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Health Planning Program;

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Health Planning Program;

INTRODUCTION AND BACKGROUND

Some of the earliest known uses of cost-benefit analysis (CBA) were associated with health planning. In the middle of the 17th century, for instance, a prominent English physician, Richard Petty, favored society's investing more in medicine because the value of saved human life far exceeded its cost (194). In this country, a similar argument was made by Lemuel Shattuck, who in his famous 1850 report used CBA to justify his proposal for sanitary reforms in Boston (559). It is interesting to note that most, if not all, of the early applications of cost-effectiveness analysis/cost-benefit analysis (CEA/CBA) to health care were used by the health profession itself to justify further investment in the public's health. Unlike the main proponents of CEA/CBA today—economists and others who argue that analytical techniques are needed to help society spend its health care dollars more efficiently—earlier proponents and users of CEA/CBA were health professionals who argued that society should spend more money on its health care. These professionals rested their argument on a concept that still dominates the discipline of health planning today—the concept of “medical need.”

“Medical need” is not well-defined. In the discussion that follows, the term “medical need” is used to refer to that health benefit which an individual or a population could and “should” receive from a given health intervention or a prevention program. Thus understood, medical need is subject to change, depending on the state of medical and health knowledge and the availability of resources, and it also carries with it an element of equity. Thus, whereas a heart transplant was not “needed” 20 years ago because the procedure was not possible at that time, the determination as to whether there is a “need” today will depend on the safety and efficacy of the procedure (i.e., the state of knowledge), the personnel, equipment, and money available for

delivering it, and a notion of whether it “should” be available. This last consideration—should—is difficult to define because society's underlying values are so intertwined with it. A 95-year-old man, for example, might not qualify for a publicly funded heart transplant under any circumstances. In general, then, the concept of “medical need” is defined as some sort of absolute medical requirement, within some bounds of reasonableness. This concept is inconsistent with generally accepted economic principles which are based on relative values such as price, utility, and alternative uses of resources.

Over the years, whether the issue has been manpower (353), public health departments (175), hospital construction, or comprehensive health planning, the principal consideration in planning has been “need.” If the planner could show a medical need for the resource or the service, the objective was set, the question of financial feasibility often being a secondary consideration.

When funds had to be specifically appropriated to meet an identified “need,” however, an implicit cost-benefit tradeoff must have been made. For instance, the 1933 Lee-Jones Report (353) calling for more physicians would have required additional training funding; the 1945 Emerson Report (175) calling for complete public health coverage required additional Federal funding; and the 1946 Hill-Burton Act calling for increased hospital construction also required Federal funding. Although there is no evidence that formal CEA/CBAs were done in any of these cases, funding decisions were made in a political arena which implicitly weighed benefits against costs: When it appeared that benefits outweighed costs, funds were more likely to be appropriated; when the reverse seemed true, funding was curtailed. In the case of traditional public health measures, the Federal Government

increased funding from the mid-1930's until the early 1950's, at which point it perceived that additional costs (investment) would exceed additional benefits and therefore it curtailed funding even though the original goals had never been met (532). Recently, Federal funding for hospital construction has been similarly curtailed, as has funding for physician training. Although the essential ingredients for a CEA/CBA were present, formal economic analyses of these programs were not ordinarily performed.

Most health care resource decisions today are made in an economic semivacuum. Owing in large part to the third-party reimbursement system and to the relative ease with which the

health care system can obtain private capital, the recovery of investment has been all but guaranteed. In other words, the cost-benefit tradeoff has been distorted. Many believe that this distortion has led to the situation in which health care costs have escalated disproportionately to benefits, a situation that began with the advent of private health insurance in the 1930's and 1940's and became even more acute with the 1965 medicare and medicaid amendments to the Social Security Act. Adding to the problem has been the largely unrestrained diffusion of technological achievements of our time. Basically, the unwritten rule has been that if a technological advancement has medical merit it should be adopted.

