Comparing physician fee schedules in Canada and the United States

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Although Canada and the United States have fundamentally different systems for financing health care, there are many similarities between the two countries in their approaches to physician payment. The similarities have increased recently with the adoption of the Medicare fee schedule. Canadian provinces have been using fee schedules for more than 20 years. This article provides an overview of the fee schedules used by Medicare and the four largest Canadian provinces, highlighting specific similarities and differences. We conclude that, although some differences in service definitions exist, the major areas of contrast relate to what services are paid for and how fees are updated. Updating fees is important because it affects how rapidly expenditures grow.

Introduction

The new fee schedule adopted by Medicare is at the center of physician payment reform in the United States. This has prompted several provinces in Canada to consider applying a resource-based relative value scale (RBRVS)—the basis of the Medicare reform—to their own fee schedules. However, there have been few formal comparisons of the two countries' approaches to physician payment. This study fills this gap by providing an overview of physician payment and highlighting specific similarities and differences between the new Medicare fee schedule and the fee schedules used in the four largest Canadian provinces.

Although the majority of physician services in Canada and the United States are paid on a fee-for-service basis, the physician payment environments in the two countries differ in several important ways. Canadian provincial governments represent single payers that negotiate fees directly with a single provincial medical association (with the exception of Quebec, which has two negotiating bodies). Provincial governments have used their powerful position to negotiate limits on the growth of physician fees and, more recently, physician expenditures (Barer, Evans, LaBelle, 1988; Lomas et al., 1989). The negotiations, in contrast to the United States, are more explicitly about the level of physician incomes.

In the United States, there is a much less cohesive system. More than 1,500 insurance companies share the task of paying for physician services, and there is great diversity in how fees are set. Some payers may pay actual charges; others may try to establish some method for determining if a charge is "reasonable." Recently, some larger insurers have tried direct negotiation with physicians, as individuals or in groups. Although Medicare is the largest public health insurance program in North America (there are approximately 34 million Medicare beneficiaries compared with 26 million Canadians), its share of physician expenditures is only about 25 percent in the United States. Thus, changes in the approach to physician payment under Medicare coexist with the differing approaches of many other payers.

Medicare physician payment reforms may have implications for access to care and out-of-pocket costs among the elderly. Access would be compromised if payment policies motivated physicians to limit or reduce the number of beneficiaries in their practices (Blumenthal and Epstein, 1992). Also, as Medicare's fee changes, copayments change. In this way, physician payment reform alters cost sharing, which could affect utilization (Wilensky and Rossiter, 1986; Mitchell and Menke, 1990). These factors are much less important in Canada because of the universality of insurance coverage and the virtual absence of patient copayments.

The differences in the nature of the health financing systems in the two countries partly explain the differences in the direction and pace of physician payment reform. Reform in Canada has moved toward policies that limit physician expenditures; the relative prices of services and their definitions have received much less attention. Indeed, the recent implementation of RBRVS by the Medicare program has prompted several Canadian provinces to consider, for the first time, the application of this method to their fee schedules. In the United States, general discussions about the implementation of uniform fee schedules or expenditure limits for all payers in a multipayer system are in their infancy. Medicare's payment reforms, based on a RBRVS fee schedule, controls on physician expenditures, and further limits on balance billing, represent a major departure from past policies in the United States.

These historical differences in physician payment policies have led to marked differences in the level of physician fees and per capita spending on physician services between Canada and the United States. Since 1971, physician fees in Canada have risen no more rapidly than general inflation (Barer, Evans, and LaBelle, 1988).This has resulted in a large disparity

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between fees in Canada and the United States. Fuchs and Hahn (1990) reported that physician fees for privately insured patients are two to three times higher than those for comparable services in Canada. This disparity is reflected in differences in aggregate expenditures for physician services. Studies from both sides of the border suggest that per capita physician expenditures in Canada are about two-thirds of those in the United States (Barer, Evans, and LaBelle, 1988; Fuchs and Hahn, 1990).

In this article, we contrast the structure of the fee schedules in the four most populous provinces in Canada (Ontario, British Columbia, Quebec, and Alberta) with the new fee schedule implemented under Medicare. The article is divided into two parts. In the first section, we provide an overview of the process of defining the fee schedules by addressing three questions: (1) How are the definitions of services established and modified? (2) What physician services are paid through the schedules? (3) How are the basic fees for the individual services established? In the second section, we contrast specific aspects of the Canadian and Medicare schedules, focusing on the approach to defining evaluation and management services; the approach to bundling physician services; and adjustments in fees for special circumstances.

