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NOTES

PROVIDER-SPECIFIC QUALITY-OF-CARE DATA: A PROPOSAL FOR LIMITED MANDATORY DISCLOSURE

INTRODUCTION

Both judges and legal scholars have recognized that patient autonomy in medical decision making is an important interest which is legally protected by means of the tort doctrine of informed consent.¹ Medical care

¹ The concept of autonomous decision making has been expressed by the philosopher John Stuart Mill ("Over himself, over his own body and mind, the individual is sovereign." JOHN STUART MILL, *ON LIBERTY* 6 (Liberal Arts Press 1956), and by Judge Cardozo ("Every human being of adult years and sound mind has a right to determine what shall be done with his own body; and a surgeon who performs an operation without his patient's consent, commits an assault . . ."). See also *Schloendorff v. Society of N.Y. Hosp.*, 211 N.Y. 125, 129-30, 105 N.E. 92, 93 (1914).

Patient autonomy has not yet been recognized by courts as a distinct and independent legally protected interest. If so recognized, the invasion of this interest would require compensation regardless of whether any actual bodily injury occurred. Instead, patient autonomy is protected indirectly through the protection of two other interests: bodily security and bodily well-being.

Bodily security is protected by rules against non-consensual contact, i.e. the doctrine of battery. Bodily well-being is protected by rules of professional competence, i.e. malpractice determined by the doctrine of informed consent. Both interests require actual bodily harm for compensation. Some legal scholars have argued that patient autonomy should be a distinct interest since both the battery and informed consent doctrines have gaps and flaws that leave the patient autonomy interest unprotected. See Marjorie Maguire Shultz, *From Informed Consent to Patient Choice: A New Protected Interest*, 95 YALE L.J. 219 (1985); see also Jay Katz, *Informed Consent—A Fairy Tale? Law's Vision*, 39 U. PITT. L. REV. 137 (1977). But see Aaron D. Twerski & Neil B. Cohen, *Informed Decision-Making and the Law of Torts: The Myth of Justiciable Causation*, 1988 U. ILL. L. REV. 607, 620-21 (without the consequential damages of a failed medical procedure, the value of a patient's autonomy interest is quite small).

The physician-patient relationship generally arises by contract. See *Gray v. Grunagle*, 223 A.2d 663, 674 (Pa. 1966) ("[T]he agreement between the physician and his patient is contractual in nature . . ."). However, owing to a patient's inability to bargain

providers² are under an affirmative legal duty to provide sufficient information required by a patient to make an intelligent informed decision whether to undergo treatment or choose an alternative treatment.³

Until recently, providers could provide patients with information regarding only the general risk data associated with a particular treatment.⁴ But recent developments in computer databases and communication technology have permitted the

with the provider over quality of care, a provider's performance has traditionally been governed by the tort law doctrine of battery in the area of informed consent malpractice.

Battery is defined as an intentional tort consisting of the unpermitted touching of one person by another person. A physician is liable for battery when the physician has performed treatment without consent (not including the exception of emergency), or performs a treatment different from the one assented to, or exceeds the limits of the consent given. See generally W. PAGE KEETON ET AL., PROSSER & KEETON ON THE LAW OF TORTS § 9, at 39-42 (battery), § 18, at 112-21 (consent and the emergency privilege) (5th ed. 1984).

A physician may be liable for medical malpractice (a special form of negligence) when he or she has failed to use reasonable care in the diagnosis or treatment of the patient's illness. See generally KEETON ET AL., *supra*, § 32, at 185-89.

Finally, under the doctrine of informed consent a physician may be held liable for damages to a consenting patient if he or she failed to disclose adequately the course of treatment, the collateral or inherent risks of the treatment, and, in some jurisdictions, alternative treatments. See generally KEETON ET AL., *supra*, § 18, at 120-21, § 32, at 189-93. For a history of the informed consent doctrine, see Cathy J. Jones, *Autonomy and Informed Consent in Medical Decisionmaking: Toward a New Self-Fulfilling Prophecy*, 47 WASH. & LEE L. REV. 379, 388-96 (1990).

To be held liable under the doctrine of informed consent for non-disclosure of information, the patient must prove the four elements of negligence: (1) that a duty to disclose the undisclosed information existed; (2) that nondisclosure constituted a breach of that duty (which depends on whether duty to disclose is defined by a professional—reasonable physician standard—or by a materiality—reasonable patient—standard; (3) that the nondisclosure of risk information caused damage (i.e. full disclosure would have altered the decision to consent to treatment); and (4) that actual, recognizable bodily damage resulted. See Hunter L. Prillaman, *A Physician's Duty to Inform of Newly Developed Therapy*, 6 J. CONTEMP. HEALTH L. & POL'Y 43, 43-46 (1990).

² Medical care providers can include hospitals, physicians, chiropractors, podiatrists, hospices, and outpatient surgical centers. This Note will limit its scope to hospitals and physicians. The analysis for hospitals is analogous to other health care facilities; the analysis for physicians is analogous to other medical professionals.

³ For a discussion of the disclosure of alternative or newly developed treatment, see Bruce C. Recher, Note, *Informed Consent Liability*, 26 DRAKE L. REV. 696, 710-11 (1977); Prillaman, *supra* note 1, at 46-52.

⁴ General risk data often include the possible risks that can occur with the procedure or its alternatives and the "odds" of any risk occurring. For example, one hospital's anesthesia consent form presents a number of such odds: mild disturbances of cardiac rhythm, 1:100; serious disturbance of cardiac rhythm, 1:200; myocardial infarct, 1:2000; and cardiac arrest, 1:5000. Jones, *supra* note 1, at 401.

rapid and large-scale collection of medical records from hospitals and physicians.⁵ The records are then analyzed to generate provider-specific quality-of-care data.⁶ Provider-specific quality-of-care data are, in essence, statistics on the success (or failure) rate for a specific procedure or diagnosis, or an overall compilation of procedures of a specific hospital or physician.⁷ If made

⁵ A number of articles review the legal implications of computerized medical record keeping. See generally Brian Kibble-Smith & Arthur W. Hafner, *The Effect of the Information Age on Physicians' Professional Liability*, 36 DEPAUL L. REV. 69 (1986); John J. Fargo, Comment, *Medical Data Privacy: Automated Interference with Contractual Relations*, 25 BUFF. L. REV. 491 (1976); Adele A. Waller et al., *Automated Medical Records: Legal Questions and Risks*, 10 COMPUTERS IN HEALTHCARE 27 (1989).

⁶ The collection and analysis of patient records to measure provider quality is known as "outcome analysis," of which comparative physician and hospital ratings are just two forms of output. These data answer the provider's question: "How well am I doing?" The new era of computerized collection and analysis of patient risk data linked to diagnoses and procedures also gives rise to patient-specific risk information. Instead of general "odds" computed over a large population, a patient can be given "odds" tailored to his or her characteristics—age, race, gender, weight, physical condition, presence of co-morbidities and other risk factors. These data answer the patient's question: "What are my chances?" as opposed to "What are the average patient's chances?" Dr. Gerald T. O'Connor (epidemiologist of Dartmouth-Hitchcock Medical Center in Hanover, N.H. and lead author of a New England study of death rates among heart bypass patients), Presentation at the Brooklyn Law School Symposium on Comparing Medical Providers (Jan. 9, 1992) (on file with the *Brooklyn Law Review*).

Another form of "outcome analysis" output measures the appropriateness of a given treatment to determine whether a particular procedure or diagnosis is overutilized or unnecessary. See, e.g. Constance M. Winslow et al., *The Appropriateness of Performing Coronary Artery Bypass Surgery*, 260 JAMA 505 (1988) (the study found that 56% of bypass surgeries were appropriate, 30% equivocal and 14% inappropriate); Constance M. Winslow et al., *The Appropriateness of Carotid Endarterectomy*, 318 NEW ENG. J. MED. 721 (1988) (a study on this controversial treatment (the surgical removal of the inner layer of the carotid artery, when thickened and degenerated by fatty deposits, used to reduce the risk of stroke) showed 32% of surgeries were inappropriate and concluded that the procedure was substantially overused, and, even when appropriate, the risks clearly outweighed the benefits); Michael S. Zdeb & Vito M. Logrillo, *Cesarean Childbirth in New York State: Trends and Directions*, 16 BIRTH 4 (1989) (a study on the possible overutilization and misuse of cesarean sections by New York State obstetricians); C. Everett Koop, M.D.: *A Time for Change* [hereinafter PBS's "A Time for Change"] (PBS television broadcast, MacNeil/Lehrer Production, 1991) (Former Surgeon General of the United States commented that perhaps 30% of all procedures and diagnostic treatments such as coronary artery bypass grafting, hysterectomies, and lower back surgery are unnecessary and cost Americans approximately \$50 billion a year.).

This Note will not examine the disclosure of patient-specific risk information or appropriateness data.

⁷ An example of such data would be cardiac artery bypass grafting (CABG) surgery mortality rates for either hospitals or physicians. This Note will use the term hospital-specific to indicate information that is solely linked to hospitals. Similarly, the term physician-specific will denote information that is linked to physicians only. Provider-specific

available to the patient, this information should increase patient autonomy and may permit the patient to make a more informed decision concerning not only the course of treatment, but also the selection of health care providers.

The first significant public disclosure of provider-specific data was made by the Health Care Financing Administration ("HCFA").⁸ HCFA published rankings of hospitals based on overall and procedure-specific mortality rates of Medicare patients.⁹ More recently, New York State's Department of Health released rankings of New York hospitals and physicians¹⁰ based on risk-adjusted, open heart surgery-related mortality rates.¹¹

will be used to specify information linked to either or both hospitals and physicians.

⁸ HCFA is the federal agency that oversees the Medicare program and statewide Peer Review Organizations under the United States Department of Health and Human Services. See *infra* note 18.

⁹ See Myron D. Fottler et al., *Public Release of Hospital Specific Death Rates: Guidelines for Health Care Executives*, 32 HOSP. & HEALTH SERVICES ADMIN. 343 (1987).

¹⁰ Risk-adjusted rankings of New York hospitals were publicly released in December, 1990. At the same time, similar rankings of New York heart surgeons were released to hospitals but not to the general public. Upon a freedom of information request by *Newsday*, a New York newspaper, the New York State Department of Health released the physician rankings to the newspaper, but with the physicians' names deleted. See David Zinman, *Rating Healers of the Heart: The State Ranks Surgeons' Mortality Rates on Coronary Bypass Operations, but Limits Access to the Public*, *NEWSDAY*, Mar. 12, 1991, at 51 [hereinafter *Healers of the Heart*]. *Newsday* successfully challenged the Health Department's decision to withhold the physicians' names in New York State Supreme Court after some unsuccessful administrative appeals. *Newsday, Inc. v. New York State Dep't of Health*, 19 Media L. Rep. (BNA) 1477 (Sup. Ct. Albany County 1991); see also notes 24, 162. The state Health Department thereafter complied with the court's disclosure order. *Newsday* then published a list of 140 rated New York heart surgeons. See David Zinman, *Heart Surgeons Rated: State Reveals Patient-Mortality Records*, *NEWSDAY*, Dec. 18, 1991, at 3 [hereinafter *Heart Surgeons Rated*].

¹¹ Risk-adjusted mortality rates are death rates that have been adjusted to account for the patient's severity of illness and other factors prior to undergoing surgery. Theoretically this allows all providers performing this surgery to be compared on an equal basis since the patient's pre-treatment conditions have been factored out of the death rate. Thus providers who operate on sicker or older patients, who naturally have a higher death rate, are not penalized in the statistics. For a more detailed explanation of how risk-adjusted statistics are computed, see *infra* notes 73-74 and accompanying text. Tables 1-3 in the attached Appendix provide examples of these statistics. For other samples of the released rankings, see Janice H. Tanne, *The Best Hospitals in New York*, *NEW YORK*, Nov. 18, 1991, at 38-39 (ranking of 14 New York City hospitals by their 1990 risk-adjusted mortality rates and the distribution of risk-adjusted mortality rates as a function of number of cardiac artery bypass operations performed); *Heart Surgeons Rated*, *supra* note 10, at 34 (risk-adjusted mortality rates of 140 New York heart surgeons and their hospital affiliation listed in order of number of cardiac artery bypass operations performed); David Zinman, *Heart Bypass Deaths Worry State: North Shore Faces Investigation*, *NEWSDAY*, June 7, 1991, at 7 [hereinafter *Heart Bypass*] (ranking of 30 New

These disclosures were widely publicized, highly controversial and vigorously contested by providers.¹²

Proponents of public disclosure¹³ contend that the public has a right to know this information since such information will encourage patients to make more informed decisions about which hospitals and physicians¹⁴ to select for treatment. These data may show that a provider delivers poor care or lacks experience in treating a specific ailment. Such information takes on added significance when a person must select a primary care physician or hospital under a managed care program,¹⁵ when a

York State hospitals by risk-adjusted mortality rate for cardiac artery bypass surgery).

¹² See *supra* note 11; see also, *Let People Know How Their Heart Doctor Ranks*, *NEWSDAY*, Oct. 24, 1991, at 60 (in support of the New York State Supreme Court decision mandating release of physician-specific data) (editorial); Shirley E. Perlman, *Surgeon Rankings Go Public*, *NEWSDAY*, Oct. 22, 1991, at 6 (describing the battle to have New York State physician-specific data released); Lawrence K. Altman, *Unraveling the Mystery of Bypass Survival*, *N.Y. TIMES*, Aug. 20, 1991, at C3 (new studies challenge the prevailing view that differences in death rates can be explained by simple risk factors); Brian McCormick, *HCFA Refining Hospital Mortality Data*, 34 *AM. MED. NEWS* 1 (1991) (by refining its data, HCFA implies that previous data may have been flawed); Harold S. Luft et al., *Does Quality Influence Choice of Hospital?*, 263 *JAMA* 2899, 2909 (1990) ("[Health outcome] data might be almost impossible for a layperson to use effectively . . ."); Joyce A. Lanning & Stephen J. O'Connor, *The Health Care Quality Quagmire: Some Signposts*, 35 *HOSP. & HEALTH SERVICES ADMIN.* 39 (1990) (criticizing HCFA's attempt to provide consumers with a provider performance "scorecard" since its punitive approach is more likely to result in greater defensive medicine and not better health outcomes); David Zinman, *Study Faults NCMC, Again Critics Say Feds' Death Rate Study is What's Faulty*, *NEWSDAY*, Dec. 16, 1988, at 7 [hereinafter *Study Faults NCMC*]; Gale Scott, *Death Study Blasts 8 Hospitals but Federal Statistics Challenged*, *NEWSDAY*, Dec. 16, 1988, at 7; Fottler, *supra* note 9, at 349-51 (describing potential problems with the release of hospital-specific data); Sidney Wolfe, M.D., *Public Watchdog Wolfe Unleashes on Providers*, 61 *HOSPITALS* 62 (1987) [hereinafter *Public Watchdog Wolfe*] (Sidney Wolfe, M.D., head of Public Citizen Health Research Group, rebuts providers' criticism of HCFA's release of mortality data).

¹³ Various consumer advocate groups have fought to have provider-specific quality-of-care data publicly disclosed, including Ralph Nader's Public Citizen Health Research Group, Center for Medical Consumers, the New York Public Interest Research Group, the State Committee on Open Government and the American Association of Retired Persons.

¹⁴ As one article noted: "Savvy medical consumers realize that when they pick a primary physician (an internist, a family practitioner, a gynecologist or a pediatrician), they are also picking a hospital. And so they give strong weight to the quality of the institution with which the prospective doctor is affiliated." Tanne, *supra* note 11, at 38.

¹⁵ Managed care is

used to describe health insurance plans designed to cut costs by monitoring the access to, quality and frequency of medical care. Insurance companies have designed these plans especially to oversee the use of high-priced specialists, technologies and hospital stays. In order to get reimbursed, patients must go to

person new to a community needs a doctor, or when a person requires a specialist. That person may lack other information on which to base a decision. These data also can be used by general practitioners when referring patients to specialists and hospitals.¹⁶

Consumer advocates also suggest that public disclosure will increase state inspectors' scrutiny of low-quality providers.¹⁷ This additional pressure will force hospitals and Peer Review Organizations¹⁸ to improve their self-monitoring of physicians

networks of doctors and hospitals willing to accept lower fees and stiffer regulations on their practices in exchange for guaranteed payment and high volumes of patients.

Dena Bunis et al., *Our Health, Whose Costs? The Question of Who Will Pay For Health Care has Hit Home*, *NEWSDAY*, Dec. 1, 1991, at 4. Approximately 49 million American workers, 38% of the workforce, are enrolled in managed care programs: either health maintenance organizations, preferred provider organizations, or point of service plans. *Id.* A primary care physician is a doctor chosen by a plan member, or designated by the plan manager, to be the first physician that member contacts for any medical problem. This physician acts as the patient's regular physician and as a "gatekeeper" who determines if the patient needs to see a specialist or requires hospitalization. *Id.* See also *infra* notes 180-81, 192 and accompanying text.

¹⁶ See *infra* note 182.

¹⁷ See, e.g., *Heart Bypass*, *supra* note 11, at 7. In 1991 three hospitals had heart bypass death rates high enough to prompt in-depth state inspections: University Hospital (Downstate) in Brooklyn, North Shore University Hospital in Manhasset and Strong Memorial Hospital in Rochester. This data also may refocus state inspectors from hospitals they thought were problematic, but which the data showed to be acceptable. See Scott, *supra* note 12, at 7.

¹⁸ Federal law requires the Department of Health and Human Services to enter into contracts with Peer Review Organizations (PROs). See Tax Equity and Fiscal Responsibility Act of 1982, Pub. L. No. 97-248, §§ 141-150, 96 Stat. 324, 381-95 [hereinafter *TEFRA*] (current version at 42 U.S.C. §§ 1320c to 1320c-12 (1991)). PROs replace the Professional Standards Review Organizations ("PSRO") that were created as a 1972 amendment to the Social Security Act. Pub. L. No. 92-603, § 249F(b), 92 Stat. 1548, 1671-89 (1972) (repealed by *TEFRA*). The intent of Congress in enacting PSRO and PRO legislation was to insure that services were medically necessary and provided on an outpatient basis if possible, and that inpatient stays were minimized. These aims were consistent with reducing health care costs. See Peter M. Mellette, *The Changing Focus of Peer Review Under Medicare*, 20 U. RICH. L. REV. 315, 327-28, 337-39 (1986).

Composed primarily of health care practitioners from within a geographical area, PROs perform quality assurance and utilization reviews of health care providers seeking reimbursement for their services through the Medicare program. Physicians who participate in PROs validate the accuracy of diagnoses, review the appropriateness of admission, and examine the quality of care provided to a patient by other physicians when a claim for reimbursement is submitted. 42 U.S.C. §§ 1320c-2, 1320c-3 (1991).

The Health Care Quality Improvement Act of 1986 ("HCQIA") granted PRO participating physicians qualified immunity from liability to enhance a PRO's ability to identify incompetent or unprofessional physicians. HCQIA also attempted to shield partici-

and hospital procedures.¹⁹ For example, public disclosure of hospital rankings by New York State has already led to a substantial improvement in hospital performance.²⁰

Some supporters propose that providing hospital and physician quality-of-care data to the public may increase the competitiveness of the health care market.²¹ Competition may further

pating physicians from federal antitrust liability. HCQIA was passed because of the failure of PROs to identify and remove incompetent physicians adequately. Even if incompetent physicians were identified, they often plea bargained; in exchange for the hospital's silence, physicians agreed to surrender their licenses. The physician would then set up a new practice in a neighboring state. See Susan L. Horner, *The Health Care Quality Improvement Act of 1986: Its History, Provisions, Applications and Implications*, 16 AM. J.L. & MED. 455, 461-64 (1990). To forestall this, HCQIA made available a national practitioner data bank for medical malpractice payments and adverse actions so that incompetent physicians could be tracked across state boundaries. 42 U.S.C. §§ 11101-52 (1992).

However, PROs still may fail to protect the public from incompetent physicians due to weaknesses in HCQIA, including potentially inadequate confidentiality provisions, conditional discovery of documents undermining confidentiality and retaliatory measures against participating physicians despite immunity. See Horner, *supra*, at 481-95. State licensing boards that work in conjunction with PROs, have also been ineffective in removing incompetent and possibly dangerous physicians from medical practice. See Susan Schmidt, *Panel Has Difficulty Determining Incompetence*, WASH. POST, Jan. 11, 1988, at A1; Susan Schmidt, *Doctors Rarely Lose Licenses: Maryland Panel Allowed Rapist to Keep Practicing*, WASH. POST, Jan. 10, 1988, at A1. In light of these failures, release of physician-specific data to both hospitals and physicians has been suggested as a means of identifying incompetent or unprofessional practitioners. Barry R. Furrow, *The Changing Role of the Law in Promoting Quality in Health Care: From Sanctioning Outlaws to Managing Outcomes*, 26 Hous. L. Rev. 147, 164-66 (1989).

¹⁹ See *Public Watchdog Wolfe*, *supra* note 12 (pressure on hospitals after first public release of mortality data by HCFA caused hospitals to examine closely the competency of the doctors on their staff); Fottler, *supra* note 9, at 351 (suggesting proactive strategies for managing the disclosure of hospital-specific data, one of which is "remedying clinical deficiencies").

