THE OREGON APPROACH TO HEALTH CARE: ITS APPLICABILITY TO CANADA

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INTRODUCTION

Faced with limited resources and spiralling health care costs in recent years, the Canadian health care system has been under stress. Eliminating coverage of some services, especially those which do not provide sufficient benefits to justify their costs, has been suggested as a means to curtail health care costs. How should this be done? The Oregon health "rationing" plan may shed light on this issue.

This paper evaluates the applicability of the Oregon approach in the *Canadian* context; it makes no attempt to evaluate the applicability of the plan in Oregon. The Oregon plan and the methodology used are first described to provide a framework for analysis. Its applicability in Canada is then assessed in three aspects: its feasibility, its potential merits and its limitations. It is argued that the Oregon approach, in principle, should enable systematic decision making regarding the allocation of health care resources; however, due to the lack of adequate information on costs and clinical benefits, and the implications of excluding services from coverage, the applicability of the Oregon approach in Canada is quite limited at the present time.

THE OREGON APPROACH

An Overview

The Oregon Health Plan applies only to Medicaid, a joint federal/state program that provides health care to specific categories of poor people. The plan is essentially a response to two problems in Oregon: the growing number of people unable to afford health care and rising health care costs. Oregon's solution to these problems is to expand Medicaid to cover more impoverished people in Oregon, and to control expenditures, in part, by limiting the number of services covered.

To control costs, a so-called "standard benefit package" was introduced. As part of the package, all new and current Medicaid recipients will be entitled to a diagnosis. Coverage for a particular treatment, on the other hand, will depend on its inclusion in the package. To determine treatment coverage, the Oregon Health Services Commission (OHSC) was established in 1989. It was composed of five physicians, a public nurse, a social worker, and four laypersons, one of whom was the chairperson. It was mandated to develop a priority list by ranking medical services, based on their clinical effectiveness, the social valuation of the health benefits they produced, and their costs.

1	2	3	4	5	6
Service	Rank	Cost/Unit Service ($m)	Number of Service Units	Total Cost ($m)	Cumulative Cost ($m)
A	1	10	2	20	20
B	2	30	3	90	110
C	3	20	4	80	190
D	4	30	3	90	280
Budget for fiscal year X = $190 million Therefore, services A, B and C would be covered, but not service D.					

Figure 1. A hypothetical model for the Oregon process.

Every fiscal year, the priority list is submitted to the state legislature, along with actuarial estimates of the total cost of delivering each treatment service to the Medicaid population. The legislature then determines the total funds available for Medicaid for that year. Allocated funds are then applied sequentially to the services on the priority list until the budget is exhausted. Treatment services above the cutoff line would be included in the benefit package, while those below the line would not be covered under Medicaid.

Figure 1 summarizes the Oregon approach using a hypothetical model. Column 1 shows four services A, B, C and D. Their relative rankings are shown in column 2. The cost per unit service, and the number of units of service the Medicaid population needed, are estimated and are shown in columns 3 and 4, respectively. By multiplying the cost per unit service by the number of units of service needed (that is, column 3 x column 4), the total cost for delivering each service (column 5) is calculated. The cumulative cost for delivering the four services is then calculated, as shown in column 6. By assuming that the total budget for Medicaid in fiscal year X is $190 million, and by applying this amount sequentially to the ranked list of services, it can be seen from column 6 that services A, B and C would be included in the standard benefit package, but not service D.

In March 1993, the plan was approved by the federal government. During the first year of its operation, the plan will cover all diagnostic services as well as the first 568 treatment services on the final list of 688. The remaining 120 services will not be covered (Pear, 1993). Services that will be covered include treatment for severe head injury, treatment for insulin-dependent diabetes, appendectomy, therapy for Parkinson's disease, and so forth. Services that will be excluded from coverage include liver transplants for liver cancer, nutritional counselling for obesity, fertility services, and medical treatments for common cold, chronic back pain, infectious mononucleosis, phlebitis and acute viral hepatitis. In general, excluded services are those that clear up on their own, or those that are considered to be too costly or beneficial to relatively few patients (Pear, 1993).

