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WHAT'S THE STORY?

FRAMING OF HEALTH ISSUES BY THE U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION AND MAJOR NEWSPAPERS: A QUALITATIVE ANALYSIS

by

Kathryn O'Neill Karnes

Under the Direction of Dr. Leonard Teel

ABSTRACT

This qualitative analysis of the framing of health issues by the Centers for Disease Control and Prevention, one of the world's premier health organizations, and by major U.S. newspapers analyzes the frames present in a sample of the CDC's press releases, and the frames present in the contemporaneous (and often resulting) press coverage. This study focuses on communication surrounding public health events that occurred in the six-year period 2002–2007.

INDEX WORDS: Health Journalism, Health Reporting, Newspaper, Fear, Framing, CDC, Centers for Disease Control, Press, Press Release

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A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

In the College of Arts and Sciences

Georgia State University

2008

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Introduction:

Much has been written on the “power of the press”: the power journalists, editors, and publishers have to decide what the issues are and how to frame them. Some say this with an ominous tone, and blame the news media for a wide variety of societal ills. Others explain that the frames, the contexts, we use to make sense of the world around us are a part of us, and are the only way we know how to convey meaning to others.

The field of public relations, on the other hand, exercises a very deliberate kind of framing, and they exercise this on the press. Many public relations professionals deal directly with the public; others compose the press releases used to entice the press to cover a story, and to do it from a particular angle.

The U. S. Centers for Disease Control and Prevention, known worldwide as the CDC, is a globally important force for public health and health communication. The CDC sees their messages mediated in the press frequently. They also have a press office. This study analyzes the framing involved in the CDC’s press releases on certain health issues, as well as in the press stories that cover the same issues.

Research Questions

The CDC knows what their health communication goals are when they disseminate a press release on a certain issue. Are their uses of framing, and their adherence to best practices supporting their goals? Through the lens of framing and best practices, I looked at how the CDC could address the journalistic need for balance, multiple viewpoints, information, revenue, and readership in a way that can help increase the effectiveness of their releases.

In cases in which the CDC disseminated press releases in response to a health risk event that also received coverage in the following major newspapers: *USA Today*, the *New York Times*, the *Washington Post*, the *Los Angeles Times*, and the *Atlanta Journal Constitution.*

- How has the CDC framed to present health risks and crisis events in their press releases?
- How have major U.S. newspapers framed the same public health events?
- How can the CDC use the current body of evidence to improve its practices and increase its effectiveness?
- Do the press releases reflect the lessons some of the agency's authors say they have learned?

Research Theory

In this study I examined specific episodes of health risk- and crisis-related press releases disseminated by the CDC between 2002 and 2007. An archive of the CDC's press releases is available on the CDC Web site.[1] The practice is to archive all of the press releases, and I have looked at all of the releases on this site for the time period between 2002 and 2007.[2]

I also studied press coverage of the same episodes in five major U.S. newspapers: *USA Today*, the *New York Times*, the *Los Angeles Times*, the *Washington Post*, and the *Atlanta Journal-Constitution*, also for the time period between 2002 and 2007. These newspaper articles were available via the Factiva and ProQuest databases. The *New York Times* was chosen as it is regarded as the nation's newspaper of record. The *Washington Post* is almost as highly regarded, and is located in the U.S. capital, which is also home to the administration and the department under whose control the CDC operates. The *Los Angeles Times* was chosen as a well-respected representation from the west coast. *USA Today* was selected as the country's only widely-accepted national newspaper. The *Atlanta Journal-Constitution* was included as it is part of the same community as the CDC, and therefore has a different view of (and different access to) the CDC than any other major paper in the country. The newspaper samples included any editorial text (including letters to the editor and op-ed pieces) related to the topic that appeared between January 1, 2002, and December 31, 2007. One advertisement was included as an outlier because it prompted a direct response from the CDC in the form of a press release, and without the advertisement as context, the press release made little sense.

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[1] http://www.cdc.gov/od/oc/media/archives.htm

[2] The practice is to archive all of the press releases, so I have operated under the assumption that they have done so.

The CDC communications in this study came in the form of press releases focusing on specific health issues or events. The West Nile and listeriosis events used as case studies in this research were chosen because two represented clusters of press releases addressing a finite issue. The autism case was chosen because it was an ongoing issue with a heavy communication need, and it provided contrast to the other two. The following sets of keywords were used in finding newspaper articles. For West Nile virus, the search term was “WNV_AND_organ.” For listeriosis, “lister*” was used. For autism, “autis*_AND_vaccin*” was used. For all three, articles found (once read) to not pertain to the topic were excluded.

Important themes involving various ways of manipulating and controlling public opinion emerged from the literature review. Concepts that occurred frequently were media monitoring, public appearance of the agency, setting the tone and agenda for the conversation, and taking control of a situation, in addition to genuine motives of promoting public health and safety. Based on preliminary research, I analyzed the press releases and newspaper stories for the presence of framing in order to explore how these two important health information sources are exerting influence over health issues.

Framing Theory

Framing is the process by which a person decides what pieces of information to present when conveying a story to someone else. Framing relies on the symbols and assumptions people use to make sense of everything they experience. It is an essential and unavoidable part of human communication, and much of the time it is done subconsciously. However, when applied purposefully, framing can be used to shape a message to the advantage of the communicator.

Public relations practitioners engage in specific, intentional framing, but the same cannot always be said for news reporting. Michael Schudson said that despite the assumption of some

media critics that it is possible to operate with complete objectivity, and that any deviation from complete fairness represents a bias, editors, media executives, and reporters must use judgment in choosing what to report and how to report it. In other words, objectivity should not be defined from lack of bias, and to expect pure objectivity in all cases is unreasonable and sometimes irresponsible. He gave as examples "whether to publish a letter or tract from a terrorist…or to air a videotape from Osama Bin Laden…whether to reveal or conceal information that might bear on national security, especially during time of war" or to "play down a murder or suicide because they fear it could inspire copycats."[3] In many cases, some bias reflects a responsibility to the preservation of a civil, free society.[4]

Whatever the causes of bias, Schudson argued that "intentional, ideologically driven, or politically motivated bias does not dominate U.S. news institutions."[5] Rather, frames are more useful and relevant to study. Schudson quoted Todd Gitlin, saying that frames are "'persistent patterns of cognition, interpretation, and presentation, of selection, emphasis, and exclusion, by which symbol-handlers organize discourse…'"[6]

Schudson described framing as being absolutely central to the study of news. Framing, he said, "moves the analysis of news away from the idea of intentional bias. That is, to acknowledge that news stories frame reality is also to acknowledge that it would be humanly impossible to avoid framing. Every narrative account of reality necessarily presents some things and not others; consciously or unconsciously, every narrative makes assumptions about how the world works, what is important, what makes sense, and what should be."[7] Therefore, Schudson said, to

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[3] Michael Schudson. *The Sociology of News*. New York: W. W. Norton & Company, Inc, 2003, 34.
[4] Ibid.
[5] Schudson, 35.
[6] Schudson, 35, quoting Todd Gitlin, *The Whole World is Watching*, Berkeley: University of California Press, 1979.
[7] Schudson, 35–36.

examine framing instead of intentional bias shifts the discussion to the unintentional perspectives people use to interpret events and symbols around them, rather than viewing "evidence of selection…as evidence of deceit, dissembling, or prejudice of individual journalists; it also draws attention to ways journalists select certain traditions and routines of the culture at large and the news business specifically."[8]

Chong and Druckman discussed framing theory at some length, starting with early mass public opinion research in the 1950s and 1960s. This early work seemed to indicate that the public is fickle and holds few stable, consistent, informed opinions.[9] The authors considered "framing within the broader democratic process that links politicians and other opinion leaders to the public, primarily through the mass media," also saying that "(t)he major premise of framing theory is that an issue can be viewed from a variety of perspectives and be construed as having implications fro multiple values or considerations."[10]

Chong and Druckman paraphrase previous research by Tuchman,[11] Shah et al.,[12] and Gamson and Modigliani,[13] saying communication frames "'organize everyday reality' by providing 'meaning to an unfolding strip of events' and 'promoting 'particular definitions and interpretations of political issues.'"[14] The authors wrote that a frame is only definable "in relation to a specific issue, event, or political actor," and that researching these frames requires isolating specific attitudes. That is, a researcher can study overall attitudes about one specific

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[8] Ibid, 37.
[9] Dennis Chong and James N. Druckman.,"Framing Theory," *Annual Review of Political Science* 10 (2007): 103–104.
[10] Ibid., 104.
[11] See Tuchman 1978, 193.
[12] See Shah et al. 2002, 343.
[13] See Gamson and Modigliani 1987, 143; 1989.
[14] Ibid., 106.

issue, though "different frames may underlie each of these attitudes." Additionally, framing for the same issue can be different at different points in history.[15]

Johnson-Cartee conducted a detailed review of the literature on framing. She quoted Nelson, Clawson, and Oxley's 1997 definition of framing, describing it as "the process by which a communication source, such as a news organization [or a political leader, public relations officer, political advertising consultant, or a news consumer][16], defines and constructs a political issue or public controversy." She also quoted Tankard et al. (1991), saying "a frame is the central organizing idea for news content that supplies a context and suggests what the issue is through the use of selection, emphasis, exclusion, and elaboration."

Media framing research, according to Johnson-Cartee, "examines how news content influences and affects news consumers."[17] She lists many of the concepts various researchers have used to look at frames. She said, "when people engage in public discourse about political, economic, or social issues, they are engaging in public deliberation or the very essence of democracy. And when people engage in (collective and open) deliberation…they are necessarily engaged in issue framing." The author also wrote that framing research can look at media or individual frames; [18] it is the former that I will be looking at in my study of the same issues as framed by both the newspaper media and a stakeholding federal agency.

Hallahan looked at seven models of framing he said applied to public relations. He discussed framing as tied to the "psychological processes that people use to examine

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[15] Chong and Druckman, 106.
[16] Italics preserved from original.
[17] Ibid, 25.
[18] Karen S. Johnson-Cartee, *News Narratives and Framing* (Lanham, Maryland: Rowman & Littlefield Publishers, Inc., 2005), 24–25.

information" [19] and thus useful for studying the effects of public relations. Framing involves inclusion, exclusion, and emphasis.[20] Ways of framing include valence framing (positive or negative), semantic framing (word choice), and story framing (storytelling in support of a theme).[21] Priming is also an important part of framing; this process calls to mind any of a number of contexts or expectations under which something can be understood.[22] He listed the seven concepts that can be used in framing as situations, attributes, choices, actions, issues, responsibility, and news.[23]

Framing of issues plays an important part in policy debate; therefore this idea is also useful to study of CDC communication and news. Hallahan defined an issue as "a dispute…usually over the allocation of resources or the treatment or portrayal of groups in society" and that they often need to be solved in a public forum.[24] Issues may have financial , ethical, moral, social, or other aspects to them, and this contributes to agenda-setting as well as framing. Hallahan also said that "public health issues have been shown to be dramatically influenced by the way they are represented."[25]

Hallahan found framing to be very important to news reporting, as frames often determine "how stories are portrayed…in an effort to explain complex or abstract ideas in familiar, culturally resonating terms." [26] Reporters investigating one incident may put that incident in the context of other people or things it may affect, or they may frame it in a broader concept for dramatic affect. "As the drama unfolds," said Hallahan, "roles are…assigned to

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[19] Kirk Hallahan. "Seven Models of Framing: Implications for Public Relations." *Journal of Public Relations Research* 11, no. 3 (1999): 205–242.
[20] Ibid., 207.
[21] Ibid.
[22] Ibid., 208
[23] Ibid., 210.
[24] Ibid., 217.
[25] Ibid., 218.
[26] Ibid., 221

victims and villains" and responsibility may also be assigned.[27] Examples of these "genres" which may apply to reporters writing about the CDC could include organizational corruption, safety lapses, government ineptitude in enacting or enforcing policies, waste, community activism, and the like. Episodic framing also applies; that refers to the coverage of news from an individual perspective. It exists in opposition to thematic framing, which covers issues at a societal level, often in terms of abstract concepts.

Lawrence Wallack et al. describe media framing as an important topic of study because of the effects of the resulting coverage:

> The mass media have a two-step function. First, they select certain people and events for attention and thus contribute to setting the public agenda. Second, they frame the issue, telling the audience what is important to know about the story…the media may indeed tell people not only what issue to think about but how to think about that issue.[28]

The authors described framing as the process of selecting what information to include and exclude when writing (or filming) a news story. They said that "despite ideals of objectivity," the reality of reporting is that the "reporting, shaping, and presentation of news and information are subjective. Everything cannot be said about every issue in the short space of a newspaper article or television broadcast."[29] Furthermore, they said the decisions about what to

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[27] Ibid.
[28] Lawrence Wallack, et al. *Media Advocacy and Public Health: Power for Prevention*. (Newbury Park, California: Sage Publications, 1993), 67. The authors posited the latter in contrast to Cohen's (1963) "oft-cited" saying that the media don't tell people what to think, but they tell them what to think *about*. This same axiom is cited in John R. Finnegan Jr. and K. Viswanath, "Communication Theory and Health Behavior Change." in *Health Behavior and Health Education*, eds. Karen Glanz, Barbara K. Rimer, and Frances Marcus Lewis (San Francisco: Jossey-Bass, 2002), 372.
[29] Wallack et al., 67.

include or exclude from a story are based on "professional training and personal experience," and that the meaning of this collection of facts is "shaped by the context in which they are presented."[30]

Wallack et al. wrote of a few different methods by which framing takes place; they assume that a news story is about a problem of some sort, and argue that framing serves to assign responsibility for that problem. Journalists can frame using images and symbols, choice of spokespeople, word choice, and by defining the problem (or problems that make up an issue) on different levels.[31] Symbols used in public health stories may include images or imagery of lab coats and test tubes to connote science or medicine, or of flags and official seals to connote the authority of government spokespersons.[32] The authors said that "framing social and public health problems in the mass media occurs in a predictable way, based in American individualism"[33] and also that "because the media reflect mainstream views of American society, they will usually frame issues to portray the overall social system as fundamentally sound."[34] Because of these things, problems are often portrayed as being aberrances based on individual action rather than corruptions or flaws in any given system. Referring to issues in terms of individual corruption, carelessness, mistake, irresponsibility, accidents or acts of God (the latter two of which can be construed as blameless), the authors said, "the media and their audience end up ignoring basic structural problems regarding how society is organized."[35]

Groups manage to get coverage on their issues by framing them as newsworthy[36]and/or by framing them as a specific kind of (usually oversimplified) content.[37] Framing for content

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[30] Ibid., 68.
[31] Wallack et al., 68.
[32] Ibid.
[33] Ibid.
[34] Ibid., 69.
[35] Ibid.
[36] Ibid., 80. ("Framing for Newsworthiness")

involves reframing a personal issue as a social issue, shifting the blame away from the individual, and presenting a solution. This may also involve making bits of information more accessible through "media bites" (the press equivalent of a sound bite would be a pullout quote), illustrative statistics (e.g., lung cancer kills X number of people a year, enough to fill the local stadium, etc.), and tailoring news to directly address a particular audience.[38]

Framing for access refers to "structur(ing) stories so they meet the criteria of what constitutes news."[39] This includes anniversaries, controversies, breakthroughs, milestones, injustice, irony, seasonal issues, and other angles.[40] The ones mentioned here all pertain to health reporting.

In specifically addressing health and medical issues, the authors said health issues are portrayed in the same fashion. When risk factors for a disease or condition feature lifestyle components, those are emphasized.[41] Based on the authors' arguments, for example, an article about obesity would focus on a person's responsibilities with regard to physical activity and diet.

However, while this may continue to be the case, public health research in recent years has increasingly applied ecological models[42] to analyzing health behaviors, focusing on environmental causes for some conditions. In addition to the personal responsibility involved in preventing obesity, many articles and studies have looked at underlying environmental reasons people may not observe recommendations on physical activity or diet. Is it safe to walk in the person's neighborhood? Are there sidewalks? Is there violent crime? Do the person's work and

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[37] Ibid., 82.
[38] Ibid., 105-113.
[39] Ibid., 97-105.
[40] Ibid.
[41] Ibid., 69.
[42] James F. Sallis and Neville Owen, "Ecological Models of Health Behavior," in *Health Behavior and Health Education*, eds. Karen Glanz, Barbara K. Rimer, and Frances Marcus Lewis (San Francisco: Jossey-Bass, 2002), 468-479.

family responsibilities legitimately leave no time for exercise or food preparation? Does the person know how to prepare healthy meals? If the person does not have access to a car, can they easily get to a store that sells fresh fruits and vegetables? Or are junk food and sodas the only things easily affordable and accessible?[43] These kinds of questions appearing in more and more research, and subsequently they are showing up in more and more press reports.

Wallack et al. pointed out that the perception that "social and health problems are individual problems pervades society and is reinforced through framing in the mass media."[44] The authors said this is so despite the preponderance of ecological boundaries and influences that are beyond the control of the individual, but that influence the actions of the individual. Examples the authors gave include a large volume of misleading marketing messages from alcohol and tobacco companies, and the fact that federal agencies are charged with researching and preventing AIDS, yet are prohibited at times from using the word "condom" in their mass media materials.[45]

Groups often frame themselves and their issues as defined in opposition to other groups and issues; this is known as a contested frame. Wallack et al. said that "facts are presented and interpreted via cultural symbols," often ones that evoke strong images or symbols, and positive or negative emotions.[46] One example the authors give is the tobacco debate, in which the tobacco companies cast themselves as "protector of free choice" and their anti-tobacco opponents as "health fascists" and "government interventionalists." The anti-tobacco campaigners in return managed to frame the tobacco industry as deceitful "merchants of death."[47]

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[43] Ibid.
[44] Wallack, et al., 69-70.
[45] Ibid., 70.
[46] Ibid., 70-71.
[47] Ibid., 71.

The news media, on the other hand, are more likely to engage in episodic and thematic framing. The news, they argued, generally uses episodic framing—a "short, simple, and personal story" such as one that looks at one person—to represent issues.[48] This, they said, serves to "reinforce an exceptionalist, individualistic frame for social problems."[49] Thematic framing, they said, provide a more complex, abstract, and broad view of an issue, often presenting data scientific reports to back up claims. The authors described thematic framing as "present(ing) the collective case of an issue rather than the individual or personal one."[50] Much of their arguments on episodic and thematic framing focused on Iyengar's 1991 work on television news,[51] but similar framing does appear in newspaper coverage.

Framing theory has its place in public health. Finnegan and Viswanath described framing as "organized public discourse about an issue leading to the selection of features and the exclusion of others"; in a public health application, "advocacy groups (would) 'package' an important health issue for the media and the public."[52] In fact, the CDC's sister organization, the National Institutes of Health (NIH, also a division of the U.S. Department of Health and Human Services) encouraged public health organizations to use framing to get their message to the press. The NIH's National Cancer Institute published a guide explaining framing and other theoretical approaches to encouraging positive health behaviors in 2005. The guide explained framing as "a process in which someone tells the audience what aspect of the story is important," and that

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[48] Ibid., 72.
[49] Ibid., 73.
[50] Ibid., 72.
[51] Ibid., 72-73.
[52] John R. Finnegan Jr. and K. Viswanath, "Communication Theory and Health Behavior Change." in *Health Behavior and Health Education,* eds. Karen Glanz, Barbara K. Rimer, and Frances Marcus Lewis (San Francisco: Jossey-Bass, 2002) 373.

"public health advocates can use the media to pressure decision makers to develop and support healthy policies."[53]

Frames of reference have a great influence on human communication—in fact, one could argue that this concept is the basis of shared meaning. Public relations professionals use framing to create the frame in which their subject is understood to its best advantage. By evoking certain images or concepts and/or focusing on certain aspects, whether done overtly or subtly, public relations activities aim to shape the way their subject is understood by controlling the context.

Framing and Qualitative Content Analysis

Qualitative methods are well suited to exploring and discovering the framing that may lie hidden in the press releases and press coverage. Several studies examining news releases and/or press coverage used qualitative content analysis methods. Larsen claimed Kracauer's[54] argument that "a text must be received as a meaningful whole, and hence that analysis necessarily involves an act of interpretation which, like other readings, is based on specific assumptions to be made explicit in the course of analysis"[55] when he conducted his analysis of fictional media content. Furthermore, he said the text should be considered an "intersection" of "intentions and possible effects" and that the researcher's job was to "bring out the whole range of possible meanings, not least the 'hidden' message of the text."[56]

Gallagher et al. analyzed news releases from before, during, and after Hurricanes Katrina and Rita, examining how different organizations affected by the hurricanes framed their crisis communications. The authors examined releases from two federal agencies (not including the

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[53] National Cancer Institute, *Theory at a Glance: A Guide for Health Promotion Practice*, U.S. Department of Health and Human Services, September 2005.
[54] See Kracauer (1953), 637.
[55] These are Larsen's words, with the italics preserved.
[56] Peter Larsen, "Media Contexts: Textual Analysis of Fictional Media," *A Handbook of Qualitative Methodologies for Mass Communication Research*, Ed. by Klaus Bruhn Jensen and Nicholas W. Jankowski. (New York : Routledge, 1991), 121–134.

CDC) and several U.S. senators and governors representing Mississippi, Louisiana, and Texas. They conducted a qualitative content analysis based on the work of Benoit and Coombs, examining both crisis types and crisis responses.

The authors analyzed how the releases framed the crisis, saying, "In public relations, framing analysis is often associated with issues management. Further, framing is related to how public relations practitioners position a story for media coverage."[57] They, looked at nearly 2000 releases from the organizations chosen, over a roughly six-month period starting a few days before Hurricane Katrina made landfall in the Gulf states. They "examined how the organizations framed the crises, then…evaluate(d) the effectiveness of those claims."[58] The authors coded each news release "to organize the themes," then developed the theme categories afterward. The findings showed, among other things, that among the different themes that emerged, different themes showed differing degrees of neutrality and accusation, but that each entity in the study attempted to build support for their position.[59]

Wester et al. engaged in a sort of immersion technique when they performed a qualitative content analysis on 53 years of Dutch and German news coverage. They used their study of how the press in the Netherlands and Germany portrayed each other to develop a "logic for interpretive content analysis,"[60] which involved reading and re-reading the press clips looking for different, more detailed meaning in them. They referred to the reading and re-reading as a "sensitizing concept"[61] that helped them identify frames. When they wanted to focus on a

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[57] Amanda Hall Gallagher, Maria Fontenot, and Kris Boyle. "Communicating During Times of Crisis: An Analysis of News Releases From the Federal Government Before, During, and After Hurricanes Katrina and Rita." *Public Relations Review* 33 (2007), 218.
[58] Ibid.
[59] Ibid. 218–219.
[60] Fred Wester, Alexander Pleijtner, and Karsten Renckstorf, "Exploring Newspapers' Portrayals: A Logic for Interpretive Content Analysis," *Communication*s 29 (2004): 495–513.
[61] Ibid., 500.

particular event, they looked at coverage from one week before the event through one week after the event.[62]

For analyzing frames in a selection of content, Chong and Druckman advocated using inductive reasoning to identify the frames. They also identified "mass media sources including major newspapers, magazines, Web sites, and television broadcasts" as common content selected for such a content analysis. The specifics of the content choices must suit the researcher's intent, and "the 'best' standard for any particular study may depend on that study's assumptions and purpose."[63] It is the researcher's job to identify "the presence or absence of one of the predefined frames in the story or article."[64]

Sometimes content analysis reveals drastically different frames. Perkins conducted a qualitative framing analysis of NAACP press releases compared to news articles in mainstream U.S. papers in Florida, in the time immediately following the contested 2000 presidential election. She concludes that the media framing was so different from the NAACP's framing that perhaps the NAACP's messages were ignored. For her qualitative content analysis, Perkins obtained the 10 press releases issued during the study period, and searched Lexis-Nexis for articles from the same time period. From those articles, she took a random sample to analyze. The articles were read and coded using the frames that emerged during the analysis.[65]

The abovementioned authors make a solid case for using qualitative content analysis and inductive reasoning to explore the issue of framing in PR and the news. They looked at the evidence, the source material, to identify the framing based on the content of the evidence. I did the same with my source material, searching it for patterns, uses of certain words (also to be

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[62] However, this was a longitudinal study, to which this selection method may be more suited.
[63] Ibid., 109.
[64] Ibid, 107.
[65] Stephynie Chapman Perkins, "Un-presidented: A Qualiative Framing Analysis of the NAACP's Public Relations Response to the 2000 Presidential Election." *Public Relations Review* 31 (2005): 63–71.

determined via the analysis); and possibly reading levels, levels of abstraction, and other qualities.

