
O CANADA: DO WE EXPECT TOO MUCH FROM ITS HEALTH SYSTEM?

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Prologue: *Canada's health Program has been proposed as a solution to the most serious ills afflicting America's health care system—the limited access to care afforded people without insurance and its high cost. As proposed (by Rep. Marty Russo, D-IL), Canada's model would replace the existing combination of private and public health insurance with a single public program that would protect all citizens from the financial consequences of illness. Advocates of Canada's single-payer model argue that it would be less expensive to operate here than the current U.S. system because of its simplified administration and planned growth in medical spending. Previous estimates of such savings ranged from \$3 billion to \$241 billion in 1992. However, a new analysis by John Shiels, Gary Young, and Robert Rubin also estimates the consequences of the greater demand that would result from a universal insurance scheme that financed comprehensive care, virtually free at the point of service. These costs, they project, would more than offset the estimated administrative savings. The authors, all of whom are affiliated with the Washington-based consulting firm Lewin/ICF, prepared this paper in response to arguments that the reduced administrative costs of such an approach would yield large savings without new costs, and thus should increase its attractiveness as a solution. Shiels, who holds a master's degree in public policy from Carnegie-Mellon University, is widely respected for his analytic skills. He has been retained by interests representing different philosophic perspectives to provide cost estimates of a variety of health care reform proposals, including those put forward by the Heritage Foundation, the Pepper Commission, the Advisory Council on Social Security, and Sen. Bob Kerrey (D-NE). Young holds a doctorate in business management and a law degree. Rubin, a physician, served as assistant health and human services secretary for planning and evaluation during the Reagan administration. He is president of Lewin/ICF.*

In Canada, ten independent provincial plans provide coverage to all Canadians. Although coverage differs across provinces, all citizens are covered under a single government-run program, which provides first-dollar coverage for hospital and physician care. Two features of the Canadian plan could potentially reduce health spending if they were implemented in the United States. First, the Canadian model greatly simplifies the administration of health benefits by covering the full cost of most physician and hospital services through a single health insurance program. Second, the Canadian model enables society to regulate growth in health spending through aggregate expenditure budgets implemented through uniform physician fee schedules and hospital operating budgets.

Estimates of savings in U.S. health spending under the Canadian model vary widely. Steffie Woolhandler and David Himmelstein suggest that implementing the Canadian approach could have reduced U.S. health spending by over \$100 billion in 1991 through reduced paperwork and streamlined administration.¹ A study for The Robert Wood Johnson Foundation (RWJF) estimates that if we were to also reduce provider reimbursement to Canadian levels, savings could have been as great as \$241 billion in 1991.² By contrast, a recent U.S. Government Accounting Office (GAO) study estimates that administrative savings would be largely offset by increased use under a Canadian-style program of comprehensive free care, for a net savings of only about \$3 billion.³

This wide disparity in estimated cost impacts reflects important differences in assumptions and methodology. For example, Woolhandler and Himmelstein addressed only the question of administrative simplification without considering potential increases in utilization. The GAO estimate did include an offset for the increase in use of health services expected under the Canadian model. Unlike either of these studies, the RWJF analysis illustrates the impact of reducing provider reimbursement to Canadian levels (a reduction of up to 25 percent) under a U.S. version of the Canadian model.

All three studies estimate administrative savings under the Canadian model based at least in part upon a comparison of Canadian and U.S. administrative cost data. This approach is flawed in several important ways. First, roughly half of provider administrative costs in the U.S. are attributed to functions that would be largely unaffected by changes in reimbursement methods, such as medical malpractice, quality assurance, medical supplies, nonphysician medical staff, and other nonmedical functions such as laundry and dietary services. Second, U.S. administrative costs reflect a higher level of capital investment than in Canada, the cost of which cannot be eliminated in the short run. Third, claims adjudication costs under a U.S. single-payer model are likely to remain higher than in Canada, as a result of the broader rights of due process

guaranteed under the U.S. Constitution.

