

CASE

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THE NORTHERN OXFORD COUNTY COALITION

Four Maine Towns Tackle a Public Health Mystery

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In February 1991, a popular New England television news show ran a segment called “Cancer Valley.” The story depicted a rural American community’s worst nightmare. It suggested that the people living in Northern Oxford County, Maine were experiencing extraordinarily high rates of cancer, and it implied that air emissions from a local paper mill might be responsible. Images of local residents walking through cemeteries, with the mill’s billowing smokestacks looming in the distance, struck an alarmist tone.

The television show amplified a debate that had been under way for some time in four rural towns surrounding, and economically dependent on, the mill: Rumford, Mexico, Peru, and Dixfield (hereafter referred to as the four-town area). For many residents of the towns, the television show lent credence to suspicions that an abnormally high percentage of their family members, friends, and neighbors had contracted cancer. Others were angry, opposing the claim that there was a health problem in their community. These residents

warned that the label “Cancer Valley” could unjustly tarnish the community’s reputation and hinder economic development for a long time to come. Still others were equally concerned that the controversy over cancer rates would force the mill to close, breaking the valley’s economic backbone.

In the midst of the controversy, the mill was indignant about the charges leveled against it. Mill managers pointed out that they were in compliance with all existing federal and state regulations concerning air quality. They were quick to note that the mill had recently invested more than \$50 million in technologies designed to reduce both the odor and the toxicity of the wastes emitted through the mill’s stacks.

Although many residents had very real fears of high cancer rates, few data were available to substantiate or alleviate those fears. Likewise, data on the quality of the air in the four towns were limited. In the absence of credible information, the controversy seemed sure to produce an extended series of attacks and counterattacks. In a set of communities small enough that people recognize each other at crosswalks or in the supermarket, this kind of protracted debate was sure to be painful. But what could any one person do? What, if anything, could the community do collectively?

With leadership from the Maine Department of Environmental Protection (DEP) and the U.S. Environmental Protection Agency (EPA), town residents on different sides of the debate came together in 1994 to initiate a community-based consensus building process. They called their group the Northern Oxford County Coalition (NOCC).

The 25-member coalition met over two years, with support from the Consensus Building Institute (CBI), a nonprofit pro-

vider of nonpartisan facilitation assistance. Many stakeholder groups participated, including concerned residents of the towns (including some employed by the mill), health care providers, small businesses, the mill management, local and state elected officials (including members of the Maine legislature), and state and federal agencies responsible for protecting human health and the environment.

Over two years, the coalition gradually overcame distrust and recriminations to complete several fact-finding and action-oriented projects. The members

- jointly designed a study to investigate cancer rates in the valley,
- initiated a community-wide radon-testing program through which 400 homeowners tested their homes for the cancer-causing gas,
- worked with agencies to evaluate recent air-monitoring data and to design a continuing air-monitoring program,
- held a public forum on dioxin and pollution prevention,
- wrote and distributed an action plan with numerous recommendations in the form of a community newsletter, and
- organized a new “Healthy Communities” coalition to continue the work of the NOCC.

In addition to conducting studies and organizing forums, the NOCC allowed residents with differing viewpoints, incomes, and interests to build more trusting and collaborative working relationships. This case study does not seek to retell the complete story of the NOCC. Rather, it explores in depth several aspects of the work undertaken by the NOCC, including

getting started, investigating cancer rates jointly, and taking actions to ensure that the coalition's recommendations would be im-

plemented. The case study also identifies key lessons about the process of building consensus in a community setting. ♦♦

◀ COMMENTARY

Of the cases in this *Handbook* that I have read, this one most fully reveals the surprising resemblance between the self-understanding, perhaps even the working fantasy, of the consensus building facilitator/negotiator and the peace-making gunslinger who is the mythic hero of the American Western. Of course, the consensus builder uses words, never bullets, to resolve disputes, and the gunslinger in the end has to expect to meet violence with violence of his own. But this difference of means aside, consider the similarities: Both figures come from afar to towns driven by inveterate faction (the farmers or merchants against the ranchers in the Western, the industrial interests against the townspeople here). Both are welcomed because they promise to create peaceful order, and both are suspect because their peace-making powers are somehow derived from suspect commerce with the wider world. (Honest folk won't trust anyone who is as quick on the draw as the gunslinger, and neither will they trust a fast-talking fancy dan who might conjure agreement from confusion or ignorance.) The crucial struggle for both is to identify and rally those who want to live in peace—and perhaps, will put themselves at risk to attain it—from those who live to fight. Gunslinger and consensus builder have both seen enough of life to expect surprises—ennobling and demeaning—as parties on all sides discover what respect for oneself and others requires. In the end, after the Western shoot-out and the consensus builder's single-text negotiation, both heroes leave town, and with it a prospect of a lasting peace that they, in their quest to best conflict, are unlikely to know themselves.

The point of this comparison is not, of course, to establish some moral equivalence between the two figures but rather to call attention to features of both settings that the focus on the respective heroes blends out. Above all, what both accounts neglect is the role that institutions—laws, various agencies of public administration—play in structuring conflicts, and shaping their resolution, and how the resolution of conflict in turn reshapes the institutions. This inattention to institutions accords well with the founding assumption of both stories: that the intervention of outsiders is necessary just because the institutions of order, if they ever existed, have broken down. From this perspective, the real story of institutions begins with the peace making, and the compacts in which that process results, hence the shot of the judge or law book in the closing frames of the Western or mention of the first disputes resolved by the newly built consensus in the cases collected in this *Handbook*.

But how well does the assumption of an institutionally impoverished, if not empty, place of conflict accord with the facts? A crude way to assess the goodness of fit between assumption and circumstance is simply to ask whether the stories of conflict resolution told here have the compactness and self-sufficiency that the analogy with the Western suggests. If they do, then consensus building, in addition to its other accomplishments, builds its own institutions. If not, if, in other words, "outside" institutions of government keep intruding into the story or become entwined with it, then some other, more encompassing point of view—one that treats consensus building as part of a larger story of changes in the contemporary forms of public decision making—is worth considering.

No single case—no matter how detailed—can, of course, by itself decide such large questions about the utility of a general frame of analysis. Nonetheless, the story of the Northern Oxford County Coalition is particularly informative as a kind of limiting case. On the one hand, in myriad ways that are left to the reader to detect, it describes the reality of small-town conflict that underpins the parallels between Western myth and modern dispute resolution. On the other, it has a surprise ending that casts doubt on the utility of that parallel even in the settings where it appears most useful. I'll have more to say about that ending, but only when the smoke clears.

—Charles F. Sabel, *Political economist*

■ *Background*

With metropolitan Portland an hour and a half to the south and a vast sweep of undeveloped forest lands just an hour to the north, the four towns of Rumford, Mexico, Dixfield, and Peru lie clustered around the confluence of the Swift and Androscoggin Rivers. At 15,000, the population of the towns is predominantly blue collar, and includes many families that have lived “in the valley” for generations. The mill as a physical and economic presence in the valley is impossible to ignore. It lies on an island in the center of Rumford, its six “smoke” stacks and giant mill buildings overshadowing the brick tenements and small-town main street. The mill provides jobs for 1,600 workers and directly or indirectly employs nearly 35 percent of the region’s workforce (Beckley, 1994, p. 189). A local journalist commented:

We have been dependent upon a paper mill for the last seventy five years or so. . . . Sure as hell they are the life-blood of the community. We would blow away if it wasn’t here, so we need it desperately. They pay well. And basically the whole town respects and supports them, I think. (Beckley, 1994, p. 193)

The mill has a long history in the four towns. The first facility was constructed in 1897 by the Rumford Falls Paper Company. Over the years, many smaller mills came and went, but this large facility took hold in the region’s paper products industry. From 1976 through 1996, the mill was owned by one of the largest forest products companies in the world (Corburn, 1996, p. 24). For many years, the company that owned it enjoyed a positive relationship with the community. Many town residents made a good living at the mill. But a series of strikes in the early 1980s frayed goodwill and put distance between workers and mill managers. Then, amid a growing national environmental consciousness, some town residents began vocalizing concerns about mill emissions and local disease rates, further widening the rift among various constituencies.

■ *The Impetus for Consensus Building*

A local public hearing organized by the Maine DEP triggered the creation of the NOCC. The mill had applied for a license to increase its emissions from existing boilers. This occasion became the setting for a dramatic confrontation between the mill and town residents. Nearly 125 people at-

tended. Many came to proclaim their complaints and fears about the impacts of mill pollutants and leveled the charge that neither the Maine DEP nor the mill was doing enough to protect health in the valley.

