

HEALTHCARE

# POLICY

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## Politiques de Santé

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

Volume 2 ♦ Number 2

### Income-Based Drug Coverage in British Columbia: Lessons for BC and the Rest of Canada

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### Fat Zombies, Pleistocene Tastes, Autophilia and the “Obesity Epidemic”

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*Data Matters ♦ Discussion and Debate ♦ Linkage and Exchange*

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## Politiques de Santé

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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.

Bien que *Healthcare Policy/Politiques de Santé* encourage l'envoi d'articles ayant un solide fondement théorique et innovateurs sur le plan méthodologique, nous privilégions la recherche appliquée plutôt que les travaux théoriques et l'élaboration de méthodes. La revue veut maintenir une saveur distinctement canadienne en mettant l'accent sur les questions liées aux services et aux politiques de santé au Canada. Nous publions aussi des travaux de recherche et des analyses présentant des comparaisons internationales qui sont pertinentes pour le contexte canadien.

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### Income-Based Drug Coverage in British Columbia: The Impact on Private and Public Expenditures

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Examen par les pairs

“No sense of humour.”

[Comment from a respondent to a reader survey conducted in May 2006.]



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## British Columbia's PharmaCare Program: Fair or Foul?

**I**N THIS ISSUE OF *HEALTHCARE POLICY/POLITIQUES DE SANTÉ*, STEVE MORGAN and colleagues present a rigorous and comprehensive examination of pharmacare policy in British Columbia, specifically the introduction of co-payments for seniors in 2002, followed by an income-based "Fair PharmaCare" Program in 2003. Fair PharmaCare achieved its primary objective of reducing public expenditures on pharmaceuticals – an unsurprising accomplishment. Although politically hazardous, reducing pharmacare expenditures is technically straightforward; simply model co-payments and deductibles to achieve the budgetary target. The details of the plan, such as deductibles, co-payments and maximum contributions at different levels of family income, were designed to support other policy objectives, including a distribution of contributions and benefits more in line with ability to pay and improved access to medicines for low-income families. As Morgan and colleagues report, the first of these objectives was met. Although the second was not achieved, access was maintained – at least for two important and commonly used classes of medicine, antihypertensives and cholesterol-lowering agents (the only drugs examined).

Does the program qualify as "fair"? Several of Morgan and colleagues' findings raise questions about both the fairness and the adequacy of the program.

First, average private payments for prescription drugs as a proportion of household income increased for low-income families (and at all other income levels) following the introduction of Fair PharmaCare. The financial burden of prescription drugs was heightened rather than alleviated.

Second, average total public and private drug expenditures were positively related to household income for seniors and, except for households below the fourth percentile of income, were unrelated to income among non-seniors (Hanley et al. 2006). Given the strong relationship between income and health, this suggests that access to drug treatment in British Columbia under Fair PharmaCare – and its predecessor programs – is based less on need than ability to pay. The implications of these findings for the poor and sick are clear. Given the co-payments required under Fair PharmaCare, households that include people with chronic health problems, especially low-income households, face large and increasing private costs of prescription drugs. Although private payments are limited by maximum contribution levels that vary from

2% of gross household income for families with incomes less than \$15,000 to 4% of gross income for families with incomes greater than \$30,000, these sums are not trivial for low- and middle-income households.

Finally, for both antihypertensives and cholesterol-lowering drugs, discontinuations of treatment “varied by income strata, with the greatest number of discontinuations generally among those in the lowest income deciles” (Caetano et al. 2006). Further, there was little difference in the rate of initiation of these treatments across income strata. These patterns, which predated but continued under Fair PharmaCare, defy what would be expected if utilization were needs-based and suggest that low-income patients may be failing to obtain, fill and renew their prescriptions for long-term treatments because of cost considerations.

If we accept the premise (and not everyone does) that access to necessary medicines should be based on need and that contributions should reflect ability to pay, the obvious antidote to these concerns is a universal pharmacare program that provides first-dollar coverage (i.e., no deductibles or co-payments) funded from progressive taxation. As Morgan and colleagues point out (Morgan et al. 2006), an expanded fund-

ing role for government would increase its ability, as the sole or dominant purchaser of pharmaceuticals for the province, to control drug prices. Perhaps more importantly, a plan with first-dollar coverage would address the threat to social solidarity inherent in income-based programs. Citizens

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**Citizens who are more affluent ... pay more and receive less than poorer, sicker citizens and can comfortably pay privately, either through insurance or out of pocket, for the medications they need.**

who are more affluent (and, as a consequence, more politically influential and, on average, healthier) have little stake in the adequacy of income-based pharmacare programs. They pay more and receive less than poorer, sicker citizens and can comfortably pay privately, either through insurance or out of pocket, for the medications they need. They may be content with – or even welcome – a public program that covers a narrow range of medicines and provides meagre subsidies. In contrast, “we’re all in it together” with universal, first-dollar coverage, as is now the case for physician and hospital services under Canadian medicare.

BC’s Fair PharmaCare program may be fairer than its predecessor, but it is still unworthy of emulation by other jurisdictions.

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BRIAN HUTCHISON, MD, MSC, FCFP

*Editor-in-chief*

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## Le Régime d'assurance-médicaments de la Colombie-Britannique : équitable ou déloyal?

DANS CE NUMÉRO DE *HEALTHCARE POLICY/POLITIQUES DE SANTÉ*, STEVE Morgan et ses collègues présentent une étude exhaustive et rigoureuse de la politique d'assurance-médicaments de la Colombie-Britannique, plus particulièrement de l'introduction de la participation aux coûts pour les aînés en 2002, puis en 2003 du « Régime équitable d'assurance-médicaments » basé sur le revenu. Ce Régime a rempli son premier objectif qui visait la réduction des dépenses publiques en matière de médicaments, ce qui ne devrait surprendre personne! Quoique dangereuse sur le plan politique, la réduction des dépenses en matière d'assurance-médicaments est techniquement très simple, puisqu'il suffit de prendre comme modèles la participation aux coûts de même que les franchises afin d'atteindre la cible budgétaire. Les particularités du plan, telles que les franchises, la participation aux coûts et les contributions maximales à différents niveaux des revenus des ménages, ont été conçues afin de remplir d'autres objectifs de politique, y compris la répartition des contributions et des cotisations correspondant mieux à la capacité de payer et à une amélioration de l'accès aux médicaments pour les foyers à faible revenu. Tel que Morgan et ses collègues nous le rappellent, le premier de ces objectifs a été atteint. Bien que le deuxième, quant à lui, ne l'ait pas été, l'accès a été maintenu au moins pour deux catégories de médicaments

importants et couramment utilisés : les antihypertenseurs et les hypocholestérolémiants (ou statines) (les seuls médicaments ayant fait l'objet d'une étude).

Peut-on qualifier le Régime d'« équitable »? Plusieurs des conclusions de Morgan et de ses collègues soulèvent des questions concernant à la fois l'équité et le caractère adéquat du Régime.

En premier lieu, les paiements privés, en moyenne, pour les médicaments sur ordonnance comme portion du revenu des ménages ont augmenté en ce qui concerne les foyers à faible revenu (et à tous les autres niveaux de revenus) à la suite de l'introduction de ce Régime équitable d'assurance-médicaments. On a alourdi le fardeau financier des médicaments sur ordonnance plutôt que de le soulager.

En deuxième lieu, les dépenses totales publiques et privées en médicaments, en moyenne, se sont avérées, et cela de manière positive, en rapport avec le revenu des ménages pour les aînés et, à l'exception des ménages se situant en-dessous du quatrième centile des revenus, étaient sans rapport avec les revenus des personnes ne faisant pas partie de la catégorie des aînés (Hanley et al. 2006). Étant donné la relation très forte qui existe entre les revenus et la santé, cela suggère que l'accès aux traitements par médicaments en Colombie-Britannique, dans le cadre de ce Régime équitable d'assurance-médicaments ainsi que des précédents programmes, se fonde moins sur le besoin que la capacité de payer. Les conséquences de ces conclusions pour les personnes plus pauvres et malades sont claires. Étant donné que le Régime équitable d'assurance-médicaments exige une participation aux coûts, les ménages qui comptent parmi eux des personnes souffrant de problèmes de santé chroniques, surtout dans les ménages à faible revenu, doivent faire face à des coûts plus importants et en croissance constante pour les médicaments sur ordonnance. Bien que les paiements privés soient limités par des niveaux de contribution maximale, qui varient de 2 % du revenu brut des ménages dont les revenus sont inférieurs à 15 000 \$ à 4 % du revenu brut pour les ménages dont les revenus sont supérieurs à 30 000 \$, ces sommes ne sont pas insignifiantes pour les foyers à faible et à moyen revenu.

En dernier lieu, pour les antihypertenseurs et les statines, les interruptions de traitement « variaient selon l'échelle des revenus, avec un plus grand pourcentage de ces interruptions de traitement, généralement parmi les foyers appartenant aux centiles de revenus les plus bas » (Caetano et al. 2006). De plus, il y avait très peu de différence dans le taux d'initiation de ces traitements parmi les différentes catégories de revenus. Ces modèles, qui étaient antérieurs mais qui ont continué sous le Régime équitable d'assurance-médicaments, défieraient toutes nos attentes si l'utilisation était fondée sur les besoins et suggèrent que les patients à revenu faible pourraient éventuellement ne pas obtenir, exécuter ni renouveler leurs ordonnances pour des traitements à long-terme en raison des coûts trop élevés.

Si l'on part du principe (et les avis diffèrent!) que l'accès aux médicaments essentiels devrait se fonder sur les besoins et que les contributions devraient refléter la capacité

de payer, alors l'antidote parfaite à ces préoccupations réside dans un Régime universel d'assurance-médicaments qui fournit une couverture au premier dollar (soit aucune franchise ou de participation aux coûts) financée grâce à une taxation progressive. Comme Morgan et ses collègues le soulignent (Morgan et al. 2006), si le gouvernement jouait un rôle plus important au niveau du financement, il pourrait, en tant qu'acheteur, unique et dominant, des produits pharmaceutiques pour la province, contrôler les prix des médicaments de façon plus importante. Un régime doté d'une couverture au premier dollar éliminerait les atteintes à la solidarité sociale inhérentes aux programmes fondés sur les revenus et cela s'avère peut-être plus important. Les citoyens qui sont plus aisés financièrement (et, par conséquent, plus influents sur le plan politique et, en moyenne, en meilleure santé) ont peu à gagner dans le caractère adéquat des régimes d'assurance-médicaments basés sur les revenus. Ils payent davantage et reçoivent moins que les citoyens plus pauvres ou plus malades et peuvent payer leurs médicaments très confortablement de façon privée, soit grâce à leurs assurances individuelles ou directement en espèces. Il se peut qu'ils se satisfont ou même qu'ils accueillent fort bien un régime public couvrant une gamme étroite de médicaments et fournissant de maigres subventions. Par contre, « nous sommes tous inclus et tous concernés » dans une couverture universelle et dont le paiement de cotisation se fait à partir du premier dollar, comme c'est le cas d'ores et déjà en ce qui concerne les services fournis par les hôpitaux et les médecins dans le cadre du Régime canadien d'assurance-maladie.

Le Régime équitable d'assurance-médicaments de la C.-B. fait peut-être preuve de plus d'équité que son prédécesseur mais il se révèle encore indigne d'être imité par les autres juridictions provinciales.

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## What's New at *Healthcare Policy/* *Politiques de Santé?*

**T**HIS ISSUE INCLUDES A SUITE OF FIVE PAPERS BY STEVE MORGAN AND colleagues examining the origins, development, implementation and short-term effects of British Columbia's Fair PharmaCare Program. The full text of the first paper, an examination of the policy process, and the fifth paper, an assessment of the extent to which the program achieved its objectives, is published in both the print and online versions of the journal. Only the abstracts of the remaining three articles – which report on the program's effects on public and private expenditures, access to medicines and distribution of financial burden – are included in the print version, with the full text available online. The practice of providing abstracts in print and full text online for selected research papers will be continued in future issues. This approach enables us to expand the amount of high-quality research we present without incurring additional printing costs – an important consideration, given the journal's limited funding.

*Healthcare Policy/Politiques de Santé* has applied to the National Library of Medicine for indexing in Medline. The Literature Selection Technical Review Committee, which meets three times a year, will review the journal in November 2006. Within several weeks after that meeting, we will be notified of the committee's decision.

To date, Longwoods Publishing Corporation has submitted four journals for indexing, and all have been approved on the first application. We anticipate that the results will be the same for *Healthcare Policy/Politiques de Santé*. Following approval by the committee, previously published articles will be indexed retroactively.

With this issue, three new editors have joined the *Healthcare Policy/Politiques de Santé* editorial team: Christel Woodward, a psychologist and professor emeritus of clinical epidemiology and biostatistics at McMaster University; Robyn Tamblyn, a professor of epidemiology and biostatistics at McGill University; and Joel Lexchin, an associate professor and associate chair of the School of Health Policy and Management at York University.

# Quoi de neuf en matière de *Healthcare Policy/Politiques de Santé?*

C E NUMÉRO COMPREND UNE SÉRIE DE CINQ ARTICLES RÉDIGÉS PAR STEVE Morgan et ses collègues qui traitent des origines, de l'évolution, de la mise en oeuvre et des effets à court-terme du Régime équitable d'assurance-médicaments de la Colombie-Britannique. L'intégralité des textes du premier article, une étude du processus politique ainsi que du cinquième article, une évaluation de l'étendue des objectifs atteints par le Régime, est publiée, à la fois dans sa version imprimée de la revue et dans sa version en ligne. Seuls les résumés des trois autres articles, traitant des effets du Régime sur les dépenses publiques et privées, de l'accès aux médicaments et de la répartition du fardeau financier, sont inclus en version imprimée et leur texte intégral est disponible en ligne. Cette pratique de fournir des résumés en version imprimée et l'intégralité des textes en ligne pour des rapports de recherche choisis se perpétuera dans les prochains numéros. Cette nouvelle approche nous permet d'élargir le volume des rapports de recherche de haute qualité que nous proposons sans pour autant encourir des frais d'impression supplémentaires, ce qui s'avère d'autant plus important que le financement de la revue est limité.

*Healthcare Policy/Politiques de Santé* a fait une demande d'indexage dans la Medline auprès de la *National Library of Medicine*. Le Comité d'examen technique de la sélection de la littérature (*Literature Selection Technical Review Committee*), qui se réunit trois fois par an, examinera la revue au mois de novembre 2006. Le Comité nous fera connaître sa décision au cours des quelques semaines suivant cette réunion.

À ce jour, la *Longwoods Publishing Corporation* a soumis quatre revues aux fins d'indexage, et elles ont toutes fait l'objet d'une approbation dès la première demande. Nous prévoyons les mêmes résultats pour *Healthcare Policy/Politiques de Santé*. À la suite de l'approbation du Comité, les articles publiés précédemment seront indexés de façon rétroactive.

Avec ce numéro, trois nouveaux rédacteurs se sont joints à l'équipe de rédaction de *Healthcare Policy/Politiques de Santé* : Christel Woodward, psychologue et professeure émérite d'épidémiologie clinique et de biostatistique à l'Université McMaster; Robyn Tamblyn, professeure d'épidémiologie et de biostatistique à l'Université McGill et Joel Lexchin, professeur agrégé et chair adjoint de la School of Health Policy and Management à l'Université York.

# Fat Zombies, Pleistocene Tastes, Autophilia and the “Obesity Epidemic”

Des zombies qui font de l’embonpoint, les goûts du  
Pleistocène, l’autophilie et « l’épidémie d’obésité »

by ROBERT G. EVANS  
*Professor of Economics*  
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## Abstract

Canadians are fat and getting fatter: so say surveys up to and including the series of papers last August in *Health Reports*. By actual measurement, nearly a quarter of us (adults) are obese. So what? Obesity is clearly hazardous to health, but reports that 60% of us are “obese or overweight” border on fear-mongering. A body mass index (BMI) over 25 is not a death sentence, and obesity will not bankrupt the healthcare system. The trends, though, are worrying. So will we rebuild cities – and, especially, suburbs – to be more pedestrian-friendly, suppressing auto-induced urban sprawl? Will we take on the fast-food industry as we did tobacco? Obesity is not destiny; Vancouver’s rate is only half the national average. Canada could do better.

## Résumé

Les Canadiens sont gros et continuent de grossir : c'est ce que nous disent les sondages précédant et incluant la série d'articles publiés en août dernier dans *Health Reports*. Selon une mesure réelle, près d'un quart d'entre nous (adultes) sont obèses. Et puis après? L'obésité est clairement dangereuse pour la santé, mais les rapports voulant que 60 % d'entre nous soient obèses ou fassent de l'embonpoint sont un tantinet alarmistes. Un indice de masse corporelle (IMC) supérieur à 25 n'est pas un arrêt de mort, et l'obésité ne conduira pas le système de soins de santé à la faillite. Les tendances sont cependant inquiétantes. Nous rebâtirons donc des villes – en particulier les banlieues – de façon à les rendre plus conviviales pour les piétons, supprimant par le fait même l'étalement urbain auto-provoqué? Allons-nous nous en prendre à l'industrie de la restauration rapide comme nous l'avons fait pour l'industrie du tabac? L'obésité n'est pas une fatalité; le taux de Vancouver n'est que la moitié de la moyenne nationale. Le Canada pourrait faire mieux.

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## The Word Made Flesh

At the Royal Tyrrell Museum in Drumheller, Alberta, obesity is not a significant theme. “Skin and (mostly) bones” best describes the members of its splendid collection. But the Calgary Zoo, a side trip on our way home to Vancouver, was a remarkable contrast. Long before reaching the hippo tank, we were struck (sometimes literally) by the extraordinary proportion of visitors who were by any definition morbidly obese. They did not so much walk as launch their bodies in a chosen direction and then follow, as it were, behind. It seemed doubtful whether they could manage an unscheduled stop, let alone exert the mechanical forces necessary for evasive manoeuvres. The rhetoric of an “obesity epidemic” was dramatically fleshed out.

Our return coincided with the release by Statistics Canada of a series of papers painting a disturbing picture of Canadians as fat, and getting fatter. My extremely casual empiricism was not misleading; 23.1% of adult Canadians are classified as obese (body mass index [BMI] >30) based on actual measurements during the Canadian Community Health Survey (CCHS) of 2004 (Tjepkema 2006: Table 1). Another 36.1% are classified as overweight (25 < BMI < 30). “Normality” (18.5 < BMI < 25), at 38.9%, is not the norm. Obesity rates are essentially the same for both men and women – 22.9% and 23.2% – though women are overrepresented (3.8% compared to 1.6% for men) in the super-heavyweight Obese Class III with BMIs over 40. Men (me included) tend to fall in the overweight range (42.0% vs. 30.2% for women), while women are much more likely to be normal (44.1% vs. 33.6%).

These rates are well above those reported in the Joint Canada/United States

Survey of Health (JCUSH) for 2002–2003. That telephone survey yielded an obesity rate of 15.3%: 17.9% for men and 12.5% for women (Sanmartin et al. 2004: Table A-6). Apparently, people (especially women) underreport their weights, on average, by very significant amounts. Embarrassment? Denial/wishful thinking? Or simple lack of awareness?

The differences found in the JCUSH between the Canadian and American samples are also reported in Tjepkema (2006: Table 3). Comparable direct measurements of BMI for the United States between 1999 and 2002 found 29.7% of Americans to be obese – 26.6% of men and 32.7% of women. So, indeed, Americans – and particularly American women – are fatter. But just being less obese than the Americans, in this league, wins no prizes. And all indications are that the trend is upward.

So what?

## Grave Consequences or Inflated Concerns? A Contested Epidemic

Well, so, a couple of things. First, what impact might we expect these trends to have on the health of the Canadian population and, in particular, on our healthcare system? And second, what – if anything – might we want, or be able, to do about them? The answer to the first question might seem self-evident, but is not. The answer to the second might seem much more difficult, and is. But if we have no good answers to the second question, or at least none that we collectively (not just our political leaders) find acceptable, why are people making such a fuss about the “epidemic”?

After all, as Aleck Ostry has pointed out (rather rudely), nutritionists have been telling us for at least 50 years that our diets were bad, and that we were overweight, and that bad things would follow. No one took much notice and, incorrigibly, we went on getting healthier and healthier. Yet now we have an epidemic, a crisis, a looming health disaster. Well, the numbers and the trends are what they are, but it is certainly worth asking, “Why now?” What might be behind the recent and widespread excitement? Have we just reached a “tipping point,” or is something else going on?

There seems little room for doubt that, all else being equal, an increasingly obese population will be an increasingly unhealthy population. There is no need here to rehearse the relative risks of diabetes, heart disease and joint damage, and for all I know the heartbreak of psoriasis. Enough already; the data are in. Extreme overweight is a risk factor for many forms of illness.

But all else is never equal. A nifty paper by Banks et al. (2006) reports the health status of samples from similar slices (ages 55–64, exclusive of identifiable minorities) of the British and American populations. Their measures, from comparable surveys, combine self-reports of and biological markers for the prevalence of seven major

clinical conditions. Remarkably, the UK sample is significantly healthier, on these measures, than the American. Moreover, while stratifying each sample by income or educational tertiles yields the expected socio-economic class gradient, what was not expected was that the lowest stratum in the United Kingdom was comparable to or healthier than the highest in the United States.<sup>1</sup>

Yet another interesting finding was that while obesity rates were higher in the United States, adjustment for this and other “behavioural” risk factors (tobacco and alcohol use) had no effect on the health differentials. The United States is simply a more unhealthy social environment, quite independent of individual behaviours.<sup>2</sup> At the individual level, obesity is certainly bad for you, and its increase may justify public concern. But a focus on obesity – or other individual risk factors – may amount to counting the peanuts while the elephants of population health slip by. There is a lot more going on.<sup>3</sup>

Nor is Ostry the only sceptic: “... [A]n increasing number of scholars have begun accusing obesity experts, public health officials and the media of exaggerating the health effects of the epidemic of overweight and obesity” (Gibbs 2005: 70). In particular, lumping together overweight and obesity to declare 60+% of North Americans to be at risk may be well intentioned, but has about it a strong scent of fear-mongering. A BMI of 40+ is a serious health problem, but values in the mid- to high 20s may have little significance. The majority of those reported as “overweight” are at the low end of that range.<sup>4</sup>

## A Fat Zombie?

As for the healthcare system, well, consider the parallel rationales of the “obesity epidemic” and the “crisis” of population aging. The obese are an increasing proportion of the Canadian population, as are the aged. Obese people, like the elderly, are on average sicker and use more healthcare. Escalating healthcare expenditures are a constant concern. All true. Therefore, self-evidently, the aging population and now the obesity epidemic are or will be major cost drivers and a threat to the sustainability of our (public?) healthcare system. Dead wrong.

In study after study – by many different research groups with different measures of healthcare use and costs, dating back at least to 1978 – it has consistently been shown that population aging *per se* makes a relatively small contribution to the escalation of healthcare use and costs. The real cost drivers are changing patterns of clinical practice, including, particularly, pharmaceutical prescribing. These changes may be good or bad – the benefits are in many cases at best non-proven – but demographic trends are a minor issue.

Everyone in the research community knows this, but these clear and consistent findings have had no discernible impact on the public discourse. The “crisis” of the

aging population has become a classic “zombie,” an idea that is intellectually dead but refuses to be buried. It is constantly revived to stalk through public discussion because it is intuitively plausible, and because it serves to distract attention from the serious questions of why clinical practice has been changing and whether the benefits justify the increasing costs.<sup>5</sup>

The aging zombie is extensively documented. The parallels, however, suggest that obesity may emerge as a new zombie. The point is not that obesity is not associated with illness, or that there is not more of it around. That is universally conceded, just as aging is. But watch for those truths to be recruited into an explanation for escalating healthcare costs. And obesity has the attractive feature that, unlike aging, it can be attributed to the “unhealthy choices” of the obese themselves.

Fat people *choose* to eat too much and exercise too little, and their moral failings will bankrupt our healthcare system! (That music in the background, is that someone beating gently on the old user-fee drum?) The reality, again well documented, is that increasingly intensive clinical services are concentrated on a relatively small proportion

of the population, mostly elderly, with multiple chronic conditions. Moreover, these service patterns tend to be highly variable across regions, apparently independent of evidence of patient needs. These observations should raise serious questions about the factors underlying trends over time.

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## **Fat people *choose* to eat too much and exercise too little, and their moral failings will bankrupt our healthcare system!**

The illness does not necessarily dictate its own form (and cost) of treatment. Both clinicians and patients (me included) might like to think it does, for perfectly understandable reasons, but about 40 years of research on practice variations all says that this is an illusion.

Some of these chronic conditions may indeed be attributable to the long-term consequences of obesity, but as indicated in the findings of Banks et al., these effects may get washed out at the population level. Further, why do people become (and remain) obese in the first place? The so-called “individual” behaviours are deeply interwoven with the physical and social context.