THE LAW AND CONGRESSIONAL INTENT

Recent legislative measures reflect public concern over the rising costs of health care. Partly in anticipation of the economic effects of the medicare and medicaid amendments and also to help rationalize the health care system, in **1966** Congress passed both the comprehensive health planning (CHP) amendments and the regional medical program (RMP). By that time, scholars including Roemer had already noted a positive correlation between unneeded beds and unnecessary hospitalization (521), and other researchers were beginning to suggest that some health care procedures, especially surgery, were being performed unnecessarily. An underlying premise of the CHP/RMP laws was a belief that the pluralistic and fragmented health care system simply needed a catalyst to help its elements cooperate with one another. Cooperation among these elements, it was believed, would reduce duplication of services and facilities, and future decisions would therefore be "cost effective." Planning and compliance under the CHP/RMP laws were strictly voluntary. These laws envisioned a health planning system based on "need." If a particular service or facility was "needed," then it must be worth the cost.

As it became apparent that voluntary planning efforts were not effectively constraining the health care system, Congress and individual

States began searching for stronger measures to contain costs. First, in 1964, New York State enacted a certificate-of-need (CON) law that empowered its planning agencies to deny reimbursement to hospitals for large capital expenditures unless the agency found that there was a "need" for the service to be provided. Subsequently, several other States enacted similar laws. These State laws were strengthened by Congress in 1972 when it passed section 1122 of the Social Security Act, allowing Federal funds for capital expenditures to be withheld if large capital projects were not approved by State planning agencies.

In 1974, Congress enacted the National Health Planning and Resource Development Act (Public Law 93-641), which required all States to legislate CON laws. The main intent of this Act was to ensure that health resource decisions were based on cost as well as need. Section 1513 of the Act demonstrates concern for health status, cost, and accessibility, and sections 1502 (national health priorities) and **1532** (CON) show similar concerns.

By 1979, Congress had passed amendments to the Act specifying "cost effectiveness" as one of the criteria that local health planning agencies—health systems agencies (HSAs)—must use in their review of the appropriateness of a health

service. Specifically, section 1513(g) was amended to read:

... In making the appropriateness review ... of a health service, each health systems agency shall at least consider the need for the service, its accessibility and availability, financial viability, cost *effectiveness* (*italics added*), and the quality of service provided.

Consideration of “cost effectiveness” was also required of the State planning agencies—State health planning and development agencies (SHPDAs)—in their review of appropriateness.

The use of the term “cost effectiveness” in the 1979 amendments suggests a growing emphasis on a cost-benefit type of tradeoff. There is no evidence that Congress intended that HSAS and SHPDAs do anything as elaborate as formal CEA/CBAs, but there is evidence that Congress wanted these planning agencies to consider during the planning process both the effectiveness of the health care system and its cost. The 1979 amendment to section 1502 (national health priorities), for example, specified the following as national priorities:

The adoption of policies which will (A) contain the rapidly rising costs of health care delivery, (B) insure more appropriate use of health care systems, and (C) promote greater efficiency in the health care delivery systems ... and the development and use of cost saving technology ...

and

The strengthening of competitive forces in the health care services industry wherever competition and consumer choice can constructively serve ... to advance the purposes of quality assurance, cost-effectiveness, and access.

In addition, other parts of the 1979 amendments severely restrict HSAS’ authority over health maintenance organizations (HMOs), in the apparent belief that HMOs have inherent cost-effective incentives, an issue more fully considered in chapter 10 of this volume.

There is evidence, then, that Congress intends that the Department of Health and Human Services (DHHS) consider both effects and costs in its health care resource considerations and that this intent has become more explicit over the

years. The National Health Planning and Resource Development Act and amendments have provided five vehicles through which health resource allocation decisions can, theoretically, be affected:

1. CON for large capital expenditures or additions of new services,
2. Federal funds review for certain health programs,
3. appropriateness review for existing facilities,
4. area health services development fund for planning grants for “needed” services, and
5. closure and conversion funding (title XVI) for assisting facilities to close “unneeded” facilities.

Of the five, CON has been the main vehicle available to planning agencies for affecting resource allocation. Appropriateness review carries with it no sanctions,¹ and neither the area health services development fund nor closure and conversion funding (title XVI) has been funded to date (189).

