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Politiques de Santé

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

Volume 2 • Number 4

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Healthcare Policy/Politiques de Santé seeks to bridge the worlds of research and decision-making by presenting research, analysis and information that speak to both audiences. Accordingly, our manuscript review and editorial processes include researchers and decision-makers.

We publish original scholarly and research papers that support health policy development and decision-making in spheres ranging from governance, organization and service delivery to financing, funding and resource allocation. The journal welcomes submissions from researchers across a broad spectrum of disciplines in health sciences, social sciences, management and the humanities and from interdisciplinary research teams. We encourage submissions from decision-makers or researcher–decision-maker collaborations that address knowledge application and exchange.

While *Healthcare Policy/Politiques de Santé* encourages submissions that are theoretically grounded and methodologically innovative, we emphasize applied research rather than theoretical work and methods development. The journal maintains a distinctly Canadian flavour by focusing on Canadian health services and policy issues. We also publish research and analysis involving international comparisons or set in other jurisdictions that are relevant to the Canadian context.

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Healthcare Policy/Politiques de Santé cherche à rapprocher le monde de la recherche et celui des décideurs en présentant des travaux de recherche, des analyses et des renseignements qui s'adressent aux deux auditoires. Ainsi donc, nos processus rédactionnel et d'examen des manuscrits font intervenir à la fois des chercheurs et des décideurs.

Nous publions des articles savants et des rapports de recherche qui appuient l'élaboration de politiques et le processus décisionnel dans le domaine de la santé et qui abordent des aspects aussi variés que la gouvernance, l'organisation et la prestation des services, le financement et la répartition des ressources. La revue accueille favorablement les articles rédigés par des chercheurs provenant d'un large éventail de disciplines dans les sciences de la santé, les sciences sociales et la gestion, et par des équipes de recherche interdisciplinaires. Nous invitons également les décideurs ou les membres d'équipes formées de chercheurs et de décideurs à nous envoyer des articles qui traitent de l'échange et de l'application des connaissances.

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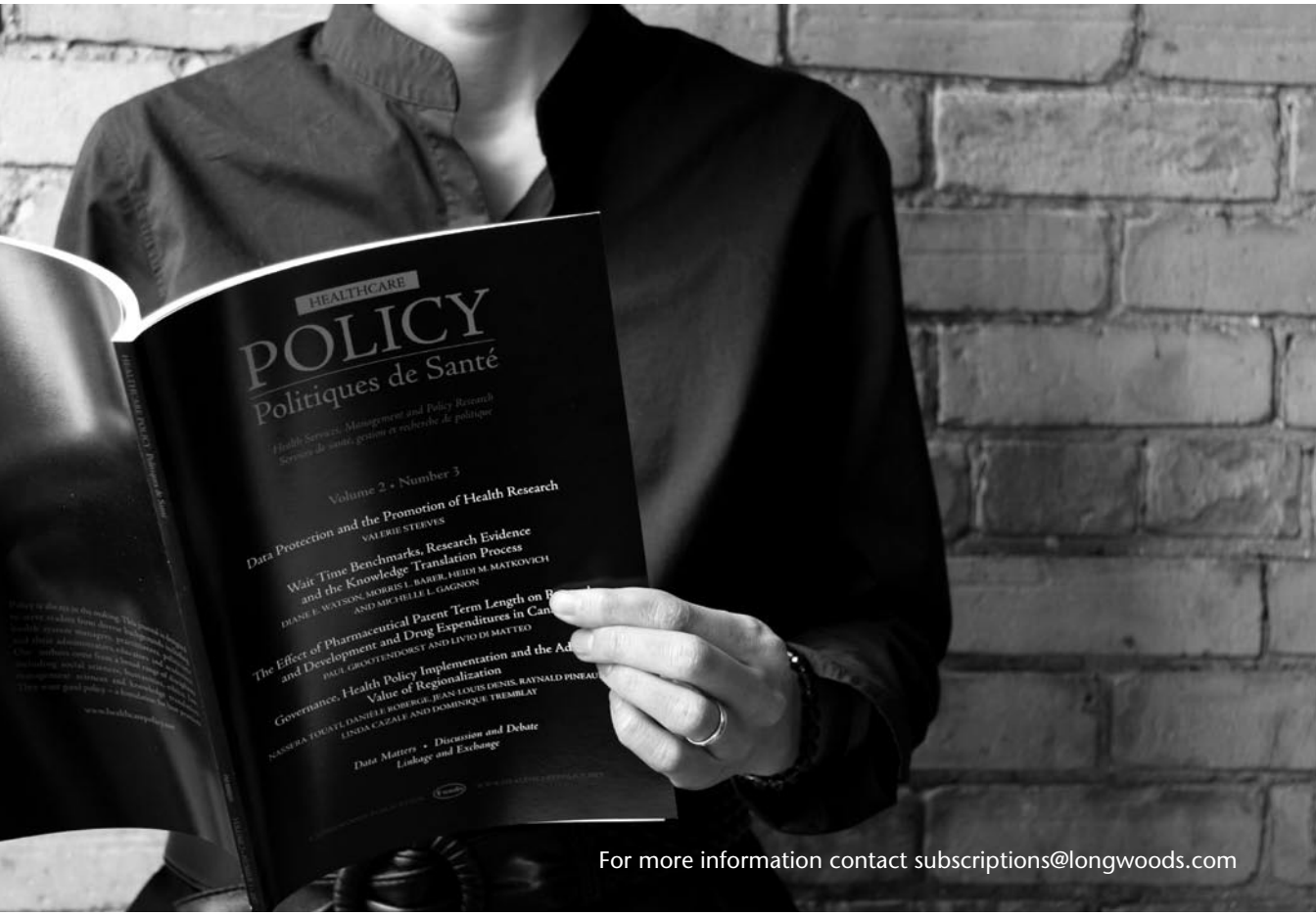

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EDITORIAL

Divvying Up the Funding Pie: What Share for Health Services and Policy Research?

Annual funding of health services research by the Canadian Institutes of Health Research has increased spectacularly from $1.9 million in 1999/2000, its inaugural year, to $39.6 million in 2005/06 (personal communication, Ellen Melis, Assistant Director, Institute of Health Services and Policy Research, April 4, 2007).[1] Even after the contributions of other important federal funders of health services research are accounted for, the increase remains impressive – from a baseline of about $8 million pre-CIHR to $44.1 million in 2005/06.[2]

This massive growth in federal support should warm the hearts of health services researchers and all those who believe that a vastly expanded pool of relevant research evidence is needed to inform health policy development and health system management in the public interest. However, viewed in the context of the distribution of CIHR funding across its four research themes – biomedical; clinical; health systems and services; and population and public health – the picture is less comforting.

In 2005/06, biomedical research accounted for 70% of CIHR research expenditures, while 13.6% flowed to clinical research, 6% to health services research and 10% to population health research (personal communication, Ellen Melis, Assistant Director, Institute of Health Services and Policy Research, April 4, 2007). The health services' share of research funding has fluctuated between 5.6% and 6.4% since 2002/2003. Between 1999/2000 and 2005/2006, CIHR's research funding expenditures more than doubled from $275.2 million to $657.8 million. Of this increase, 60% went to biomedical research, 14.3% to clinical research, 9.9% to health services research and 15.4% to population health research.

Beneath these figures lies a series of questions. How are allocation decisions made? What is the "right" distribution of research funding among the theme areas? Who should decide? On what grounds?

The mandate of CIHR is "to excel, according to international standards of scientific excellence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products and a strengthened

Canadian heath care system" (Bill C-13, April 13, 2000). The CIHR's Governing Council is charged with overseeing "the direction and management of the property, business and affairs of the CIHR" (CIHR 2005). Among its responsibilities are the development of "strategic directions, goals and policy" and budget approval, "including funding for research." The current Council consists of 18 members, all but two of whom are researchers, research administrators or both. The Deputy Minister of Health is an ex-officio member. CIHR is accountable to Parliament through the Minister of Health.

CIHR has consistently adhered to an informal policy of allocating 70% of its research funding to investigator-initiated research and personnel awards (open competition) and 30% to strategic initiatives. As a result, the allocation of funding to research themes is largely passive, driven by the supply and distribution of capable applicants across the theme areas. These, in turn, reflect historical (pre-CIHR) investments in research and research capacity, and in the development of new research capacity since CIHR's inception.

Because of the processes through which they are identified, strategic initiatives offer only limited scope for altering the distribution of funding across thematic areas. Strategic initiatives are developed primarily by CIHR's 13 Institutes (one of which is the Institute of Health Services and Policy Research), and funds for strategic initiatives are allocated equally among them. All Institutes are expected to allocate some proportion of their strategic funds to each of the four thematic areas, although the proportion flowing to each theme is discretionary. In addition, CIHR supports a small number of cross-cutting strategic initiatives identified by a committee that consists mainly of the Scientific Directors of the Institutes. The horse trading that is likely to be involved in this process, and the modest resources available, militate against any significant realignment of funding to thematic areas through cross-cutting initiatives.

The CIHR Governing Council (GC) has clearly struggled with the issue of resource allocation over the years:

> "GC was asked to consider the following strategic questions in its discussion:
> 1. How should CIHR's resources be allocated?
> 2. Does CIHR have the correct array and balance of expenditures across initiatives to achieve its legislated mandate? …
>
> Balance in terms of funding research excellence across CIHR's four thematic areas of research … was debated at length. Points made included the relative merits of Institute strategic initiatives over open competitions; the need to accommodate research areas of health policy and services and population health without destabilizing the current support given in the research areas of biomedical and clinical research; the conflicting demands of disciplinary excellence and

> capacity building; the need for academic freedom; and the pressure from partners, governments, lobbyists and the public to direct and control the research agenda." (Meeting minutes, Governing Council Retreat, August 22–23, 2002)

> "Council agreed that the 70:30 ratio was arbitrary … The 70:30 ratio was a surrogate for a number of broader issues which concern council: Are the investments strategic? ... Do these investments represent good value to Canadians and is there a positive impact on the health of Canadians and the health care system? Should (and if so how) Council prioritize the areas of health research that CIHR should focus on?" (Minutes, Governing Council Retreat, August 25–27, 2004)

> "Council noted [in response to mid-term evaluations of the Institutes] that … a number of questions will need to be considered in the future. For example: does CIHR have the balance right between Operating Grants and Strategic Initiatives…?" (Meeting minutes, Governing Council, March 22–23, 2005)

Despite this recurrent soul searching, CIHR's Governing Council has invariably fallen back on the 70:30 split and has failed to establish targets for the distribution of research and capacity-building resources to the four thematic areas.

CIHR's difficulty in addressing this issue is understandable. The organization has highlighted the need to demonstrate to Canadians and the federal government its "overall return on investment" (ROI) and has committed itself to establishing funding priorities based on the "best available evidence" (CIHR 2004). However, as CIHR acknowledges, determining return on research investments is "a particularly vexing challenge" because "demonstrating direct and objective links between particular research investments and immediate short-term or long-term, identifiable and measurable outcomes is difficult" (CIHR 2004). If measurement is "difficult," what does that say about prediction – which forms the basis for resource allocation decisions guided by ROI considerations? Despite CIHR's determination to develop an ROI framework (CIHR 2004), credible and coherent evidence is unlikely to be available in the foreseeable future (or perhaps ever) to allow CIHR to make confident resource allocation decisions based solely on ROI criteria.

Fundamentally, CIHR is an organization *of* health researchers, *by* health researchers, *for* health researchers, despite occasional rhetoric to the contrary. Accordingly, it is bound to shy away from actions that threaten the cohesion of the research community. Any decision to strategically realign the distribution of research funding across CIHR's thematic areas (especially in the absence of persuasive evidence about the effects of doing so) is certain to inflame existing tensions between occupants of the four themes. Researchers associated with a losing theme are likely to protest that

academic freedom and support for scientific excellence are being savaged and that Canada's "best and brightest" in that thematic area will depart in droves for greener pastures. And any reallocation *to* health services research would almost certainly be *from* basic research in a zero sum world. Basic researchers, for historical reasons, are by far the largest, and therefore potentially noisiest and most influential, lobby group within the CIHR family. Given this context, in the absence of strong external pressure, CIHR as currently constituted is likely to alter the current distribution of research funding slowly, in small increments, and mainly passively (i.e., through the open competition process) rather than strategically.

CIHR has declared that "the public interest is of paramount importance in the creation and use of health knowledge through all research and related activities supported by CIHR" (CIHR 2004). If this is true, how should CIHR's research funding priorities be established? Should they be left, as is currently the case, in the hands of the research community or, given researchers' concentrated interest, should CIHR seek systematic input from those who can more legitimately claim to represent the public interest? Subjecting CIHR resource allocation decisions to potentially capricious micro-management by Parliament or the federal Minister of Health seems clearly inappropriate. However, public input could be strengthened by such measures as increasing public representation on the Governing Council and Institute Advisory Boards, adding public representatives to all peer review panels or establishing deliberative processes to engage members of the public in informed discussions of the outcomes and impacts of various types of health research, strategic research funding options and their implications. Such actions would be consistent with CIHR's declared intention to "involve the Canadian public and other stakeholders in priority-setting and appropriate research activities (e.g., peer review panels, forums of various Institutes)" (CIHR 2004).

If a decision were taken to revise the distribution of CIHR's research funding among its themes of biomedical, clinical, health services, and population health research, could the change be accomplished without severely compromising research excellence or fracturing the health research community? Probably yes. Despite CIHR budget increases of 45% between 2001/2002 and 2004/2005, the number of grant applications rated as very good (scores of 3.5 or higher) that were not funded rose from 38% to 50% (CIHR 2006b). This increase in high quality but unfunded research suggests that shifts could be made without sacrificing research quality. If realignment of funding shares were done incrementally – drawing on increases over time in CIHR's budget rather than reallocating funds from one theme to another – researchers working in theme areas with a reduced share might not feel seriously deprived.

What share for health services and policy research? There is not now, and is unlikely ever to be, a "right" answer. But processes to tackle this and related questions need to be developed.

NOTES

1. These figures include both research grants and personnel awards but exclude partner funding and funding for the Canada Research Chairs and National Centres of Excellence programs, which flow through CIHR. Funding allocations to the CRC and NCE programs are established by Parliament. CIHR defines health services research as "research with the goal of improving the efficiency and effectiveness of health professionals and the health care system, through changes in practice and policy" (CIHR 2006a).

2. The Canadian Health Services Research Foundation invested $3.6 million in research and research capacity development in 1999 and $4.5 million in 2005 (CHSRF 2000, 2006). The National Health Research and Development Program provided between $3 million and $4 million annually to support health services research before its dissolution with the advent of CIHR (personal communication, Ellen Melis, Assistant Director, Institute of Health Services and Policy Research, April 18, 2007). The ongoing funding commitments of NHRDP were transferred to CIHR.

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

Partager la tarte du financement : quelle portion accorder à la recherche sur les services et les politiques de santé?

Le financement annuel de la recherche sur les services de santé par les Instituts de recherche en santé du Canada a augmenté de façon spectaculaire, passant de 1,9 M$ en 1999-2000 – la première année d'existence des Instituts – à 39,6 M$ en 2005-2006 (communication personnelle, Ellen Melis, directrice adjointe, Institut des services et des politiques de la santé, 4 avril 2007).1 Même après avoir pris en compte les contributions des autres importants bailleurs de fonds fédéraux de la recherche sur les services de santé, l'augmentation demeure impressionnante – passant d'environ 8 M$ avant les IRSC à 44,1 M$ en 2005-2006.2

Cette augmentation massive du soutien fédéral devrait réjouir les chercheurs sur les services de santé et tous ceux qui croient qu'un bassin fortement élargi de preuves pertinentes pour la recherche est nécessaire pour informer l'élaboration de politiques sur la santé et la gestion du système de santé, et ce, dans l'intérêt du public. Cependant, pris dans le contexte de la répartition du financement des IRSC selon les quatre thèmes de recherche – biomédicale; clinique; systèmes et services de santé, et santé publique et des populations – le tableau est moins réjouissant.

En 2005-2006, la recherche biomédicale représentait 70 % des dépenses de recherche des IRSC; la recherche clinique, quant à elle, représentait 13,6 %, la recherche sur les services de santé 6 % et la recherche sur la recherche sur la santé de la population 10 % (communication personnelle, Ellen Melis, directrice adjointe, Institut des services et des politiques de la santé, 4 avril 2007). La portion du financement allouée à la recherche sur les services de santé a oscillé entre 5,6 % et 6,4 % depuis 2002-2003. Entre 1999-2000 et 2005-2006, les dépenses consacrées par les IRSC au financement de la recherche ont plus que doublé, passant de 275,2 M$ à 657,8 M$. Soixante pour cent de cette augmentation ont été alloués à la recherche biomédicale, 14,3 % à la recherche clinique, 9,9 % à la recherche sur les services de santé et 15,4 % à la recherche sur la santé des populations.

Ces chiffres suscitent une série de questions. Comment les décisions relatives à la répartition des fonds sont-elles prises? Quelle est la « bonne » distribution du financement de recherche entre les thèmes? Qui devrait décider? Sur quelles bases?

Le mandat des IRSC est « d'exceller, conformément aux normes internationales d'excellence scientifique, dans la création de nouvelles connaissances et dans leur application pour améliorer la santé des Canadiens, assurer des services et des produits de

santé plus efficaces et renforcer le système canadien de soins de santé » (Projet de loi C-13, 13 avril 2000). Le conseil d'administration des IRSC est chargé de surveiller « l'orientation et la gestion des biens, des activités et des affaires des IRSC » (IRSC, 2005). Au titre de ses responsabilités sont « l'élaboration de la politique, des objectifs et des orientations stratégiques », ainsi que l'approbation du budget, « y compris le financement de la recherche. » Le Conseil actuel comprend 18 membres – tous (sauf deux) des chercheurs, des administrateurs de la recherche ou les deux. Le sous-ministre adjoint de la Santé est un membre d'office du conseil. Les IRSC relèvent du Parlement, par l'entremise du ministre de la Santé.

Les IRSC ont toujours adhéré à une politique non officielle en vertu de laquelle ils allouent 70 % des fonds de recherche à la recherche entreprise par les chercheurs et aux bourses personnelles (concours ouverts) et 30 % aux initiatives stratégiques. Par conséquent, la répartition du financement entre les thèmes de recherche est en grande partie passive, mue uniquement par la présence et la répartition de candidats qualifiés dans les divers secteurs. À leur tour, ces candidats reflètent les investissements historiques (avant les IRSC) dans la recherche et les capacités de recherche, et dans le développement de nouvelles capacités de recherche depuis l'avènement des IRSC.

En raison des processus par l'entremise desquels elles sont identifiées, les initiatives stratégiques n'offrent qu'une portée limitée quand il s'agit de modifier la distribution du financement entre les divers domaines thématiques. Les initiatives stratégiques sont élaborées principalement par les 13 Instituts des IRSC et les fonds pour les initiatives stratégiques sont répartis également entre ceux-ci (dont l'Institut de la recherche sur les services et les politiques de santé n'en est qu'un). Tous les Instituts sont censés allouer une certaine portion de leurs fonds stratégiques à chacun des quatre domaines thématiques, bien que la proportion allouée à chaque thème est laissée à la discrétion de chaque Institut. En outre, les IRSC appuient un petit nombre d'initiatives stratégiques interdisciplinaires déterminées par un comité formé principalement des directeurs scientifiques des Instituts. Le maquignonnage qui caractérisera probablement ce processus et les modestes ressources disponibles font obstacle à tout réalignement significatif du financement entre les domaines thématiques par l'entremise d'initiatives interdisciplinaires.

Cette question de l'allocation des ressources a clairement donné du fil à retordre au conseil d'administration (CA) des IRSC au fil des ans :

> « On demande au CA d'examiner les questions stratégiques suivantes :
> 1. Comment les ressources des IRSC devraient-elles être allouées?
> 2. Le budget des IRSC est-il affecté de manière équilibrée pour permettre à l'organisme de s'acquitter de sa mission?

> On parle longuement de l'équité du financement de l'excellence en recherche dans les quatre domaines de recherche des IRSC… On parle des mérites des initiatives stratégiques par rapport aux concours ouverts; de la nécessité de financer les secteurs des services et de la politique de santé et de la santé de la population sans réduire le budget des deux autres secteurs; des demandes contradictoires en matière d'excellence et de renforcement des capacités; du besoin d'autonomie des universités; et de la pression exercée par les partenaires, gouvernements, lobbyistes et le public relativement à l'orientation et au contrôle du programme de recherche en santé. » (Compte rendu de la séance de réflexion du conseil d'administration des IRSC, les 22 et 23 août 2002)

> « Le conseil a reconnu que le ratio 70:30 était arbitraire… Le ratio 70:30 remplaçait des enjeux plus généraux qui préoccupent le conseil : Les investissement sont-ils de nature stratégique?... Ces investissements représentent-ils une bonne valeur pour les Canadiens par leur incidence positive sur la santé de la population canadienne et sur le système de santé?... Le conseil devrait-il prioriser les domaines de la recherche en santé sur lesquels les IRSC devraient concentrer leurs efforts (et, le cas échéant, comment devrait-il le faire?)? (Compte rendu de la séance de réflexion du conseil d'administration des IRSC, du 25 au 27 août 2004)

> « Le conseil signale que [à la suite des évaluations de mi-mandat des Instituts] … il faudra tenir compte d'un certain nombre de questions à l'avenir. Par exemple, les IRSC ont-ils le bon équilibre entre les subventions de fonctionnement et les initiatives stratégiques? (Compte rendu de la réunion du conseil d'administration des IRSC, les 22 et 23 mars 2005)

Malgré ses maintes réflexions, le conseil d'administration des IRSC revient invariablement au ratio 70:30 et n'a pas établi de cibles pour la distribution des ressources consacrées à la recherche et au renforcement des capacités dans les quatre domaines thématiques.

On peut aisément comprendre pourquoi cette question a donné du fil à retordre aux IRSC. L'organisme a souligné le besoin de démontrer au public canadien et au gouvernement fédéral son « retour global sur l'investissement » et s'est engagé à établir des priorités de financement fondées sur les « meilleures preuves disponibles » (IRSC 2004). Toutefois, comme les IRSC le reconnaissent, déterminer le rendement du capital investi dans la recherche constitue « un exercice particulièrement frustrant » parce qu'« il reste difficile de démontrer une relation directe et objective entre des

investissements particuliers dans la recherche et des résultats identifiables et mesurables immédiats, à court terme ou à long terme » (IRSC 2004). S'il est « difficile » de mesurer, qu'est-ce que cela nous dit au sujet de la prédiction – le fondement des décisions d'allocation des ressources guidées par des considérations liées au RCI? Malgré la détermination des IRSC à élaborer un cadre de RCI (IRSC 2004), il est peu probable que des preuves crédibles et cohérentes soient disponibles dans un avenir prévisible (ou peut-être jamais) pour permettre aux IRSC de prendre des décisions éclairées en matière d'allocation des ressources uniquement d'après des critères liés au RCI.

Fondamentalement, les IRSC sont une organisation de chercheurs en santé, *par* des chercheurs en santé, *pour* des chercheurs en santé, malgré les arguments occasionnels soutenant le contraire. Ils se garderont donc immanquablement de poser tout geste susceptible de menacer la cohésion du milieu de la recherche. Toute décision de réaligner stratégiquement la distribution du financement de recherche entre les domaines thématiques des IRSC (surtout en l'absence de preuves persuasives des avantages que cela procurerait) ne manquera pas d'exacerber les tensions existantes entre les membres des quatre domaines thématiques. Les chercheurs qui évoluent dans un domaine thématique « perdant » sont susceptibles de prétendre que la liberté universitaire et le soutien de l'excellence scientifique sont en train d'être démolis et que les « meilleurs et les plus brillants » du domaine thématique en question fileront en grand nombre vers des pâturages plus verdoyants. Et toute réallocation vers la recherche sur les services de santé s'effectuerait presque certainement *à partir* des fonds pour la recherche de base dans une situation gagnant-perdant. Les chercheurs de base, pour des raisons historiques, sont de loin le groupe de pression le plus vaste et donc potentiellement le plus bruyant et le plus influent de la famille des IRSC. Étant donné ce contexte, en l'absence de pressions extrêmes fortes, il est probable que l'actuelle constitution des IRSC modifie la distribution actuelle du financement de recherche de façon lente, très graduelle et surtout passive (c.-à-d., par l'entremise d'un processus de concours ouverts) plutôt que stratégique.

Les IRSC préconisent fortement « l'intérêt du public dans la création et l'utilisation de connaissances en matière de santé au cours de la recherche et des activités connexes appuyées par les IRSC. » (IRSC 2004). Si cela est vrai, comment devrait-on s'y prendre pour établir les priorités en matière de financement de la recherche? Devraient-elles – comme c'est le cas actuellement – être laissées à la discrétion du milieu de la recherche ou - étant donné l'intérêt concentré des chercheurs – les IRSC devraient-ils chercher systématiquement à recueillir les commentaires et opinions de ceux qui peuvent, de manière plus légitime, prétendre représenter l'intérêt du public? L'assujettissement des décisions liées à l'allocation des ressources à une micro-gestion potentiellement capricieuse du Parlement ou du ministère fédéral de la Santé semble

clairement inapproprié. Cependant, la participation du public pourrait être rehaussée par des mesures telles le renforcement de la représentation publique au sein du conseil d'administration et des conseils consultatifs des Instituts, l'inclusion de représentants du public dans tous les groupes d'examen par les pairs ou la mise en place de processus de délibération visant à amener les membres du public à prendre part à des discussions éclairées sur les effets et l'incidence des divers types de recherche en santé, les options de financement stratégique de la recherche et leurs conséquences. De telles mesures seraient conformes à l'intention déclarée des IRSC, à savoir, de « faire participer le public canadien et d'autres intervenants à l'établissement des priorités et aux activités de recherche appropriées (p. ex. les groupes d'examen par les pairs, les forums des divers instituts). (IRSC, 2004).

Si les IRSC décidaient de réviser la distribution du financement entre les thèmes de recherche (biomédicale, clinique, sur les services de santé et sur la santé des populations), ce changement pourrait-il s'effectuer sans gravement compromettre l'excellence dans la recherche ou fragmenter le milieu de la recherche en santé? Probablement que oui. Le fait que malgré des augmentations budgétaires de 45 % entre 2001-2002 et 2004-2005 dans les IRSC, le nombre de demandes de bourses considérées comme très bonnes (note de 3,5 ou plus) et qui n'ont pas été financées a augmenté de 38 % à 50 % (IRSC 2006b), suggère qu'on pourrait apporter des changements sans pour autant sacrifier la qualité de la recherche. Si le réalignement des portions du financement était effectué de façon graduelle – en puisant petit à petit dans les augmentations budgétaires des IRSC – au lieu de réaffecter des fonds d'un thème à un autre – les chercheurs qui évoluent dans un domaine thématique ayant reçu une part réduite pourraient ne pas se sentir sérieusement lésés.

Quelle portion accorder à la recherche sur les services et les politiques de santé? Il n'y a pas, pour l'instant – et il est fort probable qu'il n'en ait jamais – de « bonne » réponse. Il faut toutefois élaborer des processus pour examiner cette question et d'autres questions connexes.

NOTES

1. Ces chiffres comprennent à la fois les bourses de recherche et les bourses personnelles mais excluent le financement des partenaires et le financement pour les programmes des Chaires de recherche du Canada et des Centres nationaux d'excellence, qui est octroyé par l'entremise des IRSC. Les allocations de fonds aux CRC et des CNE sont déterminées par Le Parlement. Les IRSC définissent la recherche sur les services de santé comme étant de la « recherche qui a pour but d'améliorer l'efficacité des professionnels et des services de santé à l'aide de changements aux pratiques et aux politiques » (IRSC 2006a).

2. La Fondation canadienne de la recherche sur les services de santé a investi 3,6 M$ dans la recherche et le développement des capacités de recherche en 1999 et 4,5 M$ en 2005 (FCRSS

2000, 2006). Le Programme national de recherche et de développement en matière de santé – annulé depuis l'avènement des IRSC – fournissait de 3 à 4 M$ annuellement pour appuyer la recherche sur les services de santé (communication personnelle, Ellen Melis, directrice adjointe, Institut de recherche sur les services et politiques de santé, 18 avril 2007). Les engagements continus du PNRDS en matière de financement ont été transférés aux IRSC.

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Mr. Harrington, Self-Rated Health and the Canadian Chicken

M. Harrington, l'état de santé auto-déclaré et le poulet canadien

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Abstract

The simplest way to find out how healthy people are is to ask them. The question: "Would you rate your health as excellent, very good, good, fair or poor?" is quick and easy (and cheap) to administer, and correlates well with more objective indicators of health (such as subsequent death). But there are significant cross-national differences in response patterns. Canadians are much less likely than Americans to provide extreme responses – excellent or poor. International comparisons yield more striking examples. Americans rate their health among the highest in the OECD, despite mortality measures that are among the worst. The Japanese, with the world's best mortality measures, rate their health near the bottom. Can self-reports be standardized for these cultural effects?