Press reports represent several different layers of framing. In the cases examined in this study, the CDC attempted to frame the issues via its press releases. Newspaper reporters framed the issues when they wrote; their editors may have added their own bit of framing. The various sources[66] the reporters quoted and the people they interviewed were all chosen because they had an opinion to offer on the topic—they were all presenting the issue in their own frames. In many cases, there were conflicts between sources advocating negative (fear) frames and positive (reassurance and empowerment) frames.

[66] Some of these sources were other federal agencies besides the CDC. I have included their framing where it appears.

Significance

The CDC is widely recognized as the premier global public health organization. They provide an important service toward the greater good. People and governments all over the world depend on the CDC's research and information. Improvements to their communication practices would enable them to better serve people and improve public health.

In this study I examined crisis and risk communication. Health issues involving risk and crisis require disseminating information of an urgent nature, and these urgent releases will be more likely to require or invite media attention. A large amount of press coverage for an issue is significant because the more press coverage an issue or a release receives, the more opportunities there are for the message to be mediated, and framed in different ways. I chose to study press releases because they are a purposeful, overt attempt at framing an issue.

Media coverage, including health reporting, is part of a feedback loop in which reported news affects peoples' health-information-seeking behavior and news consumption habits, which again drives news content. Media studies are important to the field of public health; many studies have shown that people's interaction with the media affects their health behaviors.[67] Likewise, many studies show that people's behaviors affect the content of the news.[68] As Martin Meyer said, whether realistically or cynically, "advertisers like to see heavy newsstand sales; news judgment at a magazine involves the editor's decision of what the public wants to buy this week."[69]

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[67] John R. Finnegan Jr. and K. Viswanath, 377-379.
[68] Sanjay Bhatt. "Useful Lessons From Reporting the Anthrax Story." *Nieman Reports: Reporting on Health*. Summer 2003. Cambridge, MA: Nieman Foundation of Harvard University. 57:1, 14.
[69] Martin Meyer, *Making News*. Boston: Harvard Business School Press, 1993. 74.

Chong and Druckman wrote that frames "can affect the attitudes and behaviors of their audiences."[70] They also wrote that "conversations about the implications of framing are timely, as it is commonplace nowadays for polling to be used to test the effectiveness of alternate methods of presenting policy proposals. To the extent that people do not have independent ideas on the issues they are being asked to vote on, they can more easily be manipulated by the framing of proposals….their opinions are vulnerable to being shaped arbitrarily by how the issue is represented."[71] Hallahan put it another way: "Critical researchers consider media framing essentially a tool of power that can be used in the struggle to define whose view of the world will predominate."[72]

The actions of the CDC's communications office have the potential to affect numerous different groups. How, or whether, they choose to act on a particular health issue can have repercussions for government officials (both elected and appointed), researchers and leaders at different levels of the CDC, and the CDC as a whole agency. The repercussions for their actions can be felt at many levels: personal, community, specific population, and the U.S. or global public as a whole, depending on the issue and the actions taken on that issue. Not only do public health communications affect the CDC at different levels, it's seldom transparent to the press or the public—and sometimes even CDC personnel—who is the source of some of the public health decisions upon which the communications office must act.

When members or employees of an organization write a press release on behalf of that organization, they are framing an issue. The purpose of issuing a press release is to provide information about an issue. However, in doing so, the organization creating the release will

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[70] Dennis Chong and James N. Druckman. "Framing Theory." Annual Review of Political Science 10 (2007): 109.
[71] Ibid., 121.
[72] Hallahan, 1999, 223.

almost certainly want to frame the issue and discussion about the issue in a manner most beneficial to itself.

When the media reports on an issue, it is also framing the issue. This can result in similar frames, but there is the potential for those frames to conflict. If the CDC communication staff's messages are misconstrued by the media, or if the CDC's public relations and health messaging tactics are ineffective, that such miscommunications pose a potential public health threat. With the frame defining the issue, and the public's health at stake, the question of media and PR framing is an important one. This research adds to the body of knowledge about CDC press relations, including health communication and press relations.

Review of the Literature

Much work has been published in the field of corporate and commercial public relations, and some in the nonprofit/fundraising sector. The field of public relations research itself, however, is comparatively young and evolving.[73] Much attention has already been given to audience research and monitoring in public relations. While the research almost uniformly espouses the value of doing so, it is also clear from the research that not everyone is doing this, especially in risk and crisis communications. In other words, the field has a well-documented best practice that is not being followed in all cases, particularly not when it is needed most.

Like the field of journalism itself, good practices in journalism have been evolving and changing for hundreds of years. What may have been a good practice in the party press days would not be considered ethical or professional under today's ideal of objective journalism. Currently, journalists are generally expected to be fair, balanced, and to be as objective as possible. The degree to which they are expected to muckrake, investigate, or toe a party line varies depending on the environment and the issue. With regard to public relations, though, running with a press release, and not looking for further information, can be considered lazy.

Health communication, which is, like public relations, an applied communication field,[74] is also a fairly young field. As the field of health communication has evolved, more and more health communicators have come to realize the power of commercial-style marketing and public relations strategies and tactics. The CDC even started its own Center for Health Marketing in 2004,[75] with the intent of harnessing the consumer/marketer mindset to "productize" healthy behaviors and "sell" them to the public. Likewise, the CDC is placing more import on its Office

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[73] Botan and Taylor (2004), 645.
[74] Ibid.
[75] http://www.cdc.gov/healthmarketing/.

of Enterprise Communications and their Division of Media Relations. Their growing body of research indicates that the CDC is becoming wiser about the possibilities and potential for health communication and public and media relations. The amount of effort they have put into learning lessons from their own risk and crisis communications is impressive. While that can—and almost certainly does—bode well for the health and safety of the public, it also has potential for abuse considering its situation in a government agency led by political appointees, and considering the fact that the agency is under constant pressure to maintain its good reputation as a protector of the public health.

Public relations and health communication were once two fields that appeared unlikely to intersect. However, in the past 10 or 20 years, interest in both fields has increased, with theoretical overlap in marketing, risk and crisis communication, and basic conveyance of control, empathy, or goodwill, as the situation required. Applicable research came from the private sector, communication researchers, and the CDC, to name a few important sources.

A Brief History of the CDC

The CDC evolved from its single-purpose beginning into its current roles as the world's premier global health organization, and as a leader in health communication research. The agency was founded in 1942 as a small Public Health Service (PHS) department called Malaria Control in War Areas (MCWA)[76], and became the Communicable Disease Center (CDC) in 1946.[77] Since that time, the CDC has become a leader in health action and research, including disease eradication, emerging infectious disease research, biology, chemistry, epidemiology, disease surveillance, behavior change, and health communication.

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[76] These "war areas" were military bases and war-related industries in the U.S. South.
[77] Elizabeth W. Etheredge, *Sentinel for Health: A History of the Centers for Disease Control* (Berkeley: University of California Press, 1992).

The CDC spent its first two decades defining its purpose and cementing its presence. In the 1940s, the CDC focused on tropical diseases (both insect-borne and zoological). Its founder, Dr. Joseph W. Mountin, pushed the organization to expand its reach to include any communicable disease, with the exceptions of tuberculosis and venereal disease, which already had their own separate centers.[78] With this expansion, epidemiology became the driving force of the CDC.

In the 1950s, the CDC's new force, the Epidemic Intelligence Service (EIS) proved the CDC's usefulness and the importance of national public health. EIS members investigated the possibility of biological warfare during the Korean War, and conducted the surveillance of the 1957 Asian Flu epidemic.[79] Most famously, the EIS also conducted the surveillance that saved the Salk polio vaccine[80], thus paving the way for polio to be eradicated in the Western hemisphere.[81] By the mid-1960s, the CDC was responsible for many more health issues, including tuberculosis, quarantine, nutrition, and occupational safety. They were also publishing the *Morbidity and Mortality Weekly Report*, or *MMWR*, a weekly publication dedicated to sharing news of disease research and surveillance.

The CDC changed its name to the Center for Disease Control in 1970, in recognition of the broadened scope of its public health contributions. In 1977 they (along with the World Health Organization and other groups) saw the global eradication of smallpox; in roughly the same

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[78] "Historical Perspectives: History of CDC." *Morbidity and Mortality Weekly Report*. 45(25); 526–530. 28 June 1996. Elizabeth W. Etheredge is not listed as the author of the article; however, the article itself claims her as the author of part of the article. The second half, an editorial note, is attributed only to "Office of the Director, Epidemiology Program Office, CDC." MMWR articles are rarely attributed.

[79] "Historical Perspectives: History of CDC." *Morbidity and Mortality Weekly Report*. 45(25); 526–530. 28 June 1996.

[80] Maryn McKenna. *Beating Back the Devil: On the Front Lines with the Disease Detectives of the Epidemic Intelligence Service*. New York: Free Press, 2004.

[81] Children who had been inoculated against polio began coming down with the disease; officials halted the vaccinations. EIS members tracked the cases to a contaminated batch of vaccine from one production facility and proved the effectiveness of the vaccine, thereby allowing the vaccination program to resume.

timeframe they discovered the causes of Legionnaires disease and toxic shock syndrome. In June 1981[82], their *MMWR* published the first article on the disease that would come to be known as AIDS.[83]

The evolution of the organization's name continued to reflect its expanding responsibilities. In 1981 the CDC became the (plural) Centers for Disease Control, and it began to focus more on collaboration between scientists: epidemiologists, laboratorians, and statisticians.[84] In the late 1980s and early 1990s the CDC began to embrace prevention as a priority, conducting large studies of cancer risk factors, and refining scientific methods of both sentinel surveillance and determining the effectiveness of prevention efforts.[85] To signify their involvement in these activities, the agency added "and Prevention" in 1992 to arrive at its current name, the U.S. Centers for Disease Control and Prevention. It was at this time, when they began to see prevention as essential, that the agency began to take health communication seriously.

Despite its original mission of preventing infectious diseases, the CDC has made many important contributions to the field of health communication. The agency has supported and conducted research in plain language communication, low literacy, Web usability, community- and culture-specific targeted campaigns, and social marketing. They have three prestigious public health journals which they make available to the public at no charge; something previously unheard of. They produce and distribute fact sheets, planning guides, podcasts, brochures, and numerous other communications materials.

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[82] This appeared in *Morbidity and Mortality Weekly Report*. 30(21). 5 June 1981.
[83] "Historical Perspectives: History of CDC." *Morbidity and Mortality Weekly Report*. 45(25); 526–530. 28 June 1996.
[84] Ibid.
[85] Ibid.

Legal Authority of the CDC

Creation of the MCWA, as "National Defense Malaria Control Activities," was authorized by a 1942 letter from then-Surgeon General Thomas Parran out of interest in protecting military personnel from malaria during World War II. After the war was over, the PHS established the Communicable Disease Center; although they secured approval from Congress, "no formal act of Congress was necessary."[86] Title 42, "The Public Health and Welfare," is the sprawling, evolving piece of legislation that gives the CDC and other federal health agencies their mandates and authority.[87]

The duties of the CDC are largely characterized as being to create and provide research data, guidelines, and advice on a variety of things, including diseases, conditions, interventions, implementations, and other public health projects. Much discretion is given to the secretary of HHS in the exercise of the duties and responsibilities outlined in Title 42. Much of the law states what HHS (and the CDC) may do rather than what they are to be held accountable for. Many of the items directed at the CDC are stated thusly: "The Secretary, acting through the Director of the Centers for Disease Control and Prevention, may (or "shall") make grants…"[88] Among the authorities Title 42 specifically grants to the CDC are directing and enforcing foreign quarantines and collaborating with other agencies on various research projects.[89] The same law established the National Vaccine Program, with the authority to administer and oversee the safe procurement and distribution of vaccines, and to direct and guide the CDC and other agencies as they research and test vaccines.[90] Additional directives and funding are provided by earmarks.

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[86] Etheredge, 16.
[87] "The Public Health and Welfare," USC 42. The U.S. Government Printing Office Web site at http://www.access.gpo.gov/uscode/title42/title42.html (accessed 4 June 2008).
[88] Ibid. This appears in many places.
[89] Ibid.
[90] Ibid.

History of Health Communication at the CDC

The CDC's own publications, namely the journals *Emerging Infectious Diseases (EID), Preventing Chronic Disease (PCD),* and the *Morbidity and Mortality Weekly Report (MMWR),* are a valuable source of historical information. The *MMWR* published a supplemental issue in 2006 entitled "60 Years of Public Health Science at CDC." This issue contained 12 articles, with each giving an overview of different research areas and other factors as they affect public health, including epidemiology, veterinary medicine, informatics, laboratory science, and economics.[91] The *MMWR* is generally highly technical and statistical in nature; however, considering the important contributions the CDC has made to the field of health communication science, it is worth noting that such important research was not addressed in their celebratory retrospective.

Courtney et al. described communication is "a relatively new discipline in the field of public health." Agencies and other organizations focused their efforts on epidemiology, non-communication-related prevention efforts (e.g., immunization), and providing scientific information to health professionals and other scientists. Scientists counted on the press to figure out what was important, and communicate that information to the public.[92]

According to the authors, it was AIDS and other emergent diseases that awakened CDC to the fact that "communicating clearly to the public was…a necessary component of public health practice."[93] In 1993, under agency director William Roper, the CDC formed the Office of Communication (OC). The OC was responsible for "crafting and delivering messages and strategies, based on consumer research, to promote the health of individuals and communities."[94]

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[91] "60 Years of Public Health Science at CDC." *Morbidity and Mortality Weekly Report*. 55 (Supplement). 22 December 2006.
[92] Judith Courtney, Galen Cole, and Barbara Reynolds. "How the CDC is Meeting the Training Demands of Emergency Risk Communication." *Journal of Health Communication*. 8 (2003): 128–129.
[93] Ibid., 128.
[94] Ibid..

The OC's overarching goal was to build national capacity for health communication efforts by training the "public health workforce" to communicate effectively. Their primary method of attaining that goal was through their CDCynergy[95] course[96], which offers a systematic, organized way to plan, create, and implement health communications and social marketing campaigns.

The Anthrax attacks in 2001 called for a quicker response than anything for which CDCynergy training had prepared people, and the attacks forced CDC to realize that they needed to broaden their scope when considering whom to train in public health communication. The Anthrax attacks ushered in a new focus on risk and crisis communication.[97] Their experience led them to create the ERC (Emergency Risk Communication) CDCynergy training program to prepare public health officials to respond quickly in time of any crisis that could affect public health. Courtney et al. worked at the CDC at the time of the article's authorship, and they recommended expanding ERC CDCynergy training to include community leaders and local officials. They said that including a number of local leaders would improve rapport and communication with the affected community.[98]

It appears to have been the mid-1990's when the CDC started evaluating its own communication efforts in order to hone them. Nowak[99] and Siska used the "America Responds to AIDS" (ARTA) public information and AIDS prevention campaign to examine the use of audience research in the creation and evolution of a public health communication campaign. According to the authors The CDC was aware that many mass media health campaigns had

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[95] *CDCynergy 3.0*. CD-ROM-based course developed by the U.S. Centers for Disease Control and Prevention and the Oak Ridge Institute for Science and Education (ORISE), 2005. Available via the Oak Ridge Associated Universities Web site at http://www.orau.gov/cdcynergy/.
[96] Courtney, et al., 128.
[97] Ibid
[98] Ibid, 129.
[99] Nowak is currently the CDC's director of public relations.

limited success, so they asked the National Academy of Science (NAS) to recommend research and evaluation approaches for its HIV/AIDS communication activities. The NAS recommended using formative research to determine which approaches work best, efficacy trials to see if the campaign could make a difference, process evaluation to find out what information was actually delivered, and outcome evaluation to determine if the campaign had its desired effects.[100] The authors describe the process of using these concepts to create, deliver, and evaluate messages. The authors conclude that a variety of research methods and theoretical frameworks should be used in a "cycle of research" to develop an effective campaign.

Journal Articles From CDC Publications and Authors

M. Scott Barrett used the CDC's handling of the 2001 anthrax attacks to study how message control and spokespersons can affect public reaction. While he said the CDC had properly applied risk communication theory in disseminating information to doctors, and had thereby saved lives, he said the entire agency lost credibility in the public's eyes due to the way communication was handled during the crisis. He concluded that poor message control, too many (often conflicting) spokespersons, and poor handling of the ambiguity surrounding this particular crisis were all mistakes the agency could look to manage during future crises. However, as the author acknowledged, the anthrax attacks were unlike any other problem the CDC had faced, and this was identified as a learning opportunity.

Scott Ratzan, editor of the *Journal of Health Communication*, wrote that despite the health communicator's "ethical base to do no harm and advance with scientific integrity and

[100] Glen J. Nowak and Michael J. Siska. "Using Research to Inform Campaign Development and Message Design: Examples from the 'America Responds to AIDS' Campaign." *Designing Health Messages*. Ed. Edward Maibach and Roxanne Louiselle Parrott. (Thousand Oaks, California: Sage Publications, 1995), 169–184.

humanism,"[101] sometimes erroneous or irresponsible decisions are made in the drive to meet the rapid-fire needs of today's news media. He used the case of one 1998 British journal article to illustrate the devastating consequences these lapses in judgment can cause. In his example, the lead author of a study claimed that the MMR (measles, mumps, and rubella) vaccine was associated with autism in children, and campaigned for six years to convince people this was a fact. After U.S. Institute of Medicine panel conducted a further study, they rejected the British researcher's hypothesis. A few years later, an article on the front page of the *London Times* uncovered the fact that the researcher had been paid a large sum of money to conduct the research in support of possible lawsuits from parents who claimed their children had been damaged by the vaccine. However, despite this revelation, and the retraction by 10 of the original study's 13 authors, the perception remains that the vaccine causes autism, and a battle once won must continue to be fought at the expense of public money and children's lives. As a result, Ratzan called for an institutionalization of ethics, values, and critical thinking in health communication.[102]

In "Order out of Chaos," communication researcher and former director of communication at CDC Vicki Freimuth described the transition of the CDC to a major health communication organization. She looked back on her days at the CDC managing the anthrax crisis response in 2001. She described the challenges of an organization that took pride in its "slow, thoughtful scientific research" based on "scientific consensus" (142) somewhat suddenly having to communicate advice, direction, and reassurance based largely on uncertainty. The task involved (from the abstract) "communicating uncertainty, selecting credible spokespersons,

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[101] Scott C. Ratzan. "Truth and Health Consequences" (Editorial). *Journal of Health Communication* 9 (2004), 279–280.

[102] I find this particularly interesting because this example shows the public health communicators as the "bad guys" and the news media as the "good guys."

collaborating with other organizations, satisfying a competitive 24/7 media, and speed. The lessons learned in responding to these challenges led to profound changes in the way communication was organized in the agency. These changes are described within the framework of chaos theory."[103]

Randolph and Viswanath discussed public health in mass media, and while they did so in the context of campaigns, there is still a part of the campaign (the PR aspect) that can be mediated. They reviewed factors that contribute to the success of public health mass media campaigns[104] including message and health behavior theory, audience research, and manipulation of the discussion,[105] and how to achieve these things. They suggested that communicators should exert control over the information environment and the issue itself. While this article dealt mostly with campaigns and social marketing, these concepts could be applied to public and media relations.

The CDC's communication activities before, during, and after Hurricane Katrina became a case study of the agency's disaster communication plan. The CDC's Marsha Vanderford et al. described in detail a comprehensive disaster communication plan that had been developed over years of research, then tested and proved in response to SARS, West Nile virus, and three hurricanes. The CDC had created and distributed messages for a variety of media, in a variety of languages, to be disseminated under a variety of possible circumstances in a variety of locations at appropriate phases during the emergency. However, Katrina proved to be an unusually devastating emergency, and its destruction quickly overwhelmed and short-circuited the CDC's communication plans. In addition to describing the CDC's emergency communication plan, the

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[103] Vicki S. Freimuth,. "Order out of Chaos: The Self-Organization of Communication Following the Anthrax attacks." *Health Communication* 20, no. 2 (2006): 141.
[104] Whitney Randolph and K. Viswanath. "Lessons Learned from Public Health Mass Media Campaigns: Marketing Health in a Crowded Media World." *Annual Review of Public Health*, 25 (2004):421.
[105] I see the latter as an opportunity for framing.

article "address(ed) how lessons derived in the aftermath can be applied to future events, as well as how CDC's experience is relevant to health communication research."[106] Vanderford et al. used chaos theory in their analysis (as Freimuth had the previous year), concluding that continued study of emergency response can help communicators see patterns in chaotic situations, and thereby better anticipate and prepare for the challenges that may arise during an emergency situation, be it a natural disaster, disease outbreak, or terrorism.

In the same journal issue, Robert S. Littlefield and Andrea M. Quenette used Hurricane Katrina as a test case to study how the media portrayed authority during a natural disaster. They conducted a textual analysis of crisis response coverage in two newspapers (the *New York Times* and the New Orleans *Times-Picayune*), and looked at positive and negative representations of (to quote the abstract) "the military, the Department of Homeland Security, President Bush, the federal government, and the local government. The findings suggest that the media stepped outside their role of objective observer and assumed a privileged position to point blame at legitimate authority. This positioning implicitly empowered the media to evaluate crisis responses…Understanding how the media create images and depictions can affect how authorities frame their initial crisis responses."[107]

In the February 2002 issue of the National Communication Association (NCA)'s *Spectra* that on October 31, 2001, " Matthew Seeger reported on a CDC-sponsored national conference on public health crisis communication, held in conjunction with the NCA conference, which gathered scholars in "sociology, psychology, and communication as well as representatives from

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[106] Marsha L. Vanderford;, Teresa Nastoff, Jana L. Telfer, and Sandra E. Bonzo. "Emergency Communication Challenges in Response to Hurricane Katrina: Lessons from the Centers for Disease Control and Prevention." *Journal of Applied Communication Research* 35, no. 1 (February 2007): 10.

[107] Robert S. Littlefield and Andrea M. Quenette. "Crisis Leadership and Hurricane Katrina: The Portrayal of Authority by the Media in Natural Disasters." *Journal of Applied Communication Research* 35, no. 1 (2007): 26–47.

the CDC and the Federal Emergency Management Administration." Their goal was to "establish a research agenda for crisis communication and the public health." Discussion about risk communication focused on audience needs and characteristics, uncertainty, technology, and the media, among other things. Seeger said the conference had been planned before 9/11 and the anthrax attacks, and that Barbara Reynolds, the CDC's director of crisis communication, didn't want to limit discussion to those events—that West Nile virus, pandemic avian influenza, and e. coli outbreaks were also serious threats to consider. He quotes her as saying, "Communication forms a critical element of the CDC's response to outbreaks of these and other infectious diseases."[108] As much research has been done on corporate and organizational risk communication, participants called for further research in public health crisis communication response and audience needs during a crisis.

Seeger discussed best practices in risk communication in the lead article he wrote for a 2006 *Journal of Applied Communication Research* issue addressing risk and crisis communication. Seeger recommends ten best practices, building on the findings of an expert panel, intended to "improve organizational and professional practice." He also advocated using these best practices as a grounded-theory approach to crisis communication, "specifically within the context of large, publicly managed crises."[109] In the same issue, Robert L. Heath, director of the Institute for the Study of Issues Management, praised Seeger's article, attempted to refine the practices he listed, and added two more best practices to Seeger's list. He described crisis response as a narrative that starts with pre-crisis conditions, and said communicators should commit themselves seriously to being the "first and best source of information" in a crisis. Heath

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[108] Matthew Seeger. "CDC Funding for Crisis Communication Research Highlighted at NCA Convention." *Spectra* (February 2002): 7.
[109] Matthew W. Seeger. "Best Practices in Crisis Communication: An Expert Panel Process." *Journal of Applied Communication Research* 24, no. 3 (2006): 232–244.

described risk as having effects that can have "positive or negative consequences," and "the occurrence of which and the effects of which can be variously predicted, controlled, and harmful or beneficial." He also described a crisis as "a risk manifested."[110]

Barbara Reynolds, a crisis communication specialist with the CDC, responded to Seeger and Heath, saying that the idea of best practices is valuable and helpful, but that it would be easy—and tempting—for everyone with crisis communication experience to continue adding to the list. Reynolds said that the real objectives of crisis communication are simple and few, and here she cited the Department of Homeland Security's 2005 *Emergency Planning: National Response Plan*: "prevent further illness, injury, or death; restore calm; and engender confidence in the operational response."[111] She said the recipients of the messages have their own set of objectives regarding recovering from a crisis. By way of finding a use for the ten (or twelve) best practices, she said that because of the constant availability of a huge variety of information today, it will be difficult for health communicators to manage communications during the next outbreak or emergency. Health risk communicators will need to be prepared, and the previously mentioned best practices would be a good place to start.

