Targeted Transparency in the Information Age

In November and December 2004, surgeons at Duke University's respected hospitals operated on thirty-eight hundred patients with instruments mistakenly cleaned in hydraulic fluid. The fluid had been drained from elevators and placed in containers that became mixed up with cleaning supplies.[1]

Shocking? Yes. But unprecedented? Unfortunately, no. Six years earlier, the national Institute of Medicine had informed the American public that medical mistakes were common, even at good hospitals, and that they were often deadly. According to the institute report, every year at least forty-four thousand Americans died and nearly a million were injured by mistakes in hospitals – not counting those killed or injured by mistakes in clinics or doctors' offices. That made such errors the eighth leading cause of death in the United States, surpassing auto accidents, breast cancer, and AIDS – and the only major source of accidental fatalities not reported to the public. Even patients and their families often were not informed about mistakes when they occurred.[2]

The institute's committee recommended immediate action to reduce medical mistakes by 50 percent in five years. But what policies would encourage hospitals to take steps to minimize such risks? New national rules probably wouldn't help because mistakes, their causes, and their settings were so variable. Instead, the committee recommended a new transparency system. Their report urged Congress and state governments to require hospitals to publicly disclose errors that caused death or serious injury. Disclosure would empower patients to choose safer hospitals. Patients' changed choices would create new incentives for hospital managers to reduce errors.

However, six years after the institute's urgent call for transparency, virtually all information about deaths and injuries from medical errors remained locked in hospital files – if it was collected at all. The few states that mandated disclosures concerning physician and hospital quality restricted that

170

information to a narrow set of outcomes or did not make information available when and where patients needed it. New York and Pennsylvania laws, for example, required disclosure only of events related to cardiac bypass surgery.[3]

Why had the institute's proposal failed to gain traction? The short answer is that it was swamped by conflicting political interests. Congress and the states failed to act after groups representing doctors and hospitals, including the American Medical Association and the American Hospital Association, formed a coalition to defeat transparency proposals. Doctors argued that error reports should remain confidential because public reporting could drive physicians to hide their mistakes in order to avoid liability. Hospital executives agreed that confidential reporting would be more productive than public disclosure. And large companies like General Motors and General Electric that funded health care for millions of employees and retirees preferred to negotiate directly with health-care providers to improve staffing and technology.[4]

Disclosure of medical mistakes became contentious precisely because legislators and representatives of hospitals, doctors, and consumer groups all recognized that new facts could have enormous power in the hands of millions of patients making everyday health-care choices. In effect, those choices would create new social policy by telling managers of hospitals what level of safety the public expected.

Consumer and public health groups that favored public reporting couldn't compete with the antidisclosure lobbying effort. In the end, federal and state policymakers gave lip service to health-care transparency but failed to follow through. The proposed law never made it out of committee.

TWO POSSIBLE FUTURES

As this account illustrates, the story of governance by transparency often becomes one of missed opportunity. In this instance narrow political interests overwhelmed efforts to create greater accountability by doctors and hospitals, even when the risks involved tens of thousands of needless deaths and more than a million needless injuries.

This failure suggests one possible future for governance by transparency. If information the public needs remains hidden or distorted owing to politics or poor planning, a promising instrument of public policy becomes a tragic disappointment.

We are drowning in information. Many people in the United States have access to more than a hundred cable television channels, spend hours each

week sending and receiving emails and instant messages, and are besieged by radio, television, and Web advertisements.

Yet millions of dollars are lost and hundreds of thousands of needless deaths, injuries, or illnesses occur each year because needed, knowable facts remain hidden from public view. Without information that is essential for informed choices, people invest in stocks with undisclosed risks, check into hospitals with bad safety records, drink contaminated tap water, mishandle workplace chemicals they don't realize are dangerous, and travel to places where unreported and deadly infectious diseases threaten their health. Inside a small circle, corporate executives, scientists, or government officials have access to the critical facts. But members of the public are left out.

As we have seen, political dynamics often produce gerrymandered transparency – nutritional labeling with exceptions carved out for fast-food stores and full-service restaurants, toxic pollution reporting with exceptions made for neighborhood businesses that release some of the most dangerous toxins. In the United States, a nation that prides itself on openness, secrecy remains a closely guarded privilege.

In other instances, failed transparency results from poor planning or execution. Poor design of drinking water contaminant disclosure fails to provide comparable measures. Lack of enforcement leaves the accuracy of toxic pollution reports uncertain.

Failed transparency wastes not only lives but also resources. Companies, school systems, health-care providers, and other organizations spend millions of dollars compiling and disseminating information that is useless, out of date, or unintelligible.