Overview

Service definitions

The structure of physician payment constitutes both the definition of units of service (the codes) and their relative prices. Although the definitions of services are relatively uniform on a national basis in the United States, they differ by province in Canada. The Common Procedural Terminology (CPT) coding system, the standard classification of physician services in the United States, was introduced by the American Medical Association (AMA) in 1966. Since 1983, most payers in the United States have relied on CPT. Codes have been added, deleted, or modified annually, based on decisions made by the CPT editorial board of the AMA. This board is a collaboration of representatives from all medical and surgical specialties. Although more than 90 percent of Medicare physician expenditures are covered by CPT codes (Miller and Welch, 1991), the Health Care Financing Administration (HCFA) does assign additional codes on a temporary basis (called "Q codes") to track new procedures that have not yet been assigned CPT codes. For instance, laparoscopic cholecystectomy, as relatively new technology, was initially assigned a Q code prior to receiving a CPT code.

By contrast, each Canadian province has developed a fee schedule with a unique structure. These fee schedules were generally adapted from those developed by the provincial medical societies prior to the initiation of the Medical Care Act in 1966 (the Canadian law that established their system of universal coverage for physician services). During this period, the codes, their definitions, and relative prices were adopted. Prices were set at 85 to 100 percent of average payments because the system offered the opportunity for physicians to eliminate unpaid patient bills and to reduce administrative costs (Lomas et al., 1989). For instance, in Ontario, the provincial government adopted the fee schedule originally created by the Ontario Medical Association and set the initial payment rate at 90 cents on the dollar.

The process of the deletion, addition, or modification of codes is similar among provinces. Typically, a committee representing physicians from the provincial medical association proposes a new code. The code is subsequently reviewed by a joint government-physician committee. The new code may represent a new procedure or a modification of a previous procedure. Although codes for new procedures come under close scrutiny, this process seldom results in their exclusion. For the most part, only procedures that are medically controversial prompt a delay or, rarely, eventual denial. For instance, discussions about the efficacy of balloon dilation of the prostate occurred before it was eventually approved as a new code of British Columbia. Similarly, lithotripsy for the destruction of stones in the common bile duct was approved in British Columbia; whereas lithotripsy of stones in the gall bladder was restricted to patients in whom surgery represented a high risk.

Only Alberta assigns temporary codes analogous to HCFA Q codes to new services. Other provinces use one of the existing codes and payment rates. For instance, in Ontario, Quebec, and British Columbia, laporoscopic cholecystectomy was initially equated with traditional cholecystectomy and billed under the same code.

Services paid under the fee schedules

There are large differences between the two countries with regard to what is paid for under the fee schedule. Even though the feasibility of packaging the physician payment for inpatient pathology and radiology services into the prospective hospital payment has been explored in the United States (Mitchell and Rosenbach, 1989), all categories of inpatient and outpatient physician services may be paid on a fee-for-service basis under Medicare. By contrast, with the exception of Quebec, physician payments for inpatient diagnostic radiology and pathology services are generally included within the individual hospital's global operating grant in Canada. These grants, which are the sole source of revenue for all hospital operating expenses, are negotiated annually between the governments and individual hospitals. Radiologists and pathologists negotiate payment directly for inpatient services with each hospital on a salary or fee-for-service basis. In general, outpatient services provided at hospitals are billed directly to the physician plan. However, hospitals in Alberta must even include payments for these services in the global hospital budget. Thus, unlike Medicare, a large component of hospital-based radiology and pathology physician services in Canada are not paid by the physician plan fee schedules. Rather, the funding for these services are provided through the global hospital

operating budget. Packaging payments for physician services in this fashion provides hospital incentives to limit both the cost and volume of these services.

The Canadian provinces are far more restrictive than Medicare with regard to which physician may receive payment for specific services and where the service may be provided. Under Medicare, there are few specialty or site-of-care restrictions. In Canada, on the other hand, payments for radiology services are generally restricted to radiologists. In British Columbia, the Ministry provides no out-of-hospital payment for echocardiography, doppler procedures, nuclear medicine imaging, computerized axial tomography, or magnetic resonance imaging scanning. Alberta recently placed a moratorium on the development of all new ambulatory radiology and laboratory sites. In Ontario, the Independent Health Facilities Act (1989) created payment restrictions for ambulatory pulmonary functions testing, standard radiology, computerized tomography scans, mammography, ultrasound, and nuclear medicine. These restrictions create a powerful tool to concentrate medical technology among subspecialties in hospitals and thus control their use (Evans, 1992).