The 1974 National Health Planning and Resource Development Act contained several provisions intended to ensure that planning agencies would have technical and analytical capabilities as well as assistance presumably for analyses such as CEA/CBA. First, the 1974 law authorized funding the HSAS at a significantly higher level than the old CHP agencies and also specified that HSA staff are to have expertise in administration, in the gathering and analysis of data, in health planning, in financial and economic analysis, and in the development and use of health resources. Second, the law provided for the use of consultants. Third, it provided for Regional Centers for Health Planning to provide technical assistance to agencies. Fourth, it provided for a National Health Planning Information Center.

The law makes it clear, however, that HSAS are not supposed to gather data, a restriction which is significant because available data are not sufficient to perform most CEA/CBA-type studies. In addition, it should be noted that HSA funding has been appropriated at a significantly

¹Federal Register, Dec. 11, 1979.

lower level than was authorized, which in itself could preclude HSAS' ability to perform valid studies. Finally, it should be noted that since

HSAS have only 90 days for the entire CON process, another factor that may limit HSAS performance of CEA/CBA studies is time.

REGULATIONS, GUIDELINES, AND ASSISTANCE

Like Congress, DHHS is explicit in its desire that health care resource costs be balanced against benefits. In 1979, the Secretary issued planning guidelines to State agencies (SHPDAS), State Health Coordinating councils (SHCCS), and local planning agencies (HSAS) (287). Contained in these guidelines was a message to planning agencies that their assessments of the costs of implementing goals and objectives should be made in context with the expected effects of such implementation both on the health status of the area residents and on the health care system and its costs.

This message is a clear departure from previous ones, those messages, in effect, being that planning should be based strictly on "need" first and "efficiency" second. The departure from previous policy does not neglect the concept of need in the planning process; indeed, identifying and planning for the health needs of the local population is still an important theme in the new guidelines. What distinguishes the new guidelines is that cost containment is apparently as dominant a theme as need (287).

Cost containment is one of the fundamental purposes of the health planning program. Section 1513(b)(3) of Public Law 93-64 requires comparison of cost and benefits.

Previously, the concept of cost containment was generally expressed in terms of eliminating "unnecessary" costs, referring to those costs that produce little or no benefit. The nuances of the latest guidelines suggest that other costs are not justified because they produce insufficient benefits.

To make judgments concerning the adequacy of benefits in relation to costs, agencies must first be able to identify changes in health status indicators that result from health care investments. The Secretary states (287):

The HSA should describe in its HSP (Health Systems Plan) the expected effects of health systems goals upon the improvement in the population's health status . . . as measured by "Indicators" (which) are quantifiable measures chosen to reflect the health status of the population or to represent how well the health system is performing. Direct indicators (such as infant mortality or disability days, and cost per patient day, or time, or distance from primary care) measure the level and/or change in community health and in health systems performance. Indirect indicators (such as percent of the area population with income below the poverty level or the number of houses lacking adequate plumbing) indicate social or environmental conditions which have been attributed to affecting the health of the area's residents.

Then, goals are assessed in terms of expected payoffs (287):

The development of health systems goals is based on an assessment of the health service needs of the present and projected population, and on an assessment of health services in terms of *availability, accessibility, cost, continuity, acceptability, and quality*. The HSP summarizes the HSA'S assessment of health service alternatives. The summary (ies) should focus on possible tradeoffs between characteristics, such as accessibility and cost, which will affect the selection of goals, and priorities among selected goals.

The HSP summarizes the major alternative actions considered for accomplishing each objective. The choice between alternative actions should obviously be predicated on technical, political, and administrative feasibility, as well as cost effectiveness analysis.

In discussing the importance of cost, the Secretary states (287):

The HSA must consider costs when it sets goals and objectives in the HSP, as well as when it develops the recommended actions in both the HSP and AIP (annual implementation plan).

Costs of goals and objectives also should be described to the extent feasible. Such costs will be derived from detailed estimates of the costs of recommended actions in the HSP and AIP.

In addition to analyzing the costs of potential goals, objectives, or actions, the WA should also analyze and compare their expected benefits. The expected effect of any objective or action upon the area's health status and its economic effects as well as any anticipated improvement in health system performance should be specified. The benefits of each alternative should be compared to the costs of that alternative.