Failed transparency also undermines trust in public and private institutions. City dwellers who learn to disregard government alerts may fail to heed accurate warnings about the next terrorist attack. Investors who are discouraged about ineffective accounting reforms may desert the stock market. Patients who are uncertain about the risk of medical errors may wait too long to check into the hospital. More needless losses result.

But another future is possible. Targeted transparency policies could gain effectiveness through better understanding, design, and advances in information technology. Private and public groups could develop better practices for transparency systems that would minimize failures. Growing public awareness of the promise and pitfalls of such policies could create new vigilance and political dynamics that favor transparency.

In today's complex world, legislated transparency could become a powerful tool for improving the choices people make. As consumers, people make nuanced trade-offs among price, quality, and risks, often balancing

conflicting preferences. As citizens, people make nuanced trade-offs among conflicting values and among short- and long-term priorities. We want hospitals that are safe, convenient, universally accessible, equipped with all the latest technology, and affordable. We want cars that are safe, cheap, fuel-efficient, nonpolluting, and powerful. The goods we purchase, the schools where we enroll our children, and the votes we cast reflect complex balancing acts to reconcile contradictory desires amid bewildering information.

Technology and transparency could work together to empower people making everyday choices:

- Consumers seeking safe toys or healthy foods could zap a product's bar code with their cell phones to see an instant map of risks and benefits and a comparison to similar products.
- Car buyers could create a checklist of their preferences for safety, performance, price, and fuel economy, and visit a Web site to see immediately which models came closest to meeting their needs, on the basis of objective data as well as the comments of other buyers.
- Community residents could conduct daily air pollution and tap water purity tests with handheld devices and share the information they gathered via user-friendly graphics like those of weather forecasts.
- Voters, advocacy groups, and members of the media could readily check frequently updated charts showing how campaign contributions to legislators from particular lobbying groups or wealthy donors correlate with voting records.
- And patients could check the relative quality of care provided and medical errors committed by particular hospital departments, clinics, or doctors, and share their personal experiences with others.

In this final chapter, we will examine how the choices of policymakers, information users, and target organizations will determine the future of targeted transparency. We first summarize our insights into the types of policy problems that targeted transparency can and cannot address. We then explore some design features that are critical for the success of transparency policies.

WHEN TRANSPARENCY WON'T WORK

A theme of this book has been that the availability of more information does not always produce markets that are more efficient or fair, or collective action that advances public priorities. Transparency policies are likely to be effective when the new information they generate can be easily embedded

into the routines of information users and when information disclosers, in turn, embed users' changed choices in their decision making in ways that advance public aims. As we saw in Chapter 4, corporate financial disclosure, nutritional labeling, mortgage lending disclosure, and restaurant hygiene grading succeeded in becoming doubly embedded transparency systems.

In other cases, even well-designed and well-supported transparency is unlikely to be effective. Sometimes it is difficult to embed policy-relevant information into users' routines because they have few real choices. At other times, the goals and actions of users are incongruous with those of policymakers. Or it can be difficult to bring disclosers' actions in line with policy goals.

Thus, targeted transparency policies work best when six characteristics mark the underlying problem:

- *A bridgeable information gap contributes substantially to risks or public service failures*. Clarity about the nature of the information gap, its relationship to the problem to be addressed, and how to fill the gap helps to increase the chances of policy success. At our present state of technology, no amount of information could prevent an asteroid collision with the earth, but deaths and injuries from earthquakes could be reduced if we had information about exactly when and where they would occur – not yet a scientifically solvable problem. International labeling of genetically modified foods is problematic in part because nations can't agree about whether genetic engineering creates a public safety problem – is there an information gap that merits government intervention?
- *The policy problem lends itself to consensus metrics*. Transparency is unlikely to work if people disagree about how to measure improvement. Parents, teachers, government officials, and students disagree about appropriate metrics of public school performance (test scores versus more complex measures, for example). Lack of consensus about metrics impairs the credibility of transparency.
- *Communication is practical*. Some problems are too complex or multifaceted to make public communication of risks or performance problems practical. The effectiveness of workplace hazard transparency was hampered by the complexity of risk exposure information. Toxic pollution reporting still lacks a simple metric that incorporates toxicity levels and exposure, important components for assessing risk.