David Ropeik, an instructor in risk communication at the Harvard School of Public Health, added to the conversation, writing that fear and risk perception are the main factors that cause risk communication to be a special field. Because "evidence suggests that emotion plays a more powerful role than fact-based analysis[112]" in shaping a fear response, he argued that risk perception should be given primacy over other "best practices" in risk/crisis communication

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[110] Robert L. Heath. "Best Practices in Crisis Communication: Evolution of Practice Through Research." *Journal of Applied Communication Research* 24, no. 3 (2006): 245.
[111] Barbara Reynolds. "Response to Best Practices." *Journal of Applied Communication Research* 24, no. 3 (2006): 249.
[112] David Ropeik. "Best Practices Response." *Journal of Applied Communication Research*.24, no. 3 (2006): 253.

planning. Ropeik also recommended that risk and crisis communicators constantly monitor the media, "both to learn what journalists have found and to correct immediately mistakes or inaccurate information."[113] He blamed FEMA's poor response to Hurricane Katrina on their not following this practice.

David Nelson, a senior scientific advisor with the CDC's Office on Smoking and Health, discussed the folly of communicators assuming their information is important without doing the audience research to find out what the audience wants and needs. In his editorial, "Reducing Information Pollution in the Internet Age," which he wrote for the CDC e-journal *Preventing Chronic Disease*, he said that the recent availability of low-cost, broad reach communication technology (e.g., the Internet) may distract communicators from the fundamentals, "such as understanding the intended audiences and how they seek, assess, and use information."[114] Nelson warned against providing too much information, as it tends to confuse and daunt the audience. He also discussed the "expert heuristic" and how audiences perceive credibility in a message source.

Elias Arbrutyn commented on a panel discussion on scientific communication for a 1998 special issue of the CDC journal *Emerging Infectious Diseases*, saying that medical and health science information was once solely the domain of scientists and physicians, but today a much broader audience is interested. There is a big difference between what the scientists and the public know about medicine. He said that "physicians and scientists seek to transmit information,; the media, on the other hand, seek to entertain in addition to transmitting

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[113] Ibid., 256.
[114] David E. Nelson. "Reducing Information Pollution in the Internet Age." *Preventing Chronic* Disease 4, no. 1 (2007): 1–3. (CDC e-journal). www.cdc.gov/pcd/issues/2007/jan/06_0119.htm. [Accessed 3 February 2007.]

information."[115] One of the panelists spoke of the advantages of writers putting events in historical perspective, while another said that "public health professionals cannot see their work in a historical light."[116] Arbrutyn recommended that both journalists and scientists consider historical perspective, both past history, and how the current event or information in question may factor into history in the future. He continued to say that the media and other writers tasked with communicating scientific information "may make the scientific community uncomfortable with probing questions," but that this questioning adds to the breadth of the perspective in a positive way. He concluded, "the session's message was that scientists should view science writers as the scribes who can disseminate a story to the public by translating technical language into accessible terms. Scientists, like science writers, should cultivate good sources and pick stewards who will communicate the information accurately. The world wants to know about emerging threats to health, and writers can help."[117]

CDC researchers Freimuth, Linnan, and Potter pointed out that communication is an essential part of public health, and "in the absence of a cure…an effectively crafted and disseminated prevention message is the key control measure."[118] The authors wrote about their application of communication theory to focusing on new infectious disease threats. They authors characterized past dissemination of health information as scientists "meticulously" recording study results in scientific journals, leaving the media alone to interpret and transmit scientific information unaided. The authors identified reasons for heightened concern about effective messaging, including the increase in public desire for health information, the emergence of new

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[115] Elias Arbrutyn. "Communicating Infectious Disease Information to the Public." *Emerging Infectious Diseases* 4, no. 3 (1998): 470.
[116] Ibid.
[117] Ibid.
[118] Vicki S. Freimuth, Huan W. Linnan, and Polyxeni Potter. "Communicating the Threat of Emerging Infections to the Public." *Emerging Infectious Diseases* 6, no. 4 (2000): 337–347.

diseases, the availability of a variety of information on the Internet, and the aging of the baby boomers. They called for a theory-based approach to maximize the effectiveness of their health messaging. They also identified the role of media coverage as to "create awareness…place the issue on the public agenda, and frame the way the issue is reported."[119]

Lessons Learned From the 2001 Anthrax Communication Response

For what had been a typically isolated government science agency, the anthrax attacks in 2001 were an important turning point at which the CDC became a more public-facing agency. Liana Blas Winett and Regina C. Lawrence wrote that the anthrax attacks "brought public health into the media spotlight" and demonstrated to Americans the strength and weaknesses of both the public health infrastructure and the policies that govern that infrastructure.[120] It was through the anthrax incident that CDC communications staffers learned the importance of being in control—for both the physical and mental health of the public.

The Bush administration (including its departments and agencies) was criticized for its response to the anthrax attacks. The press, the public, and public health and communication researchers complained that a secretive, slow, uncaring response allowed fear and panic to take hold of the public. The public felt it had been abandoned by a government that had lost control of the situation. Fortunately, some lessons were learned quickly, although researchers ruminated over the response for several years afterward.

Authors from the CDC and elsewhere took advantage of this learning opportunity and contributed to a special September 2003 issue of the independent, non-CDC-affiliated *Journal of Health Communication* dedicated entirely to analyses of various aspects of the CDC's communication response to the anthrax attacks. The issue consisted of 24 articles and

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[119] Ibid., 342.
[120] Liana Blas Winett and Regina G. Lawrence, "The Rest of the Story: Public Health, the News, and the 2001 Anthrax Attacks," *The Harvard International Journal of Press and Politics* 10:3 (2005): 3.

commentaries, including a timeline of the anthrax case (September 18–November 30. 2001) that had been abstracted from a December 2001 *New York Times* article.[121] The issue was timed to coincide with the second anniversary of the attacks.

The *Journal*'s editor-in-chief Scott C. Ratzan explained the purpose of this special issue as to analyze the "events and responses to the anthrax scare," in the context that, in the case of large-scale emergency events, "ethical decision-making practices based on evidence and reason have not always followed." This special issue was also an opportunity to "articulate important challenges and approaches in our effort to better communicate public health information in general."[122] May G. Kennedy, from the Centers for Disease Control's Office of Communication, and the guest editor for the special issue, stated that some of the articles were "brief commentaries from public health professionals ranging from front-line communicators in affected sites to the then-director of the CDC," Jeffrey Koplan. Kennedy stated that space constraints prevented the authors from being able to "develop or provide a great deal of support for the points they made. The reader is encouraged to go to the literature and websites [sic] they cite for further documentation."[123]

Vincent T. Covello, the director of the Center for Risk Communication in New York City, provided a checklist of seven "Best Practices in Public Health Risk and Crisis Communication," and guidelines for these best practices. Guidelines included involving stakeholders, being honest and open, meeting the needs of the media, coordination and collaboration with other credible sources, and communicating clearly and with compassion.[124]

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[121] "Anthrax Case Timeline." Abstracted with permission from "How the Cases Unfolded" (26 December 2001) *New York Times*, pp, B4–B5. *Journal of Health Communication* 8 (2003): 1–2.
[122] Scott C. Ratzan. "Editor's Note." *Journal of Health Communication* 8, no.3 (2003): 3.
[123] May G. Kennedy. "Background on the Special Issue." *Journal of Health Communication* 8, no. 4 (2003): 4.
[124] Vincent T. Covello. "Best Practices in Public Health Risk and Crisis Communication." *Journal of Health Communication* 8 (2003): 5–8.

He stated that the 9/11 terrorist attacks and the anthrax attacks "have heightened public health agencies' awareness of the need to enhance their risk and crisis communication skills." He saw continuing threats of chemical and biological attacks as "a unique opportunity for public health agencies to assess and elevate their level of communication preparedness for for all risk and crisis scenarios."

Polyxeni Potter, who was then, and is as of this writing, the managing editor for the CDC's *Emerging Infectious Diseases* journal, wrote of the importance of the quick response and turnaround time that is now possible because of the Internet. (*Emerging Infectious Diseases* is published both in print and online.) She pointed to the "intentional release of biological agents" as having "changed the way journal articles are published, just as it has changed the public health response to outbreak investigations." While she embraced the technology and the new speed at which information can be shared with the public, she questioned "how good is fast?" and cautioned against disseminating information before the time has been taken to ensure that it is accurate, verifiable, and scientifically valid. She concluded that an article that is published quickly must only be judged "on the merits of the science and its clinical and public health usefulness."[125]

Marsha L. Vanderford, who has worked in several important communications capacities at the CDC, wrote of her experience in the Emergency Operations Center (EOC) after the anthrax attacks in "Communication Lessons Learned in the Emergency Operations Center During CDC's Anthrax Response: A Commentary." She told of an incident in which doxycyclene was prescribed and distributed to postal workers at risk for anthrax in October 2001; the initiative was met with public outcry because postal workers thought they were

[125] Polyxeni Potter. "Electronic Journal Publishing in the Age of Bioterrorism: How Fast is Fast?" *Journal of Health Communication* 8 (2003): 9–10.

receiving second-class treatment. It had widely publicized that those in the Hart (senate) building and at NBC had received Cipro, so even though doxycyclene was equally effective and had fewer side effects than Cipro, this had not been part of the messaging. They had neglected to consider the beliefs of their target audience—something that could have been addressed via messaging—and had considered their message "in isolation" rather than in the context in which it was received. Vanderford points out that experts have analyzed this and similar situations, and training has been provided to emergency communicators[126], but a more reliable solution lies in constantly applying to risk communication the concepts the communication field has known and used for years. Even though risk communication is a new field of study, the tried-and-true research on context and content in messaging remains important.

David A. Shore, an associate dean at the Harvard University School of Public Health, looked at the importance of trust in health communication ("Communicating in Times of Uncertainty: The Need for Trust"). He described the basic elements of trust as perceived competence ("how much one party believes the other party has the required expertise to perform the agreed-upon duties effectively and reliably") and perceived conscience ("the extent to which one party believes that the other party intends to perform its agreed-upon activities and that those activities really benefit the first party").[127] Public trust in doctors and the healthcare industry (Shore refers to the U.S. healthcare system as an "industry" rather than a true unified "system") has waned in recent years, and that communication mistakes with the anthrax case were exemplary of the reasons why this is so. Shore described trust as "a reservoir of goodwill for

[126] This is explicitly addressed in CDC University's Risk Communication training course.
[127] David A. Shore. "Communicating in Times of Uncertainty: The Need for Trust." *Journal of Health Communication* 8 (2003): 13–14.

future use,"[128] and that building trust is essential to health communication because the public isn't qualified to judge the accuracy and importance of public health communications.

Sandra Mullin, associate commissioner and director of communications at the New York City Department of Health and Mental Hygiene, wrote of the merits of what she termed the "Giuliani Press Conference Model" of risk communication. Mullin described this as seemingly frequent press conferences post 9/11 in which New York City Mayor Rudy Giuliani, "flanked by other officials, stood clearly at the helm, displaying both empathy and mastery over information. As risk communication expert Peter Sandman would say, the mayor helped the city cope with the unbearable by bearing it himself."[129] She further described the sense of trust he was able to build during the aftermath of 9/11, and how this trust was useful during the anthrax case. She also credited a barrage of communications to different stakeholders, including an up-to-date Web site and rapid creation and broadcast of fact sheets and broadcast faxes. Finally, she said that learning from past risk communication mistakes was critical, as that was how they learned the hard lesson of how important it is to not dismiss the public's fears as "illegitimate."

In "Uncertain Science and Certain Deadlines: CDC Responses to the Media During the Anthrax Attacks of 2001," Robinson and Newstetter, researchers from the Georgia Institute of Technology, studied 19 communication professionals who worked on the CDC response to the anthrax attacks. According to the abstract, "the interviews sought CDC staff viewpoints on how the CDC handled a historically unprecedented level of press activity…Staff reported that the situation led to new work practices, tools for performing the work, and an enhanced understanding of what it takes to be prepared for and to handle communication work during a

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[128] Ibid., 13

[129] Sandra Mullin. "The Anthrax Attacks in New York City: The 'Giuliani Press Conference Model' and Other Communication Strategies That Helped." *Journal of Health Communication* 8 (2003): 15–16.

terrorism-related health crisis."[130] The authors believed these lessons can be applied by CDC and other public health organizations to future crisis communication initiatives.

CDC authors Prue et al. discussed CDC's media monitoring system in "Communication Monitoring: Shaping CDC's Emergency Risk Communication Efforts." The CDC's monitoring system enables the agency's Office of Communication to monitor news media outlets for coverage of CDC issues. The CDC also uses the system to create and refine messages by identifying information gaps and opportunities. This system was expanded after 9/11 and the anthrax attacks "into a broader communication monitoring system, with both listening and telling functions, to support CDC's public health emergency response" (abstract).[131] The article also described day-to-day activities in the Office of Communication, and the actual experience of monitoring communications during a public health emergency.

Mebane et al. compared CDC information releases and press coverage on the anthrax attacks for similarities or differences. The authors conducted a quantitative analysis of CDC information compared to media coverage in "Communicating Anthrax in 2001: A Comparison of CDC Information and Print Media Accounts." The authors sampled and coded two months of news media and used statistical analysis to compare it to information released by CDC. They also conducted an in-depth, qualitative analysis of two anthrax-related issues. According to the abstract, "the quantitative analysis showed that, overall, the CDC information releases and the news coverage tracked fairly closely." However, "the in-depth qualitative analysis showed that some reporters misinterpreted information provided by CDC but they responded to requests to clarify the issue. The findings of this study suggest(ed) ways to improve future crisis

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[130] Susan J. Robinson and Wendy C. Newstetter. "Uncertain Science and Certain Deadlines: CDC Responses to the Media During the Anthrax Attacks of 2001." *Journal of Health Communication* 8 (2003): 17–34.
[131] Christine E. Prue, Cheryl Lackey, Lisa Swenarski, and Judy M. Gantt. "Communication Monitoring: Shaping CDC's Emergency Risk Communication Efforts." *Journal of Health Communication* 8 (2003): 35–49.

communication efforts and demonstrate how differing methods of analysis can yield substantially different results."[132]

Robert Blendon et al., in "Using Opinion Surveys to Track the Public's Response to a Bioterrorist Attack," recommended that public health communicators use surveys to determine "what Americans know and believe, whom they trust, and what actions they are taking in response to the crisis."[133] They argued that the military and the media have used them to their benefit, as have organizations that conduct exit polls during elections, and that public health should take advantage of them as well. The authors said the survey results would help facilitate two-way communication, and could help guide officials and public health communicators during a crisis.

William Pollard, of the CDC's Office of Communication, also described surveys as a gauge of public opinion. He compared the data from national surveys before and after the anthrax attacks, and found that periodic attitude and opinion surveys can "provide timely, important information for understanding audiences in communication planning." From the abstract, "the findings highlighted the importance of local television and radio and of cable and network news as information sources."[134]

Rudd, et al. (2003) said communication is one of the most important tools to protect public health. In their case studies on specific, urgent government health communication campaigns (AIDS in 1988 and anthrax in 2001), they explored the specific challenges of risk communication. Risk communication usually comes with a much shorter timeline than a long-

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[132] Felicia Mebane, Sarah Temin, and Claudia F. Parvanta. "Communicating Anthrax in 2001: A Comparison of CDC Information and Print Media Accounts." *Journal of Health Communication* 8 (2003): 50–82.
[133] Robert J. Blendon, John M. Benson, Catherine M. Desroches, and Kathleen J. Weldon. "Using Opinion Surveys to Track the Public's Response to a Bioterrorist Attack." *Journal of Health Communication* 8 (2003): 83–92.
[134] William E. Pollard. "Public Perceptions of Information Sources Concerning Bioterrorism Before and After Anthrax Attacks: An Analysis of National Survey Data." *Journal of Health Communication* 8 (2003): 93–103.

term campaign, and therefore presents special challenges with regard to planning, design, writing, and implementation. The authors explained basic health communication concepts such as literacy and risk, later going into more detail about the special considerations of risk communication. Despite the similarities in the situations addressed in these case studies, there were differences between the situations of their development: level of immediacy, time frame, and amount of pretesting. The authors find the AIDS piece to be much better tailored to the audience, the most important factor being that this piece considers the audience much more than does the anthrax piece. The authors maintain that plain language (and testing to help get the language right) is extremely important in risk communications.

Parker and Gazmararian wrote of the importance of health literacy, which is the ability to not simply read, but comprehend, health information. They agreed with Rudd's article in the same journal issue, but believe that plain writing isn't enough—efforts must be made to boost the public's understanding of health information. They also provided statistics by way of explaining that "the people with the greatest health care needs in our country have the least ability to comprehend information required to successfully navigate and function in our health care system."[135]

Zaracadoolas et al. furthered the Parker and Gazmararian argument, quoting an esoteric, scientific passage describing anthrax bacteria as an example of the typically too-scientific anthrax information available to the public. They claim that many opportunities to communicate about the threat in a useful manner were lost because communicators were not working from an adequate, uniform definition of health literacy. They offered their own definition of health literacy as "the evolving skills and competencies needed to find, comprehend, evaluate, and use

[135] Ruth M. Parker and Julie A. Gazmararian. "Health Literacy: Essential for Health Communication." *Journal of Health Communication* 8 (2003): 116.

health information and concepts to make educated choices, reduce health risks, and improve quality of life."[136] They advocated use of this definition in order to make the public more health literate, and therefore increase the effectiveness of health communications.

Jamieson et al., of the University of Pennsylvania's Annenberg School, raised some questions about the propriety of journalistic reporting of details and hypotheticals in the case of terrorist attack. Among the questions they said journalists[137] should ponder is whether to report information that terrorists could use, and when is it responsible to report hypothetical information. In response, they provided a list of questions they can use to determine whether information needs to be reported.[138]

Payne and Schulte focused on the fact that much of the health information the public receives is mediated, and that the goals of the mass media and health communicators are not always the same. They can be valuable partners or "forceful foes." The authors referred to a perpetuation of misinformation and mistrust in the aftermath of the anthrax attacks, which the authors said could have been avoided if public health officials, namely the surgeon general, had shown adequate leadership. As for the media, the authors said "people providing information to the public have a responsibility to report accurate health information, especially in the event of an emergency," and to that end, proposed a set of ethics, training, and cooperation goals for the U.S. government, public health officials, and the media.[139]

Kay Golan, who was the director of the CDC's Media Relations department during the anthrax attacks offered advice on "Surviving a Public Health Crisis." She advised

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[136] Christina Zarcadoolas, Andrew Pleasant, and David S. Greer. "Elaborating a Definition of Health Literacy: A Commentary." *Journal of Health Communication* 8 (2003): 119–120.
[137] Health communicators would do well to ponder these too.
[138] Kathleen Hall Jamieson, Kelli Lammie, Clare Wardle, and Susan Krutt. "Questions About Hypotheticals and Details in Reporting on Anthrax." *Journal of Health Communication* 8 (2003): 121–123.
[139] J. Gregory Payne and Skye K. Schulte. "Mass Media, Public Health, and Achieving Health Literacy." *Journal of Health Communication* 8 (2003): 124–125.

communicators to plan and practice taking care of yourself, the work, family—everything—in case of a public health crisis. She said to build relationships now that communicators can use in case of an emergency. No matter how disruptive the emergency, the public will still count on the officials and their organizations for the same things they always have, so the organization's core functions should be recognized and adhered to. She said that the public will want to know, and they have a right to; that the media will constantly want updates, and they have a right to that too. Response to these needs should be planned in advance of an emergency, because being timely and accurate is difficult.

Courtney et al. described communication is "a relatively new discipline in the field of public health," but that CDC has created and implemented training programs for emergency risk communication (such as CDCynergy). Agencies and other organizations focused their efforts on epidemiology, non-communication-related prevention efforts (e.g., immunization), and providing scientific information to health professionals and other scientists. Scientists counted on the press to figure out what was important, and communicate that information to the public. According to the authors, it was AIDS and other emergent diseases that awakened CDC to the fact that "communicating clearly to the public was…a necessary component of public health practice."[140] In 1993, under agency director William Roper, the CDC formed the Office of Communication (OC). The OC was responsible for "crafting and delivering messages and strategies, based on consumer research, to promote the health of individuals and communities."[141] The OC's overarching goal was to build national capacity for health communication efforts by training the "public health workforce" to communicate effectively. Their primary method of attaining that

[140] Judith Courtney, Galen Cole, and Barbara Reynolds. "How the CDC is Meeting the Training Demands of Emergency Risk Communication." *Journal of Health Communication*. 8 (2003): 128.
[141] Ibid.

goal was through their CDCynergy course[142], which offers a systematic, organized way to plan, create, and implement health communications and social marketing campaigns.

However, the Anthrax attacks in 2001 called for a quicker response than anything for which CDCynergy training had prepared people. This forced CDC to realize that they needed to broaden their scope when considering whom to train in public health communication. The Anthrax attacks ushered in a new focus on risk and crisis communication.[143] Their experience led them to create the ERC (Emergency Risk Communication) CDCynergy training program to prepare public health officials to respond quickly in time of any crisis that could affect public health. Courtney et al. worked at the CDC at the time of the article's authorship, and they recommended expanding ERC CDCynergy training to include community leaders and local officials. They said that including a number of local leaders would improve rapport and communication with the affected community.[144]

Salmon et al. wrote of a survey intended to assess Michigan corporate spokespersons' awareness of and preparedness for a bioterrorism attack. The survey was begun on September 10, 2001 and continued through October 2001 (the first anthrax attack occurred on September 18), and is therefore described as providing an "unusually timely snapshot" of bioterrorism awareness. According to the article abstract, "the results offer evidence of a robust optimistic bias" as well. The authors warned that this optimistic bias could result in corporate America[145] overestimating its level of preparedness.[146]

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[142] Ibid.
[143] Ibid.
[144] Ibid, 129.
[145] and perhaps other organizations
[146] Charles T. Salmon, Hyun Soon Park, and Brenda J. Wrigley. "Optimistic Bias and Perceptions of Bioterrorism in Michigan Corporate Spokespersons, Fall 2001." *Journal of Health Communication* 8 (2003): 130–143.

Jeffrey Koplan, who was the director of the CDC at the time of the anthrax attacks, but who had left for Emory University by the time this journal issue was published, wrote a brief commentary on "Communication During Public Health Emergencies." He focused on the similarities and differences between communication during a personal health emergency and a public health crisis. He pointed out that when a person is in an automobile accident, for example, there is a team of medical professionals focusing on the needs of that one person, and the victim's family does not necessarily expect a constant stream of information from the medical team. On the other hand, in a modern public health crisis, millions of people expect a continuous flow of information from the health officials. Koplan said the latter was not previously the case, and he said that it was the 2001 anthrax attacks that caused this shift in the relationship between the public and health officials. Audiences and their roles are now more diverse and complex; this combined with the constant judgment calls, the volume of information, and the variety of media used to communicate this information can make communicating public health information quite a challenge.

Peter Sandman, a risk communication consultant who acted as an advisor to the CDC during the anthrax response, wrote that while he found the issue's previous 22 articles to be useful and practical, he was struck by the lack of focus on policy. He worried that the "tough communication policy questions tend to get subordinated to the important but not-so-painful logistical and procedural ones."[147] He continued to say that it is tempting to believe "that once the scientists have decided what is happening and what to do about it, all we communication folks need to do is get the word out."[148] Communication professionals have more work to do than that, and more work to do than message tailoring, monitoring, and similar aspects of the

[147] Peter M. Sandman. "Bioterrorism Risk Communication Policy." *Journal of Health Communication* 8 (2003): 146–147.
[148] Sandman (2003): 147.

communication field. He said there is a real policy debate that still needs to occur in order for health communicators to be truly prepared.