The Prioritization Process — The Initial Approach

To derive the priority list, the OHSC first defined medical conditions and treatments, by using codes from the *International Classification of Diseases, Injuries, and Causes of Death, Ninth Revision (ICD-9)* and the *Current Procedural Terminology, Fourth Edition (CPT-4)*, respectively. The OHSC next defined a "service" as a particular treatment applied to a particular condition, for example, medical therapy for acute myocardial infarction. In this way, approximately 1,600 services (condition/treatment pairs) were

FORMULA (1)

$$\text{Cost-utility ratio} = \frac{\text{Cost per unit service (\$)}}{\text{Expected net annual utility gain (ENAUG)} \times \text{Duration of benefit (years)}}$$

FORMULA (2)

$$\text{Expected net annual utility gain (ENAUG)} = \sum_{1}^{31} U_i \times \Delta P_i$$

where U_i = utility value for health state

ΔP_i = change in probability of health state before and after treatment

Figure 2. Formulas used in the cost-utility approach.

created for ranking. It should be noted that mental health and chemical dependency services were not included in this prioritization process; however, they will be introduced at a later date into a full priority list which integrates physical and mental health and chemical dependency services.

To rank services, the OHSC initially used a cost-utility approach. As shown in Figure 2, the cost-utility of a service is calculated by using formula (1) — dividing the cost per unit service by the product of expected net annual utility gain (ENAUG) and the expected duration of benefit.

The cost per unit service, and the total cost of delivering each service to the Medicaid population, were estimated by an independent actuary, based on charges previously submitted to the Oregon Adult and Family Services Division from providers participating in Medicaid, as well as cost data supplied by other payers and providers (Klevit et al., 1991).

To estimate the expected net annual utility gain (ENAUG) of a service, four basic steps were taken. First, 29 health states were developed, based on a modification of the Quality of Well-Being Scale of Kaplan and Anderson (1988). These 29 health states included impairment in physical activity, mobility, social activity and other physical or mental symptoms, as shown in Table 1. Second, a random telephone survey of 1,001 Oregon citizens was conducted to measure their relative preferences regarding these 29 health states and two others — "good health" and "death." The results were then converted to utility values which were calibrated to lie between 0 and 1, with 1 for good health and 0 for death. Third, panels of physicians estimated for each condition, the probability of each of the 31 health states, both before and after treatment, and the expected duration of benefit. The panels based their estimates on both literature review and their own clinical judgement (Eddy, 1991a). Finally, by using formula (2) shown in figure 2, the expected net annual utility gain (ENAUG) of a service was calculated by multiplying the utility value (U_i) by the change in probability before and after treatment (ΔP_i) for each health state, and then adding ($U_i \times \Delta P_i$) across the 31 health states.

Figure 3 illustrates how the expected net annual utility gain of medical therapy for acute myocardial infarction (MI) was calculated. Column 1 shows the four possible health states for patients who suffer from acute MI. All other health states were considered irrelevant in this example (that is, probability = 0). Columns 2 and 3 represent physicians' assessment of the probability of each health state, with and without treatment, respectively. The change in probability of each health state