- *Information users have the will, capacity, and cognitive tools to improve their choices.* Information that bears on risk but that consumers or citizens do not value is not a good candidate for targeted transparency. Cities could publicize pedestrian injuries in jaywalking accidents, but lifelong jaywalkers would probably ignore the data. Governments could rank cities by the likelihood of natural disasters, but most residents would find it hard to pick up and move. The U.S. government does report the relative safey of airlines, but many people will still systematically exaggerate the risk of traveling on the airline that had the latest major accident.[5]

- *Information disclosers have the capacity to reduce risks or improve performance.* Transparency policies are unlikely to work when target organizations are unable to improve their practices. The ability of manufacturers to reduce toxic pollution is limited by the availability of substitute materials that create less-hazardous wastes. The ability of food companies to remove harmful fats from processed foods depends on viable substitutes. The ability of automakers to reduce rollovers depends on the feasibility of safer designs.

- *Variable results are acceptable.* Finally, targeted transparency is desirable only when it is acceptable to reduce risks or improve services for some people but not others. Consider the problem of reducing lead in gasoline. Congress might have required labeling of leaded gas, giving gas-station managers and drivers a purchase choice. Instead, legislators concluded that leaving some communities exposed to more lead than others was untenable, since lead can cause serious neurological damage in children. As a result, they chose to impose a national ban on leaded gasoline rather than leave the outcome to be determined by transparency-assisted market forces.

Chapter 3 discussed two other forms of government intervention – standards-based and market-based interventions – that are widely used in many of the areas of social policy reviewed throughout this book. As we have pointed out, different types of policy problems fit different methods of intervention. Take the myriad problems arising under the general heading "environmental pollution." Chemicals that pose significant health risks given even minimal levels of exposure (like mercury or lead) lend themselves to traditional standards-based interventions because they call for uniform performance outcomes across all regulated parties (i.e., strict enforcement of minimum exposure levels). In those cases, it makes sense to use intervention

tools that directly order a change in the behavior of companies to achieve these clear outcomes, without recourse to the complexities of targeted transparency.

Now consider the case of interventions to limit greenhouse gases associated with global warming. The need to achieve overall pollution reduction has become increasingly clear, but the costs of greenhouse gas reduction vary considerably across companies (and nations). Accordingly, achieving variable levels of reduction may be appropriate – with largest reductions for companies or countries facing the lowest marginal cost of greenhouse gas reductions and lower reductions for those facing higher marginal costs. But global warming arises from what is often described as the "tragedy of the commons" – that is, the overuse of a collective good – and not fundamentally from an information asymmetry problem. As a result, the problem lends itself more to incentive-based interventions like tradable pollution allowances than to targeted transparency.

Finally, return to the problem of controlling pollution releases at a local level, particularly where there is a range of potentially acceptable policy outcomes, arising either from scientific uncertainties or from a desire by policymakers to balance pollution-related risk reduction against other social risks or community values (like employment or economic development). Such a case is particularly well suited to targeted transparency given the desirability of achieving different reduction levels across varied localities, the need to balance different public interests against one another, and the centrality of redressing information asymmetries between the companies discharging chemicals and the communities affected by them to arrive at more socially desirable levels of risk exposure.[6]

We do not see targeted transparency, then, as a replacement for other forms of public intervention. Instead, it represents an increasingly important, but complementary, mechanism of public governance that can be used to further public priorities. When policy problems are marked by the six characteristics described above, targeted transparency is a viable means of approaching them. However, even then, designing effective policies presents formidable challenges.

CRAFTING EFFECTIVE POLICIES

Even in circumstances where targeted transparency is feasible, policies must be carefully crafted with a clear understanding of the needs and limitations of their many audiences. Once launched, they also require frequent tune-ups

to adapt to changing times. We suggest ten principles for the design of effective transparency policies:

- *Provide information that is easy for ordinary citizens to use.* The most important condition for transparency effectiveness is that new information become embedded in the decision routines of information users. Therefore, once transparency is chosen as a way to address a policy problem, the first step is to understand how diverse groups of customers, employees, voters, or other intended users make decisions. Taking account of the culture, education, and priorities of these diverse audiences becomes critical. Designers can then tailor transparency systems to provide new facts at the time, in the place, and in the format that will be convenient for most people.

- *Strengthen user groups.* Targeted transparency systems are likely to be more sustainable when advocacy groups, analysts, entrepreneurial politicians, or other representatives of user interests have incentives to maintain and improve them. Policymakers can design systems to formally recognize the ongoing roles of user groups. Institutional investors, stock exchanges, stock analysts, and other organizations have formal roles in maintaining the integrity of the financial disclosure system. Health insurance companies and major employers have incentives to improve and disseminate quality-of-care data.[7] Labor unions and health and safety committees have roles in interpreting and disseminating information on workplace risks. Transparency systems can also create watchdog roles for user groups. The Community Reinvestment Act, for example, provides incentives for community groups to monitor and improve banks' mortgage lending disclosures. Policymakers may also encourage continuing oversight by user groups by requiring opportunities for public participation (including Web-based user-rating and information-input systems) and advisory council or audit functions.