The Maine DEP faced a difficult dilemma. On the one hand, the mill was meeting emissions limits established by federal and state statutes. In particular, emissions were well under the Clean Air Act's allowable ceilings for criteria pollutants such as sulfur dioxide, nitrous oxide, and particulate matter. In fact, recent technological improvements at the mill had substantially cut the levels of criteria pollutants coming from the mill's stacks.

On the other hand, preliminary monitoring in the areas surrounding the mill had recently shown levels of air toxics that exceeded state health guidelines. Air toxics (also known as hazardous air pollutants) are a class of pollutant that encompasses literally hundreds of chemicals emitted from a variety of sources. For many years, the health risks of air toxics were not well understood, and they were not regulated. In the 1990 Clean Air Act amendments, Congress directed the EPA to begin regulating air toxics, but these regulations had not yet been developed when the NOCC began its work. ♦♦

◀ COMMENTARY

Very generally speaking, problems of this sort are becoming the rule, rather than the exception, in environmental regulation. Legislation has typically limited the emissions of particular pollutants, such as the sulfur dioxide and nitrous oxide mentioned here, from large and discrete point sources, such as the mill's stacks. Non-point source pollution, such as the effluents from households or corner dry cleaners, or the nitrogen or phosphorous sometimes contained in the runoff from farms, is only now being regulated, even though the aggregate effects of such pollution may be devastating to the environmental or public health. Conflicts over non-point source pollution can be especially rancorous because the polluter can often claim, fairly, to have incurred great expense to comply with the law, while the affected population feels menaced not only by the omnipresence of pollution but also by the other side's ability to exploit legal technicalities to escape further responsibility.

—Charles F. Sabel, *Political economist*

Dennis Kechel, director of the DEP's Bureau of Air Quality Control at the time, decided that since the situation did not call for *regulatory* action, he would instead organize a consensus building process. While

he wasn't sure exactly what the outcome might be, he felt strongly that there needed to be some community forum where stakeholders could address their concerns. ♦♦

 ⇨ COMMENTARY

If problems of non-point source pollution had been less familiar at the time of the story, the official might have been much more hesitant about taking exploratory and potentially provocative action. Today, many federal and state initiatives have begun to address the problem, and an agent on the spot might well begin by establishing some relation with one of these.

—Charles F. Sabel, *Political economist*

After meeting separately with the various potential stakeholders, the DEP hired a facilitator from Colorado and convened the first multistakeholder meeting in February of 1994. Four meetings were held in the first six months. During this period, the EPA came forward with a grant of \$80,000 to support the work of the newly formed group. The going was tough in these early meetings. Participants came to the table frustrated and angry and could not agree on what they should do together. One participant said:

Every time I came home from the meetings I would think that this is a coalition that hasn't coalesced. There was no agreement on what should be

done, how it should be done, and there were viewpoints expressed that ranged from "There are no problems in the valley" to "You can knock on any door and someone in the family had died of cancer." . . . It seemed like no one knew what the plan was.

Concerned that the coalition might dissolve, the EPA approached CBI. CBI offered to work with the coalition on a pro bono basis for the first year, in part so that the EPA's grant could be used to support substantive investigation the coalition might decide to undertake.

Public agencies thus played a key role in jump-starting the NOCC. ⇨

 ⇨ COMMENTARY

To return for a moment to the institutional void that is the natural habitat of the paladin of the Western and the consensus builder: Saying that the public agencies helped in "jump-starting" the NOCC is an artful way of getting government institutions into the story, and then right out again. The suggestion, to my mind, is that the government officials, overtaxed by the situation, pass the mantle of authority to consultants and consensus builders (just as the aging sheriff in the Western, outgunned by the rampaging ranchers or the gang of desperados, pins a star on the paladin and then retires into the background).

—Charles F. Sabel, *Political economist*

In the atmosphere of outright hostility among stakeholder groups, no one within

the four towns could propose that everyone sit down at the same table: That pro-

posal would have been rejected outright by the others. Furthermore, none of these groups really knew about community-based consensus building used elsewhere. The DEP was in a unique position to seize an opportunity. Although some were skeptical of the DEP's motives and sympathies, many citizens in the area saw the DEP as the entity accountable for air quality in the region. Citizens expected the DEP to do *something*. The EPA's financial support not only made the process feasible, it also helped bring people to the table by showing that a public agency (almost four hours' drive away) was attentive enough to citizen concerns to provide resources for fact-finding. Even though the mill might also have had the ability to supply funding, such a contribution would probably have threatened the legitimacy of the process. Other local institutions with a greater degree of perceived neutrality (e.g., local governments, the hospital) simply did not have the means to provide funding.

■ Section 1: Conducting a Stakeholder Analysis

When we arrived at the Peru Town Hall during a heavy snowstorm in April 1993 to offer our assistance, we met a group that was skeptical about whether anything positive could emerge from a collaborative process. The coalition had spent four meetings trying to sort through competing visions of what kinds of projects should be the focus of their work. We proposed doing a *stakeholder analysis*, an assessment that would help us to identify the range of stakeholder groups; assess whether the coalition's current membership was inclusive of the towns' broader interests; summarize the concerns of current NOCC participants as well as other stakeholders; and formulate, if possible, an agenda for a midsummer retreat and a draft long-term work plan. With few other potential sources of help, the group agreed to give CBI a try. ♦

◀ COMMENTARY

As CBI entered the picture, how did it manage the expectations of the parties? Many parties had expectations for solutions and clear scientific results. Yet the problems to be studied are not easy ones. Part of the role of the facilitator should be to manage expectations of the process at the front end.

—Max H. Bazerman, *Social psychologist*

A month later, we headed to Rumford to interview 48 stakeholders in their homes and offices. From the interviews, we identified eight stakeholder groups: state and federal agencies, local government, small and large businesses, organized labor, interested citizens, health care providers, environmental advocacy groups, and state nongovernmental organizations (NGOs)

concerned about public health and the environment.

We found that both across and within these different stakeholder groups, there was a wide range of views about whether the four-town area had elevated cancer rates. For example, one stakeholder voiced the view that there was *no* conclusive evidence to suggest that various forms of can-

cer were more prevalent in Rumford compared to elsewhere. Another suggested that while there might not be scientific evidence of higher cancer rates, people's personal experience provided strong support for this

conclusion. He noted that most families up and down his street could report a case of childhood leukemia, adult lymphoma, or other kind of cancer. ♦♦

◉ COMMENTARY

A critical issue facing CBI appears to be divergent expectations on the part of the differing parties to the dispute about the facts: Did the mill cause increased rates of cancer? The consensus builders appear to have approached the problem by trying to get all the parties on board in terms of process, hoping that outcomes would follow. In contrast, Raiffa (1982) and others (Gillespie & Bazerman, 1999; Lax & Sebenius, 1986) have argued that the use of contingent contracts can be used to take advantage of differing expectations. At the risk of oversimplification, if the mill claims that it is not creating cancer and a citizens group claims it is, if the parties can agree on an independent scientific assessment, each side should be willing to bet on its a priori beliefs about the outcome of the scientific assessment. Many such bets are possible. The use of contingent contracts offers a very different approach to resolving disputes under uncertainty. The focus is on a process that fixes the outcome based on a contingency that is learned after the agreement is reached. I offer this idea as an alternative, one that builds a process around outcomes, in comparison to the current model, where consensus building was the core goal, with an assumption that a good process leads to a good outcome.

Contingent contracts can be an excellent mechanism for using negotiator differences to build integrative agreements. Instead of arguing over differences concerning the likelihood of some future event taking place, parties can make a contingent contract. In the Northern Oxford County Coalition case, the bet could have been based on the independent scientific assessment.

—Max H. Bazerman, *Social psychologist*

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There were similar differences of opinion about the issue of air quality. Some emphasized how much air quality had improved in the valley over the past few decades, noting that just a few decades ago, clothes hanging on a clothesline would turn black from the dirty valley air. Others

Painted a very different picture of a rural place with the air quality problems of a densely populated city. In addition, many people had concerns about the NOCC. Some worried that its meetings were dominated by loud and unpleasant arguments among a few vocal critics and defenders of

the mill. Others felt the NOCC would not lead to any real change—it would simply be a lot of talk.

Despite these differences of opinion, we found that many stakeholders thought the NOCC might be worthwhile. They had long been frustrated that debates about air quality and public health occurred in a vacuum of factual information, and they recognized that the NOCC might be able to get people working together to gather credible data. There was broad agreement that the NOCC's first task should be to "put on the table" all the existing studies about air quality and public health, so everyone could review them together.

