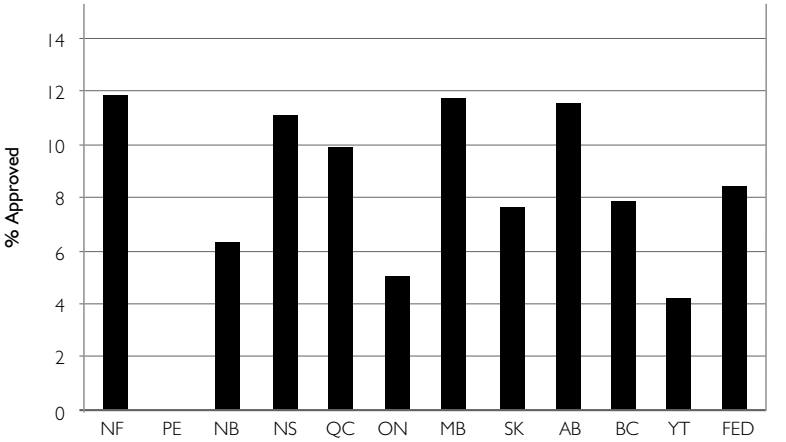
	NF	PE	NB	NS	QC	ON	MB	SK	AB	BC	YT	FED
% Age Limit	19.84	9.52	16.86	9.38	21.51	14.14	15.96	16.76	14.74	11.76	18.57	12.71
% No Age Limit	12.70	9.52	7.56	19.20	14.83	8.08	11.27	10.27	15.79	11.76	25.00	19.49

% Age Limit indicates the proportion of drugs listed in 2003 that were approved for use in children with a minimum age requirement. % No Age Limit refers to the proportion of drugs listed in 2003 that were approved for use in children with no minimum age requirement.

Variation in % of total paediatric-labelled drugs: coefficient of variation = 22.3%, extremal quotient = 2.3. Variation in % of listed drugs with age limit: coefficient of variation = 24.4%, extremal quotient = 2.3. Variation in % of listed drugs with no age limit: coefficient of variation = 36.6%, extremal quotient = 3.3, chi-square $p < 0.05$.

unique chemical entities, most of which were IMDs. Of all the drugs cumulatively approved in 2003 for listing across Canada, 271 (36%) were approved for use in children. Of these 271, 54% were labelled with a minimum age requirement. Among the unique chemical entities, 122 (46%) were approved for use in children. Of these 122, 50% were labelled with a minimum age requirement. As seen in Figure 1, there was 39% variation between the provinces/territories with respect to the number of new products listed in 2003 (chi-square $p < 0.0001$). The EQ indicates that there was a sixfold difference between the minimum and maximum, 42 in Prince Edward Island versus 263 in Quebec. There was even greater variation (48%) with respect to the number of new paediatric-labelled products listed in 2003 (chi-square $p < 0.0001$) with an EQ indicating a 12-fold difference between the minimum of eight drugs in Prince Edward Island and 96 in Quebec. As seen in Figure 2, of the products listed to individual formularies, Yukon, Quebec and Newfoundland had the greatest proportions of drugs approved for use in children, with 44%, 36% and 33%, respectively.

FIGURE 3. Proportions of listed drugs approved for mainly paediatric conditions



Variation in % of drugs approved in 2003 for paediatric conditions: coefficient of variation = 44%, extremal quotient (corrected) = 235.

Prince Edward Island, Ontario and British Columbia had the lowest proportions of newly listed drugs approved for use in children, with 19%, 22% and 24%, respectively. The proportions of listed products with age restrictions varied from 9% in Nova Scotia to 22% in Quebec.

Of the cumulative number of drugs approved for Canadian public formularies in 2003, only 8% (61/754) were indicated primarily for paediatric conditions. Figure 3 illustrates that there was 43% variation across the provinces, ranging from a high of 12% in Newfoundland, Manitoba and Alberta to lows of 0% in Prince Edward Island, 4% in Yukon and 5% in Ontario.

The variation in listing status is exemplified by decisions regarding expensive, but efficacious, medications. Table 4 lists six medications for which outpatient access was deemed medically necessary by clinical experts at the Hospital for Sick Children. While some of the more expensive medications, such as Neupogen™ and Tazocin™, are typically administered for short durations, administration of drugs such as Enbrel™ and CellCept™ may continue for months or longer, causing economic hardship to families without access to adequate pharmaceutical benefits. As of September 2004, Enbrel™, a treatment for juvenile rheumatoid arthritis, was a general benefit in one province/territory, a limited-use benefit requiring prior authorization by a physician in six provinces/territories and was not covered in five provinces/territories. This drug costs $19,500 for one year of treatment. Neupogen™ is used to prevent neutropoenia in children receiving myelosuppressive chemotherapy. This drug, which costs $11,500

TABLE 4. Costs and listing status for select paediatric medications

Weekly Cost	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	Fed.
Drug: Desferal™ (deferoxamine mesylate)												
Indication: chronic iron overload												
$183.75	NC	NC	GB	GB	GB	NC	GB	LU	GB	GB	NC	NC
Drug: Enbrel™ (etanercept)												
Indication: juvenile rheumatoid arthritis												
$375.00	NC	NC	LU	LU	GB	NC	NC	LU	LU	NC	LU	LU
Drug: Neupogen™ (filgrastim, GCSF)												
Indication: febrile neutropenia in patients with nonmyeloid malignancies												
$964.18	NC	NC	NC	LU	LU	NC	GB	LU	LU	NC	LU	GB
Drug: CellCept™ (mycophenolate mofetil)												
Indication: prophylaxis of organ rejection in children receiving allogeneic renal transplants												
$230.95	NC	GB	NC	NC	GB	LU	LU	LU	NC	NC	GB	GB
Drug: Zofran™ (ondansetron)												
Indication: prevention of nausea and vomiting associated with chemo and radiotherapy												
$125.76	NC	LU	LU	LU	LU	LU	GB	NC	GB	NC	LU	GB
Drug: Tazocin™ (piperacillin sodium & tazobactam sodium)												
Indication: antibacterial												
$333.90	NC	NC	NC	NC	GB	NC	NC	NC	GB	NC	NC	NC

Abbreviations: GB = General Benefit; LU = Limited Use; NC = Not Covered
Listing status and unit prices are as of September 2004.
Costs are based on recommended maintenance dosage regimens for a 40 kg child

for four courses of treatment, is available as a general benefit in two provinces/territories, as a limited-use product in five provinces/territories and is not covered in five provinces/territories. Children with end-stage renal disease who require Desferal™ for treatment of iron overload are fortunate if they live in one of the six provinces/territories where this product is a general benefit. This product is available as limited use in one province/territory but is not covered in five other provinces/territories. While these medications can sometimes be obtained by special authorization in provinces that do not provide coverage, the application process for such authorization can be lengthy and onerous, and there is no guarantee that the request will be approved. The listing pattern for these drugs was similar to that seen for all medications in Figure 1, with Quebec, Manitoba and Alberta demonstrating the greatest access and Ontario, British Columbia, Newfoundland and Prince Edward Island showing the poorest access.

Interpretation

These findings indicate that with regard to providing pharmaceutical benefits to children, provincial drug programs vary considerably in terms of whom they cover, what drugs are covered and how much subscribers must pay out of pocket. In addition, the majority of drugs listed on provincial formularies are not labelled for use in children, and even fewer are indicated for paediatric conditions.

Variation in plan eligibility and cost-sharing arrangements across Canada

While all provinces agree on the need for drug coverage for families receiving social assistance, policies differ with respect to coverage for low-income families who fail to quality for social assistance. The definition of poverty – and, hence, eligibility – differs among provinces, creating regional disparities. This diversity is exacerbated by the variation in cost-sharing requirements. Premiums, deductibles and co-payments, or a combination thereof, are found in all provincial drug plans except for that of Newfoundland. These out-of-pocket costs constitute a user fee required to gain access to necessary medications. In some cases, such fees can present a formidable financial barrier. Furthermore, the application forms and bureaucratic processes associated with some programs require time and a high degree of literacy, including computer and Internet skills. These barriers are greater for new immigrants and for persons who do not speak English or French as first languages.