Table 1: Descriptions of Twenty-nine Health States (6 functional impairments and 23 major symptoms)
6 FUNCTIONAL IMPAIRMENTS Mobility: MOB1—In hospital, health related MOB2—did not drive a car, health related; did not ride in a car as usual for age (younger than 15 years); *and/or*, did not use public transportation; or had or would have used more help than usual for age to use public transportation, health related
Physical Activity: PAC1—In bed, chair or couch for most of or all of the day; or in wheelchair, did not move or control the movement of wheelchair without the help from someone else, health related PAC2—In wheelchair, moved or controlled movement of wheelchair without help from someone else, or had trouble or did not try to lift, stoop, bend over or use stairs or inclines; *and/or*, limped, used a cane, crutches or walker; *and/or*, had any other physical limitation in walking, or did not try to walk as far as or as fast as others the same age are able, health related
Social Activity: SAC1—Performed no major role activity *and* did not perform or had more help than usual in performance of one or more self-care activity, health related SAC2—Limited in major or other role (recreational) activity, *or* performed no major role activity, but did not perform self-care activity, health related
23 MAJOR SYMPTOMS 1. Loss of consciousness such as seizure, fainting or coma 2. Burns over large areas of face, body, arms or legs 3. Pain, bleeding, itching or discharge (drainage from sexual organs—does not include normal menstrual bleeding) 4. Trouble learning, remembering or thinking clearly 5. Any combination of one or more hands, feet, arms or legs either missing, deformed, paralyzed or broken—includes wearing artificial limbs or braces 6. Pain, stiffness, weakness, numbness or other discomfort in chest, stomach (including hernia or rupture), side, neck, back, hips, or any joints or hands, feet, arms or legs 7. Pain, burning, bleeding, itching or other difficulty with rectum, bowel movements or urination 8. Sick or upset stomach, vomiting or loose bowel movement, with or without fever, chills or aching all over 9. General tiredness, weakness or weight loss 10. Coughing, wheezing or shortness of breath, with or without fever, chills or aching all over 11. Spells of feeling upset, being depressed or of crying 12. Headache, or dizziness, or ringing in ears, or spells of feeling hot, or nervous, or shaky 13. Burning or itching rash on large areas of face, body, arms or legs 14. Trouble talking, such as lisp, stuttering, hoarseness or being unable to speak 15. Pain or discomfort in one or both eyes (such as burning or itching) or any trouble seeing after correction 16. Overweight for age and height or skin defect of face, body, arms or legs such as scars, pimples, warts, bruises or changes in colour 17. Pain in ear, tooth, jaw, throat, lips, tongue; several missing or crooked permanent teeth— including wearing bridges or false teeth; stuffy runny nose; or any trouble hearing— includes wearing a hearing aid 18. Taking medication or staying on a prescribed diet for health 19. Wore eyeglasses or contact lenses 20. Has trouble falling asleep or staying asleep 21. Has trouble with sexual interest or performance 22. Is often worried 23. Has trouble with the use of drugs or alcohol
Source: Oregon Health Services Commission, 1991.

1	2	3	4	5	6
Health			ΔP_i†		EUG‡
State	P_i(TX)*	P_i(NO)**	[(2) - (3)]	U_i***	[(4) - (5)]
Death	0.1	0.3	-0.2	0.000	0.0000
Symptoms:					
Chest pain	0.3	0.3	0.0	0.747	0.0000
Shortness of breath	0.3	0.2	0.1	0.682	0.0682
Former Health	0.3	0.2	0.1	1.000	0.1000
				$\Sigma U_i \times \Delta P_i = 0.1682$	
Therefore, expected net annual utility gain (ENAUG) = $\Sigma U_i x \Delta P_i = 0.1682$					
Note: * Probability of health state with treatment; ** Probability of health state without treatment; † Change in probability before and after treatment; *** Utility value for each health state (derived from telephone survey; ‡ Expected utility gain for each health state.					

Figure 3. Calculation of expected net annual utility gain (ENAUG) for medical therapy for acute myocardial infarction (Oregon Health Services Commission, 1991).

before and after treatment was calculated and shown in column 4. The utility values derived from the telephone survey were shown in column 5. The expected utility gain resulting from treatment for each health state was then calculated by multiplying the utility value (U_i) by the change in probability before and after treatment (ΔP_i) for each health state (that is, column 4 x column 5), as indicated in column 6. Finally, by adding expected utility gain (column 6) across health states, the expected net annual utility gain (ENAUG) of medical therapy for acute MI was estimated to be 0.1682 (Oregon Health Services Commission, 1991).

The cost-utility ratio for each service was then calculated, based on the cost estimates, the expected net annual utility gain (ENAUG) and the expected duration of benefit, using formula (1) shown previously in Figure 2. The 1,600 services were subsequently ranked in order of their cost-utility ratios in the priority list.

