RESEARCH

Estimated effects of adding universal public coverage of an essential medicines list to existing public drug plans in Canada

Steven G. Morgan PhD, Winny Li MSc, Brandon Yau BSc, Nav Persaud MD MSc

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ABSTRACT

BACKGROUND: Canada's universal health care system does not include universal coverage of prescription drugs. We sought to estimate the effects of adding universal public coverage of an essential medicines list to existing public drug plans in Canada.

METHODS: We used administrative and market research data to estimate the 2015 shares of the volume and cost of prescriptions filled in the community setting that were for 117 drugs on a model list of essential medicines for Canada. We compared prices of these essential medicines in Canada with prices in the United States, Sweden and New Zealand. We estimated the cost of adding universal public drug coverage of these essential medicines based on anticipated effects on medication use and pricing.

RESULTS: The 117 essential medicines on the model list accounted for 44% of all prescriptions and 30% of total prescription drug expenditures in 2015. Average prices of generic essential medicines were 47% lower in the US, 60% lower in Sweden and 84% lower in New Zealand; brand-name drugs were priced 43% lower in the US. Estimated savings from universal public coverage of these essential medicines was $4.27 billion per year (range $2.72 billion to $5.83 billion; 28% reduction) for patients and private drug plan sponsors, at an incremental government cost of $1.23 billion per year (range $373 million to $1.98 billion; 11% reduction).

INTERPRETATION: Our analysis showed that adding universal public coverage of essential medicines to the existing public drug plans in Canada could address most of Canadians' pharmaceutical needs and save billions of dollars annually. Doing so may be a pragmatic step forward while more comprehensive pharmacare reforms are planned.

Universal access to safe, affordable and appropriately prescribed medicines is an important goal of national health care systems.[1] Canadians benefit from universal public coverage of physicians' services and hospital care; however, an estimated 20% of Canadians are uninsured or underinsured for the cost of prescription drugs used outside hospitals.[2,3] This makes Canada an outlier as the only advanced economy with a universal health care system that excludes universal coverage of prescription drugs.

Although the Canada Health Act ensures universal coverage of medicines used in hospitals, Canada has no national standards for the coverage of prescription drugs used in the community. The federal government provides drug coverage for select populations that account for 2% of prescription drug expenditures in the country.[4] Provincial and territorial governments offer various public drug plans for people of specific ages, incomes or health statuses that finance between 25% and 41% of prescription drug expenditures in their jurisdictions.[4] Private drug plans — typically obtained through work-related extended health benefits — account for 35% of prescription drug expenditures in Canada.[4] Patients finance 22% of total Canadian prescription drug expenditures out of pocket.[4]

Canada's patchwork of private and public financing of medicines creates clinical and economic problems. About 10% of Canadians report that they cannot afford to take medications as prescribed because of out-of-pocket costs.[5] Such access barriers have been shown to result in worse health outcomes and increased costs elsewhere in the health care system.[6–9] The multipayer system for medicines also increases administration costs, creates silo budgeting within the health system and reduces

Canada's purchasing power in the global pharmaceutical market.[10] As a result, pharmaceutical prices and total per capita expenditures on pharmaceuticals are higher in Canada than in developed countries with comparable health care systems.[10–13]

Universal public coverage of prescription drugs was recommended by the 1964 Royal Commission on Health Services (Hall Commission), the 1997 National Forum on Health and the 2002 Royal Commission on the Future of Health Care in Canada (Romanow Commission).[14] These commissions, and more recent bodies of evidence, suggest that implementing universal public drug coverage that is both comprehensive and evidence based would be the best way to ensure the accessibility, affordability and appropriateness of medicine use in Canada.[15] But a variety of factors have stalled progress toward such universal pharmacare.[16]

Practical considerations are among obstacles to reform. Implementing a comprehensive pharmacare program involves a number of logistical challenges: a national, evidence-based formulary needs to be delineated; prices and supply contracts need to be negotiated; and a greater share of total pharmaceutical expenditure needs to flow through the public program. Although these challenges are not insurmountable, it may be prudent to "start small" by adding universal public coverage of a carefully selected list of essential medications to the existing complement of public drug plans in Canada. A similar step toward comprehensive drug coverage for all Canadians was recommended by the 2002 Romanow Commission and the 2016 Citizens' Reference Panel on Pharmacare in Canada.[17,18]