Individuals working part-time or those in low-wage occupations (the "working poor") are more likely to be either uninsured or without adequate coverage (Health Canada 2000), putting their children at risk of not getting the medications they need. This risk is intensified when one considers that children from poor families have an increased risk of developing health problems and, thus, have greater medication needs (Finkelstein et al. 2002; Wood et al. 2002). The lack of child-specific programs across Canada is troubling. A major disincentive to leaving social assistance is the loss of healthcare benefits. Only Prince Edward Island, Saskatchewan, Alberta and Yukon have programs to ensure that children of the working poor or people leaving social assistance have drug coverage. These "safety net" programs are part of the federal National Child Health Benefit (NCHB) program. Because the provinces have discretion regarding how to spend this money, variation occurs in drug plan policies. Some provinces choose to provide cash handouts directly to families instead of providing drug coverage. In the absence of a federal requirement to spend these monies on pharmaceutical benefits, in provinces that provide cash in lieu of benefits parents may choose to spend the funds on items other than medications and, thus, there is no guarantee that their children will have adequate access to necessary medications.

As with low-income families, public drug coverage for children with serious chronic diseases varies greatly across Canada. While there is consistency in cover-

age for cystic fibrosis and growth deficiencies, the various programs differ widely in covering other chronic diseases. Unlike other provincial programs, the "umbrella" and disease-specific programs usually have only clinical criteria as their eligibility requirements. Inherent in this principle is the recognition that these children have great medical needs. For these children, ensuring access supersedes considerations of income. However, for the majority of children for whom medications are medically necessary, family income limitations and cost-sharing remain barriers.

Interregional variation in public health insurance plans is also evident in other countries, including the United States. In the 1990s, a significant lack of public healthcare coverage for medications and health services for children became apparent. In 1997, the US federal government introduced the State Children's Health Insurance Program (SCHIP) to provide federal funding to those states wishing to expand coverage for children. Under the SCHIP, the US federal government provides funds to match state contributions up to US$4 billion annually. Funds are used to establish or expand health insurance programs for uninsured children aged up to 19 years who belong to families with incomes that are less than 200% of the federal poverty level. The interest in SCHIP has been strong, with most states applying for federal funds, and health coverage for children appreciably expanded. As a result of this program, the proportion of adolescents from poor families who were uninsured declined by 8% between 1995 to 2002 (Newacheck et al. 2004). An incentive program for federally matching funds to expand medication benefits to children and low-income families should be considered in Canada. We may also look to programs that exist in Scandinavia or other countries that are ranked highly by the Organization for Economic Cooperation and Development because of the existence of health provisions for low-income families with children.

Listing of paediatric-labelled medications

A low proportion of drugs added to provincial formularies in 2003 is approved for use in children, and an even lower one is indicated for paediatric conditions. This situation may result from a low uptake of paediatric-labelled products because children's diseases are not a priority for provincial formulary committees. Alternatively, a low volume of listing may be due to a dearth of products available to treat children's conditions. Children's health may be a low priority to drug manufacturers because they constitute a small fraction of market share and because of concerns regarding the testing of prescription drugs in children. Lack of research and development for products for children's health will result in a low frequency of drugs approved by Health Canada's Therapeutic Products Directorate for use in children.

A lack of availability of paediatric products has led to physicians prescribing adult medications for off-label use in children. Wider clinical testing of new pharmaceutical

products in children would provide much-needed efficacy and safety data to permit greater choices for practitioners and allow broader listing decisions. In 1999, as part of an overall program aimed to promote paediatric clinical research, the US Food and Drug Administration's Modernization Act required manufacturers to conduct clinical trials on any medication that was expected to be widely used in children. In exchange for the paediatric clinical data, the FDA provided manufacturers with a six-month extension on their medication patents. This program has been highly successful in stimulating paediatric clinical research – so much so that in 2005, clofarabine was approved for treatment of relapsed or refractory paediatric acute lymphoblastic anaemia. This marked the first time in decades that a novel anti-cancer drug was approved in the United States for use in children before an adult indication was developed (St. Jude Children's Research Hospital 2005). In recent years, the European Union has also moved towards creating incentives for expanded development of medications for children (Commission of the European Communities 2004). Given the multinational character of the pharmaceutical industry, with strong bases in the United States and Europe, it is expected that more paediatric-labelled drugs will be approved for use in Canada and will be considered for provincial formulary listing.

Why do public drug plans vary across Canada?

Why do public drug plans vary so much with respect to eligibility, cost-sharing arrangements and listing decisions across Canada? First, because they can. The 1964 Hall Commission recommended that prescription medications be included as an insured benefit in a universal healthcare program (Ontario Ministry of Health 1990). Despite this recommendation, except for inpatient care, this essential component of healthcare has been consistently omitted from legislation defining the scope of public healthcare coverage and the requirements of universality and portability. Provinces are free to make their own decisions regarding "who," "what" and "how much." As a result, pharmaceutical policy decisions are influenced by population demographics, as well as political, fiscal, legal and ethical concerns (Rabinovitch 2004).

Provinces differ in size as well as demographic make-up. Eastern Canada has proportionally more seniors compared to the Western provinces. Aboriginal people suffer from certain diseases, such as diabetes and infectious disease, at higher rates than non-Aboriginals. Maritime provinces have more unemployment and poverty than other provinces. To a certain extent, pharmaceutical policies reflect these differences. In addition, each province has a fixed budget with which to allocate healthcare resources. As the population size and tax base varies, so do healthcare budgets. Depending on the governing party, the allocation priorities of the provincial governments may differ greatly. Some administrations are more receptive to lobby groups, few of which represent the interests of children. Legal decisions also play a role in what provinces will

pay for. The definition of "medically necessary" continues to be a source of contention, particularly with regard to treatments for rare childhood disorders or diseases that require expensive medications, as seen in Tables 3 and 4. When it comes to provincial budget allocation, a utilitarian view – achieving the greatest quantity of health benefits for the most number of people – sometimes prevails over a more compassionate approach that sees to the needs of society's most vulnerable.

What should a public drug plan for children include?

Despite numerous studies chronicling the wide disparities in (adult) public drug programs in Canada (Canadian Institute for Health Information 2004; Health Canada 2000; Jacobs and Bachynsky 2000; Grootendorst 2002; Narine and Sen 1997; Currie and Nielson 1999; Willison et al. 1998; Morgan 2004; Anis 2000), surprisingly little attention has been paid to what would constitute a fair and equitable program providing affordable access to necessary medications. Morgan and Willison (2004) have proposed a national program that would combine last-dollar coverage (benefits commence after a high deductible is reached) with first-dollar coverage for low-income families and other vulnerable segments of the population. This is a good first step. However, more thought needs to go into the "who," "what" and "how much" questions that specifically apply to vulnerable populations. The healthcare needs of children are vastly different than those of adults (Ungar et al. 2003). Whereas a large proportion of adults can be managed by medications for cardiovascular disease, cancer and diabetes, children suffer from a wider variety but less prevalent array of chronic conditions (Smith 1998). These conditions are often age dependent, such that children's medication needs change as they grow and develop.

A number of limitations were present in this study. Because only 2003 formulary updates were examined rather than a fixed basket of products, it is possible that some of the drugs added in one province in 2003 were added previously or subsequently in other provinces. It was therefore not possible to determine whether the variation in new listings among provinces was a result of different rejection rates by provincial decision-makers, differences in the timing of listing decisions or different submission rates by drug manufacturers. A study extending over several years or examining both new and existing listings would clarify this issue. It was also observed that the specific generic versions of drugs and dosage forms sometimes varied by province. This finding may relate to specific purchasing agreements between generic manufacturers and provincial bodies.

The findings presented provide a descriptive first look at interprovincial variation. Future studies are required to examine coverage of drugs deemed essential for children and to look at how each province addresses issues of efficacy, cost-effectiveness, patient adherence and disease management and education.

Conclusion

Drug coverage and drug programs for children vary widely across Canada. Provincial disparities in "who," "what" and "how much" create access barriers to proper healthcare. Both the Romanow and Kirby reports recommended that drug coverage be extended to all Canadians who need it (Romanow 2002; Kirby 2002). The Romanow Commission recommended the establishment of a national formulary to eliminate the disparities in drug benefits across Canada. The creation of the Common Drug Review (CDR) is a first step to achieve this. Although provinces still make the final decisions regarding listing status of each product, by providing a centralized review mechanism the CDR Directorate increases the probability of common listing decisions. Another key recommendation of the Romanow Commission was the establishment of a Catastrophic Drug Transfer, in which the federal government would transfer money to provinces to reduce or eliminate high deductibles and other forms of cost-sharing. The provinces have responded in unison to this suggestion with calls for a federally funded national pharmacare program. And so the debate continues.

The great variation in drug coverage found in this study highlights the need for policy changes. All children across Canada, no matter what province they call home, are entitled to ready and affordable access to the same, comprehensive formulary of medications.