## **Virtuous Vancouver, Naturally**

This observation is reflected in the large geographic variations in obesity rates within Canada (Shields and Tjepkema 2006). Adult rates were 11.7% in the Vancouver

census metropolitan area (CMA), less than half the Calgary rate of 25.7% (aha!). Canadawide, the rates in CMAs averaged 20.2%, well below the 28.5% in smaller communities. In general, the bigger the city, the lower the obesity rate. Toronto weighs in at 15.1%; St. John’s tops the municipal chart at 36.4%.

These differences underline in heavy ink the fallacy of interpreting obesity as purely a consequence of “unhealthy” individual choice. Why is Vancouver so low? Climate, for one thing. Active recreation is easily available all year, and this supports a culture of indoor and outdoor exercise. Also, the quality of fruits and vegetables is better than elsewhere in Canada, and they are cheaper. So Vancouverites are healthier. Why are people in bigger cities less obese? They can *walk*, and there are lots of places worth walking to. Traffic is congested, and high residential density supports good public transit. But visit any suburb, and think about where you can go without a car.

## Sprawling Cities, Sprawling Waistlines – Who Made This Mess?

Shields and Tjepkema note that their results are consistent with American research showing a relationship between obesity rates and “urban sprawl” – low residential density. And, indeed, the Seattle-based Sightline Institute (2006) reports that about 60% of Vancouver’s population live in “compact neighbourhoods,” more than twice as high as in any urban area in the American northwest.<sup>6</sup>

Urban sprawl in the United States is powerfully driven by two public policies that Canada has mercifully been spared: interest on residential mortgages is deductible from individual taxable incomes, and the US government massively funds the interstate highway system, including urban freeways. These factors support the mega-mall rather than the pedestrian-friendly neighbourhood “high street” that is still alive and well in many parts of Vancouver, and even some in Toronto. The built environment, and the public policies that shape it, can show up in major differences in obesity rates and in health status more generally. If we want people to exercise more, we must plan our urban spaces so that they can, and have a reason to, not just on special occasions but in their everyday lives. Are we ready to start rebuilding cities to reverse 60 years of autophilia? Compact communities, tighter zoning, more public transit ... but Jane Jacobs died last spring. Maybe our best long-run hope is the price of oil.

## Eat, Eat! We Do It All for You!

So much for exercise, what about diet? Here the parallels (and contrasts) with tobacco become particularly interesting. In both cases, the problem of health improvement is conceptually simple. Don’t smoke; eat less, and eat better. Mr. Micawber put his finger

on it: calories in and calories out.<sup>7</sup> Mobilize the health promoters; problem solved.

But in each case, large, powerful and politically well-connected industries depend on well-resourced and highly sophisticated marketing to promote unhealthy lifestyles. Billions are spent in both the tobacco and the food industries to “empower” people to make unhealthy choices. By hook or by crook.

Bluntly, improving population health requires putting the tobacco industry out of business. Full stop. Everybody understands this. The industry can hardly be expected to go gentle into that good night; it has put up quite a fight. But an industry whose survival depends upon inducing children to become addicted to a toxic product is under a bit of a handicap in “normalizing” itself.<sup>8</sup> If tobacco were being brought to the market today, it would be targeted by the “War on Drugs.”

The food industry is another matter entirely. We need its products, and mostly we enjoy them. Some of us try to cut down, but no one wants to quit. Nor is there

any clear standard of normal use, no “natural” human diet. Our ancestors evolved throughout the Pleistocene to make use of whatever was available – opportunistic omnivores, just like rats or skunks. We’ll eat anything that does not eat us first. Human societies have thrived on a wide variety of different diets, then and now. Most of the early diets were

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**So a huge and highly profitable fast-food industry sells directly to our Pleistocene tastes, and in case those should weaken, reinforces them with billions of dollars in advertising. How much is spent to promote broccoli?**

heavy on fruits and vegetables because these were easier to catch. High-fat and high-sugar items were a real bonus: very efficient, calorie-dense, but unfortunately scarce. So our ancestors really liked those. We still do.

Fats and sugars are no longer scarce. Modern food technology has made them cheap as, well, chips. So a huge and highly profitable fast-food industry sells directly to our Pleistocene tastes, and in case those should weaken, reinforces them with billions of dollars in advertising. How much is spent to promote broccoli?

The fast-food industry, like any other for-profit industry, operates on the Willie Sutton principle – producing unhealthy foods because they sell. Bad press may lead them to offer salads as well, but with high-fat, high-sugar dressings. And fast eating goes with overeating. Meanwhile, underinvestment in public infrastructure combines with environmental scare stories to undermine confidence in the public water supply.<sup>9</sup> Better to get your water with colouring and lots of sugar added, *ad maiorem gloriam* Coca-Cola. For us effete intellectual snobs, there’s a big fat latte at Starbucks.

## “We Has Met the Enemy, and He Is Us” (Sort Of) – Pogo

Does an effective response to obesity include putting McDonald’s and Coca-Cola out of business? Good luck! But if not? If sales of calorie-rich, nutrient-poor foods cannot be trimmed back, what hope for a lighter population? The industry can claim that it is simply responding to “consumer demand,” which on one level is true. Sellers of tobacco, pornography and illegal drugs could make the same claim (and some have). But the food industry issue is much tougher than trying to suppress a noxious and widely unpopular industry. Promoting healthy eating requires some complex fine-tuning of a large industry with a high level of public support, in ways that will certainly restrict profit opportunities. Not surprisingly, our politicians have little stomach for this.

Effective tobacco control backs up aggressive anti-smoking messages with a combination of heavy taxation, restrictions on industry promotion and legal prohibition of smoking in public spaces. Left on their own, the health promoters would be massively out-gunned; they wouldn’t stand a chance. Are any of these strategies seriously contemplated for the food industry?

Efforts to keep soft-drink and fast-food promotion out of schools are commendable, and a lot more could be done through the schools – starting very early – to promote both healthy eating and more exercise.<sup>10</sup> But that would require making greater fitness a serious public priority – i.e., organization, regulation and money. Like planning and rebuilding our urban environments, it is a large and long-term commitment. Is anyone really serious about this? Or should we just settle for preaching at the fatties?

### NOTES

1. The income strata were country-specific, taking no account of the much higher average incomes of Americans.
2. Healthcare is not the explanation, either. Upper-income Americans have as good access to healthcare as the British, and perhaps better.
3. As there is between Canada and the United States; see Sanmartin et al. (2004) and Siddiqui and Hertzman (submitted).
4. “We’re all at risk!” is very inclusive and PC, but it is also deceptive – even dishonest – if we are at very different risks. We’ve been here before.
5. The zombie of aging is also used to support spurious claims that public healthcare is “unsustainable.”
6. Obesity is not the only issue: “... [N]ew research shows that ... people living in sprawling areas tend to suffer substantially more chronic ailments – including diabetes, asthma and hypertension ...” (Sightline Institute 2006).
7. Nothing is ever so simple. Basal metabolic rates (BMRs) may be sensitive to such factors as ambient temperatures, hours of sleep and exposure to environmental chemicals and pharmaceuticals, and these factors may be changing so as to reduce our base rates of calorie-burning.

BMRs may also provide negative feedback in response to weight gain, but to varying degrees in different individuals. There is no shortage of suspects (Keith et al. 2006). But again, the regional variations are highly suggestive.

8. Adults do not take up smoking. Adults try to quit. Many succeed, eventually, but remain physiologically addicted for the rest of their lives.
9. The billion-dollar bottled water industry survives on the promotion of tapophobia. The folks at Perrier seem to be able to make designer water in infinite quantities from a single spring. (Many a swallow makes a spring?)
10. A national daycare program could have provided an effective vehicle.

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### Nota Bene

Re: Column in previous issue ("From World War to Class War: The Rebound of the Rich," *Healthcare Policy* 2(1): 14–24), see D.A. Green and J.R. Kesselman, eds., *Dimensions of Inequality in Canada*. Vancouver: UBC Press, August 2006. Hardcover; 496 pages; \$85. ISBN 0774812079

# Special Access Denied: A Case Study of Health Canada's Special Access Program

## Accès spécial refusé : une étude de cas sur le Programme d'accès spécial de Santé Canada



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### Abstract

This paper examines the ethical probity of Health Canada's Special Access Program (SAP). The SAP is designed for patients with life-threatening conditions who require "emergency" access to drugs that are not authorized for use in Canada when conventional therapies have failed. We argue that the SAP inappropriately uses the tenets of

evidence-based decision-making in situations where evidence-based decision-making is unfeasible. The SAP should abandon its pretence of evidence-based decision-making and adopt a transparent process in which the values guiding decisions are explicit and corrigible. We recommend the ethical principles of autonomy, non-maleficence, beneficence and justice.

## Résumé

Cet article examine la probité déontologique du Programme d'accès spécial (PAS) de Santé Canada. Le PAS est conçu pour les patients atteints de maladies graves contre lesquelles les traitements traditionnels ont échoué et qui ont besoin d'un accès « urgent » à des médicaments dont l'utilisation n'est pas autorisée au Canada. Nous soutenons que le PAS utilise un processus décisionnel fondé sur des preuves dans des situations où un tel processus n'est pas faisable. Le PAS devrait cesser cette pratique et adopter un processus transparent où les valeurs guidant les décisions sont explicites et corrigibles. Nous recommandons notamment un processus fondé sur les principes déontologiques d'autonomie, de non-malfaisance, de bienfaisance et de justice.

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**H**EALTH CANADA'S SPECIAL ACCESS PROGRAM (SAP) IS A MEANS WHERE-  
by healthcare practitioners can request limited access to drugs that are not  
authorized for sale in Canada. Usually, the drugs are early in development  
or have not completed the formal study process required for licensing. The SAP is  
designed for patients with life-threatening conditions who require "emergency" and/or  
"compassionate" access to drugs when conventional therapies have "failed, are unsuit-  
able, or are unavailable" (Health Canada 2005a). It operates under Part C, Division 8  
of the *Food and Drug Regulations*, which permit the Director to authorize the release  
of a drug for the emergency treatment of a patient receiving care from a medical prac-  
titioner (Department of Justice 2004). The practitioner is required to provide infor-  
mation about the medical emergency and data about "use, safety and efficacy," and to  
satisfy other administrative requirements.

This paper critically assesses the criteria used by the SAP in approving or denying  
an application. We present a case series that illustrates an emergency health situation  
where all available therapies have failed. We then highlight the results of a Global  
National investigational report that exposes the actual operations of the SAP. We  
argue that the SAP is flawed because it uses the rhetoric of evidence-based decision-  
making inappropriately. Finally, the SAP would be improved if it adopted explicit ethi-  
cal principles to guide its decision-making processes.

## Case Studies

Our clinic had six HIV-positive patients for whom all conventional antiretroviral therapies had failed. Each patient had long-standing HIV infection with advanced immunodeficiency. All had been diagnosed with AIDS and had low CD4+ cell counts with high plasma viral loads. They had received multiple combination treatment regimens, including multi-drug salvage therapy, which failed to control their HIV disease. Genotypic testing confirmed that their HIV had become highly resistant to conventional antiretroviral agents. Their treatment options were further limited by previous intolerance and toxicity. They had advanced HIV disease with multi-drug resistant virus and no viable treatment options using currently approved antiretroviral agents.

TMC125 and TMC114 are investigational agents that have significant potential for the treatment of drug-resistant HIV (Katlama, Berger et al. 2005; Katlama, Carvalho et al. 2005; Montaner et al. 2005; Nadler et al. 2005). Limited data are avail-

able regarding the use of these agents; however, each drug has been evaluated in dose range-finding studies (including in Canada) with encouraging results. Given the advanced stage of disease in these patients and what is known about the detrimental effects of monotherapy, sequential use of these drugs would

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**Used in combination, these drugs may have the potential to stabilize their HIV disease and keep these patients alive until other options become available.**

further compromise their effectiveness. Used in combination, these drugs may have the potential to stabilize their HIV disease and keep these patients alive until other options become available. The available data show no adverse events from using these two drugs in combination. In fact, they have in vitro synergistic rather than antagonistic effects.

TMC125 and TMC114 are not approved for marketing in Canada; therefore, we applied to the SAP to use them in combination. Our application was denied because there was a "lack of sufficient data to support the use of these two products in combination" (Health Canada 2005b). We appealed this decision, but the appeal was denied. The reasoning again focused on lack of supporting evidence. Of note, our patients' applications were initially filed in April 2005. Since then, one of the applicants has died from complications related to HIV. Ironically, a recent story by Global National revealed that 67% of SAP requests annually are for breast implant devices and, as of June 2006, the SAP approved 26,000 requests for silicone implants (Global National

2006). The cosmetic surgeons interviewed explained that “small breasts” and “slight rippling of the skin through saline implants” are the life-threatening conditions for which implants are sought (Global National 2006).

## Analysis

This critique is not restricted to accessing TMC125 and TMC114; rather, it is a criticism of the SAP’s decision-making process. The SAP has “discretionary authority” to authorize or deny requests on a case-by-case basis. Of central importance to this discretionary authority is the quantity of data available to support the “use, safety and efficacy” of a proposed regimen. However, it is not clear how much data is necessary to satisfy the SAP of a drug’s use, safety and efficacy. The standards against which the data are interpreted, the types of data that are considered satisfactory and the study designs that are acceptable remain unknown. The SAP is flawed because it professes to make evidence-based decisions in situations where evidence-based decision-making is impossible. Data pertaining to experimental drugs that are in early stages of development or that have not been formally tested cannot meet the standards that constitute evidence. The SAP concedes this point in one of its publications:

SAP authorization does not constitute an opinion or statement that a drug is safe, efficacious or of high quality. The SAP does not conduct a comprehensive evaluation to ensure the validity of drug information or attestations of the manufacturer respecting safety, efficacy and quality. (Health Canada 2003)

Our experience leads to three possible conclusions: (1) the SAP does make decisions about safety and efficacy; (2) the SAP uses its discretionary authority arbitrarily, based on subjective assessments of data; or (3) the SAP renders value-laden decisions camouflaged in the language of evidence-based decision-making. A combination of these is operational in our case. Stated reasons for denying our application confirm that (1) the SAP does make decisions about safety and efficacy and (2) the SAP exercises discretionary authority based on subjective assessments of the data. Also, (3) the SAP renders value-laden decisions camouflaged in the language of evidence-based decision-making; while this is implicit in its reasoning, further elaboration is required to make this explicit.

In the absence of adequate evidence, a decision still has to be made about whether to approve an application, and it is at this point that value-laden decisions are made. Where decisions are not based on evidence, they are based on values – economic, moral, legal, etc. – regardless of whether those values are explicit. One way to improve this program is to be frank about the limitations of data in this context and acknowledge explicitly that values-based reasoning is being applied. Our concern with the SAP

is that the values employed are not explicit or corrigible. Therefore, we suggest that the program would be improved if it adopted explicit ethical principles that are consistent with the mandate of providing emergency or compassionate access to drugs. This would allow the SAP to abandon the pretence of evidence-based decision-making.

## An Alternative Proposal

Explicit values-based reasoning could employ the ethical principles of autonomy, beneficence, non-maleficence and justice (Beauchamp and Childress 2001: 114). These principles have been formally endorsed by important government bodies in the United States and Canada: the National Commission for the Protection of Human

Subjects of Biomedical and Behavioral Research (USA, 1979); the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research (USA, 1978); the Medical Research Council of Canada (1987), now the Canadian Institutes for Health Research; and the legal

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**... it is not enough for a person to enter an agreement fully informed and without coercion, but the person's decision must be consistent with his or her deepest values.**

systems of most democracies. We emphasize the deliberative aspects of the principled approach because the SAP, in order to run properly, requires a certain degree of flexibility. *The Belmont Report* (National Commission for the Protection of Human Subjects 1978) explained that these principles cannot always be applied so as to resolve beyond dispute particular ethical problems; rather, they can provide an analytical framework that can help guide the resolution of difficult ethical problems.

### Autonomy

Respect for the principle of autonomy is commonly articulated through the doctrine of informed consent. Informed consent requires that every patient be informed to the extent that a reasonable person in that patient's position would require (*Reibl v. Hughes* 1980). Regarding SAP applications, it seems sensible to insist that the patient be fully informed of everything the physician knows about the experimental drugs rather than just the information that a reasonable person would want. The idea would be to empower the patient to decide whether to accept the risks of using these drugs.

Embedded in the doctrine of informed consent is the idea that it must be vol-

untary. When patients require emergency or compassionate access to drugs because of a life-threatening condition, it is fair to assume that the patient will be somewhat vulnerable. Sue Sherwin, in her work on “relational autonomy,” explains that it is not enough for a person to enter an agreement fully informed and without coercion, but the person’s decision must be consistent with his or her deepest values. Without completely endorsing the notion of “relational autonomy,” it would make sense for the SAP to insist that physicians be able to demonstrate that their request is consistent with the patient’s enduring values. The magnitude of vulnerability, however, should not be overstated. For example, many HIV-positive patients have lived with the disease for a long time and have clear opinions, consistent with their deepest values, about what they want and do not want if their drug regimens fail. Some patients would not be willing to take experimental medications because they find it difficult to take approved medications with known risks, let alone experimental medications with unknown risks.

### Non-maleficence

Another precaution against vulnerability is the principle of non-maleficence, which is referred to as “*primum non nocere*,” meaning “above all, do no harm.” Non-maleficence requires that individuals refrain from doing harm to others. The application of non-maleficence requires the physician to convince the SAP that the patient will not be unnecessarily harmed. In our application, for example, we emphasized that we intended to monitor these patients very closely in terms of the safety and efficacy of the regimen, and would withdraw treatment if it became toxic or ineffective. Treatment would be administered under the supervision of an experienced HIV physician.

### Beneficence

The principle of beneficence requires that individuals attempt to contribute to the welfare of others, a positive duty to help. With regard to the SAP, the principle of beneficence could require the physician to provide the program with whatever data are available on the requested drugs, a physiological rationale for why these drugs should help and a rigorous justification of the physician’s professional recommendation. This requirement would preclude the possibility that the SAP is being used for pilot studies on unsuspecting patients.

### Justice

At a minimum, the principle of justice requires that like cases be treated alike and that decision-making not be arbitrary. This principle would ensure that all decisions by the SAP are consistent with the values of emergency or compassionate access. It would

also guarantee that the “discretionary authority” of the Director does not turn into arbitrary or unprincipled decision-making.

## Conclusion

In conclusion, a critic of our position could argue that limiting the use of evidence in the way we propose could result in patients’ suffering serious harm that could have been prevented had proper attention been paid to the available evidence. Nothing in our position should be interpreted as an argument for not considering the evidence. Our position is that it is inappropriate to deny applications solely because there is a lack of evidence about “use, safety and efficacy.” Many of the drugs requested through the SAP may not have supporting evidence. Unfortunately, for some patients, “conventional therapies have failed, are unsuitable or are unavailable,” and it is for these people that we suggest the focus should shift from a hobbled evidence-based approach to ethical principles. At a minimum, decisions must be transparent, corrigible and ethically justifiable.

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# Pandemic Threats and the Need for New Emergency Public Health Legislation in Canada

Les menaces de pandémie et le besoin d'avoir  
de nouvelles lois sur les services de santé  
publique d'urgence au Canada



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## Abstract

The 2003 outbreak of Severe Acute Respiratory Syndrome (SARS) exposed serious limitations in Canada's ability to respond to a public health emergency. Considerable progress has been made since SARS in addressing these limitations, including the creation of the new Public Health Agency of Canada. A remaining contentious question is whether there is a need for new federal emergency public health powers. Approaches to public health problems are best handled through collaborative processes, recognizing the critical importance of the local public health response. Nevertheless, this paper

argues that a legislative back-up plan must be available to the federal government in the event that collaborative relationships break down. At the minimum, legislation should give the federal government the authority to have guaranteed access to surveillance data during a public health emergency. The legislation should also consider providing the federal government with the authority to devote the nation's resources to the management of an emergency at its earliest stages. However, any legislative approach must be combined with the development of appropriate capacity at the national level to ensure that new powers can be adequately utilized and that required funding reaches public health officials at other levels of government.

## Résumé

L'épidémie de syndrome respiratoire aigu sévère (SRAS) de 2003 a fait ressortir les sérieuses limitations dans la capacité du Canada à réagir à une urgence de santé publique. Depuis le SRAS, on a réalisé d'importants progrès dans la réduction de ces limitations, y compris la création de la nouvelle Agence de santé publique du Canada. Une question reste cependant en litige, à savoir, s'il faut établir de nouveaux pouvoirs fédéraux en matière de santé publique d'urgence. Les solutions envisagées pour résoudre les problèmes de santé publique se prêtent mieux à des processus de collaboration qui tiennent compte de l'importance critique d'une intervention locale en matière de santé publique. Néanmoins, cet article soutient que le gouvernement fédéral doit disposer d'un plan de rechange advenant le cas où les relations de collaboration se détériorent. À tout le moins, les lois devraient donner au gouvernement fédéral l'autorité d'avoir un accès garanti aux données de surveillance pendant une urgence de santé publique. Les lois devraient également conférer au gouvernement fédéral l'autorité de consacrer les ressources du pays à la gestion d'une situation d'urgence à ses tout débuts. Cependant, toute approche législative doit être combinée avec la mise en place de ressources adéquates à l'échelon national afin de s'assurer que les nouveaux pouvoirs soient utilisés à bon escient et que les responsables de la santé publique d'autres paliers de gouvernement aient accès au financement dont ils ont besoin.

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**I**S CANADA PREPARED TO MANAGE A PANDEMIC THREAT WITHIN ITS BORDERS? The outbreak of SARS in 2003 exposed some of the limitations of this country's abilities in this regard, both from the perspective of response capacity and having in place adequate systems of governance. Considerable progress has been made since SARS to address these limitations, including increased investment in public health and strengthening of public health relationships across the country (Public Health Agency of Canada 2006). However, a remaining concern is the adequacy of existing

federal legislation in this area and, in particular, the powers the federal government has at its disposal to respond to a public health emergency confined within the borders of one province (Wilson and Lazar 2005).

## Responding to a New Infectious Threat

Consider the following scenario. A new infectious disease outbreak is identified in Canada. At the outset, there is uncertainty about the degree to which it is transmissible from person to person, as well as the impact on health of the infection. The response to controlling the outbreak initially involves local healthcare workers and public health officials. Communication with other provinces would be essential to ensure that neighbouring provinces could protect themselves against potential cross-border transmission of the outbreak. The federal government would need to have full information on the evolving outbreak so as to communicate adequately with the World Health Organization (WHO) and ensure that the international community has the opportunity to prepare.

In this scenario, it is evident that cooperation across all orders of government would be essential to the effective management of the outbreak. We learned from SARS, however, that there is no guarantee that the intergovernmental cooperation necessary to manage an outbreak appropriately will take place. The Campbell report describes in detail problems with communication between the Ontario and federal governments during SARS, which also affected communication with the WHO (Campbell 2004).

In reforming the public health system, many steps have been taken to build collaborative links and more effective working relationships, such as the development of the Pan-Canadian Public Health Network. Unfortunately, response to a crisis can be hijacked by other concerns that may have little or nothing to do with public health. A province may be concerned about reporting because of impact on industry or tourism – a legitimate worry, but one that should not overshadow the public health response. Alternatively, a dispute may exist between the federal government and the province over other matters – for example, fiscal transfers – that may affect the relationship between the two orders of government.

While federal–provincial disputes in this country are not uncommon, such a dispute emerging at the time of a public health crisis, when response timelines are critical, could have serious consequences. Failure to communicate could result in inadequate measures being taken by neighbouring provinces. It could result in delayed federal intervention to assist in the control of the outbreak. All these would be minor compared to the negative impact on international health if the disease were transmitted to a developing country with a health system not prepared to deal with the threat.

## The Collaborative Option to Managing Emergencies

Relying upon collaborative relationships is always the starting point in public health, where responses are inherently intergovernmental and where local activities are the backbone of the response. However, SARS demonstrated the possibility that collaborative relationships could fail at a time of crisis. Similarly, efforts to develop a national health surveillance system have been under way for over a decade and are largely based on a collaborative model (Wilson 2001). These efforts have been found to be less than optimal, and there still is an absence of comprehensive intergovernmental agreements on data sharing (Office of the Auditor General 1999). After the anthrax attacks, the US strategy of developing model state emergency legislation reflected the adoption of a collaborative approach to emergency response (Gostin et al. 2002). Hurricane Katrina tested the effectiveness of this approach, and the intergovernmental response was found wanting in several respects.