²⁰ A striking example was the dramatic improvement of St. Vincent's hospital in New York City. See Tanne, *supra* note 11, at 38 (hospital ranking indicates a reduction of risk-adjusted mortality rate from 7.34% to 0.88% during probation). St. Vincent's was one of three New York Hospitals placed under probation in the late 1980s after data indicated inferior care. PBS's "A Time for Change," *supra* note 6; *Heart Bypass*, *supra* note 11, at 7. In 1991, St. Vincent's topped New York State's ranking of hospitals as a result of improved hospital procedures. While under state scrutiny, St. Vincent's hospital improved its performance by "referring out difficult cases for six months, carefully treating unstable patients before surgery, and closely monitoring their post-operative phase to reduce complications." *Id.*

²¹ See Robert G. Hughes & Douglas E. Lee, *Public Information on Private Practices: The Availability of Physician Inpatient Data*, 35 HOSP. & HEALTH SERVICES ADMIN. 55 (1990); Thomas L. Greaney, *Competitive Reform in Health Care: The Vulnerable Revolution*, 5 YALE J. ON REG. 179, 205 (1988); *Division Has No Plan to Attack Health Care Information Service*, 50 ANTITRUST AND TRADE REG. REP. (BNA), No. 1271,

increase if the quality-of-care data is coupled with pricing information.²² Increased competition among providers might, in turn, reduce health care costs and increase the quality-of-care.²³

On the other side, providers bitterly oppose public disclosure of provider-specific data.²⁴ They argue that the data are too

1154 (1986) [hereinafter *No Plan to Attack*] (Discussing Lexecon Health Service, Inc., a privately held Illinois corporation that planned to collect and analyze provider-specific data, Assistant Attorney General Douglas H. Ginsburg commented, "[t]he availability of provider-specific and quality information should facilitate more informed health care purchasing decisions and thereby produce increased competition among providers"). See also *Group May Gather, Disseminate Data, Dentists Can Conduct Survey, Letters Say*, 12 PENS. REP. (BNA), No. 37, 1271 (1985) [hereinafter *Disseminate Data*] (describing an Ohio nonprofit health care organization that collected and disseminated provider-specific health care information to encourage "pro-competitive" informed decision making about the purchase and design of health care benefit plans).

²² Coupling price information with quality information allows health care purchasers to compare value and thus increase competition. Pamela Taulbee, *Outcomes Management: Buying Value and Cutting Costs*, BUS. AND HEALTH, Vol. 9, Issue 3, at 28 (1991) [hereinafter *Outcomes Management*].

At the root of any purchasing decision is the concept of cost. Achieving a balance between quality and cost is always a challenge for purchasers . . . In the health care system . . . each provider must secure its individual market share by offering quality and [cost] efficient delivery to its customers—both patients and purchasers . . . In the old market of few providers and minimal competition, most providers could be confident of their survival. In the new market, no such assurances exist.

John D. Butler, *GM's View on Purchasing High-Quality Providers*, 61 HOSPITALS 90, 90 (1987). See generally Ann M. Purr, *Insurers Fight for Cost Containment*, 84 BEST'S REVIEW LIFE-HEALTH INS. EDITION 42 (1984) (collection and analysis of provider-specific, procedure-specific cost data to monitor overpayment or excessive hospital stay duration, excessive testing or visits); Susan Adelman, *Why Business and Medicine Need to Work Together*, 34 AM. MED. NEWS 19 (1991) (discussing use of provider-specific cost and quality-of-care data to self-regulate both costs and quality); Maria R. Traska, *Managed Care: Whoever Has the Data Wins the Game*, 62 HOSPITALS 50 (1988) (discussing an employer's requirement for provision of provider-specific data by its insurer to evaluate provider practices).

²³ See generally Hughes & Lee, *supra* note 21; Greaney, *supra* note 21, at 205; J. Michael Wooley & H.E. Frech, III, *How Hospitals Compete: A Review of the Literature*, 2 U. FLA. J.L. & PUB. POL'Y 57 (1988-89); James F. Blumstein & Frank A. Sloan, *Redefining Government's Role in Health Care: Is a Dose of Competition What the Doctor Should Order?*, 34 VAND. L. REV. 849 (1981).

²⁴ Hospitals, physicians, and organizations representing them have opposed data disclosure in the press and medical journals. See, e.g., *Heart Bypass*, *supra* note 11, at 7 ("Cardiac surgeons bitterly oppose making public the risk-adjusted ratings . . . 'It's not statistically valid,' said Dr. Frank C. Spencer . . . 'It's a fraud.'"); Scott, *supra* note 12, at 7 ("[S]tudy gives a 'false impression' that the [cited] hospitals are giving substandard care. 'We must strongly question the findings.'"); Fottler, *supra* note 9, at 351 ("[T]he release of hospital specific death rates . . . to consumer groups . . . may be potentially disastrous.").

Data disclosure has also been opposed in courts. See *Newsday, Inc. v. New York*

complex for the patient to understand and that patients will either ignore the data or draw erroneous and detrimental conclusions from the data.²⁵ At best, providers maintain, the information would be only marginally useful in patient decision making.²⁶

Physicians vehemently contend that current methods of analysis do not properly distinguish between poor quality care and the severity of the patient's illness or other risk factors.²⁷ Inaccurate data or rankings may harm the reputation of a high-quality provider, possibly leading to substantial financial loss,

Sate Department of Health, 19 Media L. Rep. (BNA) 1477, (Sup. Ct. Albany County 1991); *Public Citizen Health Research Group v. Department of Health, Education and Welfare*, 477 F. Supp. 595 (D.D.C. 1979), *rev'd on other grounds*, 668 F.2d 537 (D.C. Cir. 1981).

²⁵ See e.g., *Newsday*, 19 Media L. Rep. at 1477 (1991) (New York State Health Department refused to disclose physicians' names with physician rankings because such data would be "misunderstood" and "misused" and of "little public benefit."); Luft, *supra* note 12, at 2909; *Study Faults NCMC*, *supra* note 12. "It is inconceivable . . . how HCFA can knowingly publish a report with such flawed methodology, recognizing that the public has and will continue to draw totally unfounded negative conclusions concerning the quality of care provided by hospitals", said Dr. Tracy Strevey, executive director of Nassau County Medical Center, the only hospital on Long Island whose mortality rate was higher than its expected average." *Id.*

²⁶ See Hughes & Lee, *supra* note 21 ("The assumption that making health care information available to consumers will alter their behavior is not well supported by research" (citing a study performed by Karen Glanz & Joel Rudd, et al., *The Quality of Medical Care: Information for Consumers*, U.S. Congress, Office of Technology Assessment (1988)).

²⁷ Accuracy of data has been attacked in numerous publications. See Altman, *supra* note 12 (discussing surgeons attempts to figure out why mortality rates from heart bypass operations varied as much as 400% in a New England study); *Bypass Death Rates Differ By Hospital*, *Newsday*, Aug. 20, 1991, at 77 (discussing inconclusive studies of widely varying mortality rates among heart bypass patients in both New England and Philadelphia).

HCFA has indicated that it is refining the mortality rate statistics to include death rates for patients who die within 90 days of admission and 180 days of admission in addition to death rates for patients who die within 30 days of admission so that longer course illnesses can be better accounted for. This implies that previous statistics failed to account for longer term illnesses adequately. But, opening the time window may also allow for other risk factors to enter the statistics, allowing for even more uncertainty. McCormick, *supra* note 12. See also *Healers of the Heart*, *supra* note 10, at 51 (surgeons note that the weighing of the risk factors is flawed, tilted against doctors with the highest-risk patients); *Heart Bypass*, *supra* note 11, at 7 (surgeons charge that ratings penalize hospitals that take the sickest patients and that the state may have ignored some risk factors); Fottler, *supra* note 9, at 349-50 (hospital spokesperson noted that elderly people, typical of Medicare patients, may have several life-threatening problems (comorbidities such as high blood pressure, diabetes, and kidney disease) that are unaccounted for in the HCFA risk model and can lead to a higher than expected death rate).

hospital closure, or a ruined career.

Disclosure of provider-specific data by government agencies may also have far-ranging legal ramifications. The rank ordering of hospital and physician success rates may change the nature of informed consent and medical malpractice litigation. Failure of a provider to disclose this information to a patient may indicate a breach of informed consent disclosure requirements,²⁸ unless government dissemination is deemed to satisfy them.²⁹ Evidence that a provider performs procedures in a way that the statistics indicate are too risky may be, if admissible,³⁰ evidence of negligence in a medical malpractice action.³¹ Conversely, defending physicians may assert new forms of contributory negligence or assumption of risk defenses based on data revealed to a patient, e.g., if the patient is aware that the physician is ill-suited to perform a specific treatment and yet elects to be treated by that physician.³² The introduction of provider-specific quality-of-care data as evidence of negligence may also create an atmosphere for punitive damages, which are generally rare in malpractice lawsuits.³³

Disclosure may also give rise to some undesirable social and economic consequences. Public disclosure will certainly affect, for better and worse, the sensitive physician-patient relationship.³⁴ There may be an increase in defensive medicine by providers, taking the form of an increased reluctance by providers to treat high-risk patients.³⁵ There may be a reduction of marginal providers in communities that can ill afford to lose any medical services, even if the quality of those services is lower than average.³⁶ Inexperienced interns and residents, who are more likely to have lower rankings, may leave the profession or change their

²⁸ See *infra* notes 256-64 and accompanying text.

²⁹ *Id.*

³⁰ See *infra* note 166. See also Paul D. Rheingold, *The Admissibility of Evidence in Malpractice Cases: The Performance Records of Practitioners*, 58 BROOK. L. REV. 75 (1992).

³¹ See *infra* notes 265-68 and accompanying text.

³² See *infra* note 269 and accompanying text.

³³ See *infra* note 271.

³⁴ See *infra* notes 272-76 and accompanying text. See also Jesse Green, *Problems in the Use of Outcome Statistics to Compare Health Care Providers*, 58 BROOK. L. REV. 55 (1992).

³⁵ See *infra* notes 277-87 and accompanying text.

³⁶ See *infra* Part III.D.3.C.

specialty to one that is not ranked.³⁷

Part I of this Note will examine the current state of provider-specific quality-of-care data. Part II of this Note will explore the current laws governing the dissemination of the data. Part III-A of this Note will weigh the benefits and costs of mandatory data disclosure and Part III-B will suggest some limitations on disclosure to maximize those benefits and minimize those costs. Part III-C will then determine the extent that current regulation protects the interests of both patients and providers. Upon finding current laws inadequate, Part III-D of this Note will propose regulations that mandate limited public disclosure of provider-specific quality-of-care data collected and analyzed by all federal and state agencies and their contractors; this Part will also examine some of the legal and nonlegal side-effects of the proposed regulations. This Note concludes that the proposal of mandatory disclosure by government collecting agencies would increase the patient's autonomy interest inherent in informed consent, increase the quality of health care and potentially decrease provider costs. Moreover, limited disclosure would minimize potential harm to providers and diminish some of the undesirable legal and nonlegal side effects of full disclosure.

I. THE CURRENT STATE OF PROVIDER-SPECIFIC QUALITY-OF-CARE DATA

A. *Who Collects and Analyzes Input Data*

Medical record information is currently collected and analyzed by federal and state government agencies, their contractors and private organizations. Federal and state governments originally became involved in the collection, analysis and dissemination of provider cost and outcome data to stem the rising costs of health care.³⁸ Now data collection is also viewed as a

³⁷ *Id.*

³⁸ "The accelerating cost of medical care is the driving force fueling the outcomes movement. Health-care expenses are expected to rise to \$313 billion this year, a record 14 percent of the nation's gross national product. It was 4 percent in the 1950s. The increase, which is expected to continue at 12 to 13 percent for the next five years, is forcing buyers to look carefully before they choose where to spend their health dollars." David Zinman, *Gauging the Quality of Health Care*, *NEWSDAY*, Jan. 21, 1992, at 51, 54; see *supra* notes 22-23.

means of measuring and controlling the quality of health care.³⁹ While the primary focus of government data systems is collecting hospital-specific data,⁴⁰ the focus is beginning to shift towards collecting and disclosing physician-specific data.⁴¹

Two federal agencies are involved in the collection of quality-of-care data. The Health Care Financing Administration ("HCFA"), under the direction of the United States Department of Health and Human Services ("HHS") that oversees the Medicare program, has the largest collection of health care data.⁴² HCFA maintains the Medical Statistical System for the collection and analysis of data.⁴³ In addition, some non-Medicare data are collected by the National Center for Health Statistics ("NCHS").⁴⁴ NCHS obtains data from state vital statistics collection systems, hospitals or private collection systems.⁴⁵

Additionally, thirty-two states have some form of hospital data collection systems.⁴⁶ Peer Review Organizations ("PROs"), statewide organizations under contract to HCFA, independently collect and generate provider-specific data for utilization review

³⁹ "[Outcomes management] consists of a common patient-understood language of health outcomes; a national data base containing information and analysis on clinical, financial, and health outcomes that estimates as best we can the relation between medical interventions and health outcomes, as well as the relation between health outcomes and money, and an opportunity for each decision-maker to have access to the analyses that are relevant to the choices they must make." Furrow, *supra* note 18, at 171-72 (quoting Ellwood, *Shattuck Lecture—Outcomes Management: A Technology of Patient Experience*, 318 NEW ENG. J. MED. 1549, 1551 (1988)); Lanning & O'Connor, *supra* note 12, at 40-47. The author views outcome measures as a "comparability signpost" on the "road travelled" in rating providers for effectiveness and efficiency. The author also considers the patients' perceptions of the effectiveness, i.e. patient satisfaction, as an equally important outcome measure. This, however, is more difficult to quantify than individual or aggregate outcome measures such as mortality or morbidity.

⁴⁰ Hospitals are the primary target of data collection because they are relatively few in number and represent the largest proportion of health care expenditures. Hospitals represent 40% of health care expenditures, approximately twice that of physicians. See Hughes & Lee, *supra* note 21.

⁴¹ See Edward L. Hannan et al., *Adult Open Heart Surgery in New York State: An Analysis of Risk Factors and Hospital Mortality Rates*, 264 JAMA 2768 (1990) [hereinafter *Open Heart Surgery*]; Hughes & Lee, *supra* note 21; see *Heart Surgeons Rated*, *supra* note 11, at 3.

⁴² James B. Simpson, *Release of Physician-Specific Quality of Care Information: Legal Issues*, U.S. Congress, Office of Technology Assessment 6 (1988).

⁴³ *Id.*

⁴⁴ *Id.* at 14.

⁴⁵ *Id.*

⁴⁶ See *infra* note 150.

and quality control.⁴⁷ Some private organizations, such as Medicare fiscal intermediaries and carriers, may collect data under HHS or state agency contracts.⁴⁸ Other private organizations, such as private health insurers, hospitals or businesses, also collect health data or purchase publicly available data previously collected by federal or state agencies and analyze the data themselves.⁴⁹

B. *Types of Input Data*

Data collected by the preceding organizations are usually submitted by hospitals on standardized hospital discharge data forms.⁵⁰ These forms contain sections for both cost and treatment data.⁵¹ Data may also be collected directly from hospital records or hospital computer systems.⁵² The amount and types of data collected depend upon the purpose of the collecting organization. Organizations collecting for the purpose of cost and quality control through market competition, so as to provide maximum information to consumers, generally require more data with greater detail than those that seek to control cost and quality through regulation.⁵³ Also, organizations that focus their analysis on only one or a few specific procedures usually request additional procedure-specific risk factor information to improve the accuracy of their analyses.⁵⁴

Physician identification information is required by HCFA

⁴⁷ See *supra* note 18 and accompanying text.

⁴⁸ Simpson, *supra* note 42, at 21.

⁴⁹ *No Plan to Attack*, *supra* note 21, at 1154; *Disseminate Data*, *supra* note 21, at 1272.

⁵⁰ HCFA uses the Uniform Hospital Billing Form, form UB-82/HCFA 1450 or 1500 (UB-82). Data collecting states use either the Uniform Hospital Billing Form, the Uniform Hospital Discharge Data Set (UHDDS), or state forms incorporating elements from the UB-82 or UHDDS. See Hughes & Lee, *supra* note 21.

⁵¹ Data on these forms usually contain a patient identifier (name or Social Security number), patient's date of birth, age, sex, diagnosis related group or principal and secondary diagnoses, principal and secondary procedures, length of stay, discharge status, patient's ZIP code, hospital charges and hospital identifier.

⁵² Hughes & Lee, *supra* note 21.

⁵³ *Id.*

⁵⁴ For example, Pennsylvania desires to collect "provider quality and provider service effectiveness elements." PA. STAT. ANN. tit. 35, §§ 449.1 *et seq.* (1991). However, these elements have not been defined. New York State's Cardiac Surgery Reporting System collects detailed clinical risk factor information. See *Open Heart Surgery*, *supra* note 41.

and by twenty-five of the thirty-two states that collect data.⁵⁵ Some states also require that consulting or assisting physician identifiers be submitted.⁵⁶ The physician identifier links the physician's name to the treatment or diagnosis, making the ranking of physicians based on their successful performance of a given treatment or diagnosis possible. However, some states keep the physician's identity secret by encrypting the physician identifier.⁵⁷

C. *Input Data Analysis and Output Statistics*

The analysis of the collected input data creates various types of output statistics. Statistics are generated for specific procedures⁵⁸ or on an aggregate basis.⁵⁹ Various types of quality-of-care statistics may be generated; the most common is mortality (death) rate.⁶⁰ For each quality-of-care statistical type, a number of statistics may be generated. The most common of these include the "crude" rate,⁶¹ the "expected" rate⁶² and the "risk-adjusted" rate.⁶³ From these rates, secondary statistics may be computed, such as "outliers."⁶⁴

The crude or actual rate is computed directly from the raw

⁵⁵ Physician identifiers may be: the physician's name, a statewide number, a medical license number, Social Security number, or a hospital-unique number. See Hughes & Lee, *supra* note 21.

⁵⁶ *Id.*

⁵⁷ Encryption is the process of scrambling the identifier code in a predefined manner, or replacing each numeral/letter in the identifier code with a different predefined numeral/letter. The net result is that the actual identity is unknown to those who do not have the decryption key. With an encrypted identifier it is still possible to analyze physician practice patterns either across the state, if a statewide identifier has been encrypted, or only a single hospital, if a hospital-unique identifier has been encrypted. *Id.*

⁵⁸ For example, statistics have been computed for the following procedures: coronary bypass artery graft, resection of abdominal aortic aneurysm, partial gastrectomies, colectomies, total cholecystectomy. Edward L. Hannan et al., *Investigation of the Relationship Between Volume and Mortality for Surgical Procedures Performed in New York State Hospitals*, 262 JAMA 503 (1989). To a lesser extent, statistics have been generated on diagnoses, such as acute myocardial infarction.

⁵⁹ Aggregate statistics are computed by averaging all the statistics of individual procedures for a given hospital or physician.

⁶⁰ Other types of statistics may be generated: morbidity rates, reinfection rates, re-admission rates, and transfer rates. All are indicative, to a greater or lesser extent, of quality of care.

⁶¹ See *infra* note 65 and accompanying text.

⁶² See *infra* notes 66-70 and accompanying text.

⁶³ See *infra* notes 71-72 and accompanying text.

⁶⁴ See *infra* notes 73-75 and accompanying text.

input data.⁶⁵ For example, the crude death rate is computed by dividing the number of deaths by the number of cases. Thus, one death in one hundred cases would generate a crude rate of one percent. However, the use of these crude rates by themselves is problematic because they do not properly account for the severity of the patient's illness. Thus, providers who treat the sickest patients will be penalized by having naturally poor crude rates when compared to providers who treat relatively healthier patients.

The expected rate is computed using a form of multiple regression analysis.⁶⁶ The expected rate predicts a quality-of-care

⁶⁵ In this Note, "raw" input data are data collected directly from the providers, i.e. data that has not yet been statistically analyzed. To compute the crude rate, divide the number of incidents (deaths, reinfections, readmissions, etc.) by the total number of cases for a given provider and a given procedure. See *Open Heart Surgery*, *supra* note 41.

⁶⁶ Multiple regression analysis is a statistical technique for mathematically estimating relationships between two or more variables, for example, the relationship between deaths subsequent to coronary heart bypass surgery (the dependent variable) and age, weight, sex, hypertension, severity of illness, presence of comorbidities, etc. (explanatory factors). One must determine if a causal relationship exists between the dependent variable and the explanatory factor, and if so, to what degree. For example, do older patients tend to die more often than younger patients, and if so, by how much? Also, to what degree does the person's age contribute to the overall chance of dying? Once all the relationships between the explanatory factors and dependent variables are known, one may then predict the dependent variable from a given set of explanatory factors.

In a linear multiple regression model, the dependent variable is portrayed as a weighted sum of explanatory factors plus a random error term. These weights are called regression coefficients. These coefficients establish how much importance one should give to each explanatory factor. A large positive coefficient implies that small increases in the explanatory factor correlates to large increases in the dependent variable if all other factors are held to constant values; a large negative coefficient implies the inverse relationship. A coefficient at or near zero implies that changes in the explanatory variable do not affect or weakly affect the dependent variable. In some contexts the quantities of interest are the weighing coefficients, i.e. how well does the regression equation "analyze" or model the relationship between the dependent variable and the explanatory factors. In other cases, the expected or predicted value off the dependent variable for a given set of explanatory factors is the quantity of interest. See MICHAEL O. FINKLESTEIN & BRUCE LEVIN, *STATISTICS FOR LAWYERS* 323-29 (1990).

Once it is established that the underlying modeling of the dependent variable, for example, the mortality rate, is statistically valid, the quantity of interest is the prediction of the dependent variable, for example expected mortality rate, and the accuracy of that prediction. Two of the criticisms launched at the data by hospitals and physicians go to the validity of the underlying model: significant risk (explanatory) factors are missing from the regression equation and the regressions coefficients computed are themselves inaccurate. Thus any predicted quantity from a flawed equation will be flawed itself.