- *Help disclosers understand users' changed choices.* Transparency policies fail if companies are unable to discern customers' changed choices and the reasons for those changes. Advances in information technology are rapidly improving disclosers' capacities to track customer, employer, investor, or voter responses. Where disclosers' capacity to discern changed choices remains weak, it is sometimes possible to design transparency policies that improve their attention to the impact of newly disclosed data. Requirements that chief executives certify the accuracy of reported data (included in Sarbanes-Oxley accounting

reforms and toxic chemical reporting, for example) increase the likelihood that executives will track their impact.

- *Design for discloser benefits*. When some disclosers perceive benefits from improved transparency, systems are more likely to prove sustainable. Policymakers can seek to generate information that harnesses and amplifies economic, political, and regulatory incentives that already exist in disclosers' environments. Companies and other disclosing organizations may seek to improve disclosure for competitive reasons (for example, to raise entry barriers for other firms), to ward off more stringent federal regulation, to avoid the headaches that come with variable state disclosure requirements, or to reduce reputational risks. Thus, food companies aimed to avoid a patchwork of state actions and to gain profits from healthier products when they supported nutritional labeling requirements in 1990. Chemical companies aimed to avoid stricter pollution rules and reputational damage, and also to gain competitive edge, when they drastically reduced toxic pollution in response to new disclosure requirements and sought to broaden requirements to include other disclosers. As technology allows users themselves to become disclosers of infectious disease outbreaks, drinking water contamination, or concentrations of toxic pollutants, target organizations have new incentives to improve metrics.

- *Design metrics for accuracy and comparability*. Corporate accounting standards, restaurant hygiene grades, and nutritional labeling succeed in part because they feature metrics that are reasonably well matched to policy objectives and allow users to compare products or services easily. Policies for disclosure of workplace hazards and drinking water contaminants, by contrast, feature confusing metrics that skew incentives and fail to provide comparable results. Achieving comparability can involve difficult trade-offs, since simplification may erase important nuances and standardization may ignore or discourage innovation. Corporate financial reporting and nutritional labeling provide interesting examples of balancing comparability with data complexity.

- *Design for comprehension*. Policies are most effective when they match information content and formats to users' levels of attention and comprehension. If information users are likely to be rushed, simple distinctions, grades, stars, bar or pie charts, or other relatively straightforward metrics – with back-up facts available – may work well. Web sites can provide quick answers while also allowing more interested users to delve further into the facts. Policymakers can draw on research

insights concerning cognitive distortions (discussed in Chapter 2) to design transparency systems that build in probabilities, limit information search costs, and minimize the impact of other cognitive problems.[8]

- *Incorporate analysis and feedback*. Transparency systems can grow rigid with age, resulting in a tyranny of outdated benchmarks. Generously funded requirements for periodic analysis, feedback, and policy revision can help keep such systems supple and promote adaptation to changing circumstances. For example, in recommending a disclosure system for medical errors, the Institute of Medicine also recommended a new and well-funded federal Center for Patient Safety to initiate and coordinate research and to continuously assess the disclosure system and adjust it accordingly.[9]

- *Impose sanctions*. Corporations and other organizations usually have many reasons to minimize or distort required disclosure. Organizations almost always resist revealing information about public risks they create or flaws in services they provide. Information can be costly to produce and even more costly in reputational damage. As a result, substantial fines or other penalties for nonreporting and misreporting are an essential element of successful systems.

- *Strengthen enforcement*. Sanctions are not enough, however. Legal penalties must be accompanied by rigorous enforcement to raise the costs of not disclosing or disclosing inaccurately. The fact that there is thus far no systematic mechanism for auditing toxic pollution data provided by companies means that no one knows for sure how accurate or complete those data are. Some systems include provisions for institutional watchdogs. The confessed crimes of lobbyist Jack Abramoff in 2006 led to proposals in Congress for the creation of an audit board for campaign finance disclosures, for example.[10] And some proposals create watchdogs to watch the watchdogs. Federal law requires accounting firms to audit corporate financial disclosures. Recent accounting reforms created a public oversight board to monitor the practices of those accounting firms.[11]

- *Leverage other regulatory systems*. When targeted transparency by itself is insufficient to generate effective outcomes, transparency can be designed to work in tandem with other government policies. Los Angeles County's restaurant hygiene grading would not work without a health inspection system that provides the basis for letter grades. Mortgage lending reporting generates information that allows community organizations to identify discrimination practices by local banks, while

the Community Reinvestment Act powerfully embeds that information into the strategies of users and disclosers. As noted earlier, this suggests that targeted transparency should be considered a complement and not a replacement for other forms of public intervention.