In this study, we attempt to estimate the change in national health spending that would occur if a Canadian-style single-payer system were adopted in the United States. Rather than relying upon U.S./Canadian administrative cost comparisons, we estimate potential administrative cost savings based upon a detailed evaluation of how individual cost centers (such as billing, admitting, dietary, and so on) would be affected under the model. We also estimate the increase in use likely to occur under the Canadian model based upon studies of utilization levels under alternative benefit structures. Whenever possible, the analysis is based upon information provided in the literature or in surveys of health industry operations. When data are unavailable, we rely upon interviews with industry analysts. (A detailed description of the data and methods used in this analysis is available from the authors.)⁴

Throughout this analysis, we assume that existing levels of provider reimbursement and capital investment will be maintained under a U.S. version of the Canadian model in the initial year of the program. The savings due to budgeting are assumed to materialize in future years as the program is used to slow the rate of growth in health spending. This assumption is consistent with recent experience in the Medicare program where the conversion to new payment methods was designed to be budget-neutral in the initial year with limitations in the rate of growth in provider payments in later years. Thus, our study shows only the change in health spending as we shift from a pluralistic system with extensive patient cost sharing to a single-insurer program of comprehensive free care. The potential for long-range savings in Canada's health expenditure budgets is discussed separately.

Administrative Costs

The Canadian system streamlines health care administration by centralizing the source of payment for all covered health services within each province under a single governmental program with uniform coverage and reimbursement rules. Much of the cost of administering health care in the United States can be traced to the fact that insurance is provided through roughly 1,500 separate private and public sources of coverage, each with their own rules, forms, and provider reimbursement policies. Moreover, because most U.S. health plans require patient cost sharing (such as deductibles and coinsurance), the provider must obtain reimbursement for any given service by first filing with the insurer then billing the patient for unreimbursed amounts.

The Canadian system replaces this multipayer model with a single source of payment for the full amount of covered services, thus eliminat

ing both the complexity of diverse insurer rules and patient billing for unreimbursed amounts. The Canadian system also replaces hospital billing for individual patients with annual operating budgets eliminates the cost of negotiating selective-contracting discounts with providers and eliminates many of the utilization management programs now used by private insurers (such as precertification). Here, we estimate the cost savings attributed to these administrative simplifications for both insurers and providers based upon an analysis of how the Canadian model would affect specific insurer and provider administrative cost centers.

Insurer administrative costs. We project that insurer administrative costs in the United States were \$38.2 billion in 1991-\$28.2 billion for administration of private insurance and \$10 billion for administration of public programs (Exhibit 1). The cost of insurance administration includes the cost of processing claims, research, utilization review and determining eligibility under government programs. Administrative overhead for private insurers also includes marketing costs taxes accumulation of reserves less interest earned on reserve balance; and profits Administrative costs for 1991 equaled about 13.7 percent of claims for private insurance and about 3.6 percent of claims in public programs.

The higher cost of administering private insurance is attributed largely to the difficulties in achieving economies of scale in the administration of small-group coverage. For example, administrative costs are equal to as much as 40 percent of benefit payments in groups with fewer than five employees, whereas the administrative overhead in groups of 10,000 or more workers is equal to about 5 percent of benefit payments.

Exhibit 1
Summary Of Changes In Insurer Administrative Costs Under A Canadian-Style Single-Payer System, Billions Of U.S. Dollars

	Current policy'	Single-payer model	Net change in insurer cost
Employer insurance	\$17.6	\$ 0.9 ^b	-\$16.7
Individual nongroup insurance	6.1	0.4 ^b	-5.7
Medigap insurance	4.5	0.3 ^b	-4.2
Government programs			
Federal	5.4	130 ^b	-7.6
State	4.6	1.1 ^b	-3.5
Total Insurer cost	38.2	15.7	-22.5

Source: Lewin/ICFestimates.
^a based upon: (1) Health Care Financing Administration (HCFA) national health spending projections to 1991; (2) historical data on average annual private administrative costs as a percentage of claims (an average was taken to correct for cyclical shifts in the underwriting cycle); (3) industry data on retention rates by product type; and (4) HFCA data on public program costs as a percentage of claims.
^b assumes that private and public insurance will be retained for currently covered services that would not be covered under the single-payer program.
^c based upon Medicare administrative data, adjusted for changes in administrative practice and lower levels of utilization among persons not now enrolled in Medicare.