The World Health Organization (WHO) maintains a model list of essential medicines that is meant to be adapted by countries to meet the medicine needs of their populations.[19,20] Medicines on resulting national lists are ones governments commit to making accessible because of their importance to patient and public health.[21,22] International evidence suggests that encouraging access to drugs on essential medicine lists can improve patient outcomes and lower costs.[22–28]

We sought to estimate the 2015 volume and cost of prescriptions filled in Canada for medicines on, or similar to medicines on, a Canadian adaptation of the World Health Organization's model list of essential medicines. We also sought to compare the prices of these essential medicines in Canada with their prices within single-payer systems for pharmaceutical coverage that publish data on drug pricing: the US Department of Veterans Affairs, and the national drug coverage systems of Sweden and New Zealand. Finally, we sought to estimate the financial implications of adding universal public drug coverage of the essential medicines on the model list to the existing complement of public drug plans in Canada.

Methods

This is a secondary analysis of administrative and market research databases pertaining to the volume and costs of prescriptions for the calendar year 2015.

Selection and classification of medicines

The essential medicines list used in our study is the CLEAN Meds list, an adaptation of the WHO model list of essential medicines for primary health care in Canada.[29] Our analysis focused on 117 of the CLEAN Meds drugs (hereafter "the essential medicines") that are available and sold as prescription-only medicines in Canada (Appendix 1, available at www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.161082/-/DC1). Although predominantly targeting primary health care needs, some medicines on the list are often prescribed by specialists (e.g., treatments for hepatitis and HIV infection, and a biologic drug for inflammatory conditions).

We used WHO's Anatomic Therapeutic Chemical (ATC) Classification System to assign medicines to mutually exclusive groups.[30] This allowed us to identify other drugs for which the essential medicines may be suitable substitutes for some patients. We used the chemical subgroups of the ATC system to define relatively close substitutes (e.g., A02BC = "proton pump inhibitors") and the pharmacologic/therapeutic subclasses of the ATC system to define broader ranges of substitutes (e.g., A02B = "drugs for peptic ulcer and gastro-oesophageal reflux disease"). We further grouped medicines into 47 broad therapeutic categories for reporting purposes.[31]

Data sources

We used data from multiple sources, each described in greater detail in Appendix 2 (available at www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.161082/-/DC1). From IMS Health, we obtained product-level data describing the number of and total expenditure on all prescriptions dispensed at retail pharmacies in each province during 2015. From the National Prescription Drug Utilization Information System database of the Canadian Institute for Health Information (CIHI), we obtained 2015 data on the number of and total expenditure on prescriptions that were paid, in whole or in part, by public drug plans in all provinces except Quebec. Because the IMS Health data included Quebec but the CIHI data did not, we estimated the public shares of prescription costs for Quebec based on average public shares for the same drug types in all other provinces combined. This may overstate the public proportion of expenditures in Quebec by 7% (Appendix 2).

Using methods described in Appendix 2, we obtained prices for the most common dosage forms of each generic drug on the essential medicines list from public formularies in Canada, the United States (US Department of Veterans Affairs), Sweden and New Zealand. Because prices of brand-name drugs listed on national formularies do not include confidential manufacturers' rebates, we obtained from the US Department of Veterans Affairs a weighted average of net prices of essential medicines available only from brand-name manufacturers in Canada. We converted foreign prices for generic and brand-name drugs to Canadian dollars using 2 methods: exchange rates and gross domestic product (GDP) purchasing power parities.

Statistical analysis

To measure the baseline volume of prescriptions used, we computed the total number and cost of prescriptions for the essential medicines and all other medicines in 2015. To gauge the potential scope of clinical needs that the essential medicines may be suitable for, we calculated the number and cost of prescriptions in the same ATC chemical subgroups and the same ATC pharmacologic subclasses as 1 or more of the essential medicines.