Under Medicare and most private health insurance plans in the United States, any physician providing a service may be paid for that service. This approach to radiology payment has permitted greater flexibility in the organization of these services than in Canada. This flexibility, combined with the incentives of Medicare's prospective payment system, has allowed the development of an extensive array of ambulatory radiology centers.

Determinants of prices

The prices of physician services are established somewhat differently in the two countries. Medicare prices reflect a RBRVS and the global conversion factor, as well as adjustments for geographic differences in practice costs and health manpower shortages. The RBRVS has three components that relate to resources associated with physician work, malpractice insurance, and other practice expenses. Medicare pays a 10-percent bonus to physicians practicing in health professional shortage areas, which are defined by the Public Health Service as having a low physician-to-population ratio. Medicare also pays slightly lower fees to physicians who refuse to accept Medicare payment as payment-in-full for all claims, i.e., non-participants.

In Canada, the fees reflect relative values (though not ones that are necessarily resource based) and a global conversion factor. Most provinces also pay more for services in isolated areas where manpower shortages exist. This is justified both as a way of affecting physician supply and of compensating for potentially higher practice costs. For instance, Quebec pays a 15-percent bonus to general practitioners in very rural areas and a 20-percent bonus to rural specialists. However, Canadian provinces do not reflect practice cost differences as explicitly as Medicare.

The relative values of physician services in Canada are not resource based but rather reflect historical charge-based payments established prior to 1968. Although provincial governments have focused on limited global fee increases (analogous to updating the Medicare conversion factor), the distribution of these increases across specific services has primarily been the responsibility of physician organizations. The governments have focused on confirming that changes in relative values are not likely to cause outlays to exceed the negotiated global expenditure limits. Within the provincial medical associations, discussions about changes in relative prices are more explicitly about the distribution of gross incomes across specialties. For instance, in Ontario, the Central Tariff Committee of the Ontario Medical Association is made up of physician representatives from all specialties. The committee determines the distribution of a global fee increase across the service codes. Past fee increases have been disproportionately distributed to the services of general practitioners. Thus, the relative values of services provided by general practitioners have increased over time, which has partially corrected perceived historical inequities. For instance, in 1991, a 4-percent global fee increase translated into a 7-percent increase for general practice, but less than 2-percent increases to subspecialists such as thoracic surgeons, urologists, cardiologists, and gastroenterologists. Separate committees can change the relative values of services within the specific specialties, though the amount of redistribution has historically been small.

Updating the conversion factor

One of the principal goals of RBRVS was to create a uniform and acceptable set of relative values so that updating the conversion factor could serve as the basis for determining future fee increases under Medicare. Although the relative values of these services remain controversial, it is the overall level of global fee increases, as reflected in the conversion factor, that is likely to be the contentious component of the emerging debate over physician fees under Medicare.

Medicare volume performance standards (MVPS) may become the principal determinant of future conversion factors. The conversion factor would be adjusted based on the relation between the actual growth of physician expenditures and a pre-set standard. This policy would result in slower increases in physician fees in order to recover expenditures that exceeded the standard, but it could also lead to accelerated updates when spending is under control. Claims processing forces fee updates to lag behind the expenditure growth comparisons by a full year, i.e., spending in 1992 will not affect fee updates until 1994.

Although volume performance standards is a new policy in the United States, Canadian provinces have been applying several related policies that limit the growth in physician expenditures. With the exception of Quebec, which began expenditure controls in 1979, these policies have been implemented since the mid-1980s. Because these policies are negotiated on a

periodic basis, they have fluctuated markedly over time (Lomas et al., 1989).

Current policies take two principal forms. First, each of the four major provinces has negotiated global annual physician expenditure growth targets. Excess expenditures beyond these targets are partially recovered from physicians during a subsequent period, in the form of lower fees. Much like MVPS, factors considered in the annual increases in the targets include previous fee increases, population changes, inflation, and new technology. These targets are generally compared with actual expenditure growth on a quarterly basis, with various lags resulting from claims processing. Several mechanisms have been developed to adjust subsequent physician fees downward in order to recover the difference. For instance, the current agreement in Ontario provided for a 7.5-percent expenditure growth target for Canadian fiscal year 1991, which ended in March 1992. One-half of the excess expenditures over this amount were to be recovered through a subsequent fee reduction. A retrospective comparison in early 1992 of the first quarter of 1991 with the first quarter of 1990 yielded an estimated excess expenditure growth of 2.4 percent. One-half of this initial expenditure excess was subsequently recovered from physicians through a reduction in fees, starting June 1992.