Administrative costs are higher in small groups because (1) the fixed cost of marketing and establishing a policy is spread over fewer persons in small groups; (2) insurers in the small-group market typically engage in medical underwriting to select the best risks and exclude groups with unhealthy members; and (3) the risk/profit factor is higher in small groups due to the difficulty in predicting covered claims for small groups (that is, the potential for covered claims to exceed premium payments).⁵

The Canadian model would extend large-group economies of scale throughout the health care system by covering all individuals under a single insurance mechanism. This would eliminate the costs associated with underwriting, transitions in coverage, and maintaining the administratively cumbersome linkage between employers and insurers. The Canadian model would also eliminate many of the utilization management functions now performed by insurers.⁶

Prior studies have estimated the potential administrative savings under the Canadian model based upon the cost of insurance administration in Canada. This approach has produced misleading results because the Canadian administrative cost figures used as the basis of these calculations do not reflect many of the overhead costs associated with administering the program in Canada, such as buildings, equipment, fringe benefits, and personnel services.⁷ Moreover, administrative costs in a U.S. version of the Canadian system would be influenced by unique conditions in the United States such as wage levels, facilities costs, taxes, malpractice liability costs, and the existing level of investment in health technology.

We estimated administrative costs under a U.S. version of the Canadian system based upon per capita administrative costs under the U.S. Medicare program (\$85 per person in 1991). We use Medicare experience for our analysis because it is in effect a single-payer system for aged and disabled persons that reflects unique costs of health benefits administration in the United States. Medicare program data also include a fair market valuation of government facility costs and reflect the cost of Medicare contracts with private claims processing and utilization review firms. We adjusted the Medicare per capita administrative cost data to reflect the elimination of hospital claims filing and the lower level of claims among younger persons covered under a Canadian program.

Based upon these adjusted per capita cost data, we estimate that administrative costs under a Canadian-style public program in the United States would have been \$13 billion in 1991 (Exhibit 1), with additional administrative costs of \$2.7 billion for public and private coverage of services not covered under the Canadian model. (We assume that employers who now cover services not in the public plan, such as drugs and dental care, would continue such coverage and that states

would continue to cover these services for low-income persons now covered under Medicaid.) Overall, nationwide insurer administrative costs would be reduced from \$38.2 billion under current policy to \$15.7 billion under the Canadian model, for a net savings of \$22.5 billion.

Physician administrative costs. We estimate that about 32 percent of U.S. physician revenue (\$43.3 billion) was devoted to administrative functions in 1991 (Exhibit 2). Physician administrative costs include all physician overhead expenditures attributed to activities other than those directly related to patient care such as business office staff, medical receptionists, claims filing and collections, utilization review and quality assurance, marketing, office space for administrative personnel, and other general administrative costs such as office managers, interest, and insurance costs. Administrative costs also include the value of physician time devoted to practice management and insurer-related functions.

We estimated nationwide physician administrative costs based upon

Exhibit 2
Summary Of Changes In Physician Expenses Under The Canadian Model In 1991

	Total expenses		Savings under single-payer model	
	Amount (billions of U.S. dollars) ^a	Percent of net revenues	Amount (billions of U.S. dollars) ^b	Percent savings
Patient care expenses	\$ 93.71	68.4%		
Physician time	59.78	43.5	NA	NA
Medical staff	19.27	14.0	NA	NA
Medical supplies and services	6.47	4.7	NA	NA
Facilities and equipment	8.19	6.2	NA	NA
Administrative costs	43.32	31.6	\$11.08	25.7%
General administration	17.23	12.6	3.92	22.7
Claims filing/billing ^c	7.74	5.6	3.33	50.0
Claims adjudication	2.29	1.7	1.53	66.0
Utilization management ^d	1.31	1.0	1.31	100.0
Utilization review	1.00	0.7	0.00	0.0
Facilities and equipment ^e	2.66	2.0	0.39	16.5
Marketing, interest and other expenses	11.09	8.0	0.00	0.0
Total net patient revenues	137.03	100.0	11.08	8.1

Source: Lewin/ICF estimates.

Physician net patient revenues were allocated across physician expense and physician income categories based upon the distribution of net patient revenues by these expense groups, as reported in *The Cost and Production Survey Report: 1990 Report* (Denver, Colo.: Medical Group Management Association, 1990) (data for 1989).

^b We assume that physicians' billing expenses would be reduced by half and that claims adjudication expenses would be reduced by two-thirds. Utilization management costs would be eliminated, as would costs related to selective-contracting negotiations. General administration and other costs would be reduced in proportion to reductions in other expenses.

^c Includes business office and information services costs.

^d Includes physician and nursing staff time devoted to utilization management functions.