We used economic modelling to estimate the total cost of prescriptions (stratified by province, therapeutic category and source of financing) under a scenario wherein universal public coverage of the essential medicines is added to the existing complement of public drug plans in Canada. The models were based on economic frameworks developed for analyses of the determinants of prescription drug expenditure as a function of the volume of purchases made, products selected and prices paid for selected products.[32,33]

The economic models involved a number of pricing and utilization parameters that we chose on the basis of Canadian and international evidence, as described in Appendix 2 and summarized in Table 1. We report results for scenarios with all model parameters set to base-case scenario values, all parameters set

Table 1: Summary of parameters chosen for the economic models of the cost of adding universal public coverage of an essential medicines list to the existing complement of public drug plans in Canada*

Parameter	Explanation	Base-case scenario	Best-case scenario	Worst-case scenario
Direct change in the use of the essential medicines	Increased accessibility of essential medicines to Canadians who are currently uninsured or underinsured[34]	30% increase in utilization	12% increase in utilization	39% increase in utilization
Indirect change in the use of the essential medicines	Expected product substitutions among patients currently filling prescriptions for drugs similar to the essential medicines[35]	Average of 37% of such patients switch	Average of 66% of such patients switch	Average of 7% of such patients switch
Changes in prices of generic versions of the essential medicines	Expected reductions achieved with tendering and other generic pricing tools, gauged on the basis of prices in comparable single-payer systems: United States (US Department of Veterans Affairs), Sweden and New Zealand[36,37]	Median comparator prices	Best comparator prices	Worst comparator prices
Changes in net prices of brand-name essential medicines	Expected price reductions achieved with universal application of negotiated rebates, gauged on the basis of published estimates of prices and rebates, and average net price information for the US Department of Veterans Affairs[38–40]	15% lower net prices	20% lower net prices	10% lower net prices
Changes in prices of drugs not on the essential medicines list	Expected changes in the price of drugs not on the essential medicines list	No change	No change	No change
Standard co-payment per prescription for the essential medicines	Expected co-payment for standard beneficiaries, set as a maximum dispensing fee that could be lowered if pharmacies competed on price to patient	$11 or less, depending on pharmacy	$11 or less, depending on pharmacy	$11 or less, depending on pharmacy
Percentage of prescriptions filled by patients exempted from co-payments for essential medicines	Expected co-payment exemptions for vulnerable populations (e.g., older people, low-income people, children) as a share of all prescriptions filled for the essential medicines	30%	30%	30%
Other changes in existing public drug plans in Canada	Expected changes in public coverage of drugs not on the essential medicines list	None	None	None
Patient savings from shopping at pharmacies with lower dispensing fees	Expected patient savings arising from pharmacies competing for business by lowering dispensing fees	Not included in estimates	Not included in estimates	Not included in estimates
Indirect reduction in government cost of extended health benefits for public sector employees	Expected government savings from reduced cost of private insurance for public sector employees, which would be equal to about 20% of total private sector savings[41]	Not included as government savings in estimates	Not included as government savings in estimates	Not included as government savings in estimates
Health care system savings from increased adherence to essential medications	Expected savings to the broader health care system resulting from increased adherence to essential medicines[6–9]	Not included in estimates	Not included in estimates	Not included in estimates

*Complete details concerning the rationale and data sources for model parameters are provided in Appendix 2 (available at www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.161082/-/DC1).

to best-case scenario values and all parameters set to worst-case scenario values.

Results

Baseline volume and cost of prescriptions

In 2015, Canadians filled an estimated 568.4 million prescriptions at retail pharmacies, at a total cost of $26.2 billion (Table 2). A total of 377.5 million of the prescriptions were publicly paid, at a total cost of $10.8 billion. The essential medicines accounted for 44% of all prescriptions and 30% of the total cost. They accounted for a slightly higher share (50%) of publicly paid prescriptions and an approximately equal share (31%) of the total expenditure on publicly paid prescriptions.

The essential medicines accounted for 50% or more of prescriptions from 15 broad therapeutic categories, including high-prescription-volume drug classes (e.g., drugs for chronic obstructive pulmonary disease and asthma, drugs for ulcers and gastroesophageal reflux disease, noninsulin diabetes medications and antibiotics). (Results by drug category are available in Appendix 1.) There were no essential medicines listed for 7 treatment categories: hepatitis C, bladder control, infertility, macular degeneration and receptor-positive cancers (endocrine therapies).

Greater shares of prescription volumes and expenditures were accounted for by the essential medicines combined with drugs that were either chemically or pharmacologically similar to them. Medicines from ATC chemical subclasses that had 1 or more of the essential medicines within them accounted for 77% of total prescriptions filled and 63% of total prescription expenditures. Medicines from ATC pharmacologic subclasses with 1 or more of the essential medicines within them accounted for 90% of total prescriptions filled and 83% of total prescription expenditures.