Based on these findings, CBI drafted a 12-page assessment recommending that the NOCC hold a summer retreat, consider expanding membership to include other groups such as local health care providers and concerned citizens, and move forward in developing a clear work plan.

Benefits of a Stakeholder Analysis

From the perspective of the facilitation team, the stakeholder analysis was critical in laying the foundation for a collaborative dialogue for a number of reasons. First, the effort created a means for people to voice their concerns, something they may not have felt comfortable doing with a neighbor or a local employer. For example, among those we interviewed were a number of millworkers who felt that the mill management had been negligent in protecting worker health. Some even felt that their own health might have been impaired by overexposure to toxic chemicals. The stakeholder analysis gave them the opportunity to get all of those concerns out in the open, without fear of reprisals.

The written report also functioned as a corrective lens: It revealed that there were actually commonalities in stakeholder views that had been obscured and distorted in the anger. For example, all stakeholders said they cared about long-term enhancement of public health of the valley. The report also mapped the disagreements, but since it made no individual attributions, it did so in a way that shifted the focus from *people* expounding differing views to the *substance* of those views. By looking closely through this lens, stakeholders in the four-town area could begin to build a more focused, multifaceted picture of what the conflict was all about.

The stakeholder analysis was also an aid in identifying who should be at the negotiating table. By asking existing NOCC members who might be missing from the dialogue, we kept casting the net wider. In our report, we identified four groups that seemed underrepresented: local health care providers, local citizens, small businesses, and the Maine Bureau of Health. The coalition then helped design a plan for adding representatives of these groups: A public meeting was held to invite new citizen representatives to join, the local hospital was asked to designate someone who could represent nurses as well as hospital management, and coalition members placed calls to local businesses in an effort to drum up interest in participating. These efforts yielded several new NOCC members.

Finally, we believe the stakeholder analysis helped us gain a foothold in a small rural area inclined to be suspicious of "outsiders." No one in Rumford had ever heard of the Consensus Building Institute. Cambridge, Massachusetts, home to CBI, was almost a four-hour drive from Rumford, and surely perceived by some as a bastion of academic pretension and liberal activism. Moreover, another outsider, the EPA,

had proposed that the coalition use CBI's services. Because the EPA was itself the target of some suspicion among community members, it wasn't surprising that the agency's support for hiring us did not translate into instant trust on the part of community members. We believe that one-on-one conversations with stakeholders on their own turf enabled us to take the first

steps toward building legitimacy and trust in the community. It was an opportunity to get to know coalition members one at a time. Moreover, it helped to demonstrate that we could be nonpartisan—that we could listen without judgment, and summarize views without compromising anyone's privacy. ♦♦

COMMENTARY

These points are indeed so central to the consensus building process that they bear immediate restatement. The stakeholder analysis is at the heart of this new kind of public problem solving precisely because it creates a setting in which the definition of the problem to be solved can be elaborated even as the circle of those who can or should contribute to its solution is (re)drawn, and vice versa. Contrast this with the normal procedure of representative democracy, in which the legislature, representing the citizens, defines the problem and delegates its solution to an administrative agency (which may in turn decide to include certain "affected interests" in its considerations of solutions).

The contrast is particularly evident with regard to the ideas of representation that underlay the two systems. In representative democracy as we know it, of course, the citizens of territorial jurisdictions have interests and elect representatives to advance them. In the deliberations characteristic of consensus building problem solving, citizens concerned about the solution of some problem participate directly in articulating possible solutions, and in enlarging or redrawing the circle of participation. This can happen, as here, simply by asking some participants to propose additional, underrepresented ones, but it can happen as well when nonparticipants decide to participate (or ask for invitations to join the deliberations) because of actual or potential effects on them of initial rounds of decision making or discussion. If the kinds of public problem solving described in this *Handbook* spread, the relation between this novel form of *rolling or rippling representation* and the traditional representation of interests will pose great questions for the understanding of our Constitution and democracy. It would surely be self-defeating to halt the use and development of the consensus building techniques until these large problems are resolved, assuming they can be, but it would be recklessly optimistic to assume that there are no such long-term problems simply because the techniques demonstrably work in many situations where traditional ones do not.

—Charles F. Sabel, *Political economist*

■ Section 2: Getting Organized

Getting the NOCC to work on its first project was not easy. The NOCC meetings

that took place before the stakeholder analysis had been acrimonious. Many of the emotions that worked their way into insults and accusations grew out of events long since passed: charges of the mill cov-

ering up toxic releases; charges that vocal citizens had personally and unfairly attacked the mill's environmental manager in front of his family at the 1993 permit public hearing. Stakeholders had an understandably hard time putting the past behind them; the consequences for individual relationships were evident at each of the NOCC's early meetings.

To make matters worse, the NOCC's first four meetings did not produce a clear direction for the group. Members still had very different ideas about which problem should be the coalition's main focus. Cancer rates, respiratory illness, and pollution prevention were all proposed. Somehow, the NOCC needed to find a focus in the midst of this intense distrust and high emotion, and get to work. The early meetings and the stakeholder analysis had helped parties to vent, but the key to moving forward was reaching three framework agreements on how to work together and on what. These were a set of ground rules, an overarching mission, and a detailed, month-by-month work plan.

Laying Down Ground Rules

The stakeholder analysis clearly revealed that NOCC members had a lot of misgivings about what future NOCC meetings would be like. Many felt that past meetings were dominated by a few. Interviewees voiced concern that the coalition had been hijacked by a few "extremists" and those with more moderate viewpoints would stay away from coalition meetings.

After the stakeholder analysis had been completed and presented to the coalition, our first task was to help the group reach agreement on ground rules that would ensure that NOCC meetings were constructive. We brought to the coalition draft

ground rules based on what we had found worked well in other consensus building processes.

One section of the draft addressed how members should communicate with each other. There was a rule suggesting that only one member should speak at a time, and no member should interrupt anyone who had the floor. Another ground rule disallowed personal attacks, and a third committed members to speak their own views rather than the views of others at the table. Taken as a group, these ground rules sought to ensure an environment of respectful communication, so that members would not shy away from speaking openly for fear of being ignored, ridiculed, or unfairly criticized. They also sought to keep the group as a whole on track, avoiding the kind of hostile and distracting interactions of the past.

Another section of the ground rules delineated the role and responsibilities of coalition members. All members should come to meetings prepared to represent not only themselves or their organization but all of the members of their stakeholder group. The ground rules explained that this meant members should commit to keep in touch with their constituents. It also meant bringing these viewpoints back to the negotiating table and helping other NOCC members reach a better understanding of them. This ground rule posed a special obstacle for "citizen" representatives on the NOCC who had no organized process for communicating with the members of their "group," which could encompass the entire population of the four towns.

There were also ground rules that laid out the role of other key participants in the process: the facilitator, alternates who would come to meetings when regular members couldn't make it, and the media. And there was a section that described how

the NOCC would make decisions. It memorialized the idea that the group would aim to reach agreements that met the interests of *all* stakeholder groups. It also introduced a very new, and for many, counterintuitive, idea that any agreement on a specific issue would be tentative until the coalition had reached agreement on multiple issues. Holding off on final consensus would allow participants to craft an agreement that allowed for trade-offs across issues, thus more effectively incorporating the participants' different interests and priorities in a complete package.

We expected that reaching agreement on the ground rules would pose a major hurdle. It was the first major agenda topic we floated with the NOCC, and it meant committing to rules that not everyone had abided by in the past. To us, as "experts" in process, the decision seemed momentous. Given the level of anxiety we had heard in our interviews, we were quite surprised when our draft was met with silence. No one had much to say, and the draft was approved with very few changes.

At that early stage, most people in the room were more interested in debating the "real" issues than debating how to debate the issues. Ground rules were foreign and untested, and it was still difficult for some members to grasp what a difference they might make. As one participant said at the NOCC retreat: "Enough of this 'nicey-nice' stuff: Let's move on to the real issues."

Over time, however, the group began to take more interest in the ground rules. After one year of meetings, we began hearing complaints that the rules were not being observed consistently. There was a concern that a few NOCC members tended to grandstand rather than negotiate in good faith, and that they peppered the discussion with comments that were accusatory or

derogatory. This, the concerned stakeholders asserted, prevented many from participating in the group discussions. Some NOCC members also told us that they thought we weren't doing enough to enforce the ground rules.