Furthermore, the Secretary specifically refers HSAS to the results of a Health Resources Administration (HRA) contract product which provides the conceptual and technical framework for a formal CBA in health planning (287).²

HRA has funded numerous other contracts to assist in developing a framework for resource allocation. At least one is a formal CEA/CBA-type analysis (68), but most are more financially oriented, providing guidelines on capital budg-

eting (particularly lifecycle cost analysis, which includes not only direct capital financing but also future operating expenditures) (11,363, 424). In February 1980, HRA, through its Bureau of Health Facilities, sponsored a conference on health care capital in which one of the principal topics was the relationship between capital and operating costs (286). It is generally conceded that such comprehensive costing is important for CEA/CBA-type studies. Also important is estimating health impacts, and for that, HRA has funded the development of methodologies such as the health status impact study by Kisch, et al. (315).

HRA appears to be making a deliberate and orderly attempt to introduce, interpret, and expand the concept of the balancing of costs and benefits in health planning. At the same time, there appears to be a justified realization at HRA that the state-of-the-art of CEA/CBA may be too immature for formal, routine use of these analytic techniques. HRA's emphasis at present, therefore, is on organizational development at both the State and local agency level, on "need" assessment, and on HSP development (211). Meanwhile, the more sophisticated elements of CEA/CBA methodology (e.g., lifecycle capital budgeting and health status assessment) are being studied and slowly introduced and disseminated to the agency level.

²The paper, "Consideration of Benefits and Costs: A Conceptual Framework," was written by D. A. Dittman and K. R. Smith (146). In it, the authors provide guidelines by which planners can set priorities, choose between them, and perform formal cost-benefit analyses.

CURRENT USE OF ECONOMIC ANALYSIS

The cautious approach that HRA has adopted with respect to the use of CEA/CBA-type techniques for planning is reflected in an analysis of HSA activities. An OTA-funded study found no evidence that HSAS have used formal CEA/CBA to assist in making resource allocation decisions (358).³ In this study, HSAS most likely to employ formal economic analyses during the planning and decisionmaking process were identified through an intensive interview process.

³This study, conducted for OTA by Lewin and Associates, examined the use of CEA/CBA by HSAS and by PSROS.

Cost= Benefit Analysis

OTA found one example of the use of CBA by an HSA (Miami Valley HSA, Dayton, Ohio) for the majority of its recommendations in the AIP. For the 1980 plan, the Miami Valley HSA included 54 CBAS. In general, the planning agency's staff contrasted the costs and cost savings of a given health program with the productive value of the estimated years of life saved by that program, thus valuing life in terms of lost wages averted (i. e., the human capital method of valuing life⁴). The HSA's analyses were presented as

⁴This method of valuing life is discussed in ch. 3 of *Background Paper #1: Methodological issues and Literature Review*, prepared by OTA in conjunction with this assessment.

supporting evidence for actions that had already been taken and objectives that already had been set. The methods of the analyses were simple and did not require large amounts of staff time. The HSA staff estimated that between 2 and 10 person-days were spent on each analysis, and indicated that most analyses fell at the low end of this range.

Although the HSA'S analysts had reviewed the pertinent literature for appropriate parameters for the analyses, in most cases the judgment applied to these parameters was solely that of the analysts. For example, a local health education organization had estimated that a health education program could save family medical bills up to \$290 per year; since the HSA analysts intuitively felt that a savings of \$290 per family per year was too high and could not be corroborated, they arbitrarily chose to use in the analysis a savings of only \$50, which they discounted at 2.5 percent over a 15-year period. Even with this major modification of benefit structure, the benefit/cost ratio in the analysis was calculated to be 26:1. On the strength of this analysis, the Miami Valley HSA included in the AIP a recommendation to expand the health education program to include 6,000 low-income families.