The Alternate Approach — Elimination of Cost Consideration

The most visible fact about the Oregon method is that it was changed in midstream. Although the foregoing is the Oregon process in principle, it was replaced by another method. This was due to the observation that a draft priority list derived by the cost-utility approach was widely criticized by both commission members and outside reviewers as being clinically counter-intuitive, assigning higher priorities to some services that were considered clinically less important than some lower-ranked services. For example, dental caps for dental exposure were assigned higher priority than salpingectomy or salpingoophorectomy for ectopic pregnancy (Eddy, 1991a), and splints for temporomandibular joint disorder were ranked higher than appendectomy for acute appendicitis (Hadorn, 1991).

Stung by this controversy, the OHSC identified two major problematic areas: that the cost estimates were incomplete or inaccurate, and that the initial approach failed to give high priority to certain types of services, especially life-saving ones.

In response, the OHSC adopted a different method to rank services. The cost-utility approach was replaced by a five-step procedure. Essentially, this procedure involved first assigning high priorities to certain *categories* of services, so as to ensure that life-saving treatments would receive high priorities. *Within* each category, services

were ranked according to their expected net annual utility gain (ENAUG) only, such that costs were not systematically considered in the ranking (Hadorn, 1991).

Formally, the OHSC first developed 17 broad categories of services, based on the nature of the underlying health conditions and, in a general way, on the most likely outcome of therapy. A modification of Hadorn's (1991) categorization of health services was used. These 17 broad categories included preventive services, treatment for acute conditions, treatment for chronic conditions, palliative care, infertility services, and so forth, and they are shown in Table 2. In addition, the original 1,600 services were trimmed down to 709, by further regrouping the ICD-9 and CPT-4 codes (Eddy, 1991a).

Next, three important attributes of health care services were identified, based on opinions and values expressed in community meetings and public hearings that were held earlier in Oregon. These three attributes were: (1) the importance of a service to an individual, (2) the importance of a service to society, and (3) whether a service was basic or essential to a health care plan.

Using these three attributes, the OHSC commissioners then ranked the 17 broad categories of services. Each commissioner was asked to give a score of 1 to 10 to each of the three attributes for each service category and then multiplied this score by the relative weight given to the respective attribute (also given by the commissioners). The sum of the three weighted ratings for each category by each commissioner served as the basis for ranking. A final ranking of the 17 health service categories was reached by using a modified Delphi technique and is shown in Table 2.

Next, the commissioners assigned each of the 709 services to one of the 17 categories. Within each category, services were ordered according to their expected net annual utility gain (ENAUG).

As a final step, the OHSC examined the revised list to identify any remaining counter-intuitive rankings. Changes were made until the commissioners thought the list was reasonable. Factors considered in this final "hand-tuning" included: the seriousness of the conditions, the effectiveness of the treatments, the prevalence of the conditions, the importance of the services to the public, the commissioners' own values and the relative costs of treatments (Eddy, 1991a). Thus, costs were factored into the revised priority list to a minor extent; however, they were considered much less formally when compared to the initial cost-utility approach. Hadorn (1991) estimated that approximately 33-50% of the services contained in the revised list were rearranged in this way, with 5-10% of services moved more than 50 positions from their original rankings.

The Prioritization Process — The Final Approach

Since Medicaid is a joint federal/state program, Oregon had to receive several waivers to the federal Medicaid law before it could implement its plan. However, the plan was rejected by the Bush administration last year because the federal government said it was biased against the disabled. In response, Oregon revised its plan to take the federal objections into account. A new methodology for prioritization, which differed from the initial and the alternate approach described above, was adopted. In essence, the quality of life measures, as reflected by the 29 health states, and the expected net annual utility gain (ENAUG) of services were abandoned in the final ranking.