^e Includes rent and depreciation of office space devoted to administration.

average administrative expenditures reported in a survey of physician groups conducted by the Medical Group Management Association (MGMA).⁸ Using these data, we estimate physician expenditures for various categories of nonphysician staff, information services, and overhead expenses for facilities, equipment, and supplies. We estimated the cost of physician time attributed to administration (\$6.6 billion in 1991) based upon an American Medical Association (AMA) survey showing that physicians devote about 10 percent of their professional activities to functions other than patient care. Further analyses of AMA data indicate that about 60 percent of this time is attributed to functions related to complying with insurer requirements.⁹

The Canadian approach would substantially reduce physicians' claims-filing costs by standardizing the means of reimbursement through a single payer. In the United States, the physician's cost of filing claims—which we estimate to have been \$7.7 billion in 1991—is inflated by the fact that physicians often file claims with hundreds of separate insurance companies, each with their own forms and reimbursement rules. Moreover, physicians typically must obtain reimbursement for amounts not covered by the insurer from either the patient or secondary sources of insurance (such as Medigap coverage, spousal coverage in families with dual employer family coverage, and so on). The Canadian model would reduce claims-filing costs by providing full reimbursement through a single source using a standardized electronic claims-filing process.

Standardization of coverage would also reduce physician costs related to adjudication of claims and negotiation of selective-contracting arrangements (that is, volume discounts for large insurers). Insurers often have different rules concerning covered services, service bundling, documentation requirements, and allowable reimbursement levels. We estimate physicians' cost of appealing and adjudicating denied and/or reduced claims to have been about \$2.3 billion in 1991. These costs would be largely eliminated if a uniform fee schedule were used for all patients. The Canadian model also eliminates many of the prospective utilization management programs used by U.S. private insurers, which add an estimated \$1.3 billion to annual physician administrative costs.

Savings to physicians under the Canadian model would vary across practices, depending upon the extent to which physicians now perform the billing function, their current degree of automation, and the extent to which they now balance bill. Industry analysts believe that claims-filing costs could be reduced by as much as two-thirds for some physicians. However, many providers have already realized efficiencies through electronic claims processing for high-volume insurers and/or requiring payment in full at the point of service, leaving the patient to file the

claim with the insurer. In this analysis, we assumed that claims-filing costs would be reduced on average by half and that claims adjudication costs would be reduced by two-thirds.

Based on these assumptions, we estimate that physician administrative costs would have been reduced by about 26 percent (\$11 billion) in 1991 under the Canadian model. About half of these savings would have been in the billing and claims adjudication functions, where total savings would have been about \$5.4 billion. Reductions in utilization management functions under the Canadian model would have saved about \$1.3 billion in physician administrative costs. Additional savings of \$4.3 billion would have been found in general administrative and facilities overhead costs.

Hospital administrative costs. We estimate that US hospitals spent about \$93.9 billion (33.4 percent of revenues) on administration in 1991 (Exhibit 3). In this analysis, we define hospital administrative costs to include all labor and overhead expenditures attributed to functions other than those directly related to patient care, such as general accounting, patient accounting, credit and collections, admitting, general hospital administration, public relations, data processing, medical records functions, and rent and depreciation for facilities and equipment assigned to administration. For purposes of this discussion, we classify net revenues (profits) as part of administrative overhead.

Comprehensive, nationwide data on administrative costs in U.S. hospitals do not exist. However, several states, including California and Florida, collect detailed hospital expenditure data by cost center, which can be used as a basis for estimating nationwide hospital administrative expenditures. In this analysis, we assume that national hospital spending is distributed across cost centers in proportion to the distribution of hospital expenditures by administrative function reported for California hospitals. Although California hospitals are not strictly representative of hospitals in the United States, these data provide valuable insights into the sources of hospital administrative costs.

Net revenues (surplus/deficit) for hospitals in 1991 are projected to be about \$9.7 billion, of which about 11 percent is attributed to for-profit hospitals.¹⁰ We define net revenues to be the amount by which total hospital revenues (including operating and nonoperating income) exceed total hospital expenditures. Much of this net revenue is retained for investment in new facilities or for carrying out the charitable mission of not-for-profit hospitals. We estimate that for-profit hospitals distributed about \$400 million to stockholders in 1991. (We estimated the portion of hospital net revenues distributed as profits to shareholders based upon an analysis of Medicare hospital cost report data and financial statements for major for-profit hospitals.)¹¹