Résumé

La façon la plus simple de s'enquérir de l'état de santé de quelqu'un est de le lui demander. La question : « Comment évalueriez-vous votre santé : excellente, très bonne, bonne, passable ou médiocre? » est rapide et facile (et peu dispendieuse) à administrer et corrèle bien avec des indicateurs de santé plus objectifs (comme le décès ultérieur). Mais on observe des différences internationales importantes dans les réponses fournies. Les Canadiens sont beaucoup moins susceptibles que les Américains de fournir des réponses extrêmes – excellente ou médiocre. Des comparaisons internationales livrent des exemples encore plus frappants. Les Américains se considèrent comme étant parmi les plus en santé des pays de l'OCDE, et ce, malgré des mesures de mortalité figurant parmi les pires. Les Japonais, qui ont les meilleurs taux de mortalité au monde, auto-évaluent leur santé comme étant parmi les pires. Les auto-déclarations peuvent-elles être normalisées de manière à tenir compte de ces effets culturels?

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> "If you can't measure something, you can't understand it. If you can't understand it, you can't control it. If you can't control it, you can't improve it." (Harrington and McNellis 2006)

> "Why did the Canadian chicken cross the road? To get to the middle."

A bit over 10 years ago, Jack Williams made a remark that stayed with me, and came back when I was looking at OECD data on aggregate measures of country health status. It was at a CHERA (Canadian Health Economics Research Association) meeting, and concerned the North American GUSTO trial (Global Utilization of Streptokinase and Tissue Plasminogen Activator [tPA] for Occluded Coronary Arteries). That trial compared these two alternative "clot-busting" agents and two modes of administration for patients with acute myocardial infarct. tPA was at that time much more expensive, and was accordingly more commonly used in the United States than in Canada. Did it yield better outcomes?

The GUSTO trial indicated that it might. In particular, a substudy of the trial focusing on quality of life post-AMI "… suggested, but did not prove, that the more aggressive pattern of health care in the United States may have been responsible for better quality of life for American patients" (Williams et al. 1995).

But a question remained: "[A]re there societal or cultural differences in self-ratings of health that may account for the differences in quality of life of Canadians and Americans?" (Williams et al. 1995).

The answer seems to be "yes," and that was Jack's point at the CHERA meeting.

Williams and his colleagues have studied the results from all the population-based surveys of self-rated health (SRH), on both sides of the border, since the late 1970s. A clear pattern has emerged. When faced with a five-part scale – excellent, very good, good, fair or poor – Canadians are significantly less likely than Americans to rate their health as either "excellent" or "poor." Just as our national self-image would suggest, Americans are more likely than Canadians to go to extremes.

There is much more to their analysis – examination of subgroups in both populations, standardization for individual characteristics where data are available – but the dominant message remains. As Williams et al. noted, however, the SRH questions in these surveys were not identical. Canadians were asked: "When comparing your health to others' … "; in the United States, that qualifier was absent. The authors' conclusions "would be strengthened if they were confirmed in a study specifically designed to compare responses" (Williams et al. 1995).

They have been. Williams and Agha (2004) subsequently analyzed data from two surveys that did ask identical questions on the two sides of the border, the United States National Health Interview Survey for 1994 and the National Population Health Survey for Canada in 1994/95. The findings, unfortunately never written up for publication, confirmed that Canadians tend to avoid the extreme ends of the health range. (The findings showed a number of other things as well, such as the correlation of SRH status with race/ethnicity in the United States but not in Canada, and the weaker relationship to income in Canada, but our interest here is in cultural influences on SRH.)

… Canadians are significantly less likely than Americans to rate their health as either "excellent" or "poor." Just as our national self-image would suggest, Americans are more likely than Canadians to go to extremes.

In that same year, Sanmartin et al. (2004) published results from the JCUSH (Joint Canada/United States Survey of Health), a survey specifically designed for cross-border comparability. They too found that overall, and in each of three age categories, higher proportions of Americans than of Canadians reported their health to be either excellent or poor (Sanmartin et al.: Table A-1).

One might expect that similar differences, or others, would show up within Canada as well. After all, Canada is a very large country with a diverse population. Might there not also be similar cultural differences in response patterns at provincial boundaries? Williams et al. (1995) did find differences in reporting patterns across provinces, but "the differences between the Canadian and American surveys are more

marked than the variations within Canada. The primary difference between American and Canadian ratings still holds."

It is a bit of a stretch, but one might interpret these findings as evidence for the existence of a country called Canada as something more than a geographical expression or a commercial inconvenience. They may, perhaps, be placed alongside other findings, from very different sources, indicating that the border really does matter.

Michael Adams (1997), for example, compiled the results from a number of population surveys to identify clusters of Canadian attitudes and social values – "tribes." He concluded that these clusters showed a distinct pattern of separation between Americans and Canadians. Despite the undeniable fact that our two populations are probably more similar than those of any other pair of countries one could pick, Canadians and Americans do report, on average, quite significant differences in their values and in the way they view the world.

On a more mundane level, Helliwell (2002) found that despite the common impression that the main trade flows in North America run north–south, the extent of interprovincial trade dwarfs the (nonetheless very large) cross-border flows. From the Montreal Annexation Manifesto (and riots) of 1849 to the vigorous advocacy of "deeper economic integration" by Michael Hart (2007) at the Institute for Research on Public Policy (IRPP) conference on the Canadian Priorities Agenda, spokesmen for commercial interests have called for closer economic union – or just plain union – with the United States.[1] If the border is effectively erased in the interests of commerce, Helliwell's – and Adams's – findings may fade away. But that hasn't happened yet.

These are issues much bigger than differences in SRH. And in fact, a cultural difference in willingness to use the ends of a five-part scale matters very little, if at all, for most purposes. The Canadians who prefer not to claim "excellent" or "poor" health status turn up again as "very good" or "fair." (Unfortunately, few surveys have a category for "not too bad, eh?") So if one aggregates the five-level scale into three, or even two, as many analysts do, the cross-border difference disappears. Chalk it up to American exuberance, or Canadian reticence, and carry on.

But as in everything else, differences that are subtle across our southern border become much larger when one looks farther across the world. Table 1 shows SRH from the countries of the OECD (2006), represented by the proportion of the population surveyed that report their health as "excellent," "very good" or "good." This is matched with two measures of mortality, (crude) life expectancy at birth (both male and female) and potential years of life lost (PYLL) due to premature death.[2] Figures 1

1. The rhetoric of regulatory coordination and harmonization can be expressed more succinctly as "Whatever you say, boss."

2. Details of the calculation are provided in OECD (2006).

TABLE 1. Correlation of health status measures

	LE	SRH	PYLL
Australia	80.6	81.9	2,443
Austria	79.3	73.5	2,374
Belgium	78.8	76.9	3,053
Canada	79.9	88.2	2,669
Czech Republic	75.8	62.2	2,911
Denmark	77.6	77.9	3,081
Finland	78.8	67.1	2,385
France	80.3	79.5	2,542
Germany	78.6	66.1	2,513
Greece	79.0		2,200
Hungary	72.8	43.2	4,399
Iceland	81.0	78.7	2,395
Ireland	78.3	86.5	2,788
Italy	79.7	59.8	2,179
Japan	82.1	38.7	1,969
Korea	77.4	45.6	2,716
Luxembourg	78.0	91.0	2,495
Mexico	75.2	67.8	
Netherlands	79.2	77.1	2,772
New Zealand	79.2	89.6	3,108
Norway	79.9	79.9	2,492
Poland	75.0	46.8	3,477
Portugal	77.4	31.3	2,985
Slovak Republic	74.1	34.4	2,628
Spain	80.5	68.3	2,187
Sweden	80.6	72.4	2,141
Switzerland	81.2	85.8	2,301
Turkey	71.2	55.0	
United Kingdom	78.5	74.5	2,762
United States	77.5	88.6	3,719
AVG.	78.3	68.6	2,703
MED.	78.8	74.5	2,542

and 2 plot each country's SRH against the actual mortality experience, and show mean and median values.

Trend lines plotted on each figure show that, in aggregate, the SRH data are correlated with the different measures of mortality. But the relationship is not strong, and there are some remarkable outliers.

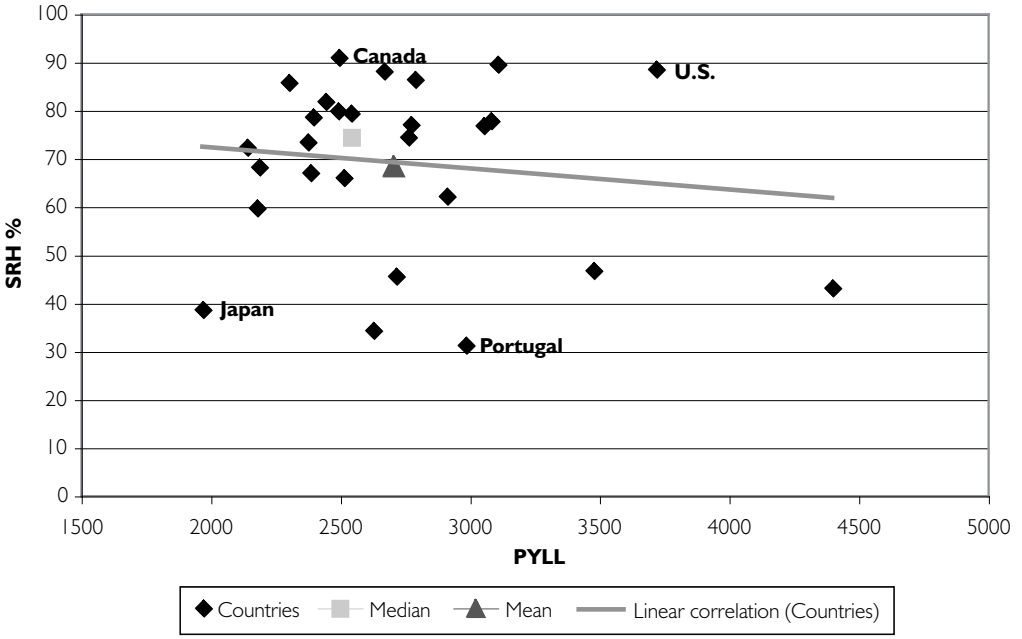
Most prominently, the United States and Japan seem to be mirror images of each other. The famously long-lived Japanese have the lowest level of life years lost to premature death; the United States is close to the top. Its PYLL score places it among the former Soviet societies of Eastern Europe, far worse off than Western Europe, Canada or the South Pacific.

Yet when asked to rate their own health, the Japanese take a very dim view. Over half of those surveyed considered their health to be only "fair" or "poor." A half-dozen countries show these dismal ratings, but the others all have below-average mortality statistics as well, and half of them are in Eastern Europe. The Japanese just seem depressed.

The ebullient Americans, on the other hand, cheerfully place themselves right at the

top of the OECD rankings, with almost 90% rating their health as "good," "very good" or "excellent." The United States is among a half-dozen "optimistic" countries – including Canada, Ireland, Luxembourg, New Zealand and Switzerland – in which over 85% of those surveyed report their health as "good" or higher. But in the others, these ratings are consistent with the PYLL scores. In the United States, they are not.

FIGURE 1. Self-rated health (percentage reporting "good" or higher) plotted against potential years of life lost (PYLL), OECD countries



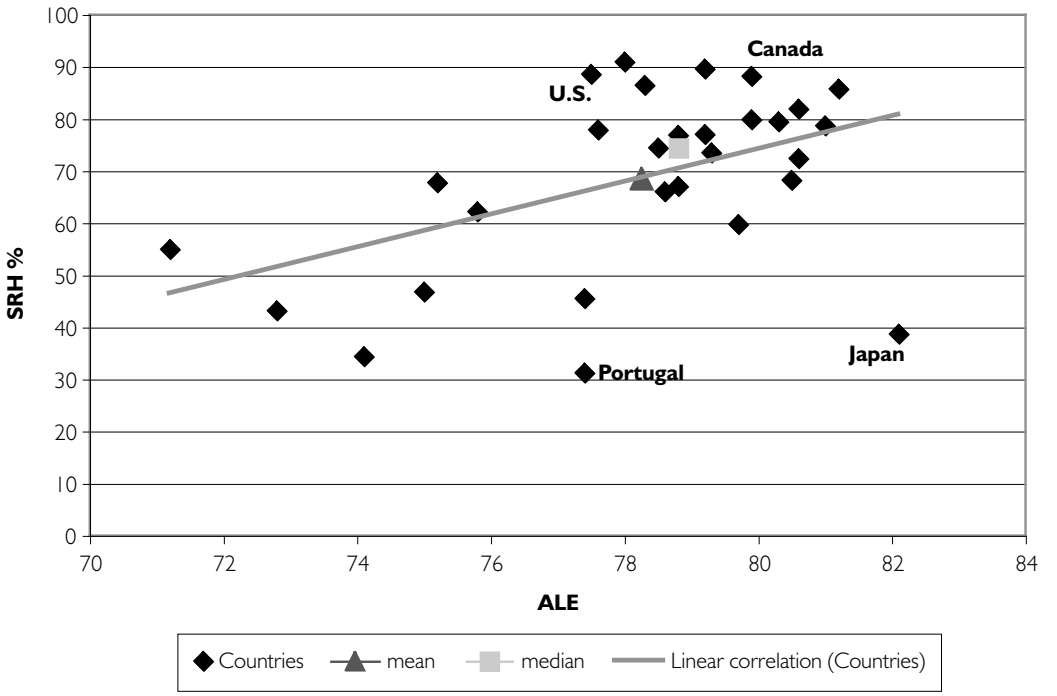
Life expectancies show a similar pattern. There does appear to be a better fit between national life expectancies and SRH status, but the Japanese and American anomalies remain. And if one were to divide the scatter-plots into four quadrants – above- or below-average life expectancy or PYLL, above- or below-average SRH – one would not find the country observations grouped in the logical pattern. If anything, the contrary.

How to interpret this phenomenon? Perhaps the high PYLL in the United States is a result of the high mortality from firearms or other forms of violence, and from HIV/AIDS. People who die early account for more PYLL but are not available later to answer questionnaires about their health status. They may be genuinely in good health until their sudden removal from the potential survey population.

And since the excess mortality pressure in the United States is correlated (nega-

tively) with socio-economic status, it is preferentially weeding out some of those who, if they had survived, would have been in below-average health. Brutally put, kill off your poor early, and they cannot complain. Whether this process can account for any significant share of the American anomaly is, however, an empirical question.

FIGURE 2. Self-rated health (percentage reporting "good" or higher) plotted against average life expectancy (ALE), OECD countries



These SRH data are not adjusted for differences in population age structure. European populations are older than those of the United States and Canada, and this fact may partially explain their willingness to report poorer health. Canada and the United States, with younger populations, are both at the top of the SRH list. But Canada's average life expectancy is also close to the top, while the Americans are well below average and behind us by a whopping 2.4 years. They are also 40% higher on PYLL – 1,050 extra potential life years lost per 100,000 population.

Other anomalies: Life expectancies are pretty much equal in Portugal, Korea, Denmark and the United States. Yet their SRH runs from 31.3% "good" or higher, through 45.6% and 77.9% to 88.6%. Their PYLL scores are all above average, but quite similar, apart from the United States.

The comparison between the United States and the United Kingdom is particularly interesting in light of the findings of Banks et al. (2006). These authors found self-report of the presence of particular health conditions to be quite accurate, or at least consistent with biological data. Those surveyed knew what their medical problems were. But the translation of this knowledge into self-ratings of health is obviously very different on the two sides of the Atlantic. The British come out well below the Americans – 74.5% reporting "good" or better compared with the 88.6% of Americans. Yet their life expectancy is a year longer and their PYLL score is lower by 957 years per 100,000, consistent with the finding by Banks et al. that the slice of the British population they studied was in fact significantly healthier than the corresponding Americans.

These discrepancies, which have not gone unnoticed by students of health status measurement, illustrate a more general point emphasized by Corin (1994) with specific reference to the diagnosis of schizophrenia. Measurement instruments – including those much more sophisticated and expensive than good old E, VG, G, F, P – are designed in a particular cultural context (e.g., North America). They may be measuring something quite different, or perhaps nothing meaningful at all, when used somewhere else (e.g., central Africa). Not only the language but also the underlying concepts of health and disease may be radically different.

But if differing responses among cultural groups reflect different attitudes towards extreme statements rather than actual differences in quality of life, then they do not tell us anything about differences in the effects of intervention.

The observation that Japan, and to a lesser extent Korea, are extreme outliers in the OECD data may reflect more than simple difficulties in finding appropriate words in Asian languages to translate questions. The SF-36, the most widely used single measure of health status, has very rigorous translation protocols to ensure question comparability. But in Asian languages these failed to capture deep cross-cultural differences in the ways that health is conceptualized or described (Michael Wolfson, personal communication).

There are both good and less good reasons for continuing the search for the Holy Grail of a common metric for SRH. One good reason was illustrated above by the GUSTO trial. Whether tPA rather than streptokinase treatment resulted in better quality of life for patients, as perceived by themselves, is not a trivial question. But if differing responses among cultural groups reflect different attitudes towards extreme statements rather than actual differences in quality of life, then they do not tell us

anything about differences in the effects of intervention. Insofar as interventions are increasingly offered as improving quality of life rather than saving lives or effecting "cures," these distinctions become critical to trial design and evaluation.

Second, the growing interest in the determinants of population health, social as well as medical, becomes operational only insofar as we can actually measure population health. And patients' perceptions of their own health are or should be an important dimension of that measure. The indications from research on gradients in population health are that particular diseases may be "epiphenomena" arising from an underlying state of stress or distress; how that underlying state is expressed in disease varies across time and space. Cross-sectional comparisons of SRH, in addition to biomedical measures of particular diseases, may be very powerful provided that they can be meaningfully separated from cultural variations in response patterns.

The problem of cultural diversity of SRH is particularly important for Canada, given the rapid increase in the proportion of foreign-born and the diversity of sources of immigration.

The less good reasons are the ideology of "scientism" or physics-envy, and the commercial possibilities. If "science is measurement," then to be scientific (with the attendant prestige and funding support) one must have some universal concept(s) to measure. The rest is storytelling. And if one has some proprietary instrument for measuring that universal concept, one can sell it. The SF-36, HUI and EQ5d are currently the most widely used and most translated short-form "generic health status" questionnaires. Each has limitations, and no international consensus has emerged on which should be used. Choice is often the result of competitive marketing by originators.

The search for consensus on a cheaper and better short-form health status questionnaire, which will, inter alia, yield comparable results across cultures, is currently being carried forward by the Budapest Initiative (BI), a collaboration of the World Health Organization, UN Economic Commission for Europe, EuroStat and a self-selected group of enthusiastic countries, including the United States, the United Kingdom, Australia, Finland, Italy and Canada.

The problem of cultural diversity of SRH is particularly important for Canada, given the rapid increase in the proportion of foreign-born and the diversity of sources of immigration. Attempts to standardize reporting for the cultural peculiarities of particular countries – Japan, Portugal, the United States – through, for example, estimating "country dummies" to adjust SRH scores – will not be immediately applicable

within countries, though they might be combined with data on national origins to adjust SRH data across time and provinces or regions.

A different initiative, PROMIS (Patient Reported Outcomes Measurement Information System), originated with the US National Institutes of Health and seeks to develop a standard, single-dimension measure of SRH to be used in clinical trial outcomes. The focus is accordingly on consistency of measures across clinical trials with different interventions and outcomes, rather than on consistency across countries or cultural groups.

The two strands will have to come together if SRH data from trials are not to be confounded by cultural differences – this is where we came in. Some collaboration is emerging between BI and PROMIS. But the Holy Grail of a common metric of health status, both for population-based surveys and for the whole clinical trial industry, is still a long way off.

With thanks to Jack Williams and Michael Wolfson.

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DISCUSSION AND DEBATE

Invited Paper

The New General Practice Contract and Reform of Primary Care in the United Kingdom

Le nouveau contrat de services médicaux généraux et la réforme des soins primaires au R.-U.

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Abstract

In April 2004, the United Kingdom introduced a new General Medical Services (GMS) contract that provided new governance and incentive arrangements for general practice. In particular, the new Quality and Outcomes Framework is a points-based system that sets targets for clinical, organizational and practice-related standards with financial payments for achieving set levels of performance. This paper describes the new contract arrangements and their impact on general practice – focusing on the experience in England, where wider policy changes are also having an important impact on practices – and drawing out potential lessons that will be of interest to Canadian practitioners and policy makers.

Résumé

En avril 2004, le Royaume-Uni a introduit un nouveau contrat de services médicaux généraux (*General Medical Services*, ou GMS) qui prévoyait de nouvelles dispositions en ce qui a trait à la gouvernance et aux mesures incitatives pour les généralistes. En particulier, le nouveau cadre de contrôle de la qualité et des effets (*Quality and Outcomes Framework*) est un système de points qui établit des cibles pour des normes cliniques, organisationnelles et de pratique et prévoit des encouragements financiers pour l'atteinte des niveaux de rendement établis. Ce document décrit les dispositions du nouveau contrat et leur incidence sur la pratique générale – en particulier en Angleterre, où des changements de politique plus vastes ont également une incidence importante sur les pratiques – et en dégage des leçons potentielles susceptibles d'intéresser les praticiens et les décideurs canadiens.

Recent political and organizational changes in the National Health Service (NHS) of the United Kingdom have created shifting contexts for the delivery of primary healthcare. In England, most attention has been paid to market reforms, which incorporate patient choice, Choose and Book (a patient-driven electronic booking system), payment by results, Foundation Trust status, creation of a provider market and practice-based commissioning and purchasing (PbC) – although the supply-side reforms in Northern Ireland, Scotland and Wales provide useful comparative context within the UK. However, it is the introduction of the new General Medical Services (GMS) contract that has had the greatest impact on general practice and continues to have the greatest potential for change, especially when combined with other changes in the English NHS, such as the Information Management and Technology (IM&T) Strategy. The new contract offers a unique experiment in the use of incentives to reward quality through the Quality and Outcomes Framework (QOF), which provides financial rewards to general practices based on a points system of over 150 quality indicators covering clinical, organizational and patient-focused aspects of practice (Smith and York 2004).

This paper focuses on the impact of the new GMS contract within the changing organizational and policy context of the English NHS. It begins by outlining the current policy context for the English NHS before moving on to describe the new contract and current contractual arrangements for general practice. The next section discusses the potential impacts on general practice in the UK. The paper ends by considering whether there are lessons for the Canadian healthcare system and the development of primary care.

The Policy Context

The aims of the current range of NHS reforms in England are threefold. The first is to stimulate a self-sustaining set of incentives that foster continuous organizational reform, including practice-based commissioning, patient choice and payment by results (a national tariff activity-based payment system). The second aim is to allow greater autonomy at a local level, but on a selective basis. The default approach appears to be the *status quo ante* (i.e., hierarchical control) rather than a blanket policy of decentralization; hence, some organizations will be "granted" decentralized powers ("freedoms"). The selective decentralization is also conditional in the sense that decentralization will be afforded only to those organizations whose performance (as measured by government measures) is rated highly, such as granting Foundation Trust status to NHS hospitals that are rated as performing well.[1] The third aim is to create a pluralistic model of local provision within the public, private and not-for-profit sectors. The purchaser–provider distinction (first created in the 1990s quasi-market) is being extended to allow new market entrants, and patient choice policy requires patients to be given a choice of four to five providers at the point of referral by the general practitioner (GP), one of whom has to be a private or independent organization – a process built into the new Choose and Book software used to arrange referrals (DoH 2004, 2005a, 2006). These organizational developments in commissioning and service use provide a rapidly evolving context for general practice within which changes to the GP contract need to be analyzed, especially as the contract is UK-wide and there are different policy and organizational contexts in England, Northern Ireland, Scotland and Wales (Exworthy 1998; Greer 2004, 2005).

Changes in primary care also need to be set within the wider health and social care context in the UK. There is growing recognition of the need to support self-care and informal care (DoH 2006; Kerr 2005), with a concomitant recognition that long-term and chronic health problems are not satisfactorily addressed within the NHS (Coulter 2006). In England, recent White Papers have stressed the importance of self-care and the role of the NHS in supporting it, the need to build people's skills for preventing ill health and the need to support people with long-term conditions to manage independently (DoH 2004, 2005b, 2006). People with chronic disease are more likely to be users of the health system, accounting for some 80% of all GP consultations, while as much as 40% of general practice consultations are for minor ailments that could be taken care of by patients themselves (DoH 2005c; Wilson et al. 2005). While there is widespread public support for self-care, recent surveys suggest that despite a well-established structure for managing individual care through general practice, the primary healthcare team and Primary Care Trust (PCT)[2] coordination, the NHS is poor at providing support for self-care (Coulter 2006; DoH 2004, 2005d; Ellins and Coulter 2005; Wilson et al. 2005).

General practices are also being encouraged to do more public health activity through a system of changes in the contract and the introduction of financial incentives. The need to develop a stronger public health approach in primary care has long been recognized, but despite changes to GP contracts in 1990 and making public health a key objective of primary care organizations from the mid-1990s, developments have been limited (Peckham and Exworthy 2003; Peckham 2003). The most recent annual report on the NHS by the Healthcare Commission (2006) has highlighted the lack of investment in, and priority given to, public health.

General practice in the UK also faces a number of other challenges resulting from changes in the workforce, and greater pressure to apply evidence-based medicine and treatment protocols and meet centrally set targets – a complex context into which the new contract has been introduced. In addition, access to primary care in the UK has fundamentally changed in recent years with the introduction of NHS Direct (a 24-hour telephone/Internet advice service), walk-in centres, increased private provision of general practice, complementary and alternative medicine, and physiotherapy and counselling services (Peckham 2004, 2006). These challenges are not unrecognized by the profession, and the need for general practice to respond to social change was the topic of a Royal College of General Practitioners working group on the future of general practice (Wilson et al. 2006).

The New GMS Contract

In 2004, the new General Medical Services contract was introduced in the UK. The contract marked a major change in the way GPs are contracted with the NHS. Under the old system, GP principals held an individual contract that, despite changes in substance, remained based on the original contract established in 1948. GP incomes were made up from a mixture of funding for registered patients (capitation), undertaking specific activities and support for practice development, such as nursing and administration staff (Moon and North 2000). The new GMS contract has been developed from pilots of new contractual forms introduced in the late 1990s under Primary Medical Services designed to stimulate innovation in practice (Riley et al. 2003; Meads et al. 2003).

The main principles of the new contract are:

- a shift from individual-GP to practice-based contracts
- contracts based on workload management, with core and enhanced service levels
- a reward structure based on the new Quality and Outcomes Framework and annual assessments
- an expansion of primary care services
- modernization of practice infrastructure (especially IT systems).

Aspects of the new contractual arrangements for general practice that are less discussed are the Personal Medical Services (PMS), Alternative Provider Medical Services (APMS) and Specialist Provider Medical Services (SPMS) contracts. PMS originated in 1996 to encourage innovation in structure and services in general practice, and about one-third of practices held a PMS contract in 2005. While there has been some innovation – with greater emphasis placed on multi-professional models with less GP involvement – PMS contracts have not as yet significantly challenged the dominant general practice model of a small team of GPs supported by other staff. The introductions of salaried GPs and of nurse practitioners were identified as key new approaches. Yet, there has been little encroachment on the organization of practices, and nurse-led practices and nurse practitioners remain scarce – only nine nurse-led practices have been developed, and growth in the numbers of salaried GPs in non-PMS and PMS practices is similar (Sibbald et al. 2000). Structural barriers to non–GP provided practice remain engrained in professional guidelines and statutory responsibilities for prescribing and patient care (Houghton 2002). Importantly, the experience of PMS paved the way for the introduction of the new GMS contract (Smith et al. 2005).

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Contracts under APMS and SPMS are much rarer, and while the opportunity to develop new forms of primary care practice exists, few contracts have been let. These variations on the GMS contract were introduced by the government to encourage NHS commissioners to explore alternative organizational models of primary care, particularly from the independent and private sectors, but local hostility has limited success. In Derbyshire, an APMS contract was let to United Healthcare, but local residents have forced a judicial review of the PCT's decision. The process has now resumed, but with three local residents sitting as patient/public representatives on the commissioning panels. Medical professional groups remain generally hostile to the encroachment of large private companies in general practice. SPMS contracts have also been used to develop local primary care services, but again, on a limited scale. To date, such contracts have been used to develop specialist private services (nurses and therapists working in the community in Surrey are proposing to use SPMS to establish a limited company) or to establish new formal relationships in virtual organizations to deliver care in well-defined circumstances (e.g., integrated care services in Epsom and North Bradford, and drug abuse and long-term care services) (CSIP 2006).

Quality and Outcomes Framework

While there are a number of controversial aspects to the new contract, the Quality and Outcomes Framework (QOF) has generated most debate and discussion. The QOF provides financial incentives for general practices to meet a range of clinical, organizational and patient experience criteria. It is a voluntary system that practices opt into and is worth approximately £125,000 per annum for a practice if maximum points are achieved. Practices accumulate points for reaching set targets and then receive income for each point achieved (Smith and York 2004). In 2004/05, the first year of operation, 222 practices (2.6%) achieved the maximum number of points (1,050), with the average score being 958.7 points, although nearly half of all practices in England (4,243) achieved a score between 1,000 and 1,050. The QOF underwent changes in the second year to expand the range of clinical areas and place more emphasis on health promotion activities. The outcome for 2005/06 showed that practices had improved their performance across the areas identified in the QOF (see the Framework website at http://www.ic.nhs.uk/services/qof), but little research has examined the impact of the use of such incentives on the overall process of patient care in general practice – particularly the extent to which the use of financial targets alter local practice. Similar improvements in achieving standards occurred in Wales and Scotland, suggesting that despite differing institutional frameworks and policy environments, general practice has responded to QOF incentives in a similar way across the UK. Discussions are currently underway between the British Medical Association (negotiating on behalf of GPs) and the Department of Health on focusing the QOF more on self-care support and interventions to reduce demand in primary care.

Two aspects of the QOF are of interest. The first is the use of financial targets to change behaviour and the second, the impact of target systems on practice. While the Framework is still fairly new, there is some indication that both these factors are likely to be of increasing importance in the development of primary care services. Marshall and Harrison (2005) have suggested that use of targets and financial incentives may have unintended consequences on practitioner behaviour such as goal displacement and rule following, leading to the "crowding out" of and reduction in focus on non-incentivized tasks. Thus, areas of clinical activity not included within the QOF may become seen as less important. Studies have also found that financial reward is not necessarily the main incentive for practitioners to engage in quality improvement (Spooner et al. 2001), and while targets clearly deliver changes in behaviour, they may distort practice goals in ways that are detrimental to overall quality of care and patient outcomes (Harrison and Smith 2004). In terms of impact on practice, the fact that practices have universally opted in to the QOF demonstrates that financial payments are a key incentive to adopt new processes. However, embedding the QOF in practices has implications for both organizational and clinical processes, as discussed later in

this paper. At a minimum, participation in the QOF is dependent on adequate IT systems and the ability of practices to run the relevant software to collect data.

IM&T in General Practice

The development and introduction of IT systems to "manage" QOF data has been central to new approaches to patient management in general practice. Practitioners must ensure they record data on visits so that these can be collected to produce QOF returns at the end of the year. Practitioner prompt/reminder programs are widely used to ensure that patients have had a variety of tests and screening at each visit. The impetus of national programs has sharply increased IT usage in practices. The combination of the national IM&T Strategy, the recording framework for the QOF and the Choose and Book system in England (part of the patient choice program giving patients the potential to book appointments directly) has pushed computer usage and IT more centrally into local general practices. There has been a mix of one-off financial incentives for practices to develop their IT infrastructures through additional contract payments, primary care organization (PCO)[3] investment in network IT systems and payment for adoption of IT systems in connection with the QOF. The aim has been to provide a common operating system so that practices can still opt for different suppliers and IT platforms but with a requirement to be able to run a minimum level of data systems, such as the QOF or the Choose and Book referral system in England.

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Computers are now a key component of UK general practice. Over 90% of practices used computers for clinical care in 2004, and this percentage has now increased to virtually 100% through the QOF. However, the range of use varies among practices (DoH 2002), and there are important questions about the clinical safety of extensive reliance on IT systems (Fernando et al. 2004). The national Information Management and Technology Strategy is also driving forward changes in IT use in primary care, although there have been recent concerns about both technical and ethical aspects of this program in relation to the ability to achieve full linkage among practice, PCT, hospital and (eventually) social care IT systems and establishing a national electronic patient record (Cross 2006a,b). What appears to be clear, however, is that a mix of

national policy drivers, together with incentive frameworks such as the QOF, directed financial support and local implementation of IT strategy through PCOs, has successfully supported IT developments in UK general practice, providing the basis for a number of developments and enhancements to information handling. Whether the government's ultimate aims of seamless transfer of information among professionals and agencies across the health and social care sectors will be successful is still unclear. Patient information systems that would support the Choose and Book referral system were delivered late, and the system for recording childhood immunizations failed to provide proper records for practices (Cross 2006a,b). In England, developed IT systems will be essential as robust, practice-based commissioning (PbC) is extended. Accuracy, and systems that work alongside each other, will be needed to deliver information support for practices and PCTs alike.

Implications for Practice

What impact will these changes in the GMS contract, and the introduction of PbC, have when combined with the wider reforms within the English NHS? Wilson et al. (2006) have suggested that there are four broad areas upon which the performance of primary care, and general practice specifically, should be measured. These are equity, quality of clinical care, responsiveness to patients and efficiency. UK general practice scores high on these criteria, but concerns about lack of support for self-care (DoH 2005c,d), poor support for people with long-term conditions (Coulter 2006) and the fact that inequalities in health at a primary care level persist (Wilson et al. 2006) raise questions about whether general practice will retain this strong position.

Equity

To date, general practice in the UK has scored very highly in comparisons of equity of access (Blendon et al. 2002), although the inequity in the distribution of GPs continues to worsen, with fewer GPs per registered population in more deprived areas (Hann and Gravelle 2004). Research on financial incentives for public health found that financial reward for practices bore no relation to local need; recent research in Scotland found that there are small inequalities between practices in service provision for simple monitoring interventions, but larger inequalities for diagnostic, outcome and treatment measures (Langham et al. 1995; McClean et al. 2006). In addition, the QOF may skew practices to completing labour-intensive interventions (such as screening and treatment for hypertension) rather than interventions with greater potential for health gain (such as prescribing angiotensin converting enzyme (ACE) inhibitors in heart failure) because the former receive higher financial reward (Fleetcroft and Cookson 2006). Early analysis of the QOF also suggests a correlation between excep-

tion reporting (the exclusion of patients from reported figures for such reasons as patients' refusal to attend interviews, patient frailty, lack of service) and social deprivation indices (Sigfrid et al. 2006; Galvin 2006).

Quality of care

While progress on improving clinical care in general practice has been substantial, there are still gaps, with wide variation in the quality of care for different patients (Seddon et al. 2001). Major successes have occurred in areas where targets have been set or additional resources have been provided (Campbell et al. 2003, 2005). Therefore, the QOF process should lead to improvements in clinical care as it provides targets associated with additional funding. There is emerging evidence, though, that the QOF is changing relationships in practices, with responses directed primarily towards the technical problem of designing information systems to rationalize practice and collect relevant data rather than addressing clinical issues for guiding practice (Checkland 2006). What impact this response will have on the quality of care is not clear at present, but it challenges the concept of individualized care. In addition, the numbers of practitioners dealing with the care of individual patients because of the need to meet 24/48-hour targets,[4] and the increasing range of people involved, raise questions about continuity of care and clinical quality.

Responsiveness to patients

UK general practice enjoys a high level of patient satisfaction, although patients express dissatisfaction about their levels of involvement in decisions about their care (Healthcare Commission 2005; Wilson et al. 2006). High satisfaction may be influenced by more general factors such as location, relatively easy access, longer consultation times and improved use of the wider primary healthcare team (Wilson et al. 2006). Responsiveness also includes the appropriate application of resources in accordance with need.

Efficiency

International comparison demonstrates that the NHS system has reduced health costs in the UK and that the wide access to general practice services reduces demand for specialist hospital care (Starfield 1998; Roberts and May 1998). Data from the QOF have identified that practices are undertaking more activity; whether this is actual or better measured is perhaps open to debate, and there are concerns about the impact of the QOF on equity. The introduction of PbC may help to drive further cost

efficiencies in patient care, although the evidence to support significant cost savings in previous primary care–led purchasing has been equivocal (Smith et al. 2005). How far PCTs can maintain a coordinated approach across practices to reduce inequities and allocative inefficiencies remains to be seen – particularly as patient choice will increase uncertainty in local healthcare systems.

Other implications

The increasing emphasis on self-care and public health should mean that general practice, as the most local and universally accessed part of the NHS, plays a key role in these areas. The development of QOF criteria focusing on public health measures and clinical care for people with long-term conditions such as coronary heart disease and diabetes represents a shift towards trying to provide incentives for specific activities. However, the steep increase in GP earnings and questions about actual increases in activity have been highlighted in the media, and there has also been criticism from within the nursing profession that while pay rises were meant to reward additional work in the practice, the main group of staff undertaking these wider health promotion and patient support roles are in fact nurses, not GPs (Amicus/CPHVA 2006). The contract raises important questions about the internal relationships within practices and the appropriate staff mix to provide the required services, and also whether processes (e.g., for meeting QOF targets) have become more important drivers in general practice than clinical expertise. Early evidence suggests that while there is potential in these contract mechanisms to change practice behaviour and work process, the current direction would seem to be one that creates more techno-bureaucratic approaches to patient care. PCTs and other healthcare purchasers have not yet made sufficient use of the flexibilities that the contract provides to explore new models of primary care, and the focus on private provision may be unhelpful, as it has led to conflict. In fact, most private primary care provision has been developed by GPs and employs traditional models of general practice that, on the face of emerging evidence, have not been particularly successful at addressing either the long-term care needs of patients or key public health problems in local communities (Coulter 2006; Kai and Drinkwater 2003).

Finally, tensions are evolving in the system among competing demands and targets. Patient choice and the Choose and Book system focus attention on responsiveness to choices about location of secondary care. However, recent concerns about funding and the need for PCTs as strategic purchasers to manage demand have led to the increased use of central referral centres as intermediaries between the GP and the provider. In addition, there have been concerns about the NHS's IM&T systems, and uptake of Choose and Book has been slow, with many GPs still not using the system (Cross 2006b; Pothier et al. 2006).

Conclusion

So, what can Canadian primary care and family practice learn from recent UK and, more specifically, English experience? There are clear organizational similarities. Regionalization and local integration of funding in many Canadian provinces (such as the development of LHINs in Ontario) certainly mirror the development of PCTs (England), Local Health Boards (Wales) and Local Health and Social Care Groups (Scotland). However, a key difference is that funding for family practice in Canada remains separate from other healthcare funding, whereas in the UK, general practice funding has been more closely aligned with other funding streams – for example, the general practice contracts now held by PCTs. There are a number of tensions in current policy that may be particularly relevant to Canada. A central tension is that between measures seeking to integrate and control general practice through centrally defined performance targets, adherence to policy goals, increased managerial involvement such as managing referrals (Davies and Elwyn 2006) and regulation of professional practice on the one hand, and pressures for diversity and fragmentation through the development of different contract models, new providers, patient choice and the redesign of general practice on the other.

Despite differences between the two health systems, the mechanisms being developed to measure quality and reward practices are clearly transferable, and the new GMS contract has generated a lot of international interest. As suggested here, the use of the financial incentives in the QOF to change practice does work and is leading to improvements in clinical care across the UK. The more difficult assessment is whether these incentives produce the right improvements or, in fact, the best-value improvements. The QOF may actually discriminate against deprived area practices. Smaller practices in deprived areas do less well in the QOF than larger practices in affluent areas, reducing their ability to develop the kinds of organizational systems needed to tackle the problems associated with deprivation and to achieve greater success in meeting QOF targets (Wang et al. 2006). Two points that are highly relevant in the Canadian context are the need for good organizational structures and processes in family practice for a QOF system to operate (and for practices to improve the most), and concerns about the skewing of payments towards more affluent areas away from more deprived areas, creating further disincentives for practitioners to provide services to socially disadvantaged populations.

The development of PbC and extension of private providers is uniquely English (rather than UK), building on previous approaches to primary care–led commissioning and purchasing. How replicable this approach would be in Canada remains uncertain, as with fundholding in the 1990s (Peckham 1997). The UK experience suggests that the most successful PbCs will be small and focused, but many of the models being developed are locality based. It is still too early to tell how PbC will develop – especially in the absence of real incentives to support its development compared

to development of the early fundholders. As for private provision, here there may be more similarities with Canada, given the independent nature of general and family practice in both countries. Yet, the dominant private model in the UK is similar to the traditional GP model and actually builds on the position of the GP as an independent practitioner. The new contract structures and emphasis on self-care and public health are key elements of policy, but the GP model remains central in these developments. While local funders (such as PCTs) have the potential to develop new, innovative models of care using new contractual structures, to date little has been done to achieve these. How far private and not-for-profit providers are willing to enter such a market remains to be seen. The present model consists mainly of companies run by GPs, offering services similar to traditional general practice, which may explain why these private providers have not been challenged by local professional committees.

Fortunately, the health system in Canada is not under the same pressure of rapid reform, nor has it experienced the continuous raft of policy change to which the NHS has been subjected. For Canadian observers, the devolved UK NHS provides a unique policy laboratory, with four system models emerging but sharing the common features of the GMS contract and the QOF. In this sense, perhaps, Canadian policy makers should watch and learn.

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NOTES

1. The star rating system is operated by the Healthcare Commission and rates all NHS organizations as 0–3 star performers based on a basket of performance indicators.

2. Primary Care Trusts are the main commissioners of healthcare services in England and hold over 75% of the NHS budget for primary and secondary care. General practice contracts are held between practices and PCTs. Following reorganization in October 2006, there are now 150 PCTs (reduced from 302) in England, varying in size from populations of 136,000 to 1.2 million.

3. Primary Care Organization (PCO) is a generic term applied to Primary Care Trust (England), Local Health Board (Wales) and Care Trusts Community Partnerships (Scotland).

4. Patients are guaranteed access to a primary care practitioner within 24 hours or a general practitioner within 48 hours. This does not have to be the patient's own GP.

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DISCUSSION AND DEBATE

Shopping for High-Technology Treatment in Another Province

Recherche de traitements de haute technologie dans une autre province

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Abstract

In order to address long healthcare waits, political and professional groups have recommended sending patients to other provinces for diagnostic procedures or treatment. We investigated the feasibility of such recommendations, specifically, whether residence in one province can impede access to MRIs in another province. We contacted all public MRI facilities in Canada and found no difference in wait times between prospective in- and out-of-province patients, although wait times were highly variable from province to province. Over one-fifth (19/86=22%) of centres imposed barriers

for out-of-province patients to access care. We discuss several jurisdictional, financial and logistic considerations regarding the feasibility and appropriateness of implementing a national strategy of interprovincial patient transfer for healthcare.

Résumé

Afin de réduire le problème des temps d'attente en soins de santé, des groupes politiques et professionnels ont recommandé d'envoyer des patients se faire traiter dans d'autres provinces. Nous nous sommes penchés sur la faisabilité d'une telle recommandation, plus précisément sur la question à savoir si le fait de résider dans une province donnée peut entraver l'accès à des tests d'imagerie par résonance magnétique dans une autre province. Nous avons communiqué avec tous les établissements publics qui offrent des tests d'IRM au Canada et n'avons trouvé aucune différence dans les temps d'attente entre les patients potentiels, que ceux-ci soient dans la province ou à l'extérieur de celle-ci. Cependant, plus d'un cinquième (19/86 = 22 %) des centres ont imposé des obstacles aux patients de l'extérieur de la province qui cherchaient à avoir accès aux soins. Nous abordons plusieurs questions liées aux secteurs de compétence, d'ordre financier et de nature logistique en vue de déterminer s'il est possible d'instaurer une stratégie nationale pour le transfert interprovincial de patients qui cherchent à obtenir des soins de santé.

Timely access to healthcare is a major concern for Canadians, and healthcare groups, politicians and physicians alike have all been battling the issue (Sanmartin 2003; The Arthritis Society 2005; The Wait Time Alliance 2005; Esmail and Walker 2002). The Wait Times Alliance (WTA) was established in fall 2004 as a result of physicians' concerns about Canadians' access to healthcare, with the aim of providing advice to governments on medically acceptable wait time benchmarks. Indeed, the issue of lengthy waits for high-technology, elective medical services in the five priority areas (cancer, cardiac care, diagnostic imaging, joint replacement and sight restoration) agreed to by First Ministers in their September 2004 10-Year Plan to Strengthen Health Care has assumed a leading role in discussions about health policy in Canada.

Concerns about accessibility may drive Canadians – even those living in a province that boasts shorter waits – to search for care elsewhere (Korcok 1993; Bell et al. 1998; Coyte et al. 1994). In fact, recent statements from the WTA as well as the federal Conservative Party platform for the 2006 election suggest that patients and their healthcare providers should seek out-of-province care if it is not available in a timely manner in their home province (The Wait Time Alliance 2005; Patient Wait Times Guarantee

2006). Moreover, a Canadian Medical Association (CMA) survey released in August 2006 found that 84% of Canadians and 85% of doctors value "an interprovincial fund that would pay for patients to be sent to different Canadian jurisdictions for care when the wait in their home jurisdiction exceeds the benchmark for their procedure" (Sylvain 2006). The CMA has been lobbying for such a fund for more than two years.

The portability provisions of the *Canada Health Act* (CHA) at first glance may appear to contravene these suggestions, as they do not entitle a patient to seek services in another province; rather, they enable patients that are temporarily absent to receive necessary urgent or emergent services (CHA 1984). However, the Act further states that "in some cases coverage may be extended for elective service in another province." The CHA also emphasizes reasonable access to services on "uniform terms and conditions, unprecluded, unimpeded, either directly or indirectly" (CHA 1984). It is the relative inaccessibility of procedures that may entitle patients to receive coverage for elective services in other provinces, and even "shop around" for healthcare. Both the portability and accessibility clauses of the CHA aim to provide insured Canadians with the security to maintain their health without impediment. It is this premise upon which our study is grounded.

It is the relative inaccessibility of procedures that may entitle patients to receive coverage for elective services in other provinces, and even "shop around" for healthcare.

We tested whether residence in one province affects access and wait times for elective tests in another province. Although each of the five priority areas is important, we narrowed the scope of our study and focused on MRI scans for several reasons. MRIs require only that the patient present to the facility for a period of hours and are thus simpler to complete than more complex care processes identified with long waits, such as cancer surgery, joint replacement and cardiac procedures. For this study, we assumed the role of a patient searching for a shorter wait for a medically necessary yet elective MRI.

Methods

We contacted all publicly funded, adult MRI facilities in Canada between January and August 2005 (CIHI 2004). No private centres were contacted. Two phone calls to each centre were made with a standardized script to book an MRI test of the knee: one with the caller assuming in-province residence, the other with the caller assuming out-of-province residence (Figure 1). The order of the two calls was randomized, and

precautions were taken to diminish the chance of voice recognition by the booking agent. This scenario mimics that of a low-priority elective test with a long wait that might drive a patient to search for shorter waits in another province. We assessed the difference between MRI waiting times for in-province compared to out-of-province patients, as well as the number and types of restrictions placed on out-of-province patients. Ethics approval was obtained from the St. Michael's Hospital Research Ethics Board.

FIGURE 1. Sample telephone script

Caller lives outside the province:

1. I injured my knee and my physician has indicated that I need an MRI. Although I live in Ontario, the waiting list is very long here. I have family that lives near your centre. Can I come to your centre for my MRI? Y/N
2. If N:
   - Why not?
   - Is it a policy that you don't take people from outside of the province?
   - What would I need to do to get an MRI in your province?
3. If Y:
   - When is the earliest you can book me to get an MRI, so that I can make arrangements to come?
   - What do I need my doctor to do to book the appointment?

Thank you. I will not book the appointment now, but thank you for your time.

Caller lives inside the province:

1. I injured my knee playing hockey in Toronto and my physician has indicated that I need an MRI. I am coming home really soon.
   - When is the earliest you can book me to get an MRI?
   - What do I need my doctor to do to book the appointment?

Thank you. I will not book the appointment now, but thank you for your time.

Results

Eighty-six of 98 (88% overall response rate) MRI centres across the country responded to inquiries. Twelve centres would not respond, despite multiple attempts. The median provincial waiting times for MRIs ranged from five weeks in Nova Scotia to 26 weeks in Saskatchewan. For centres that accepted patients from other provinces, there was no difference in estimated MRI waiting times between patients residing in the same province compared to patients living outside the province (17 weeks same province vs. 17 weeks extra-provincial, $P>0.2$).

Over one-fifth (18/86=21%) of centres imposed one of four types of barriers to accessing care for out-of-province patients. These included (1) four centres that

refused to treat out-of-province patients, (2) three centres that demanded payment from the patient prior to the MRI, (3) nine centres that required referrals from physicians living within the province or from the specific centre and (4) three centres that required a written guarantee that the home province would pay for the MRI prior to its administration. All but one centre imposed a single restriction. These policies were institution-specific and were not provincially based, as there was wide variation among centres within the same province.

Not all the centres were unreceptive towards out-of-province patients. Two facilities indicated that their system was designed to deal with out-of-province patients and they "appreciated the extra revenue."

Interpretation

In theory, the adoption of a national policy of interprovincial access to MRIs is feasible, as is signified by the finding that the majority of MRI centres would initially book examinations for out-of-province patients. However, the responses from less accommodating centres highlight that this willingness may only reflect naive experience, since presently this is not a common occurrence for most facilities. Our findings of fairly widespread access, therefore, may not be valid. Nevertheless, if a national policy of interprovincial access were adopted, we identified four barriers to consider. These barriers stem from jurisdictional, financial and logistic issues that would have to be addressed in order for the program to be successful.

One jurisdictional issue relates to the requirement that a number of MRI centres impose of a referral from a local physician. This process duplicates service, adds longer waits for the test and increases costs. A policy of interprovincial access would require provinces to accept diagnostic requisitions from out-of-province physicians. Such a policy already occurs on a small scale in some referral areas and catchment areas that do not follow provincial boundaries. Indeed, one of the facilities surveyed referred us to a centre with a shorter wait in an adjacent province.

Financial issues may pose more of a challenge, particularly because healthcare falls under provincial jurisdiction, whereas the policy is promoted as a federal strategy. As is recommended by the WTA, the patient's home province would underwrite the healthcare charges (and possibly associated travel costs), similar to the present practice for rural residents in many provinces. This arrangement would require explicit guarantees for payment from the home province to the provider province. Pushing the argument further, incentives may have to be paid to provider provinces or MRI centres for care. Interestingly, two facilities indicated appreciation for out-of-province examinations because of the extra revenue. The potential for lengthening waits in the receiving province, as well as preferential access for out-of-province residents because of increased remuneration, should be considered. This scenario resembles present situ-

ations with third-party healthcare payers and may require regulation of the proportion of care provided to out-of-province residents.

The logistical issues with such a policy are also important. When, in the waiting process, should patients be offered their appointment elsewhere? Should it be when they are presented initially with the long wait, or after they have waited for a prescribed period of time? When formulating operating procedure, care should be taken to avoid having these individuals jump the queue. Maintaining a culture of fairness and transparency with such practice is essential. Moreover, although patients can shop around, many do not have the means or the ability to do so. A streamlined infrastructure to arrange for the movement and direction of patients to appropriate places is required for the sake of efficiency, and can be accomplished.

Given that our analysis is derived from a survey of MRI facilities and not other specified high-technology healthcare resources, our suggestions are preliminary. Data were collected during a brief interval and relied on self-reported wait times and referral policies. Although our sample size was small, we contacted all Canadian centres and had a high response rate.

Radiologic tests such as CT or MRI – which require the patient only to present to the facility for a period of hours – are the most feasible program to consider implementing, as compared to more complex care processes identified with long waits, such as cancer surgery, joint replacement and cardiac procedures. These pose added challenges because they involve initial consultation with providers, hospital stays, long recovery periods, separation of patients from their families and support systems and requisite follow-up. Still, many facilities in the United States that offer this service to Canadians have been able to overcome these issues, albeit on an ad hoc basis. Thus, these programs would experience, at minimum, the same issues that we have encountered for MRIs. A strategy of interprovincial access to healthcare resources that extrapolates our findings to the other areas of high-technology services with lengthy waits would apply only to truly elective care. Nevertheless, our findings suggest that elective healthcare in Canada does not fully cross provincial boundaries.

A policy of interprovincial access to MRIs – and, by extrapolation, other high-technology services – can be achieved with skilled planning and preparation, despite many jurisdictional, financial and logistic barriers. Justification for this policy may be found in the portability and accessibility clauses of the *Canada Health Act*. However, the political and financial costs would undoubtedly direct resources away from more permanent solutions. The effort required to implement such programs may be large enough to tilt the balance for provincial governments in favour of increased capital expenditures instead of the shuttling of patients to other provinces. The barriers to interprovincial access, although individually surmountable, should cause federal and provincial governments to rethink the strategy of borrowing healthcare from their provincial neighbours and, instead, consider investing in healthcare in their own provinces.

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Call to Authors

Discussion and Debate

The Discussion and Debate section of *Healthcare Policy* offers a forum for essays and commentaries that address: (1) important health policy or health system management issues; or (2) critical issues in health services and policy research. Submissions should be a maximum of 2,000 words exclusive of (no more than 20) references. The main points of the paper should be highlighted in an abstract (summary) of 100 words or less.

Appel aux auteurs

Discussion et débat

La section « Discussion et débat » de *Politiques de santé* offre un forum pour la publication de comptes rendus et de commentaires portant sur les sujets suivants : (1) d'importantes questions liées aux politiques de santé ou à la gestion du système de soins de santé; ou (2) des questions cruciales concernant les services de santé et la recherche sur les politiques. Les articles devraient être d'au plus 2000 mots, sans compter les références (pas plus de 20). Les points saillants de l'article devraient être mis en évidence dans un résumé (sommaire) de 100 mots ou moins.

For more information contact Rebecca Hart, Managing Editor, at rhart@longwoods.com.

DATA MATTERS

Home Care Evolution in Alberta: How Have Palliative Clients Fared?

Évolution des soins à domicile en Alberta : comment les patients en soins palliatifs s'en tirent-ils?

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Home Care Evolution in Alberta: How Have Palliative Clients Fared?

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Abstract

This study compared palliative and non-palliative home care clients, services and providers, and described changes over a decade of health system reform (1991/92–2000/01). Complete individual-anonymous data from Alberta's home care database were analyzed. Over these 10 years, 7.0% of all home care clients were classified as palliative. The proportion of home care clients who were classified as palliative varied from 2.2% to 9.6% among health regions. The number of palliative clients more than doubled, although this growth was less than that of short-term clients. Home support aides were the most common home care provider, and personal care was the most common service provided to all clients. Although the average number of care hours prior to death for palliative clients increased from 40.9 to 87.9 hours, the relatively small amount of home care provided to dying persons raises concerns about informal caregiver burden and possible overreliance on hospitals to provide end-of-life care.

Résumé

Cette étude comparait des clients, des services et des fournisseurs de soins palliatifs et non palliatifs à domicile, et décrivait les changements survenus sur les dix ans de la réforme du système des soins de santé (1991/1992–2000/2001). Des données individuelles anonymes complètes tirées de la base de données sur les soins à domicile en Alberta ont été analysées. Au cours de ces dix années, 7 % de tous les patients bénéficiant de soins à domicile étaient classés comme recevant des soins palliatifs. La proportion de patients recevant des soins à domicile et classés comme bénéficiant de soins palliatifs a varié de 2,2 % à 9,6 % entre les régions sanitaires. Le nombre de clients en soins palliatifs a plus que doublé, bien que cette hausse soit moindre que chez les clients recevant des soins à court terme. Les aides de soutien à domicile étaient les fournisseurs de soins à domicile les plus courants, et les soins personnels étaient le service le plus courant fourni à tous les clients. Bien que le nombre moyen d'heures de soins avant décès consacrées aux patients en soins palliatifs ait augmenté de 40,9 à 87,9, la quantité relativement faible de soins à domicile fournie aux personnes mourantes soulève des préoccupations, notamment en ce qui concerne le fardeau

que doivent assumer les aidants naturels et, possiblement, une dépendance excessive à l'égard des hôpitaux pour la prestation de soins en fin de vie.

Canadian mortality statistics show a reduction in hospital death rates since 1994 (Wilson et al. 2001). This finding corresponds with developments in community-based end-of-life (EOL) care and formal home care programming (Health Canada 1999; Shapiro 1985). An increasing desire among terminally ill persons to remain at home is another likely influence for reduced hospital-based EOL care and increasing interest in palliative home care (Grande et al. 1999; Vickers and Carlisle 2000).

With few exceptions (Wilkins and Park 1998; Health Canada 1999; Sheps et al. 2000), Canadian home care research has typically focused on individual programs, with palliative and non-palliative home care recipients not differentiated (Alcock et al. 1998; Chochinov and Kristjanson 1998; Coyte and Young 1999; Dansky et al. 1996; Grande et al. 1999; Markel-Reid et al. 1998; McWhinney et al. 1995). Although all home care recipients may have similar needs for support in the home, terminally ill and dying persons present some unique challenges and care needs. One of the most important is rapidly progressive dependency as the end of life nears (Wilson 2002).

To inform health services planning and policy development, we undertook an analysis of the provincial home care data set for the province of Alberta, distinguishing palliative home care recipients from other recipients, and identifying changes in home care clients, services and providers that occurred from 1991/92 through 2000/01 in response to or in conjunction with health system reforms.

Alberta had a pronounced decline in acute care hospital beds from 1993 through 1995 in response to a series of government funding reductions accompanied by government policy that emphasized a shift from inpatient to ambulatory care. Alberta Health's *Three-Year Business Plan* specified "reducing acute care beds from 4.3/1,000 population to 2.4/1,000 population by closing, downsizing and converting hospitals … increasing day surgery … reducing average length of stay and reducing number of admissions … and shifting most palliative and pre- and post-operative services in the community" (Alberta Health 1994: 8). Self-managed home care was introduced around this time, with a growing number of long-term clients subsequently choosing this option. A targeted reduction in nursing home beds from 55 beds/1,000 seniors to 50 beds/1,000 was also initiated. Regionalization was introduced in 1995, with 17 geographically defined Regional Health Authorities (RHAs), one RHA for mental health services and one RHA for cancer care services expected to implement the government's health reform policies. Although health system funding increases occurred after 1995, minimal hospital bed recovery was noted by the end of the 1990s (Alibhai et al. 2001).