A second policy involves limits on the gross incomes of individual physicians. With the exception of Alberta, the four provinces have implemented limits on maximum gross incomes. Exceeding this limit results in a large reduction in subsequent fees. For instance, in Ontario, if a physician exceeds $400,000 Canadian (CAN) in gross annual income, subsequent fees are reduced by one-third. Subsequent fees to physicians exceeding $450,000 CAN are reduced by two-thirds. Importantly, such a policy affects a small proportion of physicians: During the first year of its implementation (1991), only 5 percent of physicians in Ontario had any of their fees reduced, accounting for $33 million CAN, or less than 1 percent of physician expenditures.

Specific differences in fee schedules

For the most part, Medicare codes for radiology and major surgical procedures can be matched one to one to codes in the Canadian fee schedules.[1] However, there are marked differences in several other specific areas of the schedules. In the subsequent sections, we address differences in the coding of evaluation and management services, the approach to bundling surgical and ancillary services, and several special payment adjustments.

Evaluation and management services

Despite recent changes in the definitions of the codes for evaluation and management services in the United States, the number and level of office visit codes remained essentially unchanged. Generally, these levels reflect the differing amount of work expended by physicians for different kinds of patients. Perhaps the largest difference between Canada and the United States is the number of office visit codes and their definitions. Canadian provinces tend to have far fewer levels of visits. For instance, there are 10 codes for office visits in the United States, 4 or 6 in Ontario (depending on specialty), 3 in Quebec, and 2 in British Columbia and Alberta. Though the new Medicare fee schedule has reduced the number of inpatient codes, a similar pattern exists. There are six levels of inpatient visits in the United States, but only three in Ontario and two in Alberta, British Columbia, and Quebec. Differences in the content of the descriptions for these codes are similar to that of outpatient visits.

The descriptions of these visit levels also differ. To determine the appropriate code for an office visit under Medicare, physicians consider the type of patient, (new or established), the thoroughness of the history taking and physical exam, the complexity of decisionmaking, and the amount of time expended face to face with the patient. In Canada, physicians are asked to consider only the thoroughness of the history taking and physical exam. Patient type, time, and cognitive complexity are not formally used in the code descriptions.

Unlike Medicare, there are volume restrictions in Canada that limit the number of the most expensive codes that can be billed by each physician per patient. In Ontario, physicians are generally limited to two billings annually per patient for the highest level visit (general assessment) and two billings at the next level (general reassessment), but there are no volume restrictions on lower level visits. Similarly, Quebec and Alberta limit the number of the highest level codes per patient; there are no limits in British Columbia.

Although there are fewer visit codes in Canada, the fee schedules do have several additional adjustments that serve as proxies for the nature and amount of work. For instance, there are specialist differentials for office visits and consultations in Ontario. During 1992, internists in Ontario received $53 CAN for a general assessment office visit and $104 CAN for a consultation; whereas family practitioners received $48 CAN for a general assessment and $51 CAN for a consultation.

The Canadian provinces also increase payments for inpatient visits that are provided under unusual circumstances (e.g., at night, on weekends, or on an emergency basis). For example, Alberta adjusts the payments for initial inpatient visits by time of day of the admission. An Alberta internist who admits a patient at midnight receives twice the payment for the initial visit as one admitting a patient during the day.

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[1]One slight exception is cardiac catheterization. Under Medicare, these codes describe discrete sets of services that are performed together. For instance, CPT 93549 describes a left- and right-heart catheterization with coronary artery angiography. By contrast, Canadian schedules code each individual procedure separately, but payments for multiple procedures are reduced by 50 percent. Thus, in Canada, payment for the most expensive procedure (the left-heart catheterization) would be paid in full, and the payments for the right-heart catheterization and coronary artery angiography would be reduced by 50 percent of the listed fee for the service.

Conceptually, the higher payment for an admission at night reflects the greater physician disutility involved in providing such visits. Fees in this province also vary according to how long the patient has been hospitalized. Visits during the first week of hospitalization are paid at a higher rate than visits occurring during the second week. A lower payment for a hospital visit occurring during the second week of hospitalization than for a visit occurring during the first week assumes that the amount of physician work decreases the longer a patient remains in the hospital.