We took this as our cue to ask again if the rules fit the needs of the coalition, or if additions or changes might be needed. This time, very few NOCC members sat silent. Their experience working in a consensus building mode had given them a new appreciation of the importance of ground rules, and new insight into what kinds of restrictions and responsibilities would create the most productive meetings. For example, one member proposed a new rule enabling anyone to call a "time-out" during a meeting with the two-handed *T* signal used by referees. The time-out signal provided a way for an NOCC member who felt a few were dominating the discussion to alert the facilitator and request an intervention. We believe this ground rule shifted the dynamics of NOCC meetings. By transferring some of the responsibility for identifying ground rule violations to the members themselves, it made them feel that those rules were theirs rather than ours. With the new time-out rule in place, we found that NOCC members who had rarely participated in meetings began offering their views. Along with this time-out rule, the group adopted a "disagreements list." Contentious items that tended to bog down conversation could be remanded to this list and added as a specific item to later meeting agendas. This allowed for work to move ahead without ignoring areas where parties had fundamental differences of opinion.

Once the revised ground rules were in place, an interesting change took place: There were few instances thereafter when

we needed to interrupt the course of the conversation to enforce them. The group began to use humor and friendly teasing more often, as a way to diffuse conflicts and personality clashes. The NOCC at first ignored a set of ground rules imposed on them by us as outsiders. Over time, as the group learned together, however, they saw

the real need for ground rules, crafted the rules to meet their needs, and internalized them in a way that established a code of conduct from within the group. We learned a simple but valuable lesson: Effective ground rules have to be built through experience. ♦♦

⇒ COMMENTARY

If you thought I was introducing needless complexity into the discussion by suggesting the novel, self-constructing, or self-reflective character of consensus building, the discussion of ground rules and their revision in the preceding paragraphs should convince you that the actors are way ahead of the commentators on this one. Not only do the participants begin to demand effective policing of the original, vague procedural rules, they also invent a time-out procedure that allows the participants themselves to shape the flow of discussion in a way that prevents domination by the logocrats and gives rise to norms of intervention that ultimately make recourse to the time-out "rule" that the actors themselves devised and apply all but unnecessary. This example enlivens the useful remarks on how to set an agenda and ground rules found in "A Short Guide to Consensus Building."

—Charles F. Sabel, *Political economist*

Developing a Mission Statement

Establishing ground rules was helpful (especially over time), but the NOCC still needed a destination. The next task was to define a purpose that everyone could support. Unfortunately, no common purpose announced itself. Stakeholder groups held different views about what constituted the "problem": cancer rates, the mill's emissions, lack of public education on the dangers of smoking, or pollution from small businesses, cars, and households, to name a few. What could the NOCC do? The EPA pushed us and the group to devise a mission statement.

Several pieces of a mission statement emerged from the stakeholder analysis.

First, every stakeholder was ready to affirm an interest in seeing the quality of life in the valley improved. While there were many and sometimes sharply differing perspectives about the status of public health and air quality, everyone agreed that improving both was fundamental to ensuring a high quality of life in the region. Last, everyone wanted a clearer understanding, based in scientific fact, about public health and air quality in the four towns. These became the building blocks of a mission statement. After several rounds of negotiation, the coalition reached consensus: "The Northern Oxford County Coalition has been established to improve the quality of life in the valley by protecting and promoting public health and enhancing air quality."

It's worth pointing out that although the mission statement captured agreement that we had heard clearly articulated in our interviews, hammering out the exact language was a time-consuming process. A good part of three meetings was taken up negotiating a few simple sentences. For example, there was a lively debate among members of the NOCC as to whether the phrase "enhancing economic opportunity" should be included in the first sentence. For some, including this phrase was akin to unraveling the commitment to protecting worker or citizen health. Behind every such debate, there was a complex subtext about how different phrases might or might not be interpreted.

Charting the Course: Developing a Work Plan

With the ground rules and mission statement in place, the next hurdle was developing an agreeable work plan. In some ways, this was the most difficult of the three agreements to develop because it committed NOCC members to a course of action and, at least temporarily, excluded other activities. At first, we tried to produce the plan through face-to-face meetings. We convened a retreat in a motel outside Rumford to begin forging a preliminary document describing what the NOCC would do by when. We quickly realized, though, that it would not be possible to make this a group project. Having just worked through the ground rules and the mission statement, many members were impatient with all the "process" talk. They wanted to get down to work.

We realized that we needed to prepare a first draft, and invite people to react to it.

Initially, we felt anxious about this task, since we knew no more than any NOCC member about how epidemiologists might assess whether there is a cancer problem in a community, or how air quality experts would judge the quality of the air people breathe. We needed to come up with a plan for how the NOCC could explore the big-headline questions that were being bandied about in coffee shop conversations, union meetings, and Rotary luncheons. But specific activities needed to be based on an understanding of what was technically and scientifically feasible. So first, we went back to the results of the stakeholder interviews to clarify what kinds of questions the coalition might want to ask as part of a joint fact-finding process. Second, we got on the phone with expert epidemiologists, toxicologists, and air-monitoring experts to ask how would one go about answering the questions, Are cancer rates unusually high in our community? Where could we find the necessary data, and how long would it take to analyze?

We had trouble recommending to the NOCC what subject members might tackle first. In our initial interviews, many had listed their worries about cancer as their highest concern. But some members were reluctant to support such an investigation. Representatives of the EPA and the Maine DEP argued that studying cancer was too difficult because of its multiple forms and the vast uncertainty about its causes. They also pointed out that because cancer has such a long latency period, current cancer rates would not be a good indicator of the valley's present environmental conditions. They suggested that an investigation into respiratory illness might better indicate the current status of the valley's public health and environmental quality. Still other

NOCC members, the health care providers among them, thought that the NOCC should focus first on helping residents see the need for healthier lifestyles.

In the end, we recommended that the NOCC launch its work with a study on cancer incidence, designed by NOCC members with the help of an epidemiologist. ♦♦

⇒ COMMENTARY

I think that the decision to develop the study with NOCC members as part of the scientific team is an interesting decision. It is certainly consistent with the spirit of consensus building. Yet it runs against the notion of using comparative advantage in getting a task done. Why would NOCC members be doing the work, rather than overseeing the work of a university-based team? On the other hand, it is interesting to think about the process advantages of having the NOCC directly involved.

—Max H. Bazerman, *Social psychologist*

The Maine Bureau of Health had a large, multiyear database of cancer cases in the state, so completion of a study analyzing cancer rates seemed feasible. But more important, cancer was a strongly felt concern among the citizen representatives. It seemed that pursuing any other issue would be seen as a diversion if not an outright denial of the problem. Even though there were compelling reasons why a cancer incidence study might not be the most pragmatic choice, we felt that many stakeholders from the four towns would commit to the process only if they felt it addressed their fundamental concerns. Once the coalition had grappled with the mystery of local cancer rates, it might be possible to take on other issues, such as air quality monitoring, or smoking habits.

We then produced a draft work plan for one year. It proposed a set of activities for both the full NOCC and a set of subcom-

mittees. We added subcommittees as a means of breaking down complicated tasks (e.g., assess air quality in the four towns) into manageable projects that could be carried out by a smaller number of NOCC members (e.g., review monitoring data collected in 1991 and 1993). We also hoped that subcommittees would be smaller and thus more informal, encourage more discussion among participants, discourage grandstanding, and help build better relationships among the participants.

The plan laid out a preliminary structure for the group's work, set a deadline for the deliberations, and pointed toward a concrete final report that would summarize the work of the group and be distributed to the valley's residents. But the details of the work plan kept evolving almost as soon as it was printed. The plan called for the cancer incidence study to be done in three months. It took eight. ♦♦

 COMMENTARY

The time passage is interesting. It is common for plans that are projected to take a fixed amount of time to take two, three, and four times as long. Why? In this case, lives were potentially at stake. I would argue that many consensus building initiatives take substantially more time than predicted and that this creates process and outcome problems.

It is fascinating that we all know that it takes longer to build a house than planned, longer to complete a project than scheduled, and longer to write a paper than promised to an editor. So why do we not adjust over time? Psychological research shows that we have a bias toward optimistic illusions. Unrealistic optimism is the tendency to believe that our futures will be better and brighter than those of other people (Taylor, 1989). Taylor reports that people expect that they are more likely to graduate at the top of the class, get a good job, obtain a high salary, enjoy their first job, get written up in the newspaper, and give birth to a gifted child than reality suggests. We also estimate that we are less likely to have a drinking problem, get fired, get divorced, become depressed, or suffer physical problems. Taylor notes that we persist in believing that we can accomplish more in a day than is humanly possible and that we seem immune to the continued feedback that the world provides on our limitations.