It is therefore important to consider what would happen in the event of an infectious outbreak where collaborative relationships broke down and a province did not see a role for federal involvement. According to the *Emergencies Act* (Government of Canada 1985), a public welfare emergency must involve two provinces before the federal government would have the authority to intervene without provincial permission. The federal government would have some powers under its authority over international ports and borders, but otherwise there would be little it could do except wait until the province invited it in.

There are potentially serious consequences associated with this limitation of federal authority. The emergence of a pandemic infection within this country is immediately an issue of national concern, and the federal government should have the option of being involved at the earliest stages – when the opportunity for controlling the spread of the outbreak is greatest and the need for communication with other governments is critical.

The importance of aggressive early intervention is illustrated in two simulations of an emerging person-to-person transmissible avian flu outbreak in Southeast Asia, published in the journals *Nature* and *Science*. These simulations demonstrated that the outbreak could potentially be halted at source with early detection of the disease and the use of such strategies as the targeted distribution of antivirals and social distancing measures (Ferguson et al. 2005; Longini et al. 2005). In order to be effective, these measures would need to be implemented within two weeks of the first case of human-to-human transmission. The message from these simulations for Canada is that the best opportunity to control the spread of a new epidemic – for example, a SARS-type infectious threat – would occur if the full resources of federal, provincial and local governments were immediately dedicated to controlling the outbreak. If a province sought to address the challenge on its own and failed, the consequences would be experienced by all of Canada and internationally. Under the existing legislation, the federal government

would have the authority to act, without provincial permission, by the time a second province is involved, when the possibility of controlling the epidemic may have passed.

## An Alternative Plan

A simulation of a US human avian flu outbreak identified, based on conservative estimates, that within two weeks of the incident case 1,000 individuals would be affected, and by 48 days 100,000 people would be affected (Germann et al. 2006). The length of time required to resolve intergovernmental disputes in this country could therefore result in delays in effective responses and the preventable spread of the disease. A more rapid alternative is necessary – and would exist, if the federal government had clearer legislative authority.

In response to SARS, and in recognition of the limitations of the existing emergency legislation, the Canadian Medical Association put forward a proposal for new public health emergency legislation based on a health alert system (CMA 2003). In this model, considered by both the Naylor and Kirby reports, the federal government would be provided with increasing levels of responsibility based on the extent and seriousness of the outbreak (National Advisory Committee on SARS 2003; Standing Senate Committee on Social Affairs, Science and Technology 2003).

The model put forth by the CMA would be an excellent basis for new legislation. In general, there are three key powers the federal government should have available. The first is the authority to oversee the response to an emergency. Second, and related, legislation should provide the federal government with authority to have access to surveillance data on an emerging outbreak so that it may then serve as a conduit for information transmission to provincial and international officials. This power is particularly important given the release of new International Health Regulations that mandate new surveillance reporting requirements of member nations during an outbreak (WHO 2005a,b; Wilson et al. 2006). Third, and most contentiously, the federal government should also have the option of intervening at an early stage if it perceives that a national response team could better manage the outbreak. The first two powers should be available to the federal government at the outset of an outbreak that is potentially of national concern. A clear federal test would have to be described for the third power to be utilized. It would be logical that if the WHO declares a public health emergency of international concern, the emergency would immediately be a federal matter, a situation that does not necessarily exist at present (WHO 2005b: Annex 2).

## Concerns about New Powers

There are potential problems with the use of federal legislation that need to be considered. Importantly, the use of federal powers must not create financial burdens on

a province, and the federal government must be prepared to pay the cost of exercising those powers. Therefore, the federal government must ensure that it has the appropriate capacity to utilize any new powers, a capacity that likely does not exist at this time. Such capacity would require investment in local surveillance networks, establishing emergency response capability and general investment in public health personnel. The federal government must also be prepared to accept the political responsibility that would accompany these powers. New federal powers, specifically the use of restrictive measures and access to data, must also comply with the *Canadian Charter of Rights and Freedoms*.

A question could also arise about the constitutionality of new legislation. There is at least an argument that the federal government has authority under the “peace, order and good government” or criminal powers clause in the Constitution, although this question deserves the attention of legal experts (Jackman 1996). However, even if the federal government were confident in its constitutional argument, it may be reluctant to infringe upon provincial jurisdiction for fear of raising provincial ire. It is quite possible that provincial governments could object vehemently to such an aggressive new federal power. It would be disruptive and harmful to the response if the federal government chose to “commandeer” public health and healthcare facilities in the presence of provincial opposition. Nevertheless, the existence of this “last resort” federal authority could serve to encourage provincial collaboration at an early stage, particularly on issues of data transfer and communication. What is also evident is that if such federal authority does not exist and intergovernmental disputes contribute to preventable morbidity and mortality among residents of a province, the anger of these residents will be directed at all levels of government. Such a scenario has emerged in the aftermath of the New Orleans disaster, in which intergovernmental confusion was a component of the failure to respond in a timely manner and where all orders of government are being blamed for their failures in this regard (Stout 2005; “Katrina Reveals Fatal Weaknesses” 2005).

## Conclusion

Ideally, managing a public health crisis in this country would be a collaborative venture among all levels of government, building on existing relationships and recognizing the central role of the local response. However, public health has adopted the approach of not waiting for definitive evidence before taking measures to manage risks (Kriebel and Tickner 2001). Such an approach should also be applied to public health governance strategies. A plan needs to be available to the federal government to act assuming a worst-case scenario in which an otherwise collaborative relationship deteriorates at the time of an outbreak. Having in place appropriate federal legislation is, therefore, an essential component in this country’s plan to manage future public health threats.

## Pandemic Threats and the Need for New Emergency Public Health Legislation in Canada

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# Waiting for Care in Canada: Findings from the Health Services Access Survey

## Les temps d'attente pour obtenir des soins au Canada : constatations de l'Enquête sur l'accès aux services de santé



by CLAUDIA SANMARTIN, PHD  
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### Abstract

Waiting for care has been and continues to be a major issue for the healthcare sector in Canada. While considerable gains have been made regarding valid and reliable information on waiting times, gaps remain. Statistics Canada continues to provide information regarding patients' experiences in accessing care at the national and provincial levels, including how long individuals waited for specialized services, through the Health Services Access Survey. The survey offers several advantages, including waiting time information that is comparable across time and space, enhanced patient information and information regarding patients' experiences in waiting for care. The results for 2005 indicate that median waiting time for all specialized services was between 3 and 4 weeks and remained relatively stable between 2003 and 2005. Waiting times for specialist visits did not vary by income. In addition to being asked

how long they waited, individuals were asked about their experiences in waiting for care. While the majority of individuals waiting for care indicated that their waiting time was acceptable, there continues to be a proportion of Canadians who feel they are waiting an unacceptably long time for care. Between 11% and 18% of individuals waiting for care indicated that their life was affected by waiting.

## Résumé

Les temps d'attente pour obtenir des soins ont été et continuent d'être un problème majeur dans le secteur de la santé au Canada. Bien que d'importants progrès aient été réalisés dans la compilation de données valides et fiables sur les temps d'attente, il existe encore des fossés considérables. Statistique Canada continue de publier des données sur le vécu des patients en matière d'accès aux soins aux échelons national et provincial – y compris les temps d'attente pour les services spécialisés – grâce à l'Enquête sur l'accès aux services de santé. L'Enquête offre plusieurs avantages, notamment des données sur les temps d'attente comparables dans le temps et dans l'espace, des données améliorées sur les patients et des données sur le vécu des patients qui attendent de recevoir des soins. Les résultats de 2005 indiquent que le temps d'attente médian pour tous les services spécialisés était de 3 à 4 semaines et qu'il est demeuré relativement stable entre 2003 et 2005. Les temps d'attente pour consulter des spécialistes n'ont pas varié selon le revenu. En plus de les interroger sur leur temps d'attente, on a demandé aux répondants de relater leur vécu pendant cette attente. Tandis que la majorité des patients qui attendaient de recevoir des soins ont indiqué que leur temps d'attente était acceptable, il y a un pourcentage de Canadiens qui sont encore d'avis qu'ils attendent beaucoup trop longtemps pour obtenir des soins. Entre 11 % et 18 % des personnes en attente de recevoir des soins ont indiqué que cette attente avait nui à leur vie.

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**W**AITING FOR CARE HAS BEEN AND CONTINUES TO BE A MAJOR ISSUE for the healthcare sector in Canada. Since 2000, the Federal/Provincial/Territorial First Ministers have focused on reducing waits and improving access to care. In 2001, First Ministers agreed to report on a set of nationally comparable indicators to monitor the performance of the healthcare system, including waiting times for specialized services. In 2004, First Ministers agreed to develop a 10-year plan to improve access and reduce waiting times in several key areas, including hip and knee replacements and cataract surgery. The plan called for the establishment of benchmarks for medically acceptable waiting times, with regular reporting to track progress towards these targets (F/P/T First Ministers 2004; Ontario Ministry of Health 2005).

Information is a key component of the Federal/Provincial/Territorial initiatives. While considerable gains have been made at the provincial level to improve the state of information (BC Ministry of Health 2006; Alberta Health and Wellness 2006; Ontario Ministry of Health 2006; Nova Scotia Department of Health 2006), gaps continue to exist, including a lack of comparable information across jurisdictions as well as information on patients' experiences in waiting for care. The Health Services Access Survey (HSAS) was developed by Statistics Canada in 2001 to address several of these information gaps (Sanmartin et al. 2004). The HSAS was designed to capture information on patients' experiences in accessing care, including experiences related to waiting for specialized services such as specialist consultations, non-emergency surgery and diagnostic tests. The survey is conducted every two years and recently (2005) has been incorporated into the Canadian Community Health Survey.

The following report provides the latest results from the HSAS (2005), highlighting several key advantages of the survey, including wait time information that is comparable across time and space, enhanced patient information and key insights regarding patients' experiences in waiting for care.

## Methods

### Data

The report is based on a subsample of the 2005 Canadian Community Health Survey (CCHS). The CCHS represents approximately 98% of the population of Canadians aged 15 and older living in private dwellings in the 10 provinces. Excluded from this survey are residents of the three territories, those living on Indian reserves or Crown lands, residents in institutions, full-time members of the Canadian Forces and residents of certain remote regions. The data were collected by personal and telephone interviews between January and December 2005.

Since the respondents are a subsample of the CCHS, the same multiple sample frames of the parent survey apply. The CCHS uses the area frame designed for the Canadian Labour Force Survey (LFS). The sampling plan of the LFS is a multi-stage stratified cluster design in which the dwelling is the final sampling unit. The CCHS also uses two types of telephone frames: list frames and a random digit-dialing (RDD) sampling frame of telephone numbers.

In order to produce reliable estimates at the national and provincial levels, in particular for the estimates of waiting times, a subsample of about 34,000 CCHS respondents was targeted in total for 2005. The subsample was selected using a stratified random sampling technique. The total number of respondents was 33,539.

## Analytical methods

Weighted distributions and frequencies were produced. Weighted median waiting times were calculated for specialist visits, non-emergency surgery and selected diagnostic tests. Partial or item non-responses accounted for less than 5% of the totals in most analyses; records with item non-responses were excluded from the calculations. The bootstrap technique was used to estimate the variance and confidence intervals to account properly for the complex survey design. This technique fully adjusts for the design effects of the survey. Confidence intervals were established at the level of  $p=0.05$ .

## Results

### Comparable waiting time data

One of the key advantages of the HSAS is the fact that the data are comparable across time and space. Recently, a review of provincial wait time registries highlighted the differences in the methods used to define, collect and report wait time information – differences that seriously compromise any efforts to compare wait time information across jurisdictions (CIHI 2006). In an effort to overcome this barrier, the HSAS was designed using a standard set of definitions and methods, thus ensuring a high degree of comparability. HSAS respondents were asked how long they had waited for care between the time that they and their healthcare provider agreed they needed the service (i.e., decision to treat) and the time that treatment was received. In the case of non-emergency surgery, for example, respondents were asked, “How long did you have to wait between when you and the surgeon decided to go ahead with surgery and the day of surgery?” Similar questions were used to collect information for specialist visits and diagnostic tests. The notion of waiting time, defined as “decision to treat” to “treatment,” was recently adopted by the Federal/Provincial/Territorial governments in relation to the wait time benchmarks established in December 2005.

Table 1 provides the latest results on median waiting times for specialized services by province. In 2005, the median waiting time was 4.3 weeks for specialist visits and non-emergency surgery and 3.0 weeks for diagnostic tests. The medians varied across provinces between 3.0 and 6.0 weeks for specialist visits, between 4.3 and 6.0 weeks for non-emergency surgery and between 2.0 and 4.3 weeks for diagnostic tests.

Nationally, median waiting times remained stable between 2003 and 2005, but there were some differences at the provincial level for selected specialized services. Median waiting times for non-emergency surgery were reduced by half in Quebec from almost 9 weeks in 2003 to 4 weeks in 2005 (Table 2). For diagnostic tests, median waiting times in Newfoundland rose significantly from 2 weeks in 2003 to 4 weeks in 2005, and in British Columbia median waits rose from 2 weeks to 3 weeks (data not shown).

TABLE 1. Median waiting times (weeks) for specialized services by province, Canada, 2005

	SPECIALIST VISIT		NON-EMERGENCY SURGERY		DIAGNOSTIC TESTS	
	ESTIMATE	95% C.I.	ESTIMATE	95% C.I.	ESTIMATE	95% C.I.
Newfoundland and Labrador	4.3	3.3, 5.3	4.3 <sup>E</sup>	2.8, 5.8	4.3	3.2, 5.4
Prince Edward Island	4.3	3.0, 5.6	4.3	3.3, 5.3	3.0 <sup>E</sup>	1.8, 4.2
Nova Scotia	4.0	2.9, 5.1	4.3	3.1, 5.4	2.0 <sup>E</sup>	0.9, 3.1
New Brunswick	4.3	3.3, 5.3	4.3	3.7, 4.9	3.0 <sup>E</sup>	1.5, 4.5
Quebec	3.0	2.2, 3.8	4.3 <sup>E</sup>	2.6, 6.0	2.0 <sup>E</sup>	1.0, 3.0
Ontario	4.3	4.0, 4.6	4.3	3.3, 5.3	3.0	2.2, 3.8
Manitoba	6.0 <sup>E</sup>	3.9, 8.1	6.0 <sup>E</sup>	3.2, 8.8	3.0 <sup>E</sup>	1.4, 4.6
Saskatchewan	4.3	3.7, 4.9	..	..	4.3	3.1, 5.5
Alberta	4.3	3.2, 5.3	4.3 <sup>E</sup>	2.2, 6.3	2.0	1.6, 2.4
British Columbia	4.3	3.9, 4.6	5.0	3.4, 6.6	3.0	2.3, 3.7
CANADA	4.3	4.0, 4.6	4.3	3.9, 4.7	3.0	2.3, 3.7

Notes: E - Interpret with caution (high variability)  
 .. - Data not provided due to extreme sampling variability or small sample size

### Specialist waiting times by socio-economic status

A second advantage of the HSAS is the availability of a breadth of patient information, including demographic, socio-economic and health status information available in the CCHS that can be used to clarify patients' experiences in waiting for care. Despite the universal nature of healthcare delivery in Canada, there is a growing concern that patients' experiences in accessing care may vary by non-health-related factors such as socio-economic status (Kelly et al. 2002; Arnesen et al. 2002).

Table 3 represents results for waiting times for specialist visits by income group. Median waiting times for specialist visits remained consistent at approximately 4 weeks across income groups. This finding is consistent with other evidence regarding the association between waiting times and income in Canada (Shortt et al. 2003).

### Experiences waiting for care

Waiting for care is not inherently problematic, but may be considered so when patients experience adverse effects, feel they have simply waited too long for care or both (Kelly et al. 2001; Brownlow et al. 2001; Hadjistavropoulos et al. 2001;

TABLE 2. Median waiting times (weeks) for non-emergency surgery by province, Canada, 2003, 2005

	2003		2005	
	ESTIMATE	95% C.I.	ESTIMATE	95% C.I.
Newfoundland and Labrador	4.0 <sup>E</sup>	2.4, 5.6	4.3 <sup>E</sup>	2.8, 5.8
Prince Edward Island	4.3 <sup>E</sup>	2.7, 5.9	4.3	3.3, 5.3
Nova Scotia	4.3 <sup>E</sup>	1.7, 6.9	4.3	3.1, 5.4
New Brunswick	4.3	3.4, 5.2	4.3	3.7, 4.9
Quebec	8.6	6.3, 10.8	4.3 <sup>I,E</sup>	2.6, 6.0
Ontario	4.3	3.7, 4.9	4.3	3.3, 5.3
Manitoba	4.3	3.4, 5.2	6.0 <sup>E</sup>	3.2, 8.8
Saskatchewan	6.0 <sup>E</sup>	3.1, 8.9	..	..
Alberta	4.0 <sup>E</sup>	2.5, 5.5	4.3 <sup>E</sup>	2.2, 6.3
British Columbia	4.3 <sup>E</sup>	2.8, 5.7	5.0	3.4, 6.6
CANADA	4.3	3.9, 4.7	4.3	3.9, 4.7

Notes: E - Interpret with caution (high variability)  
 .. - Data not provided due to extreme sampling variability or small sample size  
 I - Statistically significant difference between 2003 and 2005

TABLE 3. Median waiting times<sup>†</sup> (weeks) for specialist visits by socio-economic status, Canada, 2005

TOTAL HOUSEHOLD INCOME <sup>‡</sup>	MEDIAN	95% C.I.	
Lowest income	4.3	3.6,	5.0
Lower middle income	4.0	1.5,	6.5
Middle income	4.0	3.4,	4.6
Upper middle income	4.0	2.9,	5.1
Highest income	4.0	3.0,	5.0

Notes: † Age/sex adjusted estimates  
 ‡ Adjusted for household size

Ackerman et al. 2005). While much has been said about patients' experiences in waiting for care in the media and elsewhere, there is in fact very little information at the national level in Canada regarding patients' views and experiences while waiting for

care. The HSAS was designed to gather information in two key areas: acceptability of waiting times and the burden of waiting for care. The information provided reflects the views and experiences of respondents and is by its nature subjective. Responses will be shaped by individuals' own expectations about waiting for care.

Results of the 2005 HSAS indicate that the proportion of patients who felt that their waiting time was unacceptable was highest among those who waited for specialist visits (29%) and diagnostic tests (21%) and lowest among those who waited for non-emergency surgery (16%), even though individuals are more likely to wait longer (i.e., > 3 months) for non-emergency surgical care compared with other specialized services (Table 4). This finding points to potential differences regarding thresholds for unacceptable waits across different specialized services, i.e., Canadians appear to be more willing to wait longer for surgery than for a visit to the specialist.

TABLE 4. Patients'+ experiences waiting for care by type of specialized services, Canada, 2005

	PROPORTION (%)	95% C.I.
Those who considered wait time unacceptable		
Specialist visits	28.6	26.1, 31.1
Non-emergency surgery	15.8	13.5, 18.1
Diagnostic tests	20.8	18.2, 23.4
Those affected by waiting for care		
Specialist visits	17.7	15.6, 19.9
Non-emergency surgery	11.0	8.9, 13.1
Diagnostic tests	12.2	9.8, 14.7

Notes: + Based on the population who accessed these services in the past 12 months

Approximately 18% of individuals who visited a specialist indicated that waiting for the visit affected their life, compared with 11% and 12% for non-emergency surgery and diagnostic tests, respectively (Table 4). Between 49% (non-emergency surgery) and 71% (diagnostic tests) of those who were affected reported that they experienced worry, stress and anxiety during the waiting period. Approximately 50% of those who were affected by waiting for non-emergency surgery and 40% of those who were affected by waiting for a specialist visit or diagnostic test indicated that they experienced pain (data not shown).

## Limitations

Despite the advantages of the HSAS, there remain several limitations to the data and the analysis presented in this report. The data are based on self-reported information that has not been clinically validated and may be subject to recall bias. To reduce potential error, questions repeatedly referred to services used in the last 12 months.

The results are not generalizable to population groups not represented in the CCHS, including residents of the three territories, those living on Indian reserves or Crown lands, residents in institutions, full-time members of the Canadian Forces and residents of certain remote regions.

Reliable estimates at the national and provincial levels could not be produced for all the variables, given that in some cases, the survey sample was too small to generate reliable estimates.

## Conclusions

This report highlights several key advantages of the HSAS, including comparable data across time and space, enhanced patient information and information regarding patients' experiences while waiting for care. The results indicate that median waiting times for all specialized services in 2005 was 3–4 weeks. Results of the 2005 HSAS indicate that there is no relationship between income and waiting times for specialist visits. Further analyses will be conducted to explore this association for other types of waiting times.

While the majority of patients indicated that their waiting time was acceptable, there continues to be a proportion of Canadians who feel they are waiting an unacceptably long time for care and a proportion of those who are adversely affected by waiting for care. Further analysis will be conducted to explore the associations between socio-economic status and patients' views and experiences in waiting for care. While the evidence to date suggests that there is no relationship between income and acceptability of waiting times (Sanmartin et al. in press), socio-economic status may be related to whether or not patients experience adverse events while waiting for care. This is clearly an area for further exploration.

Statistics Canada continues to provide information regarding patients' experiences in accessing care. These data will be further explored to clarify the factors associated with long waits and adverse experiences while waiting for specialized services, including the role of non-health-related factors.

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## Liens et échange

THE CASE STUDY PRESENTED HERE is drawn from a recent publication from the Canadian Institutes of Health Research: *Moving Population and Public Health Knowledge into Action* by the CIHR Institute of Population and Public Health, and the Canadian Population Health Initiative. 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](http://www.cihr-irsc.gc.ca) for more details.

L'ÉTUDE DE CAS PRÉSENTÉE ICI est tirée d'une récente publication des Instituts de recherche en santé du Canada intitulée : *Mise en application des connaissances sur la santé publique et des populations*, produite par l'Institut de la santé publique et des populations (ISPP) des IRSC et l'Initiative sur la santé de la population canadienne (ISPC). 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.

Le recueil de cas a été publié au début de 2006. Pour plus de détails, consulter le site Web des IRSC à [www.cihr-irsc.gc.ca](http://www.cihr-irsc.gc.ca).

# Knowledge Translation through Research-Based Theatre

## L'application des connaissances par le théâtre fondé sur la recherche

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### Abstract

This case documents the metamorphosis of an academic public health project on the implementation of Ontario's return-to-work policies and practices into a community theatre project, the production of a play called *Easy Money*. The result was a highly successful knowledge translation initiative. Injured workers, the focus of the academic study, intensely identified with the play and were given hope that their individual experiences could be broadly translated. For the researchers, the undertaking provided new perspectives on the original research problem, validated their original findings and generated numerous topics for subsequent research.

## Résumé

Ce cas décrit la transformation d'un projet universitaire en santé publique sur la mise en œuvre des politiques et pratiques de retour au travail de l'Ontario en un projet de théâtre communautaire et la production d'une pièce intitulée *Easy Money*. Le résultat a été une initiative très fructueuse d'application des connaissances. Les travailleurs blessés – le principal sujet de l'étude universitaire – se sont identifiés de très près à la pièce et celle-ci leur a donné l'espoir que leurs expériences individuelles pourraient être appliquées à grande échelle. Pour les chercheurs, l'initiative a fourni de nouvelles perspectives sur le problème de recherche initial; elle a validé leurs constatations et a généré de nombreux sujets pour des travaux de recherche futurs.

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**J**OAN EAKIN, WITH RESEARCH COLLEAGUES ELLEN MACEachEN AND JUDY Clarke from the Institute for Work and Health in Toronto, recently completed a study of a new system in Ontario for reducing disability from work-related injury and for getting injured workers back to work. The system features early return to work (before recovery), modified work (tasks adapted to the injury) and workplace self-reliance (primary self-administration by the workplace parties).

The study identified a number of problematic implications for small workplaces, including the harmful effects for injured workers and for social relationships in the workplace of what the researchers called a "discourse of abuse," the broadly experienced, institutionalized expectation that workers will misuse the compensation system.

Results of the research were published (Eakin et al. 2003; Eakin 2005) and presented to other researchers, administrators from the Ontario Workplace Safety and Insurance Board, policy makers, health practitioners and injured workers. The project resulted in a number of tangible outcomes, including change to Ontario's workplace injury reporting form, and invoked exceptional interest from the injured worker community. The success of these initial knowledge translation (KT) efforts prompted us to extend the reach of the study's findings in a novel way: using theatre.

## The KT Initiative

The use of theatre as a medium of research communication and social change is increasingly recognized (McCall 2000). In Canada's health research arena, the very successful plays of Ross Gray and company (Gray and Sinding 2002) on the experience of cancer are probably unmatched in terms of reach and impact.

Inspired by these research-informed dramas, and in collaboration with the Injured Workers Consultants (a community legal clinic that had supported the study since its inception) and the Ontario Network of Injured Workers Groups, some funds were

scrounged from other research grants to engage an experienced playwright–director, Kate Lushington. Under her guidance, we secured grants from the Ontario and Toronto arts councils and from several labour unions to fund the developmental stage of the project – a period of about one year, culminating in the first staging of the play *Easy Money*.

