

the other hand, always intended to release the Burton committee's report, and its intentions placed further pressure on BOB to release the Gottschalk report. It is the case, however, that the Government has substantial discretion in how it releases reports, and can choose to do so in ways that enhance or diminish the impact of recommendations.

Fourth, the absence of major policy action in response to the Gottschalk and Burton reports does not mean that these efforts had no impact. Certainly, these reports did raise the consciousness of policy makers at the highest levels of Government to the substantial cost implications of action. Given that the Vietnam war was absorbing increasing proportions of national resources at the time, it is not surprising that nothing happened.¹⁶ The effects of greater eventual policy consequence were those on the scientific and clinical communities, including strengthening clinician advocacy on behalf of treatment financing.

Fifth, analysts have their greatest effect when they have direct access to key policy makers (23). The expert advisory committee to BOB had access to the BOB Director, to the Office of Science and Technology, and to the White House. The members of the PHS study group

¹⁶Gottschalk recalls that BOB officials told him early in the work of the committee that the analysis was undertaken, in part, to create a policy option in the event peace arrived in Southeast Asia. Lewis has no such recollection.

had access mainly to the higher officials in HEW. An additional, and closely related, point is that analysis has its greatest effect when policymakers wish to use it and have access themselves to instruments that affect policies and programs. The influence of the Gottschalk committee report, in large measure, was confined to VA, because BOB could influence VA directly through the budgetary process and because it consciously shrank from the report's larger implications.

Finally, it should be noted that analysis done for purposes of policy formulation is likely to be limited by a number of factors. The statement of the problem will control the analysis and its outcomes. Data are likely to be inadequate, especially for issues just coming to policy prominence. Assumptions are required on critical issues. Estimates are based on assumptions and inadequate data. Normative preferences will be found explicitly or implicitly throughout the analysis. Projections over time are highly sensitive to the estimates, assumptions, and data. Uncertainty may inhere in clinical practice which cannot be reduced by formal analysis but only by the increase of scientific knowledge. Given these limitations, the large conclusions of formal analysis are likely to be most important to policy formulation if the estimates, assumptions, and data appear to be reasonable. Formal analysis may augment policymaking; it cannot substitute for it.

REFERENCES

1. Advisory Committee to the Renal Transplant Registry, "The 13th Report of the Human Renal Transplant Registry," *Transplant. Proc.* **9**(1):9, 1977.
2. Barnes, B. A., "An Overview of the Treatment of End-Stage Renal Disease and a Consideration of Some of the Consequences," in *Costs, Risks, and Benefits of Surgery*, J. P. Bunker, et al. (eds.) (New York: Oxford University Press, 1977).
3. "BOB/HEW Studies on Kidney Disease," memorandum from Charles L. Schultze, Director, Bureau of the Budget, to Joseph Califano, The White House, Sept. 21, 1967.
4. Bryan, F. A., Jr., *The National Dialysis Registry: Development of a Medical Registry of Patients on Chronic Dialysis, Final Report, June 1967-August 1976* (Research Triangle Park, N. C.: Research Triangle Institute, August 1976).
5. Calabresi, G., and Bobbitt, P., *Tragic Choices* (New York: W. W. Norton & Co., 1978).
6. "Capital Rounds," *Medical World News*, Nov. 24, 1967.
7. "Chronic Kidney Disease Report," memorandum from Joe Laitin, Press Officer, Bureau of the Budget, to Charles L. Schultze, Director, Bureau of the Budget, Sept. 22, 1967.
8. Enthoven, A. C., and Smith, W., *How Much Is*