Foreign prices of essential medicines

Table 3 summarizes our comparison of the relative price of generic versions of the essential medicines in Canada and in comparable countries. We were able to find comparator generic

Table 2: Shares of prescription volume and expenditure accounted for by the essential medicines and other drugs in the same chemical and pharmacologic subgroups in 2015, by province*

	Province; share of prescription volume or expenditure, %†										
Variable	**All**	**BC**	**AB**	**SK**	**MB**	**ON**	**QC**	**NB**	**NS**	**PEI**	**NL**
Total prescriptions, millions	568.4	49.9	41.7	14.9	15.2	186.8	225.9	11.4	12.2	1.9	8.5
Essential medicines	44	48	43	43	44	44	43	44	43	47	43
Essential medicines and other drugs in same chemical subgroups	77	77	74	76	76	76	79	75	75	78	76
Essential medicines and other drugs in same pharmacologic subgroups	90	89	88	88	89	91	91	88	88	90	89
Publicly paid prescriptions, millions	377.5	31.8	14.0	7.0	7.2	147.9	155.6	5.2	4.3	0.9	3.7
Essential medicines	50	53	50	47	49	52	48	50	48	55	46
Essential medicines and other drugs in same chemical subgroups	83	82	78	79	80	82	86	78	79	84	78
Essential medicines and other drugs in same pharmacologic subgroups	94	94	88	91	92	94	96	90	90	93	89
Total expenditure, $ billions	26.2	2.6	2.6	0.7	0.8	10.1	7.4	0.7	0.8	0.1	0.4
Essential medicines	30	33	31	35	31	28	29	32	32	36	32
Essential medicines and other drugs in same chemical subgroups	63	65	63	70	66	60	64	65	67	72	68
Essential medicines and other drugs in same pharmacologic subgroups	83	87	83	87	85	82	82	82	86	86	84
Public expenditure, $ billions	10.8	1.0	0.8	0.3	0.3	4.8	3.0	0.2	0.2	0.0	0.1
Essential medicines	31	33	31	34	28	30	30	36	35	46	35
Essential medicines and other drugs in same chemical subgroups	61	65	61	70	65	59	62	66	69	80	70
Essential medicines and other drugs in same pharmacologic subgroups	82	91	78	87	84	81	82	82	86	89	83

Note: AB = Alberta, BC = British Columbia, MB = Manitoba, NB = New Brunswick, NL = Newfoundland and Labrador, NS = Nova Scotia, ON = Ontario, PEI = Prince Edward Island, QC = Quebec, SK = Saskatchewan.
*Calculations are based on data from IMS Health and the National Prescription Drug Utilization Information System database of the Canadian Institute for Health Information (see Appendix 2 for details, available at www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.161082/-/DC1).
†Unless stated otherwise.

prices for matching dosage forms of 63 of the essential medicines (Appendix 3, available at www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.161082/-/DC1). Using 5-year average exchange rates to convert currencies, and weighting products according to Canadian sales volumes, we found that generic versions of the essential medicines were priced 47% lower in the US, 60% lower in Sweden and 84% lower in New Zealand. Results were similar when we used GDP purchasing power parity to convert currencies: 53% lower in the US, 56% lower in Sweden and 84% lower in New Zealand. Several high-volume medicines (including atorvastatin, pantoprazole, amlodipine, amoxicillin and clopidogrel) were priced at least 70% below Canadian prices in 2 or more comparator countries (Appendix 3).

From the US Department of Veterans Affairs, we obtained a weighted-average of relative prices for 16 brand-name drugs that accounted for 91% of Canadian expenditures on all of the essential medicines available only from brand-name manufacturers in Canada. Net of manufacturer rebates, brand-name drugs in the US were priced 43% below Canadian list prices using exchange rate conversions and 49% below Canadian list prices using purchasing power parities. We nevertheless used more conservative estimates of price changes in our economic models (Table 1 and Appendix 2).

Cost of universal coverage of the essential medicines

For Canada and each province separately, Table 4 lists the estimated change in total (private and public) expenditure on all prescriptions filled in retail pharmacies under our scenarios for adding universal public coverage of the essential medicines to the existing complement of public drug plans in Canada.