Table 2: The Seventeen Categories of Health Services and Their Final Ranking
ESSENTIAL
1. Acute Fatal Conditions where treatment prevents death with full recovery — e.g., appendectomy for acute appendicitis; repair for a deep, open wound in the neck
2. Maternity Care including most newborn disorders (prenatal, perinatal and postpartum) — e.g., care from conception through the first 28 days of life
3. Acute Fatal Conditions where treatment prevents death without full recovery — e.g., treatment for stroke, severe head injuries; all treatments for burns
4. Preventive Care for Children — e.g., immunizations and well-child care
5. Chronic Fatal Conditions where treatment improves life span and quality of life — e.g., treatment for diabetes; treatable cancer of the uterus; asthma; drug therapy for AIDS
6. Reproductive Services excluding maternity and infertility services — e.g., birth control and sterilization
7. Comfort care — e.g., pain management and hospice care for terminally ill
8. Preventive Dental Care, adults and children — e.g., dental examinations; cleaning and fluoride treatment
9. Proven Effective Preventive Care for Adults — e.g., mammograms; blood pressure screening; Pap smears
VERY IMPORTANT
10. Acute Non-fatal, treatment causes return to previous health — e.g., non-surgical treatment for acute thyroiditis; medical treatment for vaginitis
11. Chronic Non-fatal, one-time treatment improves quality of life — e.g., hip replacement; corneal transplants for cataracts; rheumatic fever
12. Acute Non-fatal, treatment without return to previous health — e.g., relocation of dislocated elbow; repair of cut to cornea
13. Chronic Non-fatal, repetitive treatment improves quality of life — e.g., non-surgical treatment for rheumatoid arthritis; gout; migraine headaches
VALUE TO CERTAIN INDIVIDUALS
14. Acute Non-fatal, treatment speeds recovery — e.g., medical treatment for viral sore throat; diaper rash
15. Infertility Services — e.g., medical treatment for infertility; in-vitro fertilization; artificial insemination
16. Less Effective Preventive Care for Adults — e.g., routine screening for those people not otherwise at risk, such as diabetes screening if the person is under 40 year old and not pregnant
17. Fatal or Non-fatal, treatment causes minimal or no improvement in quality of life — e.g., aggressive treatment for end stages of diseases such as cancer and AIDS
Source: Oregon State Senate, 1992.

Instead, the number of services to be ranked was first reduced from 709 to 688. These 688 services were then divided into two categories (instead of the 17 broad categories previously used): potentially fatal versus potentially non-fatal conditions. Different methods were used to rank services in each category. Treatments for potentially fatal conditions were first ranked based on the change in probability of survival after and before treatment. If the changes in probability of survival were the same for two conditions, the one with a lower cost was ranked higher than the one with a higher cost (the cost data were those derived from the initial approach). After all treatments for potentially fatal conditions were ranked, treatments for potentially non-fatal conditions were then ranked according to their costs. In this way, all services for fatal conditions were initially assigned higher priorities than those for non-fatal conditions, regardless of their costs. Subsequently, the OHSC rearranged the rankings of some services, based on commissioners' subjective judgement about their relative importance.

APPLICABILITY OF THE OREGON APPROACH IN CANADA

To assess the applicability of the Oregon approach in Canada, three important aspects of the plan would have to be addressed: its technical feasibility, its potential merits and limitations.

Feasibility of the Oregon Approach in Canada

How could the Oregon plan be applied in the Canadian context? Since health care falls primarily within provincial jurisdiction, each province would develop its own version of the Oregon plan. However, the underlying features of each provincial plan and the methodology used could be similar: a provincial commission would be established to develop a priority list by ranking health care services using a *cost-utility* approach. The provincial government would then determine the total health care budget that would be available for each fiscal year. Subsequently, allocated funds would be applied sequentially to the list — services above the "cutoff" line would be included, whereas those below the line would not be covered. Finally, provincial funding for hospitals and payment for physicians would be adjusted accordingly.