Exhibit 3

Summary Of Changes In Hospital Expenses Under The Canadian Model In 1991

	Total expenses		Savings under single-payer model	
	Amount (billions of U.S. dollars) ^a	Percent of net revenues	Amount (billions of U.S. dollars) ^b	Percent savings
Total patient care expenses	\$187.57	66.6%	NA	NA
Daily hospital and ancillary services costs	159.37	56.6	NA	NA
Dietary	5.12	1.8		NA
Laundry and linen	2.21	0.8	NA	NA
Social services	0.81	0.3	NA	NA
Plant operations	13.72	4.9		NA
Facilities	6.34	2.2	NA	NA
Total administrative functions	93.90	33.4	\$13.54	14.4%
Patient accounting/collections ^c	7.44	2.6	6.71	
Patient admitting	2.67	1.0	1.07	40.0
General accounting and other fiscal services	3.37		0.00	0.0
Hospital administration ^d	18.15	6.4	4.14	22.8
Facilities	0.82	0.3	0.17	20.0
Interest, insurance, and other costs	15.75	5.6	0.00	0.0
Cafeteria, social services, and other service cost centers	36.02	12.8	1.06	2.9
Hospital net revenues	9.68	3.5	0.20	2.0
Total hospital revenues	281.47	100.0	13.35	4.7

Source: Lewin/ICF estimates.

^aTotal dollar figures for 1990 from HCFA national health accounts were allocated to costcenters based on FY 1989 aggregate California hospital data Provided by the California Office of Statewide Health Planning and Development.

^bAssumes that functions associated with hospital billing and selective-contracting negotiations are eliminated. Patient-admitting expenses are assumed to decline by 40 percent due to simplifications in insurance coverage. We assume no change in patient care expenses.

^cIncludes an allocation of data-processing costs.

^dIncludes hospital administration, public relations, governing board expenses, and an allocation of data-processing costs.

The Canadian approach would all but eliminate hospital administrative costs associated with filing claims. Under the Canadian model, hospitals are given an annual operating budget covering all services provided by the hospital. Each hospital is responsible for allocating resources so that total expenditures remain within these budget constraints. Claims are no longer submitted for reimbursement, reducing the need for record keeping and eliminating all hospital claims processing costs for both the provider and the insurer. Costs associated with negotiating price discounts with insurance carriers are also eliminated. The Canadian system would also regulate the return to stockholders (that is,

dividends) in for-profit hospitals through a negotiated profit allowance in the hospital operating budget (we assumed a 50 percent reduction in dividend payments to shareholders in for-profit hospitals).

Hospital administrative costs would have been reduced by about 14 percent (\$13.5 billion in 1991 under the Canadian model (Exhibit 3). Most of these savings would have been in patient accounting, billing, and admitting (\$7.8 billion). Elimination of selective-contracting negotiations would also have resulted in general administrative savings of about \$4.1 billion. Regulation of return on investment in for-profit institutions would have reduced hospital net revenues by about \$200 million. Overall, administrative simplifications under the Canadian single-payer model would have reduced hospital spending by 4.7 percent.

Use Of Health Services

Ironically, the very features of the Canadian system that reduce administrative costs would also increase health spending by encouraging increased use of services. For example, the uniformity of coverage under the single-payer system would greatly expand access to health care for the 33.5 million Americans now without insurance. Elimination of cost sharing under the single-source reimbursement system would also greatly reduce patients' incentives to moderate use of health services. Increased use is also likely in response to the elimination of utilization management programs that insurers now use to control health spending.

Increased use by previously uninsured persons could raise costs by about \$11.1 billion. Use of physician services and hospital outpatient services for previously uninsured persons would increase by 38 percent, and use of inpatient services would increase by 46 percent. This estimate was derived by assuming that use of health services for previously uninsured persons will adjust to the levels reported by insured persons of similar age, sex, income, and health status.¹²

We estimate that eliminating cost sharing would result in an additional increase in health services utilization of about \$49.7 billion. This estimate is based upon RAND Health Insurance Experiment data, which indicate that eliminating cost sharing can increase use of physician services by about 31 percent and increase use of inpatient hospital services by 10 percent.¹³ In fact, a comparison of per capita utilization data indicates that physician utilization in Canada is about 30 percent higher than in the United States.¹⁴ We assumed that this increase in use would occur only among persons currently in plans with cost sharing.