We estimated that the total expenditure on prescription drugs in Canada would fall by $3.04 billion (range $743 million to $5.46 billion; 12% reduction) under such an expansion of public

Table 3: Expenditure-weighted averages of the relative price of generic versions of the essential medicines in Canada and specified comparator countries, May–July 2016

Variable	United States	Sweden	New Zealand
Total no. of essential medicines with 1 or more generic equivalent in Canada and comparator country	55	29	51
Total expenditure on prescriptions for brand-name and generic versions of essential medicines with 1 or more generic equivalent in Canada and comparator country, Can$ billions	2.98	2.51	3.22
Expenditure-weighted average relative price of generic versions of essential medicines, comparator country relative to Canada, %			
Using 5-year average exchange rates to convert currencies	53	40	16
Using GDP purchasing power parities to convert currencies	47	44	16

Note: GDP = gross domestic product.

Table 4: Estimated change in total (private and public) expenditure on all prescriptions filled in retail pharmacies with the addition of universal public coverage of essential medicines on model list, by province

Province	Population in 2015, millions	Actual expenditure in 2015, $ millions	Estimated change in expenditure with addition of universal public coverage of essential medicines, $ millions (%)		
			All model parameters set to base-case scenario values	All model parameters set to best-case scenario values	All model parameters set to worst-case scenario values
All	35.7	26 204	–3043 (–12)	–5458 (–21)	–743 (–3)
British Columbia	4.7	2649	–320 (–12)	–562 (–21)	–93 (–4)
Alberta	4.2	2580	–238 (–9)	–456 (–18)	–35 (–1)
Saskatchewan	1.1	728	–75 (–10)	–134 (–18)	–20 (–3)
Manitoba	1.3	775	–90 (–12)	–162 (–21)	–22 (–3)
Ontario	13.8	10 148	–1282 (–13)	–2238 (–22)	–359 (–4)
Quebec	8.3	7364	–804 (–11)	–1482 (–20)	–158 (–2)
New Brunswick	0.8	662	–84 (–13)	–141 (–21)	–30 (–4)
Nova Scotia	0.9	762	–87 (–11)	–153 (–20)	–25 (–3)
Prince Edward Island	0.2	96	–12 (–12)	–20 (–21)	–4 (–4)
Newfoundland and Labrador	0.5	440	–47 (–11)	–86 (–19)	–10 (–2)

coverage. The percentage reduction in total expenditure was about equal across the provinces: ranging in the base scenario from a 9% reduction in Alberta to a 13% reduction in Ontario and New Brunswick. All economic scenarios included a total of more than $6 billion in pharmacy dispensing fees, equivalent to more than $210 000 per pharmacist practising in the community setting in Canada.[42]

For Canada as a whole, Table 5 summarizes our estimates of the change in public and private expenditures on all prescriptions filled in retail pharmacies under our scenarios with the addition of universal public coverage of the essential medicines. We estimated that the incremental government cost of adding universal public coverage of the essential medicines would be $1.23 billion per year (range $373 million to $1.98 billion; 11% reduction). The incremental private sector savings from such coverage was estimated at $4.27 billion per year (range $2.72 billion to $5.83 billion; 28% reduction). Total public expenditure on the essential medicines was estimated at $6.14 billion (range $5.6 billion to $6.6 billion); total public expenditure on medicines not on the essential medicines list, yet currently covered under existing public drug plans, was estimated at $5.85 billion (range $5.53 billion to $6.13 billion).

Almost half of the estimated total national savings from adding universal public coverage of the essential medicines ($1.50 billion) came from 7 therapeutic categories of medicine commonly prescribed in primary care: acid-reducing drugs, cholesterol medicines, antihypertensives, antipsychotics, antibiotics, antidepressants, and gabapentin and related drugs (Appendix 1). In contrast, about half ($628 million) of the incremental cost to government of covering the essential medicines stemmed from increased public expenditure on just 1 drug: adalimumab (Humira).

Interpretation

We found that nearly half (44%) of all prescriptions filled at retail pharmacies in Canada in 2015 were for 117 drugs on a model essential medicines list for Canada (the CLEAN Meds list[29]). An additional 33% of prescriptions filled were for drugs from the same chemical subclasses as 1 or more medicine from the essential medicines list. We estimated that adding universal public coverage of the essential medicines to the existing complement of public drug plans in Canada would save patients and private drug plan sponsors $4.27 billion per year (range $2.72 to $5.83 billion; 28% reduction). The incremental government cost of adding such coverage was estimated at $1.23 billion per year (range $373 million to $1.98 billion; 11% reduction). These estimates do not include indirect government savings from reduced cost of private drug coverage for public sector employees, patient savings from shopping at pharmacies with low dispensing fees, or reduced demands on the health system stemming from increased adherence to essential therapies.