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topic=283&cw_rel=AR_80_E#full>.

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Joining the Conversation: Newspaper Journalists' Views on Working with Researchers

Participer au débat : points de vue des journalistes sur la collaboration avec les chercheurs

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Abstract

For health researchers who seek more research use in policy making to improve health and healthcare, working with the news media may represent an opportunity, given the media's pivotal role in public policy agenda-setting. Much literature on science and health journalism assumes a normative stance, focusing on improving the accuracy of news coverage. In this study, we investigated journalists' perspectives and experiences. We were particularly interested in learning how health researchers could work constructively with journalists as a means to increase research use in policy making. Qualitative methods were used to conduct and analyze interviews with experienced newspaper journalists across Canada, with children's mental health as a content example. In response, study participants emphasized journalistic processes more than the content of news coverage, whether children's mental health or other topics. Instead, they focused on what they thought researchers needed to know about journalists' roles, practices and views on working with researchers.

Newspaper journalists balance business and social responsibilities according to their respective roles as editors, columnists and reporters. In practice, journalists must ensure newsworthiness, relevance to readers and access to sources in a context of daily deadlines. As generalists, journalists rely on researchers to be expert interpreters, although they find many researchers unavailable or unable to communicate with public audiences. While journalists are skeptical about such common organizational communications tools as news releases, they welcome the uncommon contributions of those researchers who cultivate relationships and invest time to synthesize and communicate research evidence on an ongoing basis. Some appealed for more researchers to join them in participating in public conversations.

We conclude that there are opportunities for policy-oriented health researchers to work constructively with newspaper journalists – by appreciating journalists' perspectives and by taking seriously some of their suggestions for engaging in public conversations – and that such engagement can be a means to increase the use of research evidence in policy making and thereby improve health and healthcare.

Résumé

Pour les chercheurs en santé qui veulent promouvoir une utilisation accrue des résultats de recherche dans l'élaboration des politiques afin d'améliorer la santé et les soins de santé, travailler avec les médias peut permettre d'atteindre cet objectif, étant donné le rôle crucial que jouent les médias dans l'établissement des politiques publiques. Une bonne partie du journalisme scientifique et axé sur la santé est de nature normative et met l'accent sur l'amélioration des nouvelles présentées. Dans cette étude, nous explorons les points de vue et les expériences des journalistes. Nous voulions surtout découvrir comment les chercheurs en santé pouvaient travailler de manière constructive avec les journalistes en vue d'accroître l'utilisation des résultats de recherche dans l'élaboration des politiques. Nous avons employé des méthodes qualitatives pour effectuer et analyser des entrevues avec des journalistes d'expérience au Canada, et avons utilisé la santé mentale des enfants comme exemple de contenu. Les participants à l'étude, quant à eux, ont mis davantage l'accent sur les procédés journalistiques que sur le contenu des reportages, qu'il s'agisse de santé mentale des enfants ou d'autres sujets. Ils ont préféré insister sur ce que, selon eux, les chercheurs devaient savoir à propos des rôles, des pratiques et des opinions des journalistes sur la collaboration entre les deux groupes.

Les journalistes jonglent avec des responsabilités commerciales et sociales dans leurs rôles respectifs de rédacteurs, chroniqueurs et reporters. Dans la pratique, cependant, ils doivent s'assurer que leurs reportages méritent de figurer dans les journaux et qu'ils soient pertinents pour les lecteurs; ils doivent également avoir accès à des sources afin de pouvoir respecter leurs échéances quotidiennes. En tant que généralistes, les journalistes se fient à l'expertise des chercheurs en fait d'interprétation, bien qu'ils constatent que bon nombre d'entre eux sont peu disponibles ou sont incapables de communiquer avec le public. Tandis que les journalistes font preuve de scepticisme à l'égard d'outils organisationnels courants comme les communiqués de presse, ils aiment beaucoup les contributions des chercheurs qui cultivent des relations et qui prennent le temps de synthétiser les résultats de recherche et de les communiquer sur une base continue. Plusieurs journalistes ont lancé un appel invitant davantage de chercheurs à se joindre à eux et à prendre part à des conversations publiques.

Nous concluons en disant que les scientifiques qui effectuent des travaux de recherche axés sur les politiques de santé ont des occasions de collaborer de manière constructive avec les journalistes – en prenant en considération les points de vue de ces derniers et en accordant une attention sérieuse à leur invitation à participer à des conversations publiques – et qu'un tel échange peut permettre d'augmenter l'utilisation des résultats de recherche dans l'élaboration de politiques et, par le fait même, d'améliorer la santé et les soins de santé.

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Health researchers often hope to see the best available research evidence used in public policy making to improve health and healthcare. Journal articles frequently begin with a lament over research–policy "gaps" and end with the refrain that policy makers *should* use more research evidence. A burgeoning theoretical and empirical literature delineates factors that may increase the use of research evidence in clinical, administrative and legislative policy making (Innvaer et al. 2002; Grol and Grimshaw 2003). However, advocates for evidence-based policy may not always appreciate the many influences on the policy process that regularly outweigh the influence of research evidence (Lavis et al. 2003). For many researchers, policy making effectively remains a "black box." For those who wish to see more research used in policy making, learning more about what goes on inside this black box is an essential starting point.

The news media offer a window into the black box of policy making. Their participation in the public policy process is extensive, so much so that they are considered by some to be de facto political institutions (Cook 1998). Specifically, the news media help set the policy agenda by focusing public attention on certain issues at the expense of others (Glynn et al. 1999; Kingdon 2003). The process of agenda-setting involves multidirectional influences among the public, policy makers and the news media as issues emerge and recede (Soroka 2002). Yet, there are limits to the media's influence. They may determine what the public and policy makers think about, but they do not necessarily determine what the public and policy makers think (Cohen 1963; Glynn et al. 1999).

Even with the advent of radio, television and the Internet, newspapers remain influential as the medium of record (Siegel 1996). Historically founded as partisan political fora, Canadian newspapers have become a vital communications medium for a small population dispersed across a large country (Rutherford 1978). Newspapers such as the *Globe and Mail* serve national audiences, while myriad newspapers serve regional audiences, including the *Toronto Star*, which has the highest daily circulation in Canada (Audit Bureau of Circulations 2005). Despite the proliferation of news-

papers (and other media), coverage of the most salient issues for Canadians remains relatively consistent across the country (Soroka 2002), as do journalists' practices and perspectives, including in Quebec (Pritchard and Sauvageau 1999).

The scholarly literature on journalism is disparate, but one unifying feature of it is that authors from many disciplines adopt a normative stance on what journalism ought to do (Zelizer 2004). In the literature on science journalism in general, much conversation focuses on improving the accuracy of news coverage (Weigold 2001). News coverage is the subject of particular scrutiny and criticism in the literature on health journalism (Entwistle and Watt 1999). Health researchers note that media campaigns can facilitate significant changes in health behaviour and health services utilization (Grilli et al. 2004; Snyder et al. 2004). Health researchers have also established that news coverage of therapeutic risks and benefits can be inaccurate or incomplete, raising concerns that media can encourage inappropriate changes in behaviour and services utilization (Moynihan et al. 2000; Cassels et al. 2003). Consequently, many health researchers suggest interventions to make news coverage less "sensational" and more "evidence-based," for example, by training journalists in the critical appraisal of research evidence (e.g., Oxman et al. 1993; Larsson et al. 2003; Moynihan 2003; Schwartz and Woloshin 2004).

Given the abundant critiques and the evident reciprocity, surprisingly few studies have investigated research coverage issues from journalists' perspectives

In addition to this prescriptive literature, there is also an emerging literature on mutually beneficial associations between journalists and researchers (Nelkin 1987; Dunwoody 1999). Many journalists obtain story ideas from articles in high-impact academic health and science journals and from the authors of these articles (van Trigt et al. 1995). Journalists also describe seeking researchers to ensure accurate coverage and interpretation of research findings (Weiss and Singer 1988; Geller et al. 2005). Many academic journals promote news coverage by providing journalists with advance news releases and embargoed articles (Kiernan 1998; Woloshin and Schwartz 2002). In turn, news coverage can increase the impact of researchers' work. When scientific articles receive prominent newspaper coverage, subsequent scientific articles cite the authors significantly more frequently (Phillips et al. 1991; Kiernan 2003). Interestingly, newspaper articles *can* accurately convey health researchers' results and claims, even to the point of mirroring researchers' own claims overemphasizing benefits and under-representing risks of new health technologies, suggesting that research-

ers can be complicit in conveying exaggerated messages (Bubela and Caulfield 2004).