- Enough? Shaping the Defense Program, 1961-69* (New York: Harper & Row, 1971).
9. "Establishment of Health Program Analysis Groups," memorandum from the U.S. Surgeon General to Directors, Bureau of Health Manpower, Bureau of Disease Prevention and Environmental Control, National Institutes of Health, Bureau of Health Services, and National Institute of Mental Health, Mar. 15, 1967.
 10. Fogel, M. E., and LeSourd, D. A., *Design of Kidney Disease Control Programs*, research memorandum (Research Triangle Park, N. C.: Research Triangle Institute, February 1978).
 11. Grosse, R. N., "Cost-Benefit Analysis in Disease Control Programs," in *Cost-Benefit Analysis*, M. G. Kendall (ed.) (New York: American Elsevier, 1971).
 12. ———, "Cost-Benefit Analysis of Health Services," *Ann. Am. Acad. Polit. Soc. Sci.* 399:89, 1972.
 13. ———, "Problems of Resource Allocation in Health," in *Public Expenditures and Policy Analysis*, R. H. Haverman and J. Margolis (eds.) (Chicago: Markham Publishing Co., 1970).
 14. Hallan, J. B., et al., *The Economic Costs of Kidney Disease* (Research Triangle Park, N. C.: Research Triangle Institute, October 1967).
 15. Hitch, C. J., *Decision-Making for Defense* (Berkeley, Calif.: University of California Press, 1965).
 16. Hitch, C. J., and McKean, R. N., *The Economics of Defense in the Nuclear Age* (Cambridge, Mass.: Harvard University Press, 1960).
 17. *Kidney Disease Program Analysis: A Report to the Surgeon General* (Washington, D. C.: Department of Health, Education, and Welfare, July 1967).
 18. Klarman, H. E., "Application of Cost-Benefit Analysis to the Health Services and the Special Case of Technologic Innovation," *Int. J. Health Serv.* 4(2):325, 1974.
 19. ———, "Present Status of Cost-Benefit Analysis in the Health Field," *Am. J. Public Health* 57(11): 1948, 1967.
 20. Klarman, H. E., et al., "Cost Effectiveness Analysis Applied to the Treatment of Chronic Renal Disease," *Med. Care* 6(1):48, 1968.
 21. LeSourd, D. E., et al., *Benefit-Cost Analysis of Kidney Disease Programs* (Washington, D. C.: Department of Health, Education, and Welfare, August 1968).
 22. Lewis, I. J., formerly Chief, Health and Welfare Division, Bureau of the Budget, telephone interview, Nov. 14, 1979.
 23. Lindblom, C. E., and Cohen, D. K., *Usable Knowledge: Social Science and Social Problem Solving* (New Haven, Conn.: Yale University Press, 1979).
 24. "Meeting on Renal Dialysis," memorandum for the file from K. Peltzie, Bureau of the Budget, Mar. 9, 1966.
 25. Murray, J. E., et al., "Fifth Report of the Human Kidney Transplant Registry," *Transplantation* 5(4):752, 1967.
 26. NBC News, "Who Shall Live?" presented Nov. 28, 1965.
 27. Pliskin, J. S., and Beck, C. H., "A Health Index for Patient Selection: A Value Function Approach With Applications to Chronic Renal Failure Patients," *Management Sci.* 22(9):1009, 1976.
 28. Pliskin, J. S., et al., "Hemodialysis—Projecting Future Bed Needs: Deterministic and Probabilistic Forecasting," *Com. Biomed. Res.* 9:317, 1976.
 29. "Program Analyses for Fiscal Year 1969," memorandum from the Secretary to various HEW officials, Mar. 2, 1967.
 30. Quade, E. S. (ed.), *Analysis for Military Decisions* (Chicago: Rand McNally & Co., 1964).
 31. *Report of the Committee on Chronic Kidney Disease*, September 1967.
 32. Rettig, R. A., *Implementing the End-Stage Renal Disease Program of Medicare, R-2505 -HCFA/HEW* (Santa Monica, Calif.: RAND Corp., September 1980).
 33. ———, "The Policy Debate on Patient Care Financing for Victims of End-Stage Renal Disease," *Law Contemp. Probl.* 40(4):196, 1976.
 34. Rivlin, A. M., "The Planning, Programming, and Budgeting System in the Department of Health, Education, and Welfare: Some Lessons From Experience," in *Public Expenditures and Policy Analysis*, R. H. Haverman and J. Margolis (eds.) (Chicago: Markham Publishing Co., 1970).
 35. ———, *Systematic Thinking for Social Action* (Washington, D. C.: The Brookings Institution, 1971).
 36. Schultze, C. L., *The Politics and Economics of Public Spending* (Washington, D. C.: The Brookings Institution, 1968).
 37. "Scope of the Reporting Being Prepared by the Bureau's Hemodialysis Committee," memorandum from P. S. Palmer, Bureau of the Budget, to I. J. Lewis, Bureau of the Budget, Dec. 13, 1966.
 38. "Secret Panel Weighs U.S. Policy on Uremia Treatment," *Medical World News* 8(15):36, 1967.

39. Shapiro, F. L., Minneapolis, Minn., interview, July 29, 1974.
40. Shreiner, G., Georgetown University, Washington, D. C., telephone interview, Dec. 11, 1979.
41. Stange, P. V., and Sumner, A. T., "Predicting Treatment Costs and Life Expectancy for End-Stage Renal Disease," *N. Eng. J. Med.* 298(7): 372, 1978.
42. Strickland, S. P., *Politics, Science, and Dread Disease* (Cambridge, Mass.: Harvard University Press, 1972).
43. Terasaki, P. I., et al., "Analysis of Yearly Kidney Transplant Survival Rates," *Transplant. Proc.* 8(2) 139, 1976.
44. Weiss, C. H., *Evaluation Research: Methods of Assessing Program Effectiveness* (Englewood Cliffs, N. J.: Prentice-Hall, 1972).
45. Wolkstein, I., Bureau of Health Insurance, Social Security Administration, Baltimore, Md., interview, Sept. 10, 1973.