Methods

Following University of Alberta research ethics approval and agency approval of data access, we obtained complete individual-anonymous Home Care Information System (HCIS) data and matching demographic data from Alberta's health plan registry database for the fiscal years 1991/92 through 2000/01. This 10-year time frame was the entire period during which standard home care data were systematically collected on all clients on a provincewide basis. The data received for analysis included 11,520,251 HCIS service event records and demographic information on a fiscal-year basis for all Albertans who received one or more home care services at any point during these 10 years (N=462,877). To preserve anonymity and ensure confidentiality, recipient names and addresses were not provided to the research team. A unique Alberta Scrambled Number (ASN) permitted the linkage of service event and demographic data on an individual level.

The demographic variables were: gender, age at fiscal year start, death date (if applicable), residence RHA and the first three characters of the postal code of residence at fiscal year start. The service variables were: HCIS admission and discharge dates, client classification (short-term, long-term or palliative), type of service (case coordination, assessment, skilled health care, personal care, home support and meals), provider type (RN, LPN, aide, etc.) and direct care service hours aggregated on a monthly basis per client.

Prior to data analysis, and in keeping with standard procedures to assess the accuracy and usefulness of population data, data cleaning and verification procedures were undertaken. Most variables had minimal missing data (<5%), with the exception of postal code (9.7% missing data). We compared palliative clients with short-term and long-term clients, as opposed to all non-palliative clients combined. Short-term clients typically receive home care for one month or less, with this care normally following hospital discharge. Long-term clients generally receive home care over months or years, with some having the option of self-managed home care. Palliative clients are understood as terminally ill, with a life expectancy of around three months.

Results

Home care client comparisons

Only 7.0% of all home care clients were classified as palliative (N=34,384). While the proportion classified as short-term increased substantially over the 10 years (from 25.8% to 41.0%), the proportion comprising palliative clients increased only minimally (from 6.3% to 6.5%), and the proportion comprising long-term clients declined considerably (from 67.8% to 52.4%). The number of palliative clients increased by 115%

(from 1,967 the first year to 4,238 the last year), less than short-term clients (233% increase) but more than long-term clients (62% increase). During the same period, the Alberta population increased 15%, from 2,504,600 in 1991 to 2,879,743 in 2000, with seniors remaining at 10% of the total.

The mean age of palliative clients was 65.7 years (Table 1), increasing slightly over time, while the mean age of both short-term and long-term clients declined. Each year, palliative clients were almost equally as likely to be male or female (Table 1). In contrast, short-term and long-term clients were more often female, although the proportion of male clients increased for both care types.

TABLE 1. Age and gender distribution of home care recipients by client type

Year	Variable	Long-term Clients	Short-term Clients	Palliative Clients
1991/92	Mean age (SD)	77.1 (11.6)	66.1 (19.2)	64.7 (15.3)
	Median/Mode age	79.0/82	72.0/77	67.5/72
	Age Range	0-105	0-99	0-104
	Female N(%)	14,757 (70.3)	5,064 (63.3)	990 (50.4)
	Male N(%)	6,249 (29.7)	2,937 (36.7)	974 (49.6)
2000/01	Mean age (SD)	74.5 (18.1)	63.5 (20.7)	66.4 (15.1)
	Median/Mode age	79.0/85	69.0/78	69.0/74
	Age Range	0-111	0-102	0-107
	Female N(%)	22,464 (66.1)	15,147 (56.9)	2,137 (50.4)
	Male N(%)	11,546 (33.9)	11,482 (43.1)	2,100 (49.6)
All Years	Mean age (SD)	74.8 (16.9)	64.0 (20.4)	65.7 (15.4)
	Median/Mode age	79.0/83	70.0/77	68.0/74
	Age Range	0-114	0-106	0-107
	Female N(%)	187,287 (66.9)	104,255 (58.8)	17,102 (49.8)
	Male N(%)	92,718 (33.1)	72,922 (41.2)	17,240 (50.2)

Notes: 0.06% missing data; age calculations were based on the ages that were recorded at the beginning of each fiscal year.

Table 2 illustrates considerable rural/urban differences, with the city of Calgary having the highest proportion of its home care clients classified as palliative (9.6%), compared to 4.4% for rural areas. Changes over these 10 years were also noted, with palliative clients declining as a proportion of home care clients in the city of Edmonton and in all rural areas combined, while increasing as a proportion of home care clients in Calgary and other urban areas. When compared on the basis of RHA, palliative clients ranged from 2.2% of RHA 17 home care clients (a rural region in northern Alberta) to 9.6% for RHA 4 (Calgary).

TABLE 2. Distribution of home care clients on the basis of residence

Fiscal Year	Residence Location	Long-term Clients N(%)	Short-term Clients N(%)	Palliative Clients N(%)
1991/92	Edmonton	4,883(67.8)	1,675(23.3)	640(8.9)
	Calgary	3,835(55.0)	2,535(36.3)	607(8.7)
	Other Urban	3,022(66.8)	1,221(27.0)	282(6.2)
	Rural	7,964(76.8)	2,095(20.2)	308(3.0)
	Total	19,704(67.8)	7,526(25.9)	1,837(6.3)
2000/01	Edmonton	8,491(52.2)	6,715(41.3)	1,064(6.5)
	Calgary	9,161(54.4)	6,125(36.3)	1,565(9.3)
	Other Urban	8,095(49.0)	7,533(45.6)	877(5.3)
	Rural	7,927(55.0)	5,833(40.5)	658(4.6)
	Total	33,674(52.6)	26,206(40.9)	4,164(6.5)
All Years	Edmonton	65,926(55.3)	43,824(36.8)	9,401(7.9)
	Calgary	63,954(53.2)	44,626(37.1)	11,581(9.6)
	Other Urban	57,842(54.0)	42,861(40.0)	6,445(6.0)
	Rural	83,683(64.5)	40,243(31.0)	5,717(4.4)
	Total	271,405(57)	171,554(36.0)	33,144(7.0)

Note: 9.7% missing data

Amount and types of service

Palliative clients who died during the study period received 79.4 hours of home care service on average (Table 3). Average care hours increased over the 10 years for these

palliative clients (from 40.9 hours to 87.8 hours), while the mean number of days registered with the home care program declined.

TABLE 3. Days registered and hours of care for palliative home care decedents

Fiscal Year	Measure	Palliative Clients (N=18,893)
1991/92	Mean hours (SD)	40.9 (78.5)
	Range of hours	.25-890.5
	Mean days (SD)	169.2 (442)
	Range of days	1-3341
2000/01	Mean hours (SD)	87.8 (177.7)
	Range of hours	.02-2331.0
	Mean days (SD)	68.5 (63.4)
	Range of days	1-349
All Years	Mean hours (SD)	79.4 (169.6)
	Range of hours	.02-3363.25
	Mean days (SD)	90.5 (196.5)
	Range of days	1-3341

Note: 2.6% missing data

As shown in Table 4, home support aides provided the largest share of direct care hours for all clients, although this share declined over time. In the last fiscal year, home support aides provided half of all direct care hours for palliative and long-term clients, and one-third of all direct care hours for short-term clients.

Personal care (bathing, dressing, etc.), home support (housecleaning) and skilled care (dressing changes, injections, etc.) were the three most common services provided to all home care clients (Table 5). Over this decade, personal care hours increased and home support hours declined for all three client types. Skilled care hours declined for long-term and palliative clients, while increasing for short-term clients.

TABLE 4. Hours of care by provider type

Fiscal Year	Care Provider	Long-term N(%)	Short-term N(%)	Palliative N(%)
1991/92	Home Support Aide	1,004,143(76.0)	100,308(54.9)	60,092(61.6)
	Registered Nurse	249,135(18.9)	66,977(36.6)	29,601(30.4)
	Self-Managed Care	545(0.0)	0(0.0)	0(0.0)
	All Other Providers	67,596(5.1)	15,515(8.5)	7,790(8.0)
	Total	1,321,420(82.5)	182,801(11.4)	97,482(6.1)
2000/01	Home Support Aide	3,505,013(56.2)	189,655(38.8)	203,936(53.0)
	Registered Nurse	482,519(7.7)	206,063(42.2)	106,683(27.7)
	Self-Managed Care	1,844,701(29.6)	20,349(4.2)	52,615(13.7)
	All Other Providers	405,876(6.5)	72,546(14.8)	21,382(5.6)
	Total	6,238,110(87.7)	488,613(6.9)	384,617(5.4)
All Years	Home Support Aide	23,325,625(58.4)	158,4881(46.0)	180,5741(62.9)
	Registered Nurse	3,688,561(9.2)	1,322,294(38.4)	697,239(24.3)
	Self-Managed Care	10,792,865(27.0)	69,845(2.0)	179,788(6.3)
	All Other Providers	2,160,127(5.4)	470,419(13.6)	187,336(6.5)
	Total	39,967,178(86.4)	3,447,440(7.4)	2,870,105(6.2)

Notes: 2.9% missing data; self-managed care is arranged by the home care client or client's family and this care is normally provided by home support aides.

Discussion

This analysis of administrative data provides information about changes in home care clients, services and providers over a 10-year period marked by hospital downsizing. It is limited in two respects. The findings are confined to one province and cannot be generalized across Canada. Although a national Home Care Reporting System is developing (Canadian Institute for Health Information, online), comparable provincial data are not yet available for analysis. Some important variables, such as medical diagnoses, cause of death, marital status, living arrangements (i.e., lives alone or with another) and type of residence (i.e., apartment, etc.), were not available.

Regardless, several findings are of interest. Over this 10-year period, the number of Albertans receiving home care doubled. This growth is in keeping with the government's 1994 policy to increase home care services, although the magnitude of the desired increase was never specified. It is therefore not known if this increase

met or exceeded government expectations. It is also not known whether this home care growth was enough to address the magnitude of home care needs generated by the policy of rapid reduction in acute care beds, particularly since access to nursing home beds was reduced and population growth was occurring over this period. Unfortunately, the current study could not determine whether the number of persons receiving home care services or the types and quantities of services provided were appropriate to either individual or population needs.

TABLE 5. Total hours of care by service category

Fiscal Year	Service Category	Long-term Hours (%)	Short-term Hours (%)	Palliative Hours (%)
1991/92	Personal Care	395,860(30.0)	38,264(20.9)	21,975(22.5)
	Home Support	618,023(46.8)	63,620(34.8)	39,095(40.1)
	Skilled Health Care	235,922(17.9)	61,781(33.8)	27,625(28.3)
	Case Coordination	37,027(2.8)	8,740(4.8)	5,717(5.9)
	Assessment	33,527(2.5)	10,116(5.5)	3,049(3.1)
	Meals	1,061(0.1)	281(0.2)	21(0.0)
	Total	1,321,420(100)	182,801(100)	97,482(100)
2000/01	Personal Care	4,498,259(72.1)	182,899(37.4)	191,711(49.8)
	Home Support	930,922(14.9)	34,011(7.0)	65,994(17.2)
	Skilled Health Care	499,385(8.0)	155,608(31.8)	81,659(21.2)
	Case Coordination	249,359(4.0)	86,372(17.7)	38,122(9.9)
	Assessment	60,182(1.0)	29,678(6.1)	7,131(1.9)
	Meals	2(0.0)	45(0.0)	0(0.0)
	Total	6,238,110(100)	488,613(100)	384,617(100)
All Years	Personal Care	25,560,149(64.0)	1,144,637(33.2)	1,283,573(44.7)
	Home Support	8,716,357(21.8)	528,317(15.3)	712,823(24.8)
	Skilled Health Care	3,689,074(9.2)	1,099,075(31.9)	578,252(20.1)
	Case Coordination	1,521,273(3.8)	476,732(13.8)	247,053(8.6)
	Assessment	476,386(1.2)	197,968(5.7)	48,253(1.7)
	Meals	3,939(0.0)	710(0.0)	152(0.0)
	Total	39,967,178(100)	3,447,440(100)	2,870,105(100)

Note: 2.9% missing data

The final report of the Commission on the Future of Health Care in Canada (Romanow 2002) emphasized the need for enhanced home care, particularly for persons near the end of life, and for national home care standards. This need for standards is illustrated by the large regional variations discovered through our study. Some RHAs appear to have developed capacity in home-based EOL care, while others have not. Although population-density reasons could be cited, as it may be more difficult to deliver home care in sparsely populated areas, considerable rural RHA variability in clients and care hours was also noted. Variability was similarly noted among the urban RHAs. This variability could simply be an outcome of the decentralized planning and programming that accompanies regionalization, and to some extent may reflect variations in need. This issue of equity of access to home care is not confined to Alberta; Coyte and Young (1999) previously reported that equal access to home care does not exist in any Canadian province.

One of the more surprising findings was the predominant use of home support aides as home care providers, the least knowledgeable and skilled healthcare provider. Alberta may differ in this regard from other provinces, as Health Canada (1999) found that 38.8% of home care clients across six provinces were receiving professional nursing services and 26.5% other professional services (occupational therapy, physiotherapy, speech therapy and social work). Although quality concerns could be raised, home support aides may be appropriate service providers for many home care clients, as the most common home care service was basic personal care. The basic care provided by home support aides may not, however, be adequate for palliative home care clients. A UK home care evaluation study by Hinton (1996) found personal support from professionals and communication with professionals were the two most important aspects of care for palliative home care clients.

Client changes are also notable, such as the large increases in the number and proportion of persons receiving short-term care. This finding is not surprising, as home care can facilitate early hospital discharge, and the government's stated policy was to shorten hospital stays.

The number of Albertans receiving palliative home care more than doubled, although palliative clients remained a distinct home care minority (<8% each year). Only 34,384 persons received palliative home care over the study period. Online Vital Statistics information shows 161,320 deaths in Alberta over the same period, which means roughly one in five decedents received some palliative home care. Research on the appropriate level of home care coverage is clearly needed, as informal caregiver burden is a common end-of-life issue (Stajduhar and Davies 1998; Tilden et al. 2004).

Conclusion

This analysis of 10 years of home care data for Alberta identified home care client,

service and provider changes over a decade of health system change. Despite a doubling of palliative home care clients and increased service hours, considerable regional variation in the provision of palliative home care was found across Alberta. The relatively small amount of home care provided to dying persons, particularly in rural regions, raises concerns about informal caregiver burden and potentially inappropriate use of hospitals for end-stage care. Another concern is that the least skilled and educated healthcare worker provided the majority of care to home care clients, including those who were actively dying.

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DISCLAIMERS

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Knowledge Translation, Linkage and Exchange

Application des connaissances, liens et échanges

The case study presented here is drawn from a publication from the Canadian Institutes of Health Research: *Evidence in Action, Acting on Evidence* by the CIHR Institute of Health Services and Policy Research. This knowledge translation casebook highlights original submissions from across Canada that focus on lessons learned from both successful, and less than successful, knowledge translation activities. Designed as a means for researchers and decision-makers to share and recognize their experiences, this casebook also demonstrates the impact that research can have in shaping policy, program and practice changes.

The casebook was published in early 2006. Please visit CIHR's website at www.cihr-irsc.gc.ca for more details.

L'étude de cas présentée ici est tirée d'une publication des Instituts de recherche en santé du Canada intitulée : *Agir et réagir face aux données probantes* produite par l'Institut des services et des politiques de la santé des IRSC. Ce recueil de cas d'application des connaissances contient des résumés de cas envoyés par des auteurs de partout au Canada et illustrant les leçons tirées d'initiatives fructueuses ou non d'application des connaissances. Conçu pour permettre aux chercheurs et aux décideurs de partager et de reconnaître leurs expériences, le recueil démontre aussi les répercussions possibles de la recherche sur la façon dont les changements sont apportés aux politiques, aux programmes et à la pratique.

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A Community-Researcher Alliance to Improve Chronic Wound Care

Une alliance entre la communauté et les chercheurs en vue d'améliorer le traitement des lésions chroniques

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Abstract

A partnership between health services researchers from Queen's University and the University of Ottawa, a community nursing agency and a home care authority in Ottawa led to major improvements in the quality of care for people with leg ulcers. The synthesis of both external and local evidence played a key role in the adoption of an evidence-based protocol and provided the critical context to support a significant reorganization of the existing service delivery model. This case demonstrates that, with a collaborative partnership approach, systematic and transparent research processes can be rapidly developed to support policy change.

Résumé

Un partenariat entre les chercheurs sur les services de l'Université Queen's et de l'Université d'Ottawa, une agence communautaire de soins infirmiers et une autorité en matière de soins à domicile à Ottawa a mené à des améliorations majeures dans la qualité des soins fournis aux personnes souffrant d'ulcères de jambe. La synthèse des preuves cliniques externes et locales a joué un rôle-clé dans l'adoption d'un protocole fondé sur l'expérience clinique et a fourni le contexte critique pour appuyer une restructuration majeure de l'actuel modèle de prestation des services. Ce cas démontre qu'avec une approche fondée sur des partenariats de collaboration, on peut rapidement élaborer des processus de recherche systématiques et transparents en vue d'appuyer les changements d'orientation.

Leg ulcers are a chronic, debilitating, costly and neglected condition. In 1999, the annual regional expenditures for 192 individuals living in the Ottawa area and receiving home care for their leg ulcers was $1.3 million. This group of individuals accounted for only 6% of all home care clients, but consumed 20% of the total supply budget. Yet there is strong evidence from numerous randomized controlled trials that a thorough initial assessment and application of compression bandages is a very effective treatment for healing venous leg ulcers (Cullum et al. 2001).

Ottawa Community Care Access Centre (OCCAC), the home care authority in a region of approximately 750,000 people, became concerned about the growing demand for community care of wounds, burgeoning wound-care supply budgets and a shortage of nurses. In 1999, the OCCAC partnered with a not-for-profit community nursing agency – the Ottawa Victorian Order of Nurses (now known as Carefor) – and a team of health services researchers from Queen's University and the University of Ottawa to address their mutual concerns about care of individuals with leg ulcers.

The objective of the partnership was to improve both the quality of care and health outcomes for individuals with leg ulcers.

This project involved both the community and tertiary sectors and was financially supported by the OCCAC, the Ontario Ministry of Health and Long-Term Care through career scientist research allowances and the Canadian Institutes for Health Research (CIHR) through a grant to evaluate the effectiveness of home versus clinic care for leg ulcers.

The KT Initiative

The partnership was formed with a common vision of developing a pragmatic, evidence-based approach to bringing about practice and service changes. We approached the research as a collaborative and participatory endeavour. The partnership has gone through a number of phases, each with a varying degree of knowledge translation (KT) activity. Sometimes occurring simultaneously and often affecting each other, the phases of the partnership included:

- the identification of the delivery of leg ulcer care as an important organizational issue by OCCAC, community nursing agency managers and policy makers
- researchers reviewing the literature on the effectiveness of leg ulcer care and service delivery models and identifying best practices
- conducting a regional prevalence and profiling study, environmental scan and practice audit with OCCAC and the nursing agency to determine the magnitude of the problem and current practice (Harrison et al. 2001; Friedberg et al. 2002; Graham et al. 2003b)
- conducting surveys of care providers to determine provider concerns and issues (Graham et al. 2001, 2003c)
- engaging OCCAC's board with evidence from both the literature and locally derived data to support their decision-making
- forming an interdisciplinary group of providers and researchers, which systematically reviewed the quality and utility of existing practice guideline recommendations and adapted them for local use by creating an evidence-based leg ulcer care protocol (Graham et al. 2000, 2005)
- managers, policy makers and researchers coming together to redesign the service delivery model to support best practice (a dedicated regional nurse-led leg ulcer team to provide care in home and clinic settings)
- managers finding innovative ways to overcome organizational inertia and financial and structural barriers to make the redesign happen
- researchers, with the support of the agencies, creating opportunities for nurses to advance their wound care knowledge and skills through an exchange program in

the United Kingdom
- conducting a pre–post study of the impact of the implementation of the evidence-based protocol (Harrison et al. 2005)
- using the opportunity of preparing a grant proposal to seek peer-reviewed research funding to coalesce researcher–policy maker synergies
- securing research funding to conduct a randomized controlled trial of the effectiveness of the service model redesign.

Results of the KT Experience

Qualitative feedback indicated the partnership process had positive effects for all involved. A review of clients' health records also indicated that the quality of care improved (Lorimer 2004). The results of the pre–post implementation evaluation indicated that the healing rate for leg ulcers at three months increased to 56% from 23% following introduction of the evidence-based protocol, coupled with significant reductions in nursing visits and supply costs (Harrison et al. 2005). The randomized controlled trial evaluation of the effectiveness of home versus clinic care is in the last year of follow-up, and the results are currently being analyzed.

Perhaps most importantly, arrangements have been made to ensure the leg ulcer service will continue to serve the region, even though the research study has ended. The methodology used to evaluate and adapt existing guidelines (Graham et al. 2003a) has been adopted by the nursing agency to develop protocols for other conditions. It also forms the foundation for best practice initiatives of the Canadian Strategy for Cancer Control, the Canadian Stroke Network, the Registered Nurses Association of Ontario (Graham et al. 2002; MacLeod et al. 2002) and the ADAPTE Collaboration (www.ADAPTE.org), and international collaboration of independent researchers, guideline developers, guideline users and implementers who aim to promote adaptation as a method to take advantage of existing guidelines in order to enhance efficiency in the development of practice guidelines and their use.

Lessons Learned

We encountered some major challenges throughout the partnership, but also learned a number of important lessons.

Change and commitment

Policy maker/manager partners changed frequently during the six-year period, meaning that new relationships required continual fostering. There were also numerous reorganizations and leadership changes within the regional home care and the home

nursing agencies, making it challenging to keep the initiative on track.

The end result of this partnership, however, was no less than the restructuring and reorganization of service delivery to support the provision of evidence-based care. This required a major organizational commitment from service providers, as it involved altering staffing and remuneration arrangements and procuring additional provider education and training.

The partnership was also labour intensive for the researchers. The research team was regularly and actively engaged in the day-to-day ups and downs of the service and, at times, took on an active role as implementation facilitators. The researchers, who were perceived as credible and neutral, often had to work between the OCCAC and the nursing agency to negotiate change. However, this direct contact helped to create the common understanding and trust needed for the partnership to succeed. While continually renegotiating and establishing trust with new personnel can be frustrating, having access to policy makers and being able to influence decision-making is ultimately very rewarding.

Making research evidence work for policy makers

As researchers, we had to develop methods of synthesizing and presenting external and local evidence that was useful, user friendly and timely for policy makers. We also had to gain consensus on the value of "quick but good" research methods to meet the needs of the policy makers for immediate answers, while respecting researchers' concerns that the evidence be derived using rigorous methods.

The critical success factor for the adoption of the evidence-based protocol was the synthesis of external and local data. The external evidence from the literature provided the clinical direction for the care that "ought" to be delivered. However, the local data about current practice provided the critical contextual information to enable the delivery of effective and efficient care.

Funding

Peer-reviewed research funding can be used to leverage change with organizations that value research. However, it can also hold up things when resubmission to granting agencies is required and work cannot proceed without external funding.

Conclusions and Implications

The initiative was driven by a common goal of improving care and making service delivery more efficient, using the best available evidence as the foundation. It demonstrates how policy making can become more evidence based when researchers and

policy makers adopt a collaborative partnership approach, and how this approach can increase appreciation of each other's worlds and perspectives, build trust, encourage learning from each other and provide new opportunities to use research to improve decision-making. It can be very rewarding when a visible difference is made to a population receiving care, and when that change creates additional successes.

The project also revealed that it is possible to develop systematic, transparent and relatively quick research processes (e.g., the guideline evaluation and adaptation cycle) that can support policy making. As the results of the pre–post study validating the effectiveness of the locally developed leg ulcer protocol have only just been released, it is premature to expect that it has been adopted elsewhere. However, the protocol was updated (Graham et al. 2005) and formed the basis of an implementation study in three other regions of Ontario. The protocol was adopted in two regions but not the third: this was due to the fact that organizational changes necessary to support delivery of the protocol were not made at the third site.

Important implications of this case study for future KT research include the need to focus on researcher–policy maker relationships and the factors that promote or hinder the development of effective relationships, methods for synthesizing external and local data for policy makers and the role of researchers as change agents and implementation facilitators.

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Appel aux auteurs

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RESEARCH PAPER

Why Equity in Financing First Nations On-Reserve Health Services Matters: Findings from the 2005 National Evaluation of the Health Transfer Policy

Pourquoi l'équité dans le financement des services de santé dans les réserves des Premières nations est importante : constatations de l'évaluation nationale de 2005 de la Politique de transfert des services de santé

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Abstract

Background: This paper reports on selected findings from the 2005 National Evaluation of the Health Transfer Policy. Three hypotheses were tested, namely: (1) that inequalities in per capita financing exist between First Nations organizations, (2) that variations in per capita funding among communities cannot be explained by variations in the program responsibilities each assumed and (3) that First Nations organizations that transferred in the early 1990s now have access to fewer resources on a per capita basis than those that transferred more recently.

Methods: We compared (1) the per capita funding for 30 medium-sized communities (population = 401–3,000) that have Health Centres and the 13 similarly sized communities that have Health Stations, (2) program responsibilities and per capita funding for the same 30 communities and (3) the relationship between 2001–2002 per capita funding and the year of transfer for the same communities. We used data provided to us by the First Nations and Inuit Health Branch of Health Canada from 1989 to 2002.

Results: The results show that differences in per capita funding exist among and within regions. These differences cannot be explained by the responsibilities each community chose to assume. Differences are also related to the year First Nations entered into a transfer agreement.

Conclusions: We recommend that formula-based financing be adopted to reduce inequalities. Such a formula should reflect needs, population growth and changes in costs of service delivery.

Résumé

Contexte : Cet article présente des résultats sélectionnés de l'évaluation nationale de la Politique de transfert des services de santé. Trois hypothèses ont été mises à l'épreuve, à savoir, (1) qu'il existe des inégalités dans le financement par habitant entre les organismes des Premières nations, (2) que les variations dans le financement par habitant entre les communautés ne peuvent s'expliquer par les variations dans les responsabilités liées aux programmes assumées par chacune (3) que les organismes des Premières nations auxquelles les services de santé ont été transférés au début des années 90 ont maintenant accès à moins de ressources par habitant que celles pour lesquelles ce transfert a été effectué plus récemment.

Méthodes : Nous avons comparé (1) le financement par habitant pour 30 communautés de taille moyenne (population = 401–3 000) qui ont des centres de santé et 13 communautés de taille semblable dotées de postes sanitaires; (2) les responsabilités liées aux programmes et le financement par habitant pour les mêmes 30 communautés et (3) la relation entre le financement par habitant en 2001–2002 et dans l'année de transfert pour ces mêmes communautés. Ces hypothèses ont été vérifiées à l'aide de

données de 1989 à 2002 qui nous ont été fournies par la Direction générale de la santé des Premières nations et des Inuits de Santé Canada.
Résultats : Les résultats montrent qu'il existe des différences dans le financement par habitant d'une région à l'autre et au sein d'une même région. Ces différences ne peuvent pas être expliquées par les responsabilités que chaque communauté a choisi d'assumer. Les différences tiennent également à l'année où les Premières nations ont conclu une entente de transfert.
Conclusions : Nous recommandons l'adoption d'un financement axé sur une formule afin de réduire les inégalités. Une telle formule devrait refléter les besoins, la croissance démographique et les coûts changeants de la prestation des services.

—

The Health Transfer Policy (HTP)[1] was introduced in 1989 to support First Nations' aspirations to design health programs, establish services and allocate funds according to community health priorities (National Health and Welfare and Treasury Board of Canada 1989). Before 1989, the majority of programs and services were delivered directly on-reserve by the Medical Services Branch, which is now known as the First Nations and Inuit Health Branch of Health Canada (hereafter, FNIHB).

The HTP was a natural progression from the 1979 Indian Health Policy, with its stated goal of achieving "an increasing level of health in Indian communities, generated and maintained by the Indian communities themselves" (Health Canada 2000). This orientation reflected an important policy shift within the federal government, from caretaking and management to development (Hawthorn 1966), and active participation in program planning and delivery, particularly in the area of health (Booz•Allen & Hamilton Canada 1969; National Health and Welfare 1979; Berger 1980; Bégin 1981). The shift reflected years of lobbying by First Nations to secure more control over all sectors of their lives. Two programs, the Community Health Representatives (known as CHRs) and the National Native Alcohol and Drugs Addictions Program (NNADAP), were administered by First Nations since their creation, under yearly contribution agreements.[2] The HTP allowed the expansion of the number of services and programs that could be administered by First Nations, and the consolidation of the funding for these services under a single flexible agreement that could be signed for three to five years.

As of 2003, FNIHB reports that 78% of the eligible 603 First Nations and Inuit communities have chosen to exercise more direct control over their community-based health services (Health Canada 2003a). Over time, however, concerns over sustainability have been raised by both FNIHB and First Nations (Health Canada [FNIHB] 1999a; Assembly of First Nations 2002). Specifically, First Nations have reported that

funding (1) does not match needs, (2) does not provide for population growth and (3) does not take into account off-reserve and non-status users (Lavoie et al. 2005).

The Centre for Aboriginal Health Research of the University of Manitoba recently completed a national evaluation of the Health Transfer Policy. The purpose of this paper is to report on three hypotheses that were tested in the context of this study, namely:

- that inequalities in financing exist between First Nations organizations, both between and within regions
- that variations in per capita funding between communities cannot be explained by variations in the program responsibilities each assumed
- that First Nations organizations that transferred early in the process now have access to fewer resources on a per capita basis than those that transferred more recently.