The technical feasibility of the Oregon approach in Canada would depend, in part, on whether the exclusion of services is compatible with the Canada Health Act. Under the Act, "insured health services" are defined as "hospital services, physician services and surgical-dental services provided to insured persons." "Hospital services" are defined as "services provided to in-patients or out-patients at a hospital, if the services are *medically necessary*," while "physician services" are defined as "*medically required* services rendered by medical practitioners" (italics added). However, the Act does not specify what constitutes "medically necessary" or "medically required" services. If they are interpreted to mean all services that are clinically effective regardless of their costs, then the Oregon approach would be inconsistent with the Act. On the other hand, if they mean services whose benefits are sufficiently great to justify their costs, then the Oregon approach would be compatible with the Act.

Potential Merits of the Oregon Approach in Canada

One of the most noteworthy features of the Oregon plan is its effort to reflect social values. Through a series of community meetings, public hearings and a telephone survey, Oregon consulted the public extensively in order to solicit social values on health care. As Emson (1991) has pointed out in the *Canadian Medical Association Journal*, this public process is in contrast to the current practice in both the US and Canada, where resource allocation decisions are made implicitly by individual physicians and provincial authorities on a regular basis, with minimal direct input from the public (Linton 1990).

The fiscal process also provides a mechanism to establish clear accountability. By requiring a provincial government to examine the priority list, to compare the costs and benefits involved, and to make explicit decisions on what services would be included in its health plan, the Oregon approach could force the government to become fully accountable not just for determining the overall health care budget, but also for decisions regarding what services would be excluded from coverage. This would be a major departure from the current process and would create substantial pressure on the "elected representatives" to speak and act for their constituencies.

Therefore, by creating an open, explicit decision-making process, the Oregon approach should better reflect social values. In principle, it is certainly more

attractive than implicit decision making for which there is less accountability. This is especially important in Canada, since health care is paid for from the public purse (McPherson, 1991). In addition, by providing a forum for public discourse, the process is an important tool for public education on various health care issues and on the complexity of allocation decision making.

Another noteworthy feature of the Oregon plan is that it represents the first large-scale attempt to use a formal, objective, cost-utility criteria (that is, the initial approach) to guide decision making. It utilizes information on costs, clinical effectiveness and social values, and evaluates medical services based on their cost-utility. In this way, it allows decision makers to make valid comparisons among alternative uses of resources and maximize health benefits for each dollar spent.

Potential Limitations of the Oregon Approach in Canada

Despite its merits, the applicability of the Oregon approach in Canada is limited by several factors. One major technical difficulty is the lack of information on costs and clinical outcomes.

A cursory review of the cost estimates reveals serious flaws. For example, the cost of medical treatment for athlete's foot is estimated to be $98.51 — the *same* cost as magnetic resonance imaging for pituitary hypofunction and percutaneous transluminal coronary angioplasty for myocardial infarction (Eddy, 1991a).

Serious deficiencies are also observed in the outcome data. Originally, clinical outcomes were to be evaluated objectively, based on literature reviews. However, it soon became apparent that the necessary outcome data could not be found in the literature. As a result, Oregon relied heavily on subjective judgements of practitioners. In addition, the plan fails to acknowledge the heterogeneity of patients. For example, carotid endarterectomy might well be considered for a 65-year-old man with transient ischemic attacks, 80% stenosis and a history of stroke, but not for a 50-year-old asymptomatic man with 20% stenosis (Eddy, 1991b). This lack of specific indication for treatment inevitably makes any evaluation of clinical benefit crude.

As a result of these technical problems, Oregon abandoned the use of cost-utility analysis in subsequent rankings. Obviously, the inconsistency in the initial rankings could be explained by the lack of reliable cost and clinical data. It does not necessarily mean that cost-utility analysis is inappropriate for making allocation decisions, as suggested by Hadorn (1991). However, because of the lack of information, the usefulness of a formal cost-utility approach to determine service availability is quite limited at the present time.

The debate generated from the initial rankings also reflects some conceptual problems with the cost-utility framework. Many clinicians object to ranking services based on their cost-utility ratios. Some question the appropriateness of taking costs into account, while others question the appropriateness of the use of conventional utility measures. Others, who are less familiar with cost-utility, found the initial rankings to be clinically "counter-intuitive." This partly explains why the initial rankings were met with strong resistance from the medical community.