The purpose of the play is to communicate the research findings to injured workers, system administrators, policy makers, government legislators and the general public, and to involve injured workers themselves in the KT effort. The play was developed incrementally, starting with the writer–director’s reading of the research report and extensive brainstorming sessions with the researcher and the production group about the key research ideas and how they might best be conveyed on stage.

The Injured Workers Theatre Collective – a group of injured workers – was formed through the client base of the legal clinic and met several times with the writer–director to relay personal stories and fuel the scriptwriting. A videographer recorded the storytelling and the participatory process with workers. Seven professional actors,<sup>1</sup> a musician and design specialists were employed to stage the play.

The central motif of the play – a Kafkaesque game of snakes and ladders and the satirical portrayal of injury and compensation as “easy money” – emerged from the confluence of research findings, worker participation and artistic expression. The core analytic concepts and arguments of the research were given artistic expression through dialogue, music, song, movement and stage props.

## Results of the KT Experience

The play was performed for the first time at the Toronto Mayworks Festival of the Arts in May 2005. Immediately following the show, a discussion was held with the audience (about 100 people, largely injured workers and their families) to harvest their feedback and ideas for improving the play. Not only were valuable suggestions made about the play, but input from the audience shed new light on aspects of the research analysis and generated new research topics. Planned follow-up activities include adapting the script for a broader audience (the general public, service providers and policy makers); producing videos; and sharing the script with other communities for local productions.

The production was hugely successful in terms of the immediate response of the audience. Injured workers identified intensely with the play’s content. Many appeared to feel a sense of being understood for the first time. The use of theatre and professional actors seemed to elevate and legitimize their individual experiences and gave them hope that the institutional systems, in which many felt trapped and ill-served, could be made visible to the public. The response to the play was also validating to the researcher (supporting the “truth” value of the research) and to the community legal partners (as testimony to the effectiveness of their activism).

## Lessons Learned

Despite the evident success of the play, it is important to ask questions from the more abstract standpoint of KT.

First, what happens to scientific knowledge when it is transformed into art and into vehicles of advocacy and change? Is science enriched? Dumbed down? De-theorized? In our case, the play had the capacity both to convert abstract research into concrete form and to produce generalizable abstract knowledge from the empirical research findings (i.e., it picked up the generic, universal experience underlying individual stories). Thus, through the techniques of metaphor, dialogue and fiction, the characterization of experience in the play was personal and generic, individual and collective, particular and trans-situational.

A related issue stems from the observation that scientifically produced knowledge does not necessarily make “good” theatre or an effective tool for enlightenment

or change. Would many people choose to attend a play that focused only on the grim hardships and despair of injured workers? But what happens when research findings are altered for theatrical or communicative effect, or when research ideas that are too hard to stage are

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**But can it do all of these without a conflict of interest and political purpose? And is theatre a better vehicle for some purposes than others?**

left out? How does the introduction of humour and irony, for example, relate to the content of the original science? We will undoubtedly learn more about the relationship between science, art and political purpose as we turn to making the play speak to the different audiences of the general public, system administrators, service providers and policy makers.

Second, how should such KT endeavours be appraised, in terms of a return on investment? Whose benefits should be the pivot points of evaluation? In our case, the effectiveness of *Easy Money* as a form of KT could be assessed from multiple standpoints: as a salve and voice for injured workers, as a catalyst for reform among government legislators and administrators, as a source of public pressure for institutional change and as a source of guidance for future research. But can it do all of these without a conflict of interest and political purpose? And is theatre a better vehicle for some purposes than others?

Third, how significant are pragmatic rather than theoretical concerns in KT? Regardless of any abstract theory, its effective execution is deeply contingent upon

practical, ground-level resources and considerations. For example, one practical barrier to KT activities can be inappropriate timing and availability of funding. In our case, a restrictive research grant funding policy led to the loss of unspent KT funds that could have been used for the start-up of *Easy Money*. Collaboration for creative activities such as this requires more flexible grant arrangements than are often available.

Another practical impediment to KT can be its low value as academic “capital.” Such activities (particularly unorthodox undertakings such as *Easy Money*) may draw researchers into unfamiliar territory that requires time and energy to navigate (e.g., securing funding in the arts arena, learning how plays are mounted) and where the risks and outcomes are unknown. In addition, genuine collaboration can mean, for the researcher, a loss of “control” over the use and interpretation of intellectual property (*quelle horreur* in academia!).

## Conclusions and Implications

The *Easy Money* experience underscores that KT, a quintessentially collaborative, cross-disciplinary exercise, can be effective only if there is something concrete in it for all partners. It cannot be induced by normative pressure alone (e.g., the belief that publicly funded research ought to be usable outside academia), nor even by practical necessity (e.g., KT as a requirement by research funding agencies).

In our case, for the community legal clinic collaborators, *Easy Money* aligned clearly with their organizational mission of improving the lives of injured workers and promoting legislative reform. For the participating injured workers, the play gave voice to personal experience and fostered a sense of meaning and community. For the artists, particularly the writer–director, *Easy Money* was an opportunity for political engagement and for a novel experience with community-based theatre. And for the researchers, the undertaking provided new perspectives on the original research problem and significant conceptual fodder for subsequent research. This confluence of interests appeared to be a major factor in making *Easy Money* a KT success story. How successful the play will be in this regard when it is brought to bear on audiences who have different stakes in the messages and who may not really want to hear them, is a story for a future KT casebook.

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NOTES

1. Opinions diverge on the pros and cons of using professional actors vs. having injured workers enact their own experiences. In *Easy Money*, the use of professionals contributed significantly to the effectiveness of the play from the injured workers' perspective by enhancing the perceived social significance of their private experiences.

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## Call to Authors

Linkage and Exchange provides a forum for knowledge translation (KT) case studies. Submissions should include an abstract of no more than 100 words, a brief statement of background and context, a description of the KT initiative, a presentation of results (including challenges that arose and how they were addressed) and a discussion of lessons learned, highlighting those that are potentially transferable to other topics and settings. Manuscripts should be a maximum of 2,000 words, excluding the abstract and references.

## Appel aux auteurs

« Liens et échanges » fournit un forum pour des études de cas en application des connaissances (AC). Les articles soumis doivent comporter un résumé d'au plus 100 mots, une brève mise en contexte, une description de l'initiative d'AC, une présentation des résultats (y compris les défis qui se sont présentés et comment ils ont été relevés), ainsi qu'une discussion des leçons apprises, surtout celles qui sont potentiellement transférables à d'autres sujets et à d'autres cadres. Les manuscrits doivent être d'au plus 2 000 mots, excluant le résumé et les références.

For more information contact Rebecca Hart, Managing Editor, at [rhart@longwoods.com](mailto:rhart@longwoods.com).

# A Cautionary Tale of Downloading Public Health in Ontario: What Does It Say about the Need for National Standards for More Than Doctors and Hospitals?

Mise en garde contre le délestage de la santé publique en Ontario : avons-nous besoin de normes nationales pour autre chose que les médecins et les hôpitaux?



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## Abstract

The 2003 SARS outbreak highlighted the importance of maintaining an adequate public health (PH) infrastructure, and cast doubt on the wisdom of basing the system locally without adequate provisions for higher-level oversight and coordination. Structurally, it highlighted the policy legacy of the 1998 Ontario decision to download full responsibility for funding PH services to municipal governments, forcing such

services into budgetary competition with the “hard” services traditionally provided by local government. The federal role in PH has traditionally been minimal; PH was never included as a mandatory service in the *Canada Health Act*, while reform proposals have focused upon such admittedly important directions as pharmacare and home care rather than PH. Although PH has moved up the policy agenda, with a focus on pandemic preparedness, the Ontario events suggest a pressing need for setting national and provincial/territorial standards for PH, and developing mechanisms for enforcing them.

## Résumé

L'épidémie de SRAS de 2003 a mis en relief l'importance de maintenir une infrastructure de santé publique (SP) adéquate et a remis en doute le bien-fondé d'un système axé sur des ressources locales, sans prendre des dispositions appropriées pour assurer une supervision et une coordination par des paliers de gouvernement supérieurs. Du point de vue structural, l'épidémie a mis en évidence les répercussions de la décision de 1998 du gouvernement de l'Ontario de confier l'entière responsabilité du financement des services de santé publique aux administrations municipales, forçant ces services à faire concurrence, pour les fonds budgétaires, aux services « de base » fournis habituellement par les administrations municipales. Le rôle fédéral dans la SP a traditionnellement été minime; la SP n'a jamais été incluse dans la *Loi canadienne sur la santé* comme étant un service obligatoire, et les propositions de réforme portaient principalement sur des priorités reconnues telles que l'assurance-médicaments et les soins à domicile, au lieu de la SP. Bien que celle-ci ait gravi quelques échelons dans les priorités stratégiques, en raison de l'accent placé sur la préparation à une pandémie, les événements survenus en Ontario témoignent d'un besoin pressant de normes provinciales et territoriales en matière de SP et de mécanismes pour les appliquer.

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**T**HE SARS OUTBREAK, TAINTED WATER, “MAD COW” DISEASE AND WEST Nile virus, plus threats of pandemic influenza, have momentarily refocused public attention on the importance of public health (PH). This window of opportunity suggests that time may be ripe for rethinking its jurisdictional underpinnings. This paper presents a cautionary tale of Ontario's downloading of PH to municipalities as an illustration of the potential implications of current arrangements, which make it difficult to achieve and maintain national standards.

Although healthcare is constitutionally under provincial jurisdiction, provinces must comply with the national conditions set out in the *Canada Health Act* if they wish to receive federal transfer payments. No such requirements apply to non-physician services outside hospitals, including PH and environmental protection, mental

health, most non-physician ambulatory care, dental care, home care and outpatient pharmaceuticals. Recent comprehensive reviews of healthcare evoked pressures to expand national conditions to encompass acute home care and catastrophic pharmaceutical costs (National Forum on Health 1997; Romanow 2002; Canada, Standing Senate Committee on Social Affairs, Science and Technology 2002), but they too left PH largely absent from the debate.

## Policy Communities

Political scientists use the term “policy community” to define “that part of a political system that has acquired a dominant voice in determining government decisions in a field of public policy ... by virtue of its functional responsibilities, its vested interests and its specialized knowledge” (Pross 1992). Policy communities include government agencies, pressure groups, media and individuals that have an interest in a particular policy field, and can be loosely divided into the “subgovernment,” who influence policy in that area, and the “attentive public,” who merely follow the debate (Coleman and

Skogstad 1990). Although they may disagree about policy details, members of a policy community tend to share a worldview and a vocabulary. The downloading example highlighted that medicine, PH and local government form different, if potentially overlapping, policy communities. In this case, players in the public health policy community

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**“... that part of a political system that has acquired a dominant voice in determining government decisions in a field of public policy ... by virtue of its functional responsibilities, its vested interests and its specialized knowledge” (Pross 1992).**

included the Ministry of Health, Public Health Branch; Association of Local Public Health Agencies (ALPHA); Ontario Medical Association (OMA); Ontario Public Health Association (OPHA); local boards of health and some interested individuals. The municipal-related policy community included the Ministry of Municipal Affairs and Housing, Municipal Policy Branch; Association of Municipalities of Ontario (AMO); and individual municipal governments.

## Public Health

There are a number of different ways of describing what PH is. Many, but not all, of its activities deal with the health of populations rather than individuals. Much, but

not all, of the focus is on prevention. Some, but not all, of the activities are carried out by organizations designated as PH agencies. These activities include, but are not restricted to, the “health protection and promotion” functions, defined as encompassing the following activities: “disease surveillance, disease and injury prevention, health protection, health emergency preparedness and response, health promotion and relevant research undertakings” (Canada, Standing Senate Committee on Social Affairs, Science and Technology 2003).

The *Constitution Act, 1982* gives provincial governments exclusive power to make laws in relation to matters regarding municipal institutions; they can alter municipal roles and responsibilities, subject only to the constraints of public opinion. Although PH falls under provincial/territorial jurisdiction, provincial governments can delegate these responsibilities. Naylor estimated that primary responsibility for PH services in Canada rests with “about 140 health units and departments that serve populations ranging from 600 to 2.4 million people, with catchment areas from 4 to 800,000 square kilometres” (Health Canada 2003). In most provinces and territories, many functions have devolved to regional health authorities, with often vague provisions for reporting and accountability. Critical mass is frequently lacking. The federal government retains a limited ability to legislate PH “through its powers over, variously, the criminal law, matters of national concern for the maintenance of ‘peace, order and good government,’ quarantine provisions and national borders, and trade and commerce of an interprovincial or international nature” (Health Canada 2003), all falling, for the most part, outside the boundaries of what is traditionally viewed as health policy.

## The Case of Ontario

Ontario is the only Canadian province requiring municipal governments to share PH costs. Historically, the network of local boards of health had responsibility for PH activities, with the provincial government gradually assuming a greater role in providing a share of the financing, as well as in mandating a set of “core programs” that all local boards were required to deliver (Powell 2006; Ontario Ministry of Health, Public Health Branch 1997). Ontario’s PH system thus evolved from a fragmented system to one with 42 PH units (since reduced to 36), and a provincial infrastructure to support PH at the local level and ensure the delivery of mandatory programs and services as defined under the *Health Protection and Promotion Act* (Government of Ontario 1990) and its regulations. In practice, guidelines for mandatory programs were determined by consultation between an established “public health” policy community, consisting of the public health division within the Ministry of Health working closely with staff of the local boards of health. Ontario paid 75% of approved costs for all units outside Toronto, and 40% for the six Toronto units. Certain programs that local government was historically reluctant to fund – particularly sexual health,

AIDS education and tobacco control – received 100% provincial funding. On January 1, 1998, however, the province downloaded full responsibility for funding of PH services to municipal governments. The history of how and why this occurred despite warnings from PH experts clarifies the limitations of consensual models of decision-making, and suggests the need for some mechanisms to strengthen the ability of the PH policy community to ensure that minimum standards are maintained, even over periods where visible crises do not propel PH onto the policy agenda.

## The “Who Does What” Exercise

Whenever there are multiple levels of government, there is a possibility for confusion, waste and mismanagement. The newly elected Progressive Conservatives under Premier Mike Harris saw the streamlining of Ontario’s government as one of their key mandates. They began in May 1996 by commissioning what was called the “Who Does What” Advisory Panel, chaired by former Toronto mayor and federal Mulroney government cabinet minister David Crombie, to advise the Minister of Municipal Affairs and Housing on “ways to eliminate duplication, overregulation and blurred responsibility for the delivery of local and provincial services” (Ontario Ministry of Municipal Affairs and Housing 1996). The advisory panel’s mandate included advice on taxation and assessment, and disentangling provincial–municipal responsibilities and governance without changing the costs assumed by each level. However, many observers believed that the province wished to gain full control over funding of education (to enable the government to meet an election promise) while getting out of the business of direct service delivery and reducing net expenses to allow for a balanced budget and a promised 30% tax cut.

One underlying distinction made in the Crombie review was between “hard” services to property (e.g., road maintenance, sewers) and “soft” services to people (e.g., social assistance, education, PH programs and services). This distinction rests in part on the understanding that people are more mobile than property. Low-income areas have both the highest needs for “soft” services and the least ability to pay for them; indeed, jurisdictions may have an incentive to provide poor-quality services to low-income people to induce them to move elsewhere. Analysts thus argue that services to people should be financed at the highest possible level of government. In contrast, a “closer to home” philosophy would allow each locality to set its own standards and service levels. Balancing flexibility and universality is always difficult. In the case of infectious disease, it must also be recognized that a service failure in one jurisdiction can lead to an epidemic elsewhere; PH is only as strong as its weakest link.

The advisory panel recommended that “the Province fully fund all boards of health to deliver mandatory programs” (Crombie 1996); its recommendations were supported by PH and municipal government representatives.

## The Provincial Response

Following the “Who Does What” logic would have resulted in a net shift of costs for soft services to the provincial level. To ensure “balance,” the advisory panel proposed shifting many hard services costs to local governments, including full capital costs for transit. In the long run, this funding model was unlikely to be sustainable, particularly since municipal governments must rely upon a property tax base and are prohibited from running deficits. Thus, local governments have less flexibility than do other levels of government to take on debt in order to finance infrastructure, and are thus likely to underinvest.

The provincial government was dissatisfied with the panel’s recommendations. In early 1997, Bill 152, the “Services Improvement Act,” was introduced, purportedly to implement the “Who Does What” recommendations (Government of Ontario 1997). This bill called for “downloading” all responsibility for funding PH, long-term care, ambulance services, social housing and a greater proportion of social assistance to the municipal level of government, and increased local responsibility for paying for public transit and road maintenance. In return, the province would assume full responsibility for education. Under this proposed legislation, the province would assume responsibility for a program whose expected costs would decrease over time as the population of school-aged children decreased, while downloading a number of counter-cyclical and increasing-cost programs to municipal governments. Janet Ecker, Minister of Community and Social Services (1996–1999), stated that “the province will continue its responsibilities for standards” for public health activities, but not for funding them (Ontario Ministry of Community and Social Services 1997).

The next stage was for Minister Ecker to set up a “Who Does What” Provincial/Municipal Transition Team to “advise the government on the design, implementation and management of proposed new roles and responsibilities for provincial and municipal governments” (Ontario Ministry of Municipal Affairs and Housing 1997). PH was not at the table; the co-chairs were the parliamentary assistant to the Minister of Municipal Affairs and Housing and the president of the Association of Municipalities of Ontario (AMO), a coordinating body heavily oriented towards the interests of the smaller communities. Other members included politicians and staff from both provincial and municipal governments. AMO was particularly worried about the unpredictable costs associated with such programs as social assistance and housing. According to comments by those involved in the process, PH received almost no attention; in financial terms, it represented a relatively small and relatively predictable expense, particularly compared to such volatile programs as social housing and social assistance.

AMO’s counter-proposal accepted municipal responsibility for funding such services as ambulance and PH, while proposing that the province assume greater responsibility for long-term care and social assistance. After negotiation, a revised agreement was announced.

The “Who Does What” policy exercise had the consequence of moving responsibility for public health from the PH policy community (who strongly opposed downloading these services) into the wider “municipal government policy community,” allowing the debate about policy options to focus primarily on the fiscal framework (specifically, how to make the trade-offs “revenue neutral” or achieve specified fiscal targets), with little attention given to the impact of proposed changes on PH. Final decisions around policy direction were concentrated within the Premier’s Office and cabinet (to whom Crombie reported). Once that occurred, lobbying efforts by the PH community to reverse the decision and maintain a stronger provincial role proved to be futile: PH remained invisible.

A related process led to the downsizing of the provincial Ministry of the Environment and a shift of responsibility for water testing to municipal governments. As had been the case for PH, the provincial government did not see any need for

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technical support at the provincial level, assuming that private sector testing laboratories could provide whatever support might be required. Neither did they maintain the former reporting structures; with PH not at the environment table, the need to ensure that water advisories were copied to local health departments

also “slipped through the cracks” (O’Connor 2002). The provincial expertise in developing PH testing was also eliminated, including such projects as developing tests for West Nile virus.

## Consequences

It is difficult for one level of government to control spending decisions at other levels. Municipal governments were soon pressing Ontario to give them “greater flexibility” in the sorts of PH programs that they were forced to provide. In response, in March 1999, Ontario reversed itself and agreed to pay half of PH costs, with the potential of playing an even greater role for “a few programs with provincewide dimensions such as Healthy Babies, Healthy Children and vaccines,” but also gave local governments “the ability to tailor programs to meet local needs,” which could be interpreted as a code phrase for allowing standards to slip (AMO 1999). The province also handed over “full title, including assets and liabilities, of water and sewer facilities previously held

by the Ontario Clean Water Agency” to municipal governments (O’Connor 2002).

Another short-term consequence was a drop in the level of health expenditures by the provincial government; the provincial association of health units estimated that the province’s PH units were spending considerably less than the amount needed to maintain their “core programs.” Again, the invisibility of PH ensured that this did not become an issue until after the 2003 SARS outbreak, at which time the *Globe and Mail* noted that provincial transfers to PH units had dropped to \$201 million for the fiscal year 2002–2003, as opposed to \$254 million in the 1999–2000 fiscal year (Mackie and Campbell 2003). Neither had the provincial government retained the capacity to support or properly investigate outbreaks of communicable disease. Indeed, this decentralization of responsibility left unclear the extent to which local governments had chosen to increase their own funding to fill the gap.

Although the PH policy community believed that strong provincial standards are essential to maintain the PH system, they often found it difficult to make their case to local decision-makers. Although the province retained the power of the Ministry of Health to monitor and enforce the delivery of mandatory programs and services at the local level, releasing new mandatory guidelines in December 1997 that set minimum standards and requirements for the provision of public health services, municipalities expected “pay for say” and were strongly opposed to what they saw as rigid and prescriptive standards. Even though the province has “absolute power when it chooses to utilize it” (White 1991), it had to decide how much it was willing to antagonize municipal governments.

More recently, the combination of SARS and fears of bio-terrorism has caused more attention to be paid to infectious disease prevention. However, many PH units had insufficient resources to deliver even the existing mandatory programs; efforts to describe “core programs” thus face a tension between levelling up or levelling down (Provincial Auditor of Ontario 2003). Post-downloading, many Ontario programs that served at-risk families began to vanish. Even communicable disease control for such diseases as tuberculosis was seen as lower priority. As the provincial Auditor General noted, even required programs were not being performed in many health units; “2002 per capita funding for mandatory health programs and services, while averaging \$37 for the province, ranged from approximately \$23 per capita to \$64 per capita among the 37 local health units” (Provincial Auditor of Ontario 2003). In short, PH remained below the radar screen – until the epidemics began.

It is striking that, in their exemplary efforts to control SARS, the PH departments of the units serving Toronto had to resort to begging and borrowing resources from universities, hospitals and other jurisdictions, and reallocating staff from other pressing activities (Basrur et al. 2004). Thus, even in the midst of their ultimately successful management, the SARS crisis casts doubt on the wisdom of basing the system purely within local government (D’Cunha 2004). This worry was reinforced by the expert

panels scrutinizing PH in the wake of SARS (Canadian Medical Association Journal 2003; Expert Panel on SARS and Infectious Disease Control 2003, 2004; Health Canada 2003). As the Campbell Commission investigating SARS in Ontario noted:

The Commission has heard continuing reports of municipalities diverting public health staff and funds to other departments, boards of health with members whose sole objective was to reduce health budgets, and medical officers of health fighting municipal bureaucracies and budget constraints to attain a proper standard of public health protection. Not all local health units are dysfunctional. Some are well governed, but certainly the current weak state of affairs is unacceptable and cannot continue. ...

Ontario cannot go back and forth like a squirrel on a road, vacillating between the desire for some measure of local control and the need for uniformly high standards of infectious disease protection throughout the entire province. A clear decision point is required before some deadly infectious disease rolls over the province. (Campbell 2005)

Among the Commission's recommendations were ensuring provisions for regular monitoring, and making program standards legally enforceable.

In response to Naylor (Health Canada 2003) and similar reports, the federal government has set up the Public Health Agency of Canada, with a broad mandate encompassing prevention of chronic disease and injuries, as well as responding to PH emergencies and infectious disease outbreaks. Its approach, however, followed the recommendations of the national SARS task force and adopts the model of voluntary cooperation and "capacity-building partnerships." This voluntary approach explicitly rejects the idea that the federal government should mandate programs or standards, arguing that any approach that "sought to conscript P/T personnel or unilaterally regulate their activities would lead to unfunded mandates and F/P/T political and legal confrontations" (Health Canada 2003). Similarly, the federal government appears reluctant to coerce provincial and territorial governments to meet international commitments (Wilson et al. 2006), choosing instead to adopt a voluntary consensual model (Wilson 2001; Wilson et al. 2004). History suggests that this approach is likely to work well as long as consensus exists and the risks of failure to act are obvious. These conditions appear to be influencing such encouraging developments as the new Public Health Agency of Canada, the establishment of PH agencies in several provinces (including Quebec, British Columbia and Ontario) and a number of projects at both national and provincial/territorial levels examining capacity needs. It seems unwise, however, to base a system on the assumption that this will always be the case.

Obvious failures often create their own corrections, and at the time this paper was being written, the lack of monitoring highlighted by the Campbell Commission was

being addressed in Ontario under new, dynamic leadership (Basrur 2005; Office of the Auditor General of Ontario 2005). However, reviews of PH capacity in other provinces that had decentralized PH into regional health authorities reveal a similarly disquieting de-emphasis on PH (Sutcliffe et al. 1997) and an absence of information about even what PH activities were actually being conducted within regional authorities.

