

Note

Grading the Report Card: Lessons from Cognitive Psychology, Marketing, and the Law of Information Disclosure for Quality Assessment in Health Care Reform

Jason Ross Penzer†

This Note examines the emergence of consumer-directed information disclosure proposals in the health care reform debate. By drawing on the literatures of cognitive psychology, marketing, and existing statutory information disclosure, the author discusses the drawbacks of relying on health care report cards as a quality assurance system. The author concludes that report cards cannot currently assure quality, given limitations in the state of the art of quality measurement and an inadequate understanding of how consumers would process disclosed information.

Introduction	208
I. Competition, Consumer Satisfaction, and Quality Control in Health Care Reform Legislation: The Report Card	210
A. <i>The Clinton Plan</i>	211
B. <i>The Congressional Health Care Reform Bills</i>	215
C. <i>Other Government Actors and the Private Sector</i>	216
D. <i>Growth of the Report Card Industry: De Jure or De Facto Reform</i>	218
E. <i>The Goals of Information Disclosure in Health Care</i>	219
F. <i>Conclusion</i>	221

†J.D., expected, February 1995, Yale Law School; M.D., expected, 1996, Yale School of Medicine; A.B., 1990, Harvard University.

I gratefully acknowledge the contributions others have made to this Note. In particular, Michael Graetz and Jerry Mashaw, professors at Yale Law School, provided guidance and constructive criticism throughout the project. Donna Diers, professor at Yale's School of Epidemiology and Public Health, offered thoughtful comments on an early draft that made the final version better than it otherwise would have been. All are blameless for any factual or analytical errors, which naturally are my own.

II. The Current State of the Art in Quality Measurement Programs	221
A. <i>Quality Measurement in Health Care: Satisfaction, Process, and Outcomes</i>	223
1. <i>Surveys and Satisfaction</i>	223
2. <i>Process</i>	225
3. <i>Outcomes</i>	226
4. <i>Risk Adjustment</i>	227
5. <i>Challenges in Quality Measurement</i>	228
B. <i>The Pennsylvania Report Card Program</i>	228
C. <i>Other Experiments with Report Card Systems</i>	231
D. <i>Conclusion</i>	232
III. Cognitive Psychology, Information Processing, and Disclosure Strategies: Lessons from Nutrition Labeling and Truth in Lending	233
A. <i>Heuristics, Biases, and Information Overload</i>	233
1. <i>Representative Heuristics</i>	235
2. <i>Availability Heuristics</i>	236
3. <i>Anchoring Heuristics</i>	237
4. <i>Framing Effects</i>	237
5. <i>Invulnerability Biases</i>	238
6. <i>Information Overload</i>	238
B. <i>The Relevance of Cognitive Psychology and Information Overload to Health Care Policy: The Pitfalls of Satisficing Behavior in a Quality Assurance Program</i>	240
1. <i>Price, Satisfaction, and Quality: Distinct Dimensions of the Market Safety Net</i>	241
2. <i>Policy Implications for Report Card Systems</i>	243
C. <i>The Nutrition Labeling and Education Act</i>	244
D. <i>Truth In Lending</i>	248
E. <i>Lessons from the NLEA and TILA for Report Card Systems</i>	254
Conclusion	254

Introduction

After months of intense research by Hillary Rodham Clinton's semi-secret Task Force and political maneuvering by the White House, President Bill Clinton announced his plan to reform the nation's health care system on Wednesday evening, September 22, 1993. In a televised address to the joint

Houses of Congress, he proclaimed “a new chapter in the American story.”¹ The President staked his plan on six “fixed stars”: security, simplicity, savings, choice, quality, and responsibility. In describing the fifth star, quality, Clinton proposed to harness the opportunities of the information age and create report cards on health plans so that consumers could compare competing plans and reward high quality providers by selecting their plans.²

The report card proposal has been more resilient than the Clinton Plan itself. The proposal’s inclusion in subsequent reform agendas and its place at center stage in state level and private quality assurance programs demonstrate the powerful appeal report cards now have in health care delivery. Although the President and Congress eventually disagreed on the plot and ending of Clinton’s “new chapter,” the health care reform debate in the 103rd Congress set the stage for a major movement in health care quality assurance. While Congress continues to consider reform bills that include report card systems, states and the private sector have already adopted consumer-directed quality information disclosure as the mantra of modern quality assurance.

This Note evaluates health care report cards. Part I examines Title V of Clinton’s Health Security Act and subsequent reform bills to determine what substance, if any, the proposed legislation gives to the report card and what role different institutions in the health care system would play in its development. This Section reveals that policymakers describe the concept of a consumer-directed information disclosure program, but not its substance. Part II describes the state of the art in health care quality measurement and current efforts to promote quality and control costs through consumer education. This discussion demonstrates that the limited science and prohibitive cost of quality measurement undermine the efficacy of a national report card proposal. Part III reviews literature on cognitive psychology, marketing, and the laws requiring information disclosure in order to develop an understanding of consumer information processing in health care and other regulatory contexts. This section explores in detail two existing efforts to improve quality, empower consumers, and modify consumer and industry behavior through information strategies: nutrition labeling under the Nutrition Labeling and Education Act (NLEA)³ and credit cost term disclosure under the Truth In Lending Act (TILA)⁴ and the Truth In Lending Simplification and Reform Act (TILSRA).⁵

1. Adam Clymer, *Clinton’s Health Plan: The Overview*, N.Y. TIMES, Sept. 23, 1993, at A1.

2. *Clinton’s Health Plan: Transcript of President’s Address to Congress on Health Care*, N.Y. TIMES, Sept. 23, 1993, at A24.

3. Nutrition Labeling and Education Act, Pub. L. No. 101-535, 104 Stat. 2353 (1990) (codified at 21 U.S.C. § 343-1 and in scattered sections of 21 U.S.C. (1993)). 21 U.S.C. § 301 gives the legislative genealogy and short title for the NLEA.

4. Truth In Lending Act, Pub. L. No. 90-321, § 101, 82 Stat. 146 (codified as amended at 15 U.S.C. § 1601 (1968)) (enacted as Title I of Consumer Credit Protection Act, Pub. L. No. 90-321, 82 Stat. 146 (codified as amended in scattered sections of 15 U.S.C. (1968))).

Ultimately, the uncertainty of consumer response to information disclosure suggests that report cards are not an appropriate quality assurance mechanism.

I. Competition, Consumer Satisfaction, and Quality Control in Health Care Reform Legislation: The Report Card

Six weeks after President Clinton first announced his intention to overhaul the health care system, the Clinton Administration ceremoniously relaunched its plan with the public release of the 1,342 page bill on October 27, 1993.⁶ On Saturday evening, November 20, the bill was formally presented to the House and Senate with considerably less fanfare, signalling the beginning of a grueling legislative battle. Former House Majority Leader Richard Gephardt introduced the Health Security Act (HSA) as H.R. 3600 with ninety-nine cosponsors, and Former Senate Majority Leader George Mitchell did likewise for S. 1757 along with thirty fellow senators.⁷

The subsequent rise and fall of health care reform in the 103rd Congress is a well known story. For the purposes of this discussion, it need only be noted that after its celebrated introduction, the Clinton bill rapidly lost momentum, and several important competing plans emerged in Congress. Legislators failed to reach consensus on any of these proposals, and by September 26, 1994, Senator Mitchell declared health care reform dead for the year. The Administration and influential members of Congress quickly vowed to reintroduce new legislation in the 104th Congress. The demise of the Clinton plan does not diminish the importance of assessing report card proposals. As even a brief survey of major alternative plans reveals, report cards are part of the reform agenda. Whatever national reform ultimately emerges will almost certainly, and uncritically, sanction and expand report card use. Moreover, state governments and regulatory agencies at all levels have anticipated Congress. Report card programs are already centerpieces of state-level health reform and regulatory experimentation. Finally, the private sector has enthusiastically seized on report cards' promise of increased price competition, quality monitoring, and consumer empowerment. In their rush to develop report cards, accreditation agencies, health plans, and major

5. Truth In Lending Simplification and Reform Act of 1980, Pub. L. No. 96-221, 94 Stat. 168 (codified as amended at 15 U.S.C. § 1601 (1993)).

6. Timothy J. McNulty, *The Clintons' 1,342-Page Prescription*, CHI. TRIB., Oct. 28, 1993, at N1.

7. The Health Security Act appears as H.R. 3600, 103d Cong., 1st Sess. (1993), and as S. 1757, 103d Cong., 1st Sess. (1993) [hereinafter cited to original sections of the Health Security Act]. See also 139 CONG. REC. E2989 (daily ed. Nov. 21, 1993) (extension of remarks by Rep. Gephardt, introducing H.R. 3600); 139 CONG. REC. S16787 (daily ed. Nov. 20, 1993) (statement of Sen. Mitchell, introducing S. 1757).

corporations have created, virtually overnight, a vast information-processing and distribution industry in health care.

A. *The Clinton Plan*

Careful analysis of the original Clinton bill provides not only a blueprint of a prototypical report card system, but also a greater understanding of the goals that policymakers expect to achieve through report cards. Consumer-directed information disclosure played a central role in the Clinton Administration's efforts to create a quality improvement program and control costs; informed, comparison-shopping consumers were expected to spur price and quality competition among plans. Among the six explicitly enumerated purposes of the HSA, four related directly to the quality reporting system: "to simplify the health care system for consumers," "to control the cost of health care," "to promote individual choice among health plans and health care providers," and "to ensure high quality health care."⁸

Title V of the HSA addressed quality and consumer protection. Sections 5001 and 5002 created a National Quality Management Program under the seven member National Health Board. A fifteen member National Quality Management Council would have administered the program.⁹ Both National Health Board and National Quality Management Council members were to be appointed directly by the President, National Health Board members being selected on the basis of their experience and expertise in the fields of medicine, health care financing and delivery, state health systems, consumer protection, business, law, and delivery of care to vulnerable populations.¹⁰ National Quality Management Council members would have included representatives from corporate purchasers of health care; health plans; the States; health care providers; academic health centers; and experts in public health, health care quality, and health services research.¹¹

Although the HSA established an elaborate administrative structure to support the National Quality Management Program, it gave the National Health Board almost no guidance as to the content of the program itself. The statute required that the National Quality Management Program be "designed to enhance the quality, appropriateness, and effectiveness of health care services and access to such services."¹² To that end, section 5003 instructed the National Quality Management Council to develop a "set of national measures of quality performance, which shall be used to assess the provision of health

8. Health Security Act, *supra* note 7, § 3.

9. *Id.* §§ 5001-5002. Health Security Act § 1501 creates the National Health Board.

10. *Id.* § 1502.

11. *Id.* § 5002.

12. *Id.* § 5001.

care services and access to such services.” In consultation with the states; health plans; employers; individual consumers; providers; the newly formed National Quality Consortium; experts in law, medicine, economics, public health, and health services research; the administrator for Health Care Policy and Research; the Director of the National Institute of Health; and the Administrator of the Health Care Financing Administration, the Council was instructed to select measures providing information on six subjects: access to health care services, appropriateness of services provided, outcomes of health care services and procedures, health promotion, prevention of diseases, and consumer satisfaction. Measures of quality performance were to be selected on the basis of significance, reliability and validity, variation among providers, linkage to health outcomes under provider control, and relation to public health goals. In addition, section 5003 stipulated that the set of measures chosen was to be representative of the range of services provided to consumers of health care and based on data “obtain[able] without undue burden on the entity or individual providing the data.” The Council was instructed to update the national quality-performance measures annually.¹³ In areas where sufficient information and consensus were found to exist, the National Quality Management Council was instructed to recommend that the National Health Board establish performance goals for health plans and providers.¹⁴

Consumer surveys played an important role in the HSA’s information gathering efforts. Section 5004 instructed the National Quality Management Council to conduct periodic surveys of consumers to gather data on access, use of services, health outcomes, and patient satisfaction. The surveys were to be standardized and administered by the Administrator of the federal Agency for Health Care Policy and Research on a plan-by-plan basis.¹⁵

The HSA created additional bureaucratic players in the quality improvement program: Regional Professional Foundations, alliances, and a National Quality Consortium. The National Health Board was to appoint eleven members to the Consortium, five representing academic health centers and the other six representing schools of public health, medical schools, nursing schools, and allied health professional schools.¹⁶ In addition to advising the National Quality Management Council on the selection of national quality measures, the Consortium was to oversee the establishment of the Regional Professional Foundations. The latter were then to develop “innovative patient education systems that enhance patient involvement in decisions relating [to] their health care.”¹⁷ The alliances were to “disseminate to consumers

13. *Id.* § 5003.

14. *Id.* § 5005.

15. *Id.* § 5004.

16. *Id.* § 5009.

17. *Id.* § 5008.

information relating to quality and access to aid in their selection of plans” and conduct educational programs to “assist consumers in using quality and other information in choosing health plans.”¹⁸

Under section 5013, the legal and financial burden of measuring and producing the data required by the new federal bureaucracy, the states, and the individual alliances would have fallen on individual health plans. These plans would have been required to maintain quality management systems that used the national measures of quality performance and “measure[d] the quality of health care furnished to enrollees under the plan by all health care providers who are members of a provider network of the plan.”¹⁹

To facilitate data collection, the HSA proposed the creation of a massive data bank and electronic health information system within two years of the Health Security Act’s passage.²⁰ This unprecedented national health information system would have combined cost, enrollment, demographic, utilization review, quality, grievance, and financial data with any other type of information deemed appropriate by the National Health Board. This effort would have dwarfed the only other national data bank in the health care sector, the often criticized National Practitioner Databank, created in 1986 by the Health Care Quality Improvement Act.²¹

Once this extensive array of individual, institutional, and bureaucratic actors had defined national quality measures and collected relevant data, a Herculean feat in itself, there would have remained the more significant task of using that data to promote quality care, provider and consumer education, and cost control.²² Public education under the HSA would have proceeded at two levels: decisions by consumers, and decisions by patients. The first level, termed here the “point of insurance” choice, would have involved educating consumers about the options faced when selecting a health plan each year. An individual consumer at this level might or might not have been a patient, that is, a party already involved with the health care system on a

18. *Id.* § 5012.

19. *Id.* § 5013.

20. *Id.* §§ 5101-5106.

21. Health Care Quality Improvement Act of 1986, 42 U.S.C. §§ 11101-52 (Supp. 1993). See Susan L. Horner, *The Health Care Quality Improvement Act of 1986: Its History, Provisions, Applications and Implications*, 16 AM. J.L. & MED. 455 (1990); Elisabeth Ryzen, *The National Practitioner Databank: Problems and Proposed Reforms*, 13 J. LEGAL MED. 409 (1992) (arguing that the data bank gathers erroneous and marginally relevant information, inadequately safeguards confidentiality, and costs more than its benefits justify; also recommending that amendments expanding its scope should be repealed, that only extremes of malpractice payments in number and amount should be reported to strengthen the link of incompetence to settlements and awards, that reporting criteria for resident physicians should be restricted, and that the data bank should be purged every five years).

22. This Note focuses only on the quantity, type, and content of the information directed toward health care consumers and on how consumers process and act upon that information. Similar issues and questions could be raised for providers, health care institutions such as hospitals or nursing homes, academic health centers, and health plans.

regular basis due to an ongoing illness or condition. The second level, termed the "point of treatment" choice, would have involved educating patients about particular diseases, conditions, and treatment options that they might encounter at specific times in their medical histories.