Given the abundant critiques and the evident reciprocity, surprisingly few studies have investigated research coverage issues from journalists' perspectives (Zelizer 2004). In this study, we investigated newspaper journalists' views on working with researchers. We were particularly interested in learning how policy-oriented researchers could work constructively with journalists as a means to increase research use in policy making and thereby to improve health and healthcare. Using qualitative methods, we conducted and analyzed interviews with experienced newspaper journalists across Canada, with children's mental health as a content example. We chose this content example because mental health problems are arguably the leading health problems that Canadian children face after infancy, yet public policy often fails to reflect the best currently available research evidence on effective prevention and treatment options (Waddell et al. 2005). Furthermore, children's mental health problems can generate intense news coverage, such as during public debates about youth crime (Doob and Cesaroni 2004). This study is part of a larger project investigating the use of research evidence in public policy making, using the example of children's mental health to explore interactions among policy makers, journalists and researchers (Waddell et al. 2005).

Methods

We purposively selected journalists at daily newspapers who had an interest in children and who had experience covering children's mental health issues. We defined children's mental health broadly to include topics in health, education, social affairs or justice. We sought editors, columnists and beat reporters at national newspapers (with mandates to cover all regions across Canada) and regional newspapers (with mandates mainly in a single region). Quebec newspapers were not included, owing to lack of capacity to conduct or translate interviews in French. McMaster University and the University of British Columbia provided ethical approval for procedures to obtain informed consent and to protect participants' confidentiality.

Data collection comprised semi-structured interviews with participants (Miles and Huberman 1994; Denzin and Lincoln 2002). Interviews were conducted in 2000. The lead author (or trained research staff) interviewed participants in their own settings for 60 to 90 minutes. We inquired about journalists' experiences in general using open-ended questions, then probed about their experiences with researchers. All interviews were taped and transcribed verbatim. Field notes and interview transcripts were organized using secure file systems and QSR NUD*IST qualitative software (Gahan and Hannibal 1998). Three authors (CW, JNL, JA) reviewed transcripts as the study proceeded to identify basic concepts and to reformulate questions as needed. We stopped collecting data when conceptual saturation was reached.

Three authors (CW, CAS, TBG) conducted the main data analysis using the constant comparative approach that underpins grounded theory methods (Strauss and Corbin 1998). We independently reviewed each transcript, identified basic concepts discussed and created an electronic database with codes for each concept. We then explored our different interpretations and together identified themes emerging from the data. Throughout, we made constant comparisons with the interview transcripts and the coding to ensure that themes were broadly representative, were particularly compelling or lent coherence to the overall thematic analysis. Another author (JNL) independently reviewed several transcripts to verify the thematic analysis. The entire team then reviewed the analysis, explored different interpretations and agreed on a final selection of themes. Throughout the study, our interdisciplinary team ensured a diversity of theoretical perspectives including child psychiatry, health policy, political science and the social sciences more generally. This diversity enabled us to challenge our assumptions and interpretations at every stage.

Findings

Participants comprised 12 newspaper journalists who each had five years' experience or more covering a range of topics related to children's mental health. These topics included child development, children's services, healthcare, school programs, social affairs and youth justice. Editors, columnists and beat reporters were equally represented. National dailies were included, but most were regional dailies from different parts of Canada. Newspapers had mean weekday circulations over 200,000 and mean weekend circulations over 300,000 (Audit Bureau of Circulations 2005).

Our questions were framed in terms of children's mental health. Participants acknowledged that stories about children appealed to newspaper readers, and commented that children's coverage was often polarized between stories about "gifted" or "cute" children and troubled children. Other than this, however, study participants were disinclined to discuss the content of news coverage, whether children's mental health, children's health or children's content. Instead, they focused on what they thought researchers needed to know about journalists' roles, practices and views on working with researchers. In presenting these three generic themes that constitute our findings, we have selected quotations from participants that provide the clearest expression of each theme.

Journalists' roles within newspapers

As with any business, newspapers must generate profit to remain viable. Editors, in particular, assume responsibility for both the commercial and editorial success of

newspapers. However, they are quick to assert their independence to create editorial policy: "The only model that works is to serve the readers first and worry about the advertisers second." Conversely, some columnists and reporters suggest that their role is simply to "fill the news hole," the space that remains after advertising placement.

> Newspapers are fascinating. What happens here every day is a collision between the quasi-intellectual process and the manufacturing process, which starts with our deadlines and ends with production of the newspaper. It's a chaotic environment where many people with different interests and different expertise compete for the relatively limited space in the newspaper. – *Editor A*

Newspaper journalists also vigorously embrace social responsibilities: "We still see ourselves as having a social conscience." Editorial policy can cultivate an activist culture in a newsroom. If an editor "takes sides," then "politicians have to respond." Meanwhile, columnists and reporters can draw attention to "inequities that should be addressed by government." Many reporters engage in social activism based on a sense of responsibility to their sources and their readers: "As a human being, you want to save them; as a reporter, you're there to tell their story." Most reporters could cite news stories that "sparked debate in the legislature" or led to "direct changes in legislation."

> We made it the centrepiece of the election. They tried pretty hard to ignore it but it's on our agenda and we're hammering it. – *Editor B*

Within the newspaper hierarchy, journalists balance their business and social responsibilities according to their respective roles as editors, columnists and beat reporters. Editors assume a central role, selecting stories to appeal to a diverse readership in order to sell newspapers, increase advertising revenue and ensure profitability. Prominent coverage usually reflects the editor's perspective: "If the word comes down that the editor is interested in something, you can be assured that it gets more and more coverage." Columnists and beat reporters also perform distinct roles. Columnists are distinguished by autonomy from routine news coverage. They consider it a privilege to "have the same assignment for 10 years," in which they can pursue interests beyond the nominal topic of their column and can employ their position to exercise persuasion: "One column can stop an idea from gaining power." Like columnists, beat reporters gain experience and autonomy, but they must still pitch their stories to editors who make the final news judgments.

> We had a huge debate in this city about the anti-homophobia campaign in the schools. All the local churches met as a group and said, "We want homophobia stopped now." Then one parent said, "I'm pulling my kids out of the public

> system and putting them in private school. You can't tell my kids that homosexuality is normal." This one parent happened to be a retired football player. Guess what the lead was on that story? We argued, but the editor overruled us. That retired football player became more important than all those churches. – *Reporter D*

The daily practice of newspaper journalism

The principles of newsworthiness and relevance to readers underlie journalistic practice. Many stories are event-based: "We are controlled by what happened yesterday." Yet, it is axiomatic to journalists that only extraordinary events are newsworthy: "If someone's not doing something out of the ordinary, it's not news." Journalists describe using their "noses," or intuition, as the basis for deciding whether events are newsworthy: "We're trying to make sense of a chaotic world." Along with newsworthiness, however, it is axiomatic that newsworthy events must be relevant to newspaper readers: "What does it mean to the woman serving coffee at the doughnut shop?" When choosing to pursue a story, journalists also ensure that many readers are affected.

> It's subconscious by now. The main question is whether the issue affects patient care, whether it'll do harm or do good. I get those answers by talking to people who need the services. Then I judge whether it's just one patient or whether this affects a lot of people. – *Reporter E*

The relentless pressure of daily deadlines forces journalists to decide quickly whether events are both newsworthy and relevant to readers. Journalists throughout the newspaper hierarchy must respond to breaking news: "If an airplane hits the CN Tower, in 15 minutes all rules are off." Within hours of receiving an assignment a journalist may have to learn wholly new content, find sources for corroboration and interpretation and file the story by deadline: "Or else the paper goes without me." With deadlines looming, developing a viable story is often a matter of chance. Beat reporters and columnists increase their odds by building reliable networks of trusted sources who will respond quickly: "I'm plugged into the best people in the country."

> I have to file at 5:00. Maybe I didn't get the assignment until 10:00. Maybe I didn't figure out what the story was and what it needed until 12:00. So I have maybe three hours to get the expert. If the expert calls me back the next day, it doesn't matter. The story's gone to bed. – *Reporter F*

Views on working with researchers

Journalists describe themselves as generalists, interested in numerous topics. Therefore, even experienced columnists or beat reporters do not claim to be specialists: "We're not experts on anything other than journalism." Rather, their job is to "leverage expertise." As generalists, they depend on experts such as researchers to help them interpret newsworthy events: "We have to rely on people we trust." Journalists acknowledge that "it takes patience to be an expert" because "some academics have the utter inability to suffer fools, and many reporters are lurching into assignments as fools."