The findings presented in this paper will inform a discussion on the constraints and policy options associated with the delivery of on-reserve primary healthcare services.

Background

The original impetus for the development of health services to First Nations came from the settlers who arrived at the turn of the century to farm the land. They found themselves living close to Indian reserves where appalling health conditions prevailed. Fear of epidemics, mostly tuberculosis, led the federal government to begin to invest funding in First Nations health services, with the hiring of a General Medical Superintendent in 1904 and a mobile nurse visitor program in 1922 (Waldram et al. 2006). The first federally funded on-reserve nursing station was set up on the Peguis reserve (Fisher River Agency, Manitoba) in 1930. The creation of the Department of National Health in 1944 led to a sustained expansion of health services for First Nations (Young 1984).

Currently, nearly all First Nations reserves have access to services delivered in a facility located on-reserve. These facilities, called Health Offices, Health Stations, Health Centres or Nursing Stations, depending on the level of care provided,[3] offer primary healthcare services delivered by nurses and local Community Health Representatives. Other services include addiction counselling and medical transportation. Physicians funded by the province visit these communities on a regular basis. Patients requiring secondary, tertiary or emergency care are transported to the nearest provincial referral centre (Lavoie 2003). It has been repeatedly documented that the federal and provincial systems operate without joint planning, and that gaps have emerged as a result (Royal Commission on Aboriginal Peoples 1996; Romanow 2002).

The HTP was based on the idea of transferring identified pre-existing services located at the community (level 1), the zone (where they existed, level 2) and the regional levels (level 3).

In 1994, FNIHB broadened opportunities for community control by introducing the Integrated Community–based approach (Health Canada [FNIHB] 1999b). The intent was to provide flexible alternatives to the one-size-fits-all transfer model. Table 1 shows the main differences between the two models. Although the integrated model provided somewhat less flexibility, some bands, especially in Alberta, preferred this model because they believed that this option did not infringe on their treaty rights. Some communities have been concerned that the transfer process pushes communities to accepting a model that simply side-steps more important discussions of treaty rights in areas of health (Culhane Speck 1989; Favel-King 1993). Others saw it as lower risk and as an opportunity to learn to manage health services before entering into a transfer agreement. In addition, small communities were not eligible to transfer because of diseconomies of scale (Health Canada Medical Services Branch 1991). The integrated model provided them with a new opportunity for participation.

TABLE 1. The continuum of transfer

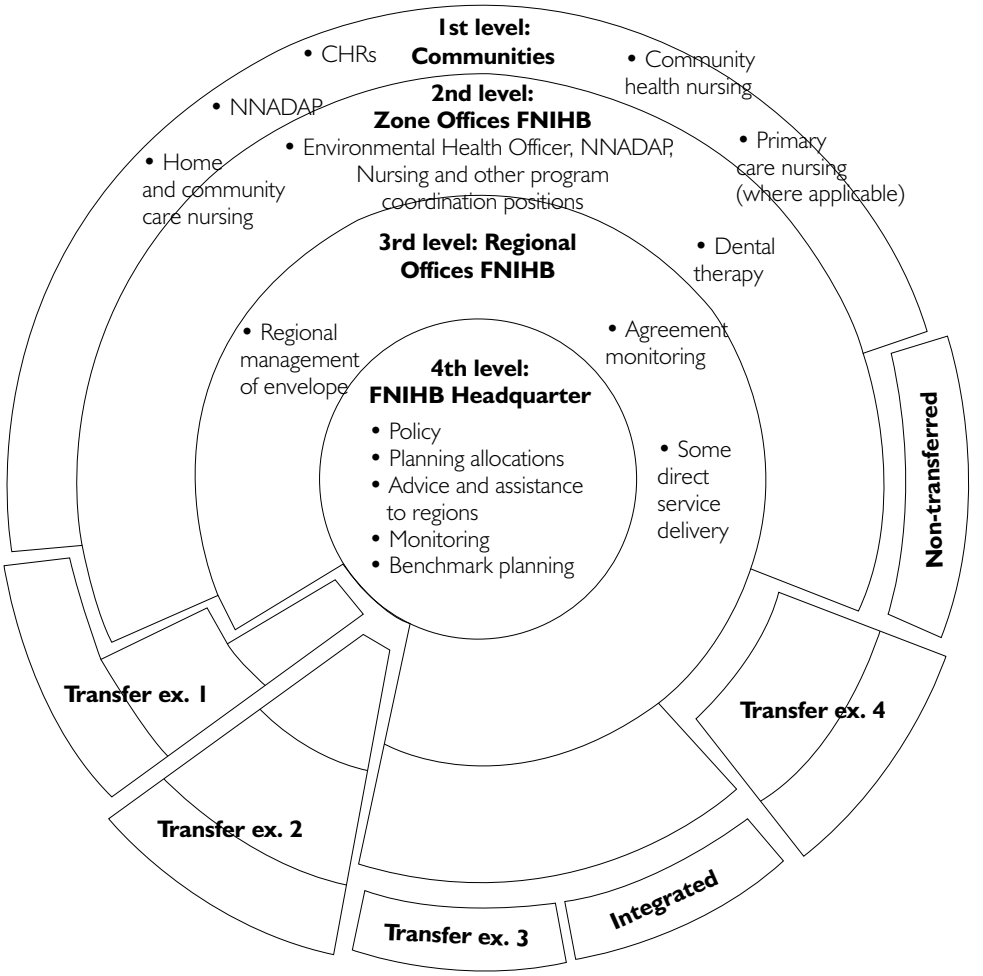
Name of Agreement(s)	CCA-Integrated, Integrated Agreement	CCA-Transfer, Transfer Agreement
Duration	Phase 1: Up to 1 year Phase 2: Up to 5 years	3 to 5 years
Description	All transferable programs chosen by the community under a single 3 to 5 year agreement Non-transferable programs under separate contribution agreements	All transferable programs chosen by the community under a single 3 to 5 year agreement Non-transferable programs under separate contribution agreements
Funded Planning Phase	Development of work plan in Phase 1 (12 months) The completed work plan must contain four components of a Community Health Plan	A 21-month planning process resulting in development of 12 components of the 15 required for a Community Health Plan Remaining 3 components are done in the first year of implementation
Ability to Move Funding between Programs	Once work plan is in place, cannot reallocate unless prior written approval of FNIHB	Yes
Ability to Carry over Financial Resources	No. Unexpended resources must be returned to FNIHB.	Yes, for use on health-related expenditures

Communities could opt to:

- take on and deliver some or all community-based, zone and regional services
- take the funding and purchase the services from FNIHB, a provincial authority or provider or
- continue to receive services directly from FNIHB.

As shown in Figure 1, these choices resulted in communities selecting a different complement of services, based on local priorities, capacity, community size, location and other factors.

FIGURE 1. Choices in community services



Calculating resources meant listing services to be included in an agreement and establishing costs. For first-level services, resources were identified based on historical expenditures. The allocation of zone and regional personnel was somewhat more subjective. Each region was provided with a list of existing regional and zone positions and asked to identify the positions that were to be identified as Indian Health and therefore transferable (memorandum, January 28, 1992). Selected positions were then allocated to transferring communities that chose to take responsibility for the associated program. There was no cross-regional baseline established to ensure that zone and regional services were funded and structured in a similar manner across regions (Lavoie et al. 2005).

Methods

The overall national evaluation took place from August 2003 to January 2005 and was overseen by a National Advisory Committee with representatives from the Assembly of First Nations, the Inuit Tapiriit Kanatami and FNIHB. Ethical approval for the evaluation was secured from the University of Manitoba.

The financial analysis we conducted used three separate administrative databases. The Health Funding Arrangements database (referred to hereafter as the HFA database, Health Canada [FNIHB] 2003d) is a comprehensive administrative tool detailing funding and program responsibilities for transfer and integrated agreements, and amendments signed by First Nations organizations after the implementation of the Health Transfer Policy. The data set contained financial information from 1989 to mid-2003. The scope of the evaluation was set at 1989 to 2002, to ensure access to full data sets. The database does not contain information on contribution agreements for non-transferable programs signed by communities.[4]

The HFA database was used in conjunction with a facility designation database (Health Canada [FNIHB] 2003a) that defines the types of services First Nations organizations provide, based on remoteness and accessibility of provincial services.[5] A third database, the CWIS-CPMS 2001/2002, was used to characterize the population served by on-reserve health services, according to Health Canada (Health Canada [FNIHB] 2004).

We compared the per capita funding for communities that signed a transfer agreement as a stand-alone community before 2001/02 in order to test hypothesis 1 – that per capita funding differs among similar communities, both within and between regions. First Nations health organizations were divided into three clusters for analysis. Cluster 1 contains 231 communities that signed an integrated or transfer agreement as a stand-alone community. Cluster 2 recipients include organizations that serve more than one community (36 agreements serving a total of 133 communities) with different facility designations. This grouping caused a methodological problem in

apportioning the funding received among different communities.[6] Cluster 3 organizations (53 agreements serving 144 communities) have complex patterns of agreements that are difficult to disentangle.[7] Based on the information available, only Cluster 1 organizations could be included in the analysis.

Of the original 231 organizations included in Cluster 1, only 98 were retained. Others were dropped because:

- they signed a transfer or integrated agreement either midway through or after the study period (2001/02, N=120) and/or
- for some organizations, the information provided in the HFA database was ambiguous (N=13).

Table 2 shows some key characteristics for the remaining 98 organizations. The final sample shared a number of characteristics that affected financial allocations, including facility designation, administrative arrangement model (transfer or integrated agreement) and community size.

TABLE 2. Breakdown of Cluster 1

	Integrated			Transfer			
Community Population	0–100	100–400	400–3,000	100–400	400–3,000	3,000–5,000	> 7,000
Health Office	0	2	3	3	5	0	0
Health Station	0	0	1	3	13	0	1
Health Centre	1	1	8	9	30	2	1
Nursing Station	0	0	1	2	10	1	0
Hospital	0	0	0	0	1	0	0
Total	1	3	13	17	59	3	2

Only transferred communities with populations between 401 and 3,000 and served by a Health Centre were numerous enough and broadly distributed to allow for regional comparisons (N=30). Similarly sized transferred communities with Health Stations provided additional insights (N=13).

All funding provided by FNIHB for programs and administration under a transfer agreement was accounted for and capitated. Capital costs were omitted because allocation depends on the age and condition of the Health Canada–owned facilities.

These findings were compared to the regional FNIHB expenditure for transfer on a per capita basis.

Per capita funding was compared to program responsibilities to test hypothesis 2 – that differences in funding cannot be explained by differences in program responsibilities. This analysis used the same 30 Health Centres selected above.

An analysis of 2001/02 per capita funding based on the year of transfer was conducted for the same 30 Health Centres to identify whether access to funding was affected by year-to-year shifts in policy or funding to test hypothesis 3 – that First Nations that transferred early have lower per capita funding than those that transferred more recently.

To ensure validity, all findings were triangulated with other sources of data collected in the course of the national evaluation, namely, 66 interviews conducted with FNIHB employees, 190 interviews conducted with administrators of First Nations and Inuit health organizations and a review of contribution agreements and amendments from 28 selected First Nations and Inuit organizations that transferred in the early 1990s (national cross-section). Internal correspondence and documents collected from FNIHB's regional offices and from headquarters were also reviewed for insights.

Results

Hypothesis 1: Inequalities in financing exist among First Nations organizations, both between and within regions

Table 3 shows variations in transfer funding for 30 Health Centres located in medium-sized communities. The per capita funding allocated ranged from $430 to $1,418. Manitoba and Atlantic First Nations organizations appear to be funded at a lower level than those of other regions.

Table 4 shows variations in transfer funding for 13 Health Stations located in medium-sized communities. In this case, per capita funding ranged from $393 to $1,267.

Hypothesis 2: Per capita funding is not proportional to the program responsibilities shouldered by First Nations organizations

Table 5 shows program uptake for the 30 Health Centres included in Table 3. The first column represents the rank of each included community, based on per capita funding; column 2 reports per capita funding, and subsequent columns represent first- (community-based), second- (zone-based or supervisory) and third-level (regional or planning and advisory) services included in each transfer agreement.

In theory and based on the HTP, programs marked with a √ are those that were transferred to First Nations. Programs without a √ remain an FNIHB responsibility and are termed "residual roles." As shown, the level of funding per capita does not correspond with the program uptake under the transfer agreement. While the range of per capita funding spans $430 to $1,418, better-resourced communities in fact were less likely to have assumed responsibility for second- and third-level services than communities resourced around $500 to $600 per capita. Program uptake could not be attributed to more specific community sizes or FNIHB region.

TABLE 3. 2001/02 variations in per capita transfer funding including transferable programs for health centres in medium-sized communities, across regions (Health Canada [FNIHB], 2003c, 2004)

		2001/02 Funding per Capita, Using 2001/02 Figures			
FNIHB regions	**N**	**Mean**	**Median**	**Range**	**SD**
Pacific (British Columbia)	5	$890	$887	$233	$96
Alberta	1	N/A because of small number of cases			
Saskatchewan	4	$738	$729	$469	$216
Manitoba	4	$610	$633	$104	$50
Ontario	4	$780	$728	$336	$150
Quebec	8	$847	$761	$894	$350
Atlantic	4	$544	$494	$324	$144
Total/Average	30	$759	$734	$337	$144

TABLE 4. 2001/02 variations in per capita transfer funding including transferable programs for health stations in medium-sized communities, across regions (Health Canada [FNIHB], 2003b, 2004)

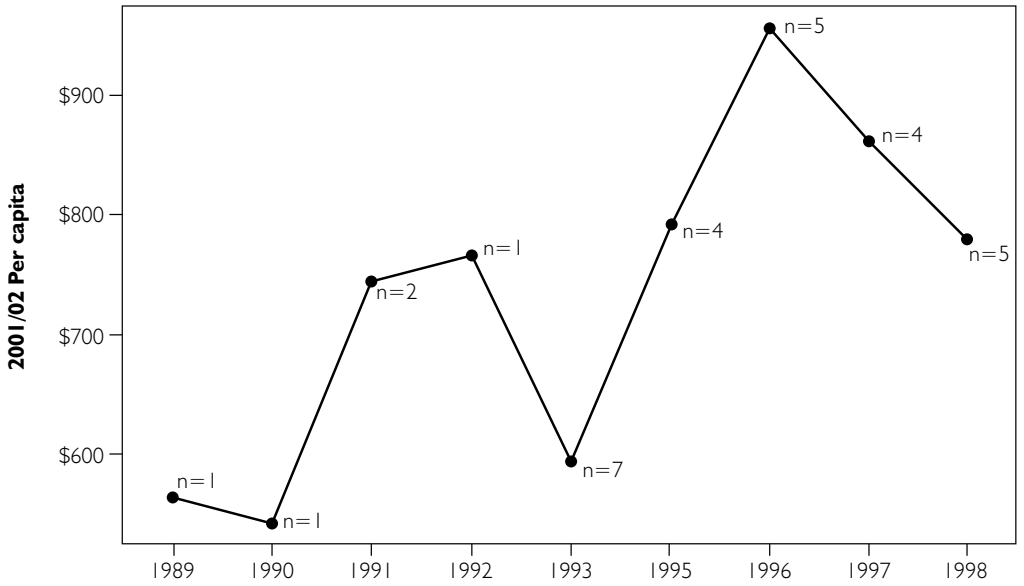
		2001/02 Funding per Capita, Using 2001/02 Figures			
FNIHB regions	**N**	**Mean**	**Median**	**Range**	**SD**
Pacific (British Columbia)	8	$918	$893	$511	$153
Saskatchewan	2	$591	$591	$396	$280
Ontario	3	$756	$790	$148	$80
Total/Average	13	$755	$758	$352	$171

In practice, for all programs other than community health nursing, Community Health Representatives, the National Native Alcohol and Drug Addictions Program, Environmental Health, and clerical and janitorial support, programs may have been added to the list of transferred responsibilities to ensure the financial sustainability of the community-based programs. Communities that show zone and regional responsibilities received funding for only a small fraction of a person-year, making the hiring of someone to offer this service impractical (Lavoie et al. 2005). Once a function is transferred, however, FNIHB is no longer obligated or resourced to provide the service.

Hypothesis 3: That First Nations organizations that transferred early in the process now have access to fewer resources on a per capita basis than those that transferred more recently

It has long been assumed by First Nations that communities that entered into transfer early on now have access to lower per capita funding than those who transferred more recently, because the level of funding has not been adjusted for population growth (Assembly of First Nations 2002). In fact, this is borne out by our analysis (Figure 2).

FIGURE 2. 2001/02 per capita funding, based on year of transfer



Discussion

Different levels of funding may be required to accommodate differences in community characteristics, level of capacity and needs. Thus, some variation in funding is to be

TABLE 5. Ranking of sampled communities from least well resourced to best resourced on a per capita basis, showing program uptake under transfer agreement

		Community-based programs (1st level)																
Ranking	Per capita funding, 2001/02	Brighter Futures	Building Healthy Communities	Home Care Nursing	Mental Health	Solvent Abuse	Nursing	Nutrition	Canada Prenatal Nutrition Program	National Native Alcohol & Drugs Addictions Programs	Support services	Community Health Services	Community Health Representatives	Clerical support	Dental Treatment and Prevention	Health Education	Health Liaison	Janitorial services
1	$430						√	√		√	√		√			√		√
2	$474						√			√			√					√
3	$513	√	√	√			√			√			√					
4	$519	√		√	√		√		√				√				√	√
5	$522	√		√	√	√	√	√	√	√			√		√	√		
6	$535	√		√	√	√	√		√	√	√		√					
7	$542	√		√	√	√		√		√			√		√	√		
8	$564	√		√	√	√	√	√	√	√			√		√	√		
9	$608	√		√	√	√	√			√			√					
10	$627	√		√	√	√	√			√			√					
11	$639	√		√	√	√	√			√		√	√		√			
12	$639	√		√	√	√	√			√	√		√	√	√			
13	$665	√	√				√			√			√	√				
14	$721	√	√		√		√			√			√	√				
15	$734	√	√				√		√				√	√				
16	$741	√		√	√	√	√		√	√			√					
17	$754	√	√				√		√	√			√					
18	$768	√		√	√	√	√		√	√			√			√		
19	$781	√		√	√	√	√	√	√	√			√		√	√		
20	$828	√		√	√	√	√		√	√	√		√					√
21	$851	√		√	√	√	√			√			√					
22	$873	√		√	√	√	√	√	√	√			√		√	√		
23	$888	√		√	√	√	√		√	√	√		√					√
24	$904	√		√	√	√	√	√		√			√		√	√		
25	$965	√		√	√	√	√		√	√			√					
26	$981	√	√	√			√			√			√					
27	$1,001	√	√				√			√			√	1				
28	$1,007	√		√	√	√	√		√	√			√					
29	$1,333	√		√	√	√	√		√	√			√					
30	$1,418	√		√	√	√	√	√	√	√			√		√	√		

TABLE 5. Continued

		Zone services (2nd level)						Regional services (3rd level)									
Ranking	Per capita funding, 2001/02	Operations and Maintenance	Environmental Health	Health Education	Medical Officer	Nursing	Nutrition	Operation and Maintenance	Brighter Futures	Community Health	Dental Officer	Environmental Health	Health Education	Medical Officer	Nursing	National Native Alcohol & Drugs Addictions Program	Nutrition
1	$430	√												√	√		
2	$474	√															
3	$513	√															
4	$519	√											√	√	√		√
5	$522																
6	$535	√		√		√	√	√	√	√	√		√		√	√	√
7	$542																
8	$564	√															
9	$608																
10	$627					√		√	√	√	√		√	√	√	√	√
11	$639		√	√	√	√	√		√	√	√	√	√	√	√	√	√
12	$639	√		√	√			√	√	√	√		√		√	√	√
13	$665														√		
14	$721																
15	$734																
16	$741	√															
17	$754										√		√			√	√
18	$768	√												√			
19	$781																
20	$828	√															
21	$851	√															
22	$873																
23	$888	√															
24	$904	√												√			
25	$965	√															
26	$981	√															
27	$1,001																
28	$1,007	√															
29	$1,333																
30	$1,418																

expected and may be seen as appropriate. A higher level of variation within a region (for example, Table 3, Quebec, with a standard deviation of $350 per capita) suggests that funding may be provided at different levels within a region in response to higher needs in some communities. A lower level of variation within a region (for example, Table 3, Manitoba, with a standard deviation of $50 per capita) suggests either a lower level of variation in needs across the region or less regional flexibility in matching needs with funding.

However, the level of variation shown in Tables 3 and 4 raises the question of whether there may be funding inequities. The results of this study show that differences in per capita funding exist among and within regions, and that these differences cannot be explained by the responsibilities each community chose to take on (Table 5). This finding alone does not support the claim of inequity; it simply demonstrates that differences in funding exist that cannot be explained by program responsibility. Perhaps more problematic is the observation that differences in per capita funding exist among First Nations, depending on the year they entered into a transfer agreement.

A higher level of variation within a region … suggests that funding may be provided at different levels within a region in response to higher needs in some communities.

As a community transferred, initial levels of per capita funding were determined based on program funding in the previous years. The base levels of funding may have differed for at least four reasons.

First, regional FNIHB budgets and staffing profiles developed over time, based on regional practices and circumstances. There was no rebasing exercise to ensure equity across FNIHB regions before rolling out the HTP.

Second, transferable resources were based on expenditure level the year(s) before transfer. Some variations are due to differences in the salary of nurses and other staff, resulting from (a) variations in federal government salary scales from one region to the next for the same position; (b) salaries that may have included overtime for some Health Centres and not others, reflecting the level of services offered the year(s) before transfer and regional FNIHB management practices concerning overtime; (c) some regions that transferred positions at the top of the salary scale to maximize viability, while others did not because of limited resources; and (d) salaries that were likely higher in communities with long-standing staff.

Third, the year of transfer seems to have been significant. In 1994, the federal government implemented budget cuts across all federal departments in an effort to reduce

its deficit. Bands that transferred that year appear to have been able to access fewer resources on a per capita basis. This level of funding was thereafter entrenched, and not negotiable.

Fourth, some First Nations respondents have suggested that negotiation skills may have played a role. This explanation, however, tends to be rejected by FNIHB respondents (Lavoie et al. 2005).

It is clear from the results reported here that the HTP funding was based on the assumption that historical expenditures closely reflected needs. This may very well have been the case in some circumstances. However, as long as FNIHB delivered services directly, adjustments to the level of services could be made as needed. Once First Nations signed a transfer or an integrated agreement, however, they effectively became locked into a level of funding based on historical expenditures. Although some evidence of adjustments to fit circumstances was documented (Lavoie et al. 2005), these opportunities were limited and short lived. Inequalities were left to grow unmonitored. Over time, even small differences in per capita funding based on historical circumstances are exacerbated when there is no ongoing commitment to adjust the level of funding to fit documented changes in circumstances.

… First Nations' participation in planning and delivering services designed to reflect local needs and priorities offers considerable potential for improving health outcomes.

It is important to note that our findings alone cannot be used to support claims of over- or under-investment in on-reserve primary healthcare. There exists, however, an emerging body of evidence showing a disproportionate utilization of secondary and tertiary care services for ambulatory care–sensitive conditions by First Nations, suggesting barriers to access primary healthcare services (Martens et al. 2002, 2005; Shah et al. 2003).

The HTP, then, has had two paradoxical effects. On the one hand, First Nations' participation in planning and delivering services designed to reflect local needs and priorities offers considerable potential for improving health outcomes. On the other hand, funding formulas that are not revisited regularly to ensure that per capita funding levels reflect the needs of the community undermine benefits that may emerge from greater participation.

There are two possible policy responses to these effects. At the very least, and in the short run, FNIHB should examine the differences in per capita funding within and among regions, particularly among similar kinds of communities with identical facility

designations, and determine whether the differences that we have documented are justified by special, local circumstances. More important, however, is to ensure that the levels of funding built into the HTP truly reflect need rather than historical circumstances.

The health services delivered on-reserve are essential services and an integral part of the Canadian healthcare system. First Nations have long advocated for a financing formula that reflects variations in needs, population growth and escalating costs (Assembly of First Nations 1988). We add that this formula should complement provincial healthcare services accessible to First Nations and reflect Health Canada's current commitment to comprehensive primary healthcare as one of the pillars of the Canadian healthcare system.

Realizing that this objective is challenging, the authors, in partnership with the Assembly of Manitoba Chiefs, Manitoba Health and the Manitoba Centre for Health Policy, are currently involved in a Manitoba-specific research project that will investigate secondary and tertiary health service utilization patterns for ambulatory care–sensitive conditions for the on-reserve First Nations population, with the objective of identifying where investments in primary healthcare services may best serve unmet needs. The results of the study can also be used as a step towards identifying a basket of essential primary healthcare services necessary to address existing needs. Together with more comprehensive assessments of morbidity and demographic changes, these analyses will contribute to the development of needs-based financing for First Nations communities, an approach that is ultimately the only way to address the concerns identified in this paper.

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NOTES

1. The same policy is also known as the Health Services Transfer Policy (Health Canada 2003b).

2. Contribution agreements were used to transfer the responsibility for the delivery of programs to First Nations. These mechanisms, however, did not allow communities to re-prioritize or redirect health resources.

3. *Health Offices* operate in non-isolated and semi-isolated communities with populations of 0 to 750 and with good access to provincial services. These facilities provide part-time access to prevention and health promotion activities. *Health Stations* operate in remote isolated to semi-isolated communities with populations over 100. These facilities provide part-time access to screening, prevention and health promotion activities. *Health Centres* operate in non-isolated and semi-isolated communities with populations over 100 and that are less than 350 km from a service centre. They provide emergency, screening and prevention services five days a week. *Nursing Stations* operate in remote or isolated communities with populations over 500 and where access to services is limited. They provide emergency, prevention and out-patient treatment services 24/7.

4. Examples of "transferable programs" include the Canada Prenatal Nutrition Program, Brighter Futures and Building Healthy Communities. Examples of "non-transferable programs" include the Aboriginal Diabetes Initiative and the Home and Community Care Program. As a rule of thumb, most programs introduced after 1994 cannot be transferred, i.e., included under the transfer agreement, and are instead funded through separate contribution agreements, with considerably less flexibility in terms of priority setting and financial allocation.

5. See note 3.

6. The funding formula differs depending on facility designation. Comparability, therefore, became problematic.

7. For example, one Tribal Council provides different first- and second-level services, depending on its affiliated bands' preferences. Some of its bands also have their own first-level services agreement for all services except nursing. There is no basis for establishing comparability.

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RESEARCH PAPER

The Relationship between Characteristics of Home Care Nursing Service Contracts under Managed Competition and Continuity of Care and Client Outcomes: Evidence from Ontario

La relation entre les caractéristiques des contrats de services pour des soins infirmiers à domicile dans un régime de concurrence dirigée en Ontario et la continuité des soins et les résultats des clients

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Abstract

The purpose of this study was to investigate the impact of the Request for Proposal (RFP) process – specifically, the profit status of provider agencies awarded contracts, the service volume awarded and contract duration – on the quality of home care services and outcomes. A cross-sectional (contract characteristics) and repeated measures (clients) design was used to collect data on the study variables. Primary data were collected in 2002–2003 from 11 Community Care Access Centres (CCACs) and 11 nursing provider agencies in Ontario. The sample included 750 home care clients recruited consecutively from home care referrals. Follow-up assessments were completed on 498 clients. CCACs and provider agencies completed written questionnaires about profit status, contract volume, duration of contract, potential for renewal, number of visits made by a principal nurse and number of visits made by a registered nurse. Data were collected on client health outcomes either at admission to home care service for new clients or at entry to the study for long-term clients, and then at

discharge from service or at the end of six weeks, whichever came first, using the eight subscales of the Medical Outcome Study SF-36. Analysis was conducted using hierarchical linear modelling.

For the most part, contract characteristics were not related to the consistency of principal nurse visits or client outcomes. Where differences existed, they were small. Clients of agencies awarded longer contracts received greater consistency in principal nurse visits than clients of agencies awarded shorter contracts. Clients cared for by for-profit agencies reported slightly higher satisfaction with care and better mental health outcomes than clients cared for by not-for-profit agencies. The percentage of visits made by a registered nurse was positively associated with social function outcome for clients at follow-up. In conclusion, the study findings suggest that contract characteristic variables had a small effect on home care client outcomes.