We see the same pattern in the domain of negotiations. Rod Kramer (1994) found that 68 percent of the MBA students in a negotiation class predicted that their bargaining outcomes would be in the upper 25 percent of the class. These students also expected that they would learn more than their classmates, with more unique results, and that they would contribute more to the class experience.

The net result of this unrealistic optimism is poor planning and failed expectations.

—Max H. Bazerman, *Social psychologist*

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The plan was too ambitious. Ensuring that the plan was inclusive created an irresistible temptation to fold in more activities than could be accomplished in a year. Moreover, our initial time estimates did not take account of how much time it would take for the group to develop an efficient work style, how long it would take to wade through complex technical information, and how much time experts and agencies would be able to spend on NOCC projects.

Changes in the priorities and interests of NOCC members also caused the work plan to evolve. For example, as the cancer incidence study gave members more insight into how public health data could be accessed and analyzed, some NOCC members became more interested in launching a study of respiratory illness. Also, as NOCC members learned more about potential causes of cancer, NOCC members devised new ideas of what to work on, such

as a radon-testing program for homeowners in the community. All of these ideas required that the NOCC adjust its original work plan.

The work plan was important. A shared understanding of where the group was headed prevented it from becoming sidetracked, confused, and, ultimately, unproductive. However, had the coalition held fast to its original plan, it would have been less effective in maintaining a direction that was in line with the available resources and time, as well as the interests of coalition members. In addition, all this effort showed us and the NOCC an important role of the facilitators in such a community-based process: Not only our neutrality but also our time and access to potential resources were essential to assisting the NOCC.

■ *Section 3: Tackling an Investigation of Local Cancer Rates*

Coalition members had decided to make their first task an effort to gather and analyze data from the Maine Cancer Registry. Their objective was to determine if cancer

rates were abnormally high in the four-town area and, if rates did turn out to be high, to identify the reasons why. Carrying out the task seemed daunting. With the exception of the NOCC's representative from the Maine Bureau of Health, neither the members of the coalition nor the facilitators had been involved in previous efforts to apply epidemiological research methods to an assessment of local disease rates. In fact, it's probably safe to say that while a number of community stakeholders had done an impressive job of educating themselves over the years about environmental and public health issues, none had designed and carried out a scientific investigation of any kind.

The challenge went beyond our collective status as technical novices: The subject matter was controversial, highly charged with concerns about sickness and death. Some stakeholders were convinced that a virtual cancer epidemic was under way, and others were equally adamant that this claim was unfounded. It was hard to imagine how NOCC members could get to the point where they might agree on an interpretation of jointly gathered data. The NOCC launched its study of cancer incidence without really knowing where it was headed. ♦

☞ COMMENTARY

Evidently. But did the members of the NOCC recognize that they didn't know? Did the consensus builders? If both recognized this early on, it is unlikely that the group would have foundered around in search of a precise project for as long as we will see it did. If only one of the two had clear ideas about the ambiguity of the goals, what hampered communication with the other? I raise these questions because it is now hardly unusual (but not, perhaps, routine) for parties facing environmental problems to acknowledge their ignorance even in affirming the importance of their common dilemma, and to begin attempts at a solution with an open-ended study that aims to specify the problem to be solved. Many efforts to address non-point source pollution, to return to the earlier example, grow out of such studies. Perhaps the NOCC was so divided that by this time, it would be impossible to agree to such a broad

investigation even if the techniques for organizing one had been widely known. Or it may have been that, focusing on local problems, the consensus builders neglected to take advantage of techniques for addressing open-ended, diffuse problems emerging outside of Northern Oxford County. The conclusion to the case study will leave us puzzling about that.

—Charles F. Sabel, *Political economist*

COMMENTARY

It is interesting to see this successful consensus building process in an environment where the process was created “without really knowing where it was headed.” This is very counterintuitive to a management school professor. If you do not know what the goal is, how can you know if you were successful? Yet the authors provide some good answers. If the process creates a better community dialogue, more publicly acceptable data, and a better environment for future discussion, it is clear that much success was achieved. At the same time, the issue of specifying objectives on the front end remains an interesting issue for consensus builders.

—Max H. Bazerman, *Social psychologist*

There was, however, a collective determination to get to the bottom of a public health mystery.

Choosing an Expert

It was clear from the beginning that the cancer incidence study was going to be a complicated and time-consuming task. The first step was to assign the bulk of the work to a subset of NOCC members who cared about cancer incidence, who had a background that would prepare them for the work, and who were committed to putting in the time needed. The Technical Subcommittee (TSC) was formed to initiate and oversee the study. As a group, TSC members represented the key stakeholder groups represented on the NOCC, including citizens, the union, the mill, and the state and federal public agencies.

One of the first questions the TSC asked is: What kind of expert assistance do we need to carry out this study, and where can

we find it? Members of the TSC quickly realized that one or several people trained in epidemiology would be best equipped to help. The mill and the union each had experts to recommend, but the TSC decided that the best route would be to identify a single “outside” expert chosen by the whole group. One possibility was to ask the Maine Bureau of Health to provide an expert, because it was the agency’s Cancer Registry that would supply the data for the study, but there were worries about how credible a Bureau of Health expert would be. An earlier study, abandoned in the late 1980s due to funding limitations, had left a bad taste in the mouth of some coalition members. They charged the bureau with covering up alarming health data about cancer and respiratory illness in the four-town area.

With no obvious expert in sight, it became important for us to assist the committee in identifying potential candidates. The TSC had a few suggestions of people we could contact in the state of Maine. We

volunteered to contact these individuals and to make some additional inquiries. Telephone calls to universities in New England and New York turned up a number of scientists willing to advise the NOCC. Then the TSC convened to review the résumés.

What happened produced an important lesson for the NOCC. By the end of this TSC meeting, members decided to recommend that the NOCC retain Dr. Bill Barnes (not his real name), a highly qualified epidemiologist from a respected New England university. They reached the decision quickly and efficiently. They also agreed to invite Dr. Barnes to the next TSC meeting to present methods for analyzing Rumford's cancer rates, and they further agreed to invite him to a meeting of the full coalition just one week later. But then the plan began to unravel.

As we soon found out, Barnes had given a video deposition as an expert witness in a suit brought against the mill on behalf of sick workers. The mill's representative at the table did not know this. Just one night before the next TSC meeting, several rep-

resentatives of the mill called CBI and insisted that Dr. Barnes be dismissed. The mill appealed to us, asking how they could trust this expert. They apologized for not realizing this sooner, but said they had no doubt he would be the union's expert and would not provide the kind of nonpartisan advice that would be make the cancer study credible.

Because this was at a very early stage of the coalition's work, members were quick to be suspicious of each other's intentions. When the mill's representative brought his request to the TSC meeting, some TSC members were furious, demanding to know why the mill was backtracking from an earlier agreement. With Dr. Barnes waiting outside, NOCC members argued about what to do. Some members insisted that Dr. Barnes was perfectly capable of being neutral and that the mill was stonewalling the initiation of a study to uncover facts about cancer. Others supported the mill's request, noting that it was understandable why the mill was concerned about Dr. Barnes's neutrality. ♦♦

☞ COMMENTARY

Barnes's lack of full disclosure is certainly shocking to this reader. The authors are self-critical for not asking. Yet professionals have certain obligations, and my view is that Barnes failed his.

—Max H. Bazerman, *Social psychologist*

In the end, the subcommittee decided to follow through on the decision to have Dr. Barnes give a general presentation on epidemiology at the next NOCC meeting, but they agreed that a new technical adviser should be found immediately after. We encouraged the committee to talk about some criteria that could be used to ensure that

members' preferences would be accounted for in the selection process. They agreed with the mill's proposal that technical advisers to the NOCC should not have had any past involvement in litigation involving any of the constituencies represented in the group. We then recommended a new step in the selection process (and in hindsight

one we wished we had thought of earlier): Each potential adviser would be asked to fill out a detailed disclosure form identifying any prior connection they had to the NOCC's members and affiliated organizations.

Over the next week, we scrambled to locate additional advisers who would have the same depth of experience as Dr. Barnes but who would also be credible to all of the NOCC's constituencies. During the discussion over new résumés, NOCC members again raised sharp objections to the mill's eleventh hour protest. But the group was able to reach consensus on the selection of Dr. Daniel Wartenberg, an epidemiologist from Rutgers University. Dr. Wartenberg had no prior involvement with any of the parties and was viewed by everyone as having the ability to offer nonpartisan advice. He was also generous in his offer to assist the NOCC; he was interested in participating in a community-based process and asked only for a small stipend and travel expenses.