The "Epilogue to the Special Issue on Anthrax" was provided by Vicki Freimuth. She called for continued dialogue, and said "communication is no panacea for terrorist health threats, but effective communication can help minimize the damage done in this kind of crisis and mobilize preparedness efforts."[149]

Review of Public Relations and Risk/Crisis Communication Literature Written by Non-CDC Authors

Communication researchers Carl H. Botan and Maureen Taylor reviewed the foundation and current state of theoretical public relations research, noting that the field itself is relatively young at 25 years[150]. They also noted that although it has its own distinct body of work as a subfield of communication studies, (as the abstract stated) "(t)he field of public relations is developing into a theoretically based area of applied communication that has the potential to inform several areas of communication/mass communication and to offer theoretic and conceptual tools useful in health, risk, and political communication, among others."[151] Botan and Taylor wrote of the purely functional beginnings of public relations research, saying that the field is evolving "to a perspective that focuses on communication as a meaning-making process," a dialogue, in which the audience plays an active part.[152] The authors also discussed the idea that issues do not simply appear suddenly, but that they have a relatively predictable life cycle that can be managed to some degree.

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[149] Freimuth, Vicki. "Epilogue to the Special Issue on Anthrax." *Journal of Health Communication* 8 (2003): 148–151.
[150] This was as of 2004.
[151] Carl H. Botan and Maureen Taylor. "Public Relations: State of the Field." *Journal of Communication* (December 2004): 645.
[152] Botan and Taylor (2004): 651–653.

Then-executive vice president and general manager of American Newspaper Representatives, Inc., Warren Grieb told the Georgia Press Institute in 1963, that public relations is "personal selling—personality, promotion, publicity, communications, utilization of all resources, both human and otherwise, to further and enhance a better image of a product, service, company, or group of companies, in the eyes of the public."[153] He told them, "Select your personnel carefully, especially the ones who meet the public. Their personality, their warmth, their friendliness, their willingness to help, their dress, and their appearance have…much to do with creating a favorable impression…"[154]

Media advocacy is a concept tied closely to public relations. One way to look at it is that organizations in power use public relations to relate to the public. The public, via grassroots and/or community-based organizations, can use media advocacy as a tool to influence how the powerful organizations wield that power. The CDC certainly engages in public relations, but its programs also encourage grassroots activism and media advocacy to enable communities to meet their local public health goals. Also, though the CDC is powerful, it relies on policymakers for its funding and mandates, and at times clearly attempts to influence them, and to influence their public to influence the policymakers as well.

Lawrence Wallack described the purpose of media advocacy (at least in a public health setting) as being "to use the media strategically to apply pressure for changes in policy to

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[153] Grieb, Warren E. "Public Relations for Newspapers." Speech to the Georgia Press Institute, 23 February 1963, in *Better Journalism for a Better Tomorrow: Press, Radio, Television, Periodicals, Public Relations, and Advertising as Seen through Institutes and Special Occasions of the Henry W. Grady School of Journalism 1962-63*, edited by John E. Drewry. (University of Georgia: 1963), 132–135.

[154] Grieb, Warren E. "Public Relations for Newspapers." Speech to the Georgia Press Institute, 23 February 1963, in *Better Journalism for a Better Tomorrow: Press, Radio, Television, Periodicals, Public Relations, and Advertising as Seen through Institutes and Special Occasions of the Henry W. Grady School of Journalism 1962-63*, edited by John E. Drewry. (University of Georgia: 1963), 134.

promote public health goals."[155] He also said media advocacy provides a "framework" for shifting the discussion from the health consequences of individual behaviors to the health implications of policy and environment.[156] These effects are similar to the ones seen in episodic and thematic framing.

Michael Palenchar and Robert Heath summarized the evolution and current sate of risk communication research, describing risk communication as a collaborative process. Their 2007 article was written from the perspective of preparedness for terrorist threats to infrastructure, of risk caused by long-term environmental damage, and of risk related to living near or working at a hazardous materials facility. These all fall under the umbrella of public health concerns, and share much in common with health risk communication. Palenchar and Heath shared their insights gained from a decade of research in the field, including that "ideas and meaning count;" transparency is important to effective relationships and requires active participation by stakeholders; collaboration is essential to building trust; uncertainty is a reality risk communicators must endure; risk communications are part of a dialogue (with the public and other stakeholders) and a narrative; and risk communications help inform a functioning society to make decisions. The authors said risk communication should not have public relations as its objective, nor should it attempt to simply reassure the public. Risk communication, they said, should be approached as a "constructive dialogue that legitimately addresses risk assessment, abatement, policy, and communication."[157] Lastly, the authors said that risk communication is easier to plan than it is to implement.

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[155] Lawrence Wallack, et al. *Media Advocacy and Public Health: Power for Prevention*. (Newbury Park, California: Sage Publications, 1993), xi.
[156] Ibid.
[157] Michael J. Palenchar and Robert L. Heath. "Strategic Risk Communication: Adding Value to Society." *Public Relations Review* 33 (2007): 120–129.

Journalist and author Madeline Drexler wrote specifically about problems with getting information from the CDC's leadership, researchers, and spokespeople, which, she said, in pre-September 11 times, was much easier to do. Writing in 2003, she said, "in order to converse with someone at the CDC, a reporter must now make a formal request, which can take weeks to be processed through a complex public affairs filtration system that reaches all the way to…Washington, D.C."[158] She asked whether the huge increases in preparedness funding were actually improving what she described as "the daily, unpublicized tide of disease," including the spread of West Nile virus, antibiotic-resistant microbes, contaminated poultry, and vaccine-preventable diseases, in addition to bioterrorism. She then asked, in five years, "if journalists are still struggling just to talk with authorities in the know, how will the public ever find out" if real improvements have been made?[159]

Sooyoung Cho used a survey of health public relations professionals to study power relationships in public relations; he said that much attention had already been paid to the "great power…granted to the mass media in terms of selecting and framing messages…However, because of the complex nature of the subject and the need for specialized expertise, the health beat is one in which reporters rely on a source's expertise and public relations efforts."[160] This reliance, coupled with the relationships health PR practitioners frequently develop with health beat reporters, often gives the health PR practitioners "expert power." Cho recommended, among other things, further qualitative research and content analysis of the news coverage the health organizations receive.

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[158] Madeline Drexler. "Public Health Reporting: After September 11th, It's More Difficult." *Nieman Reports: Reporting on Health*. Summer 2003. Cambridge, MA: Nieman Foundation of Harvard University. 57:1, 16–17.
[159] Ibid., 17.
[160] Sooyoung Cho. "The Power of Public Relations in Media Relations: A National Survey of Health PR Practitioners." *Journalism & Mass Communication Quarterly* 83, no.3 (2006): 563.

Cho and Cameron furthered Cho's earlier study of power in public relations, this time using a survey to examine four factors that effect the perception of expert power: "personal closeness with reporters, openness towards (sic) the media, perceived media job performance, and perceived expertise in the health field."[161] Cho's review of the literature indicated that "public relations practitioners appear to play an important role in health news reporting as a mediator between journalists and scientific fields such as medicine."[162]

Scott Ratzan, editor of the *Journal of Health Communication*, wrote an editorial in 2003 about the communication challenge presented (mainly to the World Health Organization, or WHO) by the SARS outbreak. Ratzan empathized with the WHO for the challenges they faced as they had to determine how best to "place SARS in perspective by exhibiting clear concern, caution, and the means for controlling the spread of SARS"[163] while also trying to control the spread of the fear. Ratzan pointed out that when the public focuses on the wrong thing, they divert their attention from, and communicators are forced to divert resources from, other threats that are more constant or deadly, such as "HIV/AIDS, malaria, TB, and diarrheal disease." For the obstacles to effective health communication, Ratzan blamed both the profusion of unofficial and/or mediated sources, including members of the public itself, and "the growing lack of public trust in experts (particularly scientists), policy-makers, and politicians."[164] Ratzan also said that the public often erroneously blames the messengers for the mistakes of the public officials and experts. To solve this, Ratzan proposed that health communicators tailor their information for certain specific audiences, including the general public, patients, and caregivers.

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[161] Sooyoung Cho and Glen T. Cameron. "Power to the people—Health PR People That Is!" *Public Relations Review* 33 (2007): 175–183.
[162] Sooyoung Cho and Glen T. Cameron. (2007) 176.
[163] Scott C. Ratzan. "Putting SARS in Perspective: A Communication Challenge" (Editorial). *Journal of Health Communication* 8 (2003): 297–298.
[164] Ibid.

Veil et al. wrote of factors affecting the public relations work done in response to the hepatitis A outbreak that sickened 660 people at a Pennsylvania Chi-Chi's restaurant. As if the health crisis were not bad enough, Chi-Chi's had to maintain an appearance of legitimacy, character, and competence in the face of the additional fact that its parent company had declared Chapter 11 bankruptcy shortly before the outbreak was traced to Chi-Chi's. The authors stated that Chi-Chi's demonstrated competence—they had passed their recent health inspections with a score of 100, and they reassured the public that the outbreak hadn't extended beyond that one Chi-Chi's restaurant. However, the company didn't demonstrate the character (empathy, regret, compassion, and concern) that the victims wanted. Veil et al. recommend a crisis communication plan to ensure effective communications in case of a crisis, and that a "balanced mixture of competence and character " can help a company regain its legitimacy.[165]

Much research concludes that applying plain language principles is an effective way to eliminate potentially confusing scientific and medical jargon, and make health information available to the public. Kickbush and Ratzan cited an estimate of $73 billion lost annually to low health literacy, including the consequences of misunderstanding patient information.[166] But rather than focusing on the concept of literacy in general, which connotes more responsibility on the part of the reader, they concluded that the federal government should work harder to reach the public. Factors such as embarrassment and information overload interfere with the consumer's attainment of health literacy skills. Kickbush and Ratzan also found fault in a general lack of systematic response to issues that can be construed to fall outside the responsibilities of

[165] Shari R. Veil, Min Liu, Sheri L Erickson, and Timothy L. Sellnow. "Too Hot to Handle: Competency Constrains Character in Chi-Chi's Green Onion Crisis." *Public Relations Quarterly* (Winter 2005): 19–22.
[166] Ilona Kickbush and Scott C. Ratzan. "Health Literacy: Making a Difference in the USA." *Journal of Health Communication* 6 (2001): 87–88.

one government agency or another. They also faulted a lack of awareness of the positive economic impact of a health-educated public.

Rudd and Kaphingst, et al., used their case study on federally-mandated clean water information, to document and examine a health literacy team's process of rewriting this information. They provided methods (multiple, to make up for deficiencies in existing methods) and an explanation of the steps used in the rewriting process, in order that it may serve as a guide for others. They conclude that the case was successful, and that public health researchers and practitioners should take responsibility and look to the commercial sector for ideas.[167]

Genova interviewed Jason Kravitz, the communications director of Direct Relief International, an international relief agency, discussing internal and external communication strategies developed by that agency for disaster response. The author was mainly interested in the business communications applications and similarities, but many of the concepts and practices Kravitz described are applicable to any kind of emergency or risk communication. He talked about the writing process, communication structure, and command chain used in getting messages to their target populations.[168]

Tanner said the proliferation of health news today is in response to "the appetite of media consumers."[169] This increases the pressure and burden on public health communicators and media relations staff, who, she said, are familiar with the fact that many of their stories never make it to print (or the air, or the Internet); the messages that do get picked up by the news media are often misinterpreted or distorted. These distortions, in turn, lower the credibility of the health

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[167] Rima E. Rudd, Kimberly Kaphingst, Tayla Colton, John Gregoire, and James Hyde. "Rewriting Public Health Information in Plain Language." *Journal of Health Communication* 9 (2004): 195–206.
[168] Gina L. Genova. "Crisis Communication Practices at an International Relief Agency." *Business Communication Quarterly* 69, no. 3 (2006) 329–331.
[169] Andrea H. Tanner. "Communicating Health Information and Making the News: Health Reporters Reveal the PR Tactics that Work." *Public Relations Quarterly* (Spring 2004): 24–27.

information the public receives from the media. Turner conducted a study that found that the media were uneducated in the health, medicine, and science fields upon which they were reporting. This lack of knowledge, combined with the pressure to fill much time with health news, contributed to reliance on the community for health news sources. Turner recommended that media relations professionals form relationships with these community health sources, and provide community members and experts to provide interesting examples and interview subjects for stories. Further, Turner recommended that media relations professionals think in terms of providing sound bites and being mindful of reporters' deadlines.

In *Public Relations Quarterly*'s "Superstar PR" column, Ronald Levy wrote about organizations creating and preserving public goodwill, and protecting the public health at the same time, by actively providing health information (specifically that which is beneficial to the organization) to the media. Examples he provided include Microsoft sharing information about their corporate fitness program, and GlaxoSmithKline "helping the public beat a serious ailment many people don't know about."[170] Further, Levy said, some organizations have enjoyed success with "preventive PR," distributing press releases that attempt to frame emerging issues as they emerge, and steer the discussion in a direction beneficial to their organization. Levy recommended organizations seek opportunities to conduct such PR activities whenever possible, to encourage "an outpouring of public gratitude"[171] and "make the public less critical of an organization."[172]

Coombs, who has written several books on crisis communication, focused mainly on corporate crises, but his principles can be applied to risk and crisis communication from any organization. In Ongoing Crisis Communication, he addresses crisis communication from

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[170] Ronald N. Levy. "New Opportunities in Health Information." *Public Relations Quarterly* (2006): 19.
[171] Ibid., 20.
[172] Ibid., 21. Levy's stated goals seem to contrast with those of Palenchar and Heath.

assessing risks and pre-crisis planning to sensing potential crisis situations, all the way through the execution of a crisis response. Among the important points he made is to identify multiple spokespeople and train them before any hint of a crisis,[173] to create a crisis response plan,[174] to rehearse the crisis response, and to refine the response plan based on lessons learned when conducting the rehearsal.[175] Coombs described crisis communication as being reflexive: responders should monitor the media response to their crisis response. He also provided a section on determining which situations called for which communication response strategy, e.g., apology, denial, excuse, or attack.[176]

Several years later, Coombs, along with co-author Sherry Holladay published *It's Not Just PR*, which discussed public relations from a variety of perspectives. Rather than explaining the "how-to" of the public response, the authors explored issues such as common critiques of public relations, ethical responsibilities of public relations, public relations in academia, the evolution of the field, and how public relations affects society—often undetected. Among the ideas they discussed is public relations as public communication, which therefore has ethical responsibilities to serve both the client and the public.[177]

A Review of Journalistic Best Practices

Good public health journalism is good journalism. The specifics may differ between a health beat and another, like sports or city government beats, but the basics of good reporting are the same no matter what the subject. Walter Grieb, a PR professional, offered what he considered

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[173] W. Timothy Coombs. *Ongoing Crisis Communication: Planning, Managing, and Responding.* Thousand Oaks, California: Sage Publications (1999): 71, 151.
[174] Ibid., 78.
[175] Ibid., 83–84
[176] Ibid, 127–128.
[177] W. Timothy Coombs and Sherry J. Holladay. *It's Not Just PR: Public Relations in Society*. Malden, Massachusetts: Blackwell Publishing (2007):28–29. One could argue that these ethical responsibilities are especially important in health-related public communication.

a best practice for the members of the press. He said that readers come from every demographic, but what they have in common is that "they look to you, believe in you, and rely on you for a full reporting of all the news"[178]

Public Health journalism

The best health reporters aren't necessarily scientists, but reporters who rigorously follow the best practices of their own craft of journalism. Lewis Cope, a former science reporter and former president of the National Association of Science Writers, said that reporters didn't need to be experts on the "scientific answers," but that "their job obligates them to ask the right questions."[179] He discussed how "tricky" it can be to be clear when reporting medical research findings, but that it is important, and that journalists have a public health duty to inform the public.[180] He said reporters should employ the "journalistic instincts" of "healthy skepticism and good questioning"[181] both to avoid being led astray, and to avoid misleading news consumers.

Cope listed a number of recommendations to help medical reporters avoid common pitfalls. He said reporters should feel free to use findings from less rigorous studies if they seem important, but they must question the meaning of those findings.[182] He pointed out that average figures don't always provide an accurate portrayal of a situation and that costs of treatment and medication are important to readers.[183] He also said that when research findings disagree with

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[178] Grieb, Warren E. "Public Relations for Newspapers." Speech to the Georgia Press Institute, 23 February 1963, in *Better Journalism for a Better Tomorrow: Press, Radio, Television, Periodicals, Public Relations, and Advertising as Seen through Institutes and Special Occasions of the Henry W. Grady School of Journalism 1962-63*, edited by John E. Drewry. (University of Georgia: 1963.), 133.
[179] Lewis Cope, "Helping Reporters Play the Medical Numbers Game: A journalist reminds us how tricky putting 'facts' in perspective can be." *Nieman Reports: Reporting on Health*. Summer 2003. Cambridge, MA: Nieman Foundation of Harvard University. 57:1, 65.
[180] Ibid., 64–65.
[181] Ibid., 64.
[182] Ibid., 64.
[183] Ibid., 65.

current scientific knowledge and assumptions, this can be important, but that there is a huge burden that must be met when changing the scientific status quo.[184]

Cope further warned that numbers can mislead both reporters and the public. He specifically referred to the ongoing debate over the causes of autism to make his point that "even with impressive numbers, association doesn't prove causation."[185] He admonished reporters who speculate that vaccines cause autism, saying that their lack of thoroughness and lack of adherence to journalistic best practices may result in unnecessary illness and death, as parents may delay having their children immunized based on what they read in the news. He said that in these stories, "the missing figures are the tolls these childhood diseases took before vaccines were available."[186] While he acknowledged that sometimes small numbers can tell a big story, he also said that "(r)eaders…should also know that science looks at the statistical probability of what's true. Few, if any, new treatments would ever reach patients if proof-positive were required. Many, many lives would be lost."[187]

Uncertainty is a given in research—otherwise there would be no research to conduct—and Cope encouraged reporters to help set proper expectations for the understanding of scientific information. He recommended that reporters "remind readers about the certainty of some uncertainty."[188] He gave changing nutrition standards as an example of a research area news consumers find particularly frustrating, and said that "(i)n the eyes of some, these and other flip-flops give science a bad name. Actually, this is science working just as it is supposed to work, and it helps if we, as reporters, include this in our stories."[189] Health and medical reporters need

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[184] Ibid., 65.
[185] Ibid., 64.
[186] Ibid., 64.
[187] Ibid., 65.
[188] Ibid., 65.
[189] Ibid., 65.

to remind readers that science has not failed simply because researchers don't know all of the answers yet.

Having been both a medical reporter and a practicing medical doctor, Perri Klass has experienced both sides of the doctor-journalist relationship. She wrote about some of the issues medical reporters face, including lack of training and editorial pressure to make a story more interesting or compelling by conflation, exaggeration, or even killing off a patient.[190] She also discussed the need to protect patient privacy and confidentiality, which may require drastically changing a patient's identifiable attributes. (While this is probably necessary, doing so would theoretically interfere with the truth of a story.)

Klass said that "everyone brings to the job a complex mix of prejudice and experience and the desire to tell a good story, along with a set of standards."[191] She acknowledged that she admired journalistic ideals of "pure freedom and objectivity,"[192] and that the label of "reputable medical journalist…carries a specific conscious and conscientious identity"[193] that she sometimes "inhabited." However, she said she found the diagnostic judgment—the subjectivity—of a doctor to be useful in journalism, and that it is possible to embrace that and make it part of the story.

Medical editor Ragnar Levi said that medical reporters should probe, verify, and generally "work to separate scientific fact from science fiction."[194] Levi described a number of common pitfalls, including failure to ask sources to fully explain findings and numbers or substantiate evidence, resorting to "he-said-she-said" accounts, assuming research results

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[190] Perri Klass. "A Doctor Examines a Journalist's Work." *Nieman Reports: Reporting on Health*. Summer 2003. Cambridge, MA: Nieman Foundation of Harvard University. 57:1, 60.
[191] Ibid., 60-61.
[192] Ibid., 60.
[193] Ibid., 61.
[194] Ragnar Levi. "Critical Tools for Medical Reporting." *Nieman Reports: Reporting on Health*. Summer 2003. Cambridge, MA: Nieman Foundation of Harvard University. 57:1, 61–63.

directly affects clinical practice, and under- or overstating risk.[195] He acknowledged certain pressures reporters face, including the temptation to report on unusual cases and deadline pressures.[196]

Levi said that in-depth scientific knowledge is not necessary for good medical reporting—but that a few other things were, namely, "basic knowledge of a few scientific ground rules,…common sense, and a whole lot of healthy skepticism."[197] He recommended "four key questions" to guide reporters to the real answers: "Is the claim valid? Where is the evidence? Is the evidence strong and relevant? How can the news be reported fairly and accurately?"[198] Knowing where to find additional research sources quickly can help a reporter avoid mistakes caused by deadline pressures, and reporters can avoid misleading the public by noting when a case is unusual.[199] Further, he recommends that journalists question a source's ability to make an expert claim, the reliability of the methods, and whether the source stands to gain from the publicity that may result from news coverage.[200] Like Cope, he points out that "correlation is not causation."[201]

Recommendations on best practices for journalists are important, but some recommendations, like proper training, may be out of reach even for the journalists that want to follow them. Melinda Voss had been a reporter for 26 years before pursuing a master's degree in public health, and while in school she was dismayed to hear her professors harshly criticize health journalists and their stories for being "careless, unscientific, inadequate, or unfair."[202]

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[195] Ibid., 61.
[196] Ibid., 62–63.
[197] Ibid., 63.
[198] Ibid., 61.
[199] This is particularly relevant to the autism debate.
[200] Ibid., 62–63.
[201] Ibid., 63.
[202] Melinda Voss. "Why Reporters and Editors Get Health Coverage Wrong." *Nieman Reports: Reporting on Health*. Summer 2003. Cambridge, MA: Nieman Foundation of Harvard University. 57:1, 46.

Voss agreed that an untrained health press can "wreak havoc" and confuse the public[203] because research repeatedly shows that the public relies heavily on the media for health information.[204] She said press coverage at an early stage of an unfolding health issue or of research on a health topic may mislead the public into believing that "the data are in fact mature, the methods valid, and the findings widely accepted."[205]

However, she mentioned "how little preparation and on-the-job-training journalists typically receive" for covering complex medical issues, and that these journalists "know they lack proficiency and want help."[206] She cited a survey she had conducted of 115 Midwestern health journalists, with 83% of respondents stating they had received no training at all specifically pertaining to reporting on health issues.[207] Furthermore, "more than two-thirds…identified four skills—understanding key health issues, putting health news in context, producing balanced stories on deadline, and interpreting statistics—as troublesome."[208]

Unfortunately, accurate, effective health journalism requires a specialized skill set, and reporters are unlikely to receive the training they need to obtain these skills. Voss said that unlike reporters on other beats, health reporters "need skills and knowledge not easily acquired on the job."[209] However, she said newspapers spend very little on professional development when compared with other industries, providing less training than the journalists want or need.[210] Additionally, she said the available training programs may be inadequate; few programs address

[203] Ibid.
[204] Ibid., 47.
[205] Ibid., 46.
[206] Ibid.
[207] Ibid
[208] Ibid.
[209] Ibid., 46.
[210] Ibid., 46.

"such journalism fundamentals as how to interview health and medical researchers or how to report medical research," and the existing programs could benefit from outside evaluation.[211]

Additional recommendations to journalists from medical and health professionals include more coverage of the health care system and health policy environment,[212] more in-depth, thoughtful coverage of complex issues such as the state of U.S. health insurance,[213] and—surprisingly—that journalists demand more out of health researchers.[214] Mebane said journalists and researchers should get together and "discuss what news the public wants to and needs to know," and that such conversations could lead to better reporting and increased cooperation from the experts. Mebane said that "journalists provide a valuable service to the public" by reporting on health issues and the health system, as they provide the most effective means of communicating such important information.[215]

Journalistic Best Practices With Regard to Public Relations

Even if they don't collaborate to the degree Mebane suggested, public health officials and their public relations staffs need to recognize the benefits of a relationship with the press, or at least the importance of getting coverage on important health issues. The press helps public health communicators get their message out in an effective, economical way (although sometimes the information in a press release can be changed drastically in the resulting article). The very fact that the message is mediated, rather than coming straight from a government spokesperson, can often lend needed credence to a message. Press coverage can also help raise awareness of an issue to the point that the message source, or the agency that can address the issue—both of

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[211] Ibid., 48.
[212] Felicia Mebane. "Examining the Content of Health Care Reporting." *Nieman Reports: Reporting on Health*. Summer 2003. Cambridge, MA: Nieman Foundation of Harvard University. 57:1, 50.
[213] Larry Tye. "An Education in How to Cover the Issues." *Nieman Reports: Reporting on Health*. Summer 2003. Cambridge, MA: Nieman Foundation of Harvard University. 57:1, 48–50.
[214] Mebane 2003, 51.
[215] Ibid., 51.

which can describe the CDC in the case of a public health issue—can benefit from additional funding, power, and visibility.