The relative political weakness of prevention as opposed to more clinically focused services is a widely recognized phenomenon. Even before SARS, fears that public health capacity would be adversely affected by its difficulty in competing with acute care were echoed in a number of reports and papers urging that greater attention be paid to the PH infrastructure (Canadian Medical Association Journal 2002; Federal/Provincial/Territorial Advisory Committee on Population Health 2001; Naus and Scheifele 2003; Schabas 2002; Sullivan 2002). After SARS, a series of reports and papers echoed these concerns (Basrur et al. 2004; Basrur 2005; Campbell 2004, 2005; D’Cunha 2004; Expert Panel on SARS and Infectious Disease Control 2003, 2004; Health Canada 2003). A number of provinces have been investigating capacity needs, and arguing for clearer standards on at least the provincial level (Agency Implementation Task Force 2006; Association of Local Public Health Agencies 2005; Basrur et al. 2004; Basrur 2005; BC Ministry of Health 2005; Capacity Review Committee 2006; Government of Newfoundland and Labrador 2006a,b; Government of Ontario 2004, 2006; Moloughney 2005; Office of the Auditor General of Ontario 2005; Pietrusiak 2003; Provincial Auditor of Ontario 2003; Provincial Task Force on the Prevention and Control of Communicable Diseases in Health Institutions and Ambulance Services 2004; Public Health Research and Knowledge Translation Network 2005; Rush 2005).

## Discussion

PH activities tend to be among the most cost-effective components of healthcare systems (World Health Organization 2002). Much of the activities of PH also qualify as “public goods.” One inherent characteristic of public goods is that their benefits cannot be restricted to those who choose to pay for them. Clean air, where it exists, is available to everyone and everything that breathes. Because rational individuals acting solely to maximize their economic self-interest have an incentive to refuse to pay for such goods, but to reap whatever benefits others are willing to provide, this “free rider” problem has the paradoxical result of leading to the underacquisition of public goods, where “underacquisition” is defined in economic terms as the quantity for which such rational decision-makers would have been willing to pay if free-riding did not exist. These characteristics thus provide a justification, on both practical and moral grounds, for government to compel the provision and financing of public goods (Olson 1965). PH can also create externalities; failure of one jurisdiction to act can place others at risk. Indeed, as Wilson has stressed, the risk of pandemics has increased the pressure

on national governments to comply with international standards, a policy direction that is inconsistent with allowing federal systems to permit different standards to be set at the provincial/territorial (or local) level (Wilson 2004, 2005; Wilson and Lazar 2005; Wilson et al. 2004, 2006).

In the aftermath of the Romanow and Kirby reports, arguments have been made that the federal government should expand the scope of services publicly financed under medicare, ensure that wait time standards are met, or deal with issues in paying for pharmaceuticals. Although this logic is indeed justifiable, this focus on clinical services seems inadequate.

PH was never included in the *Canada Health Act* or its precursors, which focused on paying for the most expensive components of healthcare delivery – first hospital care, and then physician services. The debate about the *Canada Health Act* retained this narrow focus (Bégin 2002; Lewis et al. 2001; Canada, Standing Senate Committee on Social Affairs, Science and Technology 2001), and appears to have assumed that provinces and territories would continue to fund and deliver basic PH programs and services merely because they recognized their importance, and hence would not require national conditions. The downloading of PH in Ontario and the province's subsequent experiences with tainted water, West Nile virus and SARS (in addition to similar outbreaks in other provinces, including a waterborne outbreak of cryptosporidiosis in North Battleford, Saskatchewan) suggest that the assumption that policy makers will be guided solely by evidence of effectiveness may be unrealistic. In the final analysis, in the absence of a structure that guarantees the ability to set and enforce national (and even international) standards, it is highly plausible that once the current awareness passes, jurisdictions will again neglect longer-term PH in favour of shorter-term imperatives, to the grave detriment of the health of Canadians – and, perhaps, the world.

In the final analysis, disease will appear at the local level, and local providers must be prepared to recognize and deal with it. Without support and information, many may find it difficult to cope. Just as it is recognized that the ability to maintain an adequate minimum level of services for medical services across Canada is in large part dependent upon the ability of senior levels of government to provide (or withhold) funding, we suggest that the ability to enforce adequate PH standards may also require both targeted funding (Chambers 1997) and clear enforcement mechanisms. While these should be evidence-based and derived after careful consultation, the logic of prevention implies that it is shortsighted to place these efforts entirely at the mercy of local (or provincial/territorial) economic and political conditions, particularly since the consequences of inaction may be borne far more widely.

As provincial report after provincial report concludes, PH capacity has been allowed to deteriorate across Canada. We recognize that the question of national standards evokes the classical federalism debates about uniformity versus flexibility. However, the *Canada Health Act* reflects what was then a national consensus that

certain services – reasonable access to medically necessary services within hospitals or by physicians – should be available to any Canadian, regardless of region or province of residence. A similar consensus exists that all Canadians should have access to primary and secondary education. In contrast, there is a consensus that other services can appropriately be allowed to vary across jurisdictions. Accordingly, there will need to be a debate about which PH services should be universal, which determined within provinces/territories and which left to local option.

The case for national standards is clearest for services that involve externalities (particularly communicable disease), but also for services affecting equitable access to high-quality, cost-effective care (including health promotion and disease prevention). There will also need to be a debate about how to pay for such programs, and the best mechanisms to enforce (and update) standards once they are agreed. We do not attempt to preclude this debate and enforce our own judgments. Neither do we delude ourselves that it will be easy. We do suggest that it is necessary, and even overdue.

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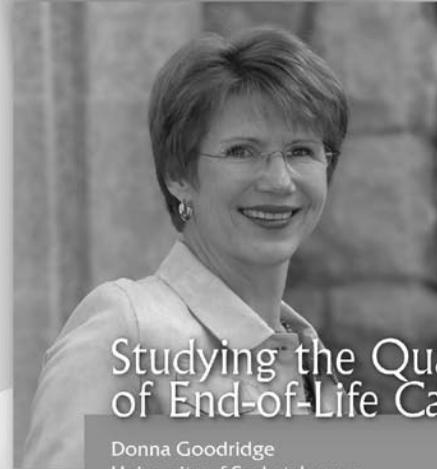
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## Research for Health



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Donna Goodridge  
University of Saskatchewan

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population groups: those afflicted with Chronic Obstructive Pulmonary Disease (COPD) and patients who live in rural areas.

"There is a lack of research into end-of-life care in Canada despite the projected rise in people requiring such care. These factors will increase the demand for careful use of scarce health care resources," said Goodridge. The project's ultimate goal is to put research outcomes into practice and improve end-of-life care for all patients regardless of their affliction or location.

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# Canadian Community Health Survey: Major Depressive Disorder and Suicidality in Adolescents

L'Enquête sur la santé dans les collectivités  
canadiennes : trouble dépressif majeur et  
tendance au suicide chez les adolescents



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## Abstract

*Background:* Contrary to other developed countries where adolescent suicide rates have declined in the last decade, the rate in Canada has remained unchanged. Suicide is the second leading cause of death in Canadian adolescents and poses a serious public

health concern. However, there is little epidemiological data examining the rates of suicidality or depression – two factors most closely associated with completed suicides. This study therefore examines the rates of depression and suicidality in adolescents aged 15–18.

*Methods:* Data from the Canadian Community Health Survey Cycle 1.2 on Mental Health and Well-being, a population-based survey conducted by Statistics Canada, were used to examine the rates of depression and suicidality in adolescents aged 15–18. Lifetime prevalence rates were calculated for depression and suicidality by region for males and females. Multivariate analyses were conducted to test the robustness of these results.

*Results:* The lifetime prevalence rates were 7.6% for depression and 13.5% for suicidality. There were significant gender differences for both: 4.3% of males and 11.1% of females had depression, and 8.8% of males and 18.4% of females had suicidality. After adjustment for age, sex and household income, the Maritimes had a lower rate of depression and British Columbia had a higher rate of suicidality relative to Ontario. Youth from low-income households had a higher risk of suicidality.

*Interpretation:* The findings suggest that depression and suicidality are common in adolescents and that females are more likely to be affected. The results also point to regional and socio-economic differences. Future research should examine differences that exist in mental health services provision and access. This will aid in the development of national, regional and local strategies to address the issue of depression and suicidality in Canadian adolescents.

## Résumé

*Contexte :* Au cours de la dernière décennie, le taux de suicide chez les adolescents est demeuré inchangé, contrairement aux autres pays développés, où ce taux a diminué. Le suicide est la deuxième principale cause de décès chez les adolescents canadiens et constitue un grave problème de santé publique. Il existe cependant peu de données épidémiologiques examinant les taux de dépression et de tendance au suicide – les deux facteurs les plus étroitement liés aux suicides réussis. Cette étude examine donc les taux de dépression et de tendance au suicide chez les adolescents de 15 à 18 ans.

*Méthodes :* On a utilisé les données de l'Enquête sur la santé dans les collectivités canadiennes - Cycle 1.2 sur la santé mentale et le bien-être – une enquête menée par Statistique Canada auprès de la population – pour examiner les taux de dépression et de tendance au suicide chez les adolescents de 15 à 18 ans. On a calculé les taux de prévalence sur toute une vie pour la dépression et la tendance au suicide par région chez les garçons et les filles. On a aussi effectué des analyses multivariées afin d'évaluer la fiabilité de ces résultats.

*Résultats :* Les taux de prévalence sur toute une vie étaient de 7,6 % pour la dépression

et de 13,5 % pour la tendance au suicide. On a observé d'importantes différences entre les sexes pour les deux facteurs évalués – 4,3 % des garçons et 11,1 % des filles souffraient de dépression, et 8,8 % des garçons et 18,4 % des filles avaient une tendance au suicide. Seulement une différence régionale était significative après qu'on ait eu effectué des ajustements en fonction des variables démographiques. Les Maritimes affichaient un taux de dépression plus faible.

*Interprétation :* Les résultats suggèrent que la dépression et la tendance au suicide sont courantes chez les adolescents et que les filles sont davantage susceptibles d'être affectées. Ils suggèrent également qu'il y a peut-être des différences régionales. Les travaux de recherche futurs devraient examiner les différences qui existent dans la prestation des services de santé mentale et l'accès à ces derniers. Cela aidera à élaborer des stratégies nationales, régionales et locales visant à aborder le problème de la dépression et de la tendance au suicide chez les adolescents canadiens.

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**A**LTHOUGH STUDIES OF DEPRESSION AND SUICIDALITY HAVE BEEN UNDERTAKEN in the past few decades, gaps remain in our understanding of the epidemiology of adolescent depression and suicidality, both currently and on a national level. Depression is typically a recurring disorder with serious morbidity and mortality that commonly begins in adolescence (Leaf et al. 1996; Kramer and Garralda 1998). Rates of depression in Canadian adolescents were first evaluated more than 20 years ago in the Ontario Child Health Study (ages 6–16), which showed depression rates ranging from 2.7% to 7.8% (Fleming et al. 1989). A similar survey conducted in the early 1990s with the Ontario Mental Health Supplement (ages 15–24) reported rates of depression ranging from 6.5% to 7.1% (Offord et al. 1996). However, both of these studies examined rates in Ontario only, and they are over a decade old. Cairney (1998) examined gender differences in depression among Canadian adolescents using the National Population Health Survey (NPHS 1994–1996) and reported gender-specific rates for depression, with females having nearly double the rates of males. Again using the NPHS, Wade et al. (2002) compared these data to UK and US population data, and also observed higher rates among females compared to males.

One of the most significant consequences of depression is suicide. More than 50% of adolescents who complete suicide have had a form of depression (Brent et al. 1993). Suicidality (ideation or attempts) without depression is also a common occurrence in adolescents. According to US population surveys, more than 12% of high school students have had thoughts about suicide, and 9% have attempted suicide in the previous 12 months, with 2%–3% requiring medical attention as a result of a suicide attempt (Morbidity and Mortality Weekly Report 2002). In 1988, Joffe et al. reported rates of

suicidal behaviours at 12.2% (range, 5%–20%) in Canadian adolescents aged 12–16. However, these data are decades old and are limited to Ontario residents. Recent reports from the United States indicate that rates of completed suicides have decreased by 25% in the last decade, but rates in Canada have remained unchanged (Olfson et al. 2003; Cheung and Dewa 2005). This finding raises the question of whether changes have occurred in rates of Canadian suicidal behaviours during this time.

Without information about current rates of suicide and depression in adolescents, it is difficult to develop effective policies and prevention strategies. In addition, regional differences have not been examined. To provide information that can be used to develop and monitor targeted management strategies for adolescents, this paper examines the rates of depression and suicidality in adolescents aged 15–18 using the Canadian Community Health Survey Cycle 1.2 on Mental Health and Well-being (CCHS 1.2), a population-based epidemiological survey conducted by Statistics Canada (2004), with a focus on gender and regional differences.

## Background

To date, no study has specifically examined the national rates of depression and suicidality in adolescents aged 15–18. Yet, this is an important age group for several reasons. Although previous surveys have analyzed this age group aggregated with young adults (aged 15–24 years), transitional issues – including education, employment status and developmental needs – would suggest that those 18 and under are distinct from those older than 18 years (Patten et al. 2005; National Advisory on Child Mental Health 2001). For example, those under 18 years are more likely to live with family members. As a result, they may have a different support network compared to those who are older than 18 and who are likely to be more independent of familial support. In fact, service agencies such as child protection services still consider 18 to be the age where an adolescent becomes an adult (Ministry of Children and Youth Services Ontario, personal communication). Because of these differences, mental health service systems also generally distinguish between adolescents and young adults (National Advisory on Child Mental Health 2001; Leavey et al. 2000).

## Role of gender

To understand the occurrence of depression and suicidality in adolescents, we must consider possible differences due to gender. Previous research has demonstrated significant gender differences in rates of depression and suicidality, with adolescent females at almost three times the risk of developing depression or suicidality compared to their male counterparts (Shaffer and Waslick 2002). The gender difference in depression is consistent throughout adulthood, although the magnitude declines with age

(Kornstein 2001). Understanding these differences may help policy makers and clinicians to target and develop mental health services for adolescents experiencing these difficulties in order to intervene and prevent future difficulties.

## Regional variations

Previous research has suggested there may be differential rates of depression, suicide or both by region. One key example is the higher rates of completed suicides in adolescents in Quebec (Government of Quebec 1998). A number of reasons have been given for these differences, including hereditary traits and the social acceptance of suicide. The Quebec government and other agencies have worked actively for many years to change this trend, and the social endorsement of suicide has decreased substantially (Government of Quebec 1998). Nonetheless, it is not known whether these efforts have made a difference in the rates of adolescent suicide or other indicators such as suicidality and depression.

There are also regional differences in the healthcare system. In Canada, individual provinces are responsible for healthcare, and each may have different priorities and mandates. Therefore, examining regional differences is the first step in understanding how we can learn from within the Canadian system to better address depression and suicidality in adolescents and to inform the development of a national strategy. For example, British Columbia has a very active program addressing the issue of adolescent depression, including training of mental health workers in evidenced-based therapies such as cognitive behavioural therapy and regular surveys of adolescent health (Barker 2004; McCreary Centre Society 2005).

## Methods

### Subjects

We used the data from the CCHS 1.2 (conducted in 2002) to examine the rates of depression and suicidality in adolescents aged 15–18. One person aged 15 or older was randomly selected from the sampled households. Structured interviews were conducted with individuals in 10 provinces and two territories. Individuals residing in institutions, such as nursing homes and hospitals, as well as those living on military bases, were excluded.

The study population was composed of CCHS 1.2 respondents aged 15–18. The total sample size for the CCHS 1.2 was 38,500, with a sample size of 2,866 for adolescents aged 15–18. We calculated the prevalence rates for major depressive episode (MDE) and suicidality (ideation and attempts).

*MDE diagnosis* was evaluated using structured interviews. Subjects who replied positively to one of three screening questions completed the interview module for depression. Respondents were asked about any previous or current history of depression (lifetime). The interview module was drawn from the Composite International Diagnostic Interview (CIDI) (Kessler et al. 2004). The diagnosis of major depression was based on the WMH-CIDI (World Mental Health – Composite International Diagnostic Interview Instrument), which in turn is based on the diagnostic criteria of the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV).

Although the CCHS 1.2 is a cross-sectional survey, lifetime prevalence was examined. Survey respondents who met the criteria endorsed two or more weeks of depressed mood or loss of interest or pleasure and at least five other symptoms associated with depression. The symptoms also had to lead to significant distress or impairment in functioning. (For further details, please visit the Statistics Canada website, (<http://www.statcan.ca/english/freepub/82-617-XIE/def.htm>).

*Suicidality* was measured using questions inquiring about previous suicidal ideation or attempts. Subjects, *whether or not they met criteria for MDE*, were interviewed for any current or previous history of suicidal ideation and suicide attempts (lifetime). Although the CCHS is the largest and most current population-based mental health survey completed in Canada, the sample of adolescents is small. Therefore, suicidal ideation and attempts were combined into one measure called “suicidality.” These two groups (ideation and attempt) have been combined in previous research examining suicidality in adolescents in Canada (Joffe et al. 1988). Although these two groups should ideally be studied separately, because of the small samples we were unable to conduct the analyses (Statistics Canada reporting restrictions).

*Regional differences* were measured by dividing the country into five distinct regions. The regions were selected based on population size and cultural differences, and groupings used in previous studies of national-level data. Although it would have been ideal to examine rate differences across provinces rather than regions, because of sample size this was, again, not possible owing to Statistics Canada reporting restrictions. Therefore, the country was divided into the regions that have traditionally been used in other papers examining national-level data (Cairney 1998). The following five regions were created: Maritimes (Nova Scotia, New Brunswick, Newfoundland/Labrador, Prince Edward Island), Prairies (Manitoba, Alberta, Saskatchewan), Quebec, Ontario and British Columbia.

*Income* was calculated based on household income and household size. Individuals were classified either as “low income” or “not low income.” A low-income household was identified where household income was <\$15,000 for 1–2 residents, <\$20,000 for 3–4 residents, or <\$30,000 for 5+ residents (Statistics Canada 2004).

## Statistical analyses

The CCHS 1.2 uses a stratified design with differences in sampling fractions across the strata such that some geographical areas are over- or underrepresented in the sample relative to their representation in the population. Therefore, we used the weights recommended by Statistics Canada when conducting analyses. The weighting calculates each subject's associated sampling weight (Statistics Canada 2004).

Frequencies were calculated for lifetime MDE and lifetime suicidality. Confidence intervals were calculated using bootstrap weights as developed by Statistics Canada (2004).

Multivariate analyses were conducted to examine the associations between gender, income, age and region of residence with diagnosis of depression or suicidality.

## Results

The lifetime prevalence rate for MDE in adolescents aged 15–18 was 7.6% (95% CI: 6.2–9.1). The rate was 4.3% (95% CI: 2.7–6.0) for males and 11.1% (95% CI: 8.7–13.5) for females. Regional rates are shown in Table 1 for lifetime MDE. The

TABLE 1. Lifetime depression in adolescents aged 15–18

GENDER	REGION	PROPORTION	95% CI	UNWEIGHTED COUNTS
Males	Atlantic	1.6%	0.3%, 3.0%	-
	Quebec	6.1%	1.1%, 11.1%	-
	Ontario	3.5%	1.3%, 5.7%	-
	Prairies	5.3%	2.0%, 8.5%	-
	BC	4.4%	0.2%, 8.6%	-
	National	4.3%	2.7%, 6.0%	-
Females	Atlantic	7.0%	3.6%, 10.3%	-
	Quebec	14.1%	7.2%, 20.9%	-
	Ontario	11.3%	7.1%, 15.4%	-
	Prairies	8.4%	4.5%, 12.3%	-
	BC	11.8%	5.1%, 18.4%	-
	National	11.1%	8.7%, 13.5%	-
Overall	Atlantic	4.2%	2.4%, 6.0%	25
	Quebec	9.6%	5.4%, 13.7%	33
	Ontario	7.3%	5.0%, 9.6%	67
	Prairies	6.8%	4.3%, 9.4%	34
	BC	8.4%	4.3%, 12.4%	24
	National	7.6%	6.2%, 9.1%	183

- Not available due to Statistics Canada reporting restrictions

rate of MDE in the Maritimes was 4.2% (95% CI: 2.4–6.0%), which was lower than the national average of 7.6% (95% CI: 6.2–9.1).

The lifetime prevalence rates for suicidality in adolescents aged 15–18 was 13.5% (95% CI: 11.8–15.2). The rate was 8.8% (95% CI: 6.7–11.0) for males and 18.4% (95% CI: 15.6–21.2) for females. Regional rates for females and males are shown in Table 2 for lifetime suicidality. The rate of suicidality in the Maritimes (11.1%, 95% CI: 7.6–14.6) was lower than the national average (13.5%, 95% CI: 11.8–15.2).

TABLE 2. Lifetime suicidality rates in adolescents aged 15–18

GENDER	REGION	PROPORTION	95% CI	UNWEIGHTED COUNTS
Males	Atlantic	8.0%	4.2%, 11.7%	-
	Quebec	10.9%	5.1%, 16.7%	-
	Ontario	7.2%	4.2%, 10.3%	-
	Prairies	9.6%	4.6%, 14.7%	-
	BC	9.7%	4.0%, 15.5%	-
	National	8.8%	6.7%, 11%	-
Females	Atlantic	14.5%	8.2%, 20.9%	-
	Quebec	15.8%	9.0%, 22.7%	-
	Ontario	16.3%	11.7%, 20.8%	-
	Prairies	22.6%	16.3%, 29%	-
	BC	25.2%	16.5%, 33.8%	-
	National	18.4%	15.6%, 21.2%	-
Overall	Atlantic	11.1%	7.6%, 14.6%	51
	Quebec	13.1%	8.5%, 17.6%	48
	Ontario	11.7%	9.0%, 14.3%	117
	Prairies	16.1%	12%, 20.2%	77
	BC	18.0%	12.9%, 23.1%	46
	National	13.5%	11.8%, 15.2%	339

- Not available due to Statistics Canada reporting restrictions

To test the robustness of the findings regarding gender and regional differences, multivariate analyses were conducted (Tables 3 and 4). The regression results indicate that females had significantly higher odds of having major depression and suicidality (MDE OR 2.77, 95% CI: 1.71–4.48; suicidality OR 2.30, 95% CI: 1.63–3.23). The odds of MDE were significantly lower for adolescents in the Maritimes (OR 0.55, 95% CI: 0.30–0.99). However, this did not hold true for suicidality (OR 0.92, 95% CI: 0.57–1.49). In addition, the odds of suicidality increased with age (OR 1.16, 95% CI: 1.01, 1.34), low income (OR 1.87, 95% CI: 1.16, 3.02) and living in British Columbia (OR 1.64, 95% CI: 1.07, 2.52).

TABLE 3. Adjusted odds ratio for major depression

VARIABLES	OR	95% CI
Female	2.77	1.71, 4.48
*Atlantic	0.55	0.30, 0.99
*Quebec	1.42	0.75, 2.66
*Prairies	0.91	0.53, 1.59
*BC	1.12	0.57, 2.21
Age	1.05	0.88, 1.26
Low income	1.14	0.50, 2.60

\*Reference Group = Ontario  
OR = Odds Ratio

TABLE 4. Adjusted odds ratio for suicidality

VARIABLES	OR	95% CI
Female	2.30	1.63, 3.23
*Atlantic	0.92	0.57, 1.49
*Quebec	1.18	0.72, 1.94
*Prairies	1.46	0.96, 2.24
*BC	1.64	1.07, 2.52
Age	1.16	1.01, 1.34
Low income	1.87	1.16, 3.02

\*Reference Group = Ontario  
OR = Odds Ratio

## Discussion

Our findings suggest that depression and suicidality are common in adolescents. The results of this study mirror findings from the United States showing high rates for these mental health problems in adolescents aged 15–18 (Morbidity and Mortality Review 2002). Since suicidality is frequently a consequence of untreated depression, it is noteworthy that rates of suicidality in Canada are comparable to those in the United States in spite of the universal health insurance coverage that gives Canadians access to needed healthcare. This finding raises questions about the barriers to access to mental health services and the effectiveness of the Canadian healthcare system in addressing the mental health needs of our adolescents.

Several policy implications arise from these findings. These include giving priority to regular surveillance of the mental health of young Canadians to help regional and

local governments develop strategies to identify and assist these youth. In addition, ensuring the effectiveness of these strategies will require understanding the role of such factors as gender and income in order to target programs and decrease the barriers to accessing needed mental health services by the most at-risk Canadian youth.