THE ROAD AHEAD

The future of targeted transparency remains uncertain. Political controversies about specific transparency policies fill the news. Some controversies suggest that a constructive learning process is under way, while others signal continuing transparency failures.

Spirited debate continues over how to improve corporate financial disclosure in the wake of accounting scandals, including battles over reporting of stock options, special entities, and executive pay. The European Union has required its twenty-five member nations to adopt a single set of corporate financial reporting standards even as doubts persist about whether those nations have the capacity to implement the edict.

Food labeling issues remain contentious. Democrats in the U.S. Congress led a long and ultimately successful fight to clarify labeling of allergens like peanuts and shellfish on packaged foods after reports of several consumer deaths. A twenty-year struggle to include harmful trans fats on nutritional labels ended with a new disclosure rule effective in 2007.

In 2006, the Food and Drug Administration announced the first major revision of prescription drug labeling in thirty years. New labels were designed to highlight major risks of side effects and drug interactions.

In 2005, federal regulators concluded an acrimonious debate about how to more accurately report auto fuel economy with a new system that was expected to reduce previous ratings by as much as 20 percent.

On the other side of the ledger, the George W. Bush administration was widely criticized for its hard-to-understand color-coded terrorist threat warning system, which fell into disuse.

Even as national concern grew about the public health risks from obesity, Congress buried proposals to require fast-food stores and restaurants to report on calories and nutrients.

The Bush administration proposed backtracking on toxic chemical disclosure by reducing the scope and frequency of reporting for some firms.

In 2003, inadequate reporting contributed to more than seven hundred deaths from the SARS epidemic and pointed to the failure of the international infectious disease surveillance system.

As a nation, we continue to test the proposition that government can legislate transparency to reduce risks and improve public services. Effective transparency is far from assured in our public policies and institutions. As we have seen, transparency systems begin as imperfect compromises and must evolve to keep pace with changing markets, advancing science and technology, and new political priorities. Yet improving them is no simple matter. New facts alter the competitive playing field and change benefits and costs for disclosers. They empower some interests and threaten others, rearranging the political environments surrounding transparency systems.

To illustrate the promise of targeted transparency, let us return once more to the dynamics of financial disclosure. Despite its flaws, financial disclosure has improved markedly in scope and accuracy since the 1930s. Until the 1970s, the SEC didn't even require uniform accounting standards. After the 1960s rash of hostile takeovers and conglomerate mergers, regulators called both for advance notice of plans to buy large blocks of stock and more detailed accounting of earnings. When illegal campaign contributions and falsification of corporate records created public alarm, additional checks encouraged management oversight. These improvements, imperfect though they were, reflected a common interest in improving the system's integrity. Despite criticisms of their costs, many analysts regard changes enacted in the Sarbanes-Oxley law as the latest step forward.

The larger insights provided by financial disclosure apply to myriad targeted transparency systems. At their best, such systems represent a promising form of information-age governance. However, the benefits of targeted transparency are not automatic. Transparency is likely to work best when it is part of a disciplined process that sets priorities, assesses probable impacts of alternative or complementary government measures, minimizes unintended consequences, and generates feedback, analysis, and system improvement over time.

We have argued for fundamental changes in ideas about transparency policies. We advocate beginning the design of any new system by analyzing what information users want and their decision-making habits. More broadly, we call for a new understanding of the democratic mantra of "access to information" so that it means more than simply placing data in the public domain. Instead, it means requiring the provision of content that is useful, customized, and interactive.

Despite the heralded arrival of the information age, we are only beginning to grasp the ways in which public policies can harness information to reduce serious risks and improve important services. There have so far been few

crosscutting studies of transparency effectiveness. Likewise, there has so far been little work comparing transparency policies with other regulatory tools. Despite a generation of new research, relatively little is known about how people make choices when confronted with new facts or about how to design systems to communicate effectively with diverse audiences.

Whether the broad innovation of targeted transparency increases trust in public and private institutions or erodes that trust will depend on both a greater understanding of how transparency really works and the political will to translate that understanding into action.