Appendix A: Method of Study

his assessment grew out of the debate over the role of medical malpractice in increasing health care costs. Specifically, Congress was concerned that the threat of medical malpractice liability was leading physicians to order many unnecessary tests and procedures. According to some estimates, these extra tests and procedures were adding \$20 billion to national health care expenditures.

Congressman Bill Archer, Ranking Republican Member of the House Ways and Means Committee, and Senator Orrin Hatch, member of the Office of Technology Assessment's (OTA's) Technology Assessment Board, requested that OTA provide an independent estimate of the cost of defensive medicine. Additional request letters were received from Senator Edward Kennedy, Chairman of the Senate Committee on Labor and Human Resources; Senator Hatch, Member of the Senate Committee on Labor and Human Resources: Congressman John Dingell, Chairman of the Committee on Energy and Commerce; and Senators Charles Grassley and Dave Durenberger, members of OTA's Technology Assessment Board. In addition, the Congressional Sunbelt Caucus requested that OTA examine the question of whether Medicaid obstetric patients were more likely than other obstetric patients to sue their physicians.

OTA submitted a proposal to the Technology Assessment Board in September 1991, which the Board approved in September 1991, for start in February 1992.

The project had four components:

- analysis of the empirical literature on the causes of defensive medicine,
- original empirical research on the extent of defensive medicine,
- analysis of the impact of malpractice reform on physician practices,
- analysis of whether Medicaid patients are more likely to sue their physicians than non-Medicaid patients.

PLANNING WORKSHOP

OTA often convenes workshops of experts in the field to assist in devising a research plan and to provide technical assistance. On November 26, 1991, before the project staff was dedicated to the assessment, OTA held a workshop to devise a method for assessing the extent of defensive medicine. The workshop included primarily academicians who had extensive knowledge of medical malpractice and defensive medicine. (Participants are listed at the end of this appendix.)

This half-day workshop led OTA to a working definition of defensive medicine. The workshop

also led OTA to conclude that it would be impossible to come up with a single point estimate of the cost of defensive medicine. Instead, OTA decided to focus on a more qualitative estimate. It was also decided that physician surveys using clinical practice scenarios would not only be a feasible way to quantify defensive medicine but would also be a significant empirical contribution to research on defensive medicine.

ADVISORY PANEL

Every major OTA assessment is advised by a panel of outside experts and representatives of relevant interest groups. The role of the advisory panel is to provide guidance in project planning and to review OTA's findings. The panel is not responsible for the final contents of an OTA assessment and OTA does not attempt to get a consensus from the panel.

OTA chose a 17-member advisory panel with representatives from medical and legal academia; physician organizations, including representatives of the American Medical Association; a consumer advocacy group; and a practicing plaintiffs' attorney. Randall Bovbjerg, senior research associate at the Urban Institute, a Washington research organization, served as panel chair.

The panel convened twice during the projectonce on August 13, 1992, to give advice about research priorities and directions for the project; and again on September 27, 1993, to review our empirical findings and to finalize the analysis plan. The panel was subsequently provided a draft of our final report for review.

CLINICAL SCENARIO SURVEYS

Having decided to use clinical scenarios to survey physicians about their medical practices and the influence of liability concerns on those practices, OTA contacted several physician professional societies for guidance. The American College of Cardiology, American College of Surgeons, and the American College of Obstetricians and Gynecologists were very willing and enthusiastic to provide assistance. In addition, the American College of Emergency Room Physicians expressed a

willingness to cooperate, but limitations of time and resources precluded an extension of the survey to this group. Each College convened an expert panel to help devise clinical scenarios, assisted us in obtaining a sample of its member physicians, supported our survey with a letter of endorsement, helped gather the data for analysis, and generally gave freely of staff time. Without their generous efforts, OTA would not have been able to conduct the physician surveys that make up a large part of the basis for our conclusions about defensive medicine. OTA also retained the services of a clinical consultant, Dr. Jeremy Sugarman.

In total, OTA surveyed 5,865 physicians; the average response rate was 60 percent. For the analysis of the data, OTA worked closely with Russell Localio of the Center for Biostatistics and Epidemiology, School of Medicine, Pennsylvania State University. An analysis plan for the surveys was discussed at the advisory panel meeting in September 1993.

ADDITIONAL EMPIRICAL RESEARCH

In addition to its clinical scenario studies, OTA commissioned several other empirical studies of defensive medicine.

Initially, OTA had hoped to do a large-scale statistical analysis of the relationship between malpractice risk and use of health care services. However, after concerted efforts to identify good sources of data on malpractice claims and health care utilization, it became clear that adequate data were not avail able to conduct such analysis on a national level.

OTA then considered doing a smaller analysis of this type using comprehensive hospital discharge and malpractice claims data from Florida—the only state for which such data were readily available. On June 2, 1993, OTA convened a special workshop to identify indicators of defensive medicine in a hospital setting that could be measured using discharge data abstracts. Workshop participants included seven practicing physicians with expertise in analysis of utilization data, an economist from the Center for Health Policy

Studies at Georgetown University, and an individual familiar with the two Florida databases. (Participants are listed at the end of this appendix.) Although the workshop produced a short list of potentially useful indicators, OTA ultimately decided not to proceed with the analysis because the data available were not adequate to control for a variety of other factors known to affect utilization of the procedures. Without those controls, the results of the analysis would have been highly equivocal.

OTA was able to find several researchers with data that could be used to measure defensive medicine. OTA funded Dr. Laura-Mae Baldwin and other faculty from the Department of Family Medicine, University of Washington, to examine the impact of medical malpractice liability experience on the treatment of low-risk obstetric patients by a sample of obstetricians and family practitioners in Washington State. OTA also funded Drs. Kevin Grumbach and Harold Luft of the University of California at San Francisco to examine whether increases in malpractice premiums in New York State led obstetricians and family practitioners to drop their obstetric practice.

Finally, OTA commissioned several papers on medical malpractice and defensive medicine. The major contract papers prepared under this assessment are listed at the end of this appendix. Almost all of these contract papers were sent out for external review.

BACKGROUND PAPERS

As OTA began its research on defensive medicine and medical malpractice, it became apparent that there were many important issues relating to medical malpractice reform that might be of interest to Congress during the health care reform debate. OTA decided to issue a separate background paper on medical malpractice reform. The background paper, Impact of Legal Reforms on Medical Mal-

practice Costs, was published in September 1993. OTA reviewed statutes and surveyed state attorneys general to document the current status of malpractice reform in the states. The paper also examined the best evidence regarding the impact of malpractice reforms on the indicators of the direct costs of the medical malpractice system—malpractice insurance premiums, payments per paid claim, and frequency of claims.

In addition, in response to the request from the Sunbelt caucus, OTA issued a background paper in August 1992, titled *Do Medicaid and Medicare Patients Sue Physicians More Often Than Other Patients?* This paper was a review of the available literature on whether Medicaid and Medicare patients were more likely to sue their physicians than patients with private health insurance or patients without insurance.

REPORT REVIEW PROCESS

Prior to completing the draft, the main contract papers were sent out for review. The 10 contract papers were reviewed by a total of 58 outside reviewers. After completing the reviews of the contract papers, a preliminary draft of OTA's report was prepared and submitted for review and critique to the advisory panel in January 1994. The advisory panel was given 10 days to review the draft for problems that were important enough to warrant attention before an outside review draft was prepared. Several panel members sent comments, but very few substantive changes were necessary before the final review draft.

In February 1994, a formal draft for outside review was prepared and sent to both advisory panelists and a selected group of 80 outside reviewers. The reviewers (including the panelists) represented a wide range of expertise and interests. In all, OTA received a total of 47 sets of reviews, including those from advisory panel members. OTA rev iewed and revised the draft as appropriate in response to these comments.

Participants in the OTA Workshop on Defensive Medicine and Medical Malpractice, Washington DC, November 26, 1991

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Major Contract Papers Prepared for the Defensive Medicine and Medical Malpractice Project

- L. M. Baldwin, M.D., M. P. H., L.G. Hart, M. D., M. Lloyd, A. R.M., M. Fordyce, M. A., and R.A. Rosenblatt, M. D., M. P.H., Department of Family Medicine, University of Washington, Seattle WA, "Malpractice Claims Exposure and Resource Use in Low Risk Obstetrics," Nov. 21, 1993.
- P. Ehrenhaft, M. P. H., Lake Oswego, OR, "Do Medicaid and Medicare Patients Sue Physicians More Often Than Other Patients?" August 1992.
- K. Grumbach, M. D., D. Peltzman-Rennie, B. A., and H.S. Luft, Ph. D., Institute for Health Policy Studies and the Department of Family and Community Medicine, University of California, San Francisco, CA, "Charges for Obstetric Liability Insurance and Discontinuation of Obstetric Practice in New York," Dec. 7, 1993.
- P.A. Glassman, M. D., M.Sc., L.P. Petersen, M.S., Bradley, M. A., B.A., J.E. Rolph, Ph. D., RAND, Santa Monica, CA, "The Effect of Malpractice Experience on Physicians' Clinical Decision -Making," Dec. 1993.
- M. Hall, J. D., Wake Forest University School of Law and Bowman Gray School of Medicine, "The Effect of Insurance Coverage Law on Defensive Medicine," Aug. 25, 1993.
- P. Jacobson, J. D., M. P. H., and C.J. Rosenquist, M. D., RAND, Santa Monica, CA, 'The Diffusion of Low Osmolality Contrast Agents: Technological Change and Defensive Medicine," March 1993.
- E. Kinney, J. D., M. P. H., The Center for Law and Health, Indiana University School of Law, Indianapolis, IN, "The Impact of Proposed Tort Reform on the Medical Malpractice System and Physician Behavior," June 1993.
- **T.B.** Metzloff, J. D., Duke University School of Law, "Defensive Medicine and the Use of Medical Technology: Physician Involvement in Medical Malpractice Litigation," Jan. 1994.
- L. Modock, Ph. D., and F.E. Malitz, MA.S., School of Hygiene and Public Health, The Johns Hopkins University, Baltimore MD, "Short-Term Effects of Tort and Administrative Reforms on the Claiming Behavior of Privately Insured, Medicare, Medicaid and Uninsured Patients," Sept. 30, 1993.
- **G. Ruby**, Consultant, Garret Park, MD, "The Role of Medical Education in Promoting the Practice of Defensive Medicine," Apr. 28, 1993.