The supporting information for other similar analyses in the AIP section of the HSP was very sparse, too. Although elsewhere in the plan document there was a general introduction to CEA and CBA concepts, nowhere in the presentation of the analyses was there a discussion of the assumptions required by each of the analyses or the levels of uncertainty associated with them. It was clear that the HSA staff had neither the time, the resources, nor the expertise to carry out valid CBA studies. (Indeed, for many of the programs which they evaluated, sufficient efficacy information is probably not available for anyone to perform good studies). Yet, the studies that were done have been incorporated into the AIP and apparently have gone virtually unchallenged.

This example is indicative of the bind in which the planning agencies find themselves. They are encouraged, and even mandated, to do more than they are perhaps capable of doing. The skills, data, and funds that the agencies

need to perform high-quality CEA / CBA-type studies are not available. It is important to emphasize here that OTA found no indication that the Miami Valley HSA or any other has used or intends to use CBA in its resource allocation decisionmaking process. CON deliberations and other resource allocation decisions are not subjected to CBA.

Financial Impact Analysis

Although, for resource allocation decisions, OTA found no evidence of the use of CEA / CBA by HSAS (in the sense that health effects were estimated and compared to costs), it did find evidence of the use of related analyses. These "financial impact analyses" or "net cost studies" can take one of several forms, some of which are broader than others.

One financial impact analysis, for example, addressed the impact of terminating /consolidating a hospital service. That analysis addressed the following issues:

- the cost savings from closure or consolidation of health care services;
- the financial impact on the hospital's terminating /losing the service and the possibility that the hospital's rates would have to be increased to replace "needed" revenue;
- the possibility that an offsetting service could be found to replace lost revenue;
- the impact on established physician practice patterns;
- the impact on existing physical plants; and
- the possibility that other facilities could be used for "needed" services which will no longer be provided by the facility facing the closure.

Note that this analysis, a typical financial impact analysis, does not consider changes in health status, although it does consider both public and private costs (a point which is discussed more fully later), and is used to measure changes in accessibility to services.

Another example of a financial impact analysis was an analysis an HMO submitted with its application for a CON for an open heart surgery unit. That analysis demonstrated that the HMO would save money by building and operating its

own unit rather than contracting for the service as it was then doing. In its review of the HMO's application, the HSA countered with its own study showing that net societal costs would be increased by the addition of the HMO's unit, because there would be excessive capacity in the area and existing facilities would lose business. Again, this finding may represent the clash of private versus public costs and benefits.

Most HSAS undertake much more traditional analyses, generally attempting to determine

whether a given service meets minimum utilization standards, standards which Kristein has characterized as resting more on equity than efficiency (332). The national planning guidelines or similar standards are often used for these determinations. The assumptions are that meeting these standards satisfies basic medical "needs" and guarantees at least a minimal level of efficiency, and is therefore cost effective. Seldom, if ever, though, are costs weighed against expected health benefits.

POTENTIAL FOR USE

Discussions with leading health planners, examination of the literature, and review of the findings of the OTA-sponsored empirical study mentioned above (358) yield the impression that capital budgeting procedures—specifically, lifecycle cost analysis—are one aspect of decision-making in planning which is receiving substantial emphasis. As noted previously, lifecycle cost analysis includes the notion of operating costs throughout the expected life of the investment, as well as the capital depreciation schedule. Analysts argue that the total cost of a purchase includes the cost of operating it as well as buying it. Sophisticated financial and accounting techniques are required to estimate depreciation schedules, opportunity costs, and the costs of secondary effects such as might be caused by displacement of personnel or by increased/decreased utilization in another part of the system.

In effect, HRA and its Health Planning Centers appear to be concentrating on the cost side of the ledger, as opposed to the effectiveness side. They appear to be telling the HSAS that societal cost is much more than initial purchase price, and that as far as effectiveness is concerned, national, regional, or local standards and guidelines will have to suffice for now. This appears to be a reasonable approach, although even without good efficacy information, secondary systems' effects (e.g., lost revenue to the provider, changes in reimbursement rates, changes in physician practice patterns) could at least be described and their magnitude esti-

mated, as was done by one of the HSAS interviewed (see earlier discussion).