Differences in the approach to visit coding must be evaluated in the context of differences in the pattern of ambulatory care services in the two countries. Canada has far fewer specialists (including internists) than the United States. Most routine office-based care is provided by general practitioners, who make up more than one-half of all Canadian physicians (Barer and Stoddart, 1991). Specialists, including internists, are used predominantly as consultants. By contrast, general and family practitioners make up only about 14 percent of physicians in the United States (Roback, Randolph, and Seidman, 1990). The routine outpatient care of patients is provided to a much greater degree by general internists and subspecialists. Thus, a strategy for physician payment that incorporates specialty differences—rejected in the new Medicare fee schedule—may be more valid in Canada, where roles are more clearly differentiated.

The implications of these differences in the approach to the payment of patient visits in Canada and the United States are not clear. Physicians have a great deal of discretion regarding the pattern of servicing (e.g., duration and frequency of patient visits) and the coding of visits for payment. Some argue that the Medicare coding scheme for physician visits may be inflationary because there are too many codes. Mitchell et al. (1987) suggested that there is little agreement among physicians regarding the interpretation of the Medicare codes for levels of office visits in the United States. Ambiguous distinctions between the visit codes may lead to "procedure inflation" because, when in doubt, physicians may report the higher of adjacent codes. Over time, physicians may also reclassify their visits to the next highest level to increase payment. Berenson and Holahan (1992) showed, for example, that Medicare spending for extended office visits rose by 20 percent between 1985 and 1988 while spending for brief visits fell by 5 percent. Although these observations antedated the new Medicare coding system, they are likely to be pertinent to outpatient visits, where the number of codes remained essentially unchanged. Collapsing outpatient visit codes from 10 to 2 or 3 may blunt the potential for procedure inflation. Indeed, a mandate from the Omnibus Budget Reconciliation Act of 1986 (Public Law 99-509) was to "group codes for payment purposes to minimize inappropriate increases in the intensity and volume of service provided as a result of coding distinctions which do not reflect substantial differences in services rendered."

However, the fewer codes in Canada may not overcome problems associated with upcoding. The Physician Payment Review Commission (PPRC) has argued that the total number of codes is irrelevant as long as the levels of service are well defined, describe meaningful differences in the amount of work, and are priced appropriately. Indeed, the temptation to "upcode" may be greater with fewer codes if each code is less likely to represent any one physician's average work. Data from Ontario, for example, show that from 1984 to 1989, the number of minor assessments decreased by 5 percent, whereas the number of intermediate assessments rose by 35 percent (York, 1992). However, the ability to upcode in Canada may be partly blunted by the fact that several provinces impose restrictions on the number of times more complex visits may be provided in a given year (Physician Payment Review Commission, 1989).

Furthermore, because physicians have discretion over the duration and frequency of visits, having fewer codes may affect the pattern of care. Using fewer codes may provide stronger incentives for more frequent visits of shorter duration. This may increase costs through administrative inefficiency, increased patient opportunity costs, and increased patient copayments. Finally, the intensity of testing may increase if physicians substitute diagnostic tests for time with the patient. It may be easier to order a battery of tests than to take the time for a more comprehensive history, physical exam, or counseling session with the patient. Given these complex potential effects, it is not clear whether the smaller number of visit codes seen in the Canadian provinces is superior to the current coding scheme under Medicare. This is an area for future evaluations.

Bundling physician services

Medicare bundles payments for certain physician services. Services whose payments may be bundled are those that are often, but not always, performed in conjunction with other services. From the payer perspective, the primary motivation for bundling payments is to reduce incentives that lead to inappropriate or excessive utilization of these services. Bundling reduces the administrative costs associated with claims processing and utilization review. In addition, bundling may produce cost savings by eliminating the ability to bill separately for individual services (Barer, Evans, LaBelle, 1988; Physician Payment Review Commission, 1988).

From the provider perspective, the principal concerns regarding bundling are diminished equity of payments for specific services. Bundling may result in inequitable payment if the distribution of services is not uniform across patients. These concerns were raised during the recent debate about bundling of payments for the interpretation of electrocardiograms (EKGs) into the payments for visits (Physician Payment Review Commission, 1991). However, in the case of the

Medicare global surgical policy, providers may support bundling if the pattern of servicing is relatively uniform across patients.

Bundling surgical services

Historically, some portion of preoperative and postoperative care has been included in the Medicare surgical fee in the United States, but this policy varied widely by region and carrier (*Federal Register*, 1991a). The concept of a global surgical fee, however, is consistent with the practice pattern of most surgeons. All major surgical procedures are associated with some number of preoperative and postoperative visits as part of the standard evaluation and followup of these patients.

HCFA has recently modified and standardized the services included under the global surgical fee for major surgery to include all surgical physician visits within 1 day prior to admission and 90 days postoperation for major operations (*Federal Register*, 1991a). The duration of postoperative coverage reflects the fact that most patients recover fully from surgery within 3 months.