There would have been two principal outlets for all the information collected by the National Health Board and National Quality Management Council: performance reports, or report cards,²³ and practice guidelines.²⁴ Performance reports would have addressed annual point of insurance choices. Practice guidelines, directed toward consumers as well as providers, would have addressed the point of treatment choices.²⁵ While the creation, dissemination, and application of practice guidelines were fundamental to the Quality Program and deserve thorough consideration, this Note focuses only on report cards.²⁶

The report card proposal derived from two separate sections of the HSA. Section 5005(c) outlined the annual performance reports. Alliances would:

publish and make available to the public a performance report outlining in a standard format the performance of each health plan offered in the alliance on the set of national measures of quality performance. The report shall include the results of smaller numbers of such measures for health care providers who are members of provider networks of such plans . . . if the available information is statistically meaningful. The report also shall include the results of consumer surveys . . . that were conducted in the alliance during the year that is the subject of the report.

23. HSA, *supra* note 7, §§ 1325, 5005, 5012.

24. *Id.* § 5006.

25. Practice guidelines for a number of medical conditions are available from the Department of Health and Human Services' Agency for Health Care Policy Research (AHCPR). Simplified versions are published for patients, while detailed guidelines are provided to physicians. See AGENCY FOR HEALTH CARE POLICY RESEARCH, U.S. DEP'T OF HEALTH & HUMAN SERV., PRACTICE GUIDELINE NO. 8, BENIGN PROSTATIC HYPERPLASIA: DIAGNOSIS AND TREATMENT (1994); AGENCY FOR HEALTH CARE POLICY RESEARCH, U.S. DEP'T OF HEALTH & HUMAN SERV., PRACTICE GUIDELINE NO. 8, TREATING YOUR ENLARGED PROSTATE: CONSUMER VERSION (1994).

26. For an enlightening piece on how providers make decisions based on available probabilistic information, see David M. Eddy, *Probabilistic Reasoning in Clinical Medicine: Problems and Opportunities*, in JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES 249 (Daniel Kahneman et al. eds., 1982). See also David M. Eddy, *Variations in Physician Practice: The Role of Uncertainty*, HEALTH AFF., Summer 1984, at 74; 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).

The same quality measurement data that produces practice guidelines could also generate plan-wide information. Current outcomes research, for example, can uncover wide local variation in procedure use that might lead to the formulation of a practice guideline. Once the guidelines are in place, compliance could become useful as a plan quality indicator, if it is risk adjusted. See JoAnne Alter & David Holzman, *Interest in Outcomes Research Is Growing Rapidly*, in Special Report, *Putting Outcomes Research to Work*, BUS. & HEALTH, 8 (Joseph Burns ed., 1992) [hereinafter Special Report].

The National Quality Management Council was to compile these reports and consumer surveys into an annual report to Congress on plan performance and quality trends.²⁷

Section 1325, entitled Consumer Information and Marketing, set minimum content standards for the report card. Alliances were to make available “information, in an easily understood and useful form, that allows such enrollees . . . to make valid comparisons among health plans offered by the alliance.” This was to be published in an annual brochure that would have presented, in a standardized format, information required by the National Health Board, including, at a minimum, the following:

- (A) The cost of the plan, including premiums and average out-of-pocket expenses.
- (B) The characteristics and availability of health care professionals and institutions participating in the plan.
- (C) Any restrictions on access to providers and services under the plan.
- (D) A summary of the annual quality performance report . . . which contains measures of quality presented in a standard format.²⁸

B. *The Congressional Health Care Reform Bills*

All major reform bills introduced as alternatives to the Clinton plan relied on consumer-directed report cards as a major component of quality assurance. In this respect, Senator George Mitchell’s bill, introduced in August 1994, was virtually identical to Clinton’s proposal.²⁹ The bill’s Title V would have created a National Quality Council,³⁰ numerous Quality Improvement Foundations,³¹ and a National Center of Consumer Information and Advocacy.³² The National Quality Council would have established performance measures and goals³³ to be used in grading health plans for consumer report cards. The data gathering, analysis, and compilation functions at the heart of the report card system could then have been subcontracted through competitive bidding,³⁴ and the Consumer Information and Advocacy

27. HSA, *supra* note 7, § 5005.

28. *Id.* § 1325.

29. S. 2357, 103d Cong., 2d Sess. (1994) [hereinafter Mitchell Plan]. Senator Mitchell’s bill was also known as the Health Security Act.

30. *Id.* § 5001.

31. *Id.* § 5008.

32. *Id.* § 5009.

33. *Id.* §§ 5002-5003.

34. *Id.* §§ 5001(o), 5004(b), 5008(b) (establishing a subcontracting option for the creation of the Quality Improvement Foundations).

Centers would have distributed the finished product in each state. The Mitchell Plan's initial price tag for the National Quality Council, Quality Improvement Foundations, and Consumer Information and Advocacy Centers was more than \$2.4 billion over six years; all but \$24 million of that amount would have been available to subcontractors.³⁵ Another major reform proposal, introduced late in the debate by a bipartisan group of moderate Senators as an amendment to the Mitchell Plan, would have left Title V and the report card proposal intact.³⁶

Report card systems have been endorsed by both parties. Republican Senator John Chafee's plan, while eschewing some of the bureaucracy proposed in other plans, would have required state programs to prepare price, outcomes, satisfaction, and quality data for consumers.³⁷ Former Senate Minority Leader Bob Dole's plan would have required each state to develop a consumer value program that would issue a report card according to guidelines established by the Secretary of Health and Human Services. States could have subcontracted the administration of these consumer value programs to private entities.³⁸

Although Congress did not pass any of these specific bills, the reliance on report card systems as pillars of market reform and quality assurance now extends across the political spectrum. Even with both Clinton and Congress stung by the divisiveness of the health care debate, it is virtually certain that this small patch of common ground will remain when either the Administration or Congress eventually reintroduces health care reform legislation.

C. *Other Government Actors and the Private Sector*

Government agencies and the private sector are not waiting for Congress to enact comprehensive health care reform. Even if Congress never passes health care reform legislation, the report card movement will become a fixture of health care cost control and quality assurance efforts. A number of different actors are forging ahead with report card systems intended to inform consumers about quality and price.

35. *Id.* § 5010. The appropriations breakdown for 1995-2000 was to be as follows: \$24 million for the National Quality Council, \$1.2 billion for the Quality Improvement Foundations, and \$1.2 billion for the Consumer Information and Advocacy Centers.

36. The so-called Mainstream Coalition plan, introduced by Senators Chafee and Breaux focused primarily on changes in finance and coverage.

37. S. 1770, 103d Cong., 2d Sess. § 1405 (1994) [hereinafter Chafee Plan].

38. S. 2374, 103d Cong., 2d Sess. §§ 21012, 21102-03 (1994) [hereinafter Dole Plan]. Section 21102 mentions that the Secretary should consult with the National Committee for Quality Assurance, see *infra* text accompanying note 42, Joint Commission on the Accreditation of Healthcare Organizations, see *infra* text accompanying note 41, and other appropriate organizations in formulating guidelines for the report cards.

At the federal level, the Agency for Health Care Policy and Research (AHCPR), located in the Department of Public Health, announced in September 1994 that it would develop a national report card on managed care providers that would combine the results of consumer surveys, medical records reviews, and analysis of insurance claims data.³⁹ In addition, a number of state governments have already passed laws requiring the creation and dissemination of hospital report cards.⁴⁰

Private sector efforts are advancing even more rapidly. The Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) is attempting to become a major player in the report card scramble. In the fall of 1994, JCAHO launched an intensive state-level lobbying effort to encourage health departments and reform commissions to adopt its clinical-indicator monitoring and public quality data disclosure systems. In California, Florida, and Washington, JCAHO has lobbied state authorities to mandate use of its systems to satisfy new health care data reporting laws.⁴¹ In addition, JCAHO has created a new vice-presidency for government relations to oversee the lobbying effort.

The private National Committee for Quality Assurance (NCQA), originally dedicated solely to accrediting Health Maintenance Organizations (HMOs), is bidding to become the ultimate arbiter of quality data gathering, analysis, and distribution. NCQA is currently engaged in a report card pilot program with twenty major health plans and intends to release its first set of report cards rating hospitals by the end of 1994.⁴² The Committee is also combining performance measures and consumer satisfaction surveys in a report card project involving Ford, General Motors, Chrysler, the United Auto Workers, and nine Michigan HMOs.⁴³

Corporations have invested heavily in report card systems. Long concerned about the cost and quality of health benefits offered to employees, large corporations have begun to forge partnerships with managed care plans to create their own report card systems. The New England Group, which includes sixteen health plans and twenty-eight employers and is led by

39. Jonathan Gardner, *Federal Agency Set to Grade Providers*, MODERN HEALTHCARE, Sept. 19, 1994, at 3.

40. See *infra* notes 76-91 and accompanying text.

41. David Burda, *JCAHO Seeks Inclusion in State Reform Legislation*, MODERN HEALTHCARE, Sept. 12, 1994, at 17, 17-19.

42. Participating HMOs will each have paid \$100,000 for their involvement in the project. Paul J. Kenkel, *New England HMOs, Employers, Proceed with "Report Card,"* MODERN HEALTHCARE, Apr. 11, 1994, at 18.

43. *Consumer Protection and Quality Assurance Under Health Care Reform, 1994: Hearings Before the Subcomm. on Health for Families and the Uninsured of the Senate Comm. on Finance*, 103d Cong., 2d Sess. (forthcoming 1994) (statement of Margaret O'Kane, President, National Committee for Quality Assurance); Louise Kertesz, *Kaiser Releases HEDIS Information*, MODERN HEALTHCARE, July 11, 1994, at 6.

Massachusetts-based Digital Equipment Corporation and the Harvard Community Health Plan, is working with NCQA to establish such a system.⁴⁴ In an independent project that has discouraged proponents of a nationally uniform data system, Cigna HealthCare will pay Minnesota-based United HealthCare Corporation, which covers approximately twenty-three million beneficiaries in managed care plans in twenty cities, approximately three million dollars in 1994 and 1995 to produce its own report cards.⁴⁵

Xerox has emerged as a leader in the corporate report card sector. Its benefits management system, dubbed HealthLink, may become a blueprint for a privatized report card industry that would fill the void left by stalled federal legislation. Rather than commit all of its 170,000 geographically disparate employees to a single managed care plan, Xerox has contracted plan oversight to six regional "network managers," who administer numerous local managed care plans eager to enroll Xerox employees. These network managers tend to be large corporations already active in the managed care arena: US Healthcare; Prudential Insurance; Blue Cross and Blue Shield of Rochester, New York; Kaiser Permanente; and the HMO Group. As part of their administrative duties, network managers collect and distribute report card data from numerous local managed care plans. Eligible plans must provide standardized quality and satisfaction data to network managers. Xerox distributes these report cards to employees and then, in a strategy known as benchmarking, offers them financial incentives to choose the least costly plans. As a result, Xerox has had significant success in controlling its health care expenditures.⁴⁶ However, it remains to be seen whether cost or satisfaction data guide employees' choices significantly more than quality data, or even whether quality data influence such choices at all.

D. *Growth of the Report Card Industry: De Jure or De Facto Reform*

The information disclosure programs endorsed by the HSA and its various legislative descendants described the concept of a consumer-directed and information-based quality and cost control program. For the substance of such a program, consumers must await the results of work carried out by some combination of National Health Boards, National Quality Management Councils, Regional Professional Associations or Quality Improvement Foundations, Alliances, state governments, and private organizations. This

44. Kenkel, *supra* note 42, at 18.

45. Paul J. Kenkel, *United HealthCare, Cigna Mavericks on Report Cards*, MODERN HEALTHCARE, Apr. 4, 1994, at 44, 44.

46. For fifty-five HMOs contracting with one of Xerox's six network managers, the premium increase for 1994 was only 1.1%, well below the industry average. Christine Woolsey, *Employers May Copy Xerox Plan for HMOs*, BUS. INS., June 20, 1994, at 1, 1, 16.

work has already begun in earnest. Corporate benefits managers and independent network managers with corporate clients are now set to implement report card systems, whether or not Congress succeeds in passing a reform bill that legislates federal or state responsibility for the ultimate administration of information disclosure.

The private sector's financial incentives to develop effective report card systems are immense. The Mitchell Plan proposed a \$2.4 billion budget for the National Quality Council, Quality Assurance Foundations, and Consumer Advocacy Centers; much of this sum would have been used for subcontracting. The proliferation of state, corporate, and federally-funded efforts to produce report cards has created a new billion-dollar industry in health care information processing and distribution. Corporations and managed care plans, as direct providers of health care services or as network managers, may soon control the flow of health care information and thus billions of dollars in health care benefits. The AHCPR's multi-million dollar demonstration project, which is expected to produce its first comprehensive report card within four years, is awarding initial six month contracts for the design of the consumer survey phase of the program. JCAHO and NCQA are each busily promoting their own report card systems. Given their investment in data systems, each of these various private actors has a significant interest in the adoption of their benchmarks and format as the national standard.

E. The Goals of Information Disclosure in Health Care

Without exception, policymakers have embraced consumer-directed information disclosure as the key to their quality assurance proposals.⁴⁷ Disclosure works to equalize the bargaining relationship between individual consumers and providers so as to minimize noncompetitive bargaining. Informational equality prevents inefficiencies that usually take the form of noncompetitive pricing. For this reason, disclosure supporters argue that informing consumers will preclude the need for extensive direct price regulation.⁴⁸ Disclosure can also serve consumer protection goals by enhancing product quality. In effect, requiring disclosure of important product or service characteristics discourages producers from cutting quality corners; producers that cut corners are likely to lose market share because informed

47. Information disclosure is a device aimed at both market protection and consumer protection. In general economic terms, disclosure is aimed at correcting informational asymmetries between producers and purchasers that can lead to market failure.

48. See Howard Beales et al., *The Efficient Regulation of Consumer Information*, 24 J.L. & ECON. 491, 501-509 (1981) (discussing in classical economic terms market failures that occur in the production of information); Griffith L. Garwood et al., *Consumer Disclosure in the 1990s*, 9 GA. ST. U. L. REV. 777, 779-81 (1993).

consumers will recognize the quality gap between different products and change their purchasing behavior accordingly.⁴⁹

In the health care context, a policy of consumer-directed information disclosure may have several specific goals. First, disclosure may be considered an end in its own right. Consumers, it is argued, have a right to know about their health care providers ahead of time. Accordingly, disclosure programs are justified whether or not consumers use the information generated. A second possible goal, and one that is a particular focus of the Clinton administration, as well as numerous legislators and corporate benefits managers, is cost containment. Aided by the kinds of information provided by report cards, knowledgeable consumer decision making will foster price competition among plans, thus holding down overall costs by rewarding low cost plans with their business. A third goal is quality improvement. By disclosing quality data, report cards may threaten the market share of low quality plans and thus stimulate quality improvements. In order to attract new subscribers, plans will have to modify their delivery of care to score well against the quality benchmarks established for the report cards.

Report cards advance these policy goals with varying degrees of success. Disclosure for disclosure's sake is self-validating, although a simpler format might achieve this limited goal as effectively as would a report card. Price disclosure may foster cost containment, but there is little evidence to support that conclusion. At the very least, third-party insurance or employer-based subsidies insulate most consumers against true price sensitivity, and national report card programs will themselves be prohibitively expensive. The third policy goal—quality assurance—may be the one to which report cards are least suited. Given the limited state of the art in the science of quality measurement, it is unclear whether disclosed information accurately reflects quality health care delivery. These limits, coupled with uncertainty over how consumers integrate this information into their health care choices, make the impact of comprehensive disclosure on quality unknown at best, and illusory or counterproductive at worst. To the extent that price information sways consumers more than does quality data, quality assurance suffers. To the extent

49. Information disclosure has become an increasingly important component of the federal government's contribution to consumer protection. Until recently, such regulation focused primarily on mandatory disclosure of health risks. Government agencies and statutes require risk labeling for tobacco products, 15 U.S.C. §§ 1331-1334 (1993); pharmaceuticals, 21 U.S.C. §§ 351-360ee (1993); asbestos, pesticides, and other toxins, 15 U.S.C. §§ 2601-2655 (1993); and saccharin products, 21 U.S.C. § 343(o) (1993). Furthermore, under the Emergency Planning and Community Right to Know Act of 1986, companies must report the health effects of toxic chemical storage and release. 42 U.S.C. §§ 9601-9622 (1993).