Journalists and public relations practitioners have long had a troubled, yet symbiotic, relationship. Herbert Strentz, a journalism professor and veteran reporter, said that tradition holds that public relations "conjures two mental images for veteran reporters: the press release and the waste basket." However, Strentz said the reality is that public relations provides a "subsidy of information" that the reporters appreciate and use.[216] He acknowledged that despite the usefulness of reporters and PR personnel to each other, the relationship harbors some distrust. While PR personnel help journalists fill their need for information, journalists also know they are being "used" to some extent. Additionally, reporters may receive inaccurate or incomplete information from PR personnel, or they may harbor a grudge for telephone calls and emails never returned (or returned too late for deadline),[217] being kept waiting for interviews, or not being given access to the people the reporter thinks are important or appropriate for a story.

Strentz further described why the relationship is this way, saying, "relatively few news reporters think of public relations in terms of the Public Relations Society of America," which puts great effort into education, accreditation, disclosure, and improving industry standards, but that they are "likely to remember…the corporate president hiding poor earnings in the last paragraph of a four-page news release, or the public relations director who denied a merger just hours before it was formally announced."[218]

Edward Lordan claims that part of the reason Americans currently have a negative view of public relations is that the Bush administration contributed greatly to this blurring of lines, and

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[216] Herbert Strentz. *News Reporters and News Sources: Accomplices in Shaping and Misshaping the News*. (Ames, Iowa: Iowa State University Press, 1989), 114.
[217] Ibid., 115.
[218] Ibid., 115–116.

that the public and the press have both become wary of it. He cites $250,000,000 spent on public relations efforts in four years, granting press access to non-journalistic party supporters, the video news release (VNR) scandal, and paying press members to support the administration's positions and actions. However, rather than laying all the blame at the feet of the Bush administration, Lordan admonished both the public relations practitioners and the press members involved for their participation, especially in the latter example, saying that both the Public Relations Society of America (PRSA) as well as "every responsible media organization in America" have codes of ethics that forbid these actions. "You don't pay to get stories placed, and you don't accept payments to place them."[219]

Lordan said there were several reasons for the blurred lines between public relations and the press: they work with similar methods, tools, jargon, and deadlines, and work closely and often in a symbiotic sort of relationship. However, he said that maintaining a clear separation between the two was essential to the credibility of both fields. He delineated their roles thusly: "The role of the public relations professional is to help his or her client develop and sustain relationships with key publics by presenting the most favorable, but still completely truthful, information. The role of the press is to report what is going on to help keep the public informed."[220]

Karla K. Gower described different aspects of the relationship between reporters and public relations workers. She said that journalists often view themselves as watchdogs of established institutions and as protectors of the underdog. "By adopting the watchdog metaphor," she wrote, "the media put themselves into an adversarial position vis-à-vis the institutions of

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[219] Edward J. Lordan. "Defining Public Relations and Press Roles in the Twenty-First Century." Public Relations Quarterly. Summer 2005, 41–43.
[220]Edward J. Lordan. "Defining Public Relations and Press Roles in the Twenty-First Century." *Public Relations Quarterly*. Summer 2005, 41–43.

government, business, and in some cases, religion."[221] Gower said that while journalists felt hampered by businesspeople lying or telling half-truths; businesspeople felt reporters were out to get them.[222] Gower noted that some corporations retaliated against what they felt was negative coverage, boycotting some papers and taking out full-page ads in others to get their versions of a story out.[223] Martin Meyer of the Harvard Business School described the adversarial relationship another way: "In the end the essence of reporting is finding out what the players wish to keep secret, and why, and what the secrets mean." [224]

However, Meyer acknowledged that the relationship was symbiotic, saying "government badly needs the attention of the news purveyors."[225]"in the absence of news it would be difficult for people to find out what the government is doing, and impossible for them to find out what the government thinks it is doing." However, he described "the symbiosis between press and government" as "deeply troubled."[226]

Authors featured in the Spring and Summer 2003 volumes of the Nieman Report appeared to agree on best practices for health and medical beat reporters. They presented these practices as well as tips for reporters, public relations organizations, and even news consumers in their articles. Several of the authors also agreed that training for health and medical reporters was important, but lacking.

Some best practices came from journalists who worked with public health officials on stories. Sanjay Bhatt, the *Palm Beach Post's* lead reporter on the anthrax attack story in 2001, shared lessons learned from his experience. He recommends paying attention, investigating, and

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[221] Karla K. Gower. *Public Relations and the Press: The Troubled Embrace*. (Evanston. Illinois: Northwestern University Press, 2007), 151.
[222] Ibid., 154.
[223] Ibid., 155.
[224] Martin Meyer, *Making News*. (Boston: Harvard Business School Press, 1993), 4.
[225] Ibid., 275.
[226] Ibid.

storing information so that reporters have information and context on which to ask questions of official sources if or when a disaster strikes. In his words, "plan ahead of the event, as you would for a natural disaster."[227] He pointed out the uncertainty when addressing a potential bioterrorism incident and implored reporters to "do your job, but don't be reckless," rushing onto a scene without considering that the undetermined agent could also sicken reporters and make them unwitting parts of the story.[228] His recommendation with regard to official statements was to report them, "then explain what they don't say."[229]

Bhatt also wrote of the pressures that can drive a reporter to resort to non-expert sources. Using the example of the anthrax attacks, he describes "the pressure to feed readers fresh angles" as "unrelenting," even when there were no new developments to report.[230] He lamented that coverage of atypical stories, like unusual drug reactions to the Cipro people at risk were taking, may have unnecessarily frightened people away from preventive measures, but defends his decision to consult other sources because official sources simply had not made themselves available to reporters. "I had no choice," he said. In contrast to the access he had previously had at the CDC, "the federal government had imposed a news blackout for several days, and gagged state and local officials. Calls, faxes, and e-mails to the federal agencies went unanswered."[231] Furthermore, people in crisis want and need information, and they "can't be expected to sit still until the next press conference."[232] On the other hand, Bhatt acknowledges that it may be

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[227] Sanjay Bhatt. "Useful Lessons From Reporting the Anthrax Story." *Nieman Reports: Reporting on Health*. Summer 2003. Cambridge, MA: Nieman Foundation of Harvard University. 57:1, 14.
[228] Ibid.,15.
[229] Ibid.
[230] Ibid.
[231] Ibid.
[232] Ibid., 16.

socially irresponsible for public officials and reporters to admit they don't know anything and/or don't have a handle on the situation.[233]

Others in the press found fault with the way the CDC handled the press and controlled information. Health writer and editor Patricia Thomas wrote about the interaction between journalists and the CDC (and other federal agencies) in the wake of the anthrax attacks, assessing "what went wrong."[234] She said there was a struggle between journalists seeking information about the anthrax attacks and the government agencies that "held a near monopoly" on that information.[235] Journalists claimed—in print—that "usually helpful press officers were stonewalling, government scientific experts were not being made available for interviews, and public officials were generally failing to make accurate health information available fast enough."[236]

However, Thomas said that she and other reporters didn't blame the CDC. They blamed the Bush administration for creating an "information shortfall" that bred panic, fear, and confusion in the U.S. public, by exerting "tight government control of health and science news," by ordering the CDC and NIH not to talk without permission from the White House, and for "mismanagement of news (that) harmed the public good."[237] Thomas also blamed inadequate staffing at the CDC to handle the thousands of anthrax- and bioterrorism-related calls the CDC's media office alone received during the first two weeks of the crisis. [238] In the meantime, news outlets were resorting to seeking information from self-proclaimed experts and poorly-informed

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[233] Ibid., 16.
[234] Patricia Thomas. "The Anthrax Attacks." *Nieman Reports: Reporting on Health*. Summer 2003. Cambridge, MA: Nieman Foundation of Harvard University. 57:1, 11.
[235] Ibid.
[236] Ibid., 12.
[237] Ibid.
[238] Thomas cited 2,229 anthrax calls and 287 bioterrorism calls made to this office between October 4 and 18, 2001, and said these are thought to be low estimates.

local health officials, resulting in further confusion as a number of outlets spread erroneous information, including referring to the anthrax bacterium as the "anthrax virus." [239]

Two weeks after the attacks, Thomas said "HHS leadership realized that the public needed more information from credible medical experts," and changed the way the CDC was responding to reporters. The CDC media relations staff issued press releases and a video news release from then-director Koplan, staffed their press office with 15 media relations specialists working in shifts, and posted additional information on the CDC Web site in Spanish as well as English.[240] She said this was helpful, and that the CDC continued to make improvements in how it provided the news media with information.

Thomas recommended several measures to avoid anthrax-attack-style confusion in the case of future disasters. She cited risk communication best practices, saying that government agencies should prepare fact sheets and a list of experts ready to distribute so accurate information can be disseminated quickly. In order to prevent misinformation from reaching, confusing, and frightening the public, she said "crisis communications experts emphasize that credible doctors and scientists should be talking to the press from the start and should be

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[239] Ibid., also "Anthrax Virus Claims Fourth U.S. Victim." *The (Austin) Daily Texan*. 1 November 2001. From the *Daily Texan* Web site at http://media.www.dailytexanonline.com/media/storage/paper410/news/2001/11/01/News/Anthrax.Virus.Claims.Fourth.U.s.Victim-504781.shtml. Retrieved 15 May 2008. The article is attributed to the Associated Press, but presumably the AP did not write the headline. Also Avery Alford. "Winter Season Brings Aches, Sickness to Many Students." The West Georgian. 23 January 2002. Publication of the University of West Georgia, from their Web site at http://media.www.thewestgeorgian.com/media/storage/paper523/news/2002/01/23/News/Winter.Season.Brings.Aches.Sickness.To.Many.Students-168778.shtml. Retrieved 15 May 2008. Other newspapers, especially in India and Great Britain also referred to the "anthrax virus." Even the U.S. Postal Service, an agency notoriously victimized by the attacks referred to the "anthrax virus" when it announced that it, in cooperation of the FBI, was offering a reward of $2.5 million for information that would lead them to the source of the attacks. http://www.usps.com/news/2001/press/mailsecurity/reward.htm. Retrieved 15 May 2008.

[240] Thomas, 12.

available on a schedule that suits today's 24-hour news cycle so that less reliable speakers will be shut out."[241]

M. A. J. McKenna, a reporter for the *Atlanta Journal-Constitution*, the same Maryn McKenna who authored *Beating Back the Devil* (referenced earlier in this study), wrote in a *Nieman Reports* article that public health is an important beat because it "help(s) news organizations interpret major developments in defense, health policy, international relations, medical advances, and community needs."[242] As such, public health requires a special set of skills including familiarity with math, politics, budgets, science, epidemiology, and the ability to see these things as part of a broader context. She said a public health reporter needed to be willing to do "painstaking reporting" to "associate…numbers with actual victims." [243] She recommended asking "to prove significance and accuracy, what questions must we ask?" and embracing the rigorous, dramatic, mystery-novel nature of public health reporting in order to rescue it from the perception that it must be "dull but important."[244]

The Relationship of Journalism and Public Relations With Framing

Framing is a device that both the press and the public use to make sense of the world. In the way of journalistic best practices, Meyer said that a reporter must be able to make sense out of what he or she is reporting, and to understand those issues from multiple viewpoints. He said, "The greatness of the *New York Times* derives…from a…struggle to acquire the expertise necessary to broaden, sharpen, and deepen the perceptual apparatus of the institution" of journalism.[245]

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[241] Ibid., 13.
[242] M.A.J. McKenna. "The Public Health Beat: What Is It? Why Is It Important?" *Nieman Reports: Reporting on Health*. Summer 2003. Cambridge, MA: Nieman Foundation of Harvard University. 57:1, 10.
[243] Ibid., 10-11.
[244] Ibid., 11.
[245] Meyer, 67.

However, Meyer acknowledged that the realities of working in the newspaper medium can work against reporters trying to produce the best possible journalism. He said, "Under deadline pressure, the first cut at imposing pattern on observation rarely exposes the heart of the matter."[246]

The structure of a newspaper's daily operations may lend itself more to unintentional or subtle influence rather than directly trying to control portrayal of events. Niblock described newspapers as having a complex organizational structure with many interdependencies as well as a hectic and relentless deadline and print schedule. She portrayed the daily schedules of many different people who touch each editorial piece as they multi-task their way through the work day: conducting research and interviews, visiting event scenes, reacting to breaking news, writing the stories, editing, managing employees, and dealing with coworkers' overlapping schedules in a 24-hour newsroom.[247]

Several authors gave different examples in which an increase in crime reporting resulted in readers believing there was a crime wave, when statistically there was no more crime than usual. The reporters reported facts about crimes that actually happened; it was the framing in the context of increased crime reporting that led people to believe there was a crime wave.[248]

While the press undoubtedly influences national (and local) discussions, sometimes seemingly creating issues, it would be unfair and inaccurate to ignore their role as watchdog, even in policing their own. Barry Glassner's[249] book *The Culture of Fear*[250] is entirely concerned with how news stories use meaningless statistics and framing devices (including racism, sexism, and political motives) to blow minor and nonexistent risks out of proportion and

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[246] Meyer, 67.
[247] Sarah Niblock. *Inside Journalism*. (London: Blueprint, 1996), 24–70.
[248] Machin and Niblock, 40; Schudson, 1–2.
[249] At the time he authored this book, he was a sociology professor at the University of Southern California.
[250] Barry Glassner. *The Culture of Fear*. New York: Basic Books, 1999.

make them the focus of national debate. However, amid numerous, specific examples of these journalistic offenses, he came to the defense of some of the same media outlets, saying, that the "institutions most culpable for creating and sustaining scares…are also the most promising candidates for positive change."[251]

Glassner pointed out that of all the people involved in creating and framing issues—advocacy organizations, corporate spokesmen, political parties, religious groups, et cetera—news organizations are the only ones that can be objective, and that don't have a major stake in the outcome of an issue. Glassner said, "reporters not only spread fears; they also debunk them and criticize one another for spooking the public."[252] (Among the organizations he alternately accuses and praises for this are the *New York Times*, the *Los Angeles Times*, the *Washington Post*, and *USA Today*.) Stakeholder organizations, on the other hand, tend to frame issues in the most positive way possible for their organizations.

Other organizations, some of whom are not necessarily logical stakeholders in an issue, may also seize upon an issue and frame it in a way that facilitates dissemination of their message. Glassner cited examples of big-government frames used implicitly in the 1990s discussions about unwed teenage mothers on welfare or food stamps[253] and vaccination[254]. Debate over mandatory vaccination is also frequently framed as "big brother."

In this way, framing can also allow a debate on a taboo topic under the guise of debating another. Glassner provides several examples, including the subtle and not-so-subtle frames of racism used to discuss various topics such as street drugs: articles about the scourge of opium in

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[251] Glassner, xxii-xxiii.
[252] Ibid.
[253] Ibid., 87–90.
[254] Ibid., 174–179.

the 1870s were used as a forum to advocate discrimination against Chinese immigrants[255]. Articles about crack babies[256] and unwed teenage mothers[257] were used in the 1980s and 1990s to express and validate racist views of inner-city blacks.

Framing can be done intentionally and unintentionally. Speaking to the former position, Meyer said, "The great responsibility of news producers is to tell people what to think about [258] However, framing is not necessarily intentional. Reporters do not always intend to influence debate when they write a story. Meyer wrote that "What makes things news is a set of opinions on the relative salience of different persons and events."[259] "People differently placed in relation to an event do indeed see different events" but that similarities may appear because the reporters and leadership of different news organizations "are dealing with the same realities."[260] Strentz agreed with the latter position, saying "the power of the press" is a misleading concept "because *power* often connotes a degree of formal and organized control to effect change, whereas *influence* may be subtle, indirect, or unintended."[261]

TS Meyer said that if news is defined as "human statements about the world," many reporters address this by "simply gathering a number of statements from different humans."[262] Each of these humans brings a different perception of the world and its events, resulting in an unquantifiable number of different possible frames. "Each reporter has his or her own background, education, opinion, and 'apperceptive mass,' as it used to be called. And each editor

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[255] Ibid., 135.
[256] Ibid., 80–82.
[257] Ibid., 90–95.
[258] Meyer, 5.
[259] Ibid., 69.
[260] Ibid., 70–71.
[261] Herbert Strentz. *News Reporters and News Sources: Accomplices in Shaping and Misshaping the News*. (Ames, Iowa: Iowa State University Press, 1989), 5.
[262] Meyer, 70.

or producer responsible for the final shape of the story, in print or broadcast, has his or her own view of what the readership or the audience wants to know or should know about this event."[263]

Frames are actually quite helpful in conveying meaning in a short space and a brief amount of time, qualities which are essential in the newspaper business. Bob Franklin, a journalism professor at the University of Cardiff, wrote about the necessity of framing in news stories. "When people have little direct knowledge of events, they become increasingly reliant on news media for information, but also an understanding or interpretation, of those events."[264] Machin and Niblock wrote, "A story that already fits into an existing frame of reference will seem naturally newsworthy. This will mean that the story will need less contextualization and therefore less likely to lose the attention of the audience or readers."[265]

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[263] Meyer, 71.
[264] Bob Franklin. "Framing." Eds. Franklin, Bob; Hamer, Martin; Hanna, Mark; Kinsey, Marie; and Richardson, John E. *Key Concepts in Journalism Studies.* (Thousand Oaks, CA: Sage Publications, 2005), 85–86.
[265]David Machin and Sarah Niblock. *News Production: Theory and Practice*. (New York: Routledge, 2006), 48–49.

Introduction to Case Studies

The 2001 Anthrax attacks were a turning point in the CDC's role as a health communication agency. The CDC's communications and infectious disease staffs had not previously been called upon to respond to anything like it before. Frames of terrorism, evil, and killer diseases coming back from the forgotten past, presented against a backdrop of danger and secrecy, and illustrated with repeated images of the World Trade Center towers burning and collapsing all contributed to a highly emotional, nationwide atmosphere of panic and fear.

Government officials, including CDC communication staff, were criticized for their response. Administration officials tightened control over information, so the communication response was muddled, inadequate, and badly mishandled. Worst of all, it multiplied the frame of fear through which the public was interpreting these events. Even the silence helped frame the issue as unspeakable.

Fortunately, a lot of good came from the CDC's experience. They analyzed and criticized their own communication response to the attacks in numerous meetings and articles, and many outside researchers offered criticism as well. Through this event, the CDC's communication personnel learned how important risk and crisis communication are to managing a dangerous and frightening situation—or any other health risk.

In the literature, "risk communication" and "crisis communication" are sometimes used interchangeably, and sometimes differentiated. For the purposes of this paper, risk communication refers to communicating any kind of health risk, especially an ongoing one. Examples of health risks include obesity, air pollution, or exposure to seasonal cold or flu. Risk communication may involve explaining to an audience what their risks are, what they can do to mitigate them, and why they would want to take precautions. Crisis communication refers to an

acute-onset situation (like an outbreak, large-scale accident, or bioterrorism attack) that must be managed. People in a crisis may be emotional and fearful; the crisis communicator must demonstrate empathy, control, honesty, timeliness, and transparency.

The cases used in this study all exhibit the characteristics of health risk and crisis. They evoke fear and emotional responses, and communicators must manage the situation by keeping the public informed and by demonstrating control. The deadly outbreak of listeriosis food poisoning in 2002 was a classic public health crisis situation: illness from an unknown food source was sickening and killing people. Not only was the bacterium was known to cause pregnant women to miscarry, but its manifestation showed, less than a year after 9/11, how easy it would be to contaminate the nation's food supply. The discovery that same summer that the relatively new, deadly West Nile virus could be transmitted by organ transplant and blood transfusion raised the specter of vulnerability in the nation's transplant supply.

It is clear that risk and crisis communications would be the appropriate method of handling these two situations. Both had unknowns, and the ability to generate fear and panic, and both which needed to be managed. Both also had risk that needed to be addressed; audiences had to be informed of what the risks were and how they could protect themselves.

The case of autism is less obvious. The causes and risk factors for autism aren't known, so it is not possible to communicate risk mitigation strategies. However, the situation with autism resembles a health crisis in several ways. There are some very important unknowns about autism, namely, how to treat or cure it, and how it is caused. The wide range and variety of symptoms are also a source of ambiguity about the disease. As if the disorder weren't a scary enough proposition, it affects children—in fact, they are the entire focus of the debate—which adds to the parental and societal fear. This fear is constant and ongoing, but parents are fearful, panicked,

and emotional as they seek information about the disorder and seek to protect their children. Autism was referred to by advocates as a crisis or epidemic, and parents wanted to be kept informed as much as anybody in an outbreak or other crisis situation.

Frames of fear and emotion are the common denominator in all of these cases. Just as framing can invoke those emotions, it can also be used to reassure and empower the public. These cases illustrate what can happen when framing is used to advantage by different interests.

Framing the 2002 Listeria Outbreak

In the year after the September 11 terrorists attacks and anthrax attacks, public officials and the public alike worried about the vulnerability of the nation's food and water supplies. Preparedness work done in the wake of the attacks revealed how easy it would be for a terrorist to release a poison or biological agent into the population. This fear framed numerous health events and outbreaks.

An outbreak of food poisoning caused by *Listeria monocytogenes*[266] bacteria (listeriosis) in late summer of 2002 prompted the largest recall of meat in U.S. history. Two poultry processing plants owned by Pilgrim's Pride ended up recalling 24.7 million pounds of processed turkey and chicken by the time the outbreak was over. The outbreak also shone a light on inadequate food inspection process and accusations of corruption in U.S. Department of Agriculture leadership.

The earliest press mention of this outbreak[267] came when the "Nation in Brief" sections of the September 15 *Washington Post* and *Los Angeles Times* warned of an "unexpected increase" in listeriosis cases in Pennsylvania.[268] An article in the September 17 New York Times said that six people in the New York City area had died of listeriosis that summer, but that the source was still unknown. The writer interviewed a spokesman for the Pennsylvania Department

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[266] The CDC refers to the bacterium as *Listeria monocytogenes*, or *Listeria* for short, whereas the illness caused by the bacterium is listeriosis. (CDC's Listeriosis Web page at http://www.cdc.gov/nczved/dfbmd/disease_listing/listeriosis_gi.html, 27 March 2008; retrieved 30 April 2008.)

[267] In this study.

[268] "Nation In Brief." *Washington Post*. 15 September 2002, sec. A, p. 7, and "Pennsylvania: Food-Related Illness Alert Issued Statewide," *Los Angeles Times*, 15 September 2002, sec. A, p. 19.

of Health; he described the *Listeria* bacteria's unusual propensity for thriving in cold temperatures and on previously cooked meat.[269]

On September 18 the CDC responded with a press release.[270] As the outbreak progressed and more information became available, the agency continued issuing a steady stream of press release updates on the outbreak. The agency disseminated 14 releases in less than two months. However, by the time the outbreak had been identified (September 18), 26 people had already become ill, and four had died.[271]

Most of the CDC's press releases, including the first one, were scientific in tone and did not appear to be particularly aimed at the public. The releases mentioned "acquired illness from the same food" without a more public-friendly reference to "food poisoning." The first release wrote, in epidemiologic terms, of the "'background' of sporadic *Listeria* infections that are expected to occur."[272] The first three releases announced, in the second sentence of each release, that "the *Listeria* bacteria has been isolated and pulsed-field gel electrophoresis (PFGE)-matched" to the sick patients.[273] The releases warned pregnant women, newborns, the elderly, and others with weakened immune systems to be especially careful; food-safety tips followed the warnings. As the toll of the outbreak climbed, the CDC releases continued to faithfully report the

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[269] Daisy Hernandez. "6 in Metropolitan Region Die of Food-Borne Illness." *New York Times*, 17 September 2002, sec. B, p. 1.
[270] This does not indicate an inappropriate lag—hospitals must report a number of unusual cases before the CDC can intervene.
[271] "Update: Listeriosis Outbreak Investigation," 18 September 2002. CDC Office of Enterprise Communication Web site at http://www.cdc.gov/od/oc/media/pressrel/r020918.htm; accessed 14 January 2008.
[272] A "background" infection rate refers to an endemic illness that can be expected to occur normally in a population and does not signify any unusual infectious activity.
[273] "Update: Listeriosis Outbreak Investigation," 26 September 2002. CDC Office of Enterprise Communication Web site at http://www.cdc.gov/od/oc/media/pressrel/r020926.htm; accessed 14 January 2008; "Update: Listeriosis Outbreak Investigation," 25 September 2002. CDC Office of Enterprise Communication Web site at http://www.cdc.gov/od/oc/media/pressrel/r020925.htm; accessed 14 January 2008; and "Update: Listeriosis Outbreak Investigation," 18 September 2002 et al.

statistics and the specifics, including warnings more carefully targeted at vulnerable populations, including pregnant women who could miscarry due to even a minor *Listeria* infection.