Different interest groups also object to the use of cost-utility criteria. They argue that measures such as quality of life and utility values are biased against the disabled and the elderly. For example, the life expectancy for someone who is 60 is much less than that for someone who is 10. If, at the same cost, a particular service would

provide the same expected net annual utility gain (ENAUG) for a 60-year-old person as a second service would for a 10-year-old child, the service for the latter would be ranked higher because the child would have more years to enjoy the utility gain. In fact, Oregon's earlier failure to obtain an approval from the Bush administration was due to the assertion that it discriminated against the disabled. Because different criteria would have very different ethical, economic and political implications to different stakeholders in the system, debate is inevitable as to what criteria are appropriate for determining service availability.

Another problem with the use of the Oregon approach in Canada relates to the status of excluded services. Three scenarios would be possible: (1) excluded services would *not* be available at all or; (2) excluded services would be available and paid for by patients out of their own pockets or; (3) excluded services would be available and financed through private insurance.

The first scenario, in which excluded services would not be available to anyone, would be highly improbable. It can be argued that excluded services which are ineffective, or which provide benefits that cannot justify their costs, should not be available in the first place (for example, yearly mammography for women under the age of 40). On the other hand, if excluded services can provide benefits to certain subgroups of patients (such as patients who have a very strong family history of breast cancer), then making these services unavailable even for those who are willing to pay for them would be unacceptable.

With regard to the second and third scenarios, an important issue would be the plan's impact on accessibility, which is the underpinning of the Canadian health care system. Whether excluded services would be financed through individual patients paying out-of-pocket, or through private insurance, it means that access would be influenced by income. This private financing of excluded services could encourage and even institutionalize a two-tier health care system in Canada, in which the rich would be able to obtain out-of-plan services while the poor would have limited access to these services because of their low income.

The long-term financial implications of private insurance, as were frequently raised in the extra-billing debate, should also be considered. Once such private insurance exists for medical services, government could be tempted to reduce its funding for health care and to allow private insurance to expand further. Publicly funded services might then continue only for low-income families, and the quality of care for the poor might suffer as a result. Besides, Deber (1991) pointed out that a market situation with any kind of aid for the poor is a poor policy option, because not only is it politically unacceptable in Canada, but it would also be less efficient than the current system. This is supported by the observation that, internationally, mixed public/private systems have been both more costly and less efficient than purely public ones (Ginzberg, 1989; Himmelstein and Woolhandler, 1986; McLachlan and Maynard, 1992).

Another limitation of the Oregon approach relates to the incorporation of new treatments. Suppose a new treatment has been shown to be very effective, one would certainly hope that it could be included in the health plan in a timely fashion, especially for conditions that have no known cure or that are rapidly fatal. Although the Oregon plan requires that the OHSC meet periodically to review the existing health package, introduction of new services could still be delayed for several years

until they are evaluated by the OHSC. In addition, a clear mechanism for introducing new services into the decision-making process is also lacking.

Another limitation is that the Oregon approach, as currently developed, applies only to therapeutic services. No assessment is made as to whether the usefulness of a particular diagnostic procedure/test justifies its costs. Consideration as to the appropriate level of funding for diagnostic services is also lacking.

Lastly, there is no mechanism that allows for exceptions in individual cases, should services be perceived as medically necessary. Although a case-by-case exception could undermine the purpose of prioritizing services, the Oregon approach is admittedly crude. A mechanism would thus have to be devised in order to accommodate for exceptional cases.

CONCLUSION

The need to control costs is central to the current health care debate. Many different cost-containing measures have been suggested. The Oregon plan represents one such measure.

Proponents of the plan argue that the open and explicit nature of the process provides clear public accountability. In addition, by utilizing a specific set of criteria to evaluate services, the plan also provides a mechanism for making allocation decisions in a systematic fashion.

Despite these potential merits, the applicability of the Oregon plan in Canada is limited by three major issues: the lack of adequate information on costs and clinical benefits, the appropriateness of the use of conventional cost-utility measures, and the implications of the exclusion of services on equity, accessibility and financing.