Information disclosure has moved beyond risk warnings and is now an important part, or even the primary purpose, of a number of federal laws. For instance, the Truth in Savings Act requires banks to release standardized financial data to patrons, 12 U.S.C. §§ 4301-4313 (1993), and the Fair Credit and Charge Card Disclosure Act of 1988 mandates standardized credit term disclosure, 15 U.S.C. §§ 1610, 1632, 1637, 1640, 1646 (1993).

that satisfaction and quality data are not interchangeable and the former more persuasively guide consumer choice, report cards will again fail to achieve quality assurance.

F. *Conclusion*

Through the formulation of national quality measures and the dissemination of performance data to consumers, policymakers hope to create a market in which health care providers compete in terms of price and quality, thus assuring quality and containing costs. To achieve this vision, most legislative drafts propose a dizzying array of boards, councils, and foundations to marshal the numerous players into producing a large quantity of data. The private sector has already embraced the promise of report cards and has thus created a growth industry in health care information processing. Whether through public mandate or the promise of private reward, a faith in report cards is developing.

However, the collection of data is only a first step. Translating raw data into manageable and comprehensible information that consumers will actually use to make discriminating quality decisions is a far harder task. Neither policymakers nor the national boards and regional agencies they would create are yet capable of taking that second step. Parts II and III of this Note explain why.

II. The Current State of the Art in Quality Measurement Programs

Existing report card proposals promise more than they can deliver. The undeveloped science of quality measurement; the high costs of data gathering, compilation, and dissemination; and uncertainty about how consumers respond to disclosed information undermine the quality assurance objectives of report card systems. Congressional reform and private sector initiatives must account for these various limitations.

First, the science of quality management is still in its infancy, “making it unlikely that it could be applied on a national scale any time soon.”⁵⁰ The crude tools now available—mortality rates, vaccination rates, numbers of procedures performed, data on malpractice actions brought or settled—are not sufficient to inform consumer choice fully. Administration officials admit that development of quality measurement techniques could take ten years.⁵¹ Others

50. Barry Meier, *Health Plans Promise Choice But Decisions May Be Hard*, N.Y. TIMES, Mar. 31, 1994, at A1, B8. Meier notes the following assessment by David Eddy, an expert in quality research who helped to draft the quality provisions of the HSA: “[A]nyone who believes that we have all the measures we need right now is kidding themselves.” *Id.*

51. *Id.*

view even that estimate as outrageously optimistic.⁵² It is simply unrealistic to take the few quality related indicators now available; standardize them nationally and regionally for case mix, severity of illness, demographics, patient load, and a host of other barely-recognized risk adjustment factors; and produce a report card grade that has any meaningful relationship to the quality of care delivered. Simply identifying useful quality indicators is a monumental task.⁵³

Second, the costs of implementing report card proposals could be prohibitive. In addition to the direct costs of creating various bureaucracies, such as the National Health Board, the National Quality Management Council, and the regional foundations proposed in several of the reform plans, substantial indirect costs for data gathering will fall squarely on plans and providers. The price tag for producing the report cards nationally may be several billion dollars.⁵⁴

Third, most health care institutions are not equipped to produce the kinds of data required for a report card. Electronic information systems, which were crucial components of the massive data gathering proposal advanced in the Clinton Plan, have only recently arrived in large hospitals. Most such systems are oriented more toward billing than clinical care, and efforts to refocus these databases on clinical care and quality measurement are still in the experimental stage. Thus far, the most comprehensive development has been the trial of the Integrated Inpatient Management Model at the University of Michigan Hospital. This ambitious clinical information system, covering two internal medicine wards, combined computerized resource use and procedure tracking with non-punitive feedback to aid providers in identifying and managing resource-intensive patients. Though promising, this small trial represents only a starting point for the development of process-oriented quality management data systems.⁵⁵

Moreover, clinical information systems remain hospital based. They have not yet focused on non-institutional outpatient settings, where the vast majority of routine health care takes place. Some large provider networks are preparing

52. *Id.*

53. See Phillip Caper, *Defining Quality in Medical Care*, HEALTH AFF., Spring 1988, 49, 51 (setting quality standards is currently an ad hoc process); David Eddy & John Billings, *The Quality of Medical Evidence: Implications for Quality of Care*, HEALTH AFF., Spring 1988, at 19, 20 (development of reliable standards requires better data and greater ability to analyze than are presently available); Kathleen N. Lohr et al., *Current Issues in Quality of Care*, HEALTH AFF., Spring 1988, at 5, 6 (defining quality remains a major challenge).

54. Rhonda Bergman, *Report Cards Will Be Used To Measure the Performance of Health Plans: How Might They Work?*, HOSPITALS, Oct. 20, 1994, at 70 (estimate by Dr. Robert Brook, head of health sciences program at RAND Corporation).

55. See Frederick A. Creighton et al., *An Integrated Inpatient Management Model*, HEALTH CARE MGMT. REV., Winter 1990, at 61; Lawrence F. McMahon et al., *The Integrated Inpatient Management Model: A New Approach to Clinical Practices*, 111 ANNALS OF INTERNAL MED. 318 (1989).

for this task with substantial investment in computerized patient information systems. Kaiser Permanente, the nation's largest HMO, recently announced a one billion dollar, decade-long initiative to computerize patient records and track medical procedures.⁵⁶

Finally, more information in the form of raw data, statistics, and rates may not lead to quality-based decision-making on the part of consumers. It is currently unclear how well measurable factors reflect the quality of care. Moreover, cognitive biases suggest that data may be de-emphasized, overemphasized, or ignored.⁵⁷

The health reform movement has spurred an intense interest in quality assurance programs over the last several years. In addition to the private investment in quality assurance programs occurring in hospitals and large health plans, the federal Agency for Health Care Policy and Research has increased its budget for health care outcomes projects from \$3.6 million in 1989 to \$42.6 million in 1993.⁵⁸ So far, however, the "quality report card" movement has done little more than establish quality measurement as an essential element of health care delivery.

A. *Quality Measurement in Health Care: Satisfaction, Process, and Outcomes*

A discussion of some current quality measurement programs, with a special focus on a statewide report card program, highlights the practical measurement, cost, and consumer processing problems that fledgling health care information disclosure strategies will inevitably encounter. These efforts reflect the promise and limitations of current quality measurement. Familiar marketing tools like consumer surveys are becoming increasingly important, but meaningful quality measurement will depend on the further development of techniques such as process and outcomes measurement.

1. *Surveys and Satisfaction*

Consumer surveys play an important role in health plan management, but their relationship to quality measurement remains ill-defined. Patient responses to the care received certainly reflect satisfaction, but measure quality only indirectly. Dissatisfaction can result from unhappiness with a diagnosis or from a disability, rather than from substandard delivery of care. Inconvenience also plays a role; in one survey an important independent variable in predicting

56. Meier, *supra* note 50, at B8.

57. See *infra* parts III.A-B.

58. Joe Burns, *Higher Quality Means Lower Costs*, in Special Report, *supra* note 26, at 5. "Outcomes projects" or "outcomes research" measures what happens to patients as a result of the treatments they receive.

patient satisfaction in outpatient settings was time spent in the waiting room.⁵⁹ The ease with which patients can make appointments, and the behavior of receptionists, are both important determinants of satisfaction.⁶⁰ A recent research summary concluded that a consumer's choice of provider correlates more closely with judgments based on intuition, tradition, convenience, and word-of-mouth reputation than with objective measures of performance.⁶¹ One marketing study found that the yellow pages ranked just below friends as the most valuable source of information for consumers in search of a physician.⁶²

The marketing approach to measuring quality through surveys is based on a relative definition of quality. Disparity or gap analysis measures the difference between initial expectations about the service provided—formed from past experience, word of mouth, and advertising—and consumer perceptions once service delivery is complete. Rather than representing an objective assessment, “quality” is defined as a measure of how well care meets or exceeds preconceived expectations.⁶³

However, surveys do serve some important purposes. Improved patient satisfaction can reduce patient alienation from the provider, improve communication between care-giver and patient, and lay the groundwork for a meaningful doctor-patient relationship. From a managerial perspective, surveys are certainly useful. By identifying aspects of care delivery that consumers value, executives can better market their institutions.⁶⁴

59. John C. Mowen et al., *Waiting in the Emergency Room: How to Improve Patient Satisfaction*, J. HEALTH CARE MARKETING, June 1993, at 26.

60. Bernard R. Kingsley & Dennis N. Hodges, *Economic Benefits of Practice Enhancement*, J. HEALTH CARE MARKETING, Dec. 1988, at 67, 67-69.

61. Robert J. Panzer & Carol Cronin, *Using Information in Quality Improvement and Quality Assurance*, in PUTTING RESEARCH TO WORK IN QUALITY IMPROVEMENT AND QUALITY ASSURANCE, AGENCY FOR HEALTH CARE POLICY AND RESEARCH, U.S. DEPT. OF HEALTH & HUMAN SERVS., PUB. NO. 93-0034 (1993). Individual information-seeking behavior about specific illnesses also tends to come from a variety of subjective sources. See, e.g., J. David Johnson & Hendrika Meischke, *Cancer Information: Women's Source and Content Preferences*, J. HEALTH CARE MARKETING, Mar. 1991, at 37 (individuals receive information on cancer and other health-related issues from range of sources, including friends and relatives, physicians, cancer-related organizations (telephone hotlines), and media; interpersonal sources are influential because they provide information and social support); Mark Peyrot et al., *Consumer Satisfaction and Perceived Quality of Outpatient Health Services*, J. HEALTH CARE MARKETING, Jan. 1993, at 24 (finding significant correlation between perceptions of staff behavior, atmosphere, and examination comfort with increased consumer satisfaction and willingness to recommend provider).

62. Cathy J. Cobb-Walgren & Pratibha A. Dabholkar, *The Value of Physician Advertising in the Yellow Pages: Does the Doctor Know Best?*, J. HEALTH CARE MARKETING, Mar. 1992, at 55, 55-57. Cobb-Walgren and Dabholkar note that 28% of the twenty million adults in the continental United States who arrange to use a physician's services for themselves or other family members through the yellow pages are first time patients who do not have a specific doctor in mind when they open the directory. *Id.*

63. See generally Thomas W. Whipple & Vicki L. Edick, *Continuous Quality Improvement of Emergency Services*, J. HEALTH CARE MARKETING, Dec. 1993, at 26.

64. *Id.* Whipple and Edick describe how inpatient and outpatient satisfaction surveys were used in a multi-institutional emergency department chain to develop detailed plans for service improvement, appraise performance, recognize personnel, and differentiate services in a competitive market. *Id.*

Though complementary, satisfaction and quality are not synonymous in the health care context. Measures of one cannot substitute as evidence of the other. Satisfaction is but one dimension in the definition of quality care; others include appropriateness (relevance of care provided to clinical needs, given current knowledge), availability, continuity (coordination of care among providers and organizations), effectiveness, efficacy, efficiency, safety, and timeliness.⁶⁵

2. *Process*

Analysis of quality measurement in the service sector is a relatively new concept. The most significant step in developing quantitative measures of service quality was the introduction of the SERVQUAL system by Parasuraman, Zeithaml, and Berry in 1986. SERVQUAL was specifically designed to measure customer perceptions of service quality. It groups the determinants of service quality into five areas: tangibles (physical facility attributes, appearance of personnel), reliability, responsiveness, assurance (which encompasses aspects of communication, credibility, security, competence, and courtesy), and empathy (which includes both access to, and understanding of the customer).⁶⁶

This focus on the process of providing service rather than on measuring specific outcomes has only recently been applied to health care. Early findings suggest that reliability is the most valued attribute, while tangible aspects of service delivery, such as the office decor, rank lowest. In determining service quality, patients, unlike physicians, tend to place more weight on communication skills and less on technical competence.⁶⁷ The literature is inconsistent with respect to the importance patients place on common proxies for technical quality, such as years in practice, school attended, board certification, and membership in professional associations. Some authors suggest that such factors have a limited impact on consumer perceptions,⁶⁸

65. *Id.*

66. A. Parasuraman et al., *SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality*, J. RETAILING, Spring 1988, at 12, 23; A. Parasuraman et al., *A Conceptual Model of Service Quality and Its Implications for Future Research*, J. MARKETING, Fall 1985, at 41, 41-50.

67. Joby John, *Improving Quality Through Patient-Provider Communication*, J. HEALTH CARE MARKETING, Dec. 1991, at 51, 58 (finding that patients' perception of high quality care depended directly on amount of communication between staff and patient regarding nature of diagnosis and treatment; physicians tended to rate quality based on technical competence of service provision); Stephanie W. Walbridge & Linda M. Delene, *Measuring Physician Attitudes of Service Quality*, J. HEALTH CARE MARKETING, Jan. 1993, at 6 (concluding that traditional ranking of SERVQUAL categories derived from other service industries may not apply to health care).

68. Kenneth D. Bopp, *How Patients Evaluate the Quality of Ambulatory Medical Encounters: A Marketing Perspective*, J. HEALTH CARE MARKETING, Mar. 1990, at 6, 6.

whereas others argue that consumers do value these attributes.⁶⁹ The entire field of process measurement in health care remains in its infancy, and it is unclear what conclusions we should draw from its early contributions to quality assurance.

Understanding consumers' assessment of hospital quality is as important as fully comprehending their reasons for choosing a physician. Initial studies found that tertiary care level and size were the most important factors positively related to perceptions of hospital quality. Follow-up work indicates that many of the "process" factors that seem important in generating satisfaction with individual providers also apply to the hospital setting; "patient relations, medical staff, nursing staff, convenience, and technology" are identified as factors in communicating a level of quality to consumers.⁷⁰

3. *Outcomes*

Researchers in the field recognize that meaningful health care quality measurement requires the development of new tools. Coupled with a process of care analysis like SERVQUAL, outcomes research, which measures what happens to patients as the result of the treatments they receive, is one of the most important of these instruments. A variety of players in the health care field have begun to implement outcomes research projects. The federal Agency for Health Care Policy and Research is the largest sponsor of these projects, which include Patient Outcomes Research Teams (PORTs) to support large scale investigations of treatments for common medical problems such as lower back pain, diabetes, and stroke.

A joint project by the RAND Corporation and InterStudy, a nonprofit health policy research organization, has produced the Outcomes Management System (OMS). This computerized database combines data about patient characteristics such as age, sex, and race; risk factors such as tobacco and alcohol use and cholesterol levels; pre-existing health conditions; and patient satisfaction with the results of a thirty-nine question health status questionnaire

69. Anthony R. Kovner & Helen L. Smits, *Point of View: Consumer Expectations of Ambulatory Care*, HEALTH CARE MGMT. REV., Winter 1978, at 69, 71. In the specific area of breast implantation, one study found that board certification was an "important symbol in establishing credibility in advance of personal experience with the service provider." Emin Babakus et al., *Issues in the Practice of Cosmetic Surgery: Consumers' Use of Information and Perceptions of Service Quality*, J. HEALTH CARE MARKETING, Sept. 1991, at 12, 17. One set of authors has demonstrated that the importance of process measures of quality depends on whether there was a successful treatment outcome. See Richard S. Lytle & Michael P. Mokwa, *Evaluating Health Care Quality: The Moderating Role of Outcomes*, J. HEALTH CARE MARKETING, Mar. 1992, at 4, 4 (concluding after study of fertility clinic that process measures were not important to consumer quality perception upon successful outcome, but were significant upon unsuccessful outcome).