Despite the rising number of illnesses and deaths, the newspapers did not report on the outbreak right away. In fact, it wasn't until October 4, seven CDC press releases and nearly two weeks later, that the press started to pick up on the story. This is notable considering the potential for media priming: the number of high-profile food poisoning cases and large-scale food recalls that had already happened in 2002, and the bioterrorism fears that lingered barely a year after the 9/11 attacks. The illness and death tolls were rising, but the CDC announced that the leading suspect was not bioterrorism, but deli turkey.[274]

In contrast to the scientific, factual frame of the CDC press releases, many newspaper reports focused on corruption, bureaucracy, and ineptitude of the United States Department of Agriculture (USDA), the department largely responsible for the safety of the nation's meat supply. Most reports expressed outrage at the incompetence and/or collusion of USDA leadership and the lack of standards governing the U. S. food supply. Some reports praised a USDA inspector who risked disapproval from his supervisors to bring the problems at the Pilgrims Pride plants to light. One *New York Times* story on October 5 reported that the CDC had linked 40 illnesses and 7 deaths to the same strain of the bacteria, and that they suspected sliced deli turkey. "The Agriculture Department, however, has not been able to confirm this."[275]

On October 9, a CDC release confirmed that the USDA announced a voluntary recall of turkey meat;[276] a *Washington Post* article the next day confirmed that 295,000 pounds of turkey

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[274] "Update: Listeriosis Outbreak Investigation,"4 October 2002. CDC Office of Enterprise Communication Web site at http://www.cdc.gov/od/oc/media/pressrel/r021004.htm; accessed 14 January 2008.
[275] "Turkey Meat is Suspected in Listeria Cases." *New York Times*, 17 September 2002, sec. B, p. 3.
[276] "Update: Listeriosis Outbreak Investigation," 9 October 2002. CDC Office of

and chicken products were being recalled. However, the article noted, the products were produced on August 14, and that the "use by" dates on the products in question had already started to pass.[277] That same day, the *New York Times* reported that the USDA "said that tests show no link between this recall and the *Listeria* outbreak that has killed seven people."[278] However, the *Times* pointed out that "inspectors were searching for the source of that strain when they discovered contaminated turkey pastrami that was produced at the corporations' Wampler Foods plant in Franconia, PA, on August 14."[279] Furthermore, on October 13, inspectors found samples of the deadly *Listeria* strain at the Pilgrim's Pride Franconia plant. They closed the plant, and announced an additional recall of over 27 million pounds of turkey. The onus was placed on consumers to "check their refrigerators and freezers" for the recalled meat, and return it to the place where they had bought it.[280] The amount of the additional recall included all turkey produced since May, and Pilgrim's Pride officials estimated that roughly two-thirds of that had "probably been eaten or thrown out by now."[281]

Newspapers continued to call for reform of the nation's meat safety regulations. They interviewed consumer and environmental groups, including members of the Sierra Club, and the Consumer Federation of America.[282]

Wampler and Pilgrim's Pride officials continued to maintain that none of their products were linked to the outbreak.[283] Elizabeth Becker of the *New York Times* reported that Pilgrim's

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Enterprise Communication Web site at http://www.cdc.gov/od/oc/media/pressrel/r021009.htm; accessed 14 January 2008.

[277] "Recalled, USDA Says." *Washington Post*. 10 October 2002, sec. A, p. 4.

[278] Elizabeth Becker. "Chicken and Turkey Recalled After Contamination Is Found." *New York Times*. 10 October 2002, sec. A, p. 28.

[279] Ibid.

[280] "N.J. Firm Recalls Meat Over Listeria Concern," *The Washington Post*, 3 November 2002, sec. A., p. 13.

[281] "Meat Firm Expands Deli Product Recall: Listeria Contamination Is Suspected." *Washington Post*. 14 October 2002, sec. A, p.3.

[282] Elizabeth Becker, "Consumer Groups Accuse U.S. of Negligence on Food Safety, Leading to Meat Recalls." *New York Times*. 15 October 2002, sec. A, p. 22.

Pride chief financial officer Roger Cogdill "disagreed with the (consumer) advocates, who, he said, failed to appreciate the voluntary nature of his company's recall."[284] (This is notable because all recalls were technically voluntary, as the USDA did not have the authority to recall any food for any reason.) Cogdill also attempted to spin the cramped, dirty conditions at their feedlot as one that allowed them to better "control bacteria in the animals."[285] It is fairly clear, from the messages to the choice of spokesperson, that Pilgrim's Pride was too busy trying to dig themselves out of a hole to worry about effective framing. Choosing as a spokesman someone whose main responsibility is to protect the company's stock price when people are dying goes against public relations and risk communications best practices that recommend choosing a spokesperson who can be honest and empathetic with the effected population, and who demonstrates a genuine interest in entering a dialogue with them.

The listeriosis outbreak came right on the heels of another rash of food poisonings from tainted meat, one of several outbreaks that contributed greatly to the press framing of the listeriosis outbreak. In July 2002, an E. coli outbreak sickened 26 people and prompted ConAgra to recall 19 million pounds of beef. This episode inspired an editorial in the *Atlanta Journal-Constitution* calling for the federal government to streamline and toughen current food inspection practices. The article said the current "laissez-faire regulatory scheme" is "ripe for all manner of abuse," and currently involves 10 different, understaffed agencies and no "enforceable industry performance standards." The article further invoked the frames of government ineptitude and industry corruption by pointing out that USDA leadership ignored warnings from its own personnel as early as February 2002 regarding E. coli in the same Colorado ConAgra plant

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[283] "Poultry Recall Expanded After Bacteria Found at Plant." *New York Times*. 14 October 2002, sec. A, p. 12.
[284] Elizabeth Becker, "Consumer Groups Accuse U.S. of Negligence on Food Safety, Leading to Meat Recalls." *New York Times*. 15 October 2002, sec. A, p. 22.
[285] Ibid.

responsible for the E. coli outbreak.[286] Additionally, the *Los Angeles Times* had published stories that August about *Listeria* contamination in cheesecakes supplied by the Cheesecake Factory to 19 Olive Garden restaurants,[287] and another recall that month of 10,000 packages of queso fresco due to potential *Listeria* contamination.[288]

The story continued to unfold, with more evidence of corruption being uncovered. Becker wrote that a May 2002 memo to new USDA meat inspectors had been made public. She said that in the memo, "inspectors were told that they could be held accountable for lost production" if they had a plant shut down or slowed production for an inspection, and later "failed to justify" doing so.[289] USDA and industry spokespeople continued to deny any wrongdoing, but this only seemed to help consumer advocates and the press in their attempts to show the USDA and the meatpacking industry as corrupt and unreasonable. Becker said the May 2002 memo went so far as to define the "limits of what is considered feces."[290] She then quoted Carol Tucker Foreman of the Consumer Federation of America, who said, "Poop is poop. I can't think of any circumstance where it is tolerable to have fecal material on any meat coming off the line."[291] This effectively framed the issue of increased government oversight as a simple choice: do you want to eat fecal matter in your food or not?

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[286] "Chew On This: It Is Time For a Food Safety Agency." *Atlanta Journal-Constitution*, 24 July 2002, sec. A, p. 13.
[287] Marc Ballon, "California Restaurant Recalls Tainted Cheesecake; Food: A Batch of Baked Goods is Contaminated With the Listeria Bacteria, Cheesecake Factory Says. No Illnesses Reported," *Los Angeles Times*, 6 August 2002, sec. C, p. 2. and Marc Ballon, "Restaurants May Have Served Tainted Desserts; Food: Customers at 19 Olive Garden Outlets May Have Been Exposed to Listeria Bacteria, Cheesecake Factory Says," *Los Angeles Times*, 7 August 2002, sec. C, p. 1.
[288] Jose. Cardenas, "Los Angeles: Bacteria Fear Leads to Recall of Cheese," *Los Angeles Times*, 9 August 2002, sec. B, p. 3.
[289] Elizabeth Becker, "Critics Take Aim at Guidelines On Standards for Food Safety." *New York Times*. 2 November 2002, sec. A, p. 15.
[290] Ibid.
[291] Ibid.

On October 15, ten days after the CDC's press releases first said it suspected the Pilgrim's Pride plant, the USDA announced that the plant was likely the source of the outbreak.[292] However, the *New York Times* reported the USDA's Stephen Cohen as saying that despite the announcement, USDA investigators hadn't actually found any of that same strain of bacteria in the meat products. However, the CDC's press releases continued to name Pilgrim's Pride as the culprit. CDC spokesman Tom Skinner was reported in an October 16 *USA Today* article as saying that the turkey from the Pilgrim's Pride plant in Franconia, PA, was the likely source, and that (according to the author) "it was highly unlikely that matching samples of the microbe taken from the plant and patients were not linked."[293]

There were more accusations of corruption. An October 16 editorial in the *New York Times* focused on corruption in the USDA, saying that despite multiple outbreaks and several deaths, "the department appears in no hurry to activate safety standards that could reduce the risk of future outbreaks."[294] The author accused the USDA of being "under industry influence" and declining to adequately regulate, test, and label meat before it enters the marketplace.[295]

With over 27 million pounds of deli meat being recalled from the general food supply, and most of it eaten before the recall was issued, it would be expected that some of the deli meat would have been consumed by children. Some articles touched upon this fear and engaged in some episodic framing, including one article featuring interviews with parents whose children had died in various food poisoning episodes.[296] The *New York Times* reported that these families

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[292] Elizabeth Becker, "U.S. Says Meat Plant's Products Are Probable Sources of Bacteria." *New York Times*. 16 October 2002, sec. A, p. 16.
[293] Elizabeth Wiese, "Listeria Traced to Pa. Plant; Tainted Deli Meats Linked to Wampler," *USA Today*, 16 October 2002.
[294] "Dangerous Chickens" (Editorial), *New York Times*. 16 October 2002, sec. A, p. 22.
[295] Ibid.
[296] Elizabeth Becker, "Parents of Sickened Children Ask for Tighter Rules on Food." *New York Times*. 17 October 2002, sec. A, p. 22.

went to Washington, D.C. to lobby for better oversight of the food processing industry, including giving the USDA the authority to issue recalls.[297] One of the advocacy groups managed to frame the food safety issue in terms of the war on terror, saying, "Our children and our families deserve not to encounter terror at the dinner table," and urged President Bush to "declare a war on foodborne illness."[298] The article was illustrated by a photo of a little girl with her mother, looking at a scrapbook of photos of her late brother, who died from food poisoning. However, in this same article, Rosemary Mucklow from the National Meat Association was quoted attempting to place the responsibility on the individual, saying that the industry didn't need more regulation; consumers needed to be educated. "The biggest issue is to get the consumer to cook the meat thoroughly."[299] (Remember that the meat involved in this recall was pre-cooked, ready-to-eat deli meat.)

On October 18, the *New York Times* reported that Secretary of Agriculture Ann Veneman had announced increased plant testing. This was said to be the first response to the outbreak by anyone in the Bush administration.[300] By October 29, top government officials were reported in *USA Today* as saying the meat industry's inspection system was "broken" and that they intended to address the issue. J. Patrick Boyle of the American Meat Institute was reported in the same article as saying that if that was the case, it was also the fault of government, "a joint failing."[301]

The outbreak may have been over by November 4, but the story was still evolving. The *Los Angeles Times* reported that the *Philadelphia Inquirer* had discovered that inspectors had warned their superiors of "numerous sanitation violations," including mold and cockroaches,

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[297] Ibid.
[298] Ibid.
[299] Ibid.
[300] Elizabeth Becker, "Schools Got Some of Meat Now Recalled." *New York Times*. 18 October 2002, sec. A, p. 20.
[301] Elizabeth Weise, "Tougher Meat Safety Rules on the Way; Massive Recalls Spark Action, but Critics Say it's Not Enough," *USA Today*, 29 October 2002, sec. D., p. 10.

present at the Pilgrim's Pride plant months before it was implicated in the outbreak.[302] By December 12, the *New York Times* and *Washington Post* had named this whistleblower as Vincent Erthal, a USDA inspector who claimed his efforts to "force a cleanup…eight months before the outbreak" had been thwarted by the chief government inspector there.[303] The *Washington Post* reported Erthal as saying he had filed two year's worth of reports citing the unsanitary conditions; it also reported top USDA officials and officials in the meat industry as trying to cast doubt on his claims.[304] They were probably unknowingly—framing him as a hero to the victims of the big-government, big-industry corruption they were also unknowingly creating. In a December 15 article that eventually became part of her *Beating Back the Devil* book, M.A.J. McKenna also framed the public health officials who investigated the *Listeria* outbreak (and were largely ignored by both the CDC's press releases and the press during the outbreak) as heroes, risking their own safety to keep the public healthy.[305]

In this incident, most newspapers in this study sought out numerous dissenting voices, but only after speaking only with the official spokespeople at the USDA and Pilgrim's Pride. Once the "official" sources seemed to be hiding something, the press dug deeper to find out what the real story was. Despite the alluring framing devices of government scandal, industry corruption, sickness, death, and lumbering bureaucracies, the press did not succumb to the temptation to sensationalize. The CDC largely stayed out of the fray by presenting scientific facts with no apparent agenda attached, other than helping people stay healthy during a crisis.

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[302] "Food Plant Was Warned of Violations, Paper Says." *Los Angeles Times*. 4 November 2002, sec. A, p. 10.
[303] Christopher Drew and Elizabeth Becker, "Plant's Sanitation May Have Link to Deadly Bacteria," *New York Times*. 11 December 2002, sec. A, p. 32.
[304] "USDA Failed to Act Against Plant's Listeria, Inspector Says," *Washington Post*, 12 December 2002, sec. A, p. 10.
[305] M.A.J. McKenna, "CDC Disease Detectives: Public Health Corps Wages Personal Battles," *Atlanta Journal-Constitution*, 15 December 2002, sec. A, p. 1.

Hallahan, Iyengar, Wallack et al., and others wrote about the news media's tendency to use episodic framing and how that lends itself to framing issues as the responsibility or fault of corrupt individuals rather than a corrupt system. The coverage of this outbreak certainly pointed fingers at the top USDA officials who Vincent Erthal said had been warned of the contamination before the outbreak occurred. However, while the articles didn't find fault with society as a whole, they did implicate the entire convoluted process of food plant inspections, which had proven quite inadequate to protect the U.S. food supply. Some also found fault with the Bush administration[306] for blocking legislation, written during the waning days of the Clinton administration, that proponents said would have made the inspection process more effective.[307] Another story presented an unusual (at least in this outbreak) twist on the thematic frame, saying people were much more likely to die on the nation's highways, from an accidental fall than from eating contaminated meat; the author, John Balzar, attempted to demonstrate these fears as overblown by comparing the odds to those of being killed in a gang murder or drowning in the bathtub.[308]

Wallach et al. said that health issues are usually framed as individual responsibility, to the exclusion of implicating systemic problems.[309] This is the case from standpoint of the public health officials quoted in the articles. The meat industry and Pilgrim's Pride spokespeople, on the other hand, certainly positioned the issue as each person's responsibility to protect themselves.

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[306] Elizabeth Becker, "Consumer Groups Accuse U.S. of Negligence on Food Safety, Leading to Meat Recalls." *New York Times*. 15 October 2002, sec. A, p. 22.
[307] "Dangerous Chickens" (Editorial), *New York Times*. 16 October 2002, sec. A, p. 22, and Elizabeth Becker, "U.S. Says Meat Plant's Products Are Probable Sources of Bacteria." *New York Times*. 16 October 2002, sec. A, p. 16.
[308] John Balzar, "You're Much More Likely to Lose Your Head Than Your Life: Terror May Appear Rampant, but the Freeway is Riskier." *Los Angeles Times*. 20 October 2002, sec. M, p. 5.
[309] Wallack, et al., 68-70.

By the time the outbreak was over, 53 people had taken ill, eight had died, and three pregnant women had miscarried. The CDC's press releases, despite taking a non-public-friendly scientific tone, were intended to aid in the treatment and prevention of illness. In fact, 13 of the CDC's 14 releases on the outbreak described the symptoms of listeriosis and precautions to avoid becoming ill. Despite not containing a single quote from a CDC official, the releases were factual and frequent, and framed the CDC as being both above the fray and in control of the situation, as well as showing much more concern for people's health than the spokespeople from the USDA and the meat processing companies.

Framing West Nile Virus Transmission Through Organ Transplant, 2002

West Nile virus is now established as a seasonally-recurring disease in North America, but in 2002 it was still new and had the power to frighten people. Experts believe the mosquitoborne virus arrived in the United States from Africa or the Middle East in 1999[310], and it manifested over the next few summers as a painful illness that felled countless crows, some horses, and humans, starting with an outbreak in New York City.

In early August 2002, a Georgia woman's organs were harvested for transplant after she succumbed to injuries received in a car accident a month earlier. Four people received her organs. Later, all four recipients tested positive for West Nile virus infection. The organ donor had been in a coma for a month, and had received numerous blood transfusions before she died. Officials came to suspect that she contracted West Nile from the transfusions.

The possibility of contracting a deadly disease through what was intended to be a lifesaving procedure is just the kind of story that sells newspapers. West Nile virus, or WNV, had only been discovered in the United States three years prior. Originally from Africa, West Nile Virus can cause encephalitis, nerve pain, fever, and death. It was known to be transmitted by mosquitoes; horses and birds were known animal reservoirs. In short, it's a subject that invites sensationalist journalism. On the other hand, serious threats require thoughtful research, if humanity is to benefit from the work.

The 2002 West Nile season was shaping up to be particularly bad. By August 20, there had already been 251 cases of West Nile virus in the United States in 2002, with a projection of up to 1000 cases for the year.[311] *New York Times* reporter Denise Grady asked, Why here? Why

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[310] CDC West Nile Virus Web site at http://www.cdc.gov/ncidod/dvbid/westnile/index.htm. [Accessed 2 June 2008].

[311] Denise Grady, "Managing Planet Earth: On an Altered Planet, New Diseases Emerge as Old Ones Re-Emerge." *New York Times*, 20 August, 2002, sec. F., p. 2.

now? Until 1999, the disease had never even been detected in North America." She answered this question by placing West Nile Virus in the context of an increasing number of new diseases that had appeared since the mid-1970's, "a time when it was widely assumed that most infectious diseases had been conquered or at least controlled." Grady cited a 2000 report by the World Health Organization that blamed the rise of disease emergence on ecological factors (including global warming), human factors including war and population growth, international travel and commerce, microbial factors including antibiotic resistance, breakdowns in public health measures including vaccination and insect control, and "technological and industrial factors like food processing, livestock handling, and organ transplants."[312]

On August 30, the CDC announced that there had been 638 cases of West Nile virus with 31 fatalities in 2002 so far. [313] On this same date, the *Washington Post* pointed out that the number of new cases for the week of August 21–28 represented a 62% increase over the previous week, but also said that "the number (of new cases) was expected to peak by mid-September."[314][315]

Also by this date, the CDC had already disseminated five press releases on this year's West Nile season. They all featured an update on the number of cases and fatalities by state, but two of them featured quotes by then-HHS secretary Tommy Thompson and CDC director Dr. Julie Gerberding. The August 28 release announced HHS funding to help states fight the disease;

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[312] Ibid.
[313] CDC Office of Enterprise Communication. Press Release: "West Nile Virus Update." 30 August 2002. http://www.cdc.gov/od/oc/media/pressrel/r020831.htm. [Accessed 27 February 2008].
[314] "Findings: West Nile Expected To Peak by Mid-Month." *Washington Post*, 30 August 2002, sec. A, p. 8.
[315] In that same article, the *Washington Post* also stated that the number of cases for the summer, as of August 30, was 480, but looking at the CDC press release, I could not determine how they arrived at that number.

Dr. Gerberding warned, "West Nile virus is rapidly emerging this summer in previously unaffected areas."[316]

West Nile virus, though it had been a common news topic over the past three years, still had the power to frighten, and as such, it was sometimes framed in the context of other historical plagues. One Maryland man wrote, in a letter to the health section editor of the *Washington Post*, that the dead birds and rodents he presumed had fallen prey to the virus, "reminds me of the bubonic plague of the Middle Ages."[317] In an August 30 editorial in the *Washington Post*, a D.C. artist focused on the disappearance of the once-ubiquitous crows from her neighborhood. She pondered the crows' suffering from West Nile virus and how the spread of the disease could mean disaster for some bird species. She also framed the disease in the context of the "countless holocausts, natural and human-engineered" that the world has seen, and said that "(w)hile (West Nile's) effect on the human population has, thankfully, not been nearly as widespread as on other species, we are just beginning to appreciate its virulence."[318] Not only did she use the frame of past tragedies to evoke emotion, but she also invoked a frame of globalism, the idea that the planet's creatures, or at least its people, share a common fate, to some degree.

The earliest press report[319] that someone may have contracted West Nile Virus from an organ transplant came from the *New York Times*, in an August 31 article titled, "Transplant May Have Led to West Nile in Man, 71."[320] The man had died from the illness. The article quoted both Dr. Gerberding and Florida's secretary of health, Dr. John O. Agwunobi, both of whom

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[316] "HHS Awards Additional $6 Million to Help States and Cities Fight West Nile Virus" (Press release), 28 August 2002. CDC Office of Enterprise Communication Web site at http://www.cdc.gov/od/oc/media/pressrel/r020828.htm; accessed 14 January 2008.
[317] Richard W. Podrasky, "Health Interactions: Plagued by Ineffective Agencies," *Washington Post*, 27 August 2002, sec. F, p. 2.
[318] Betsy Karasik, Editorial: "The Silence of the Crows," *Washington Post*, 30 August 2002, sec. A, p. 23.
[319] At least out of the newspapers in this study
[320] Lawrence K. Altman, "Transplant May Have Led to West Nile in Man, 71," *New York Times*, 31 August 2002, sec. A, p. 12.

appeared to be concerned, yet calm and in control. Article author Lawrence K. Altman further added to the sense of control by mentioning that West Nile is most likely to cause serious illness in those with weakened immune systems, including organ transplant patients,[321] allowing people who considered themselves in good health the opportunity to not worry about it. It wasn't until later in the article that he raised the possibility that the ability for West Nile to be transmitted this way may pose a threat to the nation's blood supply. "We have a lot of work to do, but we are doing it fast," the article quotes Dr. Gerberding as saying.[322]

The next day a CDC press release came out saying that the agency, along with the Food and Drug Administration (FDA)[323], the Georgia State Department of Health, and the Florida Department of Health were investigating all four patients who received transplanted organs from the Georgia woman, based on "preliminary evidence…that these illnesses might be due to West Nile virus infection." The release also stated that although such transmission "has been a theoretical possibility," it had not actually been observed.[324] The *New York Times* reported that one of these patients, also from Florida, had West Nile fever (as opposed to encephalitis), a milder form of the illness.[325] The *Times* article appeared on page 18 of the paper, but the story made the front page of the *Atlanta Journal-Constitution*. M.A.J. McKenna seized on the novelty of the situation, writing that "if all four infections are confirmed and linked to the transplants…it would represent the first time that West Nile virus is known to have been transmitted from person to person in any manner."[326] Having grabbed readers' attention with that, she said later in

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[321] Ibid.
[322] Ibid.
[323] The FDA is a federal agency in HHS; organizationally it is on equal footing with the CDC.
[324] "CDC Investigates Possible West Nile Virus Transmission Through Organ Transplant," 1 September 2002. CDC Office of Enterprise Communication Web site at http://www.cdc.gov/od/oc/media/pressrel/r020901.htm; accessed 14 January 2008.
[325] Lawrence K. Altman, "Health Officials Studying West Nile-Transplant Link," *New York Times*, 1 September 2002, sec. 1, p. 18.
[326] M. A. J. McKenna, "Transplant organs may have spread West Nile Single donor possible source

the article that health officials wanted to make quite clear that transmission through blood or organs had not been confirmed. She quoted Dr. James Hughes, director of the CDC's National Center for Infectious Diseases, saying, "we feel it is a high priority to rapidly and aggressively investigate" the possible cases person-to-person transmission.[327] McKenna also mentioned in her article that the investigation would likely be complex, and that they would first have to rule out coincidental infection by a mosquito bite, something not altogether impossible since all patients resided in areas where West Nile was already present. She also reiterated that the patients were all on immunosuppressant drugs following their transplants, which made them more susceptible to a serious form of West Nile.[328]

West Nile is an imported disease, and this is occasionally mentioned using a frame of foreignness. This associates the disease with other "loathsome" foreign things: immigrant hordes carrying disease, Africanized "killer" bees, AIDS, and other "foreign" invaders. McKenna mentions in an article another case of foreign disease, Chagas disease, contracted by patients at Emory University School of Medicine after receiving organs from an immigrant.[329] The New York Times likened the potential threat to the blood supply to the threat caused by English blood donors who might carry bovine spongiform encephalitis, or "mad cow" disease.[330]

Throughout the course of this investigation, press articles featured plenty of quotes by different officials, indicating that spokespeople must have been readily available to answer questions. These spokespeople, mostly from the CDC, but some from the Georgia and Florida state health departments and the FDA, were fairly consistent about staying "on message," saying

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of infections." *Atlanta Journal-Constitution*, 1 September 2002, sec. A, p.1.