For a more detailed understanding of the type of regression analyses actually used in

indicator, again for example, the death rate, given the presence of certain risk factors that correlate to the severity of the patients' illnesses before treatment. By accounting for these risk factors, providers are given credit for treating "sicker" patients.⁶⁷ This now puts the providers on a level playing field. HCFA's multiple regression formula uses Medicare inpatient mortality rates as the dependent variable and various demographic⁶⁸ and diagnostic-related group ("DRG") risk factors⁶⁹ as the explanatory factors. New York State's unique Cardiac Surgery Reporting System ("CSRS") uses a number of complex clinical risk factors⁷⁰ in addition to demographic and DRG explanatory factors in an attempt to estimate the expected mortality rate more accurately.

As an example of how expected rates allow for an estimate of a provider's performance, let's say a provider (Provider A) has

computing quality of care statistics (the regression models are more advanced and multiple steps are performed to achieve accurate models for each explanatory factor-dependent variable relationship), see Edward L. Hannan et al., *Coronary Artery Bypass Surgery: The Relationship Between Inhospital Mortality Rate and Surgical Volume After Controlling for Clinical Risk Factors*, 29 MED. CARE 1094 (1991) [hereinafter *Coronary Artery Bypass Surgery*].

⁶⁷ A patient's pre-treatment severity of illness, i.e. how "sick" a patient is prior to having the operation performed, only partially accounts for the patient-related risk. Other explanatory factors account for the remainder of the risk—age, gender, weight, race, etc. See *supra* note 66 and *infra* notes 68-69. But for the purpose of this Note, the term "sick" will refer to not only the patient's severity of illness, but also the contribution of these other risk factors.

⁶⁸ See Fottler et al., *supra* note 9, at 346-47 (demographic information generally includes age, gender, ethnic background, and socioeconomic status).

⁶⁹ Diagnostic-related groups (DRGs) "comprise a means by which patients are grouped into homogeneous categories with respect to specific diagnostic, therapeutic, and demographic criteria in order that the costs appropriate for substantially similar patients be relatively uniform." Greaney, *supra* note 21, at 190 n.69. DRGs arose out of the prospective payment system under which the Medicare program pays hospitals fixed, prospectively-determined prices based on the patient's diagnosis. There are 470 DRGs within which a patient can be placed. *Id.*

⁷⁰ Clinical risk factors used in the New York State study on in-hospital death following coronary artery bypass surgery include: number of reoperations, ejection fraction (how much blood is being pumped out of heart), previous myocardial infarction ("heart attack") in last 7 days, morbid obesity, hypertension history, preoperative intra-aortic balloon pump, dialysis dependent, disasters (acute structural disaster, renal failure, cardiogenic shock, gunshot wound), unstable angina, congestive heart failure, diabetes, greater than 90% narrowing of the left main trunk, "crash," valve operation, other operation. Demographic characteristics included age, race, gender, and socioeconomic status determined via the payer (Medicaid versus non-Medicaid). Not all factors were deemed to be significantly related to the dependent variable of in-hospital mortality. *Open Heart Surgery*, *supra* note 41, at 2769-72.

a expected mortality rate of 2%. Provider A should have lost only two patients in 100 cases composed of patients having a certain mix of pre-treatment risk factors. If Provider A's crude mortality rate was 1%, then Provider A is performing better than expected. A second provider (Provider B) may have an expected mortality rate of 10% because of treating sicker patients, i.e. a different and more severe mix of pre-treatment risk factors. Thus, if Provider B had a crude mortality rate of 5%, then Provider B is also performing better than expected. On the other hand, if a third provider (Provider C) had an expected mortality rate of 2% (that was estimated from a *different* mix of pre-treatment risk factors than Provider A's but was equally severe) and a crude mortality rate of 5%, then Provider C is performing worse than expected. Although expected rates permit an assessment of provider performance, they do not facilitate easy comparison.

To allow for easy comparison among providers having differing crude and expected rates, and also to provide comparison of all providers to the group average, the statistics are "risk-adjusted" so that all providers have a patient mix facing *identical* pre-treatment risk factors, i.e. all patients are made *statistically* equally sick. Thus any difference in the risk-adjusted rates can be assumed to result largely from the quality of care given by the provider to the patients.⁷¹ The risk-adjusted rate is computed by dividing the crude rate by the expected rate and then multiplying this ratio by the average crude rate.⁷² Assuming the quality-of-care statistic is indicative of poor care, e.g. mortality rate or reinfection rate, the lower the risk-adjusted rate the better the provider's performance. Providers then can be ranked easily in order of their risk-adjusted rates.

Using the previous example and assuming an average crude mortality rate of 5% computed over 50 providers, Provider A's risk-adjusted mortality rate is 2.5% (1.0% crude rate divided by 2.0% expected rate times 5% average crude mortality rate), Provider B's is 2.5% (5%/10% times 5%), and Provider C's is 12.5% (5%/2% times 5%). Thus, Provider A and Provider B would have an identical risk-adjusted rate, that is, ranking, even though five times more patients have died under Provider B's

⁷¹ *Id.*

⁷² *Coronary Artery Bypass Surgery*, *supra* note 66.

care. Since Provider B's patients were five times more risky to treat than Provider A's patients, Provider A and Provider B are statistically equivalent in performance. Provider C, however, is performing five times worse than either Provider A or Provider B. Why? When compared to Provider A, both providers had the same expected mortality rate, but Provider C lost five times more patients. When compared to Provider B, even though both providers lost the same percentage of patients, Provider C's patients were five times less risky to treat. Also, Provider A and Provider B performed better than average since 2.5% is less than 5%, the group average, and Provider C performed worse than average since 12.5% is greater than 5%.

Risk-adjusted rates allow for the easy comparison among providers but do not identify "outliers," i.e. those providers who performed statistically much worse or better than what was predicted for them. To determine whether a provider is an outlier one compares a provider's crude rate to the statistical lower and upper bounds for that provider's expected rate.⁷³ If a crude rate

⁷³ The upper and lower bounds, the difference of which forms the confidence interval, reflect the accuracy of the regression analysis used to compute the expected rate, i.e. how well does the regression analysis actually predict. Because of errors in the analysis process, as well as errors in the raw input data, the expected rate will be faulty. See *supra* note 66.

This error in the expected rate may be modeled as a randomly distributed variable. In general, a random variable is a quantity that is defined for each member of a population and is such that the probability of observing any value of the variable can be known (at least in theory). FINKELSTEIN & LEVIN, *supra* note 66, at 23-24. A well known distribution is the normal, "bell-shaped distribution." *Id.* at 24-25. For the purpose of this Note, it will be assumed that the error in the expected rate can be modeled by the normal distribution; however, the actual shape of the distribution will depend on the distribution of the input and analysis errors. (This assumption may be nonetheless correct by the Central Limit theorem, which states that the joint probability of N number of random distributions will become normally distributed as N increases. Since the number of inputs and regression equations are fairly high, the total number of error contributions may be high, thus causing the expected rate error to take the shape of a normal distribution.)

Only two parameters are needed to fully characterize a normal distribution: mean and standard deviation. The (arithmetic) mean is the average of all values. If the regression analysis is unbiased (which will be assumed), then the mean of the error of the expected rate is zero. If the regression analysis always predicted a value higher or lower than it should have predicted, then the analysis would be biased, i.e. a non-zero mean error. But even when this occurs, the prediction can be corrected by adding or subtracting this value to the estimated expected rate, bringing the mean error back to zero.

The more important quantity is the standard deviation; it determines the dispersion of the distribution around the mean. The accuracy of the regression analysis, assuming zero mean error, is determined by the standard deviation alone. The more standard devi-

"lies outside" of these bounds, then that provider is deemed an outlier. If the crude rate lies below the lower bound, then that provider performed significantly better than what was expected; conversely, if the crude rate lies above the upper bound, then that provider performed significantly worse. Note that one can be near the top of the rankings but still be a high (significantly worse) outlier if a provider's performance is much better than the other providers' performances but far worse than what it should have been; the converse can also occur.⁷⁴ Consequently, it is useful to use both the outlier status and risk-adjusted rate to assess a provider's performance.

Using the previous example, assume Provider A's expected rate of 2% was bounded by 0.5% and 3.5% for a 95% confidence interval.⁷⁵ Furthermore, assume Provider B's expected rate of 10% was bounded by 6% and 14% for the same 95% confidence interval. Provider A's 1% crude rate is within its two bounds of 0.5% and 3.5%, and therefore is not an outlier. But Provider B's 5% crude rate is below its lower bound of 6%. Thus Provider B is a low outlier, performing "significantly" better than what was expected. Since Providers A and B had equal risk-adjusted rates, one may use B's good outlier status as a selection criterion

ations a value is from the mean, the less probable that value will actually occur. For a normal distribution, the mean has a 0.4 probability (40% chance) of actually occurring; a value two standard deviations from the mean has approximately a 0.06 (6% chance) probability of occurring. The sum of probabilities over all values is 1.0. In fact, the probability of all values greater than two positive standard deviations from the mean and less than two negative standard deviations from the mean is approximately a 0.05, or 5%, chance of occurring. Thus, a value between two standard deviations below and above the mean has a 95% chance of occurring, i.e. 95% accurate. That interval of plus and minus two standard deviations is called the 95% confidence interval.

For example, let's say the expected rate was estimated to be 5% with a standard deviation of 1%. By definition of the normal distribution, that expected rate computation will be 68% accurate within the confidence interval of 4-6%, with 4% (5% - 1%) the lower bound, and 6% (5% + 1%) the upper bound. This interval is called the 68% confidence interval. The computation will be 95% accurate within the confidence interval of plus/minus two standard deviations, or 3% to 7%. To find out how upper and lower bounds were computed using provider-specific data, see *Coronary Artery Bypass Surgery*, *supra* note 66, at 1101.

⁷⁴ In general, however, low outliers will usually also be near the top of the risk-adjusted rate rankings and the high outliers will be near the bottom. Thus outliers may only provide a small amount of additional information to that gained by the risk-adjusted rate rankings alone. For example, in New York's 1989 hospital study, risk-adjusted rates for low outlier hospitals range from 1.31% to 2.56%, whereas the range is from 6.38% to 9.84% for high outlier hospitals. *Id.*

⁷⁵ For an explanation of 95% confidence interval, see *supra* note 73.

to choose between A and B.

The presentation of the statistics is also an important issue if the data are to be disclosed to, and used by, the public. The misrepresentation of data could lead to misuse of data by consumers or could unjustly enrich or harm providers.⁷⁶ Currently, data are usually presented in rank order, with the provider with the lowest (best) risk-adjusted statistic topping the list.⁷⁷ The crude and expected statistics may also be included in separate columns. Some raw input data also may be presented, for example, the number of deaths and the volume of cases. The outliers may be denoted by one or two symbols to indicate whether they performed significantly better or worse than expected.⁷⁸ See Appendix Tables 1, 2 and 3 for examples of data presentation.⁷⁹

⁷⁶ For a description of general risk data presentation and its potential pitfalls, see Twerski & Cohen, *supra* note 1, at 627-39.

⁷⁷ See *infra* note 79 and accompanying text. See also Tanne, *supra* note 11, at 38.

⁷⁸ See *infra* note 79 and accompanying text. See also Tanne, *supra* note 11, at 39.

⁷⁹ See Appendix Tables 1, 2 and 3. Table 1 provides, for each hospital performing open heart surgery in New York State from January 1989 through June 1989, the number of cardiac surgical patients, the crude mortality rate, the expected mortality rate based on the logistic regression model, and upper and lower bounds for the expected mortality rate. Hospitals are ranked in order of increasing crude mortality rate. Outliers are identified by single (significantly worse) and double (significantly better) daggers. *Open Heart Surgery*, *supra* note 41, at 2772. Table 2 is the New York State Department of Health presentation of the same data presented in Table 1. Note that the risk-adjusted rates have been presented instead of the expected rates to make comparison easier. The hospitals also have been ranked in order of increasing risk-adjusted mortality rate and not the crude mortality rate. Finally note that outlier information has not been included in the 1989 data. State of New York Department of Health, *Cardiac Surgery in New York State*, D.O.H. News, Dec. 4, 1990 [hereinafter *Cardiac Surgery*]. Table 3 is the latest presentation of data by the New York State Department of Health. The hospitals are listed by alphabetical order instead of being ranked by risk-adjusted rates to make comparing hospitals more difficult. Also note that the crude mortality rate information is no longer presented. Finally, note that outlier information is now presented. State of New York Department of Health, *Heart Surgery*, D.O.H. News, June 6, 1991 [hereinafter *Heart Surgery*].

II. LEGAL BACKGROUND

A. *Current Laws Governing Disclosure of Provider-Specific Quality-of-Care Data*

1. Federal Law

a. *Federal Agencies and Private Organizations under Contract to Federal Agencies*

The largest provider-specific quality-of-care database is generated by the Health Care Financing Administration ("HCFA"),⁸⁰ an agency under the Department of Health and Human Services ("HHS").⁸¹ HCFA collects data under the Social Security Act for its Medicare program.⁸² Disclosure of HHS information is generally prohibited, except as the Secretary of HHS prescribes by regulations, or as otherwise provided by federal law.⁸³

Disclosure of data collected by a federal agency, such as HCFA, is also governed by the Freedom of Information Act ("FOIA")⁸⁴ and the Privacy Act.⁸⁵ HHS has adopted regulations to handle the Medicare data disclosure requirements of these federal laws.⁸⁶ The general policy of these regulations is to allow the "fullest responsible disclosure consistent with those requirements of administrative necessity and confidentiality which are

⁸⁰ See Fottler, *supra* note 9, at 342-56.

⁸¹ *Id.*

⁸² 42 U.S.C. § 1306(a) (1991).

⁸³ *Id.*

⁸⁴ 5 U.S.C. § 552 (1977). The Freedom of Information Act ("FOIA") is a sweeping mandate to disclose upon request government agency information to the public. It was passed by Congress in 1966 to control executive secrecy. Unless the records subject to the request fall within one of the statute's narrow exemptions, disclosure may not be prohibited. The exemptions from mandatory disclosure are discretionary; thus information that falls within an exemption may still be released if the agency so elects. However, if the government agency objects to disclosure, it bears the burden of proving that its withholding of the requested records falls within one of the nine enumerated exemptions.

⁸⁵ 5 U.S.C. § 552a (1977). The Privacy Act prohibits the disclosure of any kind of retrievable information about an individual in the government's files. 5 U.S.C. § 552a(a)(5). It does, however, provide that an agency may disclose such information without obtaining the individual's consent if disclosure would be required under FOIA. 5 U.S.C. § 552a(b)(2). The net effect of these provisions is to permit disclosure where FOIA requires it, but to prohibit disclosure where FOIA allows the agency to refuse to disclose.

⁸⁶ 42 C.F.R. §§ 401.101-152 (1986).

recognized in the Freedom of Information Act."⁸⁷ Under these regulations, HCFA permits disclosure of official reports⁸⁸ about hospitals, state agencies, intermediaries and carriers under Medicare,⁸⁹ but disclosure of official reports about physicians is expressly prohibited.⁹⁰

HCFA permits disclosure of Medicare information to state and federal agencies⁹¹ as well as the disclosure of some Medicare information to the public.⁹² HCFA has maintained and disclosed public-use hospital-specific data files since the 1980s. Upon request, Medicare Provider Analysis and Review ("MEDPAR") data, Quality of Care ("QC") MEDPAR data, Medicare hospital mortality rate data and other data files relating to cost and demographics are available for public use.⁹³ However, Medicare data that explicitly identify physicians are not publicly available.⁹⁴

An important legal issue is whether disclosure of physician-specific quality-of-care Medicare data can be demanded by prospective patients or consumer advocates under FOIA.⁹⁵ HHS policy recognizes "the right of public access to information," balanced by "the legitimate interests of . . . persons who have submitted records to the Department."⁹⁶ The tension in this policy is reflected in the applicability of both the Privacy Act and FOIA to physician-specific data. The Privacy Act applies only to records that are about individuals, as long as the records are in a system of records;⁹⁷ FOIA favors disclosure and applies to all HHS records.

⁸⁷ 45 C.F.R. § 5.2 (1986). *See also* 45 C.F.R. §§ 5.1 *et seq.* (1986) (describing purpose, policy and scope of HHS disclosure).

⁸⁸ Official reports include statements of deficiencies, survey reports, follow-up reviews, provider performance evaluations and contractor performance evaluations. 42 C.F.R. § 401.133.

⁸⁹ *Id.*

⁹⁰ 42 U.S.C. § 1306(d)(3).

⁹¹ 42 C.F.R. § 401.134.

⁹² 42 C.F.R. § 401.135.

⁹³ Janis Nero, *HCFA's Public-Use Files: A Wealth of Data*, 63 HOSPITALS 72 (1989).

⁹⁴ 42 C.F.R. § 401.133(b).

⁹⁵ Before HCFA will release public-use files, it must conceal the patients' identities. The patients' identities—name or Social Security Number—can be masked by computer database techniques. HCFA may release these files without disclosing the patients' identities. This Note will not discuss issues concerning disclosure of a patient's identity.

⁹⁶ 45 C.F.R. § 5.2.

⁹⁷ 45 C.F.R. § 5.4(a).

Physician-specific data extracted from Medicare reports meet both the "individual" and "system of records" requirements of the Privacy Act,⁹⁸ thus subjecting this information to the Privacy Act.⁹⁹ Records governed by the Privacy Act may be disclosed whether requested by or with the prior written consent of the physician,¹⁰⁰ or without the physician's consent only if the disclosure falls within one of the Privacy Act's exceptions.¹⁰¹ The most likely exception would be the one requiring information to be disclosed under the FOIA.

The FOIA, on the other hand, provides for mandatory disclosure of federal agency records upon request,¹⁰² unless the records fall into one of several enumerated FOIA exemptions.¹⁰³ Several exemptions may apply to physician-specific quality-of-care data. For example, exemption 6 exempts "personnel and medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of personal privacy."¹⁰⁴ Exemption 4 covers "commercial or financial information, obtained from a person, [that is] privileged or confidential."¹⁰⁵ FOIA also exempts matters "specifically exempted from disclosure by statute" under exemption 3.¹⁰⁶

Traditionally, exemption 6 has been used to protect the pri-

⁹⁸ 5 U.S.C. §§ 552(a)(2), (a)(5).

⁹⁹ *Id.*

¹⁰⁰ 5 U.S.C. § 552a(b).

¹⁰¹ Disclosure is permitted without the individual's consent for use within the agency, FOIA compliance, routine use, law enforcement, compelling circumstances and by court order. *Id.*

¹⁰² 5 U.S.C. § 552(a).

¹⁰³ FOIA does not apply to nine exempted matters:

- (1) national security information,
- (2) internal agency personnel rules and practices,
- (3) matters specifically exempted by statute,
- (4) trade secrets and commercial or financial information obtained from a person and confidential,
- (5) interagency memoranda,
- (6) personnel and medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of personal privacy,
- (7) law enforcement records,
- (8) financial regulatory agency records,
- (9) geological well data.

5 U.S.C. §§ 552(b)(1)-(9).

¹⁰⁴ 5 U.S.C. § 552(b)(6).

¹⁰⁵ 5 U.S.C. § 552(b)(4).

¹⁰⁶ 5 U.S.C. § 552(b)(3).

vacy interest of patients.¹⁰⁷ But exemption 6 has also been used to prevent the disclosure of provider-specific data.¹⁰⁸ There are three requirements necessary for this exemption: (1) the information must be contained in a medical file; (2) disclosure must constitute a clearly unwarranted invasion of personal privacy; and (3) the severity of the invasion of personal privacy must outweigh the public's interest in disclosure.¹⁰⁹

Physician-specific quality-of-care data might fall within the exemption's first requirement since the data are generated through the analysis of raw data gathered from medical files. But the data need not be explicitly contained within a medical file. It is only necessary that the privacy interests that arise from physician-specific information are similar to those that arise from medical files.¹¹⁰

Next, a court must determine whether disclosure would constitute a "clearly unwarranted invasion of personal privacy."¹¹¹ A court would probably find that the physician resisting disclosure would have a genuine privacy interest.¹¹² But the "clearly unwarranted invasion of personal privacy" language has been interpreted to reflect a congressional policy in favor of disclosure.¹¹³ Thus, to prevent disclosure, the physician's privacy inter-

¹⁰⁷ *Public Citizen Health Research Group v. Dept. of Health*, 477 F. Supp. 595, 603 (D.D.C. 1979) ("Protecting the intimate details of an individual's medical file is indeed a central goal of the privacy exemption [6].").

¹⁰⁸ *Id.*

¹⁰⁹ *Metropolitan Life Ins. Co. v. Usery*, 426 F. Supp. 150, 166-67 (D.D.C. 1976).

¹¹⁰ *Harbolt v. Department of State*, 616 F.2d 772, 774 (5th Cir.), *cert. denied*, 449 U.S. 856 (1980).

¹¹¹ *Plain Dealer Publishing Co. v. United States Dep't of Labor*, 471 F. Supp. 1023, 1026 (D.D.C. 1979).