70. JOSEPH A. BOSCARINO, HOSP. & HEALTH SERVS. ADMIN., THE PUBLIC'S PERCEPTION OF QUALITY HOSPITALS II: IMPLICATIONS FOR PATIENT SURVEYS 13-31 (1992).

that attempts to measure quality of life. This survey asks questions about daily activities and the impact of health status on abilities to walk, work, and participate in social activities.⁷¹ Medical centers around the country are currently developing disease-specific quality of life questionnaires for the Technology of Patient Experience (TyPE) project, which adds clinical and laboratory data, symptomatic reporting, and treatment information to the OMS approach for conditions such as asthma, cataracts, diabetes, and prostatism.⁷²

Connecticut hospitals launched the Towards Excellence in Care program in 1988 to apply the Connecticut Health Information Management Exchange (CHIME) database to the development of outcomes data. The CHIME database contains discharge abstract information and billing information for all of Connecticut's thirty-four acute care hospitals. The Towards Excellence in Care program produces reports on care for particular diagnoses. For example, the report series on cholecystectomy (gall bladder removal) compares technical complications, total complications, and long postoperative stays at individual hospitals with the state mean. Reports are reviewed by physician panels and directed toward hospital medical departments and quality assurance staff rather than the public.⁷³

4. Risk Adjustment

The measurement of clinical outcomes as part of a larger effort to reach general conclusions about quality must incorporate the daunting process of risk adjustment. While the pitfalls of risk adjustment under the Clinton Plan, or any reform proposal, are beyond the scope of this paper, some general observations suffice to outline the challenge. Individual patients are different in so many ways that establishing a reference group is often problematic. Also, the presence of several illnesses in the same individual, called comorbidity, can significantly affect the outcome measurement of the primary disease. The interdependence of diagnoses is particularly important in elderly populations. Quality measures must account for these confounding factors.

71. The Outcomes Management System is described in Alter & Holzman, *supra* note 26, at 10-11. The RAND Health Status Survey is described in HEALTH OUTCOMES INST., OUTCOMES MEASUREMENT INSTRUMENTATION 1, 1-3 (1993).

72. HEALTH OUTCOMES INST., *supra* note 71, at 1-3.

73. John T. Lynch et al., *The "Towards Excellence in Care" Program: A Statewide Indicator Project*, 19 J. QUALITY IMPROVEMENT 519, 519-29 (1993).

5. *Challenges in Quality Measurement*

Other challenges abound in the quality research arena. Databases are incomplete and often incompatible with other systems.⁷⁴ Outcomes projects are labor intensive for both patient and provider, and the results obtained about different treatments are not usually products of randomized trials. Perhaps the greatest challenge in quality research is cost. One consultant estimated initial costs for an outcomes program measuring a modest number of variables to be \$350,000 to \$550,000 over the first two years with ongoing costs of \$100,000 to \$250,000 per year.⁷⁵

B. *The Pennsylvania Report Card Program*

The most ambitious and controversial attempt to combine advances in health care quality measurement with consumer-directed information disclosure is taking place in Pennsylvania. In 1986, the General Assembly created the Health Care Cost Containment Council to collect and publish cost and quality data from hospitals.⁷⁶ The Clintons, in fact, referred to this agency as the model for their proposed quality program.⁷⁷ The state legislature directed the Council to collect charge, payment, and financial data, as well as readmission, mortality, morbidity, and infection rates, until more scientific quality and outcomes measures were developed. The Council published its first series of *Hospital Effectiveness Reports* in 1990, and new data are compiled annually.⁷⁸ Hospitals are invited to comment on any aspect of the report; the Council publishes their responses separately.⁷⁹

The most recent report, covering 1991 data, was released on February 3, 1994. It discloses the number of patients treated within fifty-three Diagnosis Related Groups (DRGs) at each hospital. Within each DRG, the report presents

74. Many hospitals, for instance, computerize only their inpatient care data, leaving outpatient clinic or ambulatory surgery information unrecorded.

75. Dale Shaller, senior consultant to the employers participating in the Cleveland Health Quality Choice program, provides these estimates. *Employers Get Involved in Outcomes Research*, in Special Report, *supra* note 26, at 26, 27.

76. Health Care Cost Containment Act, PA. STAT. ANN. tit. 35, §§ 449.1-449.19 (1993); administrative regulations found at 28 PA. CODE § VI (1993).

77. *The Clinton Health Care Proposal: Hearings Before the House Comm. on Ways and Means*, 103d Cong., 1st Sess. (1993) (remarks by First Lady Hillary Rodham Clinton urging Pennsylvania Cost Containment Council as model); *The Clinton Health Care Plan: Hearings Before the Senate Comm. on Labor and Human Resources*, 103d Cong., 1st Sess. (1993) (remarks by First Lady Hillary Rodham Clinton).

78. PENNSYLVANIA HEALTH CARE COST CONTAINMENT COUNCIL, HOSPITAL EFFECTIVENESS REPORT 1989:1 (1990). *See also* PA. STAT. ANN. tit. 35, §§ 449.7(a)(1)(iii), 449.5(d)(4) (1993) (data dissemination and publication); PA. STAT. ANN. tit. 28, §§ 911.1-911.6 (1993) (data submission and collection); PA. STAT. ANN. tit. 28, §§ 912.1-912.81 (1993) (data reporting requirements).

79. *See* PENNSYLVANIA HEALTH CARE COST CONTAINMENT COUNCIL, FORMAL COMMENTS: HOSPITAL EFFECTIVENESS REPORT FOR REGION 9 (1993) [hereinafter FORMAL COMMENTS].

the average admission severity score, the percentage of patients age sixty-five and over, the death rates and major morbidity rates as compared to expected values from statistical models, average length of stay, and average charge at each hospital. The report also includes summary statistics for each hospital that combine all the information across DRGs and present average charges adjusted for case mix. Case mix adjustment raises or lowers the average charge based on the number of patients treated within more costly DRGs.⁸⁰

The Council has recently begun to publish a separate report series: *A Consumer Guide to Coronary Artery Bypass Graft Surgery*. These pamphlets disclose physician specific as well as hospital based data from 1990 and 1991. The 1990 report identified 14 out of the 170 surgeons and 7 out of the 34 hospitals as having more patient deaths than expected. The average charge for the operation ranged from \$83,851 at Graduate Hospital to \$21,063 at Reading Hospital in 1990.⁸¹ The report on 1991 data, which was significantly delayed by budget cutbacks, identified 6 of 176 surgeons and 0 of 35 hospitals with more patient deaths than expected. The average charge for a bypass operation varied from \$89,236 at Graduate Hospital to \$23,205 at Reading.⁸² The Council does not disclose physician specific charges.

Critics charge that the statistically modeled risk adjustment is grossly inadequate,⁸³ and that mortality rates are a poor proxy for quality.⁸⁴ Some

80. See generally PENNSYLVANIA HEALTH CARE COST CONTAINMENT COUNCIL, HOSPITAL EFFECTIVENESS REPORT (1993) [hereinafter HOSPITAL EFFECTIVENESS REPORT]; Stacey Burling, *PA Rates Hospitals' Effectiveness*, PHILA. INQUIRER, Oct. 14, 1993, at B1.

81. Marc Kaufman, *Health Panel's Report Compares Heart Surgeons' Patient Deaths*, PHILA. INQUIRER, Nov. 20, 1992, at A1 (reporting that the release of the heart bypass report was prompted by high interest, high risk, and high cost); David Zinman, *Keeping Score: The New Trend Toward Evaluating Medical Care*, 7 AM. HEALTH 56, 60-62 (1993).

Hillary Rodham Clinton exaggerated the power of the Council reports to comprehensively measure quality when she testified before the House Ways and Means Committee that there were no quality differences between Graduate and Reading Hospitals despite the cost discrepancy. *The Clinton Health Care Proposal: Hearings on H.R. 3600 Before the House Ways and Means Comm.*, 103d Cong., 1st Sess. 20 (1993) (testimony of First Lady Hillary Rodham Clinton).

82. PENNSYLVANIA HEALTH CARE COST CONTAINMENT COUNCIL, 2A CONSUMER GUIDE TO CORONARY ARTERY BYPASS GRAFT SURGERY 23 (1991) [hereinafter CONSUMER GUIDE TO BYPASS GRAFT SURGERY].

83. See Mark S. Blumberg, *Biased Estimates of Expected Acute Myocardial Infarction Mortality Using MedisGroup's Admission Severity Groups*, 265 JAMA 2965 (1991) (criticizing the "admission severity group" risk adjustment process under the Council-mandated Medical Illness Severity Grouping System (MedisGroup) for heart attacks; finding that estimated death rates were biased for age, location of the heart damage, history of heart failure, blood levels of potassium and urea, pulse rate, and blood pressure, and neglected many other risk factors); Burling, *supra* note 80, at B1 (reporting dissatisfaction within the Pennsylvania hospital industry with the MedisGroup risk-adjustment system; giving the example that the rates are not adjusted for mortality due to patient-directed DNR ("Do Not Resuscitate") orders); Kristin E. Holmes, *Health-Care Report: Hospitals Beg to Differ*, PHILA. INQUIRER, June 6, 1991, at H3 (reporting that proximity to a nursing home—which is not included in the risk adjustment formula—may increase the severity of the patient mix at an individual hospital); Kaufman, *supra* note 81, at A1 (reporting the release of physician-specific mortality rates for coronary artery bypass operations and charges from the medical community of inadequate risk and severity adjustment); Wilbur B. Pittinger, *Comparing Hospital Costs Not Simple*, PHILA. INQUIRER, Oct. 12, 1993, at A10; Letter from Wilbur B. Pittinger, Executive Director, Hospital of the University of Pennsylvania, to

fear that emphasis on mortality rates, coupled with insufficient risk adjustment for illness severity, will prompt hospitals to avoid accepting the sickest patients.⁸⁵ One recent refinement in the 1991 *Hospital Effectiveness Report* has been separate reporting for cancer and non-cancer patients within DRGs where cancer is a common underlying condition.

Other critics complain that the average cost data is misleading; the Council does not correct for location specific property values, wage rates, teaching costs, or charge differences attributable to interest on debt incurred for renovation and modernization.⁸⁶ More importantly, the cost charged does not reflect the actual payment received. For example, Graduate Hospital received an average of \$23,974 of its \$83,851 charge, and Reading Hospital collected \$18,221 from its \$21,063 charge.⁸⁷ The hospitals also complain about the roughly \$150,000 per year cost of mandated participation. They contend that

Ernest J. Sessa, Executive Director, Pennsylvania Health Care Cost Containment Council (Sept. 3, 1993), in FORMAL COMMENTS, *supra* note 79, at § E (arguing that effectiveness reports are poor consumer guides to quality because the risk adjustment process for patient severity underestimates the complexity of cases at academic teaching hospitals relative to community hospitals and because mortality rates do not account for DNR orders); Letter from Robert B. Kimmel, Senior Vice President, Albert Einstein Health Care Network, to Ernest J. Sessa, Executive Director, Pennsylvania Health Care Cost Containment Council (Sept. 13, 1993), in FORMAL COMMENTS, *supra* note 79, at § A (pointing out that MedisGroup mortality predictions are skewed by the exclusion of DNR orders and refusals of treatment).

The FORMAL COMMENTS, *supra* note 79, are filled with criticism of the MedisGroup risk adjustment and severity scoring system. One surgical group complained that full cardiac arrest immediately prior to a CABG operation with CPR continuing until the incision received only a 2.5 out of 4 on the severity scale. See Letter from Dr. George J. Magovern, Cardio-Thoracic Surgical Associates, Inc., to Ernest J. Sessa, Executive Director, Pennsylvania Health Care Cost Containment Council (Jan. 18, 1994), in PENNSYLVANIA HEALTH CARE COST CONTAINMENT COUNCIL, 2 CORONARY ARTERY BYPASS GRAFT SURGERY: HOSPITAL AND PHYSICIAN COMMENTS (1994).

In response to these criticisms, the Council increased the number of risk adjustment factors it used to predict patient mortality in CONSUMER GUIDE TO BYPASS GRAFT SURGERY, *supra* note 82, covering 1991 data. It now adjusts for age, gender, previous bypass surgery, shock, congestive heart failure, renal dialysis, renal failure, recent heart attack, and diabetes, in addition to the MedisGroup severity index for vital organ failure. *Id.* at 6-7.

84. See generally Stephen F. Jencks, *Quality Assurance*, 263 JAMA 2679 (1990) (summarizing studies that suggest sensitivity and specificity of mortality rates as proxy for quality depends largely on risk adjustment process).

85. Kaufman, *supra* note 81, at A1 (quoting opinion of the director of the Hospital of University of Pennsylvania's quality assurance program: "It's going to be very difficult to sustain our role in the community [of taking any patient, no matter how sick] if there is extensive pressure to get our rates down.").

86. Holmes, *supra* note 83, at H3; Ralph Vigoda & Stacey Burling, *Report on Costs: The Hospitals Beg to Differ*, PHILA. INQUIRER, June 6, 1991, at M3 (quoting Ellen Mattes, public relations manager for Bryn Mawr Hospital).

87. Dana Priest, *Hospital Bills Can Prove Hollow Basis for Comparison of Health Care Costs*, WASH. POST, Oct. 13, 1993, at A6; Letter from Samuel H. Steinberg, President and Chief Executive Officer of Graduate Hospital, to Ernest J. Sessa, Executive Director, Pennsylvania Health Care Cost Containment Council (Sept. 8, 1993), in FORMAL COMMENTS, *supra* note 79, at § C (stating that received percentage of the actual charge varied from 17.4% to 38.2% for fourteen of the most common DRGs).

the total cost to the state's hospitals for compliance with the various Council studies has been \$28 million to date.⁸⁸

In what may be its most important task in the next few years, the Council has begun to study how, or indeed whether, consumers have used the published reports.⁸⁹ One anecdotal report reveals the complexity of consumer response. A patient told the president of a low cost hospital that she was switching to another institution because she thought "she could get better care at a place that charged more."⁹⁰ The results from an earlier project are also instructive. After the Health Care Financing Administration's publication of hospital mortality rates in 1987, one study found that the "death list" had no discernible behavioral effects on consumer choice of hospital.⁹¹

C. Other Experiments with Report Card Systems

In addition to the Pennsylvania program, several other demonstration projects are experimenting with the report card format. As previously mentioned, private agencies, managed care plans, and major corporations have created a new industry in health care information processing by embracing report cards. A number of major managed care plans are using NCQA's employer-sponsored Health Plan Employer Data and Information Set (HEDIS), which compiles technical, access, satisfaction, utilization, and plan management data into a performance report, to compare individual plan performance against benchmarks.

The initial versions of most HEDIS-based report cards compare plan-specific rates in several categories with either comparable plans, the national average, or goals established by the Department of Health and Human Services' *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. These categories may include: preventive services such as childhood immunization, cholesterol screening, mammography screening, and cervical cancer screening rates; prenatal care indices including the percentage of low birth weight babies and the incidence of early prenatal care; data on specific chronic diseases such as hospitalization rates for asthma patients; access indicators reflecting the ease of making an appointment; and

88. Melissa Dribben & Stacey Burling, *Hospitals Contest Report's Diagnosis*, PHILA. INQUIRER, Sept. 2, 1990, at H4; Priest, *supra* note 87, at A6. The president of the Delaware Valley Hospital Council also estimated that it cost its sixty member hospitals about ten million dollars to install computer systems for reporting data to the Council. See Wanda Motley, *Hospital Study is Criticized as Narrow, Shallow*, PHILA. INQUIRER, Aug. 30, 1990, at H27.

