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Evidence Use in New York City Public Health Policymaking

ABSTRACT

New York City Mayor Michael R. Bloomberg has attracted national attention for his public health policy reforms. The policy process behind the reform program has received less scrutiny, especially the use of research by policymakers. We show that the process used to develop, promote, and evaluate policies is heavily based on five types of data and research. New York Department of Health and Mental Hygiene staff conducted in-depth appraisals of existing published research, used local health surveys and private laboratory surveillance data, engaged in “shoe-leather” field research, formed research collaborations within and outside government, and disseminated research to legitimize policy changes. The findings are based on 27 semi-structured key-informant interviews with individuals from a range of organizations engaged in implementing or influencing public health policies in New York City.

Keywords

New York, Research, Policymaking, Politics of Public Health, Trans-fat, Tobacco Control Policy

Cover Page Footnote

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Over the last decade, the Mayor of New York City, Michael R. Bloomberg, and the New York Department of Health and Mental Hygiene (DOHMH) introduced comprehensive public health reforms. The underlying policy development process, especially how policymakers used evidence to inform policies, has generally received less attention than the policies themselves. Yet, one reason New York City was able to develop and adopt comprehensive policies, we argue, is that policymakers effectively used, created, and disseminated a broad range of evidence and research. Based on interviews with key informants, we identify and report five approaches used: agency staff carefully reviewed existing studies, they used survey and surveillance data to identify problems and evaluate policies, they conducted “shoe-leather” field research, formed research collaborations, and disseminated research in such a way as to legitimize policies. The findings may inform models of public health policy formulation, and may help policymakers understand how research can both aid policy design and build political support.

METHODS

We focused on New York’s chronic disease prevention policies since 2002, including the nation’s first restriction on trans-fat usage in restaurants, transportation policies (new bike lanes and retrofitted city vehicles); and tobacco control policies. We conducted semi-structured key-informant interviews with 27 individuals between 2010 and 2011. Our interviewees included current and former civil servants, elected officials, advocates, and staff of think tanks and interest groups. Respondents were identified from official documents, such as council testimony, lists of authors of reports and public comments, from names mentioned in mayoral reports, legal opinions, academic articles, and media reports. Second, additional respondents were recruited via a snowball sample based on names suggested by the first group of interviewees. Five people declined to participate. The sample included opponents of Mayor Bloomberg’s policies. Interviews were transcribed and independently double coded using an iterative grounded approach with attention to emergent themes in the data.

RESULTS

Most interviewees supported Mayor Bloomberg’s efforts, and gave examples of the ways in which the Mayor and his administration have used data and evidence to support public health reforms. However, some interviewees working for interests negatively impacted by the Mayor’s policies were strongly opposed to the policies. Opponents said Mayor Bloomberg has “a strongly held personal point of view, which we think is completely wrong and at odds with the vast majority of the public in New York and the country.” Advocates for the poor felt that there was a lack of evidence regarding the efficacy of anti-obesity policies, and saw them as stigmatizing the poor. However, respondents did not question the quality of epidemiological data collected by the City, such as surveys of health status. Opponents were mainly concerned with the underlying published evidence of health risks, particularly the basis for anti-obesity policies. One opponent of Mayor Bloomberg’s approach believed the evidence on transfats causing heart disease was limited, but the respondent supported the policy since he saw no downside and considerable upside to adopting this ban. Others questioned the link between rising national soda consumption and rising obesity rates. Opponents said they were working to persuade national and state legislators that policies were unpopular with

the public; they did not specifically mention developing evidence or research to counter the policies. We identified five approaches used by New York City policymakers; each provided different benefits for policy design, adoption, and evaluation (**Table 1**).

Careful appraisal of published studies

Staff used academic studies to identify public health risks. Such studies help define policy problems and their causes, both of which are fundamental steps in the policy process.(1) Staff also looked "under the hood" at study soundness and relevance before developing policies to address problems. For example, staff contacted trans-fat researchers for study details and to review methods. Interviewees said this approach was influenced by the institutional memory of tobacco control debates in the 1990s.

Granular local data

Local health departments often use surveys to track health status and make the case for new policies and New York City surveys residents. When survey data showed smoking rates increasing, policymakers used the data to justify changes in tobacco control policies. One example of a data source that may be less common is real-time, de-identified glucose level measures reported by private laboratories that are regularly merged with Vital Statistics data. Survey and registry data are granular data sources that are a necessary foundation for developing a wide range of interventions. In New York City they *routinely* inform evaluation strategies: DOHMH determines benchmarks in advance that are later used to assess policy effectiveness.

Table 1: New York City (NYC) Policymakers' Use of Research, Benefits Observed, and Recommendations for Reformers Identified

NYC Policymakers' Approach	Observed Benefits	Recommendations for Reformers
Appraisal of published studies	Problems and risk factors are considered in light of local conditions	Use academic studies to identify risks, but consider how local conditions may vary.
Granular local prevalence data	Improves problem identification and establishes clear evaluation targets.	Develop long-term survey-based indicators that serve double-duty as evaluation measures. Explore sources of private-sector electronic surveillance data.
Shoe-leather research	Detailed understanding of policy problems and potential solutions, especially those where data on exposure is missing.	Conduct field studies in community contexts.
Research collaborations	A full spectrum of <i>non-health</i> causal factors and solutions can be identified.	Collaborate with other organizations, including those not directly involved in public health, to gather data, define problems, and find new solutions.
Disseminate research	Informs and potentially influences decision-makers.	Disseminate research findings in journals, policy briefs, and the media.