> This researcher would get angry that the newspaper would write a story about curing cancer with toothpaste, or something like that. He'd say, "But it's not in a reputable journal. Why did you put it in the paper?" Nobody here is an expert in cancer research. We can't determine whether it's a reputable journal or not. – *Reporter F*

To truly assist journalists, researchers must not only be available but also able to explain complex ideas in simple terms, "to make the salient points clear, like a bell ringing." Furthermore, researchers must be able to explain their ideas to the average newspaper reader: "Those numbers need a face." Journalists encounter many researchers who doubt that newspapers can effectively convey complex ideas in "a 14-inch story that sums up years of work" for "the equivalent of a grade eight readership." Consequently, journalists prize those researchers who can communicate with the public: "Researchers who talk like human beings are like gold!"

> Probably the most difficult task for a reporter is translating the research from jargon into plain language. Researchers will come up with a conclusion, but they won't necessarily know what it means to people, how it's going to affect their lives. Some are wonderful translators. Those are the ones who make life a joy for scribes like me. – *Reporter G*

Research organizations commonly employ communications tools such as news releases, which "often lead directly to story ideas," particularly if quantitative data are involved, because "journalists are dazzled by numbers." Journalists also appreciate research organizations that provide lists of researchers who are willing to be contacted. However, news releases meet with skepticism because newsrooms are regularly inundated with "sophisticated statistical summaries" from advocacy groups with "political purposes." Research organizations are not exempt from this skepticism.

> I'm quite skeptical of academic studies as a rule. People have an interest in promoting a certain outcome so they can get more funding. I think that many

> non-issues are perpetrated on the public. I feel that it's my job, if I can, to try to assess what is good information and what is bogus. – *Reporter H*

Despite their innate skepticism, journalists are receptive to researchers who share their personal beliefs: "There are some people who talk the same language I do, and I feel an instant rapport with them." Some researchers are known as "missionaries" or "crusaders" because they cultivate relationships with journalists and invest considerable time to synthesize and communicate research evidence on a continuing basis. Journalists welcome these uncommon contributions, which complement their own efforts "to carry on certain important conversations of the culture." Appreciating the disincentives within research organizations – "doing a lot of media work doesn't help anyone's academic career" – journalists nevertheless appeal for more researchers to join the conversation as "public intellectuals."

> In general, journalism is an intellectual pursuit. It's about the dissemination of knowledge. In my view, good academics also publish papers that can be read by people other than academics. Many academics would not accept that, but what you write should be understood by policy makers, and if policy makers can understand it, we can. After all, we're in the same business. We're all looking for solutions to problems as they arise. – *Editor B*

Discussion

Our study participants primarily focused on what they thought researchers needed to know about journalists' roles, practices and views on working with researchers. Newspaper journalists balance business and social responsibilities according to their respective roles as editors, columnists and beat reporters. In practice, journalists must ensure newsworthiness, relevance to readers and access to sources in a context of daily deadlines. As generalists, journalists rely on researchers to be expert interpreters, although they find many researchers unavailable or unable to communicate with public audiences. While journalists are skeptical about such common organizational communications tools as news releases, they welcome the uncommon contributions of those researchers who cultivate relationships and invest time to synthesize and communicate research evidence on an ongoing basis. Some appealed for more researchers to join them in participating in public conversations.

In our study, an overarching finding was that participants emphasized journalistic processes more than the content of news coverage. We interpreted this emphasis as an indication that our findings may generalize to other health areas and may therefore have generic implications for policy-oriented health researchers. Our findings on journalists' roles and perspectives were consistent with those from a more general

Canadian survey, although this survey did not investigate journalists' perspectives on researchers (Pritchard and Sauvageau 1999). Our participants effectively suggested practical routes of engagement for researchers: target like-minded editors, columnists and beat reporters according to the roles they each play; respect newsworthiness, reader relevance and daily deadlines; and be available and prepared to communicate clear research messages arising from syntheses of bodies of research knowledge on a continuing basis. We recognize that not all researchers can or should engage with journalists. Researchers may view the extraordinary events that merit news coverage as anecdotal outliers. They may struggle with the difficulties inherent in summarizing complex topics for public audiences, and may experience discomfort at being asked to comment on issues that they have not reviewed in detail. The immediate responses that journalists require may be antithetical to the measured pace of research work. Researchers should not underestimate the effort required. We were nevertheless encouraged that study participants welcomed researchers to join them in participating in public conversations.

We also interpreted our findings in light of the literature on science and health journalism that takes a normative stance on improving the quality of news coverage (Zelizer 2004; Weigold 2001; Entwistle and Watt 1999). For health journalism in particular, remedies such as research appraisal training for journalists have been suggested to improve the accuracy and completeness of research coverage (e.g., Oxman et al. 1993; Larsson et al. 2003; Moynihan 2003; Schwartz and Woloshin 2004). Health news coverage *can* be inaccurate or incomplete, with important consequences for health and healthcare at times (e.g., Cassels et al. 2003). However, our findings imply that the suggested remedies may also be incomplete if they do not take journalists' roles, practices and views into account. For example, there may be inherent limitations in how much even dedicated health journalists can apply specialized research training, given the competing demands they face. Our study participants also indicated that as generalists they relied on researchers to be the expert interpreters. Others have found a similar reliance on expert interpreters (Weiss and Singer 1988). Yet, our study participants also experienced many researchers as unavailable or unable to communicate with public audiences. This finding suggests that researchers, too, need to be part of the remedy for improving health news coverage.

… researchers, too, need to be part of the remedy for improving health news coverage

Other literature has explored mutually beneficial associations between researchers and journalists (Nelkin 1987; Dunwoody 1999). To date, much of this literature has

investigated the ephemeral contacts that arise when single studies are released to the news media (e.g., Phillips et al. 1991; van Trigt et al. 1995; Kiernan 2003). In addition to such contacts, however, our participants indicated that they appreciated relationships with researchers who invest time to synthesize and communicate research evidence on a continuing basis. Other studies have similarly concluded that researcher–journalist relationships were crucial for accurate and ethical news coverage of such complex health topics as genetic discoveries (Geller et al. 2005), and that researchers bore some responsibility for ensuring that news coverage was constructive (Bubela and Caulfield 2004). Ongoing relationships with journalists appear to offer a constructive opportunity for policy-oriented health researchers to go beyond the promotion of single studies to convey more nuanced interpretations of bodies of research evidence in the service of improving health and healthcare.

Further research would help both to consolidate the currently disparate literature on journalism (Zelizer 2004) and to test hypotheses raised by a formative, qualitative study such as ours. Researchers may be part of the remedy for improving health coverage. New research should investigate researchers' perspectives and should evaluate the role of factors such as media training for researchers that may facilitate engagement, or organizational tenure and promotion disincentives that may impede it. Beyond promoting single studies, researchers may be influential when they engage in ongoing relationships with journalists. New research should evaluate the quality of the research messages and syntheses conveyed by researchers who do engage and could investigate how ongoing relationships might assist journalists to communicate with the public about nuanced health topics, such as the determinants of health, or nuanced healthcare topics, such as primary care reform.

We conclude that there are opportunities for policy-oriented health researchers to work constructively with newspaper journalists – by appreciating journalists' perspectives and by taking seriously some of their suggestions for engaging in public conversations – as a means to increase the use of research evidence in policy making and thereby improve health and healthcare. Given the news media's importance in public policy agenda-setting, our current findings imply that researchers can contribute to public policy debates about salient issues. In previous research, we also found that research use in policy making could be enhanced if researchers engaged in public debates (Waddell et al., in press). There are compelling reasons for researchers to engage, amid increasing calls for scientific accountability to the public (Black and Carter 2001). As one of our participants noted, journalists and researchers share a common purpose: "We're all looking for solutions." Ultimately, journalists and researchers, together with policy makers, are accountable to the person "serving coffee at the doughnut shop" for how well they achieve this common purpose.

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PEER REVIEWED PAPER

Coming of Age and Taking Stock: The State of Academic Health Policy Research Centres in Canada

Prise de conscience et bilan : État des centres de recherche universitaires sur les politiques de santé au Canada

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Abstract

This descriptive study takes stock of the nation's health services and health policy research capacity by profiling the organizational models, operational challenges and success strategies utilized by Canadian academic health policy research centres. While each such centre is unique, the results point to some common themes, including symbiotic relationships between centres and their ministries of health, pervasive infrastructure funding challenges and the importance of having a supportive academic home.