89. Meier, *supra* note 50, at B8.

90. Vigoda & Burling, *supra* note 86, at M3.

91. Bruce Vladeck et al., *Consumers and Hospitals: The HCFA "Death List,"* HEALTH AFF., Spring 1988, at 122, 122-25.

general patient satisfaction rates.⁹² But even NCQA's vice president of planning and development admits: "We don't know yet how good these performance measures are."⁹³ The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) also plans to publish a summary of hospital compliance with fifty areas of accreditation standards and has recently developed its own quality database to compete with HEDIS.⁹⁴

Self-help quality assessment is also available. On-line services like CompuServe offer a number of health care related forums that allow users to request information. Subscribers can obtain data on specific diagnoses and treatments or request opinions about hospitals and providers from other members.⁹⁵ Magazines like *Consumer Reports*, *New York*, and *U.S. News & World Report* now publish lists ranking regional hospitals, plans, and doctors.⁹⁶ Capitalizing on a recent flurry of report card disclosures in St. Louis, a specialty magazine called *Health Pages* now compiles and explains comparative performance data on local managed care organizations.⁹⁷

D. Conclusion

This snapshot of the current state of health care quality measurement shows that policymakers want to write the book on quality before learning its language. The effort to develop analytical systems that accurately measure quality of care has just begun in earnest. The initial stages of this research must be completed before a massive disclosure campaign is put in place. The multi-billion dollar price tag of a national report card program urges caution in mandating disclosure until health care quality can be accurately measured. Once quality measures are available, then consumer responses to disclosure must be further examined before the report cards can earn a passing grade. The insights of cognitive psychologists into information processing, information overload, and consumer behavior, added to the lessons learned from nutrition labeling and truth in lending laws, begin that exploration.

92. Paul J. Kenkel, *Health Plans Face Pressure to Find "Report Card" Criteria That Will Make the Grade*, MODERN HEALTHCARE, Jan. 10, 1994, at 41.

93. *Id.*

94. See Donald L. Zimmerman, *Grading the Graders: Using "Report Cards" to Enhance the Quality of Care Under Health Care Reform*, NATIONAL HEALTH POLICY FORUM, ISSUE BRIEF NO. 642 (1994).

95. Cathryn Conroy, *Care Takers*, COMPUSERVE MAG., Feb. 1994, at 10.

96. See, e.g., Doug Podolsky, *America's Best Hospitals*, U.S. NEWS & WORLD REP., June 15, 1992, at 60 (ranking hospitals nationwide based on physician surveys).

97. Kenkel, *supra* note 92, at 41.

III. Cognitive Psychology, Information Processing, and Disclosure Strategies: Lessons from Nutrition Labeling and Truth in Lending

The identification of useful health care quality indicators would hardly give a report card system instant credibility as a quality assurance tool. Consumers must use the data in ways that reward quality care. At some level, increased disclosure becomes too complex for consumers to assimilate within a reasonable search time, too expensive for providers, and too extensive to regulate effectively.⁹⁸ A key step is to identify elements of disclosure that are meaningful in the decision-making process and that are not too complex or cumbersome for a system to provide. Simplifications of disclosure schemes, such as the revision of the Truth In Lending Act (TILA) in the 1970s that culminated in the Truth In Lending Simplification and Reform Act (TILSRA), embody this search for a balance between the utility and magnitude of disclosure. This Note examines the work of cognitive psychologists and marketing researchers, as well as two specific programs of consumer directed information disclosure: nutrition labeling under the Nutrition Labeling and Education Act (NLEA),⁹⁹ and disclosure of credit terms under the Truth In Lending Act (TILA).¹⁰⁰

A. *Heuristics, Biases, and Information Overload*

The increasing complexity of everyday life and the birth of the information age have spawned a feverish interest in how people process information. One commentator has noted that research and debate within decision-making theory and cognitive psychology produce over 250 new articles every month.¹⁰¹ But the study of how we internalize, comprehend, and act upon data is not new. In the 1950s and 1960s, pioneers such as Paul Meehl, Ward Edwards, Herbert Simon, and Jerome Bruner began to explore cognitive processes, and thereby uncovered fascinating and sometimes unsettling patterns in the ways that we think. These insights into our decision-making and information processing abilities provide a useful starting point for analyzing how health care consumers respond to packaged quality data.

A fundamental tenet of human thought is that of limits. We are limited in the amount of information we can use, and, equally important for this

98. In economic terms, this represents the point at which marginal costs of information disclosure surpass its marginal benefits.

99. 21 U.S.C. § 343-1 (1993).

100. 15 U.S.C. § 1601 (1993).

101. Robert P. Abelson & Ariel Levi, *Decision Making and Decision Theory*, 1 THE HANDBOOK OF SOCIAL PSYCHOLOGY 231 (Gardner Lindzey & Elliot Aronson eds., 3d ed. 1985).

discussion, the manner in which we use it. The study of cognitive psychology describes the nature of these limitations.¹⁰²

Ward Edwards' introduction of Bayesian analysis into psychology produced a model of rational judgment by an idealized person under conditions of uncertainty. This model provided an "optimal rule about how opinions should be revised on the basis of new information."¹⁰³ Researchers then began to explore the adaptive processes that so often confounded the predictions of Bayesian models in actual experience. This search led to numerous biases and heuristics, or "rules of thumb," that individuals use as cognitive tools to simplify difficult mental tasks.

Amos Tversky and Daniel Kahneman describe three principal heuristics—representative, availability, and anchoring—that people use to process probabilistic data, as well as the systematic errors and biases that these heuristics can produce in the cognitive process.¹⁰⁴ These researchers and others identify additional factors, such as framing, invulnerability, and overload, that also affect the way consumers respond to information. Each of these elements demonstrates that health care consumers might not use the report cards in the manner intended by their architects, and therefore that the report card system might not assure health care quality.

102. According to Amos Tversky, Paul Slovic, and Daniel Kahneman, three deans of cognitive psychology, the discipline is concerned with "internal processes, mental limitations, and the way in which the processes are shaped by the limitations." Kahneman et al., *supra* note 26, at xii. A useful summary is Ward Edwards & Detlof Von Winterfeldt, *Cognitive Illusions and Their Implications for the Law*, 59 S. CAL. L. REV. 225 (1986) (reviewing the literature on cognitive psychology and suggesting three kinds of challenges a lawyer may encounter in an adversary system: experiencing confusion regarding the case at hand, discrediting an expert witness, and luring a decision-maker into an erroneous decision). Other interesting work on the incorporation of cognitive psychology research into the law has occurred in the courtroom context. See Lea Brilmayer, *Wobble, or the Death of Error*, 59 S. CAL. L. REV. 363 (1986) (discussing "jury wobble"); see also Victor J. Gold, *Jury Wobble: Judicial Tolerance of Jury Inferential Error*, 59 S. CAL. L. REV. 391, 406 (1986) (defining jury wobble as the "rendition of verdicts based on inferential error"). See generally Richard Lempert, *Error Behind the Plate and in the Law*, 59 S. CAL. L. REV. 407 (1986) (criticizing Brilmayer's conclusion that "error cannot exist in the legal system in the commonsensical meaning of the word"); Robert S. Thompson, *Legitimate and Illegitimate Decisional Inconsistency: A Comment on Brilmayer's "Wobble, or the Death of Error,"* 59 S. CAL. L. REV. 423 (1986) (classifying "decisional inconsistency," which he prefers to "wobble," into inevitable inconsistency, deliberate inconsistency, bias inconsistency, careless inconsistency, defective information inconsistency, and relationship of forms of inconsistency).

103. Ward Edwards, *Conservatism in Human Information Processing*, in Kahneman et al., *supra* note 26, at 359; see also Ward Edwards et al., *Bayesian Statistical Inference for Psychological Research*, 70 PSYCHOL. REV. 193 (1963).

104. The following discussion is based on Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, in Kahneman et al., *supra* note 26, at 3-20, which originally appeared in 185 SCIENCE 1124 (1974). See also Maya Bar-Hillel, *Studies of Representativeness*, in Kahneman et al., *supra* note 26, at 69; Kahneman & Tversky, *On the Psychology of Prediction*, in Kahneman et al., *supra* note 26, at 48-68, which originally appeared in 80 PSYCHOL. REV. 237 (1973).

1. *Representative Heuristics*

People tend to make judgments by representativeness. In other words, they draw conclusions about “A” based on the ways in which it resembles something familiar, “B.” Consider the example of a report card detailing the successful cesarean section birth rate in a particular health plan. Using representative reasoning, consumers may incorporate an above average successful cesarean section rate into a favorable judgment about the plan’s quality of deliveries in general, or about the quality of other obstetric surgeries. Consumers using such representative heuristics might likewise impute a hospital’s success in coronary artery bypass graft surgery to balloon angioplasty for the treatment of atherosclerotic heart disease.

Representative heuristics create a number of biases. Representative judgments are insensitive to the prior probability of outcomes, or the base rate frequency of events. They are insensitive to sample size, which should affect the probability of obtaining a particular result in statistical models. Representative heuristics also create an illusion of validity, which fosters unwarranted confidence in the predictive accuracy of a result based solely on the strength of the resemblance between the specific and stereotyped data.¹⁰⁵ Finally, representative heuristics obscure the statistical laws of regression. That is, reasoning by representation masks the fact that a random sampling of inputs tends to converge toward a mean. Tversky and Kahneman demonstrate that, except in elementary examples, even the most sophisticated statistical researchers make systematic errors because of representative reasoning.¹⁰⁶

The implications of representative heuristic biases for health care quality data are significant. These biases predict that people will tend to overdraw conclusions about data from a limited situation and place unwarranted confidence in those conclusions. The coronary artery bypass graft example, noted above, highlights this danger. Bypass grafts and angioplasty are the domain of separate departments and distinct specialists. Furthermore, bypass graft surgery is often the fallback procedure for unsuccessful balloon angioplasty. At the very least, consumers may fail to account for the complex interaction between different health care services, even though that interaction may have significant quality implications.

105. See also Stuart Oskamp, *Overconfidence in Case-Study Judgments*, in Kahneman et al., *supra* note 26, at 287-93 (discussing systematic overconfidence of psychologists in their predictive abilities about behavior of case study patients due to familiarity).

106. Amos Tversky & Daniel Kahneman, *Belief in Small Numbers*, in Kahneman et al., *supra* note 26, at 23-31. This article appeared originally in 2 *PSYCHOL. BULL.* 105 (1971).

2. *Availability Heuristics*

Another adaptive process, the availability heuristic, also has profound implications for the way in which consumers may act on health plan quality data. This paradigm demonstrates that “people assess the . . . probability of an event by the ease with which instances or occurrences can be brought to mind.”¹⁰⁷

Availability heuristics also lead to predictable biases. The salience, or vividness, of the retrievable experience affects the dominance of the heuristic and the degree of cognitive error. Thus, people consistently overestimate the frequency of dramatic causes of death, such as accidents, natural disasters, and homicides, as compared to less spectacular events, such as disease.¹⁰⁸ Easily imagined contingencies influence reasoning more than unarticulated fears, although both events may have the same prior probability of occurring. One set of researchers characterizes this bias as a difference in the ways in which we interpret concrete and abstract data. “If people are unmoved by the sorts of dry, statistical data that are dear to the hearts of scientists and policy planners, then social and technological progress must be impeded unless effective, concrete, emotionally interesting ways of communicating conclusions are developed.”¹⁰⁹

One important effect of availability heuristics is that people tend to have a particularly difficult time thinking about low probability events. On the one hand, people tend to discount low probabilities when there is no readily retrievable experience. On the other hand, people overestimate probability when such experience is available. Rates of disease, operative mortality, infection, and the like are so often low that we tend to ignore or overemphasize data, thus introducing a significant cognitive bias into efforts to utilize quality information.

Availability biases predict that quality indicators tracking low probability events will have diminished impact, even if the relationship of these indicators to overall quality is objectively significant. Vivid information, such as successful limb reattachments, will assume disproportionate importance over less salient events, such as infection rates. However, a person whose family member once suffered an infection after a surgical procedure will overestimate

107. Tversky & Kahneman, *supra* note 104, at 11; Amos Tversky & Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability*, 5 *COGNITIVE PSYCHOL.* 207, 220-22 (1973) (demonstrating that test subjects overestimated probability that first names permitted unambiguous identification of gender).

108. Paul Slovic et al., *Facts Versus Fears: Understanding Perceived Risk*, in Kahneman et al., *supra* note 26, at 466-67.

109. Richard E. Nisbett et al., *Popular Induction: Information is Not Necessarily Informative*, in Kahneman et al., *supra* note 26, at 115. For additional discussion of biases inherent in availability heuristics, see Michael Ross & Fiore Sicoly, *Egocentric Biases in Availability and Attribution*, in Kahneman et al., *supra* note 26, at 179.

the probability of post-surgical infections, despite a surgical quality grade signalling an average rate.¹¹⁰ In either case, availability biases could significantly distort the value of quality data.

3. *Anchoring Heuristics*

People also typically rely on an anchoring heuristic. Through anchoring, people use objective data to make adjustments from a subjectively constructed starting point. This preconception is developed through personal experience and influenced in the first place by representative and availability heuristics. The final probability estimates, in which people tend to have great confidence, are inevitably biased toward the initial values.¹¹¹

Anchoring biases undermine the impact of objective data. If one person begins from the proposition that the probability of malpractice is only 2%, and the actual frequency is 8%, he will ultimately undervalue the probability of malpractice through insufficient adjustment away from his anchoring point. Similarly, someone who presupposes malpractice at 20% will systematically overestimate the actual probability despite an objective measure of 8%.

4. *Framing Effects*

In addition to heuristic processes, the manner in which information is presented has a profound effect on consumer behavior and perceptions. This “framing effect” reveals that people respond differently to equivalent questions depending on whether they are framed as losses or gains. People prefer an 80% chance of survival over a 20% chance of dying, although the two are mathematically identical. Out of the framing effect developed “prospect theory,” which posits that people are risk averse in the domain of gains, risk seeking in the domain of losses, and more sensitive to losses than to gains.¹¹²

Although the framing effect may be more applicable to individual point of treatment decisions, a variation of the basic principle shows its relevance to a yearly health plan point of insurance choice based on quality grades. Suppose a plan’s overall surgical mortality increased in one year from one in 10,000 to 1.5 in 10,000. Consumers would probably have a strongly negative response if the data were framed as a 50% rise in surgical mortality.¹¹³

110. For a discussion of the applicability of availability heuristics to risk perception, see Slovic et al., *supra* note 108, at 463-84.

111. *See id.* at 475 (discussing heuristics, overconfidence, and hyperprecision).

112. The literature on framing effects was developed by Daniel Kahneman and Amos Tversky and is nicely summarized in Richard L. Hasen, *Efficiency Under Informational Asymmetry: The Effect of Framing on Legal Rules*, 38 UCLA L. REV. 391 (1990).

113. This example is adapted from an example presented in Slovic et al., *supra* note 108, at 478-79.

The type of bias exemplified above could be minimized across plans by a report card with standardized presentation formats. Nevertheless, health care system framers should recognize that consumers' quality evaluations might be influenced by the loss-framed elements of the quality data set more than the gain-framed elements. Therefore, particular caution should be taken when using mortality rates as quality indicators for low risk procedures. Given our loss sensitivity, people might respond disproportionately to any mortality figures, however small, even if other, more reflective measurements of quality are available.

5. *Invulnerability Biases*

Finally, a cognitive illusion of invulnerability to disease may limit the beneficial effects of quality information disclosure. Researchers have noted that people often believe themselves to be immune from risks that they nonetheless admit are significant for others.¹¹⁴ This may be a defense mechanism against a complex, uncertain world filled with confusing probabilistic information, an attempt to reduce "cognitive dissonance" by ignoring disturbing data.¹¹⁵ One commentator has labelled this effect "motivational distortion."¹¹⁶ If healthy people feel that data about uncomfortable disease related or care related events are irrelevant to them, they will make decisions based on criteria other than quality information.

6. *Information Overload*

Marketing and consumer behavior research adds the important concept of information overload to our discussion of information disclosure and processing. Put simply, overload theory postulates that consumers do not act as rational utility maximizers in the face of an overabundance of data; instead, they completely ignore most or all of the information presented.¹¹⁷ Consumers provided with too much information disregard most of it and therefore make objectively poorer decisions.¹¹⁸ Alternatively, consumers may

114. Paul Slovic et al., *Informing the Public About the Risks from Ionizing Radiation*, in JUDGMENT AND DECISION MAKING: AN INTERDISCIPLINARY READER 114, 116 (Hal R. Arkes & Kenneth R. Hammond eds., 1986).