Canadian nursing home and home health coverage is also more comprehensive than in the United States. However, Canada does not require nursing home residents to deplete their assets before becoming

eligible for coverage. In addition, home health services are provided as insured services without patient cost sharing under several provincial plans. We estimate a \$10.2 billion increase in use of nursing home and home health services based upon a review of the literature on price elasticities for these services.¹⁵

An increase in utilization is also likely to occur because of the elimination of precertification, second surgical opinion, and other prospective and concurrent utilization management programs under the Canadian model. Based upon an analysis of industry data, we estimate that insurers spent about \$1.6 billion administering such programs in 1991.¹⁶ A review of the literature on the effectiveness of these programs indicates that every dollar spent on utilization management is associated with reduced claims of between one and nine dollars.¹⁷ The midpoint of these studies indicates a ratio of savings to administrative costs of four to one, which suggests that prospective utilization management programs reduce use of health services by about \$6.4 billion each year. We assume that these savings would be lost if these programs were eliminated.

We estimate that when all of these utilization effects are considered, health services use would increase by \$78.2 billion over 1991 levels under the Canadian model. Thus, the increase in health services utilization would exceed administrative savings (\$46.8 billion) by \$31.4 billion. Of course, much of this increase could be averted if patient cost sharing were part of a U.S. version of the Canadian model. However, this would substantially erode the potential for administrative savings under a single-payer system. In fact, 40 percent of the estimated administrative savings under the Canadian model (\$18.8 billion) is attributed to the elimination of patient billing for unreimbursed amounts.

Health Expenditure Budgets

As the sole source of payment for most health services, the single-payer program effectively determines national health spending levels by setting hospital budgets and physician fees under the program. Such a system could achieve substantial long-range savings by slowing the rate of growth in health spending over time. Savings could also be achieved in the initial year of the program if payment rates were set below current levels. However, our experience with Medicare's diagnosis-related groups (DRGs) and resource-based relative value scale (RBRVS) suggests that payment levels are likely to be set at budget-neutral levels in the initial year of the program, with reductions in the rate of growth in provider payments in future years.

Unfortunately, it is impossible to predict the potential savings resulting from health expenditure budgeting. Budgeting in the United States

is sure to be a highly political process that may not always yield results consistent with the goals of cost containment. The broad rights of due process guaranteed under the U.S. Constitution may also affect spending through legal appeals of reimbursement policies. However, because the Canadian model is tax financed, Congress is likely to slow the increase in spending to avoid tax increases.

Although the outcome of budgeting on health spending cannot be estimated reliably, it is useful to illustrate the potential savings under such a system. For example, if the Canadian model were implemented along with an expenditure budgeting program that reduces the projected rate of growth in per capita health spending by just one percentage point per year (that is, from its current projected annual rate of 8.2 percent to 7.2 percent), US. health spending would be reduced by about \$137 billion over the next decade. However, the impact of such a reduction in spending on the quality of care and development of new innovations in health care technology is unknown.

In any case, it is important to separate the potential cost savings due to health expenditure budgeting from the cost implications of Canada's unique administrative model. Health expenditure budgeting could be implemented in any system, including our own, by requiring all insurers to reimburse providers on uniform fee schedules calibrated to constrain spending within targeted expenditure levels. Thus, the cost implications of the Canadian single-payer program are quite distinct from the potential savings achievable through health expenditure budgeting.

Conclusion

Our study reveals a tension between the goals of administrative efficiency and cost containment. While the elimination of patient cost sharing and utilization management reduces administrative costs, it also eliminates providers' and patients' incentives to moderate use of health services. In fact, we estimate that the increase in utilization under the Canadian model (\$78.2 billion) would exceed administrative savings (\$46.8 billion) by \$31.4 billion.

Comparisons with Canada's experience have awakened policymakers to the level of resources we now devote to administering our health care system. The question now emerging in the health care reform debate is whether the administrative efficiencies of a program such as Canada's can be realized within our existing health care financing system. In fact, substantial administrative savings could be found through reforms of the small-group insurance market, electronic claims filing, standardization of coverage and reimbursement rules, and simplification of administrative requirements for providers under existing government programs. A

program of national health expenditure budgeting could also be incorporated into our existing system to slow growth in health spending.

However, it will be difficult to achieve substantial reductions in administrative costs within our system without infringing upon the diversity of coverage options available to consumers. The higher cost of administration in the United States can be traced to the diversity of insurance coverage, utilization management programs, and negotiated provider discounts found in today's system. Merely standardizing claims forms, as has been widely suggested, will do little to cut administrative costs unless this is coupled with greater standardization of insurers' rules and reimbursement policies. However, such standardization necessarily implies restricting the diversity in coverage, utilization management, and negotiated discounts, on which insurers now compete. This tension between product diversity and administrative cost will shape the emerging debate over administrative simplification.