The incident with Dr. Barnes was important in the development of the NOCC. First, it taught everyone the value of investing time up front to ensure that experts brought on to advise the group were cred-

ible in the eyes of all members. While initially it was hard for those who were skeptical of the mill's intentions to be responsive to their request, in the end they recognized that a technical expert wouldn't be effective unless he or she had a vote of confidence from all stakeholders. Second, it showed everyone, and especially the mill, what it meant to build consensus. The negotiation over who to choose was the first test of the group's ability to listen seriously to the concerns of a single party, and to alter the course of a decision to ensure that those concerns were addressed.

Gathering and Analyzing Data

When the NOCC began its cancer incidence study, we all thought the process would be relatively straightforward. All the data were already in the Cancer Registry. Many NOCC members assumed that if the NOCC just looked at the number of cases in the four-town area, the answer of whether too many people were falling sick or dying from cancer would be readily apparent. ♦

∞ COMMENTARY

Hmm. Looks like the consensus builders, while helping the laypeople to manage the experts, are going to get some lessons in the ambiguities of expertise themselves.

—Charles F. Sabel, *Political economist*

It wasn't long into the process of working with Dr. Wartenberg that the group began to understand the complexity of designing an epidemiological investigation. Dr. Wartenberg came to the Rumford area and met with the TSC several times. During

those meetings, he pushed the group to agree on a purpose for the investigation. The discussion revealed the fact that members had different ideas about what they hoped to learn. Some members wanted to explore the linkages between cancer cases

among workers and exposures to toxic chemicals emitted from the mill. Others thought that the first step should be to examine rates of cancer, to determine if there were elevated rates worth worrying about.

In response to what he heard about the different agendas among TSC members, Dr. Wartenberg reviewed an inventory of potential research methodologies, from a community health survey and a case control study to an analysis of local prescription use. For each, he explained the advantages and disadvantages, including the ease of obtaining the data, the degree of uncertainty in interpretation, the cost and time involved, and the power of the methodology to answer questions that were important to members of the TSC.

After discussing these options, TSC members agreed that an investigation of cancer incidence using Cancer Registry data would be the best option. This was not an easy decision; it was difficult for some stakeholders to accept that at least at this stage, such an investigation would not pinpoint causes of cancer but only the rates of cancer as compared with other places. Luckily, one of the TSC members was a consultant to the labor union with significant expertise in epidemiology. She helped to buffer the message from Wartenberg; as she supported his observations and advice, she helped to shore up labor's comfort with his neutrality. Her involvement helped us to learn that sometimes a combination of neutral *and* partisan expertise is necessary to bring credibility to joint fact-finding.

Further discussion about the merits and limitations of the TSC's approach surfaced some serious concerns among TSC members about the quality of the data in the Maine Cancer Registry. Some members were worried that cancer cases might have been underreported to the Cancer Registry

in its early years. With Dr. Wartenberg's help, the TSC built into the study design a quick test to help assess the possibility of significant underreporting. NOCC members also worried that other cases remained undocumented because residents of the four towns had been treated in other states. The TSC's representative from the Bureau of Health played a key role at this juncture, helping the group understand the strengths and limitations of the registry's cancer database.

There were many other methodological issues that needed the group's attention. What would the rates in the four-town area be compared with? After all, rates would only be "high" or "low" if they were compared with rates from somewhere else. The group reviewed various options, including comparing local cancer rates with rates (1) in other similar Maine towns (perhaps a mill town), (2) in the remainder of Oxford County, (3) in the state as a whole, and/or (4) in the entire United States. While some members liked the idea of comparing Rumford cancer rates with a similar mill town, the group raised two concerns. One, if the rates ended up quite similar, did this mean there was no problem, or did it mean that both towns had elevated cancer rates, perhaps associated with the mills? Two, how would another town feel if NOCC members dredged up that town's data on cancer incidence without its explicit permission? Dr. Wartenberg also emphasized the advantages of comparing Rumford with a database with a significant number of cases: Such a comparison would increase the likelihood that the results would be statistically significant.

The TSC spent three or four meetings making decisions such as these and eventually developed a methodology for the study. The subcommittee brought its proposed study design to the full NOCC: an investi-

gation of average cancer rates for 22 different kinds of cancer in men and women for the period 1983 to 1992, and a comparison of those rates to rates with the state of Maine and in a national white database called the U.S. SEER white population database (the Surveillance, Epidemiology, and End Results program of the National Cancer Institute). The NOCC approved the study design with a few minor changes. With Dr. Wartenberg's help, the TSC then prepared a data request to the Maine Cancer Registry.

When the data arrived, Dr. Wartenberg prepared statistical tables for the TSC (and eventually the NOCC) to review. The tables showed that the rates for all cancers combined for both males and females in the four-town area were elevated when compared with those of Maine. It showed that males had a statistically significantly elevated rate for cancers of the respiratory system, male genital system (primarily the prostate gland), and lymphomas. Females were shown to have a statistically significantly elevated rate for cancers of the endocrine system (primarily thyroid) and for cancers of the colon. In addition, a number of other types of cancer were elevated in females, but not to a statistically significant degree.

Interpreting the Data and Writing the Report

While the "facts" seemed straightforward enough, the next step was to interpret

the data and to summarize the results in a report for the full NOCC and finally for all residents of the four towns. This was perhaps the most challenging part of the cancer incidence study. To develop the content of a cancer incidence report, the TSC had to work toward agreement on how to present the data. But it soon became clear that interpreting the data was not an objective exercise.

For example, some NOCC members thought the report should say that some of the higher rate ratios (a number that compares the local cancer rate with the state or national rate) warranted concern and further investigation. Other TSC members were equally insistent that epidemiologists would not typically be concerned about ratios unless they indicated cancer rates two to three times the state average. They pointed out that elevations less than two times were as likely "noise" as they were indicators of real problems, especially with such a small data set (thousands of people rather than millions). This led to a long discussion about whether the TSC should include in its report a benchmark that signaled when the community ought to be concerned about that cancer. Some thought that any rate ratio that was elevated should be of concern. Others thought the subcommittee should not raise concern unless the rate ratio was two to three times greater than expected. And still others argued that the TSC should just present the numbers and let the readers decide. ♦♦

⇔ COMMENTARY

The argument over criteria level is interesting, and the result of the consensus building process. Again, it raises the question of specifying more of the task on the front end. Could, perhaps, the community better agree on levels that warrant action if those were specified before the data were in?

—Max H. Bazerman, *Social psychologist*

Reaching an impasse on this issue, the TSC decided to have its draft report peer reviewed. If the TSC couldn't resolve these questions, perhaps advice from three professional epidemiologists would help. Interestingly, these experts each had different answers in response to the TSC's question about when a community should be concerned about a specific rate ratio. In fact, the peer reviewers' responses reflected the range of opinions held by TSC members.

Turning to peer reviewers did not produce an agreement. But TSC members discovered that what seemed a local, highly partisan dispute was also a disagreement among scientists across the country. This helped the subcommittee gain an appreciation for the difficulty of drawing precise, universally shared conclusions about technical issues. From this new vantage point, they could agree to our recommendation that they abandon the quest for a singular consensus on how to interpret the rate ratios for the community, and instead agree to *describe* the range of views among them in the body of their report.

Throughout these meetings, Dr. Wartenberg was a steady voice in favor of moving beyond debates about interpretation. Put simply, his question to the group was: So, what now? Now that you have this incidence data, you can struggle to craft the right word or phrase to describe it. But

what will the TSC recommend to other NOCC members about what should be done to respond to these results? The group accepted this advice, and it worked with Dr. Wartenberg to hammer out detailed options for action, including an inventory of possible follow-up studies that could be done to investigate rates that were statistically significantly elevated, as well as better cancer-screening and detection programs in the four towns and public education to encourage people to adopt healthier lifestyles.

In the end, the TSC struggled for many weeks to reach a final consensus on the language in the complete report. Late in the process, one member in particular insisted on several revisions to the report. After multiple rounds of negotiation, the TSC decided that it was not possible to meet this member's interests and still ensure that the report was responsive to the interests of others. TSC members decided to report out to the NOCC that they had reached a consensus of 9 out of 10 members, and the dissenting member was invited to attach a letter explaining his concerns to the text of the report. Some members of the subcommittee were disappointed that they failed to reach unanimity, but they also recognized that everyone had worked hard to improve the report as much as possible from the standpoint of each member. ♦

◀ COMMENTARY

"9 out of 10" raises the issue of defining consensus. This topic is explicitly treated in Part I of this *Handbook*. Once again, it is interesting to think about specifying necessary agreement levels on the front end.