115. See George A. Akerlof & William T. Dickens, *The Economic Consequences of Cognitive Dissonance*, 72 AM. ECON. REV. 307 (1982).

116. Cass R. Sunstein, *Informing America: Risk, Disclosure, and the First Amendment*, 20 FLA. ST. U. L. REV. 653 (1993).

117. See Jacob Jacoby et al., *Corrective Advertising and Affirmative Disclosure Statements: Their Potential for Confusing and Misleading the Consumer*, J. MARKETING, Winter 1982, at 61, 70.

118. Jacob Jacoby et al., *Brand Choice Behavior as a Function of Information Load*, J. MARKETING RES., Feb. 1974, at 63, 63-69; Jacob Jacoby et al., *Brand Choice Behavior as a Function of Information Load: Replication and Extension*, 1 J. CONSUMER RES. 33, 33-42 (1974) [hereinafter Jacoby et al., *Replication and Extension*] (confirming earlier findings of decline in purchasing

unconsciously avoid overload by selectively accessing subsets of presented information.¹¹⁹ As a result, choices are based on a fraction of the significant data.

One study refined the overload paradigm and found that decision effectiveness, defined as the ability to make optimal choices among alternatives in a set, varied directly with information quality and inversely with information quantity.¹²⁰ Other studies have suggested that optimal levels of information disclosure will vary with type of consumer population and type of information presented, either graphic, verbal, or numerical.¹²¹

The description of information overload in the marketing literature initially focused on product labeling, but overload analysis has also been applied to warning labels¹²² and has entered the legal literature in discussions of new home warranties,¹²³ mortgage rules,¹²⁴ prescription drug information under

performance with increasing product information load and concluding that there are finite limits to consumers' ability to accommodate substantial amounts of data within limited time span). See also James R. Bettman et al., *Cognitive Considerations in Designing Effective Labels for Presenting Risk Information*, 5 J. PUB. POL'Y & MARKETING 1, 7 (1986) (pointing out that main issue in presenting information on warning labels is to provide sufficient information for informed choices but not so much that consumers process it selectively and suboptimally); Naresh K. Malhotra, *Information Load and Consumer Decision Making*, 8 J. CONSUMER RES. 419, 427 (1982) (finding support for theory of information overload in the literature on memory and information theory; criticizing Jacoby's original research design but supporting the conclusion that consumer decision-making can suffer from information overload); Debra L. Scammon, *"Information Load" and Consumers*, 4 J. CONSUMER RES. 148, 148-55 (1977) (finding that increased information load causes consumers to divide their attention and results in poorer recall; further, increased information load may impart more knowledge but has little demonstrable effect on attitudes, behavior, or brand preference).

119. Jacob Jacoby, *Perspectives on Information Overload*, 10 J. CONSUMER RES. 432, 435 (1984). But cf. Naresh K. Malhotra, *Reflections on the Information Overload Paradigm in Consumer Decision Making*, 10 J. CONSUMER RES. 436, 439 (1984) (arguing that consumers can and will become overloaded).

120. Kevin L. Keller & Richard Staelin, *Effects of Quality and Quantity of Information on Decision Effectiveness*, 14 J. CONSUMER RES. 200, 200-13 (1987).

121. Jacoby et al., *Replication and Extension*, supra note 118, at 41; Naresh K. Malhotra et al., *The Information Overload Controversy: An Alternative Viewpoint*, J. MARKETING, Spring 1982, at 27, 35.

122. WESLEY A. MAGAT & W. KIP VISCUSI, *INFORMATIONAL APPROACHES TO REGULATION* 90-105 (1992).

123. Jeff Soeven, *Toward a Theory of Warranties in Sales of New Homes: Housing the Implied Warranty Advocates, Law and Economics Mavens, and Consumer Psychologists Under One Roof*, 1993 WIS. L. REV. 13 (1993).

124. William N. Eskridge, Jr., *One Hundred Years of Ineptitude: The Need For Mortgage Rules Consonant with the Economic and Psychological Dynamics of the Home Sale and Loan Transaction*, 70 VA. L. REV. 1083 (1984); George J. Wallace, "Explicit Pricing," *Fraud, and Consumer Information: The Reform of RESPA*, 12 RUTGERS L.J. 183, 197-98, 206-07 (applying overload analysis to consumer misunderstanding of real estate closing costs).

the Food and Drug Act,¹²⁵ nutrition labeling, and truth in lending disclosure.¹²⁶

Advertising research further clarifies the overload paradigm. In one study of physician advertisements, the authors found surprisingly little variation in consumer response to low and high information ads. One possible explanation offered was that "people may experience a sensory overload in the processing of health care communication."¹²⁷

Recognition of limiting factors, such as overload and heuristic biases, leads to the conclusion that data disclosure is only a first step towards a consumer protection or quality assurance goal. Disclosure of objective quality measurements will be ineffective and possibly counterproductive, unless such cognitive distortions are adequately addressed.

B. *The Relevance of Cognitive Psychology and Information Overload to Health Care Policy: The Pitfalls of Satisficing Behavior in a Quality Assurance Program*

The theory of information overload and the relevance of cognitive psychology to policymaking remain controversial. Some critics contend that more information always aids the consumer in making choices and that information overload never occurs.¹²⁸ Others argue that consumers can actually process a great deal of information, but that some definite limits exist. The more common limiting factor, they contend, is not the consumer's ability to process information, but rather willingness to process information.¹²⁹ Yet another interpretation of the evidence holds that consumers may not overload, but instead may not process information at all due to anxiety and a desire to avoid dense textual information.¹³⁰

While cognitive psychologists provide interesting descriptions of the limitations on our processing abilities, critics argue that their work is only marginally relevant to policymaking on information disclosure. These critics describe consumers as quasi-rational actors, limited by cognitive

125. Comment, *Pharmaceutical Manufacturers and Consumer-Directed Information—Enhancing the Safety of Prescription Drug Use*, 34 CATH. U. L. REV. 117, 145-47 (1984) (concluding that fears of information overload should not prevent disclosing drug information to consumers as well as physicians).

126. See discussion *infra* parts III.C-D.

127. Cobb-Walgren & Dabholkar, *supra* note 62, at 55.

128. J. Edward Russo, *More Information is Better: A Reevaluation of Jacoby, Speller and Kohn*, 1 J. CONSUMER RES. 68, 71-72 (1974) (arguing that confusion decreased with increased data, as long as subjects took enough time to process the information); John O. Summers, *Less Information Is Better?*, J. MARKETING RES., Nov. 1974, at 467, 467-68.

129. Malhotra et al., *supra* note 121, at 27-37.

130. Melvin A. Eisenberg, *Text Anxiety*, 59 S. CAL. L. REV. 305, 310 (1986).

constraints.¹³¹ This quasi-rational consumer “satisfices” instead of “optimizes,” by reaching the best decision he can given the circumstances. Satisficing behavior results in choosing the best alternative from a non-exhaustive search when search costs are high. These critics dismiss cognitive psychology’s contribution to policy formation because they believe that the gap between the satisficed and optimal choice is simply too narrow to justify extensive government regulation of most markets that are plagued by information asymmetries.¹³²

These critics contend that the competitive market acts as a safety net for our internal cognitive limitations. The systematic mental errors that individuals make when faced with raw data, they argue, do not translate into worrisome market failures. Rather, the market absorbs heuristics and biases in two basic ways. First, so long as a few vigilant and sophisticated consumers can interpret the data, they effectively police the market for all consumers. Second, consumers can accurately value their own experience with a product despite cognitive constraints in evaluating its objective characteristics, and can thus reward good producers with repeat business.¹³³

1. *Price, Satisfaction, and Quality: Distinct Dimensions of the Market Safety Net*

But the market safety net that critics of cognitive psychology describe solves only part of the problem in health care quality assurance. Put simply, it is a satisfaction and cost safety net, but not a quality safety net. If, in the course of a non-exhaustive and cognitively constrained search, satisficing consumers choose plans based on geographic convenience, waiting time to appointment, and staff pleasantries, as early evidence suggests, then the market will reward plans that fulfill these needs. This safety net only protects against failure in the satisfaction market. With regard to cost, the standardization of the benefits packages and publication of annual enrollment fees allows consumers to make apples-to-apples comparisons between plan services and

131. Hasen, *supra* note 112, at 392.

132. David M. Grether et al., *The Irrelevance of Information Overload: An Analysis of Search and Disclosure*, 59 S. CAL. L. REV. 277, 277-303 (1986); see also Roberta Romano, *A Comment on Information Overload, Cognitive Illusions, and Their Implications for Public Policy*, 59 S. CAL. L. REV. 313, 313-27 (1986) (agreeing with Grether that information overload is not a significant issue in consumer law); Robert E. Scott, *Error and Rationality in Individual Decisionmaking: An Essay on the Relationship Between Cognitive Illusions and the Management of Choices*, 59 S. CAL. L. REV. 329, 329-37, 361 (1986) (arguing that information overload and cognitive error are less relevant to legal analysis of consumer behavior than is choice management theory, in which consumers follow a rational pre-set strategy of self control; also arguing that the psychological literature on human error and decision-making leads legal analysts to the incorrect conclusion that inherently fallible behavior is correctable through legal regulation).

133. Grether et al., *supra* note 132, at 277-303.

to shop based on price. But this safety net only protects against failure in the price market.

For the most important goal of the report card program, quality assurance, there is no safety net. Satisfaction and quality are complementary, but one does not guarantee or perfectly predict the other. Policymakers, therefore, want report cards to create a market for quality. However, in addition to the fact that we do not yet know what to measure, we also do not know if consumers will choose according to quality factors rather than satisfaction factors when given both types of data.

The appeal to corporate benefits managers, who are particularly sensitive to employee perceptions, of relying heavily on satisfaction data is undeniable. In praising the Health Institute's *Employee Health Care Value Survey*, one Xerox executive noted that the results of consumer satisfaction surveys could provide the basis for discontinuation of the company's relationship with a particular plan.¹³⁴ That this might be the case is not surprising, since management is sensitive to worker preferences in a number of areas besides health benefits. Considered in this light, decisions regarding point of insurance choices are quality decisions only to the extent that satisfaction approximates quality; marketing research has shown that the scope of that overlap in health care is thoroughly unclear. The important point is not that such decision making is invalid, because it is not, but rather that we should not misconstrue it as quality assurance. Admittedly, if free substitution between quality and satisfaction is ever established, then this approach to quality assurance represents a substantially lower cost alternative not only to the comprehensive report card systems proposed in legislation, but to all other quality assurance programs as well.

If, however, identity between satisfaction and quality is less than perfect, then simply including both sets of data in the same document will not cure the defect. Put simply, if disclosed information related to satisfaction guides consumer choice more persuasively than quality data, then report cards will never perform the quality assurance role that has been predicted for them. Even if consumers do utilize the quality data, processing biases will confound consumer quality choices; cognitive errors could minimize the market share rewards for meeting typically de-emphasized quality benchmarks or they could exaggerate the penalties for missing over-emphasized ones. The heuristics, biases, and information overload paradigms described by cognitive psychologists and marketers are directly relevant to health care policymakers precisely because they reveal the quality hole in the market safety net. That

134. Adam Peck, *Employees Rate Health Plan Options*, MANAGED HEALTHCARE, Dec. 1993, at 36, 36 (quoting Judd Everhart).

hole should make us hesitant about claiming that the report cards will be a powerful quality assurance mechanism.

The distinction between assuring satisfaction and quality is crucial. Critics of cognitive psychology, such as David Grether, Alan Schwartz, and Louis Wilde, discount internal processing difficulties because satisficing consumers, they argue, do not ignore relevant information to the extent that it would discourage optimally satisfying choices.¹³⁵ But arguing that cognitive constraints are similarly irrelevant in the health care report card context proves the wrong point. The main issue in applying cognitive limitations to an analysis of the disclosures in the report card proposal is not their effects on consumer satisfaction. As Grether, Schwartz, and Wilde would explain, despite any biases in processing data, report cards certainly have the potential to increase satisfaction as long as the new health care market becomes competitive. Instead, cognitive limitations are vitally relevant to the quality assurance aspect of report cards in health care information disclosure. Satisfaction plays into quality assurance only insofar as the data satisficing consumers use can also serve as quality proxies. Since we have not yet developed a range of reliable quality proxies, the report cards cannot possibly rationally reflect quality. Even once those proxies are developed from the intense research described in part II, if report cards are to function as a quality assurance program, then the task becomes that of designing disclosure so that satisficing decisions double as quality decisions. Understanding the heuristics, biases, and information quantity limitations described by cognitive psychologists—in other words, understanding the components of our satisficing decisions rather than simply their effects on satisfaction—is the only way to assure this overlap and turn the report cards into a quality assurance tool.

2. *Policy Implications for Report Card Systems*

If consumers misinterpret, overload, or fail to process complex health care quality data, then we must be cautious about what we expect report cards to accomplish. If report card disclosure requirements are selected with the economic, rational utility maximizing consumer in mind, they might disserve the satisficing consumer. Report cards would not be powerful quality or cost containment tools if people tend to ignore them. Even worse, over-inclusive information disclosure may be a counterproductive quality tool if the satisficing consumer fixates on parts of the data set that do not independently reflect quality.¹³⁶ Consumers are neither rational utility maximizers nor wholly

135. Grether et al., *supra* note 132, at 284-94; *see also* Romano, *supra* note 132, at 313-27.

136. For instance, waiting time for appointments is important to the satisficing consumer. A point of insurance decision based on waiting time may be valid for that consumer, but it only rewards quality care if waiting time is independently reflective of quality care. *See supra* discussion in part II.

irrational impulse buyers; characterizing the middle ground in each market is a prerequisite to an information disclosure program aimed at guaranteeing quality. Faith in report cards as the foundation of a quality assurance program without a clear understanding of the relationship between disclosed price, satisfaction, quality information, and consumer behavior is badly misplaced.

With this theoretical background of information disclosure and consumer cognitive response as our foundation, we now turn to nutrition labeling and truth in lending disclosure in an attempt to glean some practical lessons for health care reform from past experience.

C. *The Nutrition Labeling and Education Act*

The modern regulatory system governing the food industry stems from the Federal Food, Drug, and Cosmetic Act of 1938. Section 341 of the Act authorizes the Food and Drug Administration (FDA) to prohibit the mislabeling of food. Section 343 defines mislabeled foods to include any item not in compliance with the Nutrition Labeling and Education Act of 1990 (NLEA).¹³⁷

Under the NLEA, Congress and the FDA have embarked on an ambitious campaign to use informational strategies to modify consumer behavior. Amendments which went into effect on May 8, 1994 make nutrition labeling mandatory for all products intended for human consumption and offered for sale.¹³⁸ This effort complements the regulation of package labeling, under which Congress requires food producers to meet FDA definitions of common terms, such as "free," "low," "lite," "reduced," "fresh," and "high."¹³⁹ Assertions about positive health claims are permitted only if they are supported by scientific evidence and communicate clear and complete information about, for example, the links between calcium and osteoporosis, lipids and cancer, sodium and hypertension, cholesterol and heart disease, fiber and cancer, or fruits and vegetables and cancer.¹⁴⁰

With respect to information disclosure which directly concerns nutritional content, the statutory provisions of the NLEA are quite specific. The statute deems food mislabeled unless its label bears nutritional information that provides standard serving size in an amount customarily consumed; the number of servings per container; the total number of calories per serving size derived from any source; the number of calories per serving derived specifically from

137. Pub. L. No. 75-717, 52 Stat. 1040 (1938), amended by 21 U.S.C. §§ 301-393 (1993).

138. 58 Fed. Reg. 2175, 17328 (1993) (to be codified at 21 C.F.R. § 101.9) (effective May 8, 1994).