Résumé

Cette étude avait pour but d'examiner l'incidence du processus de demande de propositions (DP) – plus précisément, le statut à but lucratif des organismes fournisseurs de services qui ont obtenu des contrats, le volume de service octroyé et la durée des contrats – sur la qualité des services fournis aux récipiendaires de soins à domicile et les résultats. On a eu recours à une conception axée sur des mesures transversales (caractéristiques des contrats) et répétées (clients) pour recueillir des données sur les variables de l'étude. Des données primaires ont été recueillies en 2002–2003 auprès de 11 centres d'accès aux soins communautaires (CASC) et 11 fournisseurs de soins infir-miers en Ontario. L'échantillon comprenait 750 bénéficiaires de soins à domicile recrutés de manière consécutive à partir d'aiguillages vers des soins à domicile. Des évaluations de suivi ont été effectuées pour 498 clients. Les CASC et les orga-nismes fournisseurs de services ont rempli des questionnaires écrits sur leur statut d'organismes à but lucratif, le volume de contrats, la durée des contrats, le potentiel de renouvellement, le nombre de visites effectuées par une infirmière principale et le nombre de visites effectuées par une infirmière autorisée. À l'aide des huit sous-échelles de la *Medical Outcome Study SF-36*, des données ont été recueillies sur les résultats des clients en matière de santé soit au moment de l'admission aux services de soins à domicile pour les nouveaux clients, soit au moment du début de la participation à l'étude pour les clients à long terme, puis à la fin des services ou après six semaines, selon la première éventualité. Une analyse a été effectuée en utilisant une modélisation linéaire hiérarchique.

La plupart des variables dans les caractéristiques des contrats n'étaient pas liées à la régularité des visites des infirmières principales ou aux résultats des clients. Là où il y avait des différences, celles-ci étaient faibles. Les clients des organismes qui ont obtenu des contrats plus longs bénéficiaient de visites plus régulières de la part des infirmières principales que ceux des organismes auxquels on avait octroyé des contrats de plus

courte durée. Les clients soignés par des organismes à but lucratif affichaient un niveau de satisfaction légèrement plus élevé et de meilleurs résultats en matière de santé mentale que ceux qui sont traités par des organismes sans but lucratif. Le pourcentage de visites effectuées par une infirmière autorisée a été associé positivement à un résultat social plus élevé pour les clients au moment du suivi. En conclusion, les constatations de l'étude suggèrent que les variables dans les caractéristiques des contrats on eu un effet minime sur les résultats des clients recevant des soins à domicile.

Home care has become an increasingly important component of healthcare services. Publicly funded programs exist in every province, although the manner in which such services are organized and delivered varies (Health Canada 1999). In Ontario, home care falls under the jurisdiction of the Ministry of Health and Long-Term Care (MOHLTC). In 1997, the MOHLTC established 43 Community Care Access Centres (CCACs) to provide a single point of access to home care and to coordinate long-term care placement. By 2002, two CCACs had merged, leaving a total of 42 CCACs. The CCACs are statutory not-for-profit corporations under the *Community Care Access Corporations Act, 2001*, and are accountable to the MOHLTC through a Memorandum of Understanding. The CCACs purchase services from providers using a competitive process known as a Request for Proposal (RFP) that sets out a CCAC's service requirements (Carefoote 1998). Introduction of the RFP process has been associated with a large increase in the market share of for-profit nursing provider agencies (Doran et al. 2002).

It is important to evaluate the impact of the competitive RFP process on the quality of home care services because competition may work in disparate ways. For instance, competition may result in lower contractual prices, thereby forcing lower wages/benefits on staff, leading to decreased morale and increased staff turnover. Such labour market consequences may adversely affect care quality (Shapiro 1997). On the other hand, because CCACs may establish standards for client services, there is a potential that the competitive process may enhance the quality of care. The purpose of this study was to investigate the impact of the RFP process – specifically, the profit status of provider agencies awarded contracts, the service volume awarded and contract duration – on the quality of home care recipient services and outcomes.

Literature concerning the impact of the competitive bidding process on care quality and efficiency is limited. McCombs and Christianson (1987) described the experience of the National Long-Term Care Channeling Demonstration project in the United States. Of the five projects that used competitive bidding to select long-term care providers, those with one winner produced lower bid prices, presumably because lower prices were offset by higher volumes. However, there were increased monitor-

ing and administration costs associated with the single winning bidders. In an analysis of the Massachusetts Department of Public Health's competitive bidding for mental health services, Schlesinger et al. (1986) concluded that the contracting process added administrative complexity and that the initial cost savings appeared to be relatively small. To the extent that cost savings existed, they primarily reflected lower wages paid by for-profit, as opposed to public, agencies (Schlesinger et al. 1986). These lower wages were also associated with higher employee turnover and reduced continuity of care. Similar results were reported by Shapiro (1997) for Manitoba.

In an analysis of the impact of competitive bidding for home care services in Ontario, Browne (2000) observed that although market competition could lower costs, improve efficiency and enhance the quality and quantity of service in the short term, it might not have positive long-term effects. He contended that trust could be undermined and continuity of care weakened if staff turnover results from contracts that change every few years. Aronson and Neysmith (2006) noted that managed competition in Ontario has forced provider agencies to adopt leaner forms of work organization, such as cutting supervisory positions, in order to remain competitive. In at least one case, workers unionized because of lack of confidence in continued employment security with their agency as a result of the perceived risks of managed competition. In this same case, which resulted in an agency closure, "workers, union and management were set against each other in ways that masked the dynamics of restructuring" (Aronson and Neysmith 2006: 41). At the CCAC level, managed competition has blocked key avenues of communication among agencies competing for services (Williams et al. 1999). In a study of elderly women's accounts of home care rationing, Aronson noted that some women experienced care as insufficient and depersonalizing (Aronson 2002).

Abelson et al. (2004) studied the experiences of clients, provider agencies and care managers in home healthcare in one Ontario community. They noted that while the implementation of the competitive contracting model focused attention on improved accountability between purchasers and providers, concerns were raised about both the quality of care and contractual transaction costs. Denton et al. (2002) studied occupational illnesses among office workers, nurses, personal support workers and therapists working in clients' homes. High levels of stress, burnout and physical health problems were documented, many of which were deemed to be preventable. The study concluded that restructuring of home care services with the introduction of managed competition and organizational change were significant factors in decreasing job satisfaction, increasing absenteeism rates and increasing fear of job loss and propensity to leave.

There is a paucity of literature concerning the privatization of home care services. One US study found that non-profit home nursing agencies served more welfare, self-pay and indigent clients and made more visits per client than for-profit agencies (Shuster and Cloonan 1991). In another study, Rosenau and Linder (2001) compared

performance indicators by home care agencies and concluded there was no difference between for-profit and non-profit agencies in 45% of performance indicators, whereas in 55% of the comparisons the non-profit service providers were reported to have performed better.

Study Variables

Donabedian's structure, process, outcome framework was used to evaluate the relationships among contract structural variables, nursing process variables and client outcome variables (Donabedian 1980). The contract structural variables selected for investigation were profit status of the nursing provider agency, volume of service awarded and duration/potential for renewal of the service contract. Profit status was selected for investigation because it has been associated with the number of client visits and the time spent in direct patient care (Shuster and Cloonan 1991), both of which may affect client outcomes. Duration of service contract and potential for renewal were selected as variables for investigation because of evidence that longer contracts produce greater stability in staffing, resulting in higher staff morale and greater continuity of care (Schlesinger et al. 1986; Shapiro 1997). Volume of service was selected for investigation because it, too, could provide agencies with the opportunity to build stable staffing resources. The nursing process variable selected for investigation was continuity of care, which was operationally defined as the consistency of visits made by the principal nurse providing home nursing care (Woodward et al. 2004). The principal nurse was determined as the individual nurse who made the majority of visits over a client's home care stay or over six weeks of data collection, whichever came first. Because of the literature suggesting better outcomes with a higher skill mix among providers (Aiken et al. 2002; McGillis Hall et al. 2003), percentage of visits made by a registered nurse (RN) was also included as a nursing intervention variable. In this study, we focused on two client outcome variables: satisfaction with nursing care and functional health outcomes, which were operationally defined as clients' achievement of physical, emotional, social and role functioning. In addition, data were collected on clients' medical diagnosis, age, gender, baseline functional health and baseline status on the outcome variables, because these variables were expected to explain variation in outcome achievement (Tourangeau and Tu 2003).

Methods

Data were collected over a 12-month period in 2002–2003. A survey design was used to collect data on the contract characteristic variables. Data on nursing process variables were collected from provider agency administrative records. A repeated measures design was used to collect data on client outcomes at two points: on admission or

recruitment into the study (T1) and at discharge or after six weeks (T2), whichever came first. The study received ethical approval from the Research Ethics Board of the University of Toronto.

Setting and sample

The setting consisted of CCACs and their nursing provider agencies. CCACs were eligible to participate if they had participated in an earlier phase of the study, in which data were collected on the service volumes and duration of service contracts awarded to nursing provider agencies in Ontario prior to restructuring through to 2003 (Doran et al. 2002). Forty-two of the 43 CCACs in Ontario had participated in this earlier study. A purposeful sample of one CCAC from each region in Ontario was targeted, ensuring regional representation. A total of 11 CCACs were randomly sampled from among the 42 provincial CCACs. If a CCAC declined, another CCAC in the same region was invited to participate. Eleven CCACs declined to participate, either because of multiple concurrent commitments or owing to impending changes in provider contracts related to a competitive bidding cycle. All nursing provider agencies holding contracts with the participating CCACs were invited to participate. One agency with a single contract declined to participate, resulting in a total of 11 nursing agencies with 34 contracts represented. There were more contracts than agencies because nursing provider agencies held contracts with more than one CCAC. Moreover, more than one nursing agency in a given CCAC may be awarded a contract. All clients over 18 years of age who received home nursing services and were able to provide informed consent were eligible to participate. A sample size of 700 clients was sought based on an estimated small effect size and a power of 95%. A small effect size was anticipated based on the findings of an earlier study by Irvine Doran et al. (2000), which had investigated the relationship between nursing services and home care client outcomes in Ontario using the same outcome measure as that utilized in this study.

Figure 1 provides a summary of the client sample recruitment and follow-up. Of the 1,908 clients referred to the study coordinator, 1,081 were eligible and were invited to participate. Of these, 750 consented to participate, for a response rate of 69%. The three most common reasons for refusal to participate included "too ill," "not interested" and "family member reluctant." Follow-up assessments were completed on a total of 498 clients. Reasons for subject dropout included "too ill," "admitted to hospital" and "died." Independent *t*-tests were used to compare responders and those who dropped out at Time 2 on the basis of age and T1 SF-36 subscales, specifically, general health status, vitality, emotional role, physical role, physical function, social function, vitality and mental health. No meaningful differences were noted (see Table 1). Cross-tabs were conducted to compare responders and non-responders on the basis of gender and profit status, with only small differences noted (see Table 2).

FIGURE 1. Summary: Client sample recruitment and follow-up

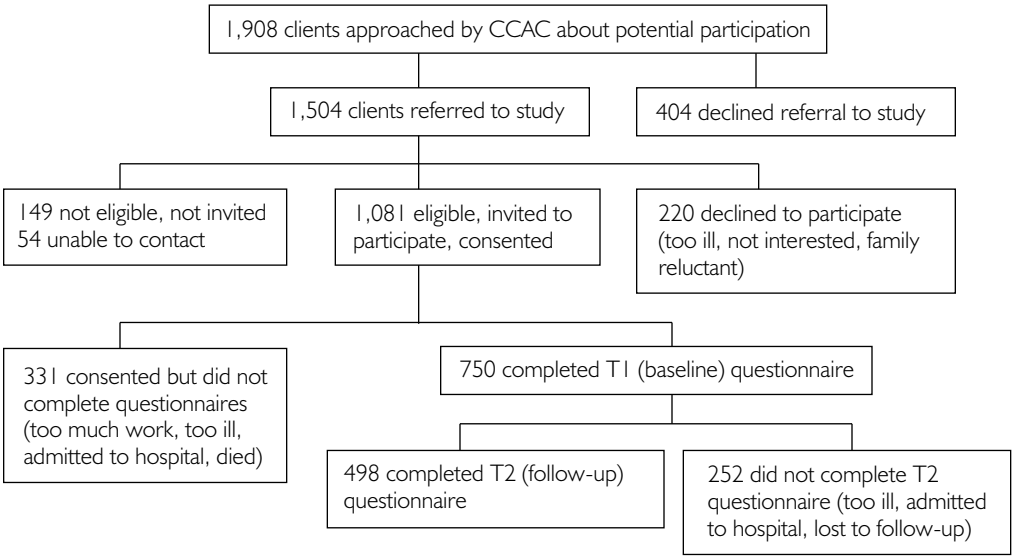

TABLE 1. Age and baseline outcome characteristics of clients who responded and did not respond to Time 2 questionnaire

Characteristic	Responded T2 Mean (SD) (*n*=494)	Did Not Respond T2 Mean (SD) (*n*=255)
Age	64.09 (15.29)	63.10 (16.30)
T1 General Health Status (SF-36)	46.64 (23.53)	46.86 (22.96)
T1 Bodily Pain	3.72 (1.49)	3.72 (1.49)
T1 Emotional Role Function	58.13 (35.29)	56.03 (34.50)
T1 Physical Role Function	35.14 (31.71)	33.51 (30.23)
T1 Physical Function	33.38 (29.39)	34.24 (28.72)
T1 Mental Health	63.13 (21.91)	62.47 (21.21)
T1 Social Function	48.39 (25.99)	51.00 (26.13)
T1 Vitality	36.14 (22.94)	37.10 (22.76)

The mean age of clients was 64 years; 61% of participants were married or cohabitating, 61% were female and 60% had completed high school. The majority (84%) of clients were newly admitted for nursing services. The most common diagnoses were diseases or disorders of the skin and subcutaneous tissue (21.4%, primarily requiring

wound care), cardiovascular system (13.3%), digestive system (12.2%) and musculoskeletal system (10.6%). Carcinoma was recorded as a primary diagnosis for 153 clients (20.8%); the proportion of clients with carcinoma was the same among for-profit and not-for-profit agencies. Two hundred ninety-eight (42%) of the clients were classified by the CCAC case manager with an anticipated duration of care of five weeks or less; 413 or 58% of the clients had an anticipated duration of care of over five weeks.

TABLE 2. Gender and profit status of clients who responded and did not respond to Time 2 questionnaire

	Responded T2 Frequency (Percentage) (*n*=491)	**Did Not Respond T2 Frequency (Percentage) (*n*=252)**
Male	197 (40.1%)	92 (36.5%)
Female	294 (59.9%)	160 (63.5%)
For Profit	287 (58.2%) (*n*=493)	145 (56.9%) (*n*=255)
Not for Profit	206 (41.8%)	110 (43.1%)

Measures

PATIENT CHARACTERISTIC VARIABLES

Clients' medical diagnosis, age and gender were obtained from CCAC records. To enable risk adjustment based on the client baseline functional healthcare needs, we used the MI-Choice Screener (Fries et al. 2002), a set of 32 items excerpted from the interRAI-Home Care tool, originally designed as a telephone screening tool to determine whether the more in-depth interRAI-HC assessment was warranted. Part A is a general section with such items as difficulty with housework, stamina/physical activity, bathing, skin problems and cognitive skills. Lower scores represent less difficulty in performing the activity. This variable is referred to as "screener general" in the presentation of results. Part B of the MI-Choice Screener assesses specific instrumental activities of daily living (IADLs) such as preparing meals, ordinary housework, managing medications and shopping. Scores range from 0 (no difficulty in performing the activity) to 1 (difficulty in performing the activity). This variable is referred to as "screener IADL" in this report.

At the time of referral to the CCAC, case managers classified clients as short-term or long-term. Long-term clients had an anticipated duration of care of three months or more. This classification was used as a crude measure of chronicity in the risk adjustment models described below.

CONTRACT CHARACTERISTIC VARIABLES

Data on profit status of the nursing provider agency, the contract volume, duration and potential for renewal were collected from CCAC records using a survey tool that each CCAC responded to. Contract volume was measured as the total number of annual nursing visits in the most recent service contract. Duration and potential length if contract is renewed were measured in months.

NURSING PROCESS VARIABLES

The nursing provider agencies provided the data on the consistency of visits made by the same nurse and number of visits made by a registered nurse (RN) for each client enrolled in the study. The proportion of visits made by an RN was computed by dividing the number of visits by an RN by the total number of nursing visits (i.e., RN plus registered practical nurse visits) for the client over the six-week period of data collection.

CLIENT OUTCOME VARIABLES

The Client Satisfaction Scale (CSS) (Reeder and Chen 1990) was used to collect data on client satisfaction. The CSS is a 35-item tool assessing technical quality and personal relationships between patients and providers, and general satisfaction. Reliability of the CSS has been reported at 0.93 using Cronbach alpha (Reeder and Chen 1990). Cronbach alpha for the CSS in this study is reported in Table 3. Client health outcomes were assessed with the Medical Outcome Study SF-36 (Stewart and Kamberg 1992). The SF-36 was found to be reliable (Cronbach alpha 0.76 to 0.94 for each subscale), sensitive to change and related to several nursing variables (e.g., proportion of RN visits) in a home healthcare setting (Irvine Doran et al. 2000). The Cronbach alpha for the SF-36 subscales in this study were >0.79, with the exception of the social function subscale. Higher scores reflect better outcomes.

Data analysis

Means and standard deviations were calculated to describe the distribution of the study variables. Hierarchical linear modelling (HLM) was conducted to assess the relationships among the contract characteristic variables, nursing intervention variables and client outcomes. Risk adjustment was addressed in three ways: (1) controlling for functional healthcare needs (MI-Choice Screener); (2) controlling for age, medical diagnosis, cancer diagnosis and baseline scores on SF-36 subscales; and (3) controlling for anticipated duration of care as a measure of chronicity. For-profit status was coded 0 and not-for-profit status was coded 1.

TABLE 3. Client outcome variables

Outcome Variable	T1 Cronbach Alpha	T1 Mean (SD)	T2 Cronbach Alpha	T2 Mean (SD)
Client Satisfaction with Nursing Care			0.96	4.16 (0.54)
SF-36 Subscales				
General Health (*n*=498)	0.79	46.47 (23.53)	0.85	47.07 (25.79)
Physical Function (*n*=483)	0.93	33.63 (29.15)	0.95	37.32 (32.10)
Physical Role (*n*=478)	0.96	34.53 (31.21)	0.96	36.41 (31.18)
Emotional Role (*n*=480)	0.96	57.37 (34.89)	0.95	59.12 (35.56)
Social Function (*n*=495)	0.61	49.33 (26.07)	0.78	51.99 (30.83)
Bodily Pain (*n*=490)	0.80	50.18 (25.33)	0.90	50.69 (26.62)
Vitality (*n*=484)	0.80	36.48 (22.71)	0.87	39.74 (24.81)
Mental Health (*n*=483)	0.83	62.90 (21.49)	0.87	67.91 (21.62)

Results

Descriptive results

Eighteen (52.9%) of the nursing provider contracts were held by for-profit agencies. On average, there were three nursing service contracts per CCAC (range, 2–5), with an average volume of 56,352 (±27,760) nursing visits, contract length 35 (±7.4) months and potential length 52 (±14.6) months if extensions were granted. The length of contracts was comparable to the provincial mean of 33 months and potential length if contract renewed of 49 months. Clients in the study received a median of 10 visits over six weeks or less. The consistency of nurse provider ranged from 0.18 (e.g., two out of the 11 nursing visits were made by the same nurse) to 1.0 (all nursing visits were made by the same nurse). On average, the same nurse provided 67% of visits to a client, and 72% (±39%) of the visits were made by an RN. The mean and standard deviation of the client outcome measures are presented in Table 3. There was a significant improvement from T1 (admission or recruitment) to T2 (discharge or after six weeks) in four of the subscales measuring client health outcomes: clients' physical function, social function, vitality and mental health.

HIERARCHICAL LINEAR MODELLING (HLM) RESULTS

The results of the HLM analysis testing the relationships among the contract characteristic variables, consistency of nurse visits, proportion of visits made by an RN and

client outcomes are presented below. Analysis was restricted to those outcomes that demonstrated significant improvement.

CONSISTENCY OF NURSE VISITS

There were 540 clients who had complete data on the contract characteristic variables and consistency of nurse visits at T2. Age of client (t=2.67, df=521, p=0.01) and length of contract (t=2.84, df=521, p=0.01) were positively associated with consistency of nurse visits. The consistency of nurse visits decreased as the total number of visits increased (t=−5.46, df=521, p=.0001), suggesting that there is lower consistency of care provided for longer-stay clients.

PHYSICAL FUNCTION

There were 336 clients who had complete data on the contract characteristic variables and physical function at T2. Client age (t=−4.21, df=283, p=0.001), screener IADL (t=−2.88, df=283, p=0.01) and anticipated duration of care (t=−3.38, df=283, p=0.001) were negatively associated with physical function at T2, while physical function at T1 (t=10.64, df=283, p=0.001) was positively associated with physical function at T2. These results indicate that older, chronically ill clients had lower physical functioning at T2 than younger, more acute clients. Clients who lived with someone were more likely to have higher physical function scores at T2 than those who lived alone (t=2.90, df=283, p<0.01). The interaction between cancer as primary diagnosis and physical function at T1 was significant (t=2.77, df=283, p=0.01). This conditional relationship suggests that for clients with no cancer diagnosis, baseline physical function is highly positively related to follow-up functional status. For clients with a cancer diagnosis, baseline physical function is not as highly related to follow-up physical function.

This conditional relationship suggests that for clients with no cancer diagnosis, baseline physical function is highly positively related to follow-up functional status.

SOCIAL FUNCTION

There were 355 clients who had complete data on the contract characteristic variables and social function at T2. Social function at T1 (t=12, df=304, p<0.001), screener

general (t=2.04, df=304, p=0.04) and percentage of visits by an RN (t=2.69, df=304, p=0.01) were all positively associated with social function at T2. Screener general assesses difficulty with housework, stamina/physical activity, bathing, skin problems, and cognitive skills. As previously noted, lower scores represent less difficulty in performing the activity. A positive relationship between screener general and social function at T2 is counter-intuitive. Clients who had more visits from an RN had higher social functioning at T2 than clients who had fewer visits made by an RN. Overall, diagnostic category was a predictor of social function at T2 (t=1.85, df=304, p=0.02), suggesting social function varied by medical diagnosis category. Poorer general health status, as assessed by SF-36 at T1, was negatively related to social function at T2 (t=−2.34, df=304, p=0.02).

VITALITY

There were 339 clients who had complete data on the contract characteristic variables and vitality at T2. Vitality at T1 was positively associated with vitality at T2 (t=13.79, df=288, p=0.001). Clients with shorter anticipated duration of care (t=−3.17, df=288, p=0.002) and higher IADL functioning (t=−1.90, df=288, p=0.05) had higher scores for vitality at T2.

MENTAL HEALTH

There were 429 clients who had complete data on the contract characteristic variables and mental health at T2. Clients from for-profit agencies experienced higher scores for mental health compared to clients from not-for-profit agencies (t=2.36, df=378, p=0.02). Mental health at T1 was also a predictor of mental health at T2 (t=15.05, df=378, p<0.01).

CLIENT SATISFACTION

On a scale of 1 to 5, clients were highly satisfied with nursing care (mean = 4.16, ±0.54). There were 355 clients who had complete data on the contract characteristic variables and satisfaction at T2. Clients from for-profit agencies reported slightly higher satisfaction scores compared to clients from not-for-profit agencies (t=2.75, df=322, p=0.01). The interaction between age and gender of clients was also significant (t=−2.47, df=322, p=0.02); younger females were more satisfied than younger males, but older females were less satisfied than older males.

Discussion

The purpose of this study was to investigate the impact of the RFP process – specifically, the profit status of the provider agency, service volume and contract duration on the quality of care and outcomes for home care clients. For the most part, no differences were observed in the quality of care (i.e., consistency of visits made by the principal nurse) and client outcomes between for-profit and not-for-profit agencies. The two differences that were observed were small. The overall lack of difference between for-profit and not-for-profit agencies is consistent with what has been previously observed, suggesting that differences are disappearing as both types of agencies face similar market competition (Rosenau and Linder 2001). For instance, in Ontario, all provider agencies are expected to meet specific service standards that are delineated in the RFP and monitored by the CCACs. The results concerning the other contract characteristic variables were mixed. Service volume did not have a significant impact on the quality of care or client outcome variables. On the other hand, there is evidence that the length of service contracts affords provider agencies some benefits. Specifically, there was a significant relationship between longer service contracts and greater consistency of principal nurse visits (i.e., continuity of care). Perhaps the agencies awarded longer contracts are able to build their staffing to levels that provide the flexibility and staff resources to optimize nurse assignments.

Not surprisingly, it was harder to maintain consistency for longer-term clients, although older clients received higher consistency than younger clients.

The majority of clients in this study were long-term clients, with an anticipated duration of care of over five weeks. These clients were followed for a maximum of six weeks. It is possible that this follow-up did not provide sufficient time to observe significant change in all of the outcomes for these types of clients; specifically, there were four dimensions of the SF-36 that did not demonstrate significant change from baseline to follow-up assessment (i.e., general health, physical role, emotional role and bodily pain). As a result, the impact of the contract characteristic variables on these outcomes may not have been fully tested in this study.

Consistency of care provider is one measure of continuity (Woodward et al. 2004). Absolute consistency is not an achievable target for all clients, and it is probably not even a desirable target because a change in staffing provides the opportunity for the infusion of new care perspectives. No differences in consistency of nurse provider were observed between for-profit and not-for-profit agencies. Not surprisingly, it was harder to maintain consistency for longer-term clients, although older clients received

higher consistency than younger clients.

Two types of client outcomes were investigated: satisfaction with nursing care and health outcomes. Clients were highly satisfied with their nursing care, and clients from for-profit agencies were slightly more satisfied than those from not-for-profit agencies. It is possible that the clients' perceptions could have been adversely affected if they were cared for by an agency that was experiencing significant shifts in service volumes. This was more likely to be the case for not-for-profit agencies, because there was a significant increase in the market share for for-profit agencies following the introduction of managed competition. The percentage volume of nursing services provided by for-profit provider agencies increased from 18% in 1995 to 46% in 2001 (Doran et al. 2002).

In the HLM analyses, we controlled for a number of client characteristic variables. T2 outcomes were found to be related to many of these, most importantly the clients' baseline health status, ADL or IADL functioning and sometimes age and gender. For all but one of the outcomes, there was no difference in outcome status for clients cared for by for-profit and not-for-profit agencies; specifically, a difference was observed for mental health outcome, demonstrating better mental health outcomes for clients cared for by for-profit agencies than not-for-profit agencies. This one difference could have occurred by chance.

Consistency of care provider was not a significant predictor of client health outcomes. In contrast, the percentage of visits made by an RN was positively associated with clients' social function outcome. These findings support the results of a previous study of home care nursing by O'Brien-Pallas et al. (2002) and underscore the need to retain RN skills at a defined proportion within an RFP.

Study limitations

A high percentage of the clients initially referred to the study declined to participate (42%) or failed to return the T2 questionnaire (34%). The research assistant's records of responders and non-responders indicated that more acutely ill clients declined to participate in the study than less acutely ill clients. However, no significant differences were noted between the T2 responders and T2 non-responders on baseline outcome measures, age, gender or the provider agency's profit status. Therefore, it is difficult to judge the impact of a non-response bias on the study findings. The results can be generalized only to clients who are similar to those represented in this study.

Conclusion

Debates about the comparative performance of for-profit and not-for-profit home healthcare providers have been prevalent in the healthcare literature (Rosenau and Linder 2001). Much of this debate has yet to be informed by evaluative studies. The

current study begins to address this gap. In this study, we found that satisfaction with care was high among clients of for-profit and not-for-profit agencies. There were few differences in client outcomes by profit status of the nurse provider agency. Social function outcome was better for clients who received a higher proportion of registered nurse visits. It is important to develop a better understanding of the management and care practices that are most influential in promoting high-quality performance and optimum outcomes for clients in the home healthcare setting.

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RESEARCH PAPER

Notice of Compliance with Conditions: A Policy in Limbo

Avis de conformité conditionnel : une politique incertaine

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Abstract

Since 1998, the Therapeutic Products Directorate (TPD) has had a policy termed the Notice of Compliance with conditions (NOC/c) in order to allow earlier marketing of promising drugs for serious conditions before the drugs have definitively demonstrated clinical efficacy. Drugs approved under the NOC/c must undergo post-marketing trials to show clinical benefits. The reasons that some drugs receive a NOC/c are not always apparent, and the TPD releases only general information regarding the conditions that need to be fulfilled. Some drugs have fulfilled their conditions in under 1.4 years, but others had unfulfilled conditions after seven years. Doctors may not be aware that drugs are marketed with a NOC/c nor that some drugs have had their NOC/c withdrawn, and as a consequence may be prescribing inappropriately for their patients. Other jurisdictions have similar policies but with stricter and more transparent requirements. Adopting these provisions, along with other reforms, could help ensure that the NOC/c policy meets it objectives.

Résumé

Les avis de conformité conditionnels (ACC) sont une politique en place à la Direction des produits thérapeutiques (DPT) depuis 1998 et visent à permettre une mise en marché anticipée de médicaments prometteurs conçus pour traiter des maladies graves avant que ces médicaments aient démontré leur efficacité clinique de façon certaine. Les médicaments faisant l'objet d'un ACC doivent être soumis à des essais après leur mise en marché afin d'en démontrer les avantages cliniques. Les raisons motivant l'assujettissement de certains médicaments à un ACC ne sont pas toujours apparentes et la DPT ne diffuse que des renseignements généraux sur les conditions qui doivent être remplies. Certains médicaments ont satisfait aux conditions qui leur étaient imposées en moins de 1,4 année, tandis que d'autres ne l'avaient toujours pas fait après sept ans. Les médecins peuvent ne pas savoir que des médicaments sur le marché sont assortis d'un ACC ou que l'ACC de certains médicaments a été retiré, et, par conséquent, peuvent donner des ordonnances inappropriées à leurs patients. D'autres secteurs de compétence ont des politiques semblables mais avec des exigences plus strictes et plus transparentes. L'adoption de ces dispositions, ainsi que d'autres réformes, pourrait aider à s'assurer que la politique des ACC atteigne ses objectifs.