[327] Ibid.; the same quote appears in another article that day, "West Nile Suspected in 4 Who Had Transplants," *Washington Post*, 1 September 2002, sec. A, p. 15.

[328] Ibid.

[329] McKenna, "Transplant organs…" 1 September 2002.

[330] Lawrence K. Altman, "Linking West Nile and Transplants May Take Weeks," *New York Times*, 2 September 2002, sec. A, p. 4.

that the risk for contracting West Nile via a transplant or transfusion was very low, and that the best way to protect oneself from West Nile virus is to wear insect repellant and long pants and sleeves when in mosquito-infested areas. For the most part, the reporters seemed to appreciate the forthcoming nature of the health officials, and most stories seemed to agree with them that the risk of transmission via the manner in question was low.

However, some stories mentioned the scary unknowns, like the fact that "it was not known how many" other people had been transfused with blood from the supply that may have infected the index patient.[331] A *USA Today* article titled "Officials Fear Human Spread of West Nile…" said "officials are working…to determine the threat that the West Nile virus poses to recipients of blood transfusions and donated organs."[332] This language suggests that there is, in fact, a threat, a fear, despite health officials' messages that the risk is actually very low.

Likewise, McKenna reported the following: "Asked if the government could assure the public that the blood supply is absolutely safe, (Dr. Jesse) Goodman (of the FDA) said no."[333] Considering McKenna's usual respect for the open access and good relationship she had with the CDC's researchers, leadership, and media relations staff, why did she report that they couldn't "absolutely" guarantee something that's impossible to guarantee at any time? Perhaps she was trying a fear appeal to spice up her story. Perhaps it was because this was an FDA spokesman and not someone from the CDC. Whatever the reason, intentional or not, it framed the issue as a reason for fear, and as an aberration, a flaw in the system—more episodic than thematic—and it is probably the sort of angle that gets more eyes on the page.

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[331] Alan Cooperman, "Transmission of West Nile In Ga. Transplants Probed." *The Washington Post*, 2 September 2002, sec. A, p. 2.
[332] Davis, Robert, and Manning, Anita. "Officials fear human spread of West Nile ; Organ recipients have virus-like symptoms." *USA Today*, 3 September 2002, sec. D, p. 8.
[333] M. A. J. McKenna, "West Nile focus now on Atlanta blood bank." *Atlanta Journal-Constitution*, 2 September 2002, sec. A, p.1.

The case of West Nile being transmitted through organ transplant and blood transfusion could have caused quite a panic if officials hadn't made themselves available to answer questions, address concerns, and keep a uniform message of safety and reassurance to the public. CDC Media Relations staff reassured and informed public but also used the press releases as an opportunity to reinforce the message of prevention in what was already proving to be an especially bad West Nile virus season. The good reception journalists gave forthcoming public health officials seems to confirm framing theorists' notions that the press generally supports the notion of a sound society with problems caused by occasional flaws, corruption, or aberrations. This was also apparent in the previous case study on listeriosis. Autism, however, may illustrate what happens in a more drawn-out situation.

The Autism Debate, 2002–2007

The causes of autism were hotly debated throughout the study period in most major U.S. newspapers. However, despite the 2277 autism articles that appeared in the five major U.S. newspapers analyzed in the six-year study period[334], the CDC distributed only 7 press releases. As the public clamored for information, this relative silence allowed—or forced—the newspapers, influenced by the sources they interviewed, to frame the issue themselves.

Numerous issues are at the heart of this controversy, and the confusion surrounding the debate contributes to its perpetuation. Many parents, especially those of autistic children, believe they know what causes autism and autism spectrum disorders (ASDs). To them, the things they see—a child regressing into autism after receiving a vaccine, a child having fewer behavioral and physical symptoms after a diet change or removal of an allergen[335], geeky parents[336]—may appear to be irrefutable evidence. However, ASDs cover a wide array of physical and mental symptoms, which in turn vary greatly in their severity, and scientists have yet to find the cause or the cure. Further complicating the issue is the fact that some autism appears to be present in some children from early infancy, while others appear to develop normally and then regress in toddlerhood or early childhood. Also, many researchers contend that it is the autism diagnoses—not the cases—that are actually on the rise. Reasons for this are given as growing awareness of the disorder, an expansion of the definition to encompass an entire "spectrum" of symptoms, and the fact that an autism diagnosis is often the only way for families to get special education and

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[334] This number is based on ProQuest and Factiva database search results. These are the same five newspapers used in this study.

[335] Luke T. Curtis and Kalpana Patel, "Nutritional and Environmental Approaches to Preventing and Treating Autism and Attention Deficit Hyperactivity Disorder (ADHD): A Review," *The Journal of Alternative and Complementary Medicine* 14 (2008): 79-85.

[336] Steve Silberman, The Geek Syndrome, *Wired* 9(12). From the *Wired* Magazine Web site at http://www.wired.com/wired/archive/9.12/aspergers_pr.html. Accessed 27 May 2008.

services for children with a wide array of symptoms and behavioral problems.[337] It is a frustrating condition for all involved, from the people who have it, to the people who care for them, to the researchers who devote their lives to finding a cause or a cure.

The main focus of the vaccine-autism debate has been the mercury compound thimerosal. Thimerosal[338] was developed in 1928 and has been used for decades as a vaccine preservative. Thimerosal is an ethylmercury compound; however, most lay allegations of risk and effects on neurological development are based on studies of methylmercury. Methylmercury, the environmental mercury toxin released by burning coal, is known to cause problems with neurological development in children, and takes much longer to leave the body than ethylmercury.[339] And while some maintain that the symptoms of mercury poisoning and autism are the same, many researchers maintain that the symptoms appear similar only superficially and are actually quite different.[340]

Most of the debate focuses on the MMR (measles-mumps-rubella) vaccine. The 1998 *Lancet* article that actually sparked the debate documented a study of 12 children who were referred to the study after they had exhibited developmental disorders, and the suspicion of a link to MMR initially came from the parents of eight of the children, not the researchers or doctors.[341] The article focused on the children's gastrointestinal symptoms and suggested faulty

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[337] Mike Stobbe, "Rise in autism largely due to categorization; The recent surge of cases seems mostly caused by a surge in special ed services, and by a shift in how the disorder is diagnosed," *Los Angeles Times*, 18 November 2007, sec. A, p 24.
[338] The compound thiomersal is commonly known in the United States as thimerosal. British studies often refer to it as thiomersal.
[339] "Statement on thiomersal: The Global Advisory Committee on Vaccine Safety concludes that there is no evidence of toxicity in infants, children or adults exposed to thiomersal (containing ethyl mercury) in vaccines." July 2006. World Health Organization Web site at http://www.who.int/vaccine_safety/topics/thiomersal/statement_jul2006/en/index.html. Accessed 1 June 2008.
[340] Ibid.
[341] AJ Wakefield, SH Murch, A Anthony, J Linnell, DM Casson, M Malik, M Berelowitz, AP Dhillon, MA Thomson, P Harvey, A Valentine, SE Davies, and JA Walker-Smith, "Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children," *The Lancet* 351 (1998): 637.

digestive processes may be a cause of autism, and that symptoms improved after removal of certain allergens. It also mentioned that the behavioral changes the children underwent were dissimilar. They concluded that more research was needed to "examine this syndrome and its possible causal relation to this vaccine."[342] However, despite numerous articles finding no scientific basis for a causal link between the MMR vaccine and autism, including a 2004 partial retraction by most of the authors (in which they said, "no causal link was established between MMR vaccine and autism")[343], the debate spread and flourished in the popular press. In fact, anti-vaccine activists managed to tie the idea that vaccines cause autism to the debate so firmly that as awareness of autism grew, so did the debate about vaccines.

It is especially important to study media coverage of the autism debate; James Colgrove and Ronald Bayer said public health officials worry that "the system of routine childhood immunization in the United States rests on a tenuous foundation of public support."[344] The authors also claimed the "popular media" as one of the main ways in which "concerns over vaccine safety have emerged and diffused."[345]

Compulsory vaccination of children before registering for school is a law in every U.S. state (and all allow medical exemptions), but a vocal minority chooses not to have their children vaccinated. According to the Institute for Vaccine Safety, run by the Johns Hopkins Bloomberg School of Public Health, all but two U.S. states allow religious exemptions to vaccination.[346] In addition, 21 states allow "personal belief" exemptions, which includes "religious, philosophical,

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[342] Ibid., 641.
[343] Simon H Murch, Andrew Anthony, David H Casson, Mohsin Malik, Mark Berelowitz, Amar P Dhillon, Michael A Thomson, Alan Valentine, Susan E Davies, and John A Walker-Smith, "Retraction of an interpretation," *The Lancet* 363 (2004): 750.
[344] James Colgrove and Ronald Bayer, "Could it Happen Here? Vaccine Risk Controversies And The Specter of Derailment," *Health Affairs* 24:3 (2005): 729.
[345] Ibid.
[346] Vaccination policy is determined at the state level.

and any other unspecified non-medical exemption."[347] Many parents cite fears of vaccine-related injury in their choices not to vaccinate.

While vaccination is technically mandatory, people on both sides of the issue sometimes frame it as a choice, in which they need to assess the risks and make their own decisions. Those who don't want their children vaccinated may use this frame perhaps because it empowers them, or they feel the risk of compliance is dangerous; the CDC may use this frame subtly when it recommends that people discuss concerns with their health care professional. This serves several purposes: it empowers people to make their own decisions (or at least feel like they did), possibly decreases resistance to the policy by making the agency look less totalitarian[348], and finally, the CDC probably knew that most doctors would probably convince their patients of the benefits of vaccination.

Since controversy over thimerosal in vaccines began in 1998, thimerosal has been removed from all routine childhood vaccines in the United States, with the exception of some seasonal flu vaccines.[349] Though researchers had been unable to find a causal link, they acknowledged that it was biologically possible for such a chemical to cause disruptions in neurological development.[350] It is doubtful whether they would have removed it, however, had it not been for the uproar. Nonetheless, this was the official stand:

> The CDC, American Academy of Pediatrics, Institute of Medicine and other prestigious medical organizations maintain there is no

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[347] "Vaccine Exemptions." 27 March 2008. Institute for Vaccine Safety Web site at http://www.vaccinesafety.edu/cc-exem.htm. [Accessed 1 June 2008].
[348] Daniel A. Salmon, Stephen P. Teret, C. Raina MacIntyre, David Salisbury, Margaret A. Burgess, and Neal A. Halsey, "Compulsory Vaccination and Conscientious or Philosophical Exemptions: Past, Present, and Future," *The Lancet* 367 (2006): 436.
[349] Mercury and Vaccines (Thimerosal)" CDC Vaccine Safety Web site, 22 October 2007/ Internet; http://www.cdc.gov/vaccinesafety/concerns/thimerosal.htm (accessed 21 April 2008).
[350] Ibid.

> known link between vaccines and autism. Studies published in the New England Journal of Medicine and elsewhere also have found no link. Even after thimerosal was removed from infant vaccines, the autism rate has continued to climb.[351]

However, that didn't stop thousands of parents from writing letters to editors, protesting at various CDC campuses, taking out ads, building Web sites, and homeschooling their children in an effort to "protect" them from government-mandated vaccines. The "big government" frame here was obvious. In addition, the surest way in most states to prevent a child from being vaccinated was to claim a religious exemption. This fed directly into the faith vs. science frame that the CDC already found themselves fighting on so many fronts.

The fact that thimerosal was removed from all routine childhood vaccines in 2001[352] did not stop some people for implicating it. During 2002 and 2003 the debate in the press about whether vaccines caused autism was just starting to pick up steam. There were a few articles in 2002 about families suing for damages, claiming vaccines had caused their children's autism[353], and about people suspicious that vaccines caused autism.[354] However most journalists seemed skeptical of a link. In a thematically-framed *USA Today* article, Anita Manning wrote about parents who believe vaccines cause autism, saying that the "mainstream medical experts" who claim vaccines are safe are "backed by reams of scientific studies."[355] She interviewed several people on both sides of the debate but referred back to the existence of much scientific evidence

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[351] "Vaccine case draws new attention to autism debate." 6 March 2008. CNN Web site. http://www.cnn.com/2008/HEALTH/conditions/03/06/vaccines.autism/ (accessed 7 March 2008).
[352] Some flu vaccines still contain thimerosal, but there are thimerosal-free flu vaccines widely available.
[353] David Wahlberg, "Dentists sued over mercury," *Atlanta Journal-Constitution*, 4 April 2002, sec. B, p. 5.
[354] Gayle White, "Autism gains attention as experts meet: Research, celebrities raise profile of childhood disorder." *Atlanta Journal-Constitution*, 8 November 2007, sec E p. 1.
[355] Anita Manning, "Public confidence in vaccines at risk ; A slew of side effects from smallpox shots could raise fear factor." *USA Today*, 2 December 2002, sec. D, p. 8.

refuting the theories, using the interviews to illustrate the harm that can come when unvaccinated people spread disease.[356] In another article, the *Atlanta Journal-Constitution's* David Wahlberg weighed the pros and cons of different vaccines; he clearly opposition-framed the diseases as being much more dangerous than the vaccines.[357] Likewise, Donald J. McNeil wrote in a *New York Times* article that fish, not vaccines, are the largest source of mercury for humans.[358] Both Manning and McNeil wrote that people aren't afraid of the vaccine-preventable diseases that killed so many just a few generations ago, because they have never seen them,[359] so they don't believe they are a threat.

In 2003, there were more articles covering the debate, many quoting medical professionals (mostly pro-vaccination) and parents of autistic children (some pro-vaccination, some against), but few CDC spokespeople. There were a few emotional stories about autistic children whose parents claimed the autism was brought on by vaccination, but the latter half of one story focused on themes of redemption[360]; another discussed the possibility of recovering from autism.[361] Jane Brody of the New York Times wrote in "Vaccines and Autism: Beyond the Fear Factor," that "overwhelming evidence so far suggests that thimerosal poses no significant threat to the developing brain."[362] She also provided evidence that mercury poisoning and autism

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[356] Ibid.
[357] David Wahlberg, "Is It Worth the Risk?" Atlanta Journal-Constitution, 16 December 2002, *Atlanta Journal - Constitution*, sec. E, p. 1.
[358] Donald J. McNeil, "Study Suggests Mercury in Vaccine Was Not Harmful." *New York Times*, 4 December 2002, sec. A, p. 22.
[359] Manning, "Public Confidence…" and McNeil, "When Parents Say No to Child Vaccinations." *New York Times*, 30 November 2002, sec. A, p. 1.
[360] Sarah Bridges, "Reaction: Something Was Wrong With Porter." *Washington Post*, 3 August 2003, sec W., p. 12.
[361] Christina Adams, "Essay: More Than Enough: Stoppage is a Special Word That the Parents of Autistic Kids Understand." *Los Angeles Times*, 27 April 2003, sec. I, p. 9.
[362] Jane Brody, "Vaccines and Autism: Beyond the Fear Factor," *New York Times*, 25 March 2003, sec. F, p. 7.

have different symptoms.[363] Another article discussed soaring measles cases when vaccination rates declined.[364]

In 2002 and 2003, though, several articles chronicle some controversy over an amendment to a homeland security bill that would prevent vaccine makers, including thimerosal manufacturer Eli Lilly, from being sued by people claiming vaccines caused autism in a family member. The issue was eventually settled, with language that still protected the vaccine makers, and with support from the American Academy of Pediatrics.[365] However, this government protection made anti-vaccine campaigners suspicious.

The autism debate went on in the press for two years of the 2002-2007 study period before the CDC's Media Relations staff weighed in. The first press release they produced during this time didn't come until February 2005. It was a release promoting the "Learn the Signs. Act Early" awareness campaign, designed to educate parents about developmental milestones in early childhood, and about how early intervention can greatly ameliorate developmental disabilities.[366] In this release they mentioned the often cited statistic that as many as "1 in 166 children have a condition in the autism spectrum."[367]

This "1 in 166" statistic is often interpreted in the press and in the literature of anti-vaccine or anti-thimerosal advocates as 1 in 166 children having *autism*, whereas the medical community interprets the autism spectrum as covering a vast array of conditions and severities rather than being one disorder. This evokes the frightening idea that 1 out of 166 American

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[363] Ibid.
[364] Brian Lavery, "As Vaccination Rates Decline in Ireland, Cases of Measles Soar," *New York Times*, 8 February 2003, sec. A, p. 5.
[365] Nick Anderson, "Agreement Nears on a Bill to Change Vaccine Liability Law." *Los Angeles Times*, 9 April 2003, sec. A, p. 26.
[366] "CDC Launches 'Learn the Signs. Act Early.' Campaign." 22 February 2005. CDC Office of Enterprise Communication Web site at http://www.cdc.gov/od/oc/media/pressrel/s050222.htm (accessed 7 March 2008).
[367] Ibid.

children are deeply and permanently mentally disabled; thus was the issue framed by the omission of the details. Many members of the press likely lacked the training to understand what the terms meant. However, it indicates both a further need for training, and the responsibility of journalists to question and investigate terms and numbers in health journalism.

Although many researchers and public health officials lament—and are frustrated by—the profusion of nonscientific and anecdotal information used to refute their scientific studies, practicing pediatrician Rahul K. Parikh wrote that the scientific community would do well to learn a lesson from their detractors. Parikh wrote in March 2008 about attending a recent national conference of the American Academy of Pediatrics, particularly one lecture in which ”pediatricians from around the country shared story after story of parents who have refused shots on the basis of what they had seen on *Oprah* (specifically a particular September 2007 episode)[368] and elsewhere in the media.”[369] Parikh said that such stories persist “despite ample research” that debunked the original 1998 article (also retracted) claiming a vaccine-autism link for two main reasons: ineffective communications from the “vaccine defenders” (he names the CDC by way of example) and the compelling emotional appeals made by the proponents of a vaccine-autism link.[370]

Parikh said that many parents interpret the “bureaucratic…and…cautious language” typical of many scientific and government communications, including those on the vaccine-autism issue, as uncertainty and an indication that “the vaccines are not safe at all.”[371] As an

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[368] Actress and author Holly Robinson Peete and actress and *Playboy* playmate Jenny McCarthy appeared on an episode of the *Oprah Winfrey Show* dedicated to autism, and which aired September 18, 2007. On this show they discussed their experiences with and observations of their autistic children.
[369] Rahul K. Parikh, “Fighting for the Reputation of Vaccines: Lessons From American Politics,” *Pediatrics* 121(3): 621-622 (March 2008).
[370] Ibid., 621.
[371] Ibid.

example, he quoted the official CDC statement[372] that Winfrey read to the audience on her autism show. It was, as Parikh said, "reasonable, clear, and…sympathetic to parents of autistic children," but audiences picked up on the "measured tone," which "arouses suspicion and uncertainty among readers."[373] He said the tactic of ignoring the assertions of a vaccine-autism link in an effort to "stay above the fray" or refuse credence to their claims can also backfire, as "such silence…can easily be interpreted as concealing a truth."[374]

By way of finding a better approach, Parikh looked at the work of cognitive psychologist Drew Westin[375] to see what the other camp was doing successfully. "Antivaccine groups are well-organized and passionate," he said, and they use "popular settings" (like *Oprah*) as venues "to make strong emotional appeals."[376] These emotional appeals have been essential to convincing parents of autistic children to join groups in blaming vaccines. He said that "logic and evidence," on which the CDC's autism communicators have been relying, are not as persuasive as powerful emotional appeals, as well as "anecdotes, quips, and resonant campaign ads."[377] Thus, Parikh concluded, "we have had a failure to persuade."[378]

Finally, Parikh suggested an aggressive approach to regaining control of the autism conversation. He said that health and medical research groups, including the CDC[379], needed to "be more potent when arguing as to why vaccines are safe, effective, and necessary."[380] He said they needed to counter emotional appeals with their own emotional appeals, saying, "if

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[372] The CDC's Press Release Archive Web site does not list this statement as having been issued in the form of a press release.
[373] Parikh, 621.
[374] Ibid.
[375] In Drew Weston, *The Political Brain: The Role of Emotion in Deciding the Fate of a Nation* (New York: Public Affairs, 2007).
[376] Ibid., 622.
[377] Ibid.
[378] Ibid.
[379] Parikh is also specifically calling upon the American Academy of Pediatrics and the American Academy of Family Physicians.
[380] Ibid.

opponents to vaccines put a celebrity on *Oprah*, then we need to take out a full-page ad in national newspapers to show parents what a child with tetanus looks like, or air an ad with a parent telling the story of how their child died from…meningitis."[381] Such tactics would be acceptable "if done ethically" because they tell "the truth…that vaccines save lives."[382] He also said that they needed to "craft effective language" to respond to accusations against vaccines, and defend their beliefs and research more strongly because they have the power to make a change.[383]

The language in the CDC autism press releases is scientifically appropriate, but as Parikh stated, also impersonal and bureaucratic. It hardly spoke to an audience that was upset about a very personal, emotional issue. It may have worked for West Nile and listeriosis, in which people were given precautions for prevention, and either treatment advice (listeriosis) or a reasonable assurance of low risk (West Nile), but with the causes unknown and no cure, it didn't work for autism.

A few health journalists whose articles were generally supportive of the scientific position on vaccination provided some fodder for the anti-vaccine camp. *USA Today's* Anita Manning, for instance, wrote several articles that were very supportive of the scientific evidence that vaccines were safe, and repeatedly mentioned the danger to society when people choose not to get vaccinated. On the other hand, she also wrote often of the controversy, thereby proving it newsworthy, and her articles sought balance by including interviews of people in both camps.

2006 Autism Ad in USA Today Sparks CDC Response

The scientific evidence refutes a link between autism and vaccination: "Since 2001, with the exception of some influenza (flu) vaccines, thimerosal is not used as a preservative in

[381] Ibid.
[382] Ibid.
[383] Ibid.

routinely recommended childhood vaccines."[384] However, the groups of people who disagree are very vocal—and in opposition to the CDC's stand.

In 2006, one of these groups accomplished something 2277 articles hadn't been able to do: generate a direct response from the CDC office of media relations. The founders of Generation Rescue,[385] under the name Put Children First, ran a full-page ad[386] in *USA Today*, alleging that the CDC "created an epidemic of autism in America" by requiring children to receive mercury-laden vaccinations, and that the agency was covering up the evidence. The ad asked, via a half-page-high headline, "If you caused a 6,000% increase in autism, wouldn't you try to cover it up, too?" The ad also chided the CDC for not investigating the treatment regimen Generation Rescue's Web sites advocated, and said, "As long as the CDC denies that mercury from vaccines is responsible for this epidemic proper treatment will never be made widely available to the more than one million American children[387] who could be treated today." Other Generation Rescue ads (available on their Web site) ads included messages about children who "recovered from autism."

Unlike all the other autism press releases disseminated by the CDC's media relations staff, this one was empathetic, direct, and firm. The release positively framed the work CDC researchers have done, and continue to do, on autism. The authors of the release framed the quest

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[384] "Mercury and Vaccines (Thimerosal)" CDC Vaccine Safety Web site, 22 October 2007/ Internet; accessed http://www.cdc.gov/vaccinesafety/concerns/thimerosal.htm. [Accessed 21 April 2008].

[385] This is according to the Put Children First Web site at http://www.putchildrenfirst.org/aboutus.html. The site also describes Generation Rescue as "an all-volunteer organization of more than 300 families dedicated to sharing the truth about the cause and treatment of autism." Generation Rescue, according to its Web site at http://generationrescue.org/, also ran different full-page ads in the *New York Times* (two in 2005) and *USA Today* (one in 2005, this one in 2006, and one in early 2008).