Key: NYC=New York City

“Shoe-Leather” Research

The DOHMH collects its own data on the choice environment (as opposed to individual health), especially if local conditions differ or the data is minimal. One example is trans-fat exposure: policymakers hypothesized New York City residents differed from most Americans because people eat more meals outside the home. To develop estimates of trans-fat consumption and trans-fat levels, health inspectors surveyed a representative sample of 24,000 restaurants and 16,000 mobile food vendors. Likewise, a calorie-labeling policy was based on surveys at 275 randomly selected restaurants in 11 fast food chains, where staff observed over 7,000 customers’ use of calorie information. (2) Routinely, pilot programs and small experiments provide data for subsequent policy development: the trans-fat restriction was initially voluntary but later mandatory after city inspectors found low compliance rates; this provided evidence to support the need for mandatory restrictions. Indeed, locally-grounded research makes abstract public health risks more concrete for stakeholders. For example, in hearings on prohibiting smoking in bars, staff compared air quality data collected at local landmarks and the air inside city bars. They presented data showing a bartender was exposed to more particulate matter at work than if he or she stood outside the Holland Tunnel, a busy traffic artery familiar to most New Yorkers. (3)

Collaboration

Some research collaborations were initiated from the top-down, and others from below; both helped broaden available data and policy options. Bi-annual policy documents called *Plan NYC* provide blueprints for a variety of city policies and priorities that often require inter-agency policy. Specific agency responsibilities are outlined and progress is regularly tracked. Inter-agency taskforces also bring a wider variety of data to bear on issues. For example, the Departments of Police, Health, Parks and Recreation, and Transportation cooperated to research bicycle fatalities and injuries. Rich geospatial analysis mapped accident sites and provided location information, characteristics, and causes of accidents. (4) City planners then worked with health officials on changes to roads and new bicycle lanes, among other changes. Special units coordinated through the Mayor’s office, such as the Office of the Food Policy Coordinator, work with agencies on issues such as zoning rules for urban gardens. Departments jointly collect survey data, such as the inter-departmental Community Air Survey. The DOHMH also develops research collaborations with university researchers and think tanks.

Research Dissemination

Academic journals are not usually considered a *tool* for policy adoption, but agency staff used them as such. They disseminated DOHMH research findings in peer-reviewed public health and medical journals. Between 2004 and 2008, staff published over 300 articles. Agency staff also used opinion pieces and commentaries to reframe problems. Journals served as bully-pulpits for agency and Mayoral policy positions.

IMPLICATIONS

Interview-based studies can be subject to bias, however, to address potential bias we interviewed individuals working for or representing different organizations, including some who opposed Mayor Bloomberg’s public health policies, and we used official documents and peer-reviewed studies to verify interviewee statements.

Not all cities have leaders as interested in public health as Mayor Bloomberg: he was described as a “linch-pin” for policy innovation and “willing to take risks”. However, the Mayor’s support was

contingent on data. He was not a cheerleader for all proposals: staff learned that he would scrutinize their data before embarking on new policies, in some cases he would ask questions that required fundamental revisions. Thus, there are lessons to be drawn from New York City's experience, such as the value of improving the evidence available in ways that are not necessarily costly, such as by forming collaborations and doing smaller-scale shoe-leather research. Such evidence is likely to be intrinsically worthwhile for improving policy formulation, and quality evidence is likely to be helpful, on balance. One key lesson of the Bloomberg years is that many factors shape the adoption of policy—even the best evidence may not lead to policy adoption or durability. Under Mayor Bloomberg, legal challenges unrelated to evidence trumped science. When a sugary sweetened beverage tax needed state approval, opponents framed it as a burden on the middle class—rather than being flawed due to flimsy evidence.

Specific lessons for policymakers are shown in Table 1, but four more generalized insights may inform our understanding of when and why research is useful to policymakers. First, different kinds of data contribute information at different stages of the process. Scientific studies helped staff understand and identify risk factors for chronic disease, but shoe-leather research can tailor those findings to local contexts and inform evaluation. Second, both kinds of research offer different political payoffs: scientific studies often provide a credible rationale for intervention, while meaningful local data may resonate more powerfully with stakeholders. Third, research is an input *and* an outlet: policymakers in New York City published articles (5) that served as public platforms for their positions. Research therefore is essential to policy design, evaluation—and legitimation. Finally, New York's experience shows us that public health research produced for external publication and scientific scrutiny may enhance the accountability of public health agencies in the democratic policymaking process, since research aimed for wide dissemination is subject to independent (and blinded) review and must be transparent enough for replication.

SUMMARY BOX:

What is Already Known about This Topic? Under the leadership of Mayor Michael Bloomberg, New York City has implemented a number of public health reforms. Policymakers' use of research to develop, implement, evaluate, and build support for these policies is less well-understood.

What is Added by this Report? A qualitative analysis based on interviews with a variety of participants in the process provides a behind-the-scenes view of policy reformers' and identifies how policymakers used different kinds of data and research to make policy.

What are the Implications for Public Health Practice, Policy, and Research? The analysis shows how practitioners and policymakers can use scientific research to identify public health risks and then develop tailor-made solutions. There are payoffs to collaborating with other organizations inside and outside government in order to tackle issues traditionally outside the domain of public health. Disseminating agency research findings may increase the political support for policy change. Further research could illuminate how public health policymakers disseminate their research findings and how evidence use or dissemination influences political support, and/or the likelihood of policy adoption.

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