Before a new medication can be marketed in Canada, it must go through the regulatory approval process overseen by either the Therapeutic Products Directorate (TPD), for drugs derived from chemical manufacturing, or the Biologics and Genetic Therapies Directorate (BGTD), for biological and radiopharmaceutical drugs, including blood and blood products and viral and bacterial vaccines. In either case, the company proposing to market the medication needs to present documentation from laboratory and animal studies, manufacturing processes and the results of clinical trials done in humans showing that the drug is efficacious (i.e., it works under conditions present in a clinical trial) and that its benefit-to-harm ratio is favourable (Health Products and Food Branch 2006a). (Since the procedure is the same for the TPD and the BGTD, for the purposes of this paper, both organizations will collectively be referred to as the TPD.)

The best proof that a drug is efficacious is that it alters the outcome of the illness in question; for example, it prolongs life, leads to faster healing or reduces the severity of symptoms. Before studies have definitively established efficacy, early human trials may indicate that drugs will be beneficial based on their effect on surrogate (or intermediate) outcomes. An example of a surrogate outcome is the lowering of high blood pressure. High blood pressure is not in and of itself a disease, but it is linked to cardiovascular and cerebrovascular disease. Therefore, a drug that has been shown only to reduce blood pressure might reasonably be expected to reduce the morbidity and mortality

from cardiovascular and cerebrovascular disease and would therefore be approved.

In the case of many serious and often fatal diseases, such as HIV/AIDS and many forms of cancer for which treatment is inadequate, waiting for definitive proof of efficacy may delay the availability of new and potentially beneficial drugs. In an attempt to make these treatments available in a timely manner, in 1998 the Therapeutic Products Program (now the Therapeutic Products Directorate) instituted a new policy, the Notice of Compliance with conditions (NOC/c) (Therapeutic Products Program 1998). (When the TPD has approved the marketing of a new drug, it issues a Notice of Compliance signalling that the product has fulfilled the requirements of the *Food and Drugs Act*.) The goal of this policy was to "provide patients suffering from serious, life threatening or severely debilitating diseases or conditions with earlier access to promising new drugs," where surrogate markers suggested that these new products offered "effective treatment, prevention or diagnosis of a disease or condition for which no drug is presently marketed in Canada or significantly improved efficacy or significantly diminished risk over existing therapies." (In the case of cancer, a surrogate outcome might be a shrinkage in tumour size or a longer time until the cancer recurs; for HIV/AIDS, it might be a reduction in viral load.) In return, companies would have to commit in writing to undertake confirmatory clinical studies, that is, studies that definitively establish efficacy, and submit the results of these to the TPD. Should these post-marketing trials not provide sufficient evidence of clinical benefit, the NOC/c can be revoked and the product removed from the market. A NOC/c might also be issued for a new indication for a drug that is already on the market.

This initial policy was subsequently revised effective February 2003 in response to complaints from industry and others that it was not being consistently applied and that there was a need for greater transparency and for the dissemination of educational materials to accompany products issued a NOC/c (Health Canada 2002).

It is important to note that the *Food and Drugs Act* does not provide for a NOC/c, and therefore, technically when a drug is approved under this policy it is in fact getting unrestricted marketing authorization. Thus, any limits that are set on what the company must do have no legislative basis. However, in order to receive a NOC/c, the company has to submit a Letter of Undertaking to the TPD outlining the steps it will take to provide further evidence of the drug's usefulness. In the absence of such a letter, the company would not be allowed to market the product (Health Products and Food Branch 2006b). Furthermore, the NOC/c cannot be issued on the grounds that there are unresolved safety concerns with the new product. While heightened post-marketing safety monitoring may be imposed as part of the NOC/c, this policy is designed to deal strictly with issues related to efficacy.

Although the NOC/c policy has been in existence for over eight years, it does not appear to have been subject to any published formal evaluation. The purpose of this commentary is to provide an overview of what has happened under this policy to the

end of December 2006 and to propose changes in the policy to enhance its ability to meet its objectives. The policy will be examined through three lenses: transparency of the reasons for a NOC/c and the conditions attached to it; monitoring and enforcement of the conditions to which companies have agreed; and effects on doctors' prescribing behaviour.

Transparency of the Reasons for a NOC/c and the Conditions Attached to It

The TPD website has a list of 19 drugs that have received a NOC/c for 22 different conditions (Health Canada 2006b). (Imatinib has three NOC/cs for three different indications, and bortezomib has NOC/cs for two different indications.) Three of the drugs on the list fulfilled their conditions (recombinant factor VII activated, alteplase and tenofovir), one had its NOC/c suspended (celecoxib) and the other 15 have yet to fulfill their conditions. However, this is not a comprehensive list, as it leaves out an additional six products identified through a search of the TPD Notice of Compliance Web page (Health Canada 2006a). Five of these drugs also fulfilled their conditions (abacavir, amprenavir, delavirdine, nevirapine and zanamivir) and one had its NOC/c revoked (bicalutamide). Information about these 25 products was gathered through material available on the TPD website (Health Canada 2006b) and by filing Access to Information (ATI) requests for drugs that received a NOC/c up to the end of 2005. See Table 1 (http://www.longwoods.com/product.php?productid=18862&cat=488) for the complete list of drugs, their indications and the dates on which they received a NOC/c.

The reasons for issuing a NOC/c, as opposed to a regular NOC, are usually not disclosed, and details of studies to be undertaken to confirm clinical efficacy are obscure for drugs granted a NOC/c prior to March 2003, even after examining the documents obtained through the ATI requests. For instance, NovoNordisk Canada agreed to undertake a trial to determine whether a lower dose of recombinant factor VIIa would provide a safety advantage. While this may have been a reasonable request, the concerns about safety problems with the approved dosage were not articulated, and so whatever advantage the TPD was seeking was unclear. The information received for riluzole, used for treating amyotrophic lateral sclerosis, was more forthright – there was an improvement in strength with riluzole compared to placebo – but only because the study in question had been published in the *New England Journal of Medicine* and thus the results were already publicly available (Bensimon et al. 1994).

For drugs with a NOC/c after March 2003, the situation is somewhat better. All these drugs are accompanied by three documents: a Fact Sheet directed at patients, a Health Care Professional Letter and a Qualifying Notice. The Health

Care Professional Letter summarizes the clinical evidence and explains the surrogate outcomes that form the basis for the NOC/c in most cases but not all. Letrozole was approved for treatment of breast cancer because it lengthened the time to recurrence of the cancer ("Approval with Conditions of PrFemara®" 2005), while memantine was shown to significantly lower the rate of decline in the global clinical condition in patients with moderate to severe Alzheimer's disease ("Approval of Ebixa® with Conditions" 2004). On the other hand, the letter for gefitinib merely says that it received a NOC/c "to reflect the promising nature of the clinical evidence in patients with this serious disease [lung cancer]" ("Dear Health Professional(s)" 2003).

Two specific examples, one before March 2003 and one after, raise further questions about the rationale for granting a NOC/c. In 1999, zanamivir was granted a NOC/c for the treatment of influenza. Influenza can be a significant cause of morbidity and mortality, but the difference in the mean symptomatic period with zanamivir compared to placebo is not large. Reductions ranged from 0.8 days in healthy adults to 1.0 day in children, with less conclusive results in high-risk populations such as the elderly and those in nursing homes, and there is limited evidence for all prevention strategies using zanamivir (Cooper et al. 2003). Celecoxib received a NOC/c for the prevention of bowel cancer. Although there was no drug licensed for this use and therefore celecoxib was technically eligible for a NOC/c, this is a disease that takes years to develop; it is not clear why the TPD believed that it was urgent to grant celecoxib a NOC/c for this indication.

"specific conditions associated with approval under the NOC/c policy are negotiated on a case-by-case basis and due to their proprietary nature, cannot be released by the department without prior consent by the drug sponsor"

The TPD's position about the availability of information regarding the conditions that need to be fulfilled, as articulated by a senior policy analyst, is that "specific conditions associated with approval under the NOC/c policy are negotiated on a case-by-case basis and due to their proprietary nature, cannot be released by the department without prior consent by the drug sponsor" (Tara Bower, personal communication with Alan Cassels, November 20, 2002). However, the Qualifying Notices do broadly outline some of the conditions that were agreed to by the TPD and the company in question. The notice to Janssen-Ortho, makers of bortezomib, committed the company to providing a complete study report on a trial comparing bortezomib with high-dose dexamethasone in patients with relapsed or refractory multiple myeloma (Therapeutic Products Directorate 2004b). The notice regarding memantine states

that Lundbeck will conduct a six to 12-month study in patients with moderate to severe Alzheimer's to confirm efficacy results of two previous six-month trials and the new study should employ clinically meaningful and validated efficacy outcomes (Therapeutic Products Directorate 2004a).

Monitoring and Enforcement of the Conditions to Which Companies Agree

Nothing that the TPD provides, either on its website or in the material it releases under ATI, establishes a timetable for the confirmatory studies, nor is there any hint as to how the TPD is monitoring the progress of the commitments. Riluzole has not fulfilled the conditions established in August 2000, and imatinib has been prescribed under a NOC/c since September 2001. Whether these drugs are still being evaluated, the nature of those evaluations and the estimated date to completion are all open questions.

Even for drugs that have fulfilled their conditions, Table 1 shows a significant variability in the time required: anastrozole took under 1.4 years, compared to over 7.25 years for recombinant factor VII. It may be that in some cases, conditions applied by the TPD are difficult to fulfill because a research protocol that will gain ethical approval is hard to design when sufficient doubt exists about efficacy. In other cases, trials may take a long time to be carried out because of small patient populations. But these possibilities are just speculations due to the lack of information provided by the TPD and the company.

Gefitinib was granted its NOC/c as a third-line treatment for non–small cell lung cancer based on two trials that showed tumour shrinkage. One of the conditions was that AstraZeneca conduct a larger trial to show a survival advantage; however, the subsequent study did not demonstrate this outcome. Since gefitinib was licensed only for this one indication, it might be assumed that the TPD would order the drug withdrawn from the market in accordance with its NOC/c policy. Rather than removing gefitinib from the market, in February 2005 the TPD elected to allow it to continue to be sold. The decision was to be revisited "following the provision of more detailed evidence by the manufacturer, if new safety concerns arise, or other therapeutic options arise" (Health Canada 2005). Three-quarters of a year later, Health Canada stopped the use of gefitinib in new patients and restricted its continued use to patients who were currently benefiting from the drug ("Health Canada Endorsed Important Safety and Efficacy Information" 2006).

Effects on Doctors' Prescribing Behaviour

Whether doctors are aware that they are prescribing drugs that have been approved with a NOC/c is questionable. The TPD does not appear to have undertaken any

research to explore this question. Companies are required to send out a "Dear Health Care Professional" letter, all advertising material has to "contain boxed text with prominent disclosure of the nature of market authorization granted" and the product monograph has to contain a similar statement (Health Products and Food Branch 2006b). However, the most effective promotional vehicle is the company sales representative, and there is no TPD or industry directive requiring these people to mention that a drug has been approved under a NOC/c. Insertion of a statement about a NOC/c in the product monograph is probably of very limited benefit, since Canadian doctors' use of monographs is spotty. When physicians were last queried on this topic in 1992, only a third said that they used product monographs "frequently" (Decima Research 1992).

Physicians may also not know that a NOC/c has been revoked; aside from a message posted on the TPD website, there is no further publicity given to this decision. Bicalutamide and celecoxib both had their NOC/cs revoked, in the former case for therapy for prostate cancer in patients who were not suitable for radiotherapy or surgery, and in the latter case for the prevention of familial adenomatous polyposis, a precursor to bowel cancer. Since both drugs had other indications that were not subject to a NOC/c, they remained on the market. The statement about the NOC/c was simply removed from advertisements and from the product monographs. Physicians who were already prescribing these drugs might continue to prescribe them, unaware that clinical trials failed to confirm the preliminary data – in which case patients could be denied more effective treatment and be needlessly exposed to potential risks. Neither Health Canada nor the manufacturers seem to have conducted any studies to look into this situation.

It is beyond the scope of this paper to examine the individual products that have been issued NOC/cs to see how much benefit (or harm) may have resulted from their use. However, if doctors are prescribing them in ignorance of the fact that their approval is based on surrogate outcomes, then there is a strong possibility that they are being used inappropriately and could have a negative benefit-to-harm ratio.

Conclusion

At present, there is little oversight for drugs approved under the NOC/c policy, leaving many unanswered questions. How well is the TPD applying the criteria for awarding a NOC/c? What is the nature of the conditions that the TPD imposes? Why have some drugs not fulfilled their conditions five and six years after receiving a NOC/c? What happens to the drugs if the conditions are not fulfilled? Do doctors know when a drug has been approved under a NOC/c, and does such knowledge affect their prescribing?

The NOC/c policy is designed to improve care and outcomes for patients by allowing promising new drugs on the market faster. However, these drugs remain in

a state of uncertainty regarding clinical efficacy for prolonged periods of time, and the requirements to remove them from that state are a secret. Doctors, even if they are aware of the NOC/c status, have no way of knowing the benefit-to-risk ratio of the drugs, and if they are ignorant of the NOC/c status they may be prescribing these products inappropriately. In the absence of answers to the questions raised above, the actual benefits to patients from the NOC/c policy remain unknown. For manufacturers, the situation is different. Earlier market approval means a longer period of time to sell the drug before the patent expires and generic competition begins. Drug companies clearly benefit from receiving a NOC/c, especially since the requirement to provide follow-up studies in a timely manner to address the conditions does not appear to be rigorously enforced by the TPD.

The European Union has the equivalent of a NOC/c policy termed Conditional Marketing Authorisation (CHMP 2006). Under this policy, the European Medicines Agency (EMEA) is required to publish the list of obligations that recipients of conditional marketing authorization must fulfill, that is, the clinical studies that must be completed, together with the deadline for meeting each obligation. The equivalent of the product monograph, as well as all promotional literature, must mention the expiry date for the provisional licensing. In addition, conditional marketing is valid for only one year, and requests for renewal must be accompanied by an interim report on how the company has dealt with its commitments. Provisions of this type would serve as a useful starting point for reforming the NOC/c policy. The TPD also needs to undertake research to find out whether doctors are aware of the status of drugs approved under this policy. The TPD could require company sales representatives to inform doctors that a product has a NOC/c and then monitor compliance through periodic surveys of a random sample of physicians. The actual benefit-to-harm ratio to patients who receive these products could be explored through the use of observational studies employing databases that link receipt of the drugs with doctors' visits, hospitalizations and deaths.

At present, the NOC/c is a policy with good intentions but unknown consequences, a policy in limbo.

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RESEARCH PAPER

Medicare Financing and Redistribution in British Columbia, 1992 and 2002

Financement et redistribution du régime d'assurance-maladie en Colombie-Britannique, 1992 et 2002

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Abstract

Equity in healthcare in British Columbia is defined as the provision of services based on need rather than ability to pay and a separation of contributions to financing from the use of services. Physician and hospital services in Canada are financed mainly through general tax revenues, and there is a perception that this financing is progressive. This paper uses Gini coefficients, concentration indexes and Kakwani indexes of progressivity to assess the progressivity of medicare financing in British Columbia in 1992 and 2002. It also measures the overall redistributive effect of medicare services, considering both contributions to financing and use of hospital and physician services. The conclusion is that medicare does redistribute across income groups, but

this redistribution is the result solely of the positive correlation between health status and income; financing is nearly proportionate across income groups, but use is higher among lower-income groups. Informed public debate requires a better understanding of these concepts of equity.

Résumé

L'équité dans les soins de santé en Colombie-Britannique est définie comme étant la prestation de services en fonction du besoin plutôt qu'en fonction de la capacité de payer, et une séparation des contributions au financement et de l'utilisation des services. Les services fournis par les médecins et les hôpitaux au Canada sont financés principalement par les recettes fiscales générales, et beaucoup croient que ce financement est progressif. Cet article utilise les coefficients de Gini, les indices de concentration et les indices de progressivité de Kakwani pour évaluer la progressivité du financement de l'assurance-maladie en Colombie-Britannique en 1992 et en 2002. Il mesure également l'effet de redistribution général des services d'assurance-maladie, en tenant compte à la fois des contributions au financement et de l'utilisation des services fournis par les hôpitaux et les médecins. On en vient à la conclusion que l'assurance-maladie est redistribuée entre les différents groupes de revenus, mais que cette redistribution est uniquement le résultat de la corrélation positive entre l'état de santé et le revenu; le financement est presque proportionnel entre les groupes de revenus, mais l'utilisation est plus élevée chez les groupes à plus faible revenu. Un débat public éclairé exige une meilleure compréhension de ces concepts d'équité.

The healthcare system in Canada is often described as a key national treasure, an integral part of the country's identity. The ongoing presence of healthcare in discussions and debates reflects not only the importance of the system to the general public, but also the fact that healthcare in Canada is largely a public enterprise. The majority of healthcare services are publicly funded, the private insurance market is absent in the key areas of hospital and physician services, and provincial governments are the primary payers.

A review of federal and provincial (British Columbia) legislation and major policy documents identified three related, but distinct, principles of equity for the healthcare system (McGrail 2006). The primary equity principle in healthcare in British Columbia is the provision of services (at least hospital and physician services) based on need rather than ability to pay. The second is the financing of those services from tax revenues, effectively separating financial contributions to the healthcare system from use of physician and hospital services. These values may not be immutable, but

they have been clear and consistent over several decades. More contentious is the third principle of equity: financing hospital and physician services through progressive taxation. This principle emerges only in the report of the Romanow Commission (2002), but seems to have longer-standing resonance with the public (Mendelsohn 2004).

Publicly financed healthcare systems are redistributive, taking financing from the whole of the population and providing healthcare services to the individuals who need them. The extent of the total redistribution depends on two separate policy choices related to the principles of equity in financing. One choice is the desired redistribution from healthy to sick. The stronger the separation between contributions to financing and use of healthcare services, the greater will be this redistribution.

The second policy choice is the desired redistribution among income groups, determined by the relative mix of sources of finance. Generally speaking, there are five major potential sources of funds to support any healthcare system: direct taxation (e.g., income taxes), indirect taxation (e.g., consumption taxes), social insurance, private insurance and out-of-pocket payments (Wagstaff et al. 1999).

Redistribution among income groups is determined by the total progressivity or regressivity of financial contributions to the healthcare system. Progressive financing means that the proportion of taxes that are paid increases with income, with the result that the distribution of income is more equal *after* healthcare financing. Proportionate systems claim equal percentage shares of income from all income groups, leaving the distribution of income unchanged. In regressive systems, lower-income groups pay a higher proportionate share of income, resulting in a more unequal distribution of income after healthcare financing. (Even in a regressive system, higher-income groups may contribute more in total dollars to healthcare financing. The key is not the total amount of money contributed, but the proportion of total income that those contributions represent.)

When there is public discussion about financing medicare services in Canada, the tendency is to think of income taxes, which are progressive, as being the main source of that financing. A good example of this thinking comes from the Romanow Commission's report, which relied heavily on the work of a "Citizens' Dialogue" to inform its positions on the public's values and the policy changes within healthcare that the public thought were most palatable (Maxwell et al. 2002). In each of 12 sessions across the country, a small group of individuals was invited to join a day-long discussion and debate about the healthcare system, its current problems and potential solutions. The day both started and ended with a survey about preferred policy options in an attempt to assess both the opinions that people hold and how those opinions changed after informed debate. The idea was to go "deeper" into the issues than is possible with standard polling techniques.

The results of the Citizens' Dialogue were described as clear and consistent across the country: "… [A]t the end of the day, citizens came to the conclusion that taxes are consistent with their notion of solidarity – that health care is a public good to be

financed by public means" (Maxwell et al. 2002: 45). In fact, the general preference was for earmarked taxes as a means of improving accountability for healthcare spending.

A closer reading of the Dialogue materials suggests that the word "taxes" is in fact treated as synonymous with "income taxes." For example, the preparatory material for the focus groups says, in part, "This would mean that on average *personal income taxes* would be 12 percent higher than in 1999" (Maxwell et al. 2002: 99; emphasis added). In addition, the final report from the Romanow Commission referred to a continuing commitment to funding healthcare through "progressive taxation" (Romanow 2002: 31).

The objectives of this paper are to assess the progressivity of financing hospital and physician services in British Columbia in 1992 and 2002, as well as the overall redistributive effect of those sectors, considering the use of services as well as financing. This work follows methods used in studies in the tax literature that assess the effects of government policies on income distribution (Vermaeten et al. 1995; Kesselman and Cheung 2004; Dyck 2005), and in particular the work of Mustard et al. (1998), which focused specifically on the healthcare system. The hypotheses are that the progressivity of the tax system decreased in British Columbia between 1992 and 2002 and that the total redistributive effect, combining financing and healthcare services use, also decreased between 1992 and 2002.

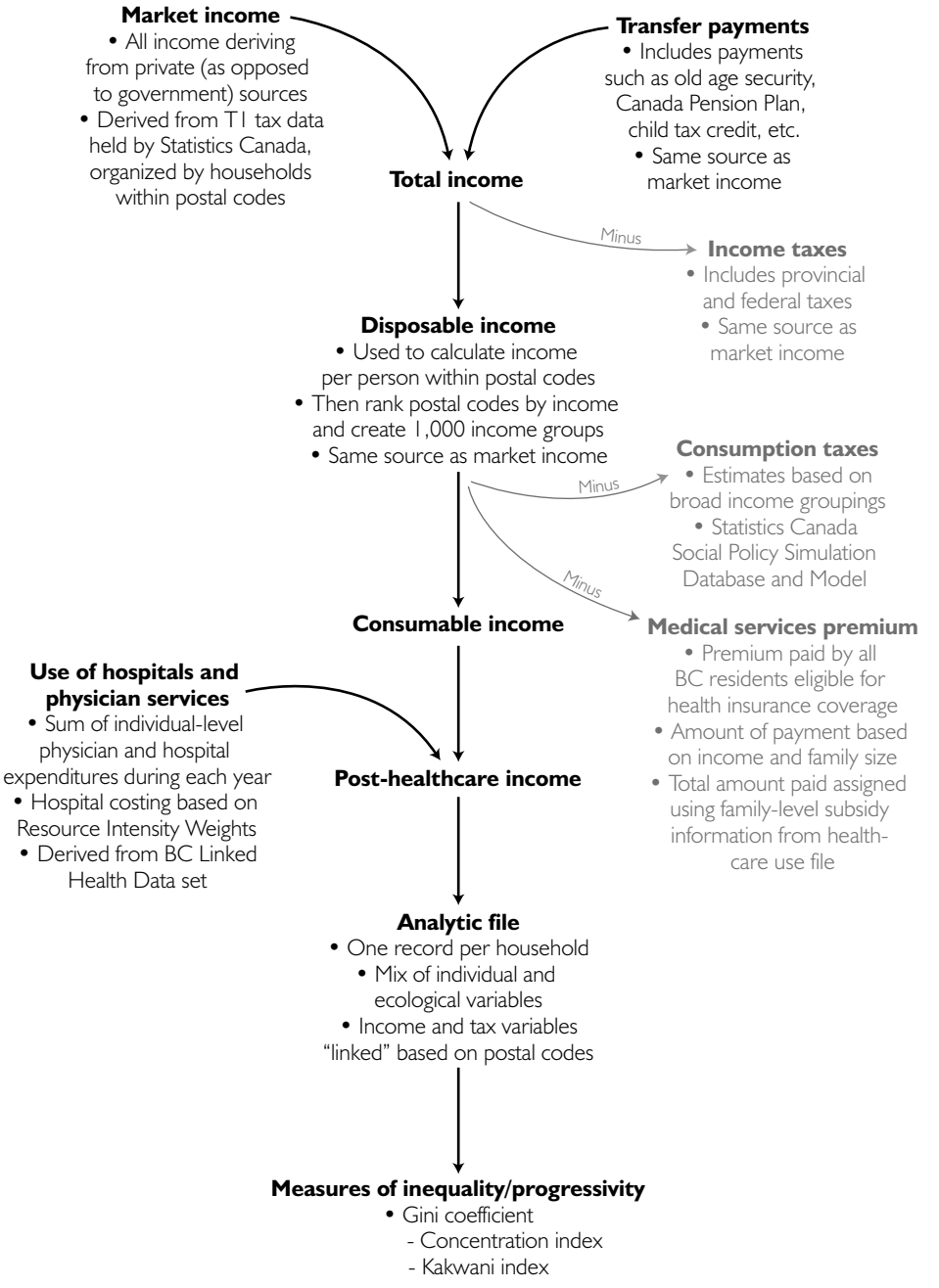
The next section describes the data sources and construction of variables used in the analyses. The following section then describes the analytic techniques used to assess progressivity and redistributive effect. This is followed by results, and then discussion and conclusions.

Data Sources and Variables

The majority of financing for physician and hospital services in Canada comes from general government revenues (CIHI 2005). Because this paper looks at financing physician and hospital services, the analyses do not depend on estimating the cost or distribution of private insurance covering such services as pharmaceuticals and dentistry.

The focus here is on the income and tax concepts shown in Figure 1. In addition, following Mustard et al. (1998), the dollar value of hospital and physician services are treated as a "transfer" to the household using them. In other words, though the value of healthcare services is not "income," for purposes of these analyses it is treated in the same way as an income transfer as a way of attributing that benefit back to each household. Analyses are conducted at the household level. Ethics approval was granted by the UBC Behavioural Research Ethics Board. Access to person-specific but non-identifying information on healthcare services utilization was granted through the BC Linked Health database (Chamberlayne et al. 1998; British Columbia Ministry of Health and Centre for Health Services and Policy Research, UBC 1996).

FIGURE 1. Creation of the analytic file



Income, income taxes and government transfers

The income and income tax variables used here are based on a custom tabulation of 1992 and 2002 tax filer data held at Statistics Canada (McGrail 2006). Data can be

released from Statistics only in highly aggregated form. User-specified analyses conducted within Statistics Canada started with a known number or amount of individuals, households, income and tax and transfer payments within postal codes. For each postal code, the Statistics Canada analyst calculated disposable income per equivalized person, ranked the postal codes by this income and created 1,000 income bands, each containing (approximately) 1,400 families and 3,700 individuals. Equivalization is a means of ensuring comparability, with the assumption that the objective is to compare living standards (Ebert 1997, 1999). For example, a couple requires less than two times the income of a single person to achieve the same standard of living. Incomes per equivalized person were derived using the OECD modified scale, counting the first adult as "1," each subsequent person aged 14 and over as "0.5" and each child under age 14 as "0.3" (van Doorslaer et al. 2004a,b). This approach was chosen, first, because it allowed the creation of a large number of income bands and, second, because while the resulting variables are ecological, the heterogeneity of these variables within postal codes will be smaller than the heterogeneity within Statistics Canada dissemination areas, which are the unit used to create the commonly used income quintiles and deciles (Wilkins 2001).

Estimating consumption taxes and medical services premiums

In Canada, the majority of consumption taxes are collected in the form of provincial sales taxes and the federal Goods and Services Tax (GST), but other sources include excise and import taxes at the federal level, and alcohol, liquor and gasoline taxes at the provincial level (Statistics Canada 2004b).

Statistics Canada has developed the Social Policy Simulation Database and Model (Statistics Canada 2003), available free of charge through the Data Liberation Initiative (Statistics Canada 2004a). This software allows the estimation of province-specific consumption taxes and includes a table option that organizes output by income group. The *unadjusted* average disposable income per person in the income data set described above was used to "link" the per household consumption tax estimates to those data. (See Table 4 in the Appendix at http://www.longwoods.com/product.php?productid=18863&cat=488)

British Columbia is one of two provinces that, in 1992 and 2002, charged "insurance premiums" to patients as a requirement for registration with the province for medical services coverage. Premiums are set based on family size, with subsidies available for low-income families. Premiums are allocated to families using subsidy information available on the physician services file (McGrail 2006). (See Table 5 and Table 6 in the online Appendix.)

Adding in hospital and physician expenditures

Administrative data from the BC Linked Health Database (BCLHD) provided information on individual-level use of hospital and physician services. These data were aggregated within each year of analysis, first to the individual level and then to families, based on a family-grouping variable available in that data set. Fees paid are included as part of the physician file. Hospital costs were estimated using Resource Intensity Weights and Day Resource Intensity Weights applied to acute inpatient and surgical day care separations, respectively, following procedures used by the BC Ministry of Health (S. Lee, personal communication 2002). Family postal codes were used to "link" utilization information to the 1,000 income bands described above.