Résumé

Cette étude descriptive fait le point sur les capacités de recherche en matière de services et de politiques de santé du pays en décrivant les modèles organisationnels, les problèmes opérationnels, ainsi que les stratégies de réussite qu'utilisent certains centres de recherche universitaires sur les politiques de santé au Canada. Bien que chaque centre soit unique, les résultats semblent indiquer quelques thèmes communs, notamment les relations symbiotiques entre les centres et leur ministère de la Santé respectif, les problèmes répandus de financement des infrastructures et l'importance d'être rattaché à un établissement d'enseignement propice à l'épanouissement.

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Certain developments attest to the coming of age of a discipline. Among these are the emergence of stable funding sources, the formation of professional organizations and the establishment of peer-reviewed journals. The field of Canadian health policy and health services research has recently undergone such rites of passage. In 1997, the Canadian Health Services Research Foundation was established to fund such research and was joined in 2000 by the Institute of Health Services and Policy Research at the Canadian Institutes of Health Research (Canadian Health Services Research Foundation 2004; Canadian Institutes of Health Research 2005). Professional organizations have begun to emerge as well, starting with the Canadian Health Economics Association's evolution into the broader Canadian Association of Health Services and Policy Research and the formation of the nascent Network of Applied Health Services Research Centre Directors. Finally, in 2004, the journal *Healthcare Policy* was launched. The inaugural issue of *Healthcare Policy* provides an appropriate venue for taking stock of the nation's academic health policy research centres.

The purpose of this study was to collect descriptive data on Canada's academic health policy research centres, from which to identify the challenges they face and the strategies they deploy in achieving success.

Methods

This descriptive study was conducted using semi-structured telephone interviews with the directors of selected Canadian academic health policy research centres. The interview tool, which contained approximately 50 questions, covered five broad areas: (1) general information (i.e., history, target audiences, etc.); (2) staffing and collaboration; (3) structure; (4) funding; and (5) external resources and performance measures. These themes were chosen *a priori* by the investigators, based on personal experience in directing a centre (SS) and on a previous study of American health policy centres (MM) that confirmed the relevance of these domains to identifying organizational challenges and coping strategies.

Because detail and description were deemed critical to garnering a complete understanding of the structure and operations of participating centres, the study was designed to be primarily qualitative rather than quantitative (Creswell 1998). Moreover, as not all questions were applicable to every centre, the semi-structured nature of the interviews allowed the interviewer (MM) to tailor questions based on responses and elicit further information where warranted. Interviews were conducted between October and December 2004, and generally lasted one hour.

Sample

For inclusion, centres had to meet the following selection criteria: (1) having a primary focus on health services, health policy research, or both, and being formally established for and devoted to such research generally; (2) designation in name as a "centre," "unit," "institute" or an equivalent; (3) being located in Canada; and either (4a) having a university affiliation or (4b) being included in the Network of Applied Health Services Research Centre Directors. University departments or schools were deemed inappropriate to include, given that their funding and organizational structures differ significantly from centres and that they have a more prominent pedagogical orientation.

Analysis and Results

Participation

Thirteen entities were identified that met the inclusion criteria, and all participated (Table 1).

Centre audiences

Centres reported focusing on themes of healthcare quality, efficiency, effectiveness, equity or access, and many emphasized the policy relevance and interdisciplin-

TABLE 1. Participating Canadian health policy centres

Centre Name: Centre for Health Economics and Policy Analysis
Affiliated University: McMaster University
Centre Location: Hamilton, ON
Centre Website: http://www.chepa.org

Centre Name: Centre for Health and Policy Studies
Affiliated University: University of Calgary
Centre Location: Calgary, AB
Centre Website: http://www.chaps.ucalgary.ca

Centre Name: Centre for Health Services and Policy Research
Affiliated University: Queen's University
Centre Location: Kingston, ON
Centre Website: http://chspr.queensu.ca

Centre Name: Centre for Health Services and Policy Research
Affiliated University: University of British Columbia
Centre Location: Vancouver, BC
Centre Website: http://chspr.ubc.ca

Centre Name: Centre for Rural and Northern Health Research
Affiliated University: Laurentian University*
Centre Location: Sudbury, ON
Centre Website: http://www.CRaNHR.ca
Affiliated University: Lakehead University
Centre Location: Thunder Bay, ON
Centre Website: http://flash.lakeheadu.ca/~cranhr/home.html

Centre Name: Groupe de recherche interdisciplinaire en santé
Affiliated University: Université de Montréal,
Centre Location: Montréal, Québec
Centre Website: http://www.gris.umontreal.ca

Centre Name: Institute for Clinical Evaluative Sciences**
Centre Location: Toronto, ON
Centre Website: http://www.ices.on.ca

Centre Name: Institute of Health Economics
Affiliated University: University of Alberta
Centre Location: Edmonton, AB
Affiliated University: University of Calgary
Centre Location: Calgary, AB
Centre Website: http://www.ihe.ca

Centre Name: Institute of Population Health
Affiliated University: University of Ottawa
Centre Location: Ottawa, ON
Centre Website: http://www.iph.uottawa.ca/English/welcome.htm

Centre Name: Manitoba Centre for Health Policy
Affiliated University: University of Manitoba
Centre Location: Winnipeg, MB
Centre Website: http://www.umanitoba.ca/centres/mchp

Centre Name: Newfoundland and Labrador Centre for Applied Health Research
Affiliated University: Memorial University of Newfoundland
Centre Location: St. John's, NL
Centre Website: http://www.nlcahr.mun.ca

Centre Name: Nursing Health Services Research Unit
Affiliated University: University of Toronto*
Centre Location: Toronto, ON
Affiliated University: McMaster University
Centre Location: Hamilton, ON
Centre Website: http://www.fhs.mcmaster.ca/nru

Centre Name: Population Health Research Unit
Affiliated University: Dalhousie University
Centre Location: Halifax, NS
Centre Website: http://phru.medicine.dal.ca

*These centres have multiple sites and university affiliations; only the site marked with an asterisk (*) participated.

**The Institute for Clinical Evaluative Sciences has no formal university affiliation, but it is located on the Sunnybrook and Women's College campus and draws its affiliated investigators from university faculty.

ary nature of their research. Nearly all centres identified their primary audiences as including healthcare policy makers, especially provincial ministries of health, which were listed by 12 of the 13 centres as one of their target audiences. This focus on provincial healthcare policy makers is an example of the close ties between most centres and their respective ministry. In fact, centre–ministry linkage is a central theme arising from the study. This phenomenon is attributable to provincial ministries' role as core funders of the majority of centres, as well as provinces' primary responsibility for health services provision under the Canada Health Act. The next most commonly identified centre audience, mentioned by nine centres, was federal healthcare policy makers, such as Health Canada. Whether referring to federal or provincial policy makers, however, centres generally eschew legislative policy makers and target those in the executive branch instead; this choice appears to stem from centres' concern over tarnishing their reputation for objectivity and non-partisanship. Other frequently mentioned audiences were researchers and other research organizations; healthcare entities, including provider organizations and professional associations; clinicians; regional health authorities; and the public.

Communications strategies

While the needs of these varied audiences differ, centres cited relationship-based activities involving face-to-face interaction as a universally effective outreach strategy. Examples of these activities include regular meetings with key funders, such as ministries of health; collaborative research projects that engage the target audience from design through dissemination; informal, individual centre investigator–audience member linkages; and audience member appointments to centre work groups and advisory panels. A few centres designate an audience liaison charged with conducting and coordinating such relationship-building efforts.

Other reportedly effective communication tools employed by centres include educational events, ranging from large annual symposia to tailored workshops geared towards the interests of a particular audience; publications, especially one- or two-page project briefs summarizing key findings; and electronic media, such as websites and newsletters distributed via email. Centres typically utilize multiple communication vehicles, and those centres most attuned to audience outreach, relationship building and knowledge transfer stressed the need for centre leadership to formulate a communications strategy and designate an individual to oversee its day-to-day implementation. In addition, a pithy observation was made: no matter how good a centre's research may be, if the topic is not on policy makers' radar at the time, the results will garner little interest or uptake. Yet, centres acknowledged their ability to temper this phenomenon by jointly selecting research projects with policy maker partners and involving these partners in all project phases. This approach, however, comes with a

caveat for maintaining centre autonomy: academic-affiliated centres must balance this approach with supporting purely investigator-driven research and declining policy maker-requested projects with little academic relevance or unrealistic timeframes.