### Regular surveillance

The rates emphasize the need for more regular surveillance of adolescent mental health in Canada. These data are essential to plan for improved access to and provision of services. For instance, surveillance has been conducted on a biannual basis in the United States for many years. Results from the studies have spurred national strategies to intervene with adolescents (Morbidity and Mortality Weekly Review 2002). One such example is the Teen Screen Program, which uses computerized screening for mental health problems in adolescents in such settings as schools and primary care clinics (Shaffer et al. 2004). The goal of the Teen Screen Program is to give all teenagers a mental health check-up before they finish high school. It is federally funded and is now running in all 50 of the United States. Strategies like these may have contributed to decreasing rates of suicide in American adolescents in the last 10 years (Olfson et al. 2003). However, a decline has not been seen in Canada. Regular monitoring could help to guide national strategies on addressing the mental health needs of Canadian adolescents. Regular surveillance will also take advantage of observing natural experiments that arise when there are changes in provincial programs.

### Role of socio-economic factors

National strategies should consider the role of socio-economic disparities as they contribute to regional differences. Our results suggest that financially disadvantaged youth are particularly at risk for suicidality. Further research into the determinants of mental health may shed light on these differences.

### Female adolescents

A compelling finding from this study is the high lifetime prevalence of suicidality in female adolescents, underscoring the urgent need to improve the provision of mental health services to this group. Overall, females were shown to have higher rates of depression and suicidality compared to males. This finding is consistent with the results of previous surveys as well as clinical reports that indicate these difficulties tend to occur more frequently in females than males. The female-to-male ratios for depression (2:1) and for suicidality (3:1) are consistent with previous research findings (Mortality and Morbidity Weekly Review 2002; Wade et al. 2002). Several hypoth-

eses have been advanced regarding this gender difference, including hormonal differences and societal pressures regarding women's roles (Kornstein 2001). Evidence to support the latter theory includes the fact that these higher rates in females continue throughout adulthood into the post-menopause, when hormones are assumed to have little differential impact in the female versus the male (Kornstein 2001).

## Male adolescents

The consistent finding from previous research of higher rates of completed suicides in male adolescents compared to female adolescents also highlights the need for further development of services and prevention programs targeting males with depression and

suicidality (Health Canada 1994). These findings have often been explained by the higher likelihood of males to use more lethal means to commit suicide (Schaffer and Waslick 2002).

Therefore, services that target males may consider limiting access to lethal means for suicide such as firearms.

There may also be differ-

ences in service utilization in males versus females with depression, suicidality or both; further research examining rates of service utilization will provide crucial information for the development of targeted programs and services (Wu et al. 2001).

Depression and suicidality in adolescents is a major public health concern because this period is a time of important biological and psycho-social development for adolescents. During adolescence, youth are preparing for independence from their families of origin and the start of their occupational endeavours. It is also a time of learning regarding adult relationships. Therefore, mental illness experienced during this period has significant impact on the quality of life and relationships that the adolescent may have throughout adulthood (Weissman et al. 1999).

## Limitations

Several limitations associated with using population-based surveys should be noted. First, as with other surveys, the CCHS provides cross-sectional data, and the diagnoses are based on recall by respondents. Recall bias is especially problematic for lifetime

rates, given that memory of symptomatology can deteriorate over time. However, this is the most feasible method for assessing lifetime prevalence rates and has been validated in previous studies and accepted by experts in the field (Kessler and Walters 1998).

A second limitation is that the diagnoses used in the CCHS 1.2 are based on algorithms developed by Statistics Canada, and Statistics Canada has generally developed algorithms that produce conservative population estimates (Data Access Unit, Statistics Canada, personal communication). Therefore, the true prevalence rates may in fact be higher than those reported in this study. However, one confirmation of the validity of the algorithms used by Statistics Canada is the fact that national depression rates mirror rates in previous Canadian studies (Wade et al. 2002).

Finally, the small sample size in the targeted age group limited the ability to conduct further subanalyses and did not provide enough power to test for differences between individual provinces and territories. Similarly, we could not examine specific subsamples such as the Aboriginal population, where the rate of suicidality/suicide is known to be higher than in the general population (Chenier 1995). The small sample size also required the combined analyses of those with suicidal ideation and those with attempts, even though these two populations are very different clinically and may require differing levels of intervention. However, these results are important because this is the first study to examine suicide-related events in this age group and is thus a first step in addressing this important public health issue in adolescents.

## Conclusions

Given the lack of previous Canadian studies of the rates of suicidality among adolescents aged 15–18, no comparison can be made regarding national changes in rates over the last decades. Since Canada, contrary to other developed countries, has not seen a decline in adolescent suicide rates over the last decade, the need for regular surveillance of national and regional rates is crucial in the development of national prevention strategies (Shaffer and Waslick 2002). Unfortunately, depression rates have remained unchanged in this age group over the last decade.

With respect to rate differences at the national and regional levels, future research needs to examine differences that exist in mental health services provision and access. Such investigation will aid in the development of national, regional and local strategies to address the issue of depression and suicidality in Canadian adolescents.

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# Income-Based Drug Coverage in British Columbia: Towards an Understanding of the Policy

Un régime d'assurance-médicaments fondé  
sur le revenu en Colombie-Britannique :  
Vers une compréhension de la politique



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## Abstract

**Background and Objectives:** In May 2003, the government of British Columbia adopted income-based pharmacare, replacing an age-based drug benefits program. Income-based pharmacare has been proposed as a national model for Canada. Prior to

evaluating the policy impact of the change, we sought to understand classic elements of the policy process: the problem that prompted the policy change, the objectives to be met, the choice of policy instruments and potential measures of success or failure.

**Methods:** We conducted interviews with decision-makers in British Columbia shortly after the policy was introduced. We used purposive sampling to target individuals specifically involved with BC pharmacare policy, including current or former government employees, government ministers and the leader of the opposition party. Seventeen of 24 invited subjects participated.

**Results:** Participants identified primary and secondary problems that required remedy through policy change: financial pressures and equity issues. Financial pressures were framed in the context of budgetary constraints on the BC PharmaCare Program, with reduction in public spending cited as the primary policy objective. Participants also indicated that it was important to minimize potential harm from any program change and, ideally, to improve access for low-income families.

**Discussion:** Income-based pharmacare in British Columbia appears to be the result of a two-stage policy-making process. Budgets were set by pan-ministerial actions of the provincial government. In turn, these budgetary measures constrained policy design at the ministerial level. Income-based coverage was BC PharmaCare's choice among options that would meet budget expectations. Success or failure of the policy would be gauged by (a) meeting budget targets, (b) maintaining or increasing access to medicines and (c) improving financial equity.

## Résumé

**Contexte et objectifs :** En mai 2003, le gouvernement de la Colombie-Britannique a instauré un régime d'assurance-médicaments fondé sur le revenu pour remplacer un régime fondé sur l'âge. L'assurance-médicaments fondée sur le revenu a été proposée comme un modèle national pour le Canada. Avant d'évaluer l'incidence de ce changement de politique, nous avons cherché à comprendre les éléments classiques du processus d'élaboration de politiques : le problème qui a mené au changement de politique, les objectifs visés, le choix des instruments et les mesures potentielles du succès ou de l'échec.

**Méthodes :** Nous avons mené des entrevues avec des décideurs de la Colombie-Britannique peu après l'adoption de la politique. Nous avons utilisé un échantillonnage fonctionnel pour cibler les personnes travaillant spécifiquement dans le domaine des politiques d'assurance-médicaments en C.-B., y compris des fonctionnaires anciens et actuels, des ministres du gouvernement et le chef du parti de l'opposition. Dix-sept des 24 sujets invités ont accepté de participer à l'exercice.

**Résultats :** Les participants ont mentionné des problèmes primaires et secondaires qui devaient être rectifiés au moyen de changements aux politiques : les pressions financières et les questions d'équité. Les pressions financières s'inscrivaient dans le contexte

des contraintes budgétaires placées sur le programme d'assurance-médicaments de la C.-B. et la réduction des dépenses publiques était citée comme le principal objectif visé par les politiques. Les participants ont également indiqué qu'il était important de minimiser les torts potentiels que peut causer tout changement au programme et, idéalement, d'améliorer l'accès pour les familles à faible revenu.

**Discussion :** L'assurance-médicaments fondée sur le revenu en Colombie-Britannique semble être le résultat d'un processus d'élaboration de politiques à deux étapes. Les budgets ont été établis suite à des mesures globales prises par le gouvernement provincial. En retour, ces mesures budgétaires ont restreint l'élaboration des politiques à l'échelon ministériel. Parmi les options qui permettraient de respecter les attentes budgétaires, les responsables du régime d'assurance-médicaments de la C.-B. ont opté pour une couverture fondée sur le revenu. Le succès ou l'échec de la politique serait évalué en fonction des critères suivants : (a) l'atteinte des objectifs budgétaires, (b) un accès égal ou amélioré aux médicaments et (c) une meilleure équité financière.

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**A**T OVER \$20 BILLION AND GROWING BY MORE THAN 10% A YEAR, PRESCRIPTION drug expenditures are the second largest and fastest-growing component of healthcare spending in Canada (CIHI 2006). Public coverage for these expenses varies considerably across and within provinces (Grootendorst et al. 2003; Coombes et al. 2004). The share of total drug costs borne by public plans also varies, from approximately 32% in New Brunswick to approximately 51% in Manitoba (and Quebec, if one counts premium-based social insurance run by government) (CIHI 2006). Coverage within most provinces depends on age and, in some instances, income. The fragmentation of Canadian pharmacare programs contrasts starkly with the universality of public insurance programs for medical and hospital services. It creates challenges for cost control, disparities in access to needed treatments, and financial inequities. These factors have provoked several high-profile calls for a national approach to pharmacare, one that would establish uniform standards of coverage for all provinces (Canada 1998, 2002a,b).

In February 2003, the First Ministers' Accord on Health Care Renewal committed provinces to pursue a first-ever national standard for outpatient pharmacare: "to ensure that Canadians, wherever they live, have reasonable access to catastrophic drug coverage" (Health Canada 2003). This course of action was restated in 2004 when the First Ministers' Ten-Year Plan to Strengthen Health Care put catastrophic drug coverage among the priority elements of Canada's National Pharmaceuticals Strategy (Health Canada 2004). Despite clear intent for reform in this area, a standard for "catastrophic coverage" has yet to be determined.

The lack of a standard for coverage is due in part to the paucity of empirical

evidence on which to base a choice among alternative pharmacare models. Comparable data regarding the effects of different pharmacare systems existing across Canada are too sparse to allow for meaningful inference. Policy making can, however, be informed by assessing changes in pharmacare within jurisdictions. To inform policy and planning at the provincial and national level, we present a coordinated set of analyses of a significant change in British Columbia: the adoption of an income-based model of universal pharmacare. Called Fair PharmaCare, policy makers have proposed this as a potential national model (Joyce 2004).

In this introductory paper, we review the change in BC policy. We also report on a series of interviews with policy makers that helped us understand classic elements of the policy: the problem that prompted a policy change, the objectives to be met through policy change, the choice of policy instruments, and potential measures of policy success or failure (Pal 2001). This review provides the foundation for the evaluations that follow. In the accompanying papers, we provide empirical analyses of three dimensions of Fair PharmaCare: (1) its impact on trends in drug expenditures and their determinants (Morgan and Yan 2006); (2) its impact on access to commonly used medicines (Caetano et al. 2006); and (3) its impact on the distribution of financial burden (Hanley et al. 2006). Because of the nature of the policy change – from an age-related to an income-based program – all of our analyses assess impacts across age and income strata. Finally, we conclude with a paper on policy “consistency” in British Columbia, and highlight emerging issues to be considered by Canadians as we search for a national pharmacare model (Morgan et al., page 115).

The research presented in this series of papers was funded through a peer-reviewed operating grant from the Canadian Institutes of Health Research. Data were provided by the BC Ministry of Health and analyzed at the UBC Centre for Health Services and Policy Research. All investigations were approved by the Behavioural Research Ethics Board at the University of British Columbia.

## Fair PharmaCare in British Columbia

Through a sequence of two policy reforms, the BC PharmaCare Program underwent a major transformation between 2001 and 2003. BC PharmaCare circa 2001 could be characterized as a mixed pharmacare model, involving relatively comprehensive coverage for social assistance recipients and seniors, and fixed-deductible catastrophic coverage for all others. It had the following features:

- social assistance recipients received 100% coverage for all prescription drug costs (including dispensing fees);
- seniors received 100% coverage for the ingredient cost of prescription drugs, but

were required to pay for pharmacists' dispensing fees up to an annual maximum of \$200;

- low-income non-seniors received 100% coverage for prescription drug costs exceeding a deductible of \$800; and
- other non-seniors received 70% coverage for drug costs exceeding \$1,000, with a maximum total private payment (first \$1,000 plus 30% co-payments) of \$2,000.

This combination of comprehensive coverage for seniors and social assistance recipients, and fixed-deductible coverage of catastrophic costs for all other residents, resembled the national standard for pharmacare programs proposed by the Romanow Commission (Romanow 2002) as well as drug programs in several other provinces (CPA 2002).

As a temporary measure to reduce public expenditure in 2002, the BC government introduced a co-payment on drug purchases by seniors. Low-income seniors were required to pay the first \$10 towards the total cost (including dispensing fee) of each prescription until they had paid \$200 out of pocket, after which BC PharmaCare covered 100% of costs. All other seniors were required to pay the first \$25 towards the total cost of each prescription until they had paid \$275 out of pocket, after which BC PharmaCare paid 100% of costs.

On May 1, 2003, the seniors' plan and the universal catastrophic plan were combined into the Fair PharmaCare Program (British Columbia 2003). Benefit rates under this new program will eventually become purely income-based for all residents, regardless of age. During a transitional period, however, seniors born on or before December 31, 1939 receive slightly more generous benefits for themselves and their spouses. The specific terms of coverage are illustrated in Table 1.

## Interviews with Policy Makers

To better understand the rationale for the change towards an income-based program, we interviewed decision-makers shortly after the policy was introduced. This knowledge would assist us in two important ways. First and foremost, a better understanding of the policy-making process would help us design and produce a more relevant empirical evaluation of the policy's impact. Second, documenting the rationale behind this major change would advance theories and understanding of policy making in this sector. This latter goal also facilitates analysis of the "policy consistency" of the BC Fair PharmaCare Program as it was implemented. This is the degree to which the goals set for the policy change are consistent with the problems that motivated policy change and the degree to which the policy chosen meets the goals. These objectives could jointly be met by structuring our analysis of the policy-making process around the conceptual framework of the "policy cycle" (Pal 2001; Howlett and Ramesh 2003).

TABLE 1. Terms of Fair PharmaCare Program

ENHANCED ASSISTANCE FOR SENIORS BORN IN 1939 OR EARLIER			
Family Income	Family Deductible	Co-Payment	Maximum Family Contribution
Less than \$33,000	0	25%	1.25% of gross household income
\$33,000 to \$50,000	1% of gross household income	25%	2% of gross household income
Over \$50,000	2% of gross household income	25%	3% of gross household income
ALL OTHER FAMILIES			
Family Income	Family Deductible	Co-Payment	Maximum Family Contribution
Less than \$15,000	0	30%	2% of gross household income
\$15,000 to \$30,000	2% of gross household income	30%	3% of gross household income
Over \$30,000	3% of gross household income	30%	4% of gross household income

Source: Adapted from BC Ministry of Health 2003b.

The adapted version of the policy cycle explored in our interviews contained the four conceptual categories illustrated in Figure 1: problem, objective, choice and evaluation.

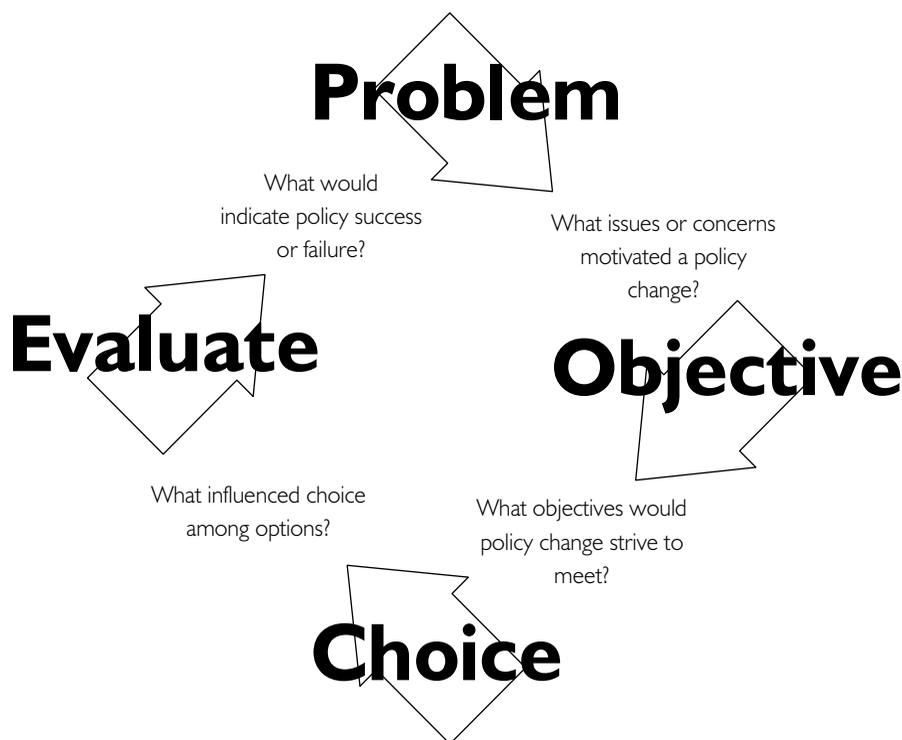
## Problem

If policy is a "... course of action or inaction taken by public authorities to address a given problem or set of related problems" (Pal 2001), then the first stage in public policy making is problem recognition and definition. Problem recognition occurs when an indicator suggests *something* is wrong. Problem definition requires some indication of *what* is wrong or, more specifically, what led to the problem. We therefore sought to understand decision-makers' perspectives on what issues or concerns motivated the change in the BC PharmaCare Program.

## Objectives

Public policy can seldom directly eliminate a problem; rather, it must use the resources and powers of public agencies to influence the behaviour of different actors in society

FIGURE 1. Conceptual framework for interviews: The policy cycle



in a manner that remedies the problem—for example, by addressing and reversing the specific factors that led to the problem. In engaging the resources and powers of public agencies, policies (or policy makers) aim to achieve certain objectives. The selection of these objectives helps to determine what behaviours of which actors in society to influence; logically consistent policy would aim to alter behaviours in ways that achieve the objectives. We therefore sought to understand the objectives that a change in the BC PharmaCare Program would strive to meet.

## Choice

In order to meet the objectives of a policy, decision-makers must select, from among various policy instruments, the means by which public agencies will attempt to achieve goals. A number of factors may influence the choice of instrument. Various forms of evidence regarding effectiveness may be considered, such as experiences of other jurisdictions and results of research studies. Local values, priorities and interests will also affect the choice of policy instruments. We sought to understand what options were considered for changes to the BC PharmaCare Program and what factors influenced the choice of income-based pharmacare.

## Evaluation

After a problem has been defined, objectives set and instruments chosen, policy makers (or other actors in the policy arena) may choose to evaluate the policy in practice. This could include a variety of types of investigation. Because one of our objectives was to help structure a policy evaluation, we specifically sought to understand decision-makers' perspectives on what would indicate policy success or failure.

## Interview Methods

We used purposive sampling: interviews were sought with individuals who had specific experience with BC PharmaCare policy. This included current or former government employees involved in pharmacare policy, government ministers involved with health policy and a representative of the opposition party (at the time of the interviews, the governing party held 77 of 79 seats in the legislative assembly). Participation from political, executive, managerial and staff levels was sought to ensure the sample incorporated a range of policy perspectives. With input from a director of policy within government, we established a list of 27 potential interview participants.

Of the 27 potential subjects, three were inaccessible (e.g., on extended vacation or leave). Of the 24 subjects invited to participate, three did not reply and four declined to participate. In total, 17 subjects agreed to an interview, representing a 71% participation rate. Participation rates by political, executive, managerial and analyst levels were 38%, 80%, 83% and 100%, respectively.

To bolster confidentiality and rapport, typed field notes (rather than tape recordings) were used to compile interview responses, and wherever possible, the interviews were conducted in person at the participant's place of work. A total of 15 face-to-face interviews and two telephone interviews were conducted during July 2003. Two researchers (MC and SM) jointly conducted all interviews, which ranged in length from 20 to 55 minutes. Interviews were based on semi-structured questions (Appendix 1) designed with the four main conceptual categories in mind: (1) the problem that motivated the policy change, (2) the objective for the new policy, (3) factors that influenced choice among policy options and (4) evaluation criteria that would indicate policy success or failure. At the end of each interview, field notes were reviewed and checked for accuracy by both interviewers. Each researcher independently analyzed and coded the content of the individual field notes, followed by thematic analysis across the set of interviews.

Interviews were conducted two months after the launch of Fair PharmaCare. It might have been preferable to conduct interviews prior to policy implementation, but constraints on policy makers' time during such a significant policy reform rendered that option impracticable. A two-month lag ensured that participants could readily recall the decision-making processes leading up to the policy change while (a) allow-

ing them to schedule and participate in interviews comfortably and (b) giving them some time to reflect on the policy change that had just occurred. The study received approval from UBC's Behavioural Research Ethics Board.

## Interview Findings

### Problem definition

Participants consistently identified two problems that required remedy through policy change. The first concerned financial pressures facing the BC PharmaCare Program. The second concerned perceptions of the program's fairness or equity.

All participants stated that uncontrolled growth in government spending on pharmaceuticals was the primary problem that made policy change necessary. They noted that BC PharmaCare had experienced double-digit cost growth for many years and that it accounted for a rapidly growing share of the health budget. Several participants recalled that the provincial treasury had scrutinized the increasing expenditures for almost two decades. These recollections are substantiated by government documents (British Columbia 2003a). Throughout the 1990s, BC PharmaCare's budget increased by a rate of almost 14% a year; at over \$720 million in 2002/03, it accounted for over 7% of the Ministry of Health's total operating expenses. Moreover, as some participants pointed out, PharmaCare was entirely a provincial liability because the federal government did not support outpatient pharmaceutical costs through cost-sharing arrangements such as the Canada Health Transfer – which is targeted for insured services under the *Canada Health Act* (Canada 2002a).

As the participants went on to define the problem in detail – to provide some notion of what caused the fiscal pressures and therefore what might be done to address them – their definitions differed by their role within the policy- and decision-making process. Participants at executive and political levels of government framed the problem in its broadest sense: BC PharmaCare was said to be “unsustainable” as it had been configured. It was noted that a major influx of eligible beneficiaries under the seniors' drug benefits plan would occur when the “baby boomer” generation reached 65 years of age. Irrespective of other causes of cost pressures within the BC PharmaCare Program, this was believed to threaten the sustainability of comprehensive public subsidy for seniors' drug costs. Furthermore, several interviewees noted that public expectations of the healthcare system, including BC PharmaCare, were virtually insatiable, and past attempts at managing the sources of cost growth within the system had met with limited success and significant opposition. These interviewees concluded that financial responsibility was needed for users of the system. Yet, this suggestion was inconsistent with concerns – expressed by many respondents, including those advocating more financial responsibility – that increased user charges may have negative

impacts on access to necessary medicines, as shown in studies conducted in Canada and the United States (Soumerai et al. 1987; Tamblyn et al. 2001).

Whereas participants at higher levels of government provided detailed descriptions of threats to the sustainability of the BC PharmaCare Program, decision-makers at lower levels of the organizational structure provided a simple portrait of what made policy change essential: a three-year “freeze” had been imposed on the budget for the Ministry of Health. Early estimates suggested that the budget freeze necessitated change capable of reducing government spending on BC PharmaCare by as much as 43% compared to trends over the three-year period. Several interviewees concluded that the BC PharmaCare Program therefore had to be redesigned, quickly and dramatically.

The distinct definitions of the problem at different levels of government appeared to reflect policy makers’ and decision-makers’ separate roles. Policy makers – those who set the broad course of government policy and are ultimately accountable to the public – viewed the BC PharmaCare Program within the broader framework of the newly elected government’s objective to reduce both taxes and government spending while maintaining a balanced budget (British Columbia 2001). From this overarching view of government objectives, the BC PharmaCare Program was perceived as unsustainable, and constraints were therefore imposed on it. While executive-level civil servants hold positions and influence that lie somewhere between the extremes, decision-makers within the government structure have a different responsibility in the policy process. They were tasked with identifying program terms that would be consistent with the broader policy framework set by policy makers. They therefore took the budgetary freeze as an exogenous constraint on policy and planning. Given the budgetary freeze, policy reforms that would increase program spending were “not an option” for decision-makers tasked with program design.