The Canadian provinces each define a global surgical policy, but the duration of preoperative and postoperative care varies. Alberta has the longest preoperative and postoperative periods (30 and 90 days, respectively); whereas, Ontario has the shortest (2 day preoperative period and 14-day postoperative). In Quebec, the global surgical policy is generally minimal—no preoperative period and a 14-day postoperative period, applicable only to inpatient care. In each province, as for Medicare, surgical consultation, most preoperative and postoperative technical services, and unusual intraoperative services or additional operations can be billed separately.

Bundling ancillary procedures

The recent change in payment for interpreting EKGs represents HCFA's initial effort to bundle diagnostic tests into ambulatory visits (Physician Payment Review Commission, 1988). Effective in 1992, separate payments can no longer be made for the interpretation of EKGs that are performed or ordered to be performed as part of a visit or consultation. HCFA increased the relative value units for selected visits to reflect the resources used in furnishing these EKG interpretations. The rationale for the congressional policy was straightforward: to remove the incentives to overutilize a service by severing the link between use and payment (Physician Payment Review Commission, 1991). At the time of the payment change, Medicare payments to physicians for the performance and interpretation of EKGs was $580 million (Health Care Financing Administration, 1991). PPRC opposed the policy, noting that bundling EKG interpretations creates inequities among physicians because these services are not provided uniformly across patients or providers. PPRC preferred a policy of a separate code, appropriately priced and subject to utilization review. Physicians also opposed the change. However, recent efforts to restore separate payment for the interpretation of EKGs has splintered the physician opposition: The American College of Surgeons opposed this legislation because surgeons would face additional reductions in overall rates of payments for visits. An additional example of bundling pertains to endoscopy. Under the Medicare fee schedule, the visit during which the endoscopy is performed is generally included in the payment for the procedure.

Little bundling of these types has occurred in Canada. However, unique among the four largest Canadian provinces is Quebec, which has had an aggressive policy towards the bundling of diagnostic and therapeutic procedures into visits and consultations. Quebec has a growing list of services that are included in the fee for examinations, consultations, or other related medical services. This list was initially introduced in 1977 when Quebec bundled 26 diagnostic and therapeutic procedures into the examination or consultation fee items (Table 1). Similarly, minor procedures performed concurrently with major surgery were no longer billable, but were incorporated into the appropriate fee item. Fees for these ambulatory visits and procedures were increased to account for increased work related to these bundled procedures. This repackaging of fees was in response to a rapid increase in billings for these procedures in the face of constant fee levels (Barer, Evans, LaBelle, 1988). Although the initial list appears to be relatively trivial, some of these minor procedures continue to be billed separately in other provinces and under Medicare (for example, bladder catheterization, anterior nasal packing, and removal of ear wax). Barer et al. (1988) suggest that the implementation of this policy in 1977 had a substantial dampening effect on total physician expenditures in subsequent years.

The experience with bundling in Quebec suggests that the process may not be entirely payer-driven. Under Quebec's strict limits on the growth of physician expenditures, physicians themselves have proposed some additions to this list. Under a fixed budget, consumption of relative value units by one group of physicians reduces resources available to another. Physicians may become particularly sensitive to the overutilization of relatively minor procedures by a few aggressive billers, who are perceived as abusing the system. For instance, although interpretations of EKGs are not on the Quebec list, the price for this service has been reduced to $1 CAN, reflecting an acceptance among Quebec physicians that this service should be paid as part of a visit. Quebec's payment policies put less pressure on costs and are fairer to physicians who are unable or unwilling to engage in potentially questionable billing practices. Ultimately, policymakers will have to decide if the political and technical costs of defining service bundles are reasonable, relative to their benefits, so as to favor them over adjustments to the fee schedule.

Special adjustments

In this section, we address several special adjustments to Medicare payments: assistants-at-surgery, multiple

Table 1
Original set of diagnostic and therapeutic procedures bundled in Quebec[1]