Considering these secondary effects raises again the question of private versus public costs and benefits, and how these variables should be treated. The resolution of this issue has enormous implications regarding reimbursement rates, competitive systems development, and public responsibility vis-a-vis financial solvency of nonprofit as well as public health care institutions. As an example, if an HSA denies a community hospital the right to operate a service on the grounds that certain utilization standards (e.g., national guidelines) are not met, thus causing the hospital to lose significant revenue, how should cost changes be treated? First of all, some utilization will be shifted to other facilities, which will now operate at a higher capacity and thus, presumably, more efficiently. But the losing facility will find itself with one less cost center with which to allocate overhead and will have to absorb the now unallocated fixed costs elsewhere. What responsibility does the HSA (or society) have to the losing facility with respect to assuring that it recover its fixed costs? And how should the costs be treated in the analysis?

Furthermore, revenue-changing decisions inevitably affect reimbursement rates. In Maryland, for instance, the Rate Review Commission has been at odds with that State's HSAS, because the HSA-approved projects lend legitimacy to requested rate increases (15). This class

of problems may always be present as long as facilities are reimbursed on a cost basis. Since one of the purposes of the HSAS' activity is to ensure efficient utilization as measured by standards such as the national guidelines, the question becomes whether the HSAS are actually capable of ensuring that such standards are met. The HSA'S control of utilization is indirect at best, and HSAS cannot easily fine-tune their approach. For that fine-tuning, Professional Standards Review Organizations (PSROS) monitor physician activities in the facilities, but even they only or primarily monitor certain Federal beneficiaries.⁵ To help ensure that valid CEA/CBAS are done and that their results are effectively used, therefore, it would seem desirable to coordinate the planning process (i.e., HSAS), the quality assurance/utilization review process (i.e., PSROS), and the reimbursement/rate review process.

Earlier it was noted that the time available to an HSA staff for a CON analysis is very short, probably considerably less than 1 month. One recommended method to overcome this time constraint is to require the applicant to do the analysis (362). For a renovation replacement project, for instance, the planning agency might require the institution to provide an analysis of five alternatives: 1) reparation, 2) partial replacement, 3) a decrease of capacity (or a smaller project), 4) an increase of capacity (or a larger project), or 5) no change. This technique does require tradeoffs to be considered, and it might allow the planning staff time to respond to an analysis in an appropriate manner and often to anticipate issues.

CEA and Competition

The private versus public cost controversy takes on great significance when the HSA and the HMO interact. In the example cited earlier, the HMO contended that since its costs would be lowered by providing the service itself rather than by contracting for it, the HMO would be at a better competitive advantage, thus forcing the fee-for-service sector, ultimately, to lower its

prices or to face the possibility of losing subscribers. This argument—what is good for the firm is good for society—is the classic argument for the free market firm. The HSA countered with its own analysis showing that the additional service would result in overcapacity in the HSA area resulting in higher societal costs—a classic social welfare argument.

Congress has apparently resolved this controversy with the passage of the 1979 Public Health Service Act Amendments. These amendments contain a provision forbidding HSAS to deny a CON to an HMO as long as the HMO can effectively demonstrate that the investment is beneficial to its own subscribers and that it is more efficient for the HMO than other investments. That provision is coupled with the law's requirement that HSAS must consider "the strengthening of competitive forces in the health services industry wherever competition and consumer choice can constructively serve . . . to advance the purposes of quality assurance, cost effectiveness, and access" (15).

The new mandate contained in these amendments sets up potential forces that run counter to the conceptual basis for using CEA/CBA. The rationale underlying CEA/CBA methodology is that the market is not operating properly. The role of CEA/CBA in planning within the context of a competitive environment is unclear.

CEA and HSA Orientation

Other problems with the use of CEA/CBA in health planning—apart from the conceptual difficulties of using CEA/CBA within the construct of a partially competitive system—arise because it is unclear whether the HSA is (or should be) an agent of the community for which it plans, or an agent of the larger society. That distinction is important because the orientation which an analysis takes is very much dependent on the orientation of both the sponsor and the consumer of the analysis.