Tracking contact

Regardless of the mechanisms used, tracking these centre–audience communications is increasingly important because, with growing frequency, funders are utilizing such interactions as a proxy measure for centre effectiveness. Thus, while centres may dispute the accuracy of this proxy, the vast majority monitor their interactions either through informal or formal means, or both. Among the informal mechanisms in use are direct contacts, inquiries and unsolicited feedback from audience members, as well as invitations to provide presentations and consultations. Formal tracking mechanisms include website "hits," peer-reviewed article placements, centre-related media contacts and coverage, and project evaluations focused on uptake. Nevertheless, tracking centre–audience interactions is fraught with difficulty for some centres because they either lack the resources to institute or adequately maintain such efforts, or the number and geographical distribution of their affiliated investigators make monitoring virtually impossible.

University affiliation

The overwhelming majority of participating centres is affiliated with a university, either as a stand-alone entity within the institutional rubric or as a faculty-based unit, typically within medicine, health sciences or nursing. A small minority of centres, however, has looser institutional ties – whether through renewable membership agreements with affiliated universities or through location on university property and affiliations with university-based investigators. Regardless of the nature of the affiliation, however, centres universally prize this institutional association because of the heightened perception of integrity and objectivity that accrues to the centre and its products as a result.

In addition to claiming an academic "home," centres engage in varied efforts to maintain the external perception that they and their research are objective. Some employ legal mechanisms, such as contract language addressing academic freedom, publication rights and conflicts of interest. Centres also often decline industry support, instead seeking funding through grant competitions. In terms of approaches to research methods, centres avoid proprietary projects and projects with little relevance, apply academic protocols in their traditional and applied research, utilize external project reviewers prior to dissemination, publish results in peer-reviewed journals and adopt only evidence-based positions.

Another university-oriented key to health policy centre success, given the complexities of the area of study, is developing and maintaining a multidisciplinary team of core and affiliated investigators. University linkage is a boon in this endeavour, as well, as access is provided to researchers in the full range of disciplines. To capitalize, centres offer incentives such as support services, funding opportunities, collaborative projects and co-location to entice faculty to become affiliated investigators. Four participating centres offer two additional, unique and highly prized incentives owing to their role as delegated repositories for and custodians of provincial health data (data centres): access to health data and data analysis services. The benefit of serving as a data centre, as related to attracting investigators, is constrained, however, by privacy and confidentiality concerns, which generally mandate more formal affiliation agreements and geographical proximity between the centre and the investigator.

Adopting a multidisciplinary approach means that centres must work across numerous university faculties, creating a matrix structure. While this structure enables the necessary affiliations, it also creates unique challenges for centre management. Because investigators report to their respective departments, rather than to the centre, centres tend to have little formal control over affiliated investigators and may find themselves in competition with home departments for researcher-generated overheads. Additionally, centres hold little sway over departmental reviews of investigators. This situation was of particular concern to a number of participating centres because their associated universities fail to reward applied research and knowledge transfer activities on par with traditional research, peer-reviewed publication and teaching.

Centre funding

Funding is, by and large, the predominant challenge that centres face. Of particular concern is stagnant and, often, shrinking infrastructure funding. This trend can constrain centres because they tend to rely on single sources for the majority of their infrastructure support – typically ministries of health, which provide core funding to nearly all participating centres and serve as the primary funding source for just under half of the participating centres. As a result, centres are forced to do more with less – constricting growth and curtailing new and existing services. Data centres, in particular, are especially vulnerable because they tend to be almost exclusively dependent on ministry funding for infrastructure support, and their core operations require that they maintain a cadre of highly skilled technical staff. The other logical providers of infrastructure support – affiliated universities – are increasingly short of resources, given the state of higher education funding in Canada (Rae 2005). Nevertheless, universities provide limited infrastructure support to the majority of centres. Due to the continuing financial stress they are under, however, the sustainability of these contributions is questionable. Moreover, universities' reticence to fill open tenure-track posi-

tions and to create new ones, under the present financial picture, diminishes centres' ability to assemble and maintain a core of multidisciplinary investigators, especially as most grants make no provision for faculty salary support.

Another major anxiety surrounds stability of funding. This issue stems from the cyclical nature of grants and contracts, which are key funding sources for the vast majority of centres. Such term-limited funding requires that intensive effort be focused on applying for grants and on ensuring contract renewals – ultimately reducing the resources available to centres' core research and knowledge transfer functions. In addition, grant and contract funding generally comes with restrictions on how the funds can be spent. Thus, unfunded activities – often knowledge transfer and performance measurement – may fall by the wayside.

A few centres have sought out non-traditional funding sources, such as industry – the pharmaceutical industry, in particular. In these instances, however, private-sector support has not constituted the primary source of centre revenues. Nevertheless, other centres flatly refuse such industry support because of objectivity-related concerns.

To cope with funding woes, centres typically tend to engage in one of two strategies: (1) being guided by centre-defined research themes and areas of expertise in the pursuit of funding or (2) being opportunistic. Yet, regardless of the strategy undertaken, centre success in the funding arena seemingly comes down to a handful of fundamental factors. The most commonly cited of these is developing and maintaining a critical mass of well-respected, high-calibre, committed investigators. The next is the exogenous factor of working in a booming research domain, where project funding is increasingly available. The remaining three factors are building relationships with and getting buy-in from key funders; producing quality, relevant work; and retaining a well-respected, connected director. Data centres noted an additional factor – their role as data custodians.

Performance measurement

Tied directly to funding issues is the need for and utilization of performance measures. Funders, especially ministries of health, increasingly emphasize accountability. As a result, both funders and centres alike have begun to look to metrics and benchmarks as a means of quantifying performance.

In the absence of any consensus in practice or in the literature on appropriate metrics by which to gauge research centre performance, most centres select their own indicators and compare their performance internally over time. Typically, indicators include such standard academic metrics as the number of peer-reviewed publications, the ratio of core funding to other research dollars generated, research dollars per researcher, overall annual funding and the number of graduate students supervised.

A second, though largely informal, method of performance measurement engaged

in is "best-in-class" benchmarking, whereby centres compare themselves to others that they view as leaders in the field. The centres most commonly perceived in this fashion are the Centre for Health Services and Policy Research at the University of British Columbia, the Institute for Clinical Evaluative Sciences, *Groupe de recherche interdisciplinaire en santé* at the University of Montreal and the Manitoba Centre for Health Policy at the University of Manitoba. Interestingly, two of these three entities, are longstanding data centres. While such comparisons may be relevant for other data centres, it is not clear that such centres are appropriate benchmarks for centres that do not play a data-repository role.

A third mechanism employed by centres to monitor their performance is external reviews. These audits, conducted every few years, assess all areas of centre performance and operations. They are generally an internal requirement of the home university, but in some cases are mandated by core funding contracts with ministries of health.

Discussion and Conclusions

This descriptive study has found that Canadian university-based health policy research centres are notable for their diversity of size, funding and areas of research strength. Despite such heterogeneity, however, they are strikingly similar in the challenges they identify and the coping strategies they devise. Key challenges identified in our study include communicating effectively with target audiences, developing strong university support, ensuring stable funding and demonstrating appropriate performance by objective criteria. Among the strategies for success reported by respondents were nurturing ongoing relationships with decision-makers; recruiting affiliated faculty from across disciplines and lobbying university officials for a better understanding of applied health research; actively seeking stable funding from both government and universities, as well as private endowments; and finally, developing the capacity to demonstrate high-calibre academic research of relevance to policy makers.

Among the various challenges faced by centres, one stands out as dominant for most: the struggle to maintain operational continuity in the face of absent or scant infrastructural funding. There are clearly several factors contributing to this instability. Most centres depend heavily on core funding from ministries of health, a contribution that must be periodically renegotiated and is unpredictable in size or longevity. While additional support may be received from home institutions, for more than a decade universities across Canada have operated under severe resource constraints. Moreover, as extra-departmental structures, centres tend to be excluded from the normal departmentally based flow of internal university funds. Indeed, organizational change within institutions does not appear to have kept pace with enthusiasm for spawning interdisciplinary research groups. Finally, the availability of funding-agency program or team grants may supplement, but is not an adequate substitute for, stable infrastructural

funding. Such grants are term-limited and restricted in how they may be spent, and focus on a designated series of research projects.

Health policy research centres in Canada face another, more conceptual issue: the challenge of serving two quite different masters. Provincial ministries provide support for centres and, in return, generally have some claim on research time. Questions of interest to decision-makers may have little academic interest. The rapidity of response time is often at odds with both a researcher's view of academic thoroughness and prior commitments. Frequently, decision-makers attempt to apply conditions of confidentiality to projects that compromise university views of intellectual property rights. For their part, universities tend to discount the worth of providing advice to government or doing applied research that does not translate into academic output. Indeed, merit in the university is generally gauged by receipt of peer-reviewed funding and peer-reviewed publication, neither activity being of primary interest to the other master. Striking a balance in allocating time and resources to serve the divergent interests of these two masters, and educating each to respect the perspectives of the other, represents a defining task for the health policy centres.