Procedures
Swab (taken from a wound; the eyes, nose, ears or throat; the vagina and the cervix; the urethra—for laboratory or cytology tests).
Removal of sutures or clamps.
Irrigation and removal of drain.
Removal of cerumen.
Irrigation of eye.
Administration and interpretation of the following diagnostic tests: mycosis; tuberculin test; P.P.D. (purified protein derivative); urinalysis, glycemia, hemoglobin, and other reagent analyses involving the use of tape, tablets, or other simple methods.
Subcutaneous, intradermic, intramuscular, or intravenous injection, unless otherwise indicated in the fee schedule.
Removal of vaginal packing.
Dressing measuring less than $20cm^2$.
Insertion of gastric tube (Levine tube).
Simple evaluation of visual and auditory acuity.
External examination of eyeball and lacrimal glands—simple determination of visual field.
Evaluation of intrinsic and extrinsic eye mobility.
Opthalmoscopy.
Biomicroscopy.
Funduscopy.
Confrontation test.
Simple study of color vision.
Woods' lamp test.
Indirect laryngoscopy without biopsy.
Prostatic massage.
Bladder catheterization.
Cauterization of umbilical cord.
Blood sample taken from capillary or vein, excepting femoral vein or jugular vein.
Removal of catheter after vein dissection.
Anterior nasal packing.

[1]These services were included in the fee paid for the examination or consultation under a Quebec policy initiative in 1977.

SOURCE: Quebec Health Insurance Plan: *Medical Specialists' Manual, 1977*. Quebec City, Quebec. Régie de l'assurance-maladie du Quebec.

surgeries, and new physicians. The Medicare payment to a surgical assistant is limited to 16 percent of the global surgical fee. This policy, which was implemented prior to the recent fee schedule reforms, is not resource-based but reflects historical practices. Critics of the current Medicare payment policy for surgical assistants are concerned that the payment may be too low (*Federal Register*, 1991). Indeed, Canada provides more generous payment. Quebec pays a flat 25 percent of the global surgical fee. British Columbia pays an amount that increases with the global surgical fee but is not necessarily a fixed percent of all surgical bills. Ontario and Alberta make payments on the basis of the amount of operating time. For instance, payments to a Canadian assistant to a cholecystectomy (about 2 hours of operating room time) are 25 percent to 40 percent of the global fee. No matter what the mechanism, Canadian policies translate into a higher percent of the global surgical fee being paid for the assistant than under Medicare.

Payments for multiple surgeries reflect policies originating during the 1970s. The Medicare policy is straightforward: If a surgeon performs more than one procedure on the same patient on the same day, Medicare pays 100 percent of the global fee for the highest value procedure, 50 percent of the global fee for the second most expensive procedure, and 25 percent of the global fee for subsequent procedures. Like Medicare, Canadian policies recognize the general concept of having reduced payment levels for multiple surgeries. However, with the exception of trauma and some orthopedic procedures, these reduced payments are restricted to multiple procedures occurring during the same operating room episode. In addition, the reductions for multiple procedures are less than under Medicare—only 15 percent in Ontario and 25 percent in Alberta and British Columbia. Procedures requiring a return to the operating room even within 24 hours are billed at the full-listed fee. Thus, payment reductions for multiple procedures in Canada are smaller and less frequently applied than under Medicare.

Finally, a new Medicare policy—the payment adjustment for new physicians—reduces payments for services performed by a physician during the first 4 years of practice. This policy was justified by HCFA by noting that earning profiles for new professionals are generally lower than those for more established counterparts. However, critics noted that young physicians should receive equal pay for equal work and that costs for operating a practice are just as high for the young physicians (*Federal Register*, 1991). There is no such policy in Canada. Although Quebec reduced payments for several years to new physicians in urban areas, the purpose of the policy is to encourage these physicians to establish practices in rural areas.

Conclusion

Despite fundamental differences in the health care financing systems of Canada and the United States, the approaches to physician payment used by Medicare and the four major Canadian provinces have many similarities. Physicians are paid on a fee-for-service basis, using a fee schedule. In terms of the fee schedule

structures, the differences that arise relate mostly to service definitions, with most of the differences concentrated among evaluation and management services.

There are, however, significant areas of contrast between Medicare and Canada. The first relates to what services are paid for under the fee schedule. For example, Canadian provinces limit physicians' billing for the technical component of radiology services. This tends to concentrate the provision of radiology services to hospitals, which purchase the equipment through their capital budgets. Moreover, there are several provinces that include the professional component of radiology services in the global hospital operating budget as opposed to paying the physician directly. This gives hospitals the incentive to limit payments to radiologists.