OTA found that not only is there no standard, generally accepted set of CEA/CBA methods for all technologies, but also that many of the parameters chosen, as well as how they are

⁵See ch. 6 of this volume for further discussion of PSRO activities.

valued, depend on the purpose of the analysis and for whom it is done. Consequently, the results of even a technically superior CEA/CBA by an HSA could vary significantly depending on the importance which the agency attached to saving Federal tax dollars *or* to ensuring that its local community received all the health care which was needed, subject to prevailing guidelines.

One HSA, for example, may set its priorities in large part on the basis of total societal economic payoff rather than health “need” alone. Thus, an analysis by this HSA would include not only health benefits, but also economic benefits such as decreased health care costs and increased wages. This HSA may reject programs such as large hospital capital investments because they seem to weigh too heavily on the cost side without sufficient demonstrable or proven benefits, opting instead for programs such as alcoholism programs that increase working hours. Another HSA may take the attitude that since its community health care system is not operating under a budget, it should consider “need” and efficiency in meeting that need alone. The board of that HSA may feel that increasing the productivity of the local working force is not relevant to its decision process, that is, including productivity variables will bias the selection process away from programs for its nonworking constituents.

There is some conflicting evidence as to how the HSAS do view themselves, but generally it is believed that the more local orientation holds. HRA Administrator Foley stated that despite the law’s clear mandate to control costs, “from the perspective of HSAS and State agencies, it is not clear that their priority is on ‘reasonable costs’,” generally because of the third-party reimbursement system, Foley believes that “the major proponent of giving priority to the goal of reasonable cost is the Governors’ Offices and States’ legislatures” (211).

Luft and Frisvold, on the basis of an intensive review of CON decisions of two CHP agencies, stated that, at least prior to 1974, “need” was the primary criterion on which decisions were based, and that an applicant could easily convince the agency that the proposed service was

“needed” even in the face of a surplus, as defined by established standards (375). Thus, Salkever and Bice were able to show that CON did not constrain overall investment in capital budgeting, although it did alter the types of investments made (530), the latter point possibly providing a clue to the potential role of CEA/CBA.

Most of the studies cited above analyzed the effects of the CON process immediately following its introduction. Recently published reports based on surveys completed by the American Health Planning Association, however, state that the CON process has yielded substantial savings (417). Although the surveys and thus their results have been questioned, this information indicates a continuing controversy over the effectiveness of CON. Altman, in attempting to describe incentives of planners, noted that the constituents of the local HSA were the local providers and consumers, both of whom have economic incentives to increase health care resources in their own area, particularly, since such resources are ordinarily paid for on a much broader basis; the constituents of the State planning agency, however, are the Governor and the State legislature, whose economic incentives are to constrain costs (15). Consequently, it is not unusual for State and local officials to disagree on health resource policy issues (100). Interestingly, however, roles are sometimes reversed, with local agencies being surprisingly cost conscious—recommending against CON—and State agencies being surprisingly insensitive to cost—awarding CON over an HSA’s objections (15,189,499).

Above it was noted that according to some studies, CON has resulted in a shifting of capital expenditures, but not in a decrease in total capital expenditures. The purpose of CEA/CBA is not to constrain costs, but to assist in more efficient allocation of resources, and if properly applied, the CEA/CBA technique possibly could play a valuable role in the CON process. The first attempts to evaluate the effectiveness of CON initially focused on its superficial objectives (e.g., restraining increases in hospital beds). These studies indicated success. A second generation of more sophisticated analyses assumed that the real objective of CON was to al-

locate or to constrain capital investment and thus costs, and these analyses indicated failure (530). A third generation of analyses, which has not yet been performed to OTA'S knowledge, could attempt to determine whether the shift in resources caused by CON activity was cost effective. That is, is society better off (more healthier, happier) now with, for example, sophisticated diagnostic technology than it would be if more beds had been built? CEA/CBA in theory could shed light on this issue; the possibility of its being used in the future for this purpose, therefore, may merit consideration.