It seems reasonable to conclude that Canadian academic health policy research centres are, paradoxically, both thriving and yet precarious.

Despite such divergent world views, however, there may be a critical area of accord between ministries of health and academic institutions upon which to build a broader understanding. There is a shared recognition in government and academe of the important capacity-building role that health policy centres can play. For example, recent reviews of the Canadian health system directed by both Roy Romanow and Senator Michael Kirby (Romanow 2002; Kirby 2002) drew heavily on commissioned academic research, the existing peer-reviewed literature and expert testimony in formulating their conclusions. This academic resource, in contrast to the advocacy role associated with many "think tanks," provided what is generally seen as objective opinion on key issues. Ensuring a capacity for academically informed decision-making across all levels of the healthcare system will demand the ongoing production of post-graduate trainees in health policy and health services research. This need is no different from other human resources requirements in the health system and, arguably, would justify ministries' creating permanent funding solutions. Universities, for their part, would need to respond by recognizing the academic role of applied health systems research.

Moving forward with conjoint support from government and universities, however, would confer a critical responsibility upon health policy research centres: they must be able to demonstrate their applied and academic value. This will require the development of performance indicators that are as compelling to a provincial auditor as they are to a faculty promotion committee. Achieving absolute consensus on measures from 13 centres, funded by various provincial ministries of health and located within different universities, is unlikely; however, the development of a generic template readily modifiable to suit local circumstances is an achievable goal.

It seems reasonable to conclude that Canadian academic health policy research centres are, paradoxically, both thriving and yet precarious. The field of health services and policy research shows signs of vibrant maturation, a process to which the research output of the centres has significantly contributed. At the same time, however, centres lack the stability of funding and academic recognition that will ensure future research productivity and capacity development. Whatever other interventions may be suggested by this study, it is clear in aggregate that the centres deserve periodic scrutiny of their challenges and successes.

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Canadian Institutes of Health Research

Scientific Director

Institute of Health Services and Policy Research

The CIHR Institute of Health Services and Policy Research (IHSPR) supports outstanding research, capacity-building and knowledge translation initiatives designed to improve the way health care services are organized, regulated, managed, financed, paid for, used and delivered, in the interest of improving the health and quality of life of all Canadians.

Scientific Director

As the leader of CIHR's Institute of Health Services and Policy Research, in collaboration with the Institute Advisory Board, the Scientific Director will foster:

- innovation, integration and leadership for health services and policy research;
- partnership and capacity building and community development;
- knowledge creation through excellent health research; and
- exchange and transfer of knowledge with and to those best positioned to apply the results of that research.

Your proven ability to engage in effective and creative partnerships will contribute substantially to the success of the Institute and will build new support for research. Your enterprising efforts will build new bridges, accelerating the translation of research results into improved health for Canadians and a strengthened Canadian health care system.

In addition, as an integral part of CIHR's senior management team, you will work closely with the President, fellow Scientific Directors and other CIHR executive staff, on all matters affecting the policies, functions and direction of CIHR, particularly Canada's health research agenda.

The initial appointment is for a four-year term, with the possibility of up to a three year extension.

Continuation of an independent research program will be highly encouraged and is recognized as a legitimate component of the Scientific Director Accountability Profile.

The successful candidate must be, or must become affiliated with a recognized Canadian university.

It is expected that the Scientific Director will remain at his/her current location. Arrangements will be negotiated with the host institution.

APPLICATION

The successful applicant will have a Ph.D. or equivalent in a discipline directly relevant to health systems, services and policy, from a recognized university. (S)he will be recognized internationally as an outstanding health services/policy researcher. Experience in research team leadership, management, and partnership/collaboration development is required. The role of Scientific Director for IHSPR demands knowledge of the Canadian health care system, and the policy, management and delivery challenges facing it. Knowledge of the relative strengths, gaps and opportunities in the Canadian and international health services and policy research communities is also important to this position. Applicants should be Canadian citizens or landed immigrants. Proficiency in both official languages is an asset.

Submissions must be received by October 28, 2005.

Canadian Institutes of Health Research
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CIHR IRSC
Canadian Institutes of Health Research / Instituts de recherche en santé du Canada

The Canadian Institutes of Health Research is the government of Canada's agency for health research. Since its creation in 2000, CIHR has established 13 Institutes that are responsible for identifying and supporting health research priorities in consultation with the research community, universities, hospitals, health charities, governments, industry and the public.

Canada

Instituts de recherche en santé du Canada

Directeur scientifique

Institut des services et des politiques de la santé

L'Institut des services et des politiques de la santé (ISPS) des IRSC appuie des initiatives en matière de recherche innovatrice, de renforcement des capacités et d'application des connaissances conçues pour améliorer l'organisation, la réglementation, la gestion, le financement, le paiement, l'utilisation et la prestation des services de soins de santé, dans le but d'améliorer la santé et la qualité de vie de toute la population canadienne.

Directeur scientifique

En tant que responsable de l'Institut des services et des politiques de la santé des IRSC, en collaboration avec le conseil consultatif de l'Institut (CCI), le directeur scientifique encouragera :

- l'innovation, l'intégration et le leadership dans la recherche sur les services et les politiques de la santé;
- l'élaboration de partenariats, le renforcement des capacités et le développement communautaire;
- la création de connaissances grâce à d'excellentes recherches en santé;
- l'échange et le transfert des connaissances avec et vers ceux qui sont les mieux placés pour appliquer les résultats de ces recherches.

Votre capacité reconnue à vous engager dans des partenariats efficaces et créatifs contribueront aux succès de l'Institut et consolideront les nouveaux appuis à la recherche. Votre esprit d'initiative jettera de nouveaux ponts, accélérant ainsi l'application des résultats de la recherche pour améliorer la santé des Canadiens et Canadiennes et renforcer le système de santé du Canada.

De plus, à titre de joueur à part entière de l'équipe de cadres supérieurs des IRSC, vous travaillerez en étroite collaboration avec le président, vos collègues directeurs scientifiques et les autres cadres des IRSC, sur toutes les questions qui touchent les politiques, les fonctions et la direction des IRSC, et en particulier sur le programme de recherche en santé au Canada.

La nomination initiale sera d'une durée de quatre ans avec la possibilité d'une prolongation maximale de trois ans.

La poursuite d'un programme indépendant de recherche sera fortement encouragée et reconnue comme un élément légitime du profil de responsabilités du directeur scientifique.

Le candidat retenu doit être ou devenir un membre affilié d'une université canadienne reconnue.

On s'attend à ce que le directeur scientifique demeure où ils est actuellement. Des arrangements seront négociés avec l'établissement hôte.

DEMANDE

Le candidat retenu détiendra un doctorat ou l'équivalent dans une discipline directement liée aux systèmes, services et politiques de la santé, d'une université reconnue. Il sera reconnu à l'échelle internationale comme chercheur exceptionnel sur les services et les politiques de la santé. Une expérience de la direction d'une équipe de recherche, de la gestion et de l'établissement de partenariats ou de collaborations est nécessaire. Le rôle de directeur scientifique de l'ISPS exige une connaissance du système de santé canadien ainsi que des défis à y relever en matière de politique, de gestion et de prestation de services. Une connaissance des forces relatives, des lacunes et des possibilités dans les milieux canadiens et internationaux de la recherche sur les services et politiques de la santé est aussi importante pour ce poste. Les candidats doivent être citoyens canadiens ou résidents permanents. S'exprimer avec facilité dans les deux langues officielles est un atout.

Les candidatures doivent être reçues au plus tard le 28 octobre 2005.

Instituts de recherche en santé du Canada
Kim Leblanc, Conseillère en ressources humaines
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Le masculin est employé à titre générique afin d'alléger le texte et désigne autant le féminin que le masculin.

IRSC CIHR
Instituts de recherche en santé du Canada Canadian Institutes of Health Research

Les Instituts de recherche en santé du Canada sont l'organisme de recherche en santé du gouvernement du Canada. Depuis leur création en 2000, les IRSC ont établi 13 instituts qui sont chargés de déterminer et de soutenir les priorités de recherche en santé de concert avec le milieu de la recherche, les universités, les hôpitaux, les organismes de bienfaisance dans le domaine de la santé, les gouvernements, l'industrie et le public.

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