The second motivation for BC PharmaCare reform identified by participants was the perception that the age-based entitlement of the old program was fundamentally unfair or inequitable. It was argued that the seniors’ drug benefits plan diverted considerable public resources towards the drug costs of individuals who might otherwise be able to afford to pay for their medications. Under the age-based entitlement, many non-senior families with modest or low incomes were not eligible for comprehensive drug benefits. Political-level participants in our interviews recalled phone calls from constituents who were young, single parents struggling to pay drug bills under the old program. Managers within governments relayed how they would “feel like hell” when working poor families would call to say that they could not afford the cost of their drugs and had to decide between food or medicine. Those providing such anecdotes suggested that an unfair burden was created by the \$800 or \$1,000 deductible for non-seniors who do not qualify for social assistance. Terms of coverage under Fair PharmaCare would be more generous for non-senior families whose gross household income was less than \$30,000.

Another anecdote was consistently used to explain how the old system was perhaps unduly generous to wealthy seniors. While participants did not specifically define what they meant by a “wealthy senior,” they commonly cited the fact that Jimmy Pattison, British Columbia’s wealthiest resident (with an estimated worth of \$3.5 billion), was a beneficiary of public drug subsidies under the age-based BC PharmaCare Program. Participants saw him as someone who did not need the subsidy and, if not for the automatic entitlement under the old program, would not likely claim a public subsidy for his drug purchases. The fact that multiple participants at all levels of government singled out this well-known British Columbian made it clear that this illustrative anecdote had become culturally ingrained within government. Participants appeared unanimous in the contention that people with higher incomes, and thus a higher ability to pay, should make a greater *direct* financial contribution towards their prescription drug costs, regardless of whether they are seniors. (We add the emphasis on “*direct* financial contribution” because, of course, wealthy individuals like Jimmy Pattison make much larger *indirect* contributions to public subsidies for drugs through their taxes.)

## Policy objectives

When participants were asked what they perceived to be the objectives of the new policy, not surprisingly, their response was to reduce BC PharmaCare spending and to improve fairness. Reduction in program spending was cited as the primary objective by all but two senior respondents. The secondary objective – to improve fairness or equity under the BC PharmaCare Program – had several dimensions.

Most participants described the goal of improving fairness in terms of improving the allocation of subsidies by basing eligibility for PharmaCare subsidies on ability to pay, rather than age. Such financial equity was not, however, to be achieved at the expense of imposing “catastrophic” prescription drug costs on any one family. It was specifically mentioned that an informal goal of the policy was to try to ensure no household would be required to pay more than 4% of its annual income for prescription drugs. The rationale provided for this particular percentage was that it was similar to the guidelines used in an existing report (Applied Management et al. 2000).

Many participants went on to explain how the goal of improved financial equity would also improve equity in access to medicines. If greater subsidy could be provided to lower-income families, the plan would make prescription drugs more affordable for those families. Participants considered a “good policy” to be one that achieved the maximum population health impact for the investment in prescription drug subsidy while simultaneously improving financial equity.

When discussing the goals of improved fairness and access to medicines, participants emphasized the need for equal access to the program itself. This objective was

top-of-mind for many interview participants. The Fair PharmaCare Program that had been adopted required registration in order for the government to collect and verify income information used in the calculation of a family's income-based deductible. Failure to register would result in minimum subsidy for a household. Participants therefore believed fairness and access required that all potential beneficiaries be given all reasonable opportunities to participate in the new program.

## Choice

When asked about factors that influenced which policy options were considered, almost all participants noted that the idea of income testing of BC PharmaCare programs had been considered for over a decade. They referred to one of the first reports submitted by the BC PharmaCare Review Panel in 1993, which supported an income-tested program (British Columbia 1993). They noted that this report sparked development of numerous (estimated at over 40) income-testing proposals, which were brought to various levels of government over the years. Participants reasoned that this long intra-governmental history made an income-based program a natural policy choice. Participants also suggested that an income-tested program was the only policy option that could generate the scale of savings required by the freeze imposed on the health budget.

When it was clear that an income-tested program was the only policy option consistent with the budget constraints imposed at the pan-ministerial level, the decision-making process shifted from selection of a suitable policy option to refining its design. Though technically simple, the process involved one of the core struggles of policy making: who gets what share of available public resources? Analysts within the government simulated dozens of scenarios to examine the family types that would fare better or worse under different terms of benefit. These were then presented and debated within various levels of government, including meetings of the executive and caucus. The stories that were recounted to us were ones in which individuals at all levels of government provided suggestions about how proposed terms of coverage could be made "more fair" by adjusting allocations so that particular groups would receive more public subsidy. Such iteration between different views of what would be "most fair" is certainly understandable given that equity is a construct that is in the eye of the beholder (Stone 2002).

Participants also explained that it was important that program change minimize harm and, ideally, maximize benefits in terms of access to necessary medicines. According to participants, a study by Tamblyn and colleagues (2001) was particularly influential because it raised awareness of adverse consequences that could arise from a reduction in public drug benefits. The study, which evaluated changes to Quebec's pharmacare policies in 1997, found that the increased cost sharing for low-income seniors was followed by reduced use of essential drugs and adverse health outcomes.

Participants recalled that the government therefore wanted to ensure that the new BC PharmaCare plan continued to protect low-income seniors, while trying to increase access to essential medicines for non-seniors.

## Evaluation

When asked about markers of policy success or failure, responses were consistent with the problem definition and delineation of policy goals. All but three respondents suggested the first objective of a policy evaluation would be to ensure that it met goals with respect to government spending. Many also added that contained government expenditures should be evaluated against changes in overall spending that might occur because of the new policy. Participants proposed that the increased financial accountability of senior households might alter the choices they make with respect to drug purchases. Specifically, the new policy might increase price sensitivity and thereby encourage patients to select lower-cost options for their treatments. Because one of the policy goals was to ensure ongoing access to medicines, we were told that an evaluation should determine whether changes in expenditure trends stem from changes in access to medicines or from changes in the cost of drugs.

Access was defined as an important measure of the policy impact. Given the consideration paid to the potential adverse effects of reduced public spending in this sector, just over half of the interview participants suggested that an evaluation should track potential reductions and improvements in access to medicines. Middle- and lower-income seniors were viewed as being particularly at risk, while middle- and lower-income non-seniors might gain from an income-based program.

Finally, participants indicated that financial equity would be an important indicator of the success of the policy. Participants suggested that the key determinant of the fairness of the program was whether there was a more equitable distribution of private drug expenditure relative to income. Many interviewees were candid about the desire to determine whether the government “got it right” the first time, or whether adjustments to terms of coverage by income level might be necessary. One participant shared the concern that the total financial equity of the system needed to be accounted for because income testing might not be fair for middle- and high-income earners who, as a result of their incomes, pay more (in taxes) towards the program and receive less from it.

## Conclusions

The decision-makers who participated in our interviews were remarkably candid about the recent program change. They consistently identified two main problems that prompted the policy shift: financial pressures on the BC PharmaCare Program and the perceived inequity of seniors’ age-based entitlement to generous subsidies. The most

notable variance in responses concerned how participants defined the financial pressures on the existing system. Participants who held the roles of policy makers – those at the executive and political levels of government – described financial pressures in terms of the sustainability of the program, often within the context of broader pressures on healthcare spending and government finances. Managers and analysts perceived the challenges posed by growing drug costs and demographic change, but defined the cause for policy change as constraints imposed by a three-year budget freeze.

Differences in how the policy problem was defined reflect, in our view, different stages in the policy-making process. The imposition of a three-year budget freeze on the Ministry of Health must be viewed as a pan-ministerial course of action set by the government because it was consistent with (indeed, even less severe than) cuts applied across government. This would be seen as an exogenous policy decision from the perspective of managers within the Ministry of Health. Thus, decision-making within the BC PharmaCare Program would become one of defining the terms of coverage for a new program that would potentially address other policy problems and strive to achieve other objectives while meeting budget targets.

Interview participants also identified the unfair allocation of subsidies arising from the age-based entitlement of the old BC PharmaCare Program as a principal problem to be addressed. Participants juxtaposed anecdotes about young families struggling to afford medicines against that of billionaire Jimmy Pattison's receiving a generous public subsidy for his medicine purchases. They consistently concluded that it was time for the wealthy to begin taking greater responsibility for the cost of their drugs.

The identified objectives for the policy change included reducing program spending. Participants also identified a number of dimensions of fairness and equity that were targets for improvement. They described financial equity in relation to households contributing to their drug costs according to their ability to pay (not age). Participants also described equity in terms of access to medicines. Decision-makers were particularly mindful of potential reductions in access to medicines that could occur when drug benefits are reduced. They stated that the policy change should attempt to minimize such harms while striving to improve access to necessary medicines for low-income non-seniors' households.

Finally, participants stated that policy success or failure would be indicated by measures consistent with the policy objectives. Were costs controlled for the public program? Would patients make more cost-effective choices? Did the plan's design protect seniors from potentially adverse impacts while improving access to medicines for non-seniors? Did the allocation of public subsidy become more equitable in terms of reducing disparities in private drug costs relative to incomes? Our analyses in the papers that follow set out to use population-based, person-specific data to quantify the impact of the new policy on these three dimensions: costs, access and equity.

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## Appendix 1: Interview Guide

### Preamble

The recent revisions to British Columbia's PharmaCare Program represent a significant policy change in pharmacare history. We are interested in documenting the change by capturing the various perspectives of the many people involved in redesigning and implementing the new program. We are also interested in the evolution of these changes. As you may know, our research team has been asked to conduct an evaluation of the new program. We feel that by understanding your perspective, we can make our evaluation more relevant to you. Do you have any questions before we begin?

Semi-structured questions: not to be asked verbatim, but used as a guide for interviews.

#### 1. Background:

- i) Let's start at the beginning. Please tell me about how you first came to be involved in the Fair PharmaCare project.
- ii) Please tell me about your position prior to becoming involved in the BC PharmaCare project.
- iii) What were your roles and responsibilities on the project team?
- iv) What was your level of involvement in formulating the changes to BC PharmaCare?

#### 2. Motives for Policy Change:

- i) I would like to begin with some questions dealing with the challenges that motivated the BC PharmaCare policy change.
- ii) From your perspective, what were the key issues or concerns that motivated the policy change?

#### 3. Objectives for New Policy:

- i) When implementing the policy change, the government would have had a

number of specific objectives for Fair PharmaCare to strive to meet. Can you please describe these objectives?

- ii) What would you consider to be the main objective?
4. Policy Selection:
- i) Were there any influential national or international documents / reports / studies / experiences that you referred to when deciding between various policy options?
  - ii) What would you say was the main challenge in selecting the appropriate policy option?
5. Evaluating Fair PharmaCare:
- i) What aspects of the program do you feel should be considered when evaluating the program's performance? (e.g., enrollment)
  - ii) What do you consider important ways to measure the impact of the Fair PharmaCare Program?
  - iii) What level of performance do you feel should be reached for the program to be considered successful?
  - iv) What would you say was the main challenge facing the implementers of the Fair PharmaCare Program?
  - v) Managing the province's increasing drug costs is an extremely complex issue, and unfortunately, there is no one panacea or cure-all that can address all of these problems. Do you feel there might have been a better way to achieve the same objective? What outstanding issues do you anticipate requiring other new policy initiatives? What do you feel remains to be addressed?

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## **Income-Based Drug Coverage in British Columbia: The Impact on Private and Public Expenditures**

### **Un régime d'assurance-médicaments fondé sur le revenu en Colombie-Britannique : Incidence sur les dépenses privées et publiques**

STEVE MORGAN AND LIXIANG YAN

#### **Abstract**

**Background and Objectives:** In May 2003, the government of British Columbia adopted income-based pharmacare, replacing an age-based program. Stated policy goals included the reduction and reallocation of government spending. It was also hoped that income-based deductibles would increase consumer price sensitivity in decision-making. This analysis measured policy impacts on private and public expenditure and on expenditure drivers.

**Methods:** We employed a longitudinal research design using PharmaNet records of every prescription dispensed in the province from January 1996 to December 2004. Expenditure dynamics were analyzed using non-stochastic decompositions of trends. Analyses were stratified by five age categories and five socio-economic quintiles. The effect of the policy on expenditure trends and their sources was assessed using time series analysis. Additional analyses, using equivalent methods, were conducted using market-level data to compare per capita expenditure in British Columbia to the Canadian average over the period 1998–2004.

**Results:** The BC Ministry of Health was successful in reducing the public share of drug expenditure through the introduction of seniors' co-payments in 2002 and then income-based pharmacare in 2003. The policy change did not have major effects on aggregate expenditure trends in the province. While several statistically significant changes in expenditure dynamics occurred during the period of study, only an increase in seasonal "stockpiling" of medicines by seniors can reasonably be attributed to the policy changes.

**Discussion:** The lack of large and differential policy impacts on drug expenditure and utilization rates across age and income groups suggests that changes in the BC PharmaCare Program were designed in a manner that ensured continued access to medicines for the populations previously served by the drug plan (e.g., senior citizens). It also indicates that the policy did not significantly increase access to medicines by populations that might have been better served under the new policy (e.g., non-seniors). Finally, although it was hoped that income-based pharmacare might increase consumer cost consciousness, change in the relative cost of certain drugs purchased following the policy change appear to have stemmed from other policies directly targeting the expenditure impact of therapeutic choices.

## Résumé

**Contexte et objectifs :** En mai 2003, le gouvernement de la Colombie-Britannique a instauré un régime d'assurance-médicaments fondé sur le revenu pour remplacer un régime fondé sur l'âge. Parmi les objectifs de politique visés, citons la réduction et la réaffectation des dépenses du gouvernement. On espérait également que les franchises fondées sur le revenu contribueraient à sensibiliser les consommateurs aux coûts quand ils prennent des décisions. Cette analyse a mesuré l'incidence de ces politiques sur les dépenses privées et publiques et sur les facteurs influençant les dépenses.

**Méthodes :** Nous avons utilisé une conception de recherche longitudinale et avons puisé dans PharmaNet pour recueillir des données sur toutes les ordonnances distribuées dans la province entre janvier 1996 et décembre 2004. Nous avons analysé la dynamique des dépenses à l'aide de décompositions non-stochastiques des tendances. Nous avons ensuite classé les analyses en cinq groupes d'âge et en cinq quintiles socio-économiques. Puis, nous avons examiné l'effet de la politique sur les tendances dans les dépenses et leurs sources à l'aide d'une analyse des séries chronologiques. Nous avons effectué des analyses supplémentaires en utilisant des méthodes équivalentes et des données du marché pour comparer les dépenses par tête en Colombie-Britannique à la moyenne canadienne pour la période allant de 1998 à 2004.

**Résultats :** Le ministère de la Santé de la C.-B. a réussi à réduire la portion publique des dépenses en médicaments en instaurant des quotes-parts pour les aînés en 2002 et un régime d'assurance-médicaments fondé sur le revenu en 2003. Le changement de politique n'a pas eu d'incidence significative sur l'ensemble des dépenses encourues dans la province. Bien qu'il se soit produit plusieurs changements statistiquement importants dans la dynamique des dépenses pendant la période visée par l'étude, seule une augmentation de la constitution saisonnière de réserves de médicaments par les aînés peut raisonnablement être attribuée aux changements apportés aux politiques.

**Discussion :** L'absence d'une incidence importante et variée des politiques sur les dépenses en médicaments et les taux d'utilisation chez les différents groupes d'âge et niveaux de revenu suggère que les changements apportés au régime d'assurance-médicaments de la C.-B. ont été conçus de manière à assurer un accès continu aux médicaments pour les populations antérieurement visées par le régime (par ex., les aînés). Cela indique aussi que la politique n'a pas augmenté l'accès aux médicaments de manière significative pour les populations qui auraient peut-être été mieux servies par la nouvelle politique (par ex., les non-aînés). Enfin, bien qu'on espérait qu'une assurance-médicaments fondée sur le revenu sensibiliserait davantage les consommateurs aux coûts, les changements dans le coût relatif de certains médicaments achetés après le changement de politique semblent découler d'autres politiques qui visent directement l'incidence financière des choix de traitement.

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## **Income-Based Drug Coverage in British Columbia: The Impact on Access to Medicines**

### **Un régime d'assurance-médicaments fondé sur le revenu en Colombie-Britannique : Incidence sur l'accès aux médicaments**

PATRICIA A. CAETANO, COLETTE B. RAYMOND, STEVE MORGAN  
AND LIXIANG YAN

#### **Abstract**

**Background and Objectives:** In May 2003, the government of British Columbia adopted income-based pharmacare, replacing an age-based program. Stated policy goals included the maintenance or enhancement of access to necessary medicines. This study examines the policy impact on access to two widely used drugs for chronic risk factors (antihypertensives and statins).

**Methods:** Data on incident antihypertensive and statin prescriptions between 1997 and 2004 were extracted from PharmaNet. Incident antihypertensive users were those who filled a first prescription after residing in the province for at least two years prior to the initial prescription date. The number of patients who ceased to fill a contiguous series of prescriptions (within 120 days of one another) was used as a measure of apparent discontinuation or interruption of therapy. We used time series analysis to test for changes in incident use and discontinuation.

**Results:** Between 1997 and 2004, 530,167 BC residents initiated therapy with an antihypertensive, and 264,904 BC residents initiated therapy with a statin. The 2003 policy change had no statistically significant impact on incident use of antihypertensives or statins, when stratified by age or income. Similarly, the 2003 policy did not change the rate of apparent discontinuations of therapy across age and income groups. However, a co-payment introduced in 2002 did increase end-of-year seasonality in apparent discontinuations in seniors – a finding that deserves further research.

**Discussion:** The 2003 transition to income-based pharmacare in British Columbia did not result in significant changes in access to, or continuation of, prescriptions to treat two leading chronic risk factors.

#### **Résumé**

**Contexte et objectifs :** En mai 2003, le gouvernement de la Colombie-Britannique a instauré un régime d'assurance-médicaments fondé sur le revenu pour remplacer un régime fondé sur l'âge. Parmi les objectifs visés, mentionnons le maintien ou l'amélioration de l'accès aux médicaments essentiels. Cette étude examine l'incidence de la politique sur l'accès à deux types de médicaments couramment utilisés pour traiter des facteurs de risque chroniques (les antihypertenseurs et les statines).

**Méthodes :** On a puisé dans PharmaNet et extrait les données sur les ordonnances

d'antihypertenseurs et de statines entre 1997 et 2004. Les utilisateurs ponctuels d'antihypertenseurs étaient ceux qui ont obtenu une première ordonnance après avoir résidé dans la province pendant au moins deux ans avant la date initiale de l'ordonnance. On a utilisé le nombre de patients qui ont cessé de faire exécuter une série contiguë d'ordonnances (à 120 jours d'intervalle ou moins les unes des autres) pour déterminer la cessation ou l'interruption apparente du traitement. Nous avons eu recours à l'analyse des séries chronologiques pour vérifier les changements dans l'utilisation ponctuelle et la cessation du traitement.

**Résultats :** Entre 1997 et 2004, 530 167 résidents de la C.-B. ont entamé un traitement avec un antihypertenseur et 264 904 en ont entamé un avec une statine. Les changements apportés à la politique en 2003 n'ont pas eu une incidence statistiquement importante sur l'utilisation ponctuelle des antihypertenseurs ou des statines lorsqu'on les stratifie selon l'âge ou le revenu. De même, la politique de 2003 n'a pas modifié le taux de cessations apparentes du traitement pour les divers groupes d'âge ou niveaux de revenu. Cependant, une quote-part instaurée en 2002 a eu pour effet d'augmenter les fluctuations saisonnières de fin d'année dans les cessations apparentes chez les aînés – une constatation qui mérite d'être examinée de plus près.

**Discussion :** L'adoption, en 2003, d'un régime d'assurance-médicaments fondé sur le revenu en Colombie-Britannique n'a pas entraîné de changements significatifs à l'accès aux médicaments ou à l'exécution ininterrompue d'ordonnances visant à traiter deux facteurs de risque chroniques.

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## FULL TEXT ONLINE



### **Income-Based Drug Coverage in British Columbia: The Impact on the Distribution of Financial Burden**

#### **Un régime d'assurance-médicaments fondé sur le revenu en Colombie-Britannique : Incidence sur la répartition du fardeau financier**

GILLIAN E. HANLEY, STEVE MORGAN AND LIXIANG YAN

### **Abstract**

**Background and Objectives:** In May 2003, the government of British Columbia adopted an income-based pharmacare program, replacing the previous age-based program. Stated policy goals included improving the distribution of pharmaceutical payments across incomes. This analysis assesses the policy's effect on the distribution across incomes of both private payments and public subsidy for prescription drugs.

**Methods:** This analysis focuses on how the 2003 policy change affected the extent to

which higher-income households pay a larger share of private drug expenditures and/or receive a smaller share of available public subsidies. Demographic information and drug spending data were extracted from BC PharmaNet and the BC PharmaCare Program for the years 2001–2004. These data were then graphed to assess (using concentration curves) changes in the progressivity of private and public pharmaceutical financing.

**Results:** Overall, the move to Fair PharmaCare resulted in larger but slightly less regressive private payments and smaller but slightly more progressive public subsidies. Because total drug spending increased while the total subsidy available decreased, average private household spending as a proportion of household income increased across virtually all age and income levels.

**Discussion:** The PharmaCare Program redistributed public subsidies in a manner that was more progressive than previous programs; this reduced the regressivity of private pharmaceutical payments. However, total public subsidy decreased, and private spending increased by a commensurate amount. This makes the program's overall financial impact on BC households somewhat ambiguous. Income-based pharmacare could improve financial equity unambiguously if public shares of drug spending are expanded.

## Résumé

**Contexte et objectifs :** En mai 2003, le gouvernement de la Colombie-Britannique a instauré un régime d'assurance-médicaments fondé sur le revenu pour remplacer l'ancien régime fondé sur l'âge. Parmi les objectifs visés, mentionnons une meilleure répartition des dépenses en médicaments selon le revenu. L'analyse évalue l'effet de la politique sur la répartition, en fonction du revenu, des dépenses privées et publiques en médicaments d'ordonnance.

**Méthodes :** Cette analyse cherche principalement à déterminer dans quelle mesure les foyers à revenu plus élevé paient une plus grande portion des dépenses en médicaments et/ou reçoivent une plus petite portion des fonds publics disponibles, suite au changement de politique effectué en 2003. Nous avons extrait des renseignements démographiques et des données sur les dépenses en médicaments de PharmaNet et du Régime d'assurance-médicaments de la C.-B. pour les années 2001 à 2004. Nous avons ensuite converti ces données en un diagramme afin d'évaluer (à l'aide de courbes de concentration) les changements survenus dans le financement privé et public des médicaments.

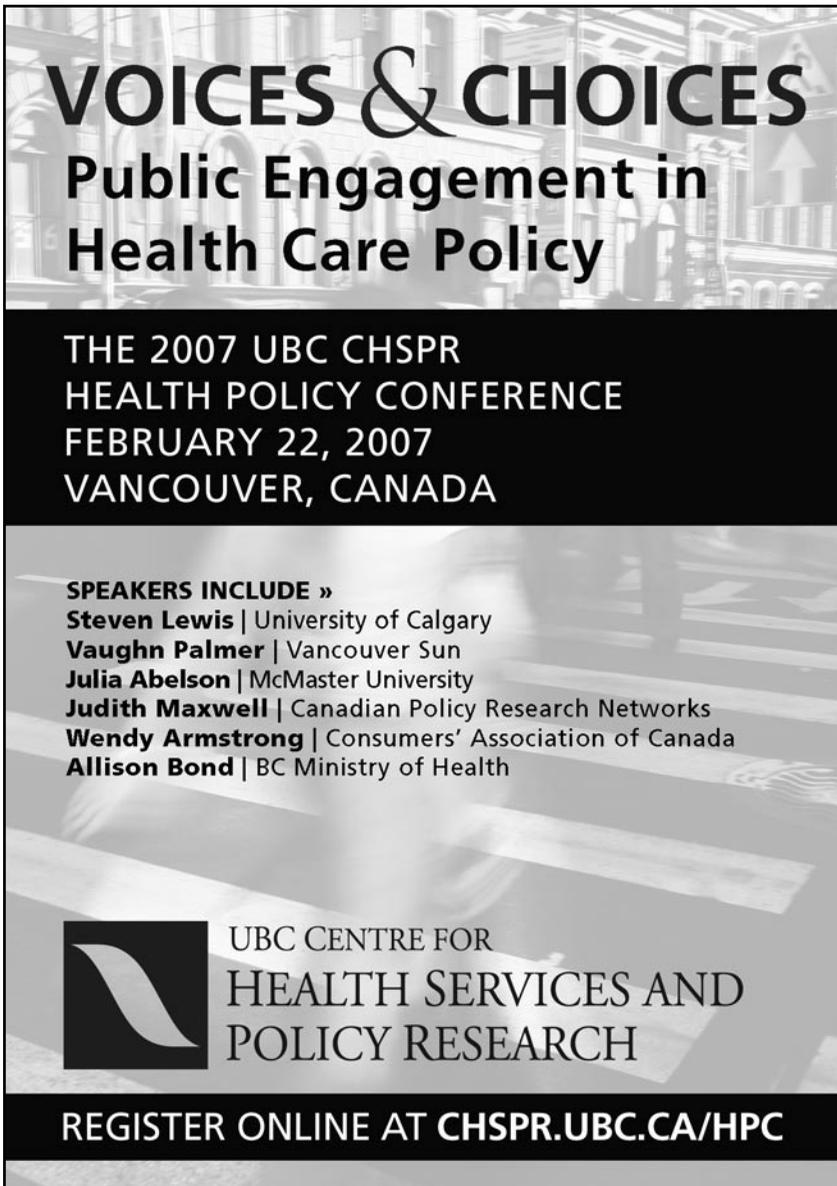
**Résultats :** Dans l'ensemble, la mise en œuvre d'un régime équitable d'assurance-médicaments a entraîné des paiements légèrement moins régressifs et plus faibles dans le privé, mais des subventions publiques légèrement plus progressives. Étant donné que les dépenses totales en médicaments ont augmenté alors que les subventions totales disponibles ont diminué, les dépenses moyennes par foyer – en tant que proportion du revenu du foyer – ont augmenté pour presque tous les âges et niveaux de revenu.