¹¹² *Public Citizen*, 477 F. Supp. at 603. The *Public Citizen* court found that a genuine privacy interest was "implicated under FOIA" since the disclosure of physicians' identities in medical service reviews "raises the prospect of misleading publicity, possibly unwarranted professional and public criticism, and damage to professional reputation." *Id.* The information sought to be disclosed was arguably personal in nature about individual physicians and could lead to professional embarrassment; it would reveal that "a physician had performed a large number of surgical procedures," or had "requests for extension in hospital denied regularly." *Id.*

¹¹³ *Department of the Air Force v. Rose*, 425 U.S. 352, 378 n.16 (1976). *See also* *Hrones v. CIA*, 685 F.2d 13, 19 (1st Cir. 1982) ("the balance favors disclosure"); *Ditlow v. Shultz*, 517 F.2d 166, 169 (D.C. Cir. 1975) ("In addition to the Act's general presumption of disclosure, the 'clearly unwarranted invasion of personal privacy' language expresses 'a carefully considered congressional policy favoring disclosure' which 'instructs the court to 'tilt' the balance in favor of disclosure.'" (quoting *Getman v. NLRB*, 450 F. 2d 670, 674 & n.4, *stay den.*, 404 U.S. 1204 (1971)); *Celmins v. United States Dep't of Treasury*,

est must clearly outweigh the public's right to know,¹¹⁴ as demonstrated by case law.¹¹⁵

The required balancing analysis was applied to medical quality data in *Public Citizen Health Research Group v. HEW*,¹¹⁶ when a nonprofit consumer advocacy group sought disclosure under FOIA of a Professional Standard Review Organization's ("PSRO")¹¹⁷ health care quality data. These data included physician-specific data linked to mortality outcome data. The court held, among other things, that the data did not fall within the medical file exemption.¹¹⁸ The physicians' privacy interest, while genuine, was deemed to be less than that of intimate, personal information.¹¹⁹ Thus, the public interest of scru-

457 F. Supp. 13, 15 (D.D.C. 1977) ("It is settled, however, that the courts are to 'tilt' in favor of disclosure").

¹¹⁴ *Campbell v. United States Civil Service Comm'n*, 539 F.2d 58, 62 (10th Cir. 1976):

[w]here there is an important public interest in obtaining information, the private interest in protecting the disclosure must give way to the superior public interest, especially where the [privacy] invasion is not substantial. If, of course, [the privacy invasion] is serious and there is little or no public interest, disclosure is not allowed.

Id. at 62.

¹¹⁵ See *Florida Medical Ass'n, Inc. v. Department of Health, Education, and Welfare*, 479 F. Supp. 1291, 1304 (M.D. Fla. 1979) (disclosure of physicians' Medicare reimbursements was not permitted since inclusion of personally identifying details constituted a privacy interest strong enough to outweigh the weaker public interest in knowing these amounts in light of ongoing legislative debate over national health insurance); *Washington Post Co. v. United States Dep't of Health and Human Services*, 690 F.2d 252, 261-65 (D.C. Cir. 1982) (strong public oversight interest, when balanced against the officials' relatively slight privacy interest, required disclosure of financial data indicating potential conflicts of interest and abuse of official position).

¹¹⁶ 477 F. Supp. 595 (D.D.C. 1979).

¹¹⁷ See *supra* note 18.

¹¹⁸ "The court concludes that the invasion of personal privacy resulting from the disclosure of certain non-patient-identifiable records is not 'clearly unwarranted' in light of the important public interests at stake." *Public Citizen*, 477 F. Supp. at 605.

¹¹⁹ Courts have strongly protected disclosure of "intimate" personal details of individual lives. See, e.g., *Rural Housing Alliance v. Dep't of Agriculture*, 498 F.2d 73, 77 (D.C. Cir. 1974) (exemption 6 used to protect records of a person's alcoholic consumption, the legitimacy of children, marital status, identities of fathers of children, family fights and reputation); *Wine Hobby USA, Inc. v. Internal Revenue Service*, 502 F.2d 133, 137 (3d Cir. 1974) (exemption 6 used to protect person's family status and personal activities within the home); *Ditlow v. Schultz*, 517 F.2d 166, 169 (D.C. Cir. 1975) (exemption 6 used to guard against disclosure of a person's finances).

Courts have also held that certain "professional" information is characterized by a privacy interest and thus not to be disclosed. See *Florida Medical Ass'n*, 479 F. Supp. at 1304-5 (Medicare reimbursements received by physicians constitute personal information not subject to disclosure under FOIA's exemption 6); *Professional Review Organization*

tinizing government performance served by Public Citizen outweighed the physicians' relatively weak personal privacy interest.¹²⁰

In *Public Citizen* the district court applied a balancing test weighing the physicians' privacy interests and the general public's interest in government information. The court considered the following factors for both patients and physicians: "(1) will disclosure result in an invasion of privacy and, if so, how seriously?; (2) what public interest factors favor, oppose, disclosure and what weight should they be accorded?"¹²¹ Patient privacy, usually the paramount concern, was minor since the data sought did not include any information that could either directly or indirectly identify individual patients.¹²²

The *Public Citizen* court acknowledged that the physicians' privacy interest was genuine since "disclosure of physician identities in . . . [medical care evaluation] studies raises the prospect of misleading publicity, possibly unwarranted professional and public criticism, and damage to professional reputation."¹²³ But the court did not find that "[t]he revelation that a physician performs a large number of surgical procedures, or has requests for [hospital] extension denied regularly" to be "intimate" information.¹²⁴ Nor would the "professional embarrassment suffered"

of Florida v. United States Dep't of Health and Human Services, 607 F. Supp. 423, 427 (D.D.C. 1985) (professional credentials and other personal information in resumes were privacy interests to be protected under FOIA's exemption 6).

But courts have also held that there is no privacy interest in certain "professional" information. See *Sims v. Central Intelligence Agency*, 642 F.2d 562, 574 (D.C. Cir. 1980) ("[T]he decisions of this court have established that information connected with professional relationships does not qualify for . . . exemption 6 . . ."); *Cohen v. Environmental Protection Agency*, 575 F. Supp. 425, 429 (D.D.C. 1983) ("[T]he privacy exemption does not apply to information regarding professional or business activities. . . . This information must be disclosed even if a professional reputation must be tarnished"). At the same time, courts have held that there is a relatively weak privacy interest in "professional" information. See *Kurzon v. United States Dep't of Health and Human Services*, 649 F.2d 65, 69 (1st Cir. 1981) (protection of privacy interest, in this case the possible negative reflection cast on applicants for government research grants upon rejection, "is not beyond the purview of exemption 6," but "it is not at its core.").

¹²⁰ *Public Citizen*, 477 F. Supp. at 605.

¹²¹ *Id.* at 603.

¹²² *Id.* at 601.

¹²³ See *supra* note 112.

¹²⁴ See *supra* note 119, for cases where the "intimate" requirement was met. The *Public Citizen* court found that the data sought did not possess the "intimacy" of those cases.

by data disclosure lead to immediate, personal consequences, such as "continuous harassment or threats of reprisal."¹²⁵ In addition, the information sought was derived solely from services paid for by public funds, and since the physicians contracted with the government to provide medical services in exchange for federal payments, they perform a "quasi-public function, to which substantial personal privacy rights could not attach."¹²⁶

The *Public Citizen* court balanced the physicians' privacy interest against the general public's interest in disclosure, the foremost interest being increased consumer knowledge of the quality of government-funded medical services. Thus, according to the court, disclosure would permit consumers to make more informed choices among individual physicians and hospitals.¹²⁷ It would also allow other physicians outside the community to make better referrals to providers within the community.¹²⁸ Health planning agencies and health quality researchers would also benefit from the information.¹²⁹ The court also reasoned that a more informed public would put pressure on PSROs to improve their monitoring efforts.¹³⁰ The court then concluded that not only was a physician's personal privacy interest of lesser magnitude than that of a general citizen's intimate personal interest, but the physicians' personal privacy interest was also weak when compared to the general public's interest in disclosure.¹³¹

In summary, it is likely that a court will find that physician-specific quality-of-care data qualify as a medical file for the purposes of FOIA exemption 6. A court will also be likely to determine that a genuine privacy interest for physicians exists. However, as demonstrated in *Public Citizen*, a court is likely to hold that invasions of physicians' privacy are greatly outweighed by public interest in disclosure. If *Public Citizen* is any indication,

¹²⁵ *Public Citizen*, 477 F. Supp. at 604. The defense analogized the potential professional embarrassment caused by the disclosure of the physicians' identities to the disclosure of F.B.I. personnel names involved in the investigation of the assassination of Martin Luther King, Jr., which were protected under exemption 6 in *Lesar v. Department of Justice*, 455 F. Supp. 921, 925 (D.D.C. 1978).

¹²⁶ *Public Citizen*, 477 F. Supp. at 604.

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ *Id.*

¹³¹ *Id.* at 605.

exemption 6 will probably not block disclosure of physician-specific data under a FOIA request.

Exemption 4 prohibits disclosure of information that is "commercial or financial, obtained from a person, and privileged or confidential."¹³² Physician-specific quality-of-care data may qualify as "commercial" information since the marketability of physician services would be affected by disclosure. In fact, getting market information relating to the quality of physician services would be an important goal of one seeking disclosure.

Case law indicates that where disclosure of information may affect a commercial interest, such as marketability, that information could fall within the "commercial" exemption. In *Public Citizen Health Research Group v. F.D.A.*¹³³ the court held that records produced during ongoing clinical safety studies relating to adverse medical reactions of intraocular lenses submitted to the Food and Drug Administration ("FDA"), a federal agency, by a manufacturer were "commercial" since that information "will be instrumental in gaining market approval."¹³⁴

However, the term "commercial" is often given its ordinary meaning by courts.¹³⁵ In *Public Citizen Health Research Group v. HEW*¹³⁶ the court held that medical care evaluation studies requested were not "commercial" since they did not contain fee data, payment schedules or other commercial arrangements. Thus, although a court might find that physician-specific quality-of-care data are "commercial," such a holding is highly unlikely.¹³⁷

¹³² 5 U.S.C. § 552(b)(4).

¹³³ *Public Citizen Health Research Group v. Food and Drug Admin.*, 704 F.2d 1280 (D.C. Cir. 1983).

¹³⁴ *Id.* at 1290.

¹³⁵ *Washington Post Co. v. United States Dep't of Health and Human Services*, 690 F.2d 252, 266 (D.C. Cir. 1982). "[T]he statutory language is not, on its face, restricted to commercial as opposed to personal financial information . . . we believe that the plain language of Exemption 4 covers all financial information, despite the apparent commercial focus of the Exemption." See also *Board of Trade of the City of Chicago v. Commodities Futures Trading Comm'n*, 627 F.2d 392, 403 n.78 (D.C. Cir. 1980) (further examples of construing the term "commercial").

¹³⁶ *Public Citizen*, 477 F. Supp. at 605.

¹³⁷ Moreover, even if the information is considered to be commercial, exemption 4 still would not apply. The exemption mandates that the information be "obtained from a person." *Board of Trade*, 627 F.2d at 404. Physician-specific data obtained by the HCFA are received from hospitals, not from the physician opposing disclosure. Thus it is unlikely that a court would find that exemption 4 applies.

FOIA also exempts matters "specifically exempted from disclosure by statute" under exemption 3. The Social Security Act specifically prohibits disclosure of Medicare information "except as the Secretary . . . may by regulation prescribe."¹³⁸ This exemption could apply if the Social Security Act language is interpreted as a statutory disclosure exemption. In *Parkridge Hospital, Inc. v. Blue Cross and Blue Shield of Tennessee*¹³⁹ the court held that the Social Security Act's language did not constitute an exemption statute within the meaning of FOIA.¹⁴⁰ The court found that this clause merely grants discretion to the Secretary of HHS to exempt.¹⁴¹ Thus, it does not appear that exemption 3 can be used to block disclosure of physician-specific quality-of-care data.

In summary, it appears that the disclosure of physician-specific quality-of-care data will not be exempted under FOIA.

Even if a court did decide that the information was both "commercial" and "obtained from a person," the information must still be deemed "confidential." Commercial information is "confidential" for purposes of exemption 4 if its disclosure would either "(1) . . . impair the Government's ability to obtain necessary information in the future; or (2) . . . cause substantial harm to the competitive position of the person from whom the information was obtained." *National Parks and Conservation Ass'n v. Morton*, 498 F.2d 765, 770 (D.C. Cir. 1974). Case law suggests that the first prong of the confidentiality test would not be met. *Florida Medical Ass'n Inc. v. United States Dep't of Health, Education, and Welfare*, 479 F. Supp. 1291, 1303 (M.D. Fla. 1979) (where the information submitted was mandated as a part of doing business with the government, more specifically, where information contained in Medicare claims form was required for reimbursement, no impairment was found).

For the second prong of the confidentiality test (substantial competitive harm), courts have not ruled on provider-specific quality-of-care data. But courts have held, both for and against substantial competitive harm, on analogous Medicare cost reports. *Id.* (no substantial harm); *Parkridge Hospital, Inc. v. Blue Cross and Blue Shield of Tennessee*, 430 F. Supp. 1093 (E.D. Tenn. 1977) (substantial harm). Medicare cost reports are to a hospital's competitive position what physician-specific quality-of-care data reports are to a physician's competitive position.

Substantial competitive harm may be present if only a single physician's outcomes were disclosed, while all other physicians' outcomes were not. But physician-specific quality-of-care data reports would include all physicians under the Medicare program, and thus would affect all physicians equally. *Westchester Gen. Hosp. v. United States Dep't of Health, Education, and Welfare*, 464 F. Supp. 236, 246 (M.D. Fla. 1979) (*dicta*). Thus, it is unlikely that the information will be considered confidential under the second prong of the confidentiality test. In summary, it is improbable that physician-specific information will qualify as confidential commercial data obtained from a person as required by exemption 4.

¹³⁸ 42 U.S.C. § 1306(a).

¹³⁹ *Parkridge Hospital, Inc.*, 430 F. Supp. at 1093.

¹⁴⁰ *Id.* at 1097.

¹⁴¹ *Id.*

Thus, a physician opposing disclosure of quality-of-care data correlated to his or her identity will be powerless to object, notwithstanding the Privacy Act.

b. *Peer Review Organizations*

By statute, PROs are not considered a federal agency for the purposes of FOIA and may only disclose confidential data "under such circumstances as the Secretary shall by regulations provide."¹⁴² The Secretary's regulations regarding hospital-specific information concerning Medicare patients, whether implicitly or explicitly identifying the hospital (or health care facility), are considered nonconfidential¹⁴³ and must be made available to the public by the state PRO.¹⁴⁴ Specifically, PRO regulatory guidelines require disclosure of mortality rates for various diagnostic related groups, the number of patients who develop post-operative infections, the average length of hospital stays, and the cost and volume of various procedures.¹⁴⁵

PROs may not disclose physician-specific data to the public, since information that identifies a health-care practitioner is considered confidential.¹⁴⁶ FOIA analysis for federal agencies that may otherwise permit disclosure does not apply. However, PROs must disclose confidential information to HHS upon HHS's request.¹⁴⁷ The PRO law also requires that PROs disclose confidential information, which may include physician-specific quality-of-care data, to (1) state or federal fraud and abuse agencies; (2) state or federal agencies responsible for identifying substantial public health risks; and (3) state licensing or certification agencies.¹⁴⁸ Once the information is in the possession of a federal or a state agency, it is subject to FOIA or state freedom of information laws. This creates the possibility of redisclosure to the public.

However, because HHS did not intend PROs to disclose physician-specific data, it is unlikely that HHS will undermine

¹⁴² 42 U.S.C. §§ 1320c-9(a) (1982). This statutory provision was probably added to prevent a repeat of the *Public Citizen* case.

¹⁴³ 42 C.F.R. § 476.101 (1986).

¹⁴⁴ 50 Fed. Reg. 15,312-74 (1985).

¹⁴⁵ 50 Fed. Reg. 15,312-74 (1985).

¹⁴⁶ 42 C.F.R. § 476.101 (1986).

¹⁴⁷ 42 C.F.R. § 476.130 (1986).

¹⁴⁸ 42 C.F.R. § 1320c-9(b) (1982).

confidentiality by voluntarily disclosing PRO information in its possession and leaving the door open for a FOIA challenge. If HHS does voluntarily disclose confidential PRO data, it will probably not disclose them frequently, thereby limiting opportunities for FOIA challenges.¹⁴⁹ But even if a FOIA challenge is brought on redisclosed data, it is unlikely to succeed.

Redisclosure by federal or state fraud, abuse, public health, licensing or certification agencies will likely involve information about a single or small group of physicians. A FOIA (or state counterpart) challenge based on arguments of public interest in increased health care quality, or reduced costs through increased competition, will be severely weakened by the limited focus of the information sought. In this case, it is likely that courts will find physicians' privacy interests superior to the public interest. Thus, exemption 6 of FOIA will apply and disclosure will be blocked by the Privacy Act.

2. State Law: State Agencies and Private Organizations under Contract to State Agencies

Thirty-two states have established agencies for the collection of hospital discharge data;¹⁵⁰ twenty-five of those states col-

¹⁴⁹ 50 Fed. Reg. 15,355 (1985).

¹⁵⁰ Generally, all these statutes provide for collection of data to be used to generate either cost, utilization, or quality-of-care comparative statistics: Arizona, ARIZ. REV. STAT. ANN. § 36-125.05 (1990); Arkansas, ARK. CODE ANN. § 20-8-110(a) (Michie 1987); California, CAL. HEALTH & SAFETY CODE § 443.31 (West 1991); Colorado, COLO. REV. STAT. ANN. § 25-28-104 (West 1991); Connecticut, CONN. GEN. STAT. ANN. § 19a-160 (West 1991); Delaware, DEL. CODE ANN. § 2003-2004 (1975-1990); Florida, FLA. STAT. ANN. § 381.0612 (West 1991); Georgia, GA. CODE ANN. § 31-7-281 (Michie 1982); Illinois, ILL. ANN. STAT. ch. 111½ para. 6504-2 (Smith-Hurd 1992); Indiana, IND. CODE ANN. § 16-10-5-2(e) (West 1991); Iowa, IOWA CODE ANN. § 145.3 (West 1991); Maine, ME. REV. STAT. ANN. § 394 (West 1990); Maryland, MD. HEALTH-GEN. CODE ANN. § 19-107 (1988); Massachusetts, MASS. GEN. LAWS ANN., Ch. 111 § 25A (West 1992); Nevada, NEV. REV. STAT. ANN. § 439A.082 (Michie 1985); New Hampshire, N.H. REV. STAT. ANN. § 126:1 (1990); New Jersey, N.J. STAT. ANN. § 26:2H-5.1 (West 1992); New Mexico, N.M. STAT. ANN. §§ 24-14a-1-10 (Michie 1978); New York, N.Y. PUB. HEALTH LAW § 2803-b (McKinney 1991) (mandatory SPARCS data system, not voluntary Cardiac Reporting System); North Carolina, N.C. GEN. STAT. § 131E-210 (1990); North Dakota, N.D. CENT. CODE § 23.01.1 (1987-1991); Ohio, OHIO REV. CODE ANN. §§ 3732.11-15 (Anderson 1987); Oregon, OR. REV. STAT. § 442.120 (1989); Pennsylvania, 35 PA. CONS. STAT. §§ 449.1-19 (1991); Rhode Island, R.I. GEN. LAWS § 23-17-10 (1956); South Carolina, S.C. CODE ANN. § 44-6-170(c) (Law Co-op. 1976); Tennessee, TENN. CODE ANN. § 68-1-108 (1955-1991); Texas, TEX. HEALTH & SAFETY CODE ANN. §§ 311.031-038 (West 1991); Vermont, VT. STAT. ANN. § 1952 (1983); Washington, WASH. REV. CODE ANN. § 70.170.100 (West 1991); West Vir-

lect physician identifiers as part of the data.¹⁵¹ The majority of states prohibit disclosure of provider-specific quality-of-care data¹⁵² to the public.¹⁵³ A few states, especially those that seek "market-like" competition to control cost and quality, mandate disclosure of comparative quality-of-care statistics.¹⁵⁴ However, some of these states do not permit the disclosure of the raw input data from which these statistics were generated and have further exempted these data from their freedom of information statutes.¹⁵⁵

For those states that do not disclose quality-of-care data

ginia, W. VA. CODE § 16-1-10 (1990); Wisconsin, WIS. STAT. ANN. § 153.05 (West 1991).

¹⁵¹ Arizona, Arkansas, Colorado, Connecticut, Delaware, Georgia, Illinois, Iowa, Maine, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Washington, West Virginia and Wisconsin collect physician identifiers. California, Florida, Indiana, North Dakota, Ohio, Oregon and Texas do not collect physician identifiers.

¹⁵² For this Note, only quality-of-care data are at issue; however, states that collect data for cost and utilization review can extend these systems in the future to include quality-of-care data analysis and dissemination on either a hospital-specific or physician-specific basis. Also, data collected for cost or utilization may also be subject to freedom of information requests. This leads to the possibility of private-sector analysis of collected data to generate quality-of-care statistics; if physician identifiers have been collected, then it is possible to generate physician-specific data as well as hospital-specific data.

¹⁵³ Disclosure of provider-specific quality-of-care data is unavailable in those states listed in note 149, *supra*, except for those states listed in note 154, *infra*.

¹⁵⁴ Public release of hospital-specific quality-of-care statistics is mandated in the following states: Colorado, COLO. REV. STAT. § 25-28-104(3)(b)(II) (West 1991); Delaware, DEL. CODE ANN. § 2003(c) (1975-1990) (however, no data can be released without first obtaining the written approval of the Association of Delaware Hospitals); Florida, FLA. STAT. ANN. §§ 381.0612(2)(j)&(5) (West 1991); Georgia, GA. CODE ANN. § 31-7-281(a) (Michie 1982); Illinois, ILL. STAT. ANN. ch. 111½ para. 6504-2(b), (e), (1) (Smith-Hurd 1992); Iowa, IOWA CODE ANN. § 145.3(3)(c) (West 1991); Maine, ME. REV. STAT. ANN. tit. 22, § 388(3) (West 1990); New Mexico, N.M. STAT. ANN. §§ 24-14A-7 (Michie 1978); North Carolina, N.C. GEN. CODE § 23-01.1-02 (1987-1991); Pennsylvania, PA. CONS. STAT. §§ 449.7 (1991); Wisconsin, WIS. STAT. ANN. § 153.05(1) (West 1991).