139. 21 U.S.C. § 343(r) (1993); Fair Packaging and Labeling Program, 15 U.S.C. §§ 1451-61 (1988), amended by 15 U.S.C. §§ 1453-4 (Supp. IV 1992).

140. 21 C.F.R. §§ 101.72-101.78 (1993).

fat; and the amount of total fat, saturated fat, cholesterol, sodium, total carbohydrates, complex carbohydrates, sugars, protein, dietary fiber, and any vitamin or mineral per serving. The goal of this lengthy disclosure is to “assist consumers in maintaining healthy dietary practices.” The FDA, through the Secretary of Health and Human Services, may require additions to or deletions from the nutritional information disclosure list if they will assist consumers in maintaining healthy dietary practices. The statute also provides the Secretary with authority to regulate the format in which nutritional information is presented; she can promulgate regulations that require highlighting, specific typefaces, or color schemes to assist consumers in noticing the information.¹⁴¹

The FDA regulations promulgated under the statute are even more extensive and specific than the NLEA statutory provisions. This degree of specificity extends to both content and presentation. For instance, the nutrition label must be contiguous and to the right of the principal display panel of a packaged food, and the letters and numbers must be no less than one-sixteenth of an inch in height.¹⁴²

Nutrition labeling constitutes an extensive section of the federal regulations. A “serving” is defined precisely as that “reasonable quantity of food suited for or practicable of consumption as part of a meal by an adult male engaged in light physical activity, or by an infant or child under four years of age when the article purports or is represented to be for consumption by an infant or child under four years of age.”¹⁴³ Nutrition labels must list specified information, some of which is optional, in a prescribed order: serving size, servings per container, total calories, calories from fat, calories from saturated fat, total fat, saturated fat, polyunsaturated fat, monounsaturated fat, cholesterol, sodium, potassium, total carbohydrates, dietary fiber, sugars, sugar alcohol, other carbohydrates, protein, and percentages of U.S. Recommended Daily Intakes (RDI) expressed as a percentage of daily value (DRV) of at least vitamin A, vitamin C, calcium, and iron based on a reference caloric intake of 2,000 calories.¹⁴⁴

The regulations standardize the presentation of nutritional information. It must be set off in a box and printed in one color on a white or neutral background. The box must display the identifying heading “Nutrition Facts” in large type, followed immediately by serving size, servings per container, and calories per serving. The box must contain two columns, one listing the

141. 21 U.S.C. § 343(q); Nutrition Labeling of Food, 21 C.F.R. § 101.9 (1993); 21 C.F.R. § 101.12 (1993) (listing major product categories and reference amounts customarily consumed per eating occasion).

142. Nutrition Information of Package Form Food, 21 C.F.R. § 101.2 (1993).

143. 21 C.F.R. § 101.9 (1993).

144. *Id.*

nutrient and quantitative weight in grams or milligrams, and the other displaying the equivalent percentage of the required daily value. A footnote must contain the statement: "Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs."¹⁴⁵ Nutrition information may appear "as purchased" and "as prepared" on the same item of food with slight modifications to the standard label.¹⁴⁶ Simplified labels may suffice on food products containing insignificant amounts of at least seven of the required nutritional elements.¹⁴⁷ The regulations themselves provide sample labels as well as FDA-recommended graphic specifications, including different Helvetica typeface point sizes for different parts of the label and offsets for the box borders.¹⁴⁸

Several important lessons for the discussion of health plan report cards emerge from study of the NLEA. The first and most encouraging lesson is that it appears that this type of information disclosure, supported by a public education campaign about healthy dietary habits, can raise consumer consciousness about the nutritional content of the foods they consume. How consumers act on that information is less clear. In other words, we have little data about the ways in which consumer dietary habits are modified by the new information they possess. Whether Americans will eat better, now that many know what the food contains, is a major focus of public health research.

Past experience with product warning labels and other educational campaigns provides reason to use caution when predicting success. In a widespread government education campaign about seat belt use in the early 1980s, people understood that seat belts reduced car accident fatalities, but actual seat belt use increased negligibly from 11.3% to 13.9%.¹⁴⁹ Consumers may respond to information in even more unpredictable ways. A California State law requiring cancer warning labels on certain products may have caused consumers to think that certain products were more dangerous than they actually were.¹⁵⁰

The second lesson is that information disclosure about nutritional content is relevant only to a sub-population of consumers;¹⁵¹ the overall effect on

145. *Id.* § 101.9(d).

146. *Id.* § 101.9(e).

147. *Id.* § 101.9(f).

148. Examples of Graphic Enhancements Used by the FDA, 21 C.F.R. § 101 app. B (1993).

149. Robert S. Adler & R. David Pittle, *Cajolery or Command: Are Education Campaigns an Adequate Substitute for Regulation?*, 1 YALE J. ON REG. 159, 176 (1984).

150. See W. KIP VISCUSI, PRODUCT-RISK LABELING: A FEDERAL RESPONSIBILITY 11-16, 65-69 (1993); W. Kip Viscusi, *Predicting the Effects of Food Cancer Risk Warnings on Consumers*, 43 FOOD DRUG COSM. L.J. 283 (1988) (discussing the impact of California's Proposition Sixty-Five).

151. One study of the effects of saccharin warning labels found that use of soft drinks containing saccharin declined in some populations, but remained unchanged in others, particularly the elderly. See R.E. Schucker et al., *The Impact of the Saccharin Warning Label on Sales of Diet Soft Drinks in Supermarkets*, 2 J. PUB. POL'Y & MARKETING 46, 46-56 (1983).

population-wide dietary behavior is unclear. As commentators on the information overload controversy have noted, consumer motivation to engage in time intensive searches varies. One can conclude that the NLEA has no impact on unmotivated consumers, except to the extent that food producers have improved the nutritional content of their products to avoid revealing embarrassing unhealthy attributes of their products. There clearly remains a significant market for less healthy foods, and information disclosure may simply have created an additional niche market for “lite” and “reduced” foods.

The structure of the health care market may spread the benefits of quality searching more broadly than the food market does for nutritional information. The vigilance of some consumers who extensively research quality among plans may raise the level of quality for all consumers. However, this conclusion is not automatic. If, for example, further research into consumer point of insurance decision-making confirms that price and waiting time for appointments overwhelm more subtle quality indicators, then low quality plans can still flourish as long as they meet the yardsticks that are important to consumers.

The third lesson is that information disclosure strategies like the NLEA are expensive. From the government’s side, translation of the statutory provisions of the NLEA into FDA regulations has been described as one of the most “resource-intensive,” meaning expensive, efforts in FDA history.¹⁵² The costs to industry are even more significant. Compliance entails testing of food lots, altering package production lines, and cooperating with regulatory inspections. The government estimated that the new labeling rules will cost industry \$1.7 billion over twenty years. Industry leaders claimed that the first year costs alone would exceed \$2 billion.¹⁵³ Most of these costs are passed on to consumers.

The final lesson is that the length and specificity of the statutory and regulatory scheme for nutrition labeling, an area in which well established methods of measurement exist, imply that an even greater level of statutory and regulatory complexity will emerge in the case of health care report cards, an area in which well established methods of quality measurement have yet to be developed. In crafting and implementing the NLEA, both Congress and the FDA could rely on the scientifically verifiable relevance of measurable data to good nutrition. We can measure what goes into food, and at this stage in the development of nutritional science, we know that certain inputs like fat, protein, sodium, and vitamins have direct links to nutritional outcomes.¹⁵⁴

152. Fred R. Shank, *The Nutrition Labeling and Education Act of 1990*, 47 FOOD & DRUG L.J. 247 (1992) (author is Director, Center for Food Safety and Applied Nutrition of FDA).

153. Nancy Ryan & Linda M. Harrington, *FDA Offers New Rules on Food Labels, Claims*, CHI. TRIB., Nov. 7, 1991, at C2.

154. See Shank, *supra* note 152, at 247-49 (describing advancement of nutritional sciences in post-World War II era). The relationship between nutrition and health is still not fully understood. For

Achieving this knowledge is a necessary first step, before we consider how consumers will act upon provision of information. Part II described how dauntingly large that necessary first step is in the case of health care quality measurement.

D. *Truth In Lending*

The story of the Truth in Lending Act (TILA) is also instructive for the health care report card effort. Enacted in 1968 as Title 1 of the Consumer Credit Protection Act,¹⁵⁵ TILA required all sources of consumer credit to disclose the annual percentage rate (APR) and the dollar finance charges for any credit transaction. Before the Act, lenders could quote interest rates in any non-deceptive format, and many in fact used different formulas to calculate rates. Since consumers could not compare different loans, Congress feared that people borrowed at rates that were higher than predicted for a competitive market for lending.¹⁵⁶ The avowed purpose of TILA was to “assure a meaningful disclosure of credit terms so that the consumer will be able to compare more readily the various credit terms available to him and avoid the uninformed use of credit, and to protect the consumer against inaccurate and unfair credit billing and credit card practices.”¹⁵⁷

Congress anticipated that standardized disclosure of credit terms would substantially modify consumer behavior in two fundamental ways. First, standardization would encourage consumers to credit shop—comparison shop for credit based on the price of that credit. Credit shopping, in turn, would increase competition among credit sources to attract well informed consumers. Second, disclosure of the real costs of credit would encourage consumers to use credit wisely by opting for cheaper cash payments or by postponing expensive purchases.¹⁵⁸

Like the NLEA, but in marked contrast to the Health Security Act, TILA includes a fairly precise description of the information required to be disclosed. Section 1605 sets out an inclusive definition of the finance charge as “the sum of all charges, payable directly or indirectly by the person to whom the credit is extended, and imposed directly or indirectly by the creditor as an incident to the extension of credit.” The finance charge includes the interest; time price

example, the FDA has not established RDVs for many trace mineral elements because their importance is not yet understood. See Beales et al., *supra* note 48, at 525.

155. 15 U.S.C. § 1601 (1993).

156. See Robert L. Jordan & William D. Warren, *Disclosure of Finance Charges: A Rationale*, 64 MICH. L. REV. 1285, 1293-4 (1966).

157. 15 U.S.C. § 1601 (1993).

158. See George S. Day & William K. Brandt, *Consumer Research and the Evaluation of Information Disclosure Requirements: The Case of Truth In Lending*, 1 J. CONSUMER RES. 21, 21-32 (1974).

differential; any amount payable under a point or discount charge, service or carrying charge, loan fee, or finder's fee; and premium for default insurance.¹⁵⁹ Although the Federal Reserve Board may prescribe methods of calculation, section 1606 specifies that the annual percentage rate (APR) must yield:

a sum equal to the amount of the finance charge when it is applied to the unpaid balances of the amount financed, calculated according to the actuarial method of allocating payments made on a debt between the amount financed and the amount of the finance charge, pursuant to which a payment is applied first to the accumulated finance charge and the balance is applied to the unpaid amount financed.¹⁶⁰

The statute establishes special rules for open-end consumer credit plans, such as credit card arrangements. Section 1602 defines an open-end credit plan as one under which "the creditor reasonably contemplates repeated transactions . . . and which provides for a finance charge which may be computed from time to time on the outstanding unpaid balance."¹⁶¹ The creditor must disclose the conditions under which a finance charge will be imposed, the method of determining the balance upon which a finance charge will be imposed, the method of determining the finance charge itself, including a description of the nominal APR, a description of any other charges, and an explanation of security interests taken.¹⁶²

The statute also describes the content and format of information disclosure in closed-end and open-end credit card applications; the timing of this disclosure requirement more closely resembles the point of insurance information disclosure proposed for the health plan report cards. Solicitations to acquire open-end credit must include, in tabular format, the APR and specific disclosure if it is subject to a variable rate, annual or other fixed fees; the length of the grace period during which no finance charge is applied; and the name or explanation of the balance calculation method used to determine the balance upon which the finance charge, the cash advance fee, late fee, and over the limit fee are applied.¹⁶³ Disclosure of terms for closed-end credit

159. 15 U.S.C. § 1605(a) (1993).

160. 15 U.S.C. § 1606(a)(1)(A) (1993). Regulation Z describes the APR as "the measure of the cost of credit, expressed as a yearly rate, that relates the amount and timing of value received by the consumer to the amount and timing of payments made." Appendix J to Regulation Z provides equations for calculating the APR. Regulation Z, Determination of Annual Percentage Rate, 12 C.F.R. § 226.22, app. J (1993).

161. 15 U.S.C. § 1602(i) (1993).

162. *Id.* § 1637.

163. *Id.* § 1637(c).

secured by a consumer's principal dwelling requires even more extensive disclosure.¹⁶⁴

Initial reaction to TILA disclosures was mixed. The initial debate concerned the quantity of information disclosed under the statute. Critics of the original Truth In Lending Act charged that Truth in Lending disclosures overwhelmed consumers with too much complicated information and ultimately discouraged them from credit shopping.¹⁶⁵ This argument embodied the concept of information overload. In describing how disclosure under the old TILA had gotten "out of control," one author cites the lengthy and nearly incomprehensible disclosure of debt acceleration and default charges.¹⁶⁶ Studies demonstrated that simplification of the disclosure terms increased understanding among consumers.¹⁶⁷

The Senate began to consider TILA reform in 1977. The Senate Banking Committee heard testimony from members of the Federal Reserve Board of Governors and expert opinion suggesting that existing TILA disclosure overwhelmed consumers by causing information overload. Information overload criticism eventually became a motivating force behind reform.¹⁶⁸ Congress responded in 1980 by enacting the Truth In Lending Simplification and Reform Act (TILSRA), which eliminated some disclosures and simplified others.¹⁶⁹ Several changes made under TILSRA include reduced description

164. *Id.* § 1637a.

165. Jeffrey Davis, *Protecting Consumers from Overdisclosure and Gobbledygook: An Empirical Look at the Simplification of Consumer-Credit Contracts*, 63 VA. L. REV. 841, 843-56 (1977) (using overload analysis to criticize TILA disclosures and arguing for simplification); Ndiva Kofele-Kale, *The Impact of Truth-In-Lending Disclosures on Consumer Market Behavior: A Critique of the Critics of Truth-In-Lending Law*, 9 OKLA. CITY U. L. REV. 117, 128-132 (1984) (summarizing overload studies in TILA and noting that age, race, formal education, income, and credit experience correlate with overloading); Jonathan M. Landers & Ralph J. Rohner, *A Functional Analysis of Truth In Lending*, 26 UCLA L. REV. 711, 721-34 (1979) (disclosure statement meaningless for average consumer); Jonathan M. Landers, *Some Reflections on Truth in Lending*, 1977 ILL. L.J. 669, 677 (1977) (intricacies of statute and Regulation Z prevent consumers from knowing whether they have TILA claim in credit transaction disputes).

166. Joseph K. Heselson et al., *Truth In Lending Disclosure in Open and Closed End Credit*, 9 OKLA. CITY U. L. REV. 17, 38 (1984).

167. See Davis, *supra* note 165, at 869.

168. *Simplify and Reform the Truth in Lending Act: Hearings on S. 3212, S. 1501, & S. 1653 Before the Subcomm. on Consumer Affairs of the Senate Comm. on Banking, Housing and Urban Affairs*, 95th Cong., 1st Sess. 7-12 (1977) (statements of Phillip C. Jackson on behalf of the Board of Governors of the Federal Reserve System and testimony of Dr. Steven Permut of Yale University School of Organization and Management); *Simplification of the Truth in Lending Act Oversight Hearings Before the Subcomm. on Consumer Affairs of the House Comm. on Banking, Finance, and Urban Affairs*, 95th Cong., 2d Sess. 369-70 (1978); *Report of the Comm. on Banking, Housing, and Urban Affairs*, S. REP. NO. 96-73, 96th Cong., 1st Sess. (1979) (concluding that TILA disclosure statements were ineffective communication devices because they were lengthy, legalistic, and disorganized).