A key question remaining is how should CEA/CBA be used in the planning process? To constrain costs or to obtain the best buy for the money? The evidence indicates that CEA/CBA is most effective when it is used within a constrained budget, that is, when choices have to be made. As was previously noted, HSAS currently plan in an economic semivacuum. Although they are told to consider costs when they plan for need, HSAS plan for a health system which is under no budget constraint. In some cases, for instance, HSAS are urged to consider the "financial feasibility" of a project; the stamp of approval (i.e., CON), however, is a ticket for financial feasibility, since once a CON is awarded, reimbursement (full cost recovery) is ordinarily guaranteed (100). This circular situation had led to calls for either external regional budget controls or for the less stringent measure of requiring the agency to evaluate alternative projects to accomplish the stated objective (375). The former would require a major restructuring of the country's health care financing system.^a The latter, requiring alternative proposals, is therefore advocated as a more feasible solution, and indeed, is practiced by some HSAS interviewed for the OTA study (358). The latter mechanism by itself, however, is not sufficient as a cost-containment strategy since it allows the possibility of the acceptance of an unlimited number of objectives. In this case, a CEA/CBA would simply help the planner to en-

sure that each objective is accomplished in an efficient manner, albeit helping to ensure that more benefit is obtained per dollar expended. By itself, however, use of CEA/CBA is not sufficient for containing overall health system costs.

The resource allocation decisionmaking process of HSAS is basically a political process, rather than a technical one. The law envisions this implicitly by requiring that the controlling board be representative of local constituents. Nevertheless, there are some indications that, at least during the CON process—which is at present the primary means of affecting the system—the planners and their analysts are becoming more sophisticated at the capital budgeting process. There is little indication, however, that HSAS have attempted to estimate the health implications of their decision process; there failure to do this is understandable given the lack of knowledge among the medical and health community about this. In general, decisions are based on either the national guidelines or on similar standards, both of which are themselves often based on "efficient" utilization rates and ordinarily set by consensus of experts -without information on marginal costs and benefits.

There does appear to be a serious effort in some instances to compare the cost of programs to the cost of alternative programs which accomplish the same objective (e.g., to compare the cost of a surgicenter to the alternative cost of performing inpatient surgery). In these instances, benefits (or risks) are usually assumed to be equal across alternatives. If that assumption is true, then the study in which it is made can legitimately be called a CEA/CBA, on the net-cost end of the analytical spectrum. If not true, however, the study is simply a financial impact analysis. Most of the studies that have been done appear to be examples of financial impact analysis, because although equality of benefits across alternatives is often claimed, in fact, the analysts seldom have any hard data to prove it.

^aAltman believes this would further politicize the decisionmaking process (15); if such is the case, it would not be conducive to objective analysis.

^bSee app. B.

USE OF CEA/CBA IN HEALTH PLANNING: GENERAL FINDINGS

The potential for increased use of CEA/CBA in health planning hinges on several elements:

- the ability of HSA staffs to upgrade their technical skills and fundamental understanding of CEA/CBA methods, and to increase the amount of time and financial resources available to conduct analyses;
- the establishment of budgetary bounds within which investment decisions are competing with one another;
- the extent to which market forces operate and are encouraged;
- the ability to measure the health effects of technology and the availability of such data;
- the availability of standard health care utilization data; and
- the state-of-the-art of the CEA/CBA techniques themselves.

Meanwhile, health planning agencies could perform analyses by explicitly listing or arraying all elements which are included or will be affected by an investment. At the most basic level, this would be a descriptive process: When costs and effects can be quantified, that would be

done; when they can be combined, that would also be done. If there is insufficient evidence but some probability of a cost or effect resulting from the decision, it would be described and commented on, but not necessarily quantified.

This approach would require systematic analysis but would not require as sophisticated analytical skills. Since the health planning decision-making process is political in nature and ultimately rests on intangible factors anyway, finely tuned studies with valid, aggregated, and quantified variables are not essential for the process to be assisted by CEA/CBA methodology. Moreover, as analysts become more familiar with formal CEA/CBA techniques, analyses could evolve toward increased sophistication.

In this manner, the intent of the health planning law might be met without requiring an immediate herculean effort to upgrade the technical skills of planners and their analysts. This suggested approach could also assist in rationalizing the planning process and provide the foundation for the time when, and if, budget controls are ever imposed on the health care system.