[386] "It's Time To Put Our Children First," advertisement appearing in USA Today; sponsored by Put Children First, 6 April 2006. Internet; http://www.putchildrenfirst.org/media/ad.060406.pdf. [Accessed 3 April 2008].

[387] For comparison, the CDC's National Center for Birth Defects and Developmental Disabilities estimates that up to 560,000 people aged 0-21 may have some sort of autism spectrum disorder. (http://www.cdc.gov/ncbddd/autism/faq_prevalence.htm)

for causes and cures for autism as a personal[388] struggle for not only for the families of autistic children, but the researchers as well. They admitted they didn't know all the answers yet and said they had "a long way to go" before they had the "sound, scientifically valid information" they needed. They in turn applied a loss frame to the possibility of reduced vaccination rates, saying that "history has shown that disruptions in vaccine supplies can render the population more vulnerable to diseases we know we can prevent."[389]

The release also did two things that were extremely rare for a CDC press release. First, it directly criticized Put Children First' *USA Today* ad. "We are extremely disappointed," the release said. "The advertisement completely mischaracterizes the efforts of the CDC, the American Academy of Pediatrics, the Institute of Medicine, and others to protect the health and well-being of the nation's children."[390] Second, it was written in first person plural, and was the only release in the sample written in first person at all. This supported the frame of the agency being not faceless, but made up of human beings searching for answers to the same questions as the audience. While the ad accused the CDC of wrongdoing, the CDC release reframed the accusation as being not only against the CDC, but against several other very-well respected health science and medical organizations—so instead of the accusation being against one allegedly corrupt organization, the press release author reframed the issue as being against the consensus of the entire scientific community.

In closing, the release said, "we have to also be careful not to base our health recommendations on unproven hypotheses or fear."[391] What the authors had crafted was a press

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[388] Wallack et al., 103-104.
[389] "CDC Statement regarding autism-related advertisement in USA Today," 6 April 2006. CDC Office of Enterprise Communication Web site at http://www.cdc.gov/od/oc/media/pressrel/s060406.htm. [Accessed 7 March 2008].
[390] Ibid.
[391] Ibid.

release that encouraged empathy for the researchers and refuted the accusations of the advertisement—all without giving Put Children First the "newsworthy" recognition they sought. The CDC release never mentioned the organization's name.

Issues often become issues because of the attention it receives in the press. By that logic, it made sense for the CDC not to distribute numerous press releases denying the claims of those insisting on a causal link between vaccines and autism. The journalists on the side of the pro-vaccine-autism-link camp—whether they took that side out of a desire for balance, oppositional journalism, sincere belief, or a simple need to sell papers—helped them frame the debate as that of a secretive, uncaring government research agency victimizing innocent children. Their use of observational and anecdotal evidence worked because it utilized episodic framing conducive to accepting the emotional appeals of this evidence. On (journal) paper, that approach may make sense, but it's not working on newsprint.

Clearly the scientific community needs to take charge of the way this conversation is framed if they want to regain control and authority over this discussion. They need to shift the debate from the anecdotal frame back to that of the bigger societal picture. They may need to use some emotional appeals straight out of the vaccine-autism-link camp's playbook, but only long enough to widen the frame.

Postscript to the Autism Debate, 2002-2007

The debate over whether vaccines cause autism seems far from over. After years of studies by prestigious medical research organizations continuously refuted any link between the two, a decision by the U.S. Department of Health and Human Services' National Vaccine Injury Compensation program awarded compensation to a family whose daughter, they determined, had suffered neurological damage when a routine series of immunizations aggravated an existing

condition: a rare mitochondrial disorder. This was a drastic departure from the official stance, and it grabbed headlines.

Although this happened outside of the time frame of this study, it is especially noteworthy because it was in direct response to an article—not an ad this time—that appeared in the *Atlanta Journal-Constitution* a week earlier. David Kirby, author of an anti-vaccine book[392], and billed as an "investigative journalist," wrote an opinion piece[393], harshly criticizing the CDC for not making an investigation of the vaccine-autism link a "top priority."[394] He criticized health officials for "commanding parents to settle down and adhere to the nation's rigid immunization regime," suggested that CDC Director Dr. Julie Gerberding was "lying" to the public by saying the girl's genetic disorder and immune reaction to vaccination was an "isolated, unusual case," and called the issue "a national emergency."[395] In his article, Kirby invoked frames of fear, loss, and government corruption and deception.

After 6 years of relative silence on the autism front, despite the vaccine-autism debate raging in the nation's press, the CDC's press organization spoke up on March 28, 2008. Dr. Anne Schuchat, the director of the CDC's National Center for Immunization and Respiratory Diseases and the U. S. Assistant Surgeon General, wrote an article titled "CDC Responds to Questions About Vaccines."[396] This article was posted in the "In The News" section of CDC's media relations Web site, the same section as the press releases.

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[392] David Kirby, *Evidence of Harm: Mercury in Vaccines and the Autism Epidemic: A Medical Controversy*. St. Martin's Griffin: 2006. This book is cited on the Generation Rescue Web site.
[393] David Kirby. Editorial: "Give us answers on vaccines." Atlanta Journal-Constitution, 20 March 2008. Internet, http://www.ajc.com/search/content/opinion/stories/2008/03/20/autismed0320.html. [Accessed 19 April 2008].
[394] Ibid.
[395] Ibid.
[396] Dr. Anne Schuchat. "CDC Responds to Questions About Vaccines," 28 March 2008. Available from CDC Web site at http://www.cdc.gov/news/2008/03/VaccineQuestions.html. [Accessed 6 April 2008].

In the article, Schuchat effectively turned the tables on Kirby. She applied a gain frame in her response, invoking the benefits of vaccines in saving children's lives, in contrast to his loss-framed portrayal of sick people allowing themselves to be taken advantage of. Where he had framed the CDC as a totalitarian "Big Brother" claiming to know what's best for the nation's children, Schuchat placed Kirby in that same frame, by saying "the best source of guidance is the child's health care provider." Where Kirby used the words "rigid" and "adamant" to describe CDC officials and their policy on childhood vaccinations, Schuchat further refuted the totalitarian frame, saying "there are instances when a child should not receive a recommended vaccine," and again recommending consulting with the family's doctor.[397]

[397] Ibid

Conclusions

The CDC during the period under study was the country's—and possibly the world's—leading agency for health communication. When faced with the need to communicate health information to the public, people at the CDC realized they could address their communication needs with the same scientific rigor and research efforts that they applied to diseases and health conditions. As a result, their communications staff continues to hone their ability to effectively reach the public.

The CDC's leaders and press officers stepped up quickly and showed they were in control during the listeriosis outbreak and West Nile Virus cases. They issued frequent press releases containing updates so the public was never left wondering what was going on. More importantly for the purposes of this study, the press was never left to doubt whether CDC's communication staff would provide them with information. The CDC's quick response allowed them to frame these issues as they saw fit. Most importantly for the agency, though, was the ability to portray themselves as the competent experts.

The West Nile and listeriosis releases in this study show the agency to be in control without being controlling. When the CDC first assumed the role of lead health communication organization in the wake of the 2001 anthrax attacks, the agency had to exert itself as being competent and in control. However, CDC and public health culture embraces the value of building coalitions and getting local voices to convey their messages. This is especially important with the autism issue, in which parents have started to distrust the government, or at least harbor frustration at the fact that they don't have answers to offer. The voices of other scientists, community leaders, and health care professionals agreeing with the CDC's opinion certainly strengthen their position. More importantly, in a situation in which it outside of the

CDC's authority to dictate or enforce what they say is the healthy choice (vaccination), they have to work to persuade the public that it's the more attractive option. In cases like these, public relations tactics are the agency's best weapon.

Autism does not manifest itself through outbreaks and vectors, like listeriosis and West Nile virus. The condition doesn't carry the same sense of urgency or breaking news as an acute illness. As such, a constant flow of updates would likely not be an appropriate way to communicate with the press. On the other hand, the CDC was (and is) one of the most visible and best-liked of all of the federal agencies, and it was the one from which people clamored for answers on autism.

The CDC has been a leader in health communication research for almost as long as health communication research has been a field. However, it isn't clear whether they are using this research to craft the messages they deliver via press release in the same manner they would create messaging for a health campaign. For example, Hallahan discussed gain- and loss-framing, and the corresponding risks people are willing to take in response to a message. The research he summarized found that "the prospect of a loss has a far greater impact on decision making than does the prospect of an equivalent gain." This seems to partially explain anxiety over vaccination. However, the research also found that people are willing to take greater risks if it "means saving a life or reducing suffering."[398] With that knowledge, CDC could frame vaccination debate using the concept of herd immunity. The risk of injury from a vaccine may seem less great when compared with the risk of causing illness, death, and suffering in others by passing along an otherwise preventable disease.

The vaccine-autism debate has much larger implications than simply proving which side is right. It is part of the ongoing debate over whether U.S. health policy will be decided by faith

[398] Hallahan, 214.

or science, and it is part of the debate—as old as the United States itself—over how much power the federal government has over individual citizens. More immediate, however, are the implications for the nation's health if a critical mass of U.S. parents no longer view vaccination as essential, and the herd immunity the country has enjoyed for the past several decades degrades to the point that very young children, the elderly, and other immunocompromised people are no longer protected. (This is especially important when increasing international travel and emigration continue to import vaccine-preventable diseases.) Additionally, as some vaccination proponents are quick to point out, if the bulk of research funding and public attention are focused on proving or disproving this one cause (which they see as already disproven), that diverts resources away from finding "real" causes and treatments.

Parikh's recommendations would also help CDC staff with another framing problem they have had with vaccine communication. Parikh suggested countering the emotional, loss-framed messages of vaccine opponents with emotional, loss-framed messages of their own: he said they should counter opponents' images of autistic children that accompany claims of a scientifically-unproven causal relationship with vaccination with images of children with tetanus and other vaccine-preventable diseases. [399] Colgrove and Bayer wrote of the press successfully changing the focus of the debate by publishing stories on children disabled by vaccine-preventable diseases.[400] The emotional content would not come from episodic framing, with the anecdotal evidence of one autistic child's story, but from thematic framing, with the image of one child, sick with a vaccine-preventable disease, chosen to represent the millions of deaths and disabilities prevented worldwide by universal vaccination campaigns.

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[399] Parikh, 621-622.
[400] Colgrove and Bayer, 733.

While newspapers and CDC press releases both exhorted people during the listeriosis outbreak to protect themselves by thoroughly heating pre-cooked meat products, and while certain individuals in USDA leadership were implicated for corruption (e.g., ignoring warnings, performing inadequate inspections), one of the big discoveries through the course of that outbreak was the fact that the system itself was flawed—it was shown to be inadequate to protect consumers. Likewise, the discovery that West Nile virus was transmissible via organ transplant and blood transfusion was not construed as a problem of individual responsibility either. It was largely positioned as a systemic issue: that the U.S. does not have any way in place, nor is it necessarily possible or feasible, to screen blood or donated organs for some deadly diseases, including West Nile. The organ donor likely contracted the disease after she was already in a coma, and from a blood transfusion, so even the patient representing the index case was herself a victim of the same problems as the subsequent victims.

The coverage of autism, on the other hand, featured heavy use of episodic framing. There were numerous personal stories about angry, frustrated parents and their struggles as they cope with having an autistic child. Many stories featured activists and parents citing anecdotal evidence; some blamed the government, the NIH, or the CDC. The episodic framing made it possible to look at other “small-picture” frames that otherwise may not have been able to find footing. Notably, value frames positioning the debate as both faith vs. science and personal autonomy vs. big government were especially effective.

Why was the coverage of autism different? Autism is a complex condition applied to a broad array of symptoms. The cause is unknown. The vaccine-specific part of the debate has continued in the British and American press for over a decade. Perhaps the reporters covering autism, like those who covered the anthrax attacks in 2001, resorted to non-expert sources to

satisfy their readership's appetite for new information and fresh angles. Or perhaps, also like the reporters covering the anthrax attacks, they used these sources because of a dearth of information coming from the official sources. By comparison, the listeriosis and West Nile issues were characterized by an acute onset of an outbreak of an acute disease. When the press releases and other new information from public health agencies stopped flowing, the story—or at least the current incidence of the immediate threat—was over.

Could the CDC have exerted more influence over the public debate over autism? Like questions about the causes of autism, that is difficult to answer. The debate over autism remained active over the course of the study period (2002-2007), and the public wanted to hear news about it, but relatively few scientific breakthroughs and new information about autism was released—or at least, the information that was released did not herald the cause and cure the public hoped the scientific community would find.

Framing and agenda-setting theories aver that the media decides what becomes "news" by covering it as news, and that their coverage alone is adequate to make an issue "newsworthy." Likewise, many stories that should have otherwise been important were ignored by the public because the press didn't appear to have deemed them newsworthy.[401] It was as if CDC's leadership was applying agenda-setting theory—if they didn't address the issue on a regular basis, the issue would eventually fade away.

As much as the CDC's response to the *USA Today* ad was warranted, and probably needed, the fact that this one ad drove them to react in such a fashion, when no other amount of accusations, protest, outcry, and even bad science had been able to, inadvertently gave credence to what otherwise could have been framed as a tiny fringe group with an irrational bone to pick.

[401] An example might be a chain of corporate media outlets giving no coverage to the controversy over media consolidation; not necessarily because the issue is unimportant, but because it serves the interest of the parent company to divert attention away from the potential impact of consolidation.

With the exception of the response to the 2006 *USA Today* ad, all of the releases pertained to awareness, risk factors, and announcing research and partnerships. This indicates that the CDC's strategy was to refrain from making press releases unless there was some new information to announce. This makes sense from a scientific standpoint, but the downside of this for the CDC is that this silence allowed the agency's accusers to frame the debate as a big, heartless government infringing on the rights, health, and safety of the victimized individual.

From this study, it appears that the CDC has the most success garnering favorable coverage when they keep the public informed. Factual, informative press releases were issued frequently during the listeriosis outbreak and the West Nile organ transplant scare. The public and the press wanted information on these health issues, and the CDC provided it. With the West Nile/organ transplant case, Dr. Gerberding seemed quite capable of giving the impression the investigation was under control despite the fact that they didn't know what was going on at first, and what they suspected actually sounded like something out of a horror movie. As a result, the press framed the CDC in a generally positive light, as being an active partner in working for public health.

With the Autism debate, the CDC's lack of public attention to autism (at least compared to the attention the press was giving it) inadvertently framed the autism debate as either unimportant or inappropriate for the public sphere and to the U.S. government. Once CDC autism researchers and communication staff saw the vigor (and lack of scientific rigor) with which this issue came to be debated in the press, they would have almost certainly benefited had they responded with a similar level of vigor. A crisis-communication-style response, with CDC spokespeople listening to members of the public and addressing their fears and concerns would have quieted the anti-vaccine sentiment. It is likely that if CDC scientists and health

communicators had been more active, rather than reactive, in their response, even with their empathy, it could have soothed the anger of a small but vocal public. It is not too late to start down this path.

Positive framing tactics would also be helpful in addressing the autism debate. Wallack et al. wrote that "emphasizing the positive is a common tactic in framing contests."[402] Although autism is a devastating condition with no known cure or cause, there are still positive things that the CDC's media relations staff can say about the subject of autism. The anti-vaccine activists and their negative/loss frames could be contested with positive ones talking about the research CDC's scientists are doing, the research CDC is funding, and the groups with which the agency is collaborating. As was mentioned in the previous section, the millions of lives saved and disabling diseases prevented through vaccination is easy to show in a positive frame.

The truth is that the autism issue was a very complex and touchy subject, and it would have been difficult for any non-activist organization to emerge from it unscathed. The CDC's autism research leadership and media relations staff did what they thought was the right thing to do in responding to the issue. West Nile and listeriosis were handled well and professionally. The fact that they were comparatively short health episodes helped the CDC's leadership and media relations staff maintain interest with the press and the public until the outbreaks were over, but their relationship with, and efforts to reach, the press should not be discounted. The volumes of communication research their employees and contractors are now doing, the widespread sharing of lessons learned through their free journals, and recognition of their past successes practically ensures that they will continue to succeed in their mission to improve the world's health. Certainly there are always mistakes to be made, but they appear to have the knowledge, skills, and dedication to ensure they learn from their lessons.

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[402] Wallack et al., 71.

Reporters make decisions that frame news and set agendas. To some degree, they decide what is going to be covered, and how it will be covered. This being the case, perhaps the CDC could use framing theory to help position their press releases to resonate with the press.

Journalists have needs that effective press releases must meet. Journalists seek to provide balance (often in the form of multiple viewpoints), readership (which drives revenue for their newspapers), and information. In order to address these needs, CDC Media Relations should consider some tips from the corporate PR playbook. Lordan wrote about the blurred lines between the jobs of public relations professionals and journalists. He maintained that it was essential that the two remain separated, to maintain the credibility of both[403], but the areas of overlap he mentioned are helpful. Lordan said that both fields use similar tools, methods, and jargon, and work under the same kinds of deadlines.[404] The CDC's PR staff could use this common ground, in addition to a shared interest in public health, to anticipate the needs of journalists better. They could be more active in writing releases with tempting or interesting story lines or angles, and they could provide the kind of background information that lends itself to thematic rather than episodic framing.

They should also learn from the successes of their opponents, who have used emotional frames to evoke panic, fear, and the sense that "big government" is increasingly intruding into people's lives. The literature shows that episodic framing and going for the easy emotional appeal is "bad" journalism from the standpoint that it misrepresents the actual situation and neglects the context and underlying causes of an issue, but "good" journalism in the sense that it engages the reader and sells newspapers.

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[403] Lordan, 41-43.
[404] Ibid.

It would be irresponsible—and counterproductive—for a government agency in a democratic country to use deliberate fear appeals and emotional framing to garner press coverage in most situations. For example, it was in the best interest of the CDC, and the cause of public health in general, to not incite fear or frame emotionally in the case of the West Nile virus transmission through organ transplants, because doing so would cause further, unnecessary risk to public health. The agency's communication personnel kept reporters and the public continually informed of the unfolding situation as well as the best ways to prevent West Nile virus, hoping to minimize the amount of panic over any potential risk to the blood or organ supply, or to the risk to recipients of donated blood or organs. If people had been afraid to donate blood or receive life-saving blood or transplants, the public health impact would have been far greater than that of the four people who contracted West Nile through their transplants. In this case, thematic framing served best for everyone involved.

The approach needs to be tailored to the situation. The framing that worked for the West Nile virus/organ transplant issue wouldn't have worked as well for the 2002 listeriosis outbreak. The listeriosis outbreak carried a higher risk of illness for the general public; only a relative few people need organ transplants, but everyone has to eat. The message had to be compelling enough to communicate the necessary prevention message. And while the unfolding investigation of the corrupt meat industry made for compelling news, CDC staff had to be careful not to get into legal trouble implicating Pilgrim's Pride or step on the toes of their fellow government employees at the USDA.

The press releases for West Nile and listeriosis showed that CDC communication staff have embraced the lessons learned about risk and crisis communication during and after the 2001 anthrax attacks. However, with the exception of the response to the 2006 *USA Today* ad, those

lessons did not appear to have been applied in the case of the autism releases. Autism was treated as a just another ongoing research subject (albeit a particularly frustrating one), but to the effected population, it is every bit as stressful and frightening as the anthrax attacks. As was seen in the wide variety of coverage and angles in the autism newspaper stories, people want answers. Absent those answers, people want assurance that the government is trying their best to help them.

Professionals from all over the CDC engage in innumerable purposeful health communications efforts. The CDC has participates in many effective nationwide, multi-year campaigns with large budgets aimed at getting people to perform an action (e.g., VERB: It's What You Do[405], a campaign to encourage physical activity in tweens), educate themselves (e.g., Get Smart: Know When Antibiotics Work[406]), screen for diseases and conditions (e.g., Learn the Signs: Act Early, a campaign to help parents recognize the signs of developmental delays and begin intervening as early as possible[407]), or engage in a preventive behavior (e.g., Choose Your Cover[408], a skin cancer prevention campaign). In 2004 the agency created the National Center for Health Marketing, which takes proven theories and methods of developing, pricing, and selling products and bad behaviors and uses them to market and "sell" health behaviors.

CDC Media Relations staff should consider taking the same careful, assertive approach to its press releases. Certainly, as in the case of the West Nile virus and listeriosis outbreaks studied here, press releases are often written under the same sorts of tight deadlines and limited flows of information that newspaper reporters experience. However, with ongoing issues like autism, the

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[405] http://www.cdc.gov/youthcampaign/
[406] http://www.cdc.gov/drugresistance/community/campaign_materials.htm
[407] http://www.cdc.gov/ncbddd/autism/actearly/
[408] http://www.cdc.gov/cancer/skin/chooseyourcover/

CDC as a whole and its image would likely benefit from a more aggressive PR effort, whether as a stand-alone campaign or as part of a larger campaign.

Limitations

The CDC proved to be a difficult subject at times in that it was often impossible to determine who was responsible for any given communication decision, policy, or piece. As a government agency with 16,000 employees and contractors, and with many of the hundreds of teams, branches, and divisions within the agency having their own communication personnel in addition to the main Office of Communication (under which the Office of Media Relations operates) and the separate National Center for Health Marketing, communication can come from many different sources within the CDC. Furthermore, scientists and researchers beyond a certain career level (typically GS-13) are often called upon to give quotable interviews to the press, while communications staff, including authors of press releases, do not receive attribution. Complicating these matters is the fact that the CDC is a bureaucracy within a bureaucracy—CDC staff are expected to speak with one voice, and they are part of an administration that encourages all its leaders to also speak with one voice. All of these factors make it difficult, if not impossible, to tell who is responsible for any decision or action regarding CDC communication.

Areas For Future Research

Questions remain about why CDC's communications staff didn't choose to address the autism debate in a more aggressive manner. One question that would benefit from additional research is whether Bush administration policies influenced the CDC's communication staff and autism researchers not to actively fight vaccine opponents who threatened the viability of the U.S. vaccination program with beliefs based on anecdotal evidence. President George W. Bush

created the White House Office of Faith-Based and Community Initiative in 2001 to encourage involvement of faith-based organizations in public health; in 2002 he issued the President's Management Agenda which supported public funding of these organizations.[409] Vaccine opponents often use religious exemptions to support their nonscientific beliefs about a vaccine-autism link in order to prevent their own children from being vaccinated. The existing literature that could serve as a foundation for this research includes discussions of the Bush administration's desire to have tight control over scientific communication[410] and public health communication[411], of their desire to silence and/or censor the voices of science[412], and of the potential implications of this administration's initiative to lessen the separation of church and state by promoting government funding of faith-based initiatives.[413]

Another area for future research would be to determine whether public health coverage experienced a framing shift over the past decade and a half. Writing in 1993, Wallack et al. said that health issues are usually framed as individual responsibility, to the exclusion of implicating systemic problems.[414] While that is certainly true for lifestyle-related conditions (as the authors said) like obesity and type 2 diabetes, this seems less true for the coverage of listeriosis and West Nile Virus cases used in this study. An interesting future study might be one to determine

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[409] Executive Office of the President and U.S. Office of Management and Budget. *The President's Management Agenda*. FY 2002. http://www.whitehouse.gov/omb/budget/fy2002/mgmt.pdf (accessed 4 June 2008).
[410] G. David Garson, "Patriotic Information Systems: Evaluating Bush Administration Information Policy," *Social Science Computer Review* 23 (2005): 395-399. Also Maurie J. Cohen, "George W. Bush and the Environmental Protection Agency: A Midterm Appraisal," *Society and Natural Resources* 17 (2004) 69-99.
[411] Winett and Lawrence, 20.
[412] Joel D. Aberbach, "The Political Significance of the George W. Bush Administration," *Social Policy & Administration* 39:2 (2005): 135-140. Also Gerald Markowitz and David Rosner, "Politicizing Science: The Case of the Bush Administration's Influence on the Lead Advisory Panel at the Centers for Disease Control," *Journal of Public Health Policy* 24:2 (2005): 105-129. Also Cohen, 72-74.
[413] Ronald J. Hrebenar, review in *Political Science Quarterly* of Jo Renee Formicola, Mary C. Segers, and Paul Weber, *Faith-Based Initiatives and the Bush Administration: The Good, the Bad, and the Ugly*, Latham, MD: Rowman & Littlefield Publishers, Inc., 2003.
[414] Wallack et al., 68-70.

whether this is because of the peculiarities of these particular issues, or if this is a result of a shift in framing behavior. The public has become much more aware of public health activities, policies, and infrastructure since the 2001 anthrax attacks, and that could have an effect on framing trends in public health issues.

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