Public disclosure of physician-specific quality-of-care data is available in the following states: Colorado, COLO. REV. STAT. ANN. § 25-28-104(3)(b)(II) (West 1991); Georgia, GA. CODE ANN. § 31-7-281(a) (Michie 1982); Pennsylvania, PA. CONS. STAT. §§ 449.7 (1991); Wisconsin, WIS. STAT. ANN. § 153.45(3) (West 1991).

¹⁵⁵ Illinois has exempted disclosure of raw provider data and some hospital-specific data from its Freedom of Information statute. ILL. STAT. ANN. ch. 111½ para. 6504-2-(b) (Smith-Hurd 1992). Similarly, Colorado, Georgia, Iowa and New Mexico have exempted raw data from disclosure under their freedom of information laws, but not analyzed hospital-specific data. COLO. REV. STAT. ANN. § 25-28-104(2)(b) (West 1991); GA. CODE ANN. § 31-7-285(d) (Michie 1982); IOWA CODE ANN. § 145.2(b) (West 1991); N.M. STAT. ANN. § 24-14A-8 (Michie 1978).

within their possession and have not exempted them from their freedom of information statutes, the approach to determine whether disclosure is available generally follows that of FOIA.¹⁵⁶ A New York court recently decided the leading case mandating disclosure of physician-specific quality-of-care data under a state freedom of information law.¹⁵⁷

New York's State Health Department had prepared official rankings of heart surgeons based on risk-adjusted mortality rates.¹⁵⁸ These rankings were disclosed to hospitals so that referring physicians, or patients who obtained the information from their doctor or hospital, could better choose their cardiac-care providers.¹⁵⁹ *Newsday*, a New York newspaper, requested a list of the rankings through New York's Freedom of Information Law (FOIL).¹⁶⁰ This request was rejected by the Health Department on the grounds that disclosing the information would be an unwarranted invasion of the physicians' personal privacy.¹⁶¹ This decision was affirmed upon administrative appeal.¹⁶² In turn, *Newsday* filed suit to demand disclosure under FOIL, which was brought before Justice Hughes of the New York State Supreme Court in Albany.¹⁶³ Justice Hughes, ruling that the public had the right to know the rankings, granted disclosure to *Newsday*. He criticized the Health Department's argument that

¹⁵⁶ Simpson, *supra* note 42, at 19-20 n.50.

¹⁵⁷ *Newsday, Inc. v. New York State Dep't of Health*, 19 Media L. Rep. (BNA) 1477 (Sup. Ct. Albany County 1991).

¹⁵⁸ *Id.* These rankings were computed in similar fashion to those computed for hospitals by the New York State Department of Health.

¹⁵⁹ "[T]he [Department of Health] press release stressed that the reason for disseminating this information was:

Patients and referring physicians are expected to use this information to assist them in making decisions on the choice of institutions for cardiac procedures. Patients should be able to obtain from their doctor or hospital:

1. The performance history of each hospital
2. The performance record of individual surgeons.
3. The risk of mortality for patients based on their individual risk factors.

Id.

¹⁶⁰ N.Y. PUB. OFF. LAW § 87 (McKinney 1988 & Supp. 1992).

¹⁶¹ N.Y. PUB. OFF. LAW § 89(2) (McKinney 1988 & Supp. 1992).

¹⁶² *Newsday, Inc. v. New York State Dep't of Health*, 19 Media L. Rep. (BNA) 1477 (Sup. Ct. Albany County 1991). Following the administrative appeal, "the New York State Committee on Open Government issued an advisory opinion concluding that the information should be disclosed since it disclosed professional activity licensed by the State, and there was a strong public interest in disclosure." *Id.*

¹⁶³ *Id.* at 1.

such data would be of "little public benefit" and subject to misuse and misunderstanding.¹⁶⁴ If the Health Department's argument was extended, it "[would] appear that if members of the public were more intelligent, it would [then] be in the public interest to disclose this information. The duty of administrators to release to the population records of its government cannot be dependent upon the administrators' assessment of the population's intelligence."¹⁶⁵ Furthermore, the public interest that compels the Health Department to disclose information to hospitals also "compels that the information be made available to the rest of the State."¹⁶⁶ Thus it seems probable that physician-specific, and even more likely hospital-specific, quality-of-care data in possession of state agencies will be disclosed in response to a freedom of information request if other states follow New York's lead.

3. Independent Private Organizations

Generally, private collection organizations not under contract to federal or state agencies, or otherwise governed by federal or state laws, are not legally obliged to disclose data to the general public.¹⁶⁷ Indeed, doing so may result in either tort or contract liability.¹⁶⁸ Liability may be based on defamation, invasion of privacy, betrayal of professional secrets or breach of contract. However, specific legislative or judicial mandates to report data would absolve private organizations from disclosure liability. This Note will not focus on disclosure of provider-specific quality-of-care data by private organizations.

III. ANALYSIS

A. *Should Public Disclosure Be Mandated?*

The debate over whether to mandate federal and state agen-

¹⁶⁴ *Id.* at 4.

¹⁶⁵ *Id.*

¹⁶⁶ The Department of Health recognized a strong public need for these data when it released the data to hospitals so that patients could make intelligent decisions about which cardiac surgeons to choose upon redisclosure of these data by the hospital or physicians to the patients. *Id.* See also *supra* note 159.

¹⁶⁷ Simpson, *supra* note 42, at 21.

¹⁶⁸ *Id.*

cies to disclose to the public¹⁶⁹ provider-specific quality-of-care data brings patients' interests in autonomous decision making in direct confrontation with providers' interests in preventing unjust reputational harm. Patients, or health care consumers,¹⁷⁰ desire as much information as they can get to make an intelligent, rational decision on whether to undergo treatment, and if so, which doctor should perform the treatment, and if necessary, which hospital to provide inpatient care.¹⁷¹ If the data were perfectly accurate and understandable, providers could not reasona-

¹⁶⁹ Public disclosure refers to data already collected and analyzed by state or federal agencies under state or federal law, and not to privately held data. Public disclosure may also refer to data collected under a state program in which submission of raw data by physicians was voluntary instead of mandatory, such as New York's Cardiac Surgical Reporting System (SPARCS is the mandated system). However, in this case, voluntary submission by physicians may be chilled. To overcome the chilling effect of mandatory disclosure, collection might also then have to be mandated. See B.D. Cohen, *Take Care Surgeon Data a Sharp Idea*, NEWSDAY, December 24, 1991, at 67.

Those who opposed releasing the information—officials of the Health Department and surgeons—argued that surgeons who voluntarily submitted their statistics to the state would cease cooperating if the statistics, with the surgeons' names attached, were made public. Tough. If that's the only reason for the state to sit on this explosive information, the State Legislature can mandate its compilation and its release as a condition of medical licensure.

Id.

This leaves open the issue of whether the government, as opposed to private agencies, should be involved in collecting and disseminating this type of information, and if so, to what extent. Even if the government is involved in collection and dissemination, another issue arises of whether the government should then be involved in the analysis of the raw data, and again, to what extent. These issues will not be fully discussed in this Note, but some of the background and analysis discussion indicates that the answers to both issues are yes, and to as large an extent as possible.

First, most states and the federal government are already collecting the data for other purposes, such as cost and utilization review. Second, the government, through the Privacy Act, is in the best position to protect patients' privacy rights in the data. The government may also be less susceptible to provider pressure to distort the results of any analysis. Also, the government is in a better position to act upon the results if disciplinary measures are needed. The government is more accessible to both the consumers and the providers if changes are needed in the system. Lastly, even if data collection, analysis and disclosure were done by the private sector, the government would probably need to regulate the systems closely to insure that the potential for harm to providers and consumers is minimized.

¹⁷⁰ Health care consumers also include, for example, the corporation buyer purchasing health care services in a managed care program for its employees.

¹⁷¹ For a discussion of rational decision making, see Twerski & Cohen, *supra* note 1, at 627-28. For a discussion of whether a patient must understand the information provided to him or her, see Cathy J. Jones, *Autonomy and Informed Consent in Medical Decisionmaking: Toward a New Self-Fulfilling Prophecy*, 47 WASH. & LEE L. REV. 379, 388-96 (1990).

bly oppose disclosure because any reputational harm would be entirely justified.¹⁷²

However, the data are not now, nor will they ever be, perfect.¹⁷³ Thus, the potential will always exist for falsely impugning a truly good provider's reputation by incorrectly associating his or her identity with information indicative of bad care.¹⁷⁴ Conversely, the same potential exists for harming patients were they to rely on data that have mistakenly identified a truly poor provider as good. But imperfect data may still be adequately accurate, understandable and timely so that the consumer/patient can make an informed, autonomous decision. Thus whether to mandate disclosure of imperfect provider-specific care data rests squarely upon balancing the benefits and costs associated with patients' and providers' interests. If the potential benefits of increased consumer decision-making ability, the reduction of low-quality or incompetent caregivers, and the reduction in health care costs sufficiently outweigh the potential costs of unjust reputational harm and consumer misreliance, then public disclosure of these data should be mandated.

1. Benefits of Public Disclosure

a. *Increased Decision-Making Ability*

Patient autonomy in decision making is not a distinct legally protected interest.¹⁷⁵ Patients have no legal recourse if

¹⁷² Perfectly accurate information implies that the information is truthful; since defamatory liability only exists where the alleged defamatory statement is untrue, there could not be harm. See generally KEETON, ET AL., *supra* note 1, § 116 at 839.

¹⁷³ "It will be an essential feature [of these systems] that outcome measures will be imperfect. [T]he search for a reasonably fair and reasonably accurate measure (depending on how one defines "reasonably") is bound to end in frustration." Mark V. Pauly, *The Public Policy Implications of Using Outcome Statistics*, 58 BROOK. L. REV. 35 (1992).

All parts of the data system are susceptible to error. Collection may be marred by mistaken physician identification in the submitted reports or the loss or corruption of data in the computer database. Statistical analysis is susceptible to errors in the measured risk factors, i.e., the raw data are not perfect. Also, there are errors in the analysis models themselves. See *supra* note 66. Lastly, there may be mistakes made in disclosing the data, for example, typographical errors.

¹⁷⁴ What is a "truly good" provider? This, of course, can never be determined. In fact, any measure that could do this would be used instead of statistics. But it is likely that the data will "sometimes indicate that a provider is worse than the provider really is." Pauly, *supra* note 173, at 38.

¹⁷⁵ See *supra* note 1, at 219.

their autonomous decision-making interests are kept unfulfilled by the information possessor's refusal to provide them with the requested data.¹⁷⁶ But patient autonomy is the backbone of the doctrine of informed consent¹⁷⁷ and the interest of autonomous medical decision making generally has been protected by both legislation and case law.¹⁷⁸ Moreover, the interest has been judicially safeguarded when provider-specific quality-of-care data disclosure was at issue.¹⁷⁹

Providing patients,¹⁸⁰ health-care purchasers¹⁸¹ and even

¹⁷⁶ *Id.*

¹⁷⁷ See *supra* note 1.

¹⁷⁸ *Id.*

¹⁷⁹ See *Newsday, Inc. v. New York State Dep't of Health*, 19 Media L. Rep. (BNA) 1477 (Sup. Ct. Albany County 1991); *Public Citizen Health Research Group v. Dep't of Health, Education and Welfare*, 477 F. Supp. 595 (D.D.C. 1979), *rev'd on other grounds*, 668 F.2d 537 (D.C. Cir. 1981).

¹⁸⁰ A patient would use the data to select a physician and/or hospital for treatment. See *supra* note 14. See also Tanne, *supra* note 11, at 39 (describing former New York State Department of Health Commissioner Dr. David Axelrod's efforts to implement a program of patient information); *Heart Surgery*, *supra* note 79 ("This year, the Department of Health will publish a patient's brochure on cardiac surgery. This brochure will explain the ratings given to hospitals, the different risk factors affecting individual patient outcomes and the process of choosing a cardiac surgeon."). It is realistic to expect a patient to desire the best-quality provider for treatment, especially when the treatment is critical to that person's survival. A value-conscious patient may instead desire the best quality physician obtainable at a given cost, especially if that person has no insurance coverage. See Bunis, *supra* note 15, at 4 ("As many as 37 million [American] people . . . have no medical insurance at all."). As a member of a managed care program, a patient may use the data to select a primary care physician, see *supra* note 15, or even choose not to participate in managed care.

Gone are the days when most patients went to the doctor of their choice, filed a claim with their employer or union and waited for a check covering 80 percent or more of the bill [describing traditional indemnity insurance coverage, such as provided by Blue Cross/Blue Shield, where patients have complete freedom to choose hospitals and doctors]. Increasingly, patients must get permission for treatment beforehand [a part of utilization review], choose a doctor less on the basis of expertise than on cost or what insurance plan the doctor is in

Bunis et al., *supra* note 15, at 4.

When a person enters a managed care plan, the person loses much control over the choice of provider. A person may not choose to enter a managed care program—or may choose one over another—if the physician or hospital of choice, based on use of provider-specific quality of care data, is not part of the plan.

¹⁸¹ Health-care purchasers are not covered by the doctrine of informed consent as are patients. However, the increased decision-making ability offered by disclosure of provider-specific information applies equally to them. Provider-specific data will provide a numerical assessment of quality; when combined with cost information, it will also provide a numerical indication of value. Purchasers of medical services may become the

physicians¹⁸² with provider-specific quality-of-care data will increase their ability to make a more informed decision, but only if the data are timely, accurate, understandable and well-presented. The data—the only numerical evaluation of a provider's performance available¹⁸³—quantify some elements of the

primary users of provider-specific information, as managed care and utilization review continue to grow. See *supra* note 15. These purchasers include employers

[P]urchasers, such as GM, are becoming just as concerned about the quality of providers that service their enrollees . . . [w]e anticipate that in the near future these [computer] systems also will allow us to audit providers for their performance and answer questions such as: which providers had clinically acceptable outcomes, and what did it cost to achieve these outcomes? In simplest terms did the patient get better (quality), and what did it cost (efficiency)?

Butler, *supra* note 22, at 90. See also Pamela Taulbee, *Data Management: Winning the Numbers Game*, BUSINESS AND HEALTH Vol. 9, Issue 12 at 27 (1991) [hereinafter *Data Management*] (discussing Alcoa Corporation's application of provider-specific data—provided by a private organization, Alpha Health Network, an association of seven hospitals in western Pennsylvania—to spot problems); *Outcomes Management*, *supra* note 22, at 28 (discussing the Orange County Public School System use of provider-specific data, collected by the Florida Health Care Cost Commission, see *supra* note 149, and analyzed using the MQ-Pinpoint software system designed by Mediquial Inc., to improve quality and reduce medical costs); Pamela Taulbee, *Measuring Hospitals by Outcomes*, BUS. AND HEALTH, Vol. 8, Issue 11, at 20 (1990) [hereinafter *Measuring Hospitals*] (Hershey Foods uses data collected and analyzed by Pennsylvania's Health Care Cost Containment Council, see *supra* note 149, to identify those hospitals with the best value and then provide this information to their employees.). Other purchasers include managed care organizations. See *Data Management*, *supra*, at 27 (discussing use of provider-specific quality-of-care data by United Healthcare Corp., a managed care company with 1.2 million members, to develop better methods to improve delivery of care.). Other purchasers are insurers. See McIlrath, *Blues Officials Using Doctors Profiles as Major Tool in Keeping Down Costs*, AM. MED. NEWS, Vol. 35, Issue 5, at 1. "Six years ago, based on an analysis of their practice patterns, Blue Cross and Blue Shield of Arizona dropped more than 300 physicians it regarded as 'egregious outliers.'" *Id.* Arizona Blues uses the doctor profiles and credentialing information to select doctors for its managed care programs; D.C. Blues is experimentally using the data in which payment will be based partly on how efficient doctors deliver services.

¹⁸² Physicians, although not protected under the doctrine of informed consent, nonetheless can benefit from the increased decision-making ability these data provide. Physicians may use these data to refer patients to specialists and hospitals. See *Cardiac Surgery*, *supra* note 79 ("[R]eferring physicians are expected to use this information to assist them in making decisions on the choice of institutions for cardiac procedures."). A physician new to a community, or just out of medical school, may use this information to select a hospital at which to practice. See Tanne, *supra* note 11, at 38.

¹⁸³ Outcome measures are the only quantitative method of currently assessing provider quality. "The traditional measures of quality care, such as the number of board-certified physicians and the number of nurses per bed, offer little, if any, information on the effectiveness of the care being delivered. It is the outcome of care, that is, mortality, changes in morbidity, excessive lengths of stay caused by occurrences at the hospital (hospital-induced infections or error like leaving a sponge in), that must be analyzed to assess effectiveness." Josephine G. Kaple & Nancy L. Cannon, *A Path Through the*

provider's competency either on an overall or procedure-specific basis.¹⁸⁴ These quantitative data, when combined with qualitative information users may already possess, give users more decision-making capability than would be available with qualitative information alone.¹⁸⁵

Managed Care Maze, BEST'S REV.-LIFE-HEALTH INS. EDITION, Vol. 89, Issue 6, at 62 (1988). Another contemplated measure has been the number of malpractice lawsuits that the provider has either lost or been involved in. Antitrust & Trade Reg. Rep., (BNA) Vol. 50, Issue 1271, at 1154 (1986); Pens. Rep., (BNA) Vol. 12, Issue 37, at 1271 (1985).

¹⁸⁴ See *supra* notes 58-60 and accompanying text.

¹⁸⁵ Increased decision-making ability via use of quantitative data depends upon how well patients can digest these data. Large-scale purchasers should generally have no problem interpreting the data; they usually have professionals on staff well-versed in outcomes analysis. The Orange County Public School System hired an executive with more than 20 years of managed care experience and a board member of the Central Florida Health Care Coalition to supervise its data review; also, the Cleveland Health Quality Choice Program uses the services of the Quality Information Management Council, the members of which are "non-aligned [and have] impeccable credentials", to analyze and present data to it. *Outcomes Management*, *supra* note 22, at 28.

Neither should physicians, being medical professionals, have any trouble interpreting the health-care data. However, physician-specific quality-of-care data may be more difficult for the unaided patient to understand and use properly.

The reports are complex, and the average person would have a hard time coming to much of a conclusion based on them. For example, opening the report to the page headed "Chest Pain (Severe)" one sees columns listing hospitals, number of patients, average stay, average patient severity, observed and expected mortality, and major morbidity. But is a difference between an expected mortality of 0.30 and 0.33 significant? Is it explained by differences in average patient severity? By slight differences in average patient age? Laymen are unlikely to know.

Measuring Hospitals, *supra* note 181, at 20.

This is why data presentation is critical to the successful use of these data. See *supra* notes 76-79 and accompanying text and *infra* notes 222-26 and accompanying text. If done properly, it can make the numerical information easier to understand and use.

But even after data have been disclosed in an easy-to-understand fashion, patients may not understand all aspects of what the numbers mean. In this case, they will need the assistance of friends, family, and their employers. *Measuring Hospitals*, *supra* note 181, at 20 ("But the employer's role is a critical one", says Alan Geer, employee benefits manager . . . 'Companies will have to analyze the information, summarize it further and share it with employees.'). In addition, patients will need support from both hospitals and physicians. *Cardiac Surgery*, *supra* note 79 ("Patients considering cardiac surgery should discuss this new information with their physicians, in particular the cardiologist, who provides most cardiac surgery referrals."). Nonetheless, there will always be patients who will not be able to understand this data; hopefully, with increased consumer education and better efforts by physicians, hospitals, and federal and state health departments to keep the public informed, the number of these patients will decrease in time.

b. *Reduction of Low-Quality Providers*

Provider-specific data may also be used to detect and identify low-quality provider performance.¹⁸⁶ From this, the number of low-quality providers may be reduced by the following methods: (1) the providers may modify and correct their procedures, practices, and skills so that their performance is enhanced to acceptable levels;¹⁸⁷ (2) if uncorrectable, the provider's license to practice the procedure in question may be revoked;¹⁸⁸ or (3) the low-quality provider is driven out of business by market forces.¹⁸⁹ Generally, this reduction of providers is a benefit since the loss of service can be filled by more competent caregivers,

¹⁸⁶ In addition to patients and health-care purchasers, PROs and hospitals use the data to uncover quality-of-care problems caused by either poor physicians or poor medical procedures. See *supra* note 18 and accompanying text. *Measuring Hospitals*, *supra* note 181, at 20.

Many people feel that the first group to use these data will be hospitals themselves. They're going to take a very close look at their operations and try to determine why they're doing better with respect to some DRGs and not so well with others". . . . We can't minimize the value of these data as an internal management tool [for hospitals].

Id.

¹⁸⁷ Corrective methods are the main force behind outcomes analysis, since not only are no provider services lost, but the overall quality of care is enhanced. If one examines the latest rankings of hospitals released by the New York State Department of Health, one notes that the worst risk-adjusted mortality rate was only 8%; 92% of the patients (on a risk-adjusted basis) did not die! See *infra* Appendix Table 3. Thus, punishment is not always in order, just improvement. Often providers are not aware that a problem exists—the data makes them see that it does. "That's the purpose of this [data collection and analysis] program [of the New York State's Cardiac Surgery Reporting System]; gathering information, not to punish those that don't measure up, but to identify problems and correct them." PBS's "A Time for Change," *supra* note 6.

[Data management] should help find flaws in medical and surgical procedures.

"We believe there's been unfair and ill-conceived attention on physicians, and it's an all-too-common belief that the purpose of [this quality data] is to root out the bad physicians," asserts research and development vice president for United HealthCare Corporation, [Sheila] Leatherman.

Data Management, *supra* note 181, at 27.

¹⁸⁸ Punishment is always an option if there is a serious threat to the public. See *supra* note 18. As an alternative, the license to practice may be suspended, or the provider may be put on probation until corrective measures are taken. See *supra* note 20.