The controversy that surrounds the initial rankings deserves attention. It highlights a fundamental issue that has to be addressed in any decision-making process — how much is a society willing to pay and for what benefits? By using a cost-utility approach, the Oregon plan provides a framework for making comparisons among alternative uses of resources. It does not, however, resolve conflicts of interests or values, nor does it provide a simple mechanism for determining what services should or should not be funded. That remains a political decision. Nevertheless, the Oregon process does facilitate a public debate over how health care decisions should be made. In this sense, it is an important first step in developing a rational approach for making resource allocation decisions.

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REFERENCES

Deber, R.B. 1991. "Philosophical Underpinnings of Canada's Health Care System." *Canada-US Outlook* 2 (4): 20-45.

Eddy, D.M. 1991a. "Oregon's Methods. Did Cost-effectiveness Analysis Fail?" *Journal of American Medical Association* 266 (15): 2135-41.

——. 1991b. "What Care is 'Essential'? What Service is 'Basic'?" *Journal of American Medical Association* 265 (6): 782, 786-88.

Emson, H.E. 1991. "Down the Oregon Trail — The Way for Canada?" *Canadian Medical Association Journal* 145 (11): 1441-43.

Ginzberg, E. 1989. "Harder Than It Looks." *Health Management Quarterly* 11 (4): 19-21.

Hadorn, D.C. 1991. "Setting Health Care Priorities in Oregon. Cost-effectiveness Meets the Rule of Rescue." *Journal of American Medical Association* 265 (17): 2218-25.

Himmelstein, D.U., Woolhandler, S. 1986. "Cost Without Benefit: Administration Waste in U.S. Health Care." *New England Journal of Medicine* 314 (7): 441-45.

Kaplan, R.M., Anderson, J.P. 1988. "A General Health Policy Model: Update and Applications." *Health Services Research* 23 (2): 203-35.

Klevit, H.D., Bates, A.C., Castanares, T., Kirk, P., Sipes-Metzler, P.R., Wopat, R. 1991. "Prioritization of Health Care Services. A Progress Report by the Oregon Health Services Commission." *Archives of Internal Medicine* 151 (5): 912-16.

Linton, A.L. 1990. "The Canadian Health Care System: A Canadian Physician's Perspective." *New England Journal of Medicine* 322 (3): 197-99.

McLachlan, G., Maynard, A. 1992. *The Public/Private Mix for Health: The Relevance and Effects of Change*. London: Nuffield Provincial Hospitals Trust.

McPherson, A. 1991. "The Oregon Plan: Rationing in a Rationing Society." *Canadian Medical Association Journal* 145 (11): 1444-45.

The Oregon Health Plan. 1992. Oregon: Oregon State Senate.

Oregon Health Services Commission. 1991. *Prioritization of Health Services. A Report to the Governor and Legislature*. Salem, OR: Office of Medical Assistance Programs.

Pear, R. 1993. "White House Expected to Back Oregon's Health Care Rationing." *New York Times*, 18 March.

Proceedings of the Fifth Canadian Conference on Health Economics

edited by J. A. Boan

On 26-28 August 1993, the Canadian Health Economics Research Association (CHERA) and the Socio-Health Research Group of the Canadian Plains Research Center, University of Regina, jointly presented the "Fifth Canadian Conference on Health Economics," in recognition of CHERA's tenth anniversary.

The conference theme was Health Economics-Health Reform and their interaction. Although health reform was central to all presentations, different speakers approached the subject from their own perspective, as might be expected. Invited papers were given by Dr. Judith Maxwell, Director (Queen's-University of Ottawa Economics Project), Dr. Margaret Catley-Carlson (President, The Population Council, New York), Dr. Graham Parsons (Executive Director, Saskatchewan Development Institute), and Dr. J. Fraser Mustard (President and Founder of the Canadian Institute for Advanced Research). The remainder of the conference consisted of papers by individuals who had responded to the call for papers. This volume contains a selection of the papers which were presented at the conference.

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