Analysis

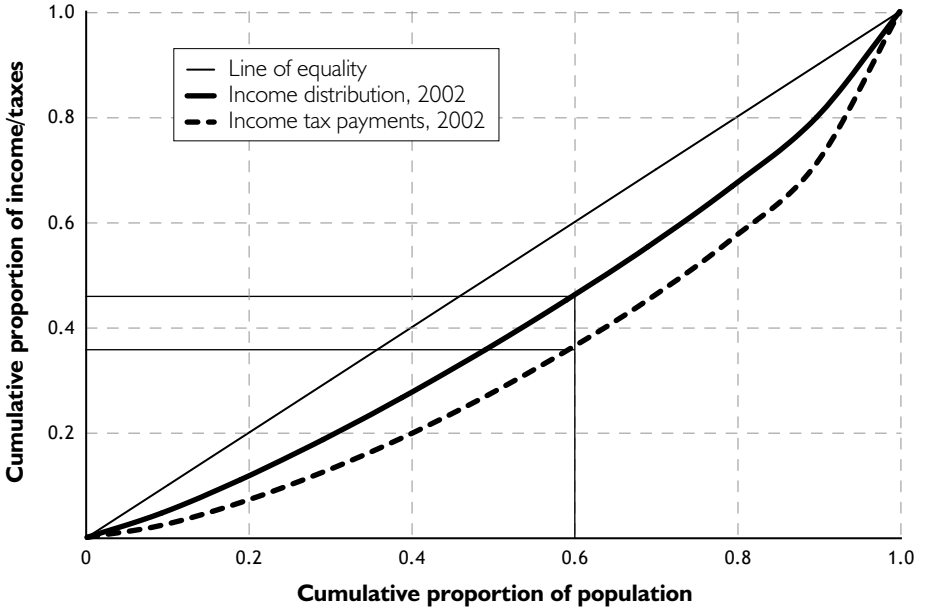
The distribution of income within a population can be depicted with a Lorenz curve. Ranking families in British Columbia in 2002 from lowest to highest disposable income using the variable described above, and then cumulating the population and their income (Figure 2, solid line), shows that the lowest-income 60% of the population earn about 45% of total income. If, instead, everyone earned the same income, the Lorenz curve would be the straight diagonal line shown in the figure, referred to as the line of equality. Gini coefficients summarize the amount of inequality in the population by calculating the distance between the Lorenz curve and the line of equality and then dividing by the total area under the line of equality. A Gini coefficient of 0 occurs when the Lorenz curve and the line of equality are the same, meaning there is no inequality in the distribution of income. A Gini coefficient of 1 indicates that all of the income is held by one person – perfect inequality.

The same idea can be applied to distributions other than income, such as payment of taxes. In these cases, there are concentration curves and concentration indexes (with the different names reflecting only that "Lorenz curve" and "Gini coefficient" are reserved for income distributions). The dotted line on Figure 2 shows payment of federal and provincial income taxes in British Columbia in 2002, and indicates that the lowest-income 60% of the population pay about 35% of all income taxes.

If the tax system is proportionate, meaning that all income levels face the same tax rate, then the Lorenz curve for pre-tax income and the concentration curve for tax payments would lie on top of each other; the tax has an impact on the amount of income available to each household, but no impact on the relative distribution of that income. Taxes can also be progressive (or regressive), meaning that the income distribution is more equal (or less equal) after the payment of taxes. As proposed by Kakwani (1977), the overall progressivity of a tax is the numeric difference between the concentration index of the tax and the Gini coefficient of the pre-tax income distribution ($K = C - G$). If the concentration curve for the tax lies below the Lorenz

curve, farther from the line of equality, as it does in Figure 2, C would be larger than G, which makes K positive, indicating a progressive tax. If instead the concentration curve for the tax lies between the Lorenz for income and the line of equality, G would be larger than C and K would be negative – indicating a regressive tax.

FIGURE 2. Lorenz curve of pre-tax income and concentration curve for tax payments, British Columbia, 2002



Finally, Kakwani (1977) also showed that the total Gini coefficient for income is a weighted average of the Gini coefficients of each of the contributing sources of income. This idea has been applied to healthcare financing, where the overall progressivity of financing is a weighted average of the progressivity of all of the input components (Wagstaff et al. 1999); the same is done here.

The analysis thus consists of calculations of Gini coefficients and concentration indexes for the income, transfer and tax concepts in the data provided by Statistics Canada and for the healthcare services utilization data. These are calculated using linear regression (Jenkins 1988; Kakwani et al. 1997). Kakwani indexes are calculated by simply subtracting the Gini coefficient of the distribution of total income from the concentration index for each tax, transfer and healthcare utilization measure.

Results

Overall distribution of healthcare finance

A large portion of general government revenue derives from taxes, both direct (income) and indirect (consumption and other) (see Table 1 in the online Appendix). About half of federal government revenues derive from personal income taxes, which means that we can estimate the distribution of payment by income of about half of British Columbia government revenues (from Table 1, 18.4% from personal income taxes + 21.2% from consumption taxes + 3.2% from MSP premiums + 0.5 (9.2% from general purpose transfers from the federal government + 2.4% from special-purpose transfers from the federal government) = 48.6% in 2002).

Distribution of income and progressivity of tax payments

By any income measure – market income, total income, disposable income or consumable income – inequality as measured by Gini coefficients increased between 1992 and 2002 (Table 2). The Gini coefficients reported here are smaller (suggesting a more equal income distribution) than reported elsewhere because of the ecological nature of the income variables. The patterns of change, however, are consistent with other analyses (Frenette et al. 2004; McGrail 2006).

Concentration indexes for transfers are negative because these are payments that are provided disproportionately to lower-income groups – they have the effect of decreasing income inequality. The concentration and Kakwani indexes for income taxes also increased in size between 1992 and 2002, meaning that income taxes were more progressive in 2002. (In fact, income taxes became more progressive in the early part of the 1990s and retained that progressivity through substantial tax cuts in 2000 and 2001 [McGrail 2006].) Table 1, however, also shows that provincial income taxes declined as a share of government revenue between 1992 and 2002 from a high of 23% to 18.5% of the total.

The payment of consumption taxes was more highly concentrated in higher-income groups in 2002 compared to 1992, resulting in a slight decline in the regressivity of those taxes. At the same time, consumption taxes grew in importance as a source of general government revenue (Table 1 in the online Appendix). The BC premium payments were also more concentrated in higher-income groups in 2002 because of a policy change that increased subsidies available for lower-income families (Tables 5 and 6 in the online Appendix). Nevertheless, these premiums were similarly and substantially regressive in both years.

Finally, the use of hospital and physician services, like transfer payments, is more highly concentrated in lower-income groups, and the impact on income distribution is

stable over time. (The negative sign on Kakwani indexes for transfers and healthcare use may seem counter-intuitive. The sign is negative because these two concepts are payments to households rather than payments from households. A negative sign indicates that the payments to households are more heavily concentrated in lower-income groups.)

TABLE 2. Gini coefficients, concentration indexes and Kakwani indexes for income and tax payments, British Columbia, 1992 and 2002

1992	Market income	Transfers	Total income	Provincial income taxes	Federal income taxes	Disposable income	Consumption taxes	MSP premiums	Consumable income	Healthcare services use	Post healthcare "income" distribution
Gini coefficient	0.237		0.194			0.168			0.173		0.159
Concentration index		-0.088		0.322	0.312		0.147	0.048		-0.044	
Kakwani index		-0.282		0.128	0.118		-0.048	-0.146		-0.238	
2002											
Gini coefficient	0.264		0.224			0.200			0.204		0.190
Concentration index		-0.054		0.389	0.357		0.187	0.081		-0.023	
Kakwani index		-0.278		0.164	0.133		-0.037	-0.143		-0.247	

The progressivity of healthcare financing and redistribution of healthcare expenditures

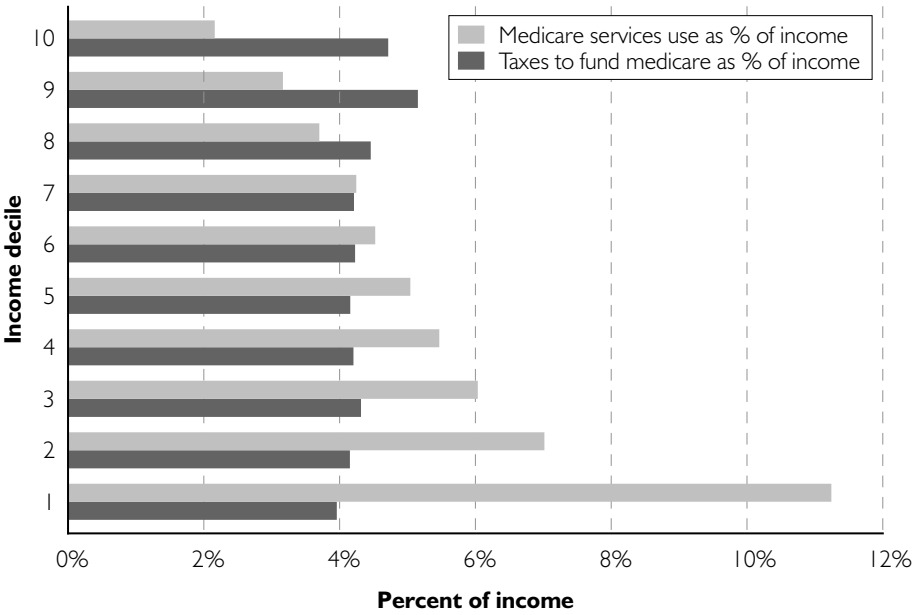
Multiplying the percentage share of government revenue for each type of tax from Table 1 (see online Appendix) by the Kakwani index of progressivity for each from Table 2 and then summing yields an overall tax progressivity index (Table 3). This progressivity lands at about 0.02 in both 1992 and 2002, a figure that is progressive, but only mildly so, and as Table 3 makes clear, is based on calculated Kakwani indexes for only about half of all sources of government revenue.

TABLE 3. Overall progressivity of financing of physician and hospital services in British Columbia, 1992 and 2002

	1992			2002		
	Share of government revenues	Kakwani index of progressivity	Weighted contribution	Share of government revenues	Kakwani index of progressivity	Weighted contribution
Provincial income taxes	0.230	0.128	0.029	0.184	0.164	0.030
Federal income taxes	0.062	0.118	0.007	0.058	0.133	0.008
Consumption taxes	0.202	-0.048	-0.010	0.212	-0.037	-0.008
Medical services premiums	0.040	-0.146	-0.006	0.032	-0.143	-0.005
Overall progressivity			0.021			0.026

Not including Kakwani indexes for the other components of general government revenue is computationally equivalent to saying those taxes are proportionate, that is, that the Kakwanis are equal to 0. There is clearly a potential for bias in the results, but income taxes are, generally speaking, the only progressive source of tax revenue for governments (Vermaeten et al. 1995; Kesselman and Cheung 2004). All other sources are usually understood to be proportionate at best, except for payments for employment insurance, for which relative contributions follow an inverted U-shaped pattern across income groups. The addition of other sources of general government revenue would either leave the results intact, if other financing sources were proportionate, or (more likely) reduce the estimate of progressivity of overall taxation.

FIGURE 3. Tax payments and physician and hospital expenditures as a percentage of income, by income decile, British Columbia, 2002



Treating the value of hospital and physician services as a transfer to households has the effect of decreasing income inequality in both years. In both years, income inequality after adding in medicare expenditures is slightly lower than is the inequality of disposable income (Table 2). Figure 3 provides an income decile analysis of this redistribution, showing tax payments and medicare benefits as a percentage of income, with income deciles ranked from lowest (1) to highest (10). As expected, the tax bars indicate roughly equal proportions of income paid in taxes. The medicare bars, how-

ever, show a marked and consistent increase across deciles, from the use of healthcare services representing about 2% of total income (on average) in the highest-income group to about 11% (on average) in the lowest-income group. Part of this trend is a denominator effect, in that the same value of medicare services will represent a higher proportion of income in a lower-income group. Another factor, however, is the inverse correlation between income and need for healthcare services; lower-income groups use more services because they tend to have greater healthcare needs and the healthcare system generally responds to those needs (see, for example, McGrail 2006; van Doorslaer et al. 2006).

Discussion and Conclusions

There is a strong progressive redistributive effect overall combining the financing and use of physician and hospital services. This effect has been achieved mainly through a policy choice related to the desired redistribution from healthy to sick. A tax-based system of financing creates a complete separation of contributions to financing from the use of physician and hospital services, which means universal contributions and concentrated benefit. The second finance-related policy choice about redistribution across income groups plays a very minor role, with roughly proportionate financial contributions across income groups. In other words, the redistribution occurs because all income groups pay into the system at the same (proportionate) rate, but lower-income groups use proportionately more healthcare services.

There are several things that must be kept in mind in interpreting this result. First, the analyses are based on distributional information for about half of all sources of general government revenue. The addition of other components of general tax revenues would surely make the finding even closer to proportionate, and perhaps regressive. Second, the use of postal code–derived measures of income and taxes attenuates the amount of inequality and progressivity/regressivity reported. Given the variety of income and tax measures used here, and the fact that they pull in different directions (income inequality will be understated, but so will the progressivity of income taxes), it is difficult to surmise what the overall impact might be. It is possible that they are offsetting effects.

Finally, what is presented here is an estimate of the progressivity of public financing for two sectors of the heathcare system in a single province. If financing for other sectors were added, where the mix of sources is quite different, such as pharmaceuticals and nursing homes and home support services, overall financing for healthcare would certainly be regressive. If analyses were extended to other provinces, there would likely be some differences in the extent of progressivity, especially after 2000 when provincial income tax systems were de-coupled from federal income taxes. Alberta, for example, implemented a proportionate income tax, which would likely

make overall financing for medicare regressive.

The result of a nearly proportionate overall tax system is consistent with the limited previous Canadian research in this area, at least back to the 1980s (Vermaeten et al. 1995; Dyck 2005; for a detailed review, see Kesselman and Cheung 2004). While proportionate financing for medicare is not inconsistent with the general history of healthcare financing in Canada, it is at odds with the recommendations of the Romanow report. The importance of the Romanow report is that its recommendations came after a concerted effort through the Citizens' Dialogue to understand the priorities of the general public. The general public appears to believe that the healthcare system is financed progressively. The divergence of those beliefs from the current reality deserves some attention in future public policy debates about healthcare financing. A better understanding of financing and distributional issues in general would improve public debate about policy options and their implications.

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Advancing Health Promotion Priorities: Stories of Capacity Building from the Canadian Heart Health Initiative (CHHI)

Faire avancer les priorités en matière de promotion de la santé : exemples de renforcement des capacités tirés de l'Initiative canadienne en santé cardiovasculaire (ICSV)

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Abstract

The purpose of this paper is to explore how public health professionals built capacity to carry out health promotion despite a low level of investment and competition for financial resources with acute-oriented healthcare services. Three data sources are used in this analysis: key-informant interviews with project participants, final reports from three provincial Heart Health projects in Canada (Prince Edward Island, Ontario and Manitoba) and major provincial health policy documents prior to and during each project. We use a narrative policy analysis to identify contextual factors influencing health promotion priority and progress through capacity building. Common capacity building themes emerged from the data despite the different contexts within which the projects were situated: building community trust and support, developing a linking system that promotes provincial partnerships and assisting in sustainability efforts by coordinating resources and efforts towards a common chronic disease prevention strategy. Each of these provincial projects overcame instances of resistance to advancing a health promotion agenda by concentrating on building relationships, by making better use of existing structures and organizations and by developing new productive unions that shared a primary prevention agenda.

Résumé

Cet article a pour but d'explorer comment les professionnels de la santé publique ont renforcé leurs capacités en vue de promouvoir la santé, et ce, malgré un faible niveau d'investissements et une concurrence avec les services de santé axés sur les soins actifs pour les ressources financières. Trois sources de données ont été utilisées pour cette analyse : des entrevues avec des intervenants clés participant au projet, les rapports finaux de trois projets provinciaux réalisés dans le cadre de l'Initiative canadienne en

santé cardiovasculaire (Île-du-Prince-Édouard, Ontario et Manitoba) et des documents provinciaux clés sur les politiques de santé avant et pendant chaque projet. Nous utilisons une analyse de politiques narrative pour repérer les facteurs contextuels qui influencent les priorités et les progrès en matière de promotion de la santé par l'entremise du renforcement des capacités. Malgré les différents contextes dans lesquels les projets ont eu lieu, des thèmes communs se sont dégagés des données, notamment, bâtir la confiance et le soutien de la communauté, élaborer un système d'appariement qui favorise les partenariats provinciaux et participer aux efforts de durabilité en coordonnant les ressources et les efforts consacrés à l'élaboration d'une stratégie commune pour la prévention des maladies chroniques. Chacun de ces projets provinciaux a surmonté une certaine résistance pour assurer l'avancement des programmes de promotion de la santé en mettant l'accent sur l'établissement de relations, en faisant une meilleure utilisation des structures et organismes existants et en forgeant de nouvelles alliances productives qui partageaient un objectif de prévention primaire.

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Innovations in the Ethical Review of Health-Related Quality Improvement and Research: The Alberta Research Ethics Community Consensus Initiative (ARECCI)

La Alberta Research Ethics Community Consensus Initiative (ARECCI) : des innovations dans l'examen déontologique de l'amélioration de la qualité et de la recherche dans le domaine de la santé

BRAD HAGEN, MAEVE O'BEIRNE, SUNIL DESAI, MICHAEL STINGL, CATHY ANNE PACHNOWSKI AND SARAH HAYWARD

Abstract

The Alberta Research Ethics Community Consensus Initiative (ARECCI) is a unique Canadian initiative that addresses the ethical oversight of two main categories of health-related investigative projects: research and quality improvement (including quality assurance and program evaluation). ARECCI was formed as a result of discussions arising from health regions, health researchers and the Alberta Committee of Research Ethics Boards (REBs) Chairs, who all desired a clearer and more consistent approach to the ethical oversight of investigative health projects. The Alberta

Heritage Foundation for Medical Research (AHFMR) established and supported ARECCI in 2003 in response to this need. ARECCI is unique in its ongoing efforts to bring together a wide-ranging group of stakeholders to develop consensus on a set of pragmatic recommendations and tools for the ethical review of research and quality improvement, and to get extensive consultation on those recommendations. This paper presents the ARECCI context and process, recommendations and tools produced by ARECCI and lessons learned from the ongoing ARECCI process.

Résumé

La *Alberta Research Ethics Community Consensus Initiative* (ARECCI) est une initiative canadienne unique qui aborde le suivi déontologique de deux grandes catégories de projets de recherche dans le domaine de la santé : la recherche et l'amélioration de la qualité (y compris l'assurance de la qualité et l'évaluation de programme). L' ARECCI a été créée à la suite de discussions tenues dans les régions sanitaires et parmi les chercheurs en santé et les présidents de l'*Alberta Committee of Research Ethics Boards* (REBs), qui souhaitaient tous voir une approche plus claire et plus uniforme dans le suivi déontologique des projets de recherche dans le domaine de la santé. En 2003, la *Alberta Heritage Foundation for Medical Research* (AHFMR) a établi et appuyé l'ARECCI en réponse à ce besoin. L'ARECCI est unique dans les efforts soutenus qu'elle déploie pour réunir un large éventail d'intervenants en vue de parvenir à un consensus relativement à un ensemble de recommandations et d'outils pragmatiques pour assurer un examen déontologique de la recherche et de l'amélioration de la qualité, et de tenir des consultations poussées au sujet de ces recommandations. Cet article présente le contexte de l'ARECCI et le processus connexe, les recommandations et les outils découlant de cette initiative et quelques importantes leçons apprises en cours de route.

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To Count Heads or to Count Services? Comparing Population-to-Physician Methods with Utilization-Based Methods for Physician Workforce Planning: A Case Study in a Remote Rural Administrative Region of British Columbia

Compter des têtes ou compter des services? Comparer les méthodes population-médecin aux méthodes fondées sur l'utilisation des services pour la planification des effectifs médicaux

LORNE VERHULST, CHRISTOPHER B. FORREST AND MIKE MCFADDEN

Abstract

Objectives: To demonstrate the feasibility of a population-based measure of physician services utilization by type of service as a tool for physician workforce planning.
Setting: The Northern Health Region of British Columbia.
Design: Retrospective descriptive statistics are compiled about the regional population's physician services utilization by the specialty of the service, irrespective of the specialty or location of the provider. These are compared to norms based on provincial average utilization, adjusted for age and sex, and norms based on population-to-physician ratio recommendations.
Metrics: By specialty type of service: actual utilization; age–sex expected utilization; in-region, out-of-region and out-of-province utilization; full-time equivalency (FTE) values of actual and expected utilization; and FTE requirement to meet a set of recommended population-to-physician targets. Specialty substitution by general practitioners (GPs) is also quantified.
Results: The overall estimated deficit in physician numbers is similar between the two methods (51 versus 54), but the magnitude of surplus or deficit by specialty is greater with the population-to-physician method.
Conclusion: The method targets an equitable distribution, rather than normative ideal physician supply. The magnitude of estimated surplus or deficit at the level of each specialty is greater with the population-to-physician ratio approach. The latter fails to consider interregional flow and specialty substitution. A population-based utilization approach is demonstrated to be a feasible, and in many ways superior, tool for physician resource planning.

Résumé

Objectifs : Démontrer la faisabilité d'une mesure – fondée sur la population – de l'utilisation des services des médecins par type de service comme outil pour la planification de la main-d'œuvre médicale.

Cadre : Région sanitaire du Nord de la Colombie-Britannique.
Conception : Des statistiques descriptives rétrospectives sont compilées au sujet de l'utilisation des services des médecins par la population régionale, par la spécialité du service, sans égard à la spécialité du fournisseur ou à son emplacement. Ces statistiques sont comparées aux normes fondées sur l'utilisation provinciale moyenne, ajustées en fonction de l'âge et du sexe, et à des normes fondées sur les recommandations concernant le ratio population-médecin.
Mesures : Selon le type de spécialité du service; l'utilisation réelle; l'utilisation attendue en fonction de l'âge et du sexe; l'utilisation intra-régionale, extra-régionale et extra-provinciale; les valeurs des équivalences temps plein (ETP) de l'utilisation réelle et attendue; et les exigences en matière d'ETP pour atteindre un ensemble de cibles recommandées en ce qui concerne le ratio population-médecin. L'exercice d'une spécialité fonctionnelle par les généralistes est également quantifié.
Résultats : Le déficit global estimé du nombre de médecins est semblable pour les deux méthodes (51 c. 54), mais l'ampleur du surplus ou du déficit par spécialité est supérieure avec la méthode population-médecin.
Conclusion : La méthode se rapproche davantage d'une distribution équitable plutôt que d'un nombre normatif idéal de médecins. L'ampleur du surplus ou du déficit estimé dans chaque spécialité est supérieure avec la méthode du ratio population-médecin. Cette méthode ne tient pas compte des mouvements interrégionaux ni de la spécialité fonctionnelle. On a démontré qu'une approche fondée sur l'utilisation des services et axée sur la population constituait un outil faisable et à bien des égards supérieur pour la planification des effectifs médicaux.

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Involving Decision-Makers in Producing Research Syntheses: The Case of the Research Collective on Primary Healthcare in Quebec

Amener les décideurs à participer à la production de synthèses : le cas du collectif de recherche sur les services de santé de première ligne au Québec

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Abstract

This paper reports on a research collective on primary healthcare (PHC) conducted in Quebec in 2004. Thirty ongoing or recently completed studies were synthesized through a process involving a high degree of exchange among researchers who conducted the original studies, investigators and decision-makers. The viewpoints expressed by decision-makers who participated in the process were analyzed in terms of convergence with and divergence from the researchers' viewpoints. In four cases, there was convergence between the decision-makers' and the researchers' viewpoints, thus increasing the validity of the collective's findings. The main divergence between the two groups' viewpoints concerns the strategy adopted in Quebec to create local health and social services networks. Such divergence reflects the distinction made by Klein between scientific evidence and organizational and political evidence.

Our study results illustrate that decision-makers' viewpoints can play an important interpretive and complementary role in producing research syntheses. Although integrating decision-makers' viewpoints into syntheses has been regarded as a strategy for improving the use of research findings, our analysis shows that decision-makers' viewpoints do not necessarily have to be integrated into syntheses but can, instead, be examined for convergence with or divergence from researchers' viewpoints. This deliberative process can enrich discussions and lead to enlightened decision- and policy making.

Résumé

Cet article rapporte l'expérience d'un collectif de recherche sur les services de santé de première ligne menée au Québec en 2004. Trente études en cours ou récemment complétées ont été synthétisées au moyen d'un processus incluant un niveau élevé d'échange entre des chercheurs qui ont effectué les études initiales, des investigateurs et des décideurs. Les points de vue exprimés par les décideurs qui ont pris part au pro-cessus ont été analysés en vue de déterminer s'ils convergeaient avec ceux des chercheurs ou s'ils en divergeaient. Dans quatre cas, il y avait convergence entre les opinions des décideurs et celles des chercheurs, ce qui a rehaussé la validité des constata-

tions du collectif. La principale divergence entre les points de vue des deux groupes avait trait à la stratégie adoptée au Québec pour créer des réseaux locaux de santé et de services sociaux. Une telle divergence reflète la distinction que fait Klein entre les preuves scientifiques et les preuves organisationnelles et politiques.

Les résultats de notre étude illustrent que les points de vue des décideurs peuvent jouer un important rôle interprétatif et complémentaire dans la production des synthèses de recherche. Bien que l'intégration des points de vue des décideurs aux synthèses ait été considérée comme une stratégie pour améliorer l'utilisation des résultats de recherche, notre analyse montre que ces points de vue n'ont pas nécessairement à être intégrés aux synthèses mais qu'ils peuvent plutôt être examinés en vue de déterminer s'ils convergent avec ceux des chercheurs ou s'ils en divergent. Ce processus de délibération peut enrichir les discussions et mener à un processus décisionnel et à une élaboration de politiques plus éclairés.

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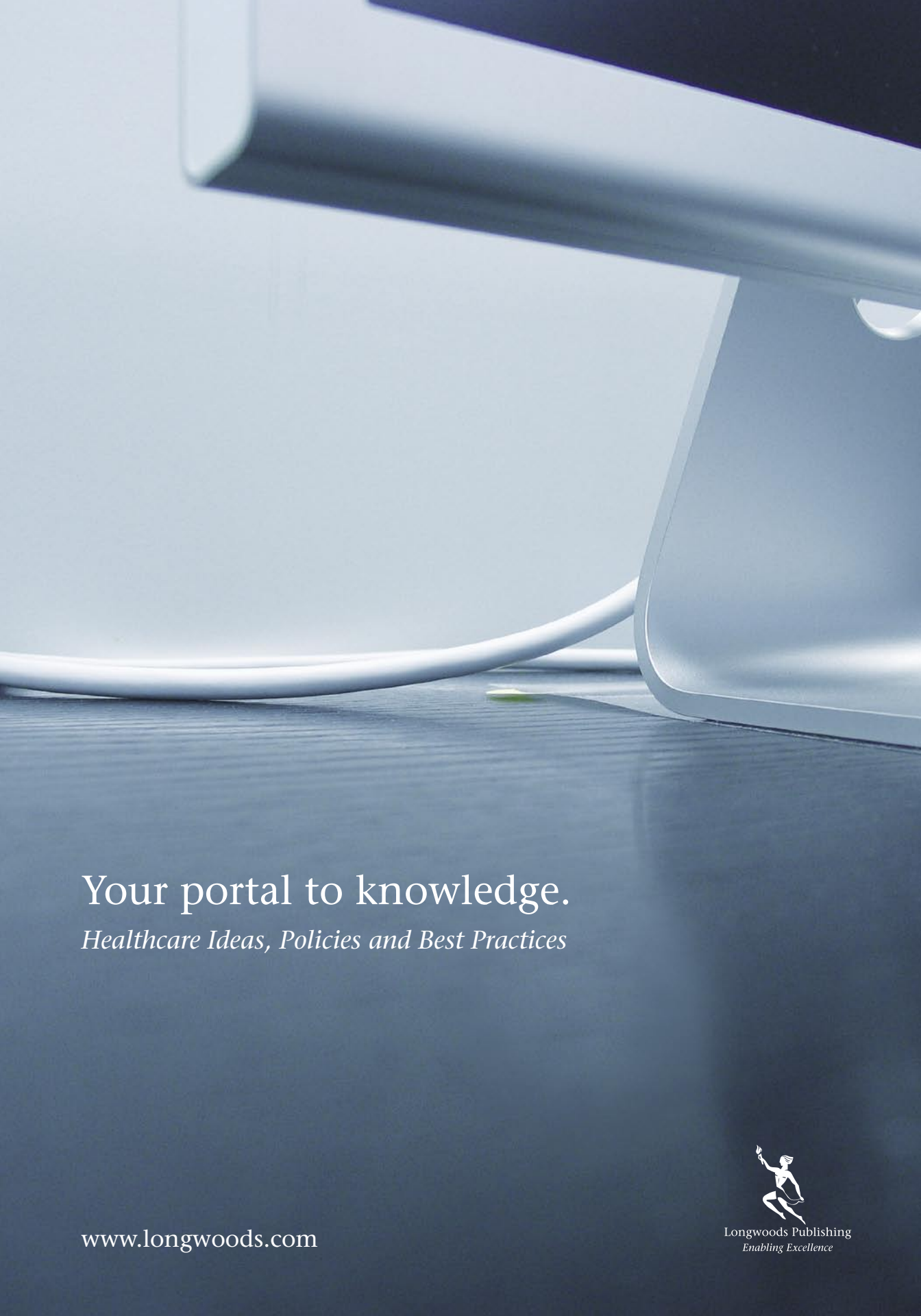
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