¹⁸⁹ Low-quality providers can be driven out of business in three ways: (1) patients will, over time, choose only the top providers, thus reducing the financial incentive for low-quality providers to remain in business; (2) major health care purchasers will select only the top providers to participate in their managed care programs (direct contracting) or provide financial incentives to those who provide the highest quality/lowest cost health care; and (3) physicians will stop referring patients to low-quality providers. See *infra* note 191.

thus increasing overall health care.¹⁹⁰

c. *Reduction of Health Care Costs Through Increased Provider Competition*

Supplying provider-specific care data to the public may also increase the competitiveness of the health care market, potentially reducing the staggering health care costs currently facing this nation.¹⁹¹ Large purchasers of health care services, for example, a large corporation choosing a health maintenance organization ("HMO"), may especially benefit.¹⁹² Of course, this po-

¹⁹⁰ This is mainly true for large metropolitan and suburban areas, but may not hold true for small cities and rural communities. In smaller communities market-like competition will play less of a role and there is less likely to be as drastic a reduction in low-quality providers as compared to a large city. See *Measuring Hospitals*, *supra* note 181, at 20. In discussing compare and select strategies using provider-specific quality-of-care data, it is noted that strategies change for small communities with few hospitals. Since selection may be limited, employers are encouraged to develop close relationships with local hospitals, or use their position as major health care purchasers to motivate the hospital to make some quality improvements. *Id.* Also, rural providers may be exempted from being listed in rankings or reporting data to the government collection agencies. See *infra* notes 227-29 and accompanying text.

¹⁹¹ Dr. C. Everett Koop, former Surgeon General, estimates the yearly cost of health care in 1990 was \$660 billion. Of that amount, researchers estimate that one third of this figure is unnecessary. PBS's "A Time for Change," *supra* note 6. More recent estimates put figures at \$700 billion a year. Dr. Alan B. Cohen, Vice President and Director, Office of Health Statistics and Analysis, Robert Wood Johnson Foundation, Address at the Brooklyn Law School Symposium: Comparing Medical Providers, January 9, 1992 (on file with the *Brooklyn Law Review*).

¹⁹² The health care industry was essentially exempt from competitive pressures until the 1970s, shielded from both antitrust laws and pro-competitive legislation. Greaney, *supra* note 21, at 180. Since then, however, a combination of judicial actions and changes in publicly funded reimbursement programs has removed most of the antitrust immunity from the health care industry, leaving it to laws encouraging HMOs and other alternate care providers. *Id.* Although deregulation is still not complete, many federal and state health care market regulations have been greatly relaxed. *Id.* However, "promoting competition does not eliminate the need for government regulation . . . as both the regulator of health professionals and institutions and the purchaser of health services, the government can efficiently gather, process, and distribute information that is comprehensible and that will help competitive markets function." *Id.* at 204-205. "[P]ublic agencies can monitor health and medical outcomes. They could then pass along to buyers both aggregate information reflecting the efficacy of different kinds of delivery systems, or treatments and provider-specific information that could help buyers make judgments on price, quality, and utilization." *Id.* at 205.

Federal and state governments originally became involved in provider-specific pricing data as a method of controlling costs via competition. "The centerpiece of legislative actions taken by the [Iowa] General Assembly in 1983 to control hospital costs was the creation of the Iowa Health Data Commission. The Commission is assisting hospitals and third party payers in the implementation of uniform hospital billing, and is beginning

tential savings must be offset against the costs of data collection and disclosure.¹⁹³ However, some experts in health care management and some recent case histories indicate that there will probably be a net reduction in costs.¹⁹⁴

2. Costs of Public Disclosure

a. *Unjust Reputational Harm*

Providers' fear that truly good providers will be incorrectly or unjustly associated with data indicating they are low-quality providers, thus harming their reputations, and eventually lead-

the collection, analysis, and dissemination of hospital-specific pricing information. The public disclosure of timely and comparable hospital-specific pricing information could greatly affect hospital prices if third party payers, armed with this information, become prudent buyers of hospital, services, thereby stimulating hospitals to engage in price competition." Josephine Gittler, *Hospital Cost Containment in Iowa: A Guide for State Public Policy Makers*, 69 IOWA L. REV. 1263, 1301-02 (1984). See *supra* note 38.

However, price competition, mainly achieved through discounting, only attacked one side of the value equation. See *supra* note 22. Discounting "simply squeezed one end of the balloon . . . [s]o, overall, health care inflation kept rising unabated." See *Outcomes Management*, *supra* note 22, at 28. The other side of the value equation, quality, can now be equally attacked as numerical, comparative data on providers becomes available. See *supra* note 180. "Tightly managed, coordinated care networks with quantitative quality measures leading to outcomes management . . . is unequivocally going to drive the financial relationships between providers and purchasers," stated Dr. Jacques Sokolov, Vice President and medical director of Southern California Edison, the nation's second largest utility. See Julie Johnson, *Managed Care in the 1990s: Provider's New Role for Innovative Health Delivery*, 66 HOSPITALS 26 (1992).

Once provider value is determined, purchasers may "shop around" and either offer financial incentives to employees to use, if under a tradition indemnity arrangement, or selectively contract with the most efficient and/or highest quality provider to service their employees. By offering employees incentives and sharing quantitative quality data with them, employers can wean them away from low-quality, high-cost providers. See *Outcomes Management*, *supra* note 22, at 28.

¹⁹³ It is estimated that the cost of data collection and dissemination would be approximately \$100 million a year, seven thousand times less than the total cost of health care. Dr. Alan B. Cohen, Vice President and Director, Office of Health Statistics and Analysis, Robert Wood Johnson Foundation, Address at the Brooklyn Law School Symposium: Comparing Medical Providers, January 9, 1992 (on file with the *Brooklyn Law Review*).

¹⁹⁴ Since data systems are relatively new, actual cost-savings through use of this data are not in yet. However, using data collected by the Florida Health Care Cost Commission, analysts estimated that purchasers in the Orlando region were spending \$29 million on inappropriate care and \$27 million on ineffective care, with a potential savings of \$100 million. *Outcomes Management*, *supra* note 22, at 28. Collected data are also used to check for appropriateness of care. It is estimated that 30% of all procedures and diagnoses are unnecessary, saving more than \$50 billion a year. See PBS's "A Time For Change," *supra* note 6.

ing to substantial financial losses, ruined careers, or hospital closings.¹⁹⁵ These misassociations, providers maintain, will be caused by the public's misinterpretation of complex data or inaccuracies in the data themselves.¹⁹⁶ Thus, they argue the information must be withheld from the public.¹⁹⁷

Providers argue that the data are too complex to be understood by the public and thus subject to misinterpretation and misuse. However, this argument has several flaws. First, the patient must already make a difficult decision on whether to have the surgery, or what type of surgery to have, based in part on complex general risk data the provider must provide the patient before obtaining the patient's consent for treatment.¹⁹⁸ How can providers argue that patients are able to understand and assess complex general risk information in deciding whether to undergo treatment or select among alternative treatments, but those same patients are unable to understand complex specific risk information used to select a provider? Alternatively, is the decision to have surgery with Provider A rather than Provider B just an extension of selecting an "alternate treatment" under the doctrine of informed consent?¹⁹⁹

The critical difference between a decision based on general risk information and one based on provider-specific information is not that the data are too complex to understand, but on whom the costs of making an incorrect decision fall and what those costs are. When a patient incorrectly uses general risk information, whether because the patient fails to understand²⁰⁰ or cannot rationally assess²⁰¹ the data, the brunt of the costs fall on the patient. In this case, the costs of the incorrect decision, i.e. the patient should have undergone treatment, but did not (or vice-versa), or the patient chose the wrong type of treatment, may result in some physical harm to the patient or increased expenses incurred by the patient. However, when a patient incorrectly uses provider-specific data in selecting the treating

¹⁹⁵ See *supra* notes 24-27 and accompanying text.

¹⁹⁶ *Id.*

¹⁹⁷ *Id.*

¹⁹⁸ See *supra* note 4.

¹⁹⁹ See Hunter L. Prillaman, *A Physician's Duty to Inform of Newly Developed Therapy*, 6 J. CONTEMP. HEALTH L. & POL'Y 43, 43-46 (1990).

²⁰⁰ See *supra* note 171.

²⁰¹ *Id.*

provider, providers not chosen bear the brunt of the largely economic costs. This is because the highest risk in decision making involves the election to be treated and which treatment to have, not who performs the treatment.²⁰² Thus, it appears that providers only complain of data complexity when they, not the patient/consumer, bear the costs of their potential misuse.

Second, if providers are truly concerned about the possibility of being adversely affected by misuse of the data, they can make an effort to clarify the information for the patient's comprehension just as they must do in disclosing complex general risk data. The public should not need medical degrees to understand this information, nor should it be required to understand complex statistical analysis. Instead, proper presentation and suitable analogies can make the information understandable and user-friendly to most consumers; in addition, employers that actively participate in managed care programs can also analyze and digest some of the more complex data so that their employees can more easily understand them.²⁰³

Third, not all disclosed data are complex. Although the collected input data and analysis processes may be very complex, i.e. requiring a degree in medicine and/or statistics to understand, the output data can be simple to understand. For example, these data may simply be a list of providers with an indication of which providers are much better or worse than the average provider for a given procedure. These data, although perhaps not as useful as a detailed ranking of providers, are certainly not beyond the intelligence of the general public, and are simpler than much of the other information the patient will need to assess in making his or her medical decision.

Finally, withholding the data by the government from the public because they are "too complex" would essentially rest on paternalistic concerns about the population's inability to under-

²⁰² For example, cardiac artery bypass grafting surgery, which provides about a 30% mortality advantage if successfully performed, has an average mortality rate of approximately 5%. Thus, a person choosing to undergo surgery has, on average, a one in twenty chance of dying, versus an uncertain future risk if no surgery is elected. Dr. Gerald T. O'Connor, epidemiologist at the Dartmouth-Hitchcock Medical Center, Address at the Brooklyn Law School Symposium: Comparing Medical Providers, January 9, 1992 (on file with the *Brooklyn Law Review*).

²⁰³ See *supra* notes 182-84.

stand the data.²⁰⁴ However, access to government collected and analyzed data "cannot be dependent upon [an administrator's] assessment of the population's intelligence."²⁰⁵ Indeed, the providers' argument runs against the notion that the public has a fundamental right to receive information²⁰⁶ in possession of the government and should be "granted maximum access to the records of [the] government."²⁰⁷ In summary, the providers' first argument that the government ought to withhold data from the public because the data are too complex to comprehend or because the public is too ignorant to understand is weakened by inherent flaws.

The providers' second argument in resisting disclosure is that the statistics are inaccurate and therefore the statistics do not sufficiently distinguish between poor quality care and the naturally higher probability of poor outcomes associated with more severe patient conditions.²⁰⁸ Thus, some truly good providers who treat sicker patients are not correctly credited, resulting in poorer rankings.²⁰⁹ Truly good providers associated with poor statistics may be unjustly damaged if that association harms their reputation.²¹⁰

Although some data analysis models may account for or weigh risk factors better than others,²¹¹ no model can produce perfectly accurate statistics regardless of the number of risk factors, type of risk factors or the risk factor/dependent variable

²⁰⁴ See *Newsday, Inc. v. New York State Dep't of Health*, 19 Media L. Rep. (BNA) 1477 (Sup. Ct. Albany County 1991).

²⁰⁵ *Id.*

²⁰⁶ See *Virginia State Board of Pharmacy v. Virginia Citizens Consumer Council, Inc.*, 425 U.S. 748 (1976). In *Virginia Pharmacy* a state statute making it "unprofessional conduct" for a pharmacist to advertise prescription drug prices was invalidated. In reaching its decision that "purely commercial" speech is entitled to First Amendment protection, the Court also recognized a First Amendment right to receive information. The state interest amounted to saying that consumers would be best protected if kept in ignorance of the drug's prices. However, consumers had a compelling interest in the "free flow of information"—who was charging how much for what drug. The Court concluded that the First Amendment forbade the state from deciding that ignorance is preferable to the free flow of truthful information and struck down the statute.

²⁰⁷ *Newsday*, 19 Media L. Rep. (BNA) 1477 (quoting *Matter of Capital Newspapers, Div. of Hearst Corp. v. Whalen*, 69 N.Y.2d 246, 252 (1987)).

²⁰⁸ See *supra* notes 24-27 and accompanying text.

²⁰⁹ *Id.*

²¹⁰ *Id.*

²¹¹ See *supra* note 66. See also *Open Heart Surgery*, *supra* note 41.

modeling relationship used.²¹² Thus, the data will always indicate that some providers are worse or better than they actually are, and in this sense, will always be unfair, either to the physician or the consumer. But is there a superior alternative? The haphazard qualitative methods now used by patients to select providers are just as unfair to both physicians and patients.²¹³

Even more so, why must data be put to a standard of perfection until they can be disseminated and used when providers themselves are put to only a standard of reasonableness, i.e. negligence, to prevent unfair harm to their patients.²¹⁴ Data that are released should be reasonably accurate, otherwise they are no good to either the consumers or the providers, but they need not be perfect.

Moreover, assuming one could know who the "truly good" providers were, the frequency of misassociations that can cause measurable, unrecoverable harm to them is bound to be very low;²¹⁵ thus, measured on a societal basis, the overall cost of losing an occasional provider will be low, especially in an area where other providers are available to "pick up the slack" caused by the loss. But one must recognize that a loss to the individual doctor or hospital is enormous and thus the potential for unfair harm must be minimized by the proper disclosure of data.

²¹² See generally Pauly, *supra* note 173, at 35.

²¹³ Community or professional reputation alone can also unfairly associate a truly good or bad physician with a bad or good reputation. In fact, statistical data may help correct this situation by providing evidence to the contrary. This once again leads to the issue of not being able to determine who are the truly good or bad providers. If providers claim that their reputations have been harmed by inaccurate data, then how does one know (or prove), that their reputation was deserved in the first place? Data may be a good place to start the evaluation.

²¹⁴ See *supra* note 1.

²¹⁵ For example, in the New York Study, 3 out of 30 hospitals were cited as high outliers, i.e. their crude mortality rate (for cardiac artery bypass graft surgery) was much higher than expected. *Heart Surgery*, *supra* note 79. Assume that of these three, one was a "truly good" provider, i.e. misassociated. Further assume that one out of ten of these misassociated were put out of business permanently due to license revocation (which would probably only happen if other factors confirmed the statistics, indicating that the provider was not "truly good"), or market forces (which also is unlikely since the association would probably need to persist over a long period of time, again indicating that the provider was not "truly good"). Thus, only 1 out of 300 has been unfairly damaged in this hypothetical.

b. *Consumer Misreliance*

Another potential cost is the possibility that consumers rely upon these data which, because of inaccuracies, indicate that a truly incompetent provider is better than he or she actually is. This is the flipside of unjust reputational harm to providers caused by inaccurate data and, like that problem, is occasionally unfair and will never cease to exist. But this cost is not as severe as unjust reputational harm for two reasons: (1) consumers will often have other information to use in their decision making that may alert the consumers to potential problems;²¹⁶ and (2) if they are indeed harmed by the provider, they may be able to sue for medical malpractice.²¹⁷

3. Public Disclosure Should Be Mandated

The above comparison demonstrates that the benefits of disclosure—increased patient autonomy through increased decision making ability, increased quality of health care through reduction of low-quality providers and reduction of health care costs through increased competition—clearly outweigh the occasional costs of unjust reputational harm and consumer misreliance. Thus, from a utilitarian approach,²¹⁸ public disclosure of provider-specific data collected by the government should be mandated.

B. *Limits on Data Disclosure*

Although the providers' concerns of data complexity and inaccuracy are not heavy enough to outweigh the arguments in favor of mandatory public disclosure, their concerns do influence the processes of collecting, analyzing and disclosing data. To maximize the potential benefits and minimize the potential costs

²¹⁶ Examples would be community or professional reputation, possible knowledge of disciplinary or malpractice actions involving the provider, as well as personal observations.

²¹⁷ See *supra* note 1. Note that a provider is much less likely to be able to recover for a harmed reputation by suing for defamation in the reverse situation, since the statistics may be evidence that the provider was truly undeserving of the reputation he had, and even if proved, the statistics may be used to mitigate damages.

²¹⁸ This does not imply that a deontological approach does not support data disclosure; the individual's right to make his or her own medical decisions is well-supported by Kantian philosophy. Disclosing data to patients further shifts the decision-making power from paternalistic physicians to patients.

analyzed in the previous sections, disclosure should be subject to various limits. It is both in the providers' and consumers' interests that data accuracy be maximized to mitigate the possibility of harm to providers and to provide consumers with the best information possible. Also, information needs to be conveyed properly and in a timely manner to enhance data understandability and usability.

1. When Not to Disclose Data

Two constraints should limit when data are disclosed. First, statistics should not be disclosed for a specific provider until enough input data has been collected about that provider to insure a large enough sample size needed for statistical accuracy.²¹⁹ Inaccurate statistics are less useful for the consumer and may harm the provider. The second constraint is that the data must be disclosed to consumers in a timely fashion—the data must reflect a provider's recent performance so as to maximize the effectiveness of patients' decision making.²²⁰

Meeting both constraints should not present a problem for a provider who specializes in a certain procedure; a provider will perform the procedure many times within a short time period. However, if a provider only occasionally performs a procedure, then the two constraints may conflict. By the time enough data are collected to achieve the minimum data sample, the statistics will be partially composed of old and probably stale data that do not accurately reflect a provider's latest capabilities. For example, a provider who has improved his performance within the last quarter may be penalized by averaging in year-old data that indicated poor performance, resulting in a lower (worse) ranking, or vice-versa. One possible solution to this problem is to allow for timely disclosure before achieving the minimum sample size, but indicating to consumers that the data for this provider may be less accurate than those providers who were able to meet the minimum sample size. A more conservative solution may be to

²¹⁹ The amount of procedures performed to guarantee statistical accuracy, *see supra* note 73, will vary with what type of regression analysis is used, *see supra* note 66. For an example of how many procedures were necessary to achieve statistical significance in the cardiac artery bypass grafting analysis. *See Open Heart Surgery, supra* note 41.

²²⁰ For example, HFCA reports on a yearly basis. *See supra* note 9. New York reports on a semi-annual basis. *See Heart Surgery, supra* note 79.

report, without rankings or statistics, those providers unable to meet the minimum caseload reporting requirement.²²¹

2. What Data Should Be Disclosed and How

Generally, no input data should be disclosed to the public. These data can be too difficult to understand and without the proper analysis will not provide consumers with useful information.²²² Otherwise, the public should have access to all statistical output data. These data may include crude, expected and risk-adjusted rates, low and high outlier indications, ranked lists based on the risk-adjusted rates and any other statistics that may be useful in the decision-making process. In addition, some simple input data—collection time interval, number of participating providers, number of cases—that establish bounds on the analysis should be disclosed so that different sets of output data may be compared.

Data presentation can take numerous forms. Individualized rankings, ordered by risk-adjusted rates²²³ should be made avail-

²²¹ But certain statistics may correlate highly to the number of procedures performed. For example, coronary artery bypass grafting studies have shown that the correlation between the volume of surgeries performed by a physician and his or her mortality rate is high. See Edward Hannan et al., *Investigation of the Relationship Between Volume and Mortality for Surgical Procedures Performed in New York State Hospital*, 262 JAMA 503 (1989). Where this relationship has been shown, it may be worthwhile to disclose the fact that a certain provider could not meet the minimum volumetric disclosure requirement, even though the statistics computed for that provider are withheld. By doing this, the provider will not be penalized by the disclosure of potentially inaccurate statistics and the consumer will be warned that the provider is lacking some experience. Hopefully this will offset the problem of young, inexperienced physicians being discouraged to practice because of fear of low initial rankings. At the same time, consumers will be aware of physicians who perform certain procedures on only a casual basis and might be a higher risk.

²²² Generally, the risk data needed to generate highly accurate statistics, such as those of the New York State Cardiac Surgery Reporting System, can be fairly complex. If one has doubts, examine the listed clinical risk factors. See *supra* note 70. They include, for example, ejection fracture, preoperative intra-aortic balloon pump, unstable angina and 90% narrowing of the main left trunk. It is reasonable to conclude that a layperson, i.e. anyone without a medical degree, would have great difficulty in understanding what they mean, and more importantly, how they contribute on a statistical basis to mortality. However, it may not be out of the question to release raw data for private sector analysis as long as agreements between the government collecting agency and the private contractor can assure proper use and analysis of the data.

²²³ The most important criteria for comparing providers are risk-adjusted rates, and to a lesser extent, outlier data. See *supra* notes 73-74 and accompanying text. Individualized rankings must be based on risk-adjusted rates so physicians can be compared on

able if the data's accuracy is high enough. For less accurate data, rankings of groups of providers should be released.²²⁴ Binary outlier data that indicate which providers are much better or worse than expected should also be provided.²²⁵ Other data, such

an "apples to apples" basis, i.e., they all face the same preoperative mix of patient risk factors. See *supra* note 72 and accompanying text. The most meaningful way to present these rankings is by risk-adjusted rank order (see *infra* Appendix Table 1 and *supra* note 79), presentation by alphabetical order (see *infra* Appendix Table 3 and *supra* note 79) or random order that makes comparison between providers much more difficult, since the consumer must then sort the data into risk-adjusted rate order.

²²⁴ One may analogize this to law school grades. If one is highly confident that tests accurately reflect ability, then the grading system should use number grades. This is essentially equivalent to ranking providers on an individual basis. If one is less confident, letter grades and plus/minus signs are preferable. This would be analogous to grouping providers into approximately 10-13 groups. For each group, only the average risk-adjusted rate of that group would be used for all providers within the group. If one is even less confident, then by letters alone. Now providers would be grouped in 5 larger groups. Lastly, if one feels that tests indicate only those students whose performance is adequate or inadequate, then a pass/fail (fail is equivalent to a "high outlier"—some grading systems have "high pass," which would be equivalent to a "low outlier") system should be used. Thus all providers would be grouped into two groups with just a single risk-adjusted rate assigned to each group.