**Discussion :** Le régime d'assurance-médicaments a eu pour effet de redistribuer les subventions publiques d'une manière plus progressive que les programmes précédents,

ce qui a réduit le caractère régressif des paiements privés à ce chapitre. Cependant, les subventions publiques totales ont diminué et les dépenses privées ont augmenté de façon proportionnelle, ce qui rend l'incidence financière globale du programme sur les foyers de la C.-B. quelque peu ambiguë. L'assurance-médicaments fondée sur le revenu pourrait améliorer l'équité financière de façon plus nette si la portion publique des dépenses en médicaments est maintenue ou augmentée.

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# Income-Based Drug Coverage in British Columbia: Lessons for BC and the Rest of Canada

Un régime d'assurance-médicaments fondé  
sur le revenu en Colombie-Britannique :  
Leçons pour la C.-B. et le reste du Canada



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## Abstract

**Background:** In May 2003, the government of British Columbia adopted income-based pharmacare, replacing an age-based drug benefits program. Stated policy goals included reducing government spending, maintaining or enhancing access to medicines and improving financial equity. The province's experience on these policy dimensions can inform policy making in other jurisdictions and offers insight into priorities for Canada's National Pharmaceuticals Strategy.

**Method:** The research team created an anonymized database with information about drug use, private and public expenditure and household income for all residents of British Columbia from 1996 to 2004. This database was used to evaluate the impact of the policy on trends in drug expenditures, utilization and sources of payment for seniors and non-seniors of different income levels.

**Results:** In the immediate term, Fair PharmaCare appears to have met many of its policy goals. Government spending was reduced. Access to medicines was maintained (though not enhanced). And the distributions of private and public expenditures were brought more closely in line with distribution of income. Long-run impacts depend largely on how a reduced role for government affects trends in costs, access and equity. Early indications suggest that a larger role for government may be needed to maintain performance on desired policy objectives over time.

**Conclusion:** In the long run, there is reason for setting a new national standard for pharmacare that increases, not decreases, the share of publicly covered spending in every province. The federal government could play a key role by helping provinces increase public funding for prescription drugs and thereby facilitate cost control, maintain access to medicines and enhance financial equity.

## Résumé

**Contexte :** En mai 2003, le gouvernement de la Colombie-Britannique a instauré un régime d'assurance-médicaments fondé sur le revenu pour remplacer un ancien régime fondé sur l'âge. Parmi les objectifs visés, mentionnons, entre autres, la réduction des dépenses du gouvernement, le maintien ou l'amélioration de l'accès aux médicaments et l'amélioration de l'équité financière. L'expérience de la province dans ces domaines de politique peut éclairer l'élaboration de politiques dans d'autres provinces et territoires et permettre de déterminer les priorités à établir pour la Stratégie nationale relative aux produits pharmaceutiques.

**Méthode :** L'équipe de recherche a créé une base de données anonymisée avec des données sur l'utilisation des médicaments, les dépenses privées et publiques et les revenus des foyers pour tous les Britanno-Colombiens de 1996 à 2004. Cette base de données a servi à évaluer l'incidence de la politique sur l'évolution des dépenses en médicaments, l'utilisation et les sources de paiement pour les aînés et les non-aînés ayant différents niveaux de revenu.

**Résultats :** Pour l'instant, le régime équitable d'assurance-médicaments semble avoir atteint plusieurs de ses objectifs de politique. Les dépenses du gouvernement ont été réduites; l'accès aux médicaments a été maintenu (quoi que pas amélioré) et la distribution des dépenses privées et publiques a été ajustée de manière à correspondre davantage à la distribution des revenus. L'incidence à long terme dépendra largement de la manière dont un rôle réduit du gouvernement affectera les tendances en ce qui a trait aux coûts, à l'accès et à l'équité. Les premières indications semblent suggérer que le gouvernement pourrait devoir jouer un rôle accru si l'on veut continuer à atteindre, à plus longue échéance, les objectifs de politique visés.

**Conclusion :** L'assurance-médicaments fondée sur le revenu semble avoir permis d'atteindre plusieurs des objectifs de politique de court terme. À plus long terme, il y aurait lieu d'établir, pour l'assurance-médicaments, une nouvelle norme nationale qui augmente – au lieu de diminuer – la portion des dépenses couvertes par les fonds publics dans chaque province. Le gouvernement fédéral pourrait jouer un rôle-clé en aidant les provinces à augmenter les fonds publics alloués aux médicaments sur ordonnance et ainsi faciliter le contrôle des coûts, maintenir l'accès aux médicaments et rehausser l'équité financière.

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**T**HE RECENT ADOPTION OF INCOME-BASED COVERAGE IN BRITISH Columbia marks one of the most significant changes in the history of the BC PharmaCare Program and presents an opportunity for Canada and other jurisdictions to learn more about income-based pharmacare policy. Through a series of papers, we have sought to describe the major impacts of the changes to BC PharmaCare using population-based analyses of a comprehensive drug claims dataset (see Caetano et al. 2006; Hanley et al. 2006; Morgan and Yan 2006). The choice of the empirical studies conducted was guided by input received from policy makers (Morgan and Coombes, page 92). In interviews, policy makers suggested that success or failure of reforms to BC PharmaCare would be indicated by measures consistent with the policy objectives: what was the impact of policy on costs, access to medicines and financial equity for populations of different ages and income levels? In this paper, we review whether Fair PharmaCare achieved the objectives that policy makers

sought. We then consider whether there will be long-term policy consistency with respect to the goals and objectives of the BC PharmaCare Program (Pal 2001).

## Transitioning to an Income-Based Program

Recent changes to BC PharmaCare took place in two stages, beginning in 2002. Before 2002, BC PharmaCare provided prescription drugs for seniors and social assistance recipients at little or no cost, and covered catastrophic prescription expenses exceeding \$1,000 per year for all other residents. This scheme closely resembled what the Commission on the Future of Health Care in Canada proposed as a short-term national standard until such time as public coverage could be expanded to become more comprehensive for Canadians of all ages (Romanow 2002). In order to reduce government spending on medicines, BC PharmaCare introduced temporary co-payments under the seniors' drug program in January 2002. This measure was lifted in 2003, when BC PharmaCare began offering income-based coverage that would pay for drug costs exceeding given percentages of household income for seniors and non-seniors alike (Morgan and Coombes, page 92). This new model of the BC PharmaCare Program, called Fair PharmaCare, resembles the proposal of the Standing Senate Committee on Social Affairs, Science and Technology (the "Kirby Committee"), which called for public coverage for drug costs exceeding 3% of household income and private, supplementary insurance for other costs (Canada 2002).

## Did the Program Achieve Its Primary Objectives?

### Impact on costs

The overriding objective of both the May 2003 introduction of Fair Pharmacare and the 2002 seniors' co-payments was to reduce provincial government spending on prescription drugs in order to meet budgetary targets set for the Ministry of Health. This objective was achieved. Public spending was reduced through the reorganization of the terms of coverage offered by BC PharmaCare. The share of total prescription drug expenditure covered from the provincial government budget fell from a range of 51% to 53% over the period of 1996 to 2001, to 47% in 2002 and 43% in 2003 and 2004; logically, the privately financed portion of expenditure increased commensurately (Hanley et al. 2006; Morgan and Yan 2006).

The net financial impact on government and private payers depends upon the degree to which the policy affected total (public and private) spending trends in the province. Total prescription drug expenditure in British Columbia grew at an average annual rate of 12.4% between 1996 and 2001, but at only 10.0% a year from 2001

to 2004. This difference might imply that changes to the BC PharmaCare Program slowed growth in drug spending in the province. If so, estimates of net impacts on private and public payers should reflect this. We present two counter-factual scenarios against which to compare actual expenditure for 2004 (the first full year of income-based pharmacare in British Columbia) in order to estimate the net financial impact of the policy on public and private expenditures, which are summarized in Table 1.

<b>TABLE 1. Comparisons of actual 2004 private, public and total expenditure against projections under alternative, counter-factual scenarios for 2004</b>				
Scenario 1: Projection of total, private and public expenditure using 1996–2001 average annual growth rate through period 2001–2004				
	Counter-Factual Projection for 2004 (\$ millions)	Actual 2004 Expenditure (\$ millions)	Difference (\$ millions)	Difference (%)
Total Expenditure	\$1,637	\$1,535	–\$102	–6.2%
Public Expenditure	\$820	\$659	–\$161	–19.7%
Private Expenditure	\$819	\$876	\$57	7.0%
Scenario 2: Actual 2004 total expenditure with projections of public and private expenditure based on pre-policy shares				
	Counter-Factual Projection for 2004 (\$ millions)	Actual 2004 Expenditure (\$ millions)	Difference (\$ millions)	Difference (%)
Total Expenditure	\$1,535	\$1,535	\$0	0.0%
Public Expenditure	\$793	\$659	–\$134	–16.9%
Private Expenditure	\$742	\$876	\$134	18.1%

The first comparison between actual 2004 expenditure and a counter-factual scenario illustrated in Table 1 assumes that without any policy changes, total prescription drug expenditure would have continued to rise at pre-policy rates. Actual total prescription drug expenditure in 2004 was roughly \$1.535 billion. The counter-factual scenario projects expenditure from 2001 to 2004, using the average annual growth rate of the period 1996 to 2001; this yields a projected total expenditure of \$1.637 billion in 2004, implying that actual 2004 expenditure was \$102 million (or 6.2%) lower than would have been predicted. If we were willing to attribute this entire change in growth rates to the effects of the new policy, we might conclude that the income-based pharmacare program reduced public expenditure by \$161 million while increasing private expenditure by only \$57 million. Closer inspection of trends in British Columbia and the rest of Canada, however, suggests that such a conclusion would be unwarranted.

Two cost-related dynamics explain the slowdown in drug spending following 2001 and 2003 (Morgan and Yan 2006), one related to utilization rates and the other related to product selection decisions. In mid-2003, British Columbia experienced a trend towards the selection of less expensive products. This may be construed as *prima facie* evidence that the income-based drug plan stimulated more careful consideration of the relative costs of drug options, as policy makers had hoped (Morgan and Coombes, page 92). However, a more detailed examination reveals another possibility: the savings generated because of changes in product selection coincided with a preferential provincial formulary listing of a low-cost, brand-name product within one of the costliest drug categories – proton pump inhibitors (PPIs), which are used for gastrointestinal conditions such as heartburn and ulcers (British Columbia 2003). This policy was introduced in July 2003, months after Fair PharmaCare was implemented but precisely when the trend towards less costly product selection began in British Columbia. Changes in brand selection in response to this formulary-based policy reduced total expenditure in 2004 by approximately \$17 million without altering the trends in the utilization of PPI drugs (Morgan and Yan 2006). This selective listing decision accounts for approximately 16% of the \$102 million decline in spending that might otherwise be erroneously considered a cost impact of Fair PharmaCare, as in Scenario 1 of Table 1.

The balance of the difference between projected and observed expenditures in the post-policy period can be explained by slower growth in the use of medicines by BC residents (Morgan and Yan 2006). One might attribute a reduction in the growth of prescription drug use to the combination of the temporary seniors' co-payment implemented in January 2002 and the transition to Fair PharmaCare in May 2003. Yet, as with the change in product selection decisions in 2003, closer inspection of trends in BC residents' use of medicines suggests that this slowing growth just happened to coincide with the policy change and was not caused by it.

Two forms of evidence suggest that Fair PharmaCare was not responsible for changing aggregate trends in drug utilization in British Columbia. First, the reduced growth in use of medicines was not concentrated among seniors, the only individuals whose coverage terms were affected by both policy changes. A statistically significant reduction in utilization-related growth in expenditure was found in all age and income groups studied (Morgan and Yan 2006). It is unreasonable to attribute the slower growth in medicine use among age groups not exposed to the new co-payment to the age-based policy; co-payments on seniors' prescriptions are not likely to have affected non-seniors' drug utilization. It is similarly unreasonable to assume that income-based coverage would slow growth in medicine use among middle- and low-income non-seniors, because the policy increased (albeit very slightly) the share of middle- and low-income household drug costs subsidized by government.

The second form of evidence comes from trends in the global and national pharmaceutical markets. IMS Health Inc. reports that the annual growth in global sales for pharmaceuticals has declined from a recent peak of 13% in 2001 to 9% in 2002, 10%

in 2003 and 8% in 2004 (IMS 2006). IMS data also show that the growth in prescription drug sales in Canada slowed from an average of 14.3% per year from 1996 to 2001 to 13.0% in 2002, 9.5% in 2003 and 9.8% in 2004 (IMS Canada 2006). Analysis of expenditure dynamics in British Columbia versus the rest of

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**... Fair PharmaCare led to a direct transfer of roughly \$134 million from the public side of the financial ledger to the private side. This is equivalent to a 16.9% decrease in public spending ...**

Canada further indicates that the only change attributable to the implementation of the seniors' co-payment or Fair PharmaCare is the emergence of the seasonal "stockpiling" of medicines just before the initiation of the 2002 seniors' co-payment (Morgan and Yan 2006).

So while there was clearly a moderation in the growth of both public and private pharmaceutical expenditure in British Columbia after 2001, we cannot with confidence attribute any of this to Fair PharmaCare or the precursor co-payments. The second counter-factual scenario presented in Table 1 demonstrates the more likely explanation. Assuming 2004 expenditures would have been \$1.535 billion even in the absence of any policy change, this scenario allocates these costs to private and public sources according to the relative shares that prevailed prior to the policy change. The result: it appears that Fair PharmaCare led to a direct transfer of roughly \$134 million

from the public side of the financial ledger to the private side. This is equivalent to a 16.9% decrease in public spending and an 18.1% increase in private spending compared to what would have occurred in absence of the policy change.

### Impact on access

The significant change in the private and public shares of drug spending created by the changes to BC PharmaCare could have significantly affected the population's access to medicines, subsequently influencing health outcomes and health services use. Previous research has found adverse health outcomes in jurisdictions that reduced drug plan spending through the implementation of co-payments or prescription limits (Soumerai et al. 1987, 1993; Tamblyn et al. 2001). BC policy makers hoped to minimize the potential for such reductions in access to medicines among seniors (Morgan and Coombes, page 92). As a consequence, the benefit structure of Fair PharmaCare was designed to ensure that approximately 60% of seniors would have no deductible under the new program and would face per-prescription co-payment charges that were comparable to the cost-sharing on dispensing fees under the previous program. Policy makers also hoped that the (slight) increase in benefits for low-income non-seniors would improve access to medicines for such populations.

The secular trend towards slower growth (though not a reduction) in the use of medicines that began in 2002 might be interpreted as an indication that the policy changes in 2002 and 2003 had reduced access to drugs. As discussed above, aggregate patterns of utilization across age and income classes in British Columbia appear to have been influenced by phenomena not unique to the province. To assess patterns of access for specific individuals, we studied rates of access to two of the largest categories of drug treatment: antihypertension drugs and cholesterol-reducing agents.

Patient-specific results show that initial access to treatment was not altered by the implementation of policy changes in 2002 and 2003 (Caetano et al. 2006). In particular, there were no statistically significant changes in access as measured by the rate of treatment initiation for individuals of differing age and income categories. This suggests that access was maintained among senior groups whose benefits declined. It also suggests that access among low-income non-seniors – whose benefits improved – did not significantly increase.

We also studied the policy impact on apparent discontinuation of treatments for high cholesterol or hypertension. This analysis indicated that the policy did not have a significant impact on trends, but did have a potentially important impact on seasonal patterns of such drug use. Measured rates of seniors' discontinuation of therapy at the end of each calendar year increased in the years following the seniors' co-payment in 2002. This likely reflects the fact that the seniors' co-payment – and, subsequently,

the new income-based drug program – involved deductibles. Under programs with deductibles, patients will stockpile medicines towards the end of the deductible period (when drugs are “free” to them). Patients then do not refill prescriptions early in the next deductible period, resulting in the observed seasonal increase in apparent discontinuation of therapy. In 2005, concerned about the effect of seasonal patterns in prescription utilization, the BC PharmaCare Program began offering a monthly deductible payment option for individuals who did not have private, supplemental drug insurance (British Columbia 2004).

### Impact on equity

Finally, as expressed prominently in its name, Fair PharmaCare was intended to distribute public funding for pharmaceuticals more equitably across the population. Our empirical analysis of the financial equity of Fair PharmaCare generated conflicting findings (Hanley et al. 2006). Given continued increases in per capita prescription drug costs, the near-freeze in BC PharmaCare spending during 2002 and 2003 resulted in increased private payments for prescription medicines (as a proportion of household income) for British Columbians of all ages and incomes. Despite these increases in private payments, Fair PharmaCare did redistribute available public subsidies in a more progressive manner than the 2001 pharmacare program. Specifically, by significantly decreasing the level of public subsidy to wealthy seniors and slightly increasing subsidy for low-income non-seniors, the allocation of (the larger amount of) private drug costs and of (the smaller amount of) public drug costs was made slightly more progressive: wealthier residents bore a larger share of the private costs and received a smaller share of the public costs. By far the most significant factor that produced this reallocation effect was the reduction in public subsidy for higher-income seniors.

It is difficult to conclude whether the Fair PharmaCare Program, as implemented, was in fact fair. Policy makers achieved the objective of more progressively allocating the scarce public subsidy available under the budget constraint. However, the budget constraint imposed higher private drug costs upon individuals across age and income categories. Furthermore, we did not assess the “horizontal” equity of the Fair PharmaCare Program (i.e., determining whether individuals with equal incomes make equal private payments for prescription drugs in the province). Given that the new program often involves high deductibles (despite being income-based), moderate-income residents with higher needs contribute much more towards drug costs than their healthy neighbours with equal incomes. This can become a significant burden in light of the remarkable persistence of high drug costs among those who need them: individuals who require costly medicines typically require them for years and, often, for life (Kozyrskyj et al. 2005).

## Discussion

Our analyses suggest that the adoption of income-based deductibles in British Columbia achieved a number of stated policy objectives related to public drug costs, access to medicines and financial equity. Principally, provincial government spending was reduced through the implementation of income-based deductibles and co-payment. Although drug utilization and expenditure growth slowed during the period of study, this was caused by trends in the pharmaceutical sector beyond the influence of BC PharmaCare. While the Fair PharmaCare policy did not increase access to commonly used drugs for low-income, non-senior households as policy makers had hoped, it did not decrease access for residents of different age and income levels either, as has been the case in other jurisdictions attempting to reduce government drug spending. The major effect of Fair PharmaCare was therefore limited to changing the private and public shares of payment for prescription drugs in British Columbia. Owing to the combined forces of increasing total drug costs and declining total public subsidies, average private payments increased for seniors and non-seniors in all income groups. However, because public subsidies fell most for those with higher incomes, the concentration of private and public sources of financing became relatively more progressive: lower-income households received a greater share of public subsidies and contributed a smaller share of total private finances than higher-income households.

Whether the adoption of Fair PharmaCare will be consistent with policy goals in the long term hinges on the effects of the reduced budget for BC PharmaCare. Reducing the role of government payment in this sector – specifically, to establish a drug benefit that pays only for costs exceeding often-high deductibles – may make it difficult to manage the drivers of expenditure and hinder government’s ability to achieve other objectives for the BC PharmaCare Program. A reduction in the government’s drug financing role will also reduce its ability to influence drug prices – an influence that comes by way of the purchasing power of a drug plan. A plan that covers all, or almost all, purchases for a population has a considerable advantage in its ability to negotiate on price. Under such circumstances, decisions to list a drug on a plan’s formulary have significant implications for manufacturers’ sales. If manufacturers can reach a pricing agreement with a single purchaser, they are guaranteed a large share of the market, and enjoy the potential of high-volume drug sales that offset the effects of lower prices. This is one of the factors that has allowed countries such as Australia and New Zealand to secure among the world’s lowest prices for pharmaceuticals (Birkett et al. 2001; Davis 2004).

In addition to influencing prices, drug plan listing decisions can also influence prescribing and utilization practices. Selectively reimbursing cost-effective products will steer prescribers and patients towards such therapies, saving resources and potentially improving outcomes (Garber 2001). Such influence on initial product selection decisions is particularly important, as it is initial prescriptions that set the course of

therapy (and related costs) for chronic disease management. However, when a drug plan subsidizes only those expenses beyond moderate or high deductibles, its terms of coverage may have less influence. Our analysis of utilization in British Columbia provided indirect evidence of this. The Fair PharmaCare deductible is zero for BC residents born before 1939 who have household incomes below \$30,000 (Morgan and Coombes, page 92). In contrast, Fair PharmaCare deductibles for non-senior households earning over \$30,000 are set at 3% of household income. These two groups might therefore respond differently to coverage policies that list certain drugs over others. Indeed, when BC PharmaCare started a preferred listing for a specific proton pump inhibitor in July 2003, the product selection response among individuals aged 65 to 84 was twice that of individuals aged 45 to 64 (Morgan and Yan 2006).

If the diminished scale of the BC PharmaCare Program results in rapidly growing private costs, access to medicines may be diminished. Again, coverage from first to last prescription may be important. This is because coverage can encourage patients to fill medically necessary prescriptions they might not otherwise fill. Patients weigh what they perceive to be the benefits and costs when determining which prescriptions to fill. However, they might not perceive the full benefit of treatments because they will not directly feel the positive effects of the drug. If cost-sharing through deductibles and co-payment provides additional disincentive, this may be detrimental to patients' health and to the healthcare system.

Of particular interest in this regard will be how future seniors adjust to higher drug costs and lower public subsidy. As mentioned above, the benefits structure of Fair PharmaCare was designed so that approximately 60% of seniors would experience no significant changes in cost sharing. This makes the current Fair PharmaCare Program for seniors quite different from other cost-sharing policies that have been investigated by others (Soumerai et al. 1987, 1993; Tamblyn et al. 2001). However, Fair PharmaCare for future seniors – those born after 1939, including the sizable cohort of baby boomers – will be the same as Fair PharmaCare for non-seniors (Morgan and Coombes, page 92). It will, for example, involve a deductible equal to 3% of income for households earning over \$30,000. Since the coming generation of seniors can be expected to have higher incomes than present seniors, it will not be long before a majority of British Columbia's senior population will face an annual deductible of at least \$900. The impact of this on future access to medicines and effectiveness of evidence-based coverage policy may be significant.

Finally, as drug costs continue to increase more quickly than household incomes, financial pressures will certainly rise among those who require medicines. This factor could reduce some of the improvements in equity across income groups that were initially created by Fair PharmaCare. Moreover, health-related equity concerns will grow in coming years as increasing numbers of households face hundreds (even thousands) of dollars in private drug costs prior to receiving public assistance. For those with

chronic need for prescription drugs and whose incomes exceed \$30,000, the current structure of Fair PharmaCare results in an implicit 3% annual tax increase. This raises the normative question of whether Canadians should be taxed for poor health.

Owing to the structure of the Fair PharmaCare Program, the role of BC PharmaCare may continue to fall in the years to come. The more generous structure of deductibles and co-payments for current seniors is being “grandfathered.” For the reasons outlined above, this may further reduce the program’s ability to control costs, improve access and increase financial equity. To the extent that reducing the role of government in this sector creates these challenges, there is good reason for setting a new national standard for pharmacare that increases, not decreases, the share of publicly covered spending. The federal government could play a key role in this. Canada might aim to achieve closer to 60% public funding for prescription drugs – the average for OECD countries. This level of public subsidy would facilitate cost control and maintenance of access to medicines. Moreover, our simulated results suggest that it would unambiguously increase the progressivity of both public and private payments for prescription drugs (Hanley et al. 2006).

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