—Max H. Bazerman, *Social psychologist*

Taking the Report to the Full Coalition

Throughout the process of collecting data, analyzing them, and writing the cancer incidence report, the NOCC met to hear reports from the TSC about its progress and to provide input. Still, when the final report was presented to the full coalition, additional negotiations were needed.

Some NOCC members were frustrated that the report was only an incidence study; it did not include any analysis of what might be causing the elevated rates. Others were frustrated that the report didn't make a clear statement about whether or not there was a cancer problem in the valley. For those who had long been convinced that cancer rates were sky high in the four towns, it was hard to fathom why the TSC

couldn't say that there was a confirmed health problem wherever there was a local cancer rate that was statistically significantly higher than the same rate statewide. At this point, the TSC assisted Dr. Wartenberg in educating the larger group. TSC members talked about the fact that statistical significance is just one of the many factors that scientists weigh when evaluating cancer incidence, and they pointed out that scientists often disagree in their conclusions about what to be concerned about. The TSC banded together at that moment, as they worked to persuade the NOCC that what was important was reaching agreement on what all stakeholders could do to follow up on these incidence data, both with further research and with concrete actions to improve public health. ♦♦

◀ COMMENTARY

Here, in an eddy in the stream of the narrative, is the core of the scientific and practical problem facing the NOCC and many other such groups. The scientific problem is that ratios of the incidence of cancer, or any other disease, in two areas are meaningless without information about the characteristics and behaviors of the populations in the respective territories. Suppose, for example, that the incidence of lung cancer is much higher in Pollution City than in Pristine County but that everyone over 12 years of age smokes in Pollution City, while there are no smokers at all in Pristine County. Is the high lung cancer rate caused by pollution? By smoking? Or is it the exposure to some combination of smoking and pollution, for at least a certain number of years, that causes lung cancer in Pollution City? The practical problem is that investigation of the causal chains that run together in such complex exposures requires attention to environmental issues, occupational and other behavioral patterns, and careful monitoring of the population's health. Because it is impossible to study everything at once, priorities have to be set, and the best way to do that is to follow the leads provided by early studies, without losing sight of the need to gradually gain deep knowledge of the whole context of the original problem. Dr. Wartenberg apparently got all this, and much more, across by displaying what was known at each moment and then "moving beyond debates about interpretation" by asking, "What now?"

—Charles F. Sabel, *Political economist*

Despite frustrations on the part of a few members, the NOCC ultimately did reach agreement on the report, "A Report on Cancer Incidence in the Rumford Maine Area." They also decided to leave the letter outlining concerns by the one TSC member attached to the final document. The main motivation for working hard to bridge remaining differences was a shared desire on the part of NOCC members to get the cancer incidence data out to residents of the four towns. Copies of the cancer incidence report were distributed informally by NOCC members, placed in the town libraries, and sent to health care providers and community organizations. The NOCC also organized a briefing about the report for physicians in the area.

The whole investigation, from the day the TSC was convened, had taken eight months. The process was limited in its outcome but extremely valuable for NOCC members. It was limited because the study did not establish causal relationships between elevated rates of cancer and its causes. It did not definitively state that there was, or wasn't, a cancer problem in the four-town area. For those suffering from cancer, it provided neither vindication nor relief.

However, by doing their own study, NOCC members were able to gather and analyze real data on cancer, and draw their own conclusions. For the first time, the four

towns had concrete, credible information on cancer rates in their area. The report provided a credible source of information to the community because it had been developed by not one, but several, stakeholder groups. Dr. Dieter Kreckel, a local physician at the Rumford Community Hospital and a member of the NOCC, stated in the NOCC's final action plan: "Putting our heads together to do a study on cancer rates was a big accomplishment for the NOCC and for this community. This is a subject people care a lot about. Our results should give everyone a more accurate and believable picture of cancer incidence."

Equally as important, NOCC members learned about both the possibilities and the limitations of scientific analysis. These new insights were a direct product of learning by doing, a process that was made possible by a technical expert who understood the role he should play in a community-based consensus building process. Rather than presenting a fully articulated methodology and asking for the group's permission to execute it, he helped the group develop its own methodology.

Rather than announcing the conclusions he had drawn from the analysis of the data, he talked about the heterogeneity of scientific interpretation, told the group members what he thought, and then encouraged them to draw their own conclusions. ♦♦

◀ COMMENTARY

Notice that just as the NOCC participants learned to remake their ground rules by working with consensus builders who are demonstrably convinced that ground rules must be corrigible to be effective, so they learn to put expertise to uses of their own devising by working with an expert whose knowledge includes understanding of its own limits. Feel free to draw from this observation optimistic conclusions regarding the possibility of a form of directly deliberative democracy in which problem-solving participation blurs the traditional line between experts and laypersons.

—Charles F. Sabel, *Political economist*

■ *Section 4: The Middle and Last Phase—Reaching beyond the Negotiation Table*

After completing the cancer incidence study, the NOCC initiated several new fact-finding projects aimed at developing a better sense of air quality in the region. An Air Quality Subcommittee with representatives from the mill, the Maine DEP and EPA, labor, town governments, and concerned community residents was formed.

The Air Quality Subcommittee did a careful review of monitoring data gathered by the DEP in 1991, 1993, and 1995 at four monitoring sites in the valley. The data raised some concerns about levels of air toxics, which were at the time not controlled by federal regulations. In particular, 3 air toxics out of 40 measured—benzene, chloroform, and 1-3 butadiene—were found to have concentrations that raised concerns given health-based guidelines already developed by the Maine Bureau of Health. The level of chloroform was particularly unsettling. Unlike the other two pollutants, its main source was the mill, and the mill had recently made some technological changes to its bleaching process that many thought would reduce levels. The Maine DEP agreed to collaborate with the NOCC to design a more thorough, year-long air-monitoring program. The group provided the DEP with suggestions on when to begin and end the monitoring, and where to place monitoring devices.

Because the NOCC had learned from the cancer incidence report that radon might contribute to lung cancer, the NOCC also undertook a residential radon-testing program. Through this program, 400 homeowners in the four towns tested their homes for radon using test canisters do-

nated by the EPA. Boy Scouts helped assemble the kits and the instructions for homeowners. The four town halls helped to distribute and collect them. An EPA-contracted lab analyzed the results, which were sent out to homeowners along with confidential letters. When a public meeting was held to share the overall results (individual results were kept confidential), more than 60 citizens showed up to find out what the NOCC had learned, ask questions, and speak with state-certified vendors who offered radon remediation.

These projects were the main focus of the NOCC's work up until its concluding six months. As the NOCC matured, it was clear that members were developing a better understanding of technical issues related to public health and air quality. Evidence of this cropped up repeatedly at NOCC and subcommittee meetings. At several points, a member spotted mistakes in mathematical calculations and data inconsistencies. Another member who had no formal scientific background continually surprised us when he quizzed agency experts in detail about their methodology for gathering air samples.

Although it seemed that the NOCC was making real progress in developing a better understanding of the status of public health and air quality in the area, we wondered if the broader community had learned much. Representatives who worked for established organizations like town offices, the mill, or the hospital could communicate easily through existing channels like staff meetings, internal briefings, and company newsletters. But NOCC members who represented average citizens of the four towns had no simple means to talk with those they represented. Sure, they could talk at a town meeting or at Freddie's Restaurant, but was that enough? One NOCC member said

candidly that she rarely talked to other citizens about NOCC issues: "A few of them will ask questions and I'll answer them to the best of my ability. But I am not going out campaigning. I haven't got that kind of time" (Cluck, 1997). Time was clearly a problem. Members were giving a lot just by coming to meeting after meeting. This was a donation of three hours a night at least twice a month for two years (not to mention the work in between meetings). In addition, while NOCC members were becoming educated consumers of public health and air quality data, the sheer complexity of the information made educating others a tall order.

We wondered, how could the larger community gain from the hard work of NOCC members? And who would implement the recommendations that the NOCC was developing if the NOCC closed up shop? In the last six months of its life, two key developments helped to transfer the momentum built up by NOCC members into an ongoing, institutionalized community collaboration: the negotiation of a consensus action plan for widespread distribution and the formation of a new, ongoing health-based coalition.

The NOCC's Action Plan

NOCC members had agreed from the outset that they should produce some kind of final product, but most of the NOCC (and us) had only a vague conception of what that might mean. As the NOCC learned more and more, the final report became increasingly important. One member who owned a local Laundromat in the town of Mexico said at every meeting, "How are we going to get all this informa-

tion in one place, in a form where people can read it and understand it?"