169. Truth in Lending Simplification and Reform Act of 1980, Pub. L. No. 96-221, 94 Stat. 168, 168-85 (codified as amended in scattered sections of 15 U.S.C.).

of security interests,¹⁷⁰ nondisclosure of several types of fixed fees,¹⁷¹ and elimination of the use of required terminology.¹⁷²

Congress provides the Federal Reserve Board authority to prescribe any regulations necessary to carry out the purposes of TILA; creditors and lessors are statutorily obligated to comply.¹⁷³ The statute also requires the Board to publish model disclosure forms and clauses for common transactions.¹⁷⁴ The Federal Trade Commission (FTC) is the enforcement agency for violations.

Regulations promulgated by the Federal Reserve Board augment the specificity of the statutory provisions of TILA. The implementing regulation is commonly called Regulation Z.¹⁷⁵ The most visible consumer directed products of the TILA and TILSRA regulations are the “federal box” and the model forms. The federal box presents disclosure in a standardized format of limited terms that are presumably significant for the typical consumer shopping for a loan.¹⁷⁶ It must be set aside from other information so as to be in a conspicuous and prominent location through dividing lines or offsetting color backgrounds. The terms “annual percentage rate” and “finance charge” must be displayed more conspicuously than other terms.¹⁷⁷ The box must also identify the creditor, the amount financed using plain English descriptions, the manner of computing the APR, any finance charge with a description of some excluded charges, circumstances under which the APR may increase, limitations on that increase, an example of the effects of an increase, the number and timing of payments, total payments, any prepayment penalties, late payment charges, and security interests taken.¹⁷⁸

In order to prevent information overload within the box, only specifically required and directly related information may appear. Other terms may be provided in the body of the credit contract. For example, an itemization of the elements of the amount financed must be separate from the box.¹⁷⁹ The Board provides model disclosure forms in the appendices to Regulation Z.

Even though information overload played a prominent role in the discussions leading up to TILSRA, some argue that disclosure of credit terms

170. Regulation Z, 12 C.F.R. § 226.18(m) (1994).

171. Regulation Z, 12 C.F.R. § 226.6(b) (1993).

172. Regulation Z contains only two terminology requirements: “finance charge” and “annual percentage rate.” 12 C.F.R. §§ 226.7(f), (g) (1993).

173. 15 U.S.C. § 1604 (1993).

174. 15 U.S.C. §§ 1607, 1631 (1993).

175. Truth in Lending, 12 C.F.R. §§ 226.1-226.30, apps. (1994).

176. Regulation Z, 12 C.F.R. §§ 226.17(a)(1), 226.18 (1994).

177. 15 U.S.C. § 1632 (1993); Regulation Z, 12 C.F.R. §§ 226.5(a)(1-2), 226.17 (1994); a model payment box is required by 12 C.F.R. § 226.17(a) (1994).

178. The specific disclosures in the Federal Box and the different terms required in different types of credit transactions are covered in the extensive regulations of Regulation Z. 12 C.F.R. §§ 226.17-226.18 (1994) (closed-end credit); 12 C.F.R. § 226.5a (1994) (credit and charge card applications); 12 C.F.R. § 226.5b (1994) (home equity plans).

179. Regulation Z, 12 C.F.R. §§ 226.17(a)(1)-226.18(c) (1994).

remains confusing and too complex. One group of commentators connected to the Federal Reserve Board has noted that the disclosure regarding adjustable rate mortgages is too extensive and suggests that the lesson of keeping things simple needs to be relearned.¹⁸⁰

The FTC was quick to declare TILA one of the most successful consumer protection statutes, citing greater consumer awareness of the APR and increased market share held by low cost lenders.¹⁸¹ A Senate report in 1980 concluded that after ten years under TILA, "there is a heightened awareness among consumers as to the cost of borrowing from various types of lending institutions."¹⁸² In 1987, the Federal Reserve Board's Annual Percentage Rate Demonstration Project demonstrated that the dispersion of interest rates declined in markets in which shopper's guides listing APRs had been published.¹⁸³

Early research did find some improved knowledge of credit rates and charges, but evidence indicated that the majority of consumers remained uninformed or misunderstood the APR.¹⁸⁴ Improved knowledge varied significantly with past credit experience and economic status of the purchaser. More importantly, as was the case in nutrition labeling, whether the critical translation of heightened consumer awareness of the APR and other credit terms into modified credit purchasing behavior had occurred remained unclear. Several studies concluded that this heightened consumer awareness had little effect on credit search and credit purchasing behavior.¹⁸⁵ One study found that the choice of a dealer or retailer assumed first priority, and the credit or cash decision flowed by default from this primary choice; it also noted that

180. Griffith L. Garwood et al., *Consumer Disclosure in the 1990s*, 9 GA. ST. U. L. REV. 777 (1993) (commenting on Regulation Z, 12 C.F.R. §§ 226.5b(d)(12)(xi), 226.19(b)(2)(viii) (1994)).

181. FED. TRADE COMM'N, OFFICE OF POLICY PLANNING & EVALUATION, CONSUMER FINANCIAL SERVICES POLICY SESSION 29 (1979). One consumer survey found that the awareness of of survey respondents about typical credit rates increased from 14.5% to 54.5% for closed-end credit and 30.9% to 68.0% for open-end credit between 1969 and 1977. THOMAS A. DURKIN & GREGORY E. ELLIEHAUSEN, 1977 CONSUMER CREDIT SURVEY (Fed. Res. Bull. 1978).

182. S. Rep. No. 96-73, 96th Cong., 2d Sess. 2 (1979).

183. Garwood et al., *supra* note 180, at 781.

184. ROBERT P. SHAY & MILTON W. SHOBER, CONSUMER AWARENESS OF ANNUAL PERCENTAGE RATES OF CHARGE IN CONSUMER INSTALLMENT CREDIT: BEFORE AND AFTER TRUTH IN LENDING BECAME EFFECTIVE 11 (1973); Day & Brandt, *supra* note 158, at 31; Lewis Mandell, *Consumer Perception of Incurred Interest Rates: An Empirical Test of the Efficacy of the Truth-in-Lending Law*, 26 J. FIN. 1143, 1153 (1971) (concluding that consumers were still largely unaware of rate of interest they were paying).

185. GEORGE S. DAY & WILLIAM K. BRANDT, A STUDY OF CONSUMER CREDIT DECISIONS: IMPLICATIONS FOR PRESENT AND PROSPECTIVE LEGISLATION 96 (1972) ("evidence strongly indicates that disclosure of annual percentage rates (APR) and finance charges did not sharply alter the credit buying behavior of California consumers"); Day & Brandt, *supra* note 158, at 30-31 (concluding that improved knowledge of the APR attributable to TILA "had relatively little effect on credit search and usage behavior"); George S. Day, *Assessing the Effects of Information Disclosure Requirements*, J. MARKETING, Apr. 1976, at 42, 44 (reviewing studies of disclosure requirements and concluding that there is "much less than full awareness, and even less comprehension of the meaning of the information, while the behavior effects are usually negligible or nonexistent").

the timing of credit term disclosure usually occurred after the purchase decision had been made.¹⁸⁶

The Federal Reserve Board partly addressed this problem by requiring early disclosure, at the point of credit shopping rather than at the point of purchase, for certain types of credit such as credit cards, home equity lines of credit, and adjustable rate mortgages.¹⁸⁷

Like nutrition labeling, TILA disclosure also has varying relevance to different consumer populations. As noted above, past credit experience has a significant affect on knowledge about APR and finance costs. Some commentators argue that TILA disclosure is ineffective for the poor.¹⁸⁸

TILA disclosure also reinforces the notion that information strategies can be expensive. A survey conducted by the American Banking Association estimated the industry wide, direct, out of pocket compliance costs at over ten billion dollars in 1992.¹⁸⁹ These costs are passed on to consumers in the form of higher fees, higher borrowing rates, and lower interest rates on deposits.

Critics of TILA note an even more fundamental flaw. Even though APR disclosure is the centerpiece of TILA, comparison shopping based on the APR is unhelpful in many common credit situations. For instance, dealer APRs in automobile financing do not reflect forgone cash payments from the manufacturer. Also, APRs on open-end home equity lines of credit cannot be compared with those of closed-end second mortgages because the APRs are calculated differently.¹⁹⁰ The true cost of open-end credit on credit cards bears less resemblance to the APR as fixed fees and annual membership charges have increased. In addition, one critic points out that the standard formulation of the APR is fundamentally misleading for mortgage borrowers because they are likely to pay off their loans on something other than the contractual loan repayment schedule.¹⁹¹

186. Day & Brandt, *supra* note 158, at 30-31.

187. Regulation Z, 12 C.F.R. §§ 226.19, 226.5a, 226.5b (1994). *But see* John P. Danforth, *Who Pays for the High Cost of Excessive Bank Regulation?*, 12 BANKING POL'Y REP. 1 (1993) (criticizing the up front disclosure requirements for ignoring the different rates and fees at which banks can profitably lend to different customers; concluding that earlier disclosure reduces credit opportunities for higher risk debtors).

188. Homer Kripke, *Gesture and Reality in Consumer Credit Reform*, 44 N.Y.U. L. REV. 1 *passim* (1969); William C. Whitford, *The Functions of Disclosure Regulation in Consumer Transactions*, 1973 Wis. L. REV. 400, 420-23 (1973); Eric Schnapper, Note, *Consumer Legislation and the Poor*, 76 YALE L.J. 745, 749-54 (1967).

189. Danforth, *supra* note 187, at 1-3.

190. Regulation Z, 12 C.F.R. §§ 226.14, 226.22 (1993); *see* Garwood et al., *supra* note 180.

191. Danforth, *supra* note 187, at 2-5.

E. Lessons from the NLEA and TILA for Report Card Systems

Analysis of the NLEA and TILA statutory disclosure schemes is important to the report card issue because it illustrates the difficulties of identifying and measuring relevant factors and determining whether disclosure has achieved stated policy goals. First, the specificity of the NLEA and TILA statutes is in stark contrast to the lack of substance in the information disclosure requirements of the major health care reform plans. In nutrition labeling, Congress could identify fat, calorie, fiber, and salt content as important information to the decision to eat healthily. In TILA, Congress could define the APR and finance charges as important elements of an informed credit transaction. Congress can do no such thing for health care quality, as part II's discussion of the state of the art in quality measurement has shown.

Even once that first step of disclosure is achieved, as it has been with much cost and effort for nutrition information and credit terms, the literature on cognitive biases and information overload suggests that our understanding of how consumers respond to such disclosure is incomplete at best. Credit disclosures may not necessarily perfect credit markets, and nutrition labeling by itself cannot improve our health. In the case of health care quality, Congress and a national quality agency cannot yet take that second step, because we simply do not yet know what kind of data imparts meaningful information on quality care. Once we do, we must still discover whether consumers will make point of insurance decisions that reward plans for meeting important, relevant, quality based benchmarks before we turn over our quality assurance program to the report cards.

Conclusion

Given the cognitive and state of the art limits on health care quality measurement, policymakers should consider several basic points in devising an information disclosure program in health care. First, disclosure alone will not be a quality assurance mechanism. Plans will strive to meet the established benchmarks, but we do not yet have a set of benchmarks that completely represents the delivery of quality care. Consumers may make choices based on disclosed information, but it seems that quality is not the most persuasive category of information. If that is the case, a competitive market will not solve our quality problems for us. Some form of active quality assurance system, perhaps akin to the Peer Review Organization program in Medicare, should independently monitor quality. Second, the goals that report cards can realistically achieve—reinforcing a sense of consumer autonomy, facilitating consumer satisfaction, and promoting price shopping—might be fulfilled through a less extensive and less expensive program.

Policymakers must recognize that health care consumers will selectively overemphasize, de-emphasize, or ignore different types of information. If report cards are to serve as quality assurance tools, these policymakers must also confirm that typically overemphasized data are proven quality proxies. They must highlight typically de-emphasized data if that information truly reflects quality care. And they can conceivably reduce the costs of a disclosure program by eliminating ignored data from the report card, or reducing the quantity of disclosed data to focus attention on the proven quality proxies.

As a quality assurance program, report card systems currently deserve an F. The course of study in quality management adopted by policymakers is at the graduate level, but as students, we are still in elementary school. This is not to say that data gathering and quality monitoring are unreasonable goals; they are at the heart of the preservation of aspects of this health care system that succeed and the reform of those that fail. But we do not yet know what to put on a report card, nor do we understand how the cognitive limitations and biases inherent in consumer information processing will shape quality based decisions.

Rather than mandating an expensive national program to collect and distribute data without first understanding what that data mean or how they might be used, policymakers should initially invest a fraction of those resources into research efforts and demonstration projects. By allowing states, employer networks, and providers to experiment with different collection and disclosure formats in the course of these projects, we can discover what it is we want to measure, what those measurements tell us about quality of care, how and whether consumers and purchasers tend to react, and whether consumers' satisficing choices serve as a quality assurance mechanism. Most importantly, in order to preserve quality health care, policymakers must refrain from designating the report cards the foundation of quality assurance until there is evidence that they actually work in practice. The private sector and consumers should likewise recognize that report card systems are not proven quality assurance tools. Given the recent proliferation of report card systems, the data to answer these doubts will become available. We must simply resolve to study it.

We should view with caution the rise of a private report card industry in health care. The direct consequence of the prominence of report cards in every national health care reform proposal has been a frantic rush by numerous private actors to assume the role of report card authority. With millions of dollars in public and private quality measurement contracts at stake, the NCQA, JCAHO, managed care plans, and large corporations, to name just a few, have joined a high stakes race to produce the definitive report card. All certainly hope to rationalize quality measurement and management, and for all parties involved, the financial risks and possible payoffs are staggering.

If this frenzy generates clear information about what aspects of report cards work and which do not, then so much the better. But during this rush to produce the definitive report card, policymakers, quality assurance experts, and consumers must carefully study what exactly these systems measure, what relationship these measurements actually have to quality, how consumers process the data, and whether the processed quality data guide consumer choices in ways that reward quality care. That analysis must necessarily precede legislative validation or widespread acceptance of any report card system as a quality assurance program.

The ultimate lessons for the health care context from case studies of nutrition labeling and truth in lending laws are twofold. First, disclosing quality information about health care is significantly more complex, and farther beyond our current abilities, than computing the APR or listing the percentage of calories from fat. Second, despite some success at elevating consumer awareness of nutritional content and credit costs, we still have only a vague understanding of how consumers process and act on the information provided.¹⁹² Cognitive psychologists have shown that we should be cautious in drawing straightforward cause and effect relationships between disclosure and behavior that will reliably promote the goals of a statutory scheme. Our mental processes exhibit systematic biases, and information quantity, quality, and presentation affect decision-making.

Clearly, we have a long academic road to travel in creating a report card that will assure quality. We must recognize two stages in that journey: defining what information is relevant to our goal and understanding how consumers respond to what is disclosed. Experience with NLEA and TILA demonstrates that the political and administrative process pays close attention to the first stage, but social science suggests that we do not fully understand the second stage, which receives far less attention from policymakers. In choosing what to disclose, we must begin to explore not only what information is relevant to health care quality but also what information is meaningful to consumers.

Treating an ailing health care system requires a cautious therapeutic approach. We should not yet expect too much from, nor spend too much on, information disclosure in health care. Strategic initial investment in a limited number of pilot programs to refine quality measurement, similar to that which is already taking place at several large corporations and in select federal and state agencies, must be followed by a comprehensive evaluation of the interface between consumers and disclosed information. We must perform this type of diagnostic test before we prescribe report cards as the treatment of choice in health care quality assurance.

192. See generally Beales et al., *supra* note 48 (describing the general lag between our acceptance of the goals of disclosing information and our understanding of how consumers respond to what information they are given).