Thus as accuracy decreases, one is less and less confident that one provider should be ranked above or below another, so that providers are ranked equally within a group. As accuracy decreases further, the size of the groups increase to reflect the growing uncertainty in the providers actual position within the standings, until one reaches only two groups: those providers that are much worse than expected and all other providers. If the risk-adjusted rates had infinite error, these two groups would collapse into one and all providers would be deemed equally competent.

Of course, as one moves from individual rankings into groups and also as the number of groups decrease, information about a specific provider's performance decreases. By the time two groups are reached, all one knows about a specific provider is whether that provider is inadequate; the varying degrees of "adequate" performance have been lost. In the extreme case of one group, one has lost all information, and the data are useless.

Thus, it is possible to have *less than perfect* data and still have useful information passed onto patients and consumers. Obviously, one would like as accurate information as possible so that the varying degrees of competency can be assessed.

²²⁵ For an explanation of binary outlier statistics, see *supra* notes 73-74. In essence, they tell us those providers who perform much better or worse than the computed expected rate (above or below the upper or lower bounds set using a 95% confidence interval). In presenting binary outlier data, one must decide whether to present with the risk-adjusted rankings (by using markings in the ranking to indicate who the outliers are and what types—good or bad) or in a separate listing.

The advantage of presenting them with the rankings is that all the information needed to assist in decision making is within a single list. In addition, one may judge easily if the outlier is "out of context" (e.g. a high (bad) outlier near the top of the rankings, or the converse). The disadvantage is that it takes more effort by the consumer to find who the outliers are, especially if the consumer must scan a list of 250 providers.

On the other hand, a separate list of outliers, probably only the high outliers, can direct the consumer's immediate attention to those providers one might have to be care-

as crude and expected rate data and upper and lower bounds on the expected rates and number of cases, may also be presented so long as they do not lead to confusion.²²⁶ The method and style of presentation should enhance consumer comprehension and minimize possible data inaccuracies.²²⁷

ful of. But this has the possibility of stigmatizing those providers. Recall that a 95% confidence interval still allows for a 5% error—an average 1 out of 20 outliers has been incorrectly deemed a high outlier.

The more conservative approach, and the approach that should be taken until all the kinks have been worked out of these analysis systems, would be to list outliers as part of the rankings. This should avoid the possible stigmatization problem. When analyses are further refined and become accurate enough so that a 99.5% (three standard deviations) confidence interval can be achieved, (thus lessening the error to three out of a thousand), then separate high outlier lists should be presented.

²²⁶ For comparative purposes, it is not necessary to either the crude or expected rate information to the general public. Crude rate data have not been risk-adjusted and therefore may penalize those providers who do care for high-risk patients. The crude rate is just another method of expressing two pieces of raw data—the number of incidents divided by the number of cases—and raw data should not be generally disclosed. See *supra* note 221. However, if they are disclosed, the discloser should provide an explanation comparing risk-adjusted data and crude data to minimize confusion between the two, and emphasize the use of risk-adjusted data for comparative purposes. Also, rankings should not be done in order of crude rate—this again can cause confusion and make the effort to compare via risk-adjusted rates more difficult since re-sorting must be done. See *supra* note 222.

Even though provider crude rate data should not be disclosed, the overall crude mortality rate, computed over all reporting providers, should be disclosed. This permits the user to make a rough comparison of how well a provider is doing compared to the overall average.

Although expected rate data are part of the process of generating both risk-adjusted data and outlier data, they too are difficult to use for comparative purposes and are not necessary for disclosure. The same caveats would apply to expected rate data as those applied to crude rate data if expected rate data are useful for determining outlier data, but are not needed to compare providers.

The number of cases is one of the few raw data elements that should be disclosed. In certain cases this data may correlate to quality, i.e. practice makes perfect. See *supra* note 221. If this happens to be true, this correlation should be disclosed. The number of cases also tells the consumer the relative utilization between different methods of treatment for the same ailment by a certain provider. For example, it may tell the patient whether a physician tends to do more C-sections than other physicians for child birth. It does not indicate, however, if any one of those treatments is overutilized or underutilized—it is possible that the relative number of treatments were appropriate.

A separate list of providers who have not met the minimum volumetric disclosure requirement should be included separately. See *supra* note 221. Also a list of those providers exempt from disclosure requirement should also be listed. See *infra* note 228 and accompanying text. The discloser may also present an indication whether the physician is higher or lower in the rankings from the last reporting interval, or provide an average ranking computed over a few reporting periods. This allows the provider's performance to be tracked over time.

²²⁷ For samples of how data have been presented, see *infra* Appendix Tables 2 and

3. Exemptions for Providers from Data Collection or Data Disclosure

The only exemptions from reporting to data collection agencies would be to those providers that would suffer a prohibitively large financial burden were they to comply with data reporting requirements.²²⁸ Otherwise, all providers would be required to report data to data collecting agencies, even if they are ultimately exempt from future government disclosure of statistics derived from their reported data.²²⁹

Disclosure exemptions may be offered to certain providers. Examples would be to rural providers, specialty health care facilities and hospitals with less than a minimum number of beds. These exemptions fit within the framework of consumer/patient and provider interests. Both rural providers and specialty hospitals are generally not selected on a comparative basis, thus pro-

3. When the New York State Department of Health released these statistics, they were accompanied by a news release summarizing the key features of the data, the intent of disclosure, how data are to be used and by whom, and a list of typical questions that the data may raise with replies.

The techniques of what data to disclose and how to disclose that data should help minimize the effects of data inaccuracy. *See supra* notes 220-25 and accompanying text. In summary, generally only risk-adjusted data, outlier data, and volume data should be disclosed. The rankings should be a function of the risk-adjusted data only. Providers should be listed either individually or in groups as a function of the risk-adjusted data accuracy; as the accuracy decreases, fewer groups with more providers in each group. Those providers who are outliers should be marked as such within the rankings and as the reliability of data increases, separate lists of outliers should be presented. The number of cases should be presented for each provider. Any other data included should be carefully explained to avoid potential confusion.

The data must be presented in a form that emphasizes the relative importance of the data. For example, the risk-adjusted data should be in bold type and outliers in upper case letters. If the data are physician-specific, then the affiliated hospital and location of that hospital should be listed along with the physician's name. Thus, all that is needed for an easy and speedy comparison of providers is conspicuously presented.

What caveats, qualifications, disclaimers and other explanatory information should surround the data? First and foremost this data should be used in conjunction with other qualitative information available—this should reduce the chances of making an error in selection. Patients should be reminded to discuss the data with the provider. A list of questions and answers, similar to that done by the New York State Department of Health, is a good idea—it should help reduce confusion on what the data are and how to use them. Any provider comments on the collection and analysis of this data should be released along with them. *See supra* note 230 and accompanying text.

²²⁸ This may be cured by subsidizing those providers.

²²⁹ Data can still be used by government officials for quality control and utilization purposes and thus should still be reported, even if exempted from future public disclosure of statistics computed from the collected data.

viding information for decision making purposes is not necessary, nor would costs be reduced through competition since no competition exists.²³⁰ Furthermore, they may not produce enough data for accurate statistics.

4. Predisclosure Provider Review

Statistics should be given to providers for review before dissemination to the general public.²³¹ Responses by providers should be made available to the public along with the data. This opportunity for review must have a quick turnaround time to insure that data are in the hands of the public in a timely manner.

C. *How Current Data System Regulations Fail to Protect Patients' and Providers' Interests*

The data collection and analysis systems maintained by federal and state governments either fail to disclose data to the public, or fail to present the data properly.²³² Thus, patient au-

²³⁰ Some states, for example, are exempt from reporting those hospitals with less than 50 beds, psychiatric hospitals, military hospitals, VA hospitals, crippled or mentally retarded care facilities. For specific statutes, see *supra* note 149. Instead, these hospitals should be required to report, see *supra* note 228, but nonetheless be given exemptions from having their statistics disclosed.

²³¹ In Iowa and Colorado, for example, the health-data agencies shared the statistics exclusively with the hospitals for the first 18 months of collecting and analyzing data without disclosing the statistics to the public. This gave the hospitals a chance to improve their quality before the first disclosure of the next 18 month's worth of data. See David Zinman, *Gauging The Quality of Health Care*, *NEWSDAY*, Jan. 21, 1992, at 55 [hereinafter *Gauging Health Care*]. This approach of having a dry run before starting the system is a good idea. The data agencies can work the bugs out of their systems and solicit feedback from the providers concerning the collection and analysis techniques. It also gives the hospitals a chance to improve their procedures and identify poor performing physicians out of the public eye before initial public disclosure—essentially a last chance to get their house in order.

After the data agencies start disclosing data to the public on a regular basis, statistics should be given to providers a short time before public dissemination so that they may check for and correct any large errors, as well as submit possible explanations for their performance and corrective measures already taken. This can help soften the potentially negative impact of less than desirable rankings.

²³² The federal government, specifically HCFA, has failed to disclose physician-specific data publicly, thus leaving a FOIA challenge as the only means to gain access to this data. See *supra* notes 95-141 and accompanying text. HCFA does partially disclose data, see *supra* notes 92-93 and accompanying text. But the quality may be lacking. See *infra* notes 235-38 and accompanying text.

Most states do not permit disclosure, see *supra* notes 152-53, which leaves a state

tonomy is not maximized and the potential harm to providers and consumers is not minimized. But some data systems are moving in the right direction.²³³ HCFA's Medicare Statistical System and New York's Cardiac Surgery Reporting System ("CSRS") illustrate the strengths and shortcomings of the nation's leading provider-specific quality-of-care systems. Overall, these two systems reflect the current general lack of protection given to both patients' and providers' interests; but they are both bent on improvement.

HCFA publicly discloses hospital-specific data on a yearly basis.²³⁴ The data provide an indication of quality-of-care for Medicare health care facilities for both consumer and hospital use.²³⁵ While the first release of HCFA data was a large step in the direction of patient autonomy, HCFA's system has many shortcomings.

HCFA does not voluntarily disclose physician-specific data to the general public, even though FOIA challenges to obtain this information will likely be successful.²³⁶ HCFA fails to collect detailed clinical patient risk data.²³⁷ Thus, HCFA's output is not as accurate as it can be. HCFA's data are collected on Medicare patients only.²³⁸ Statistical data derived from the generally older and more sickly patient population that Medicare serves may not be indicative of care for the general population.²³⁹ In general, HCFA needs to upgrade and expand its data collection and analysis efforts to produce higher quality results, and also voluntarily disclose physician-specific data.

freedom of information law challenge as the only option, *see supra* note 155, assuming the state has not exempted the data from that law. For states that do disclose, *see supra* note 154, the accuracy, presentation, and timeliness of information can be improved, as discussed in the text. *See infra* notes 239-54 and accompanying text.

²³³ In addition to HCFA and New York's CSRS, Pennsylvania, Iowa and Colorado are considered to be at the forefront of data collection. *See Gauging Health Care, supra* note 231, at 54-55.

²³⁴ *See supra* note 9.

²³⁵ *See supra* note 42.

²³⁶ *See supra* notes 95-141 and accompanying text.

²³⁷ *See supra* note 50.

²³⁸ *See supra* note 42.

²³⁹ Even though statistics are adjusted by age and other risk factors (to account for "older, sicker" patients), the results may not shed meaningful light on procedures that are not common to older, sicker patients. Also, older patients tend to have more unaccounted for risk factors (i.e. those due to comorbidities), which makes the statistics less accurate. *See supra* note 66.

New York's unique CSRS leads the nation in the quality of statistics produced by collecting both demographic, diagnostic and detailed patient-specific clinical risk factors.²⁴⁰ The data's accuracy is considered high, despite criticisms that the analysis model may be flawed and not all risk factors are collected.²⁴¹ Unfortunately, statistics are only generated for a single procedure: cardiac artery bypass grafting surgery. But New York may expand its system to include other procedures.²⁴²

New York's Department of Health releases detailed statistics, including specific good and bad outliers, for all New York hospitals that perform open heart surgery in rank order.²⁴³ While it did not voluntarily disclose similar cardiac surgeon rankings to the public, instead providing only hospitals with the information,²⁴⁴ a New York State supreme court has recently ordered these data to be disclosed to a New York newspaper under New York's Freedom of Information Law.²⁴⁵ Thus, for a single procedure—open heart surgery—New York has protected both patients' and providers' interests in provider-specific data disclosure to a great extent. New York health care consumers now have access to detailed risk information and physician and hospital rankings.

Proper data presentation is critical to successfully using the disclosed information; the following is a critique of how New York has decided to present its provider-specific data. New York State presented statistics in order of risk-adjusted mortality rates in its initial disclosure of hospital-specific data covering the January-June 1989 and 1990 time periods.²⁴⁶ This is correct, since it presents data to the public by the statistic that counts most: how well the provider performed discounted by pre-operative patient risk-factors, thus allowing providers to be ranked.²⁴⁷ Unfortunately, the next disclosure of data took a large step backwards and listed the data in alphabetical order instead.²⁴⁸

²⁴⁰ See *supra* note 70.

²⁴¹ See *supra* notes 24-27.

²⁴² See *supra* note 58.

²⁴³ See *Cardiac Surgery*, *supra* note 79; *Heart Surgery*, *supra* note 79.

²⁴⁴ See *supra* note 156 and accompanying text.

²⁴⁵ See *supra* notes 156-65 and accompanying text.

²⁴⁶ See *Cardiac Surgery*, *supra* note 79. The January to June 1989 statistics are at Appendix Table 2.

²⁴⁷ See *supra* notes 71-72 and accompanying text.

²⁴⁸ See *Heart Surgery*, *supra* note 79. The July-December 1990 statistics are at Ap-

Similarly, the initial release of physician-specific data was listed in the order of decreasing caseload instead of risk-adjusted rate; since volume highly correlates to risk-adjusted rate for this procedure,²⁴⁹ it is not as misleading as alphabetical order, but it still makes comparison rather difficult. Thus, unless the consumer was willing to sort the statistics by risk-adjusted rates themselves, comparisons are difficult to make and time-consuming for the latest New York data.

Outlier data were not provided in the initial set of hospital-specific data or physician-specific data;²⁵⁰ although not absolutely necessary for comparison, outlier data are useful.²⁵¹ However, outlier data were added to the next release of hospital-specific data.²⁵²

In the initial release of New York statistics, caseload, number of deaths, crude mortality rate data and the statewide crude mortality rate were also presented.²⁵³ The additional provider-specific crude rates do not provide additional information to the consumer, and since they may lead to confusion with the risk-adjusted rates, they should not be presented.²⁵⁴ In fact, the latest hospital and physician-specific data no longer include the crude mortality rate.²⁵⁵

In summary, these two leading systems are beginning to accommodate both patient/consumer and physician interests. Hospital-specific data have been made publicly available by both HCFA and New York State, and physician-specific data are now publicly available for New York cardiac surgeons. Raw data are being adjusted for severity of illness and other risk factors, even though improvements are needed in HCFA's system to improve their accuracy. New York has accurate data, but they are limited to only one procedure. New York's presentation is a mixed bag. On the positive side, New York has removed crude rate data from the statistics and has added outlier data to the latest hospital-specific data; on the negative side, New York has stopped

pendix Table 3. *See supra* note 222.

²⁴⁹ *See supra* notes 220-22.

²⁵⁰ *See supra* note 244.

²⁵¹ *See supra* notes 224, 226.

²⁵² *See supra* note 246.

²⁵³ *See supra* note 243.

²⁵⁴ *See supra* notes 225.

²⁵⁵ *See supra* note 226 and accompanying text.

providing statistics ranked in risk-adjusted rate order and does not provide physician-specific outlier data. Regardless, the statistics are generally understandable to consumers, but much room for improvement exists.

D. *Proposed Law of Mandatory Limited Data Disclosure and its Potential Legal and Non-legal Ramifications*

1. Proposed Law of Mandatory Limited Data Disclosure

This Note proposes that public disclosure of government collected and analyzed data should be mandatory to enhance the prevailing patient/consumer interests as discussed in Part III-A and to remove the need to make freedom of information requests to gain access to nondisclosed data as discussed in Part II. To maximize the benefits and, more importantly, minimize the costs associated with mandatory disclosure, the disclosure should be limited by some or all of the constraints suggested in Part III-B. There are, however, other legal and nonlegal ramifications of mandatory disclosure. A brief examination of these ramifications follows.

2. Legal Ramifications

a. *Informed Consent*

Providers would likely have to disclose the statistics to their patients to satisfy the requirements of informed consent.²⁵⁶ To meet these requirements the data must satisfy either a reasonable patient's (materiality) standard or reasonable physician's (professional) standard, depending upon a state's informed consent law.²⁵⁷ Although there is no case law on this subject of disclosing provider-specific statistics, it would be difficult to refute that data disclosure should be required under the materiality standard of informed consent because this information provides "the probability of success [of the proposed treatment] of alternatives"²⁵⁸ and "due care normally requires that the physician

²⁵⁶ See *supra* note 1.

²⁵⁷ For example, New York's informed consent cause of action requires that the doctor disclose "the reasonably foreseeable risks" so that the patient may make a "knowledgeable evaluation." N.Y. PUB. HEALTH § 2805-d (McKinney 1985 & Supp. 1992).

²⁵⁸ *Natanson v. Kline*, 350 P.2d 1093, 1106 (Kan. 1960). *Natanson* was the second major case establishing the informed consent cause of action, succeeding *Salgo v. Leland*

warn the patient of any risk to his well-being which the contemplated therapy might involve."²⁵⁹ Although these tests traditionally applied to general risk data for the proposed treatment,²⁶⁰ they can be extended to provider-specific risk information if one views the treatment as not just the procedure itself, but instead as the procedure *as performed by* a specific provider. Thus, if a patient is given the provider-specific statistics and/or the ranking of his or her provider, the patient now has the "probability of success" of the proposed "treatment." In addition, one may view from this perspective the statistics and/or rankings of the *other* physicians as "alternate" treatments.

Informed consent disclosure may be more difficult to achieve under a professional standard. Under this standard, a physician would only have to disclose information that "a reasonable and prudent medical doctor of the same school of practice [as the physician] under similar circumstances."²⁶¹ Even under a materiality standard there are special situations when a physician may not disclose—"[w]hen medical judgment enters the picture and for that reason special standard controls, prevailing medical practice must be given its just due."²⁶² This is a "hybrid" standard of care combining elements of autonomous decision making embedded in the materiality standard with the discretionary elements of the professional standard. But the physician's traditional reasons of withholding risk data from pa-

Stanford Jr. University Board of Trustees, 317 P.2d 170 (Cal. 1957) which initially established the absolute duty that physicians, within their discretion, disclose the risks of the proposed treatment so that a patient may intelligently consent. *Natanson* stepped away from the absolute duty to disclose and instead framed the duty in terms of negligence by implementing the reasonable doctor standard, and requiring that the physician's failure to disclose was the proximate cause of the injury. *Natanson v. Kline*, 354 P.2d 670 (Kan. 1960). One of these duties was "to disclose and explain . . . the probability of success [of the proposed treatment] or of alternatives" mentioned in the test. *Id.* at 673.

²⁵⁹ *Canterbury v. Spence*, 464 F.2d 772, 781 (D.C. Cir. 1971). *Canterbury* was the third major case establishing the informed consent cause of action. It established a standard of disclosure set by law rather than self-imposed by physicians. *Id.* at 784. This standard was essentially a reasonable patient standard—all material risks must be disclosed, and "a risk is thus material when a reasonable person, in what the physician knows or should know to be the patient's position, would be likely to attach significance to the risk or cluster of risks in deciding whether or not to forego the proposed therapy." *Id.* at 787, citing *Waltz & Scheuneman, Informed Consent to Therapy*, 64 Nw. U. L. Rev. 628, 640 (1970).

²⁶⁰ See *supra* note 4.

²⁶¹ *Natanson v. Kline*, 350 P.2d 1093, 1107 (Kan. 1960).

²⁶² *Canterbury v. Spence*, 464 F.2d 772, 785 (D.C. Cir. 1972).

tients under the professional standard or hybrid standard—disclosure of general risk information may deter a patient from undergoing needed surgery, or might produce adverse psychological reactions that may preclude the success of the treatment²⁶³—do not apply when disclosure of provider-specific data are in question. Disclosure of provider-specific data should not deter a patient from undergoing treatment any more than general risk data; it will just deter a patient from having the treatment performed by one provider instead of another. Also, the disclosure of a provider's performance will have much less impact on a patient's psychological condition than general risk data since these data count for a much smaller percentage of the risk in undergoing treatment.²⁶⁴ Thus, it seems that disclosure would be required even under a professional or hybrid disclosure standard.

How may the proposed mandatory disclosure by the government of this information to the public affect informed consent disclosure requirements? Government disclosure will give weight to the importance of this information, thus reinforcing the necessity of provider disclosure to patients, especially in those states employing a professional standard of care. However, public disclosure of provider-specific data might instead fulfill the provider's obligation to warn, if one assumes that the patient already has this information before treatment, thus potentially eliminating claims of lack of informed consent against providers for failure to provide their statistics or rankings.

b. *Medical Malpractice*

Use of provider-specific data may have the greatest impact in the legal world in medical malpractice cases. Although the failure to obtain a patient's informed consent may theoretically allow a patient to bring a cause of action against a provider, these actions are rarely won unless there is also evidence of medical malpractice.²⁶⁵ Thus the failure of a provider to disclose this

²⁶³ *Id.* at 778.

²⁶⁴ See *supra* note 4.