A NOCC member who worked for the EPA invited a community education specialist from her office to advise the coalition. Working with this specialist, NOCC members decided that their report should be in the form of an oversized newsletter. Each section would describe a different part of the NOCC's work: cancer incidence, radon, air quality monitoring, and respiratory illness, to name just a few. Each section would also include recommendations to government agencies, local businesses, and individuals.

The NOCC agreed to form a drafting subcommittee with representatives from each stakeholder group to take charge of the writing. The NOCC also accepted our offer to generate "first cuts" at each section for the drafting committee to review and improve. This proved to be effective. First, we could devote time to the drafting process that NOCC members just didn't have. Second, we had access to a storehouse of documents describing the NOCC's work (which had already been approved by the coalition). Third, putting words on paper, as we learned from the cancer incidence report, was a highly charged activity. It was important to have a neutral produce a "single text" for review and improvement by the full group.

We worked for three months with the drafting committee to produce a complete report. The process moved forward slowly as the drafting committee struggled to find language that met everyone's interests. Sometimes, entire meetings were spent hashing through a few words or sentences. In these moments of impasse, having learned from the drafting of the cancer incidence report, we recommended that the committee describe the range of views,

rather than trying to forge a singular consensus view.

While the NOCC was able to delegate the bulk of the writing work to its drafting committee, finalizing the newsletter with the entire NOCC was challenging. NOCC members often wanted to renegotiate language that others thought had already been approved. In part, this was the natural result of having so many cooks work on the soup. But in addition, NOCC members were realizing that they needed to be more active than ever in representing their constituencies' interests. After all, these agreements were going into print. We aimed to strike a balance between encouraging the group to consider every change that seemed truly critical to one or more members and continuing to push so that drafting did not become a process without end.

In the fall of 1997, the NOCC mailed out its 12-page newspaper-sized newsletter to more than 7,000 households. It was rewarding for members to see a culmination of all of their hard work—a final product chock-full of graphs, charts, and text that did not exist before. The NOCC held a press conference, complete with the heads of EPA Region I and the Maine DEP. The local and regional print and television media covered the story. The final report signaled the close of the NOCC's work, but also signaled that there was plenty left to do—others would need to pick up where the NOCC left off.

The Healthy Communities Coalition

Once work was under way to develop recommendations for the final report, we had some confidence that the results of the

NOCC's work would not go unnoticed. But we still worried about what would happen when the coalition's funding ran out and we drove home to Boston for the last time. Would there be any momentum for further work to improve air quality and public health once the NOCC stopped meeting?

The subject of what might live on after the NOCC became a preoccupation of the Public Health Subcommittee, which had been charged with deciding what kind of studies the NOCC should recommend to follow up on the group's analysis of cancer incidence. About \$10,000 of NOCC funds remained. How could this money best be spent?

The NOCC had boiled down further public health action to several possibilities. The options included funding an asthma survey; further, focused cancer studies; and/or a start-up grant for a Healthy Communities program. The Public Health Subcommittee had learned about the Healthy Communities program through a presentation by the subcommittee's Bureau of Health representative. Based on the World Health Organization's model to address health problems in developing countries, the Healthy Communities program could provide a vehicle for a range of local stakeholders to further assess public health in the broadest terms: They could look at environmental health, public safety, recreational opportunities, and even economic health. Other Maine communities had successfully used the program. One community developed a child literacy program and built a public swimming pool. Another nearby community had purchased a van to bring health promotion, prevention, and education to its outlying areas. ♦

 ☞ COMMENTARY

Whoa, whoa. All of a sudden, just as the story is ending, it seems that NOCC and the consensus builders were never as isolated as it seemed. Other communities in Maine, learning, via the World Health Organization, of experiences in developing countries, had already put in place the kind of open institutional structure that could accommodate the kinds of exploratory investigation and action that were proving successful, but hard to stabilize, in Northern Oxford County. How did all this learning go on? Do (at least some of) the Healthy Communities programs in fact do the kinds of things that NOCC has come to regard as essential to solving the problems it set out to address? Or is the succession from NOCC to Healthy Communities program just an expedient that allows an inconclusive project to pass away with dignity? If the new institution is more than a face-saving device (and my own experience of similar programs suggests it well can be), could NOCC have benefited from earlier collaboration?

But to ask such questions is to begin to elicit another version of the story, a version that takes for granted that Northern Oxford County, precisely because it is not alone in facing ambiguous problems that overtax many contemporary institutions, has a lot to learn from what others in its situation are doing, and perhaps a lot to teach them as well. This other story would be as much about consensus building among communities as within them, and as much about the construction of new institutions as about the rules for operating in the void left by the disorganization of the old. It would be more a story of how a whole people can solve the mysteries that trouble them—look back to the subtitle of this case—than about how a town turned to (peaceable) outsiders to restore the peace.

—Charles F. Sabel, *Political economist*

Excited about the program, the Public Health Subcommittee sponsored a luncheon, paid for by NOCC funds, and invited NOCC members, local banks, local social service providers, ministers, school administrators, hospital board members, and others to hear about the program. The luncheon was a success in terms of the number who attended—more than 40 community leaders—and the enthusiasm expressed by the community at large about the Healthy Communities program. During the luncheon, the state coordinator of the program remarked, “We’ve never had so many people in a community turn out for the first event. This is terrific.”

But Healthy Communities needed money. The program would require a part-

time, paid coordinator; office space; and other resources. The Public Health Subcommittee first, and then the NOCC as a whole, wrestled with what to do. Some stakeholders were interested in trying to learn more about asthma and other respiratory illnesses. Others wanted follow-up with more cancer studies. Others advocated for helping start up the Healthy Communities program. It would provide a vehicle to carry on the NOCC’s work—many of the activities left undone could be passed on to the new coalition. Without such a vehicle, these proponents argued, who would track the study and who would be there to receive the results? Nonetheless, some expressed concern that the broader mission and membership of such a coalition

would water down the original intent of the NOCC, focusing efforts on teenage pregnancy, for instance, rather than on environmental protection.

After discussion, the group unanimously decided to forward the remaining NOCC funds to the new coalition. In a final press release upon the completion of the NOCC's final report, a posterboard-size mock-up of the check was handed over to the new Healthy Communities program coordinator. In addition, the mill also offered up \$5,000. In the meantime, the subcommittee had worked with the assistance of CBI to prepare several grant applications. The Healthy Communities coalition—named the River Valley Healthy Communities Coalition—was ready to carry on the work of the NOCC.

■ *Epilogue*

The NOCC was never able to definitively refute or confirm the original television report about "Cancer Valley." Nor was the NOCC able to provide much relief to the families of those with cancer. But the work started by the NOCC in regard to air quality did lead to good news. First, as the coalition was finishing its work, the mill announced it would alter its bleaching process, eliminating all use of elemental chlorine, a significant source of chloroform and a potential source of dioxin. After a year of DEP air toxics monitoring supported and molded by the NOCC, the community learned that chloroform levels had indeed dropped significantly after the mill's action.

And one year after the NOCC held its final banquet, the Healthy Communities coalition was still going strong. The mill

had continued to keep the coalition informed of ongoing environmental changes at the mill. The coalition had sponsored an educational event for physicians and other local health care providers on the latest techniques for diagnosing and treating asthma. The coalition had won a \$30,000 grant to reduce smoking. The coalition had established a new committee to develop, finance, and build a multipurpose community center and pool. The coalition was working to expand membership from 45 to 100 organizations and to raise additional funds.

While there were probably a number of factors that contributed to the formation and forward momentum of this new Healthy Communities coalition, we believe the NOCC laid the essential groundwork. The NOCC created a forum where residents of the four towns could use fact-finding and deliberation to explore issues that were a source of painful, protracted conflict in their community. As members worked on these issues, they began to see each other differently. It was no longer just Mill versus Labor, for example; it was a group of people with different interests, fears, and concerns who could work together constructively despite their differences. Over the course of the two years, the NOCC also mobilized state agencies and showed the community how to link up to resources in Augusta, Boston, and even as far away as Washington, D.C.

When it came time to think about how to close out the NOCC's work, the fruits of this process were evident. Although it had been hard work for everyone, it had ultimately persuaded NOCC members that consensus building could work. They made a tough decision to channel their remaining funds into developing a new coalition that would support continued collaboration

among community members. Several NOCC members decided to take on leadership positions in the new coalition, and

other residents of the four towns were waiting in the wings, ready to get involved. ➤

➤ COMMENTARY

In summary, this is a fascinating case describing an interesting consensus process. It certainly provides much useful guidance, yet it highlights central issues that need to be debated as the consensus building field develops.

—Max H. Bazerman, *Social psychologist*

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