NOTES

1. S. Woolhandler and D.U. Himmelstein, "The Deteriorating Administrative Efficiency of the U.S. Health Care System," *The New England Journal of Medicine* (27 September 1990): 1253–1258.
2. J.A. Meyer et al., "A National Health Plan for the U.S." (Study conducted by the Economic and Social Research Institute for The Robert Wood Johnson Foundation, Washington, D.C., 1991).
3. General Accounting Office, *Canadian Health Insurance: Lessons for the United States*, GAO/HRD-91-90 (Washington, D.C.: U.S. GAO, June 1991).
4. Complete documentation of the data and methods used here is available from the authors at Lewin/ICF, 9300 Lee Highway, Suite 400, Fairfax, Virginia 22031–1207.
5. Congressional Research Service, *Cost and Effects of Extending Health Insurance Coverage* (Washington, D.C.: CRS, 1989).
6. The Canadian model includes retrospective utilization review programs designed to target physicians who appear to be overprescribing certain procedures. Many U.S. insurers have similar utilization review programs. We assume that these practices would continue under the Canadian model implemented in the United States.
7. Michael Wolfson, Director, Social and Economic Systems, Statistics Canada, personal communication, October 1991.
8. Projections of physician net revenues were provided by the Office of National Health Statistics, Health Care Financing Administration, Office of the Actuary. Data on physician expenses for 1989 were obtained from Medical Group Management Association, *The Cost and Production Survey Report: 1990 Report* (Denver, Colo.: MGMA, 1990).
9. Estimates based upon data provided in American Medical Association, *Socioeconomic Characteristics of Medical Practice* (Chicago: AMA Center for Health Policy Research, 1988). We estimated the value of physician time spent on administration (about five weeks per year) by taking 10 percent of net physician revenues. The AMA data indicate that physicians spend about six minutes per claim complying with insurer requirements, which we estimate totals about 120 hours (three weeks) per physician per year.
10. We assume that the nationwide average total net revenues as a percentage of revenues

will be the same as reported in the Medicare cost report (PPS 6 minimum data set), data for 1989. (These data report net revenues for all patients, including those not in the Medicare program.)

11. Analysis of Medicare cost report (PPS minimum data set) data for 1989; and Humana, 1990 Annual Report (Louisville, Ky.: Humana, Inc., 1991).
12. J. Needleman et al., "The Health Care Financial System and the Uninsured" (Prepared by Lewin/ICF for the Health Care Financing Administration, Washington, D.C., 4 April 1990).
13. W.G. Manning et al., "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment," *The American Economic Review* (June 1987): 251–277.
14. V.R. Fuchs and J.S. Hahn, "How Does Canada Do It? A Comparison of Expenditures for Physician's Services in the United States and Canada," *The New England Journal of Medicine* (27 September 1990): 884.
15. B. Chiswick, "The Demand for Nursing Home Care: An Analysis of the Substitution between Institutional and Non-institutional Care," *Journal of Human Resources* 11 (1976): 295–316; W. Scanlon, "A Theory of the Nursing Home Market," *Inquiry* 17 (1980): 2541; J. Nyman, "The Private Demand for Nursing Home Care," *Journal of Health Economics* (June 1989): 209–232; and A. Headen, "Insurance-induced Demand and the Hazard of Nursing Home Entry" (Faculty Working Paper no. 152, North Carolina State University Department of Economics and Business and Duke University Center for Demographic Studies, 1989).
16. Industry data indicate that about 94 percent of privately insured persons are in a plan with some form of preservice utilization management at a typical cost to insurers of about \$24 per contract per year. See Health Insurance Association of America, *Research Bulletin: Trends in Managed Health Care* (February 1989); C.B. Sullivan and T. Rice, "The Health Insurance Picture in 1990," *Health Affairs* (Summer 1991): 104–115; and "Directory of UR Firms," *Business Insurance* (18 February 1991): 35–37.
17. P. Feldstein et al., "The Effects of Utilization Review Programs on Health Care Use and Expenditures," *The New England Journal of Medicine* (19 May 1988): 1310–1314; and T. Wickizer, "The Effect of Utilization Review on Hospital Use and Expenditures," *Medical Care Review* (Fall 1990): 327–363.