²⁶⁵ "Juries rarely, if ever, bring in a verdict solely on informed consent. They want to know if the doctor did harm." David Zinman, *Need NY Heart Surgeons Reveal Ranking*, *NEWSDAY*, Jan. 21, 1992, at 55 (quoting Paul D. Rheingold, a leading plaintiff's attorney in products liability, medical malpractice and drug-related litigation). For problems

information to the patient if required,²⁶⁶ more specifically, the failure to provide statistics indicating that the physician was worse than average, and thus did not obtain informed consent, may be used best to create a background suggesting a lack of due care in a medical malpractice action.

Provider-specific quality-of-care data may also be directly used, if admissible,²⁶⁷ as evidence of medical malpractice. In one respect, the data may provide evidence of breach of the professional standard of care: the plaintiff patient will use the data to

in informed consent litigation, *see supra* note 1. *See also* Rheingold, *supra* note 30, at 75.

²⁶⁶ *See supra* notes 256-64 and accompanying text.

²⁶⁷ Admissibility will be a large hurdle to overcome in the use of provider-specific quality-of-care data as evidence of breach of due care in a medical malpractice action. Under Federal Rules of Evidence ("FRE") Rule 402, "[a]ll relevant evidence is admissible," where relevance is defined by FRE Rule 401 as "evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." FED. R. EVID. 402, 401. FRE 403 will exclude relevant evidence if "its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence." FED. R. EVID. 403.

Thus FRE 401 may allow provider-specific quality-of-care statistics in as evidence of similar conduct, unless, by FRE 403, its probative value is outweighed by the enumerated exclusionary factors. There is no case law on point; the most analogous case is *Evans v. Dugger*, 908 F.2d 801 (11th Cir. 1990). In *Evans* a prisoner, claiming violation of his civil rights because of the prison's deliberate indifference to his serious medical needs, sought admission of statistical reports reciting seventeen years of generally bad care to other patients in the prison system. The court allowed redacted versions of the reports, removing those portions "which were neither unduly prejudicial, confusing, misleading or cumulative." *Id.* at 809.

It is a general rule in negligence cases in New York, a common law state, that evidence of prior similar acts or habit demonstrating defendant's lack of care is inadmissible to raise an inference that the defendant exercised the same lack of care in the case at hand. *See* JEROME PRINCE, *RICHARDSON ON EVIDENCE* §§ 184, 186 (10th ed. 1973). Thus, where this is the rule, use of provider-specific statistics indicating poor quality care in the past will not be admissible to show that the defendant failed to use due care in the current case. *See Johnson v. Myers*, 165 S.E.2d 739, 742 (Ga. 1968) (plaintiff's evidence attempting to prove that the defendant physician had performed unnecessary surgery on him by showing that the physician performed unnecessary surgeries in the past was held inadmissible).

It is possible that the statistics showing a physician to be a low-quality performer may be used against a hospital since they demonstrate that the hospital was on notice, and thus may be negligent in either its credentialing or supervision of the physician. This view was taken by both Paul Rheingold, *supra* note 30, and Sheila L. Birnbaum (a leading defense attorney in products liability and medical malpractice litigation). Addresses given at the Brooklyn Law School Symposium: Comparing Medical Providers, January 9, 1992 (on file with the *Brooklyn Law Review*).

show the defendant physician is at fault. For example, if a physician performs a certain treatment in the face of statistics that indicate that for this procedure the doctor has been a low-quality, worse-than-average performer, then this fact may be circumstantial evidence of negligence. On the other hand, a physician may use the data to indicate that he or she has been careful in the past and thus was careful in the case at hand. Both of these possibilities present the problem of how much worse or better than average the physician must be before the data can be used as evidence of fault or care respectively. It is possible only physicians who are outliers may fall within this category of evidence.²⁶⁸ Public knowledge of provider-specific data might also give rise to either contributory negligence (or contributive fault in comparative liability states) or assumption of risk defenses for physicians.²⁶⁹ A physician may argue that a patient who has voluntarily consented to be treated for a given procedure by a known low-quality physician has "assumed the risk" of any consequences that may follow, or that the patient is partially to blame for choosing a low-quality physician.

These data would probably not be used to prove causation since prior similar conduct does not indicate whether damages in the present case were the proximate result of the defendant physician's breach of due care. But these data may be used as evidence of proportional causation in those courts that allow recovery for it;²⁷⁰ the data may show that a low-quality physician

²⁶⁸ See *supra* notes 73-74 and accompanying text for an explanation of outliers.

²⁶⁹ Contributory negligence is conduct on the part of plaintiff that falls below the standard of due care and is a legally contributing cause to plaintiff's injuries. See *KEETON ET AL.*, *supra* note 1, § 65, at 451. At common law this was a complete bar to recovery, however, most states have now adopted comparative negligence to overcome the harshness of this rule. In comparative negligence, fault is allocated between plaintiff and defendant, resulting in plaintiff's recovery reduced by the proportional amount of plaintiff's fault. *Id.*, § 67, at 468-72. In an assumption of the risk defense, the defendant affirmatively claims that plaintiff had knowledge of a condition or situation obviously dangerous to herself and yet voluntarily exposed herself to the hazard so as to relieve defendant of any legal liability for any resulting injury. *Id.*, § 68, at 480-81.

²⁷⁰ See *Hershkovitz v. Group Health Cooperative of Puget Sound*, 664 P.2d 474 (Or. 1983) (medical malpractice was the "but for" cause for significantly reducing a patient's chance of survival from 39% to 25%; although defendant's negligent act would not be a cause of death, since the plaintiff probably would have died anyway, recovery was allowed for reducing the plaintiff's chance of survival). Of course, numerical estimates of risk, such as provider-specific quality-of-care data, are needed for this type of recovery. "As expert opinion evidence quantifying risk becomes more readily available, advocates will present more issues in these areas for resolution by courts and legislatures." *KEETON*

performing a certain treatment has statistically increased the risk of patient harm. In addition, introduction of such data as evidence may create an atmosphere for punitive damages, which are generally rare in medical malpractice cases,²⁷¹ since they may indicate statistically a gross deviation from the standard of care.

3. Nonlegal Ramifications

a. *Physician-Patient Relationship*

It is very likely that public knowledge of provider-specific quality-of-care data will further shift the decision-making power in the physician-patient relationship toward patients. That increase in power, however, will require an increase in responsible use of that data by patients to prevent both harm to themselves and their physicians. The physician-patient relationship has evolved dramatically over the last few decades. For many years, the patient was involved in only one key decision; placing himself or herself in the doctor's care. All subsequent power was delegated to the doctor. This relationship assumed that the patient lacked the ability to make medical decisions, justifying the physician's role of making decisions on behalf of the patient.²⁷²

In this model, disclosure of risk information to the patient was only done for therapeutic purposes. But in recent decades new developments have increased the patient's role to more than *pro forma* respect. New technology and treatments have expanded the patient's options. Conflict within the medical community is widely publicized; perhaps your doctor does not know what is best for you. Increased knowledge of medicine has accen-

ET AL., *supra* note 1, § 41, at 272.

²⁷¹ Punitive damages would most likely be assessed in cases involving battery, e.g., a treatment performed without the patient's consent. See *supra* note 1. But negligence, i.e. medical malpractice, has generally displaced battery as the basis of liability. Generally, more than the mere commission of a negligent tort is required for punitive damages; circumstances must involve "wilful or wanton" conduct. Thus, the deviation from the standard of care must be "gross" in order to justify the awarding of punitive damages. KEETON ET AL., *supra* note 1, § 2, at 9-10. Introduction of statistics indicating that the performance of a physician has been far below average in the past, when combined with evidence of misconduct in the case at hand, may be enough for a jury to conclude that the performer has been grossly negligent and therefore deserving of monetary punishment. Without the evidence of poor past performance, the jury may instead conclude that the physician's misconduct in the case at hand was only a solitary incident and be thus more forgiving.

²⁷² See Schultz, *supra* note 1, at 221.

tuated how much remains unknown.²⁷³ Only by comparing alternatives based on some numerical formulation of risks can a final decision be made as to whether to undergo treatment and who should perform that treatment.

The question then becomes who should decide given the many risk-valued alternatives. The paternalism of physicians still exists today, but the notion that the mere hiring of a physician transfers all decision-making authority to him or her has been legally repudiated by the doctrine of informed consent.²⁷⁴ Disclosing physician-specific quality-of-care data to patients will, for the first time, allow them to choose among providers for a given procedure competently, without the paternalistic influence and bias of providers since providers have been independently assessed on a comparable numerical basis. However, this does not imply that a decision should be made without consulting a physician and using other ancillary qualitative information the patient may already possess; this could lead both to patient²⁷⁵ and physician harm²⁷⁶ since the information is not perfect. Thus, this increase in patient decision-making power comes with the added responsibility of using the data wisely and recognizing the limitations inherent in this new form of risk data.

b. *Defensive Medicine*

Some providers who do not trust the system's ability to generate accurate data may be reluctant to treat high-risk patients; if the risk-adjustment analysis does not give enough credit for treating high-risk patients, then failure to successfully treat these patients may lead to statistics indicating poor care even after risk-adjustment. Recently cardiac surgeons in New York have stated that they "began sensing a trend away from high risk cases two years after the state published a risk-adjusted ranking of surgeons doing coronary bypass operations."²⁷⁷ One low-ranked New York hospital has publicly announced that it

²⁷³ *Id.* at 221-22.

²⁷⁴ *Id.* at 222-23.

²⁷⁵ See *supra* notes 215-17 and accompanying text.

²⁷⁶ See *supra* notes 24-27 and accompanying text.

²⁷⁷ David Zinman, *Hearts in Need*, *NEWSDAY*, May 11, 1992, at 7. However, there is no hard data on whether surgeons and hospitals are actually refusing to take patients for fear of increasing their chances of reducing their ranking in state mortality statistics; most of the evidence is anecdotal. *Id.*

will no longer treat high-risk cardiac patients.²⁷⁸ Of course, reluctance to treat high-risk patients is not necessarily bad; in some cases a low-quality provider should be encouraged to refer these patients to a better qualified provider.²⁷⁹ But when a high-risk patient cannot find any doctor for treatment, or must travel a long distance to obtain care, a problem exists.²⁸⁰

Ideally risk-adjustment should compensate a provider for the treatment of high-risk patients.²⁸¹ However, statistics may be skewed against high-risk patients either intentionally,²⁸² or by the failure to account for significant risk factors in the regression analysis.²⁸³ As stated previously, statistics are not perfect. But even if they were extremely accurate, both hospitals and physicians would naturally tend to shy away from high-risk patients—"better safe than sorry."

How can this trend be reversed? Although educating providers on the accuracy of analysis techniques might persuade them to take high-risk patients, the impact would probably be marginal; well-educated physicians already "know the score." State Health Department investigations into this possibly unethical behavior—providers' putting their own interests in good statistics over patients' interests in receiving adequate care—would not succeed. A provider can always claim that it was not in a patient's best interest to undergo treatment with that provider, or at all.²⁸⁴

²⁷⁸ *Id.* at 18 (North Shore University Hospital did not operate on 23 high-risk patients as part of a concerted effort to reduce its mortality ranking).

²⁷⁹ "And in some cases, it may be better for surgeons to refer high-risk patients to doctors who have proven their skills in difficult cases. In fact, advocates of the ranking system say it is supposed to encourage such referrals as a way of improving patient care." *Id.* at 7. See also *supra* note 20 (St. Vincent's hospital improvement in performance was in part due to state-approved referrals of high-risk patients).

²⁸⁰ "The deep issue is that if you are a high-risk patient and you are not near an institution willing to do high-risk cases, you may not have equal access to health care." Zinman, *supra* note 277, at 18 (quoting cardiologist Dr. Alan Hartman).

²⁸¹ See *supra* notes 71-72 and accompanying text.

²⁸² It has been alleged by critics of New York's CSRS that "[risk-adjusted] methodology is tilted against such high-risk patients because the state wants to cut back on soaring health costs by discouraging bypasses, which can cost \$50,000." Zinman, *supra* note 277, at 7.

²⁸³ See *supra* note 66.

²⁸⁴ In addition to referrals, a physician may claim that the treatment simply should not be performed since the benefits may be only marginal. "There is plenty of experience to show some operations should not be done. You can end up extending enormous resources to patients whose situations are beyond hope. They can have a dismal lifestyle

Instead proper incentives must be given for a provider to take high-risk cases. Monetary incentives could be used to compensate providers for any loss in revenue from the perceived or actual reduction in performance rating.²⁸⁵ However, Medicare and other third-party payers currently pay a fixed fee for a given procedure regardless of risk.²⁸⁶ Thus, not only are high-risk patients unattractive because of the possible or imagined effects on statistics, but also because they require extra, more expensive care and are thus financially unrewarding.²⁸⁷ Another incentive might be to give providers "bonus points," i.e. extra credit above the credit given by the risk-adjustment analysis, for treating high-risk patients to compensate for any unknown biases and errors in the analysis. Thus a provider may boost his or her ranking by taking on and successfully treating high-risk patients. This, however, creates a perverse incentive for low-quality providers to take on high-risk patients that possibly should be referred to high-quality providers instead.

In summary, providers' refusal to treat high-risk patients in fear of lower performance statistics is a side effect of mandatory disclosure that must be corrected to insure that these patients receive treatment. Monetary or statistical incentives may be the only way to reverse this trend since provider education and health department investigations will probably be ineffective.

c. *Reduction in Providers*

The reduction of low-quality providers may be another effect of mandatory disclosure; this is not necessarily bad since the overall quality of care should increase. This may also reduce the amount of medical malpractice litigation since the number of adverse incidents against patients should decrease. However, this reduction may not be good if these marginal providers provide, even at low quality, the substantial portion of health care in, for example, a rural community or an urban low-income community. Exempting these providers from disclosure, as discussed

for two to six months and then die anyway.'" Zinman, *supra* note 277, at 7 (quoting cardiologist Dr. Gregory Gustafson).

²⁸⁵ Loss in revenue may be the result of the decrease in patients coming into the hospital or from a reduction in hospital donations. *See id.* at 18.

²⁸⁶ *See id.* at 7.

²⁸⁷ *Id.*

in Part III-B, may solve this problem.²⁸⁸ Also, new physicians may be discouraged from entering medicine or a specialty for fear of being ranked. They too may be exempted from disclosure until they have an opportunity to gain sufficient experience, as discussed in Part III-B. Thus it appears that unwanted reduction in providers or discouragement from entering the profession may be ameliorated by providing for disclosure exemptions and thus should not be a major source of concern.

CONCLUSION

As the debate over whether to disclose provider-specific quality-of-care data continues between providers and consumer advocates, the slow trickle of provider-specific quality-of-care data currently being disclosed by government agencies may soon rage into a flood. Current laws governing disclosure do not adequately protect both patients' and providers' interests. They either fail to disclose some or all of the data, leaving open as the only avenue of disclosure, if not otherwise prohibited, litigious freedom of information requests. Current disclosure laws also do not impose proper limitations on who should be exempt from either reporting or disclosure, what may be disclosed and when, and how the data should be disclosed. This Note concludes that disclosure of this new form of decision-making data by all government collection agencies must be mandatory to protect effectively and enhance the important interest of patient autonomy in medical decision making, to increase overall provider quality and to promote competition among providers with the goal of reducing staggering health care costs. This Note also concludes that this disclosure should be limited, as suggested in Part III-B, to minimize the potential harm to providers and diminish some of the various undesirable legal and nonlegal side effects arising from mandatory disclosure.

Douglas Sharrott

²⁸⁸ See *supra* note 228 and accompanying text.

APPENDIX TABLE 1
 CRUDE AND EXPECTED IN-HOSPITAL MORTALITY RATES
 FOR HOSPITALS PROVIDING OPEN HEART SURGERY
 (in Order of Increasing Crude Mortality Rate)*

Hospital	No. of Patients	Crude Mortality Rate, %	Expected Mortality Rate, %	95% Confidence Interval for Expected Rate, %	
				Lower Bound	Upper Bound
1	404	2.2	3.9	2.0	7.4
2	580	2.9	3.8	2.0	7.4
3	152	3.3†	6.9	4.7	9.9
4	322	3.4†	7.2	5.1	10.2
5	83	3.6	3.6	1.8	7.2
6	410	3.7	4.2	2.3	7.6
7	243	3.7	2.8	1.1	6.8
8	259	3.9†	6.9	4.7	9.9
9	163	4.3	6.1	4.0	9.2
10	675	4.3	5.0	3.0	8.2
11	495	4.4	5.0	3.0	8.2
12	509	4.5	5.6	3.5	8.8
13	130	4.6	4.6	2.7	7.9
14	387	4.7	3.3	1.5	7.1
15	230	4.8	4.5	2.6	7.9
16	237	5.1	4.0	2.1	7.5
17	262	5.3	4.4	2.4	7.7
18	193	5.7	4.5	2.5	7.8
19	475	6.1	5.5	3.5	8.7
20	254	6.3	5.6	3.5	8.8
21	251	6.8	3.4	1.6	7.1
22	191	7.3††	3.6	1.7	7.2
23	54	7.4	6.9	4.8	9.9
24	134	7.5	6.9	4.8	9.9
25	144	7.6††	3.9	2.0	7.4
26	104	8.7	9.3	7.1	12.2
27	192	9.9††	6.0	3.9	9.1
28	63	14.3††	3.9	2.0	7.4

*Statewide crude mortality rate = 4.87%

†Crude mortality rate significantly higher than expected ($\alpha = .05$)

††Crude mortality rate significantly lower than expected ($\alpha = .05$)

APPENDIX TABLE 2
 CRUDE AND RISK-ADJUSTED MORTALITY
 RATES FOR HOSPITALS PERFORMING ADULT CARDIAC SURGERY
 IN NEW YORK STATE, DISCHARGE JANUARY-JUNE 1989

<u>Hospital</u>	<u>Cases</u>	<u>Deaths</u>	<u>Crude Mortality Rate</u>	<u>Risk- Adjusted Mort. Rate</u>
1 Mount Sinai Hospital	322	11	3.42	2.30
2 Lenox Hill Hospital	152	5	3.29	2.33
3 Presbyterian Hospital—City of New York	259	10	3.86	2.74
4 Westchester County Medical Center	404	9	2.23	2.79
5 Long Island Jewish Medical Center	163	7	4.29	3.41
6 Buffalo General Hospital	580	17	2.93	3.72
7 New York University Medical Center	509	23	4.52	3.94
8 St Francis Hospital	675	29	4.30	4.19
9 Albany Medical Center Hospital	410	15	3.66	4.27
10 New York Hospital	495	22	4.44	4.34
11 University Hospital (Stony Brook)	104	9	8.65	4.53
12 State University Hosp Upstate Med Center	130	6	4.62	4.87
13 Binghamton General Hospital Division	83	3	3.61	4.88
14 North Shore University Hospital	230	11	4.78	5.13
15 Bellevue Hospital Center	54	4	7.41	5.22
16 Montefiore Medical Center-Weiler Hospital	134	10	7.46	5.26
17 Rochester General Hospital	475	29	6.11	5.38
18 Maimonides Medical Center	254	16	6.30	5.48
19 Strong Memorial Hospital	262	14	5.34	5.98
20 Millard Fillmore Hospital	237	12	5.06	6.15
21 Montefiore Medical Center-Moses Division	193	11	5.70	6.22
22 St Josephs Hospital Health Center	243	9	3.70	6.46
23 St Lukes-St Lukes Roosevelt Hosp-St Lukes	387	18	4.65	6.82
24 St Vincents Hospital and Medical Center	192	19	9.90	8.01
25 University Hospital of Brooklyn	144	11	7.64	9.64
26 Arnot-Ogden Memorial Hospital	251	17	6.77	9.70
27 Winthrop-University Hospital	191	14	7.33	10.06
28 Erie County Medical Center	63	9	14.29	17.89

Statewide crude Mortality Rate = 4.87%

APPENDIX TABLE 3
 NEW YORK STATE DEPARTMENT OF HEALTH
 CARDIAC SURGERY REPORTING SYSTEM
 RISK ADJUSTED MORTALITY RATES FOR
 HOSPITALS PROVIDING CARDIAC SURGERY
 IN NEW YORK STATE
 CORONARY ARTERY BYPASS GRAFT PATIENTS 1990

Hospital	Cases	Risk Adjusted Mortality Rate (%)
Albany Medical Center Hospital	630	4.52
Arnot-Ogden Memorial Hospital	536	3.10
*Bellevue Hospital Center	64	1.47
*Beth Israel Medical Center	120	1.61
Binghamton General Hospital Division	328	2.27
Buffalo General Hospital	1,072	3.76
Erie County Medical Center	95	7.97
Lenox Hill Hospital	340	2.75
*Long Island Jewish Medical Center	366	1.49
*Maimonides Medical Center	500	2.26
Millard Fillmore Hospital	463	3.56
Montefiore Medical Center - Moses Division	352	2.18
Montefiore Medical Center - Weiler Hospital	203	2.16
*Mount Sinai Hospital	501	2.00
New York Hospital	933	2.61
New York University Medical Center	694	2.75
**North Shore University Hospital	485	5.71
Presbyterian Hospital - City of New York	262	3.02
Rochester General Hospital	933	3.11
St Francis Hospital	1,151	2.37
St Josephs Hospital Health Center	485	2.19
St Lukes Roosevelt Hospital - St. Lukes Hosp Div	686	3.15
St Peters Hospital	411	3.63
*St Vincents Hospital and Medical Center	286	0.83
State University Hospital Upstate Med Center	254	4.43
**Strong Memorial Hospital	308	5.85
University Hospital (Stony Brook)	230	2.43
**University Hospital of Brooklyn	230	5.42
Westchester County Medical Center	628	4.07
Winthrop-University Hospital	415	4.56

*Actual mortality rate significantly lower than expected

**Actual mortality rate significantly higher than expected