The second area of contrast deals with the updating of the conversion factor and the relative values. Canadian provinces have had a relatively well-defined process in place for many years. This process embodies both a mechanism for negotiations over global fee updates and the distribution of resources among providers. Although well established, this process has created tension between physicians and their governments. Canadian provincial governments, as single payers, have been in a much better position than Medicare to successfully limit the growth in physician fees and, more recently, the growth in physician expenditures. This political process may obviate the need, from a payer perspective, to consider major reform in the fee schedule itself for purposes of cost containment. The process of negotiations between specialties within a single medical association has also been a source of strain as physicians arbitrate disputes about income differences between specialties (Glaser, 1990). However, physicians have generally avoided proposals for dramatic changes that might splinter a unified physician voice necessary to reply to government deadlines regarding global fee increases. These factors likely explain why 20 years of experience with fee schedules in Canada has produced few major changes.

On the other hand, in the United States the context of physician payment is less well-defined. Within this context, Medicare policymakers have looked to formal reforms of the fee schedule, as well as volume performance standards and limits on balance billing, to address expenditure increases and equity of payments across providers. The fee schedule will be used as a basis for implementing global fee increases (e.g., updating the conversion factor). In addition, the fee schedule has prompted important discussions regarding the equity of payment among physicians. However, the Canadian experience would suggest that the exact structure of the fee schedule may not be critical. The ability to control costs or maintain equity may require a clearly defined process of negotiation over fee increases and a mechanism for adjusting the distribution of resources across physicians.

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References

Barer, M. L., Evans, R. G., and LaBelle, R. J.: Fee Controls as Cost Control: Tales From the Frozen North. *Milbank Quarterly* 66(1):1-104, 1988.

Barer, M. L., and Stoddart, G. L.: Toward Integrated Medical Resource Policies for Canada: Background document, Center for Health Economics and Policy Analysis, McMaster University, paper 91-7, July 1991.

Berensen, R., and Holahan, J.: Sources of the Growth of Medicare Physician Expenditures. *Journal of the American Medical Association* 267(5):687-691, Feb. 5, 1992.

Blumenthal, D., and Epstein, A.: Physician-Payment Reform—Unfinished Business. *New England Journal of Medicine* 326(2):1330-1334, May 14, 1992.

Evans, R. G.: The Fiscal Management of Medical Technology: The Case of Canada. In Banta, H.D., ed.: *Resources for Health: Technolgoy Assessment for Policy Making*. New York. Praeger Publishers, 1992.

Fuchs, V. R., and Hahn, J. S.: How Does Canada Do It? A Comparison of Expenditure for Physicians' Services in the United States and Canada. *New England Journal of Medicine* 323(13):884-890, Sept. 27, 1990.

Glaser, W. A.: Designing Fee Schedules by Formulae, Politics and Negotiations. *American Journal of Public Health* 80:804-809, July 1990.

Federal Register: Medicare Program; Fee Schedule for Physicians' Services. Vol. 56, No. 227, 59502-59819, Office of the Federal Register, National Archives and Records Administration. Washington. U.S. Government Printing Office, Nov. 26, 1991.

Lomas, J., Fooks, C., Rice, T., et al.: Paying Physicians in Canada: Minding Our Ps and Qs. *Health Affairs* 10:80-102, Spring 1989.

Miller, M., and Welch, W. P.: Hospital Medical Staffs and Medicare Volume Performance Standards: Analytic Foundations. Working Paper No. 3982-01. Urban Institute, Washington, DC., 1991.

Mitchell, J. B., Cromwell, J., Calore, K. A., et al.: Packaging Physician Services: Alternative Approaches to Medicare Part B Reimbursement. *Inquiry* 24(4):324-343, Winter 1987.

Mitchell, J. B., and Menke T.: How the Physician Fee Schedule Affects Medicare Patients' Out-of-Pocket Spending. *Inquiry* 27(2):108-113, Summer 1990.

Mitchell, J. B., and Rosenbach, M. L.: Feasibility of Case-Based Payment for Inpatient Radiology, Anesthesia, and Pathology Services. *Inquiry* 26(4):458-467, Winter 1989.

Physician Payment Review Commission: *Annual Report to Congress*. Washington, U.S. Government Printing Office, 1988.

Physician Payment Review Commission: *Annual Report to Congress*. Washington, U.S. Government Printing Office, 1989.

Physician Payment Review Commission: *Annual Report to Congress*. Washington, U.S. Government Printing Office, 1991.

Roback, G., Randolph L., and Seidman, B.: Physician Characteristics and Distribution in the United States. Chicago. American Medical Association, 1990.

Wilensky, G. R., and Rossiter, L. F.: Alternative Units of Payment for Physician Services; an Overview of the Issues. *Medical Care Review* 43(1):133-156, Winter 1986.

York, G.: How a Doctor Finds His Way Through Medicare's Maze. *Globe and Mail*. Apr. 28, 1992.