Our modelling produced financial results similar to those found in the actual implementation of a limited formulary in Sweden. Adherence to the Swedish "Wise List" in Stockholm primary care sites saved 28% annually (€10 million or Can$14.5 million).[43] If our economic models were set up to exclude the cost impact of increases in utilization resulting from insuring previously under- and uninsured people (which was not a factor under Sweden's universal system of drug coverage), they would produce estimated net savings of 23% ($3.7 billion) within the drug classes directly affected by the essential medicines list modelled for Canada.

Our findings are also consistent with a previous study that estimated a comprehensive public drug plan could reduce total annual pharmaceutical expenditure in Canada by $7.3 billion using data from the 2012/13 fiscal year.[41] If our results were scaled to include savings for drugs not on the essential medicines list, the base-case scenario estimates of total annual savings would be between $6.9 billion and $10.1 billion using data for the calendar year 2015.

Reflecting the incremental approach to policy development modelled here, our present estimates of the public cost of adding universal public coverage of essential medicines to the existing complement of public drug plans in Canada are lower than the previous estimates of the public cost of a universal, comprehensive public drug plan. The estimated gross cost to governments (excluding indirect savings on public sector employee benefits) is $1.2 billion for coverage of essential medicines in 2015, as compared with the estimated $3.4 billion for comprehensive public drug coverage in 2012/13.[41]

Limitations

As a simulation study, our analysis is necessarily based on assumptions concerning changes in drug utilization, product

Table 5: Estimated change in public and private expenditure on all prescriptions filled in retail pharmacies with the addition of universal public coverage of essential medicines

		Estimated change in expenditure on all medicines with universal public coverage of essential medicines, $ millions (%)		
Source of finance	Actual expenditure in 2015, $ millions	All model parameters set to base-case scenario values	All model parameters set to best-case scenario values	All model parameters set to worst-case scenario values
Public	10 760	1229 (11)	373 (3)	1979 (18)
Private	15 444	−4272 (−28)	−5831 (−38)	−2721 (−18)
Total	26 204	−3043 (−12)	−5458 (−21)	−743 (−3)

substitutions and prices. We have based our assumptions on available evidence and direct price comparisons described in the Appendix 2. To account for the range of possible outcomes, we present results with all parameters set to best-case scenario values and all parameters set to worst-case scenario values.

We were unable to compare net-of-rebate prices in Canada with those in each of the comparator countries in this study. However, from the US Department of Veterans Affairs, we obtained an estimate of the weighted-average net-of-rebate prices for essential medicines available only from brand-name manufacturers in Canada. Those prices were 43% lower than Canadian list prices, which suggests that our assumptions about possible changes in net brand-name prices for the essential medicines are conservative (Appendix 2).

Finally, we modelled the implications of just one example of an essential medicines list that could be used as a first stage of pharmacare reform for Canada. Changes in the number and type of drugs included on the list will affect financial impacts of expanding drug coverage in this way. Provided that the list includes 1 or more generic drugs from the high-volume chemical subclasses of medicines that account for most medication use in Canada today (as the CLEAN Meds list does), the financial impacts of coverage of such treatment types will be similar to those modelled here. Expanding coverage to include additional therapeutic categories will broaden the extent of needs met and savings potential from the universal public system, but it will also increase the incremental costs to government of such a program, which would bring this incremental approach to pharmacare development closer to the comprehensive approach modelled previously.[41]

Conclusion

Commissions on the Canadian health care system have repeatedly concluded that universal, comprehensive public pharmacare is the most equitable and efficient means of achieving access to appropriate and affordable care for all Canadians. Our study showed that adding universal public coverage of a model list of essential medicines to the existing complement of public drug plans in Canada could address most of Canadians' pharmaceutical needs and save billions of dollars annually. Doing so may be a pragmatic step forward while more comprehensive pharmacare reforms are planned.

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Affiliations: School of Population and Public Health (Morgan), University of British Columbia, Vancouver, BC; Faculty of Medicine (Li), University of Toronto, Toronto, Ont.; Faculty of Medicine (Yau), University of British Columbia, Vancouver, BC; Department of Family and Community Medicine (Persaud), University of Toronto, Toronto, Ont.

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Correspondence to: Steven Morgan, steve.morgan@ubc.ca