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Effective Strategies to Persuade the Public to Accept Risks

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Abstract

My goal was to determine effective strategies to persuade the public to accept perceived risks. I accomplished this by reviewing literature regarding public relations and risk communications strategies and relating them to a case study comparing a successful and an unsuccessful attempt to persuade public opinion. My findings showed most of the strategies do work in real life situations. I concluded, an organization should be persistent, know their audience well, and should be positively portrayed in local newspapers.

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Chapter 1-Introduction

This Interactive Qualifying Project (IQP) began as a collaborative effort to determine why Europeans refused to use genetically modified foods and how this negative public opinion of genetically modified foods could be altered. While in Europe my objective was to analyze successful and unsuccessful attempts made by European organizations to persuade the public to accept perceived risks. My inability to travel to Europe forced the objective to be altered; however, the projects goal remained the same.

The goal of this project was to determine effective strategies used to persuade the general public to accept a perceived risk. I began by reviewing the literature about public relations and risk communications, two management practices used by organizations to convey messages to the public. Upon finishing the literature review I tested the applicability of the theories to a real life situation to determine the most effective strategies and to determine other strategies that might not have been mentioned in the literature.

The objectives of this project are as follows:

- Identify strategies in risk communication and public relations used to persuade the public to accept a perceived risk.
- Compare these strategies to a real life situation of public relations and risk communication. This comparison was done using a case study of the fluoridation referenda in Worcester, Massachusetts, and Wayland, Massachusetts.

- Evaluate why the proponents of fluoridation were either successful or unsuccessful in their attempt to persuade public sentiment.
- Draw conclusions and make recommendations for effective strategies to persuade the public to accept perceived risks.

Chapter 2-Literature Review

This chapter explores the theories regarding risk communications and public relations and determines the differences between them. This chapter also discusses the ethical constraints of an organization attempting to persuade public opinion.

2.1 Risk Communication

Regina Lundgren, a risk communication expert, states that the practice of risk communication is very complex (Lundgren, 1994, p.1). There is no concrete definition of what exactly it is or how it is carried out because it is applied circumstantially. However, there are some characteristics about risk communication upon which experts unanimously agree. The goal of risk communication, regardless of its application, is to release information about a risk to the intended audience in order to "motivate to action and inform" (Lundgren, 1994, p.2). Although, many experts debate whether it is ethical to withhold certain information from the audience in order to persuade them to particular actions. Experts also agree that risk communication is wide ranging, meaning its audience can consist of all ages and backgrounds (Lundgren, 1994, 2), and is part of people's every day life. Lastly, experts agree that risk communications, because it is circumstantial, has many different approaches.

2.1.1 Lundgren's Three Categories of Risk Communication

According to Lundgren (1994, p.4), there exist three categories of risk communication. The first is *care communication.* This category of risk communication deals with articulating health and safety risks to the public. In this category Lundgren believes opponents and proponents of a risk are well determined and are supported with scientific evidence. A situation representative of Lundgren's category of *care communication* is the act of smoking cigarettes. Scientific research exists that proves smoking increases the risk of disease and death. Health officials' efforts to communicate these scientific findings are examples of *care communication*.

According to Lundgren's theory, the second category of risk communication is *crisis communication* (Lundgren, 1994, p.4). This category of risk communication presents to the public extreme sudden danger. Lundgren believes the communicator must keep in touch with the concerned public before, during, and after an accident has occurred. An example of *crisis communication* is when government officials recommend precautionary measures for citizens before a hurricane or after an earthquake occurs.

The third and final category of risk communication according to Lundgren (1994, p. 4) is *consensus communication*. *Consensus communication* informs and encourages proponents and opponents to work together to manage or prevent risk. According to Lundgren, this form of risk communication should be implemented in public debates as well as in stakeholder negotiations during a risk management process.

2.1.2 Lundgren's Assessment of approaches for Communicating Risk

Lundgren believes (1994, p.11) that not all risks within the care, crisis, and consensus categories can be effectively communicated with the same approach. No single approach of risk communication can be applied effectively to all purposes, audiences, and situations. Even though situations could be placed within the same category of risk communication, they would not necessarily call for the same approach. Regina Lundgren calculates the applicability of each popular approach of risk communication to her three categories of risk communication. The popular methods are as follows:

- The National Research Council's (NRC) Approach
- Mental Models Approach
- Convergence Communication Approach
- Hazard Plus Outrage Approach
- Crisis Communication Approach
- Three Challenge Approach

The National Research Council Approach

The National Research Council (NRC) convened in 1989 to discuss a "new prospective" of risk communication and how to implement that perspective because they felt the current practices of risk communications were being incorrectly used and ethics were being compromised (NRC, 1989, p.1). They began by formulating a definition of risk communication. The NRC determined the basic definition of risk communication was the exchange of information between groups (NRC, 1989, p.2). Success in the field, according to the NRC, was to raise the level of public understanding regarding a perceived risk. Success did not mean that the intended audience accepted the views of the communicator because, according to the Council, using risks communication to persuade in unethical. Nevertheless, the NRC believed too many communicators had begun to use risk communication as a persuasive device.

In the late 1980s, the NRC developed "new perspectives" of risk communication in order to correct these problems. One such "new perspective" was the NRC's suggestion that communicators shape their approach to the intended audience and remaining open and honest with the audience rather than trying to persuade it (NRC, 1989, p.9). More specifically the NRC recommended accepting and disclosing the existence of unknowns and uncertainties that exist within a given risk (NRC, 1989, p.12). The NRC also suggested communicators properly use a method referred to as *comparing risks*. This method compares the severity of the present risk with a previously accepted one. The NRC warns that *comparing risks* has been used in the past too frequently as the primary method by communicators. According to the NRC it should not be the primary method. The NRC warns that the audience could feel misled and that the communicators are belittling their concerns if the *comparing risks* method is used too frequently in a risk communications campaign.

Mental Models Approach

The theory of mental models is an explanation of people's response to viewing particular objects and actions (Williams et al, 1983, p.133). It is a collection of connected autonomous objects (see Glossary). Each autonomous object has a set of rules, which dictates a person's behavior to an object or action. Professor Donald Norman (1988, p.12) explains mental models as being simply, "what people really have in their heads and what guides their use of things."

Professors Morgan, Fischhoff, Bostrom, Lave, and Atman have applied the theory of mental models to risk communications with a four-step approach (Morgan et al, 1992, p.2051). The first step is obtaining the public's knowledge of a risk through an open-ended procedure. The authors describe their first step by using an example of an interview question they asked a member of the general public when they conducted an exploratory study on expert influence on the public regarding the health effects of radon. Their first question to the interviewee was: "Tell me about radon." An opened-ended procedure, according to the authors, minimizes the researcher's perspective and bias on the respondent resulting in the respondent's true knowledge and opinion. The second step is developing questionnaires designed to discover why the respondents have supported their beliefs. The third step of the authors' four-step approach to risk communication is the development of communications (Morgan et al, 1992, p.2053). These communications can alter the audience's mental model of a risk by adding, deleting, replacing, generalizing and refining the audience's beliefs. The final step, according to the authors, is testing the methods of communication on a sample of the audience. This strategy parallels the mental models theory because it tries to explain a new risk through the biased information that the audience already believes about the new risk.

Convergence Communications Approach

Everett & Rogers, a risk communication firm, has developed and implemented the convergence model of communication into its strategies (Lundgren, 1994, p.14). This model of communication has been in existence and has been practiced for the past century (Rogers & Kincaid, 1981, p.44). It is attributed to the philosopher Charles

Sanders Pierce and was developed by Pierce in 1868 (Pierce, 1868, p.4). His theory of convergence stated that the combination of different perspectives leads to the truth. According to Rogers and Kincaid (1981, p.66) the convergence model of communication can be applied to risk communication through cycles of information-exchange. These information-exchanges are between two or more organizations that seek tolerance and acceptance of an argument. Rogers and Kincaid believe this theory is imperative in risk communications. Based on Pierce's theory, Rogers and Kincaid believe opposing sides in risk communications should submit all information to each other during converging communications. By doing this there is a mutual agreement, a consensus, which both sides will be more willing to agree.

Hazards Plus Outrage Approach

Another popular approach to risk communication is Peter Sandman's theory (Lundgren, 1994, p.15). According to Peter Sandman, risk is the summation of "hazard" and "outrage" (Sandman, 1987, p.21). He believes risk communication has been ineffective in some cases because there is no standard definition for it. "Risk = Hazard + Outrage," (see Glossary) according to Sandman, can serve as a basis for effective risk communication because it prioritizes the relationship between expert opinion and public sentiment. Sandman believes that the public pays too little attention to "hazard," while experts pay no attention to "outrage" (Sandman, 1987, p.22). For effective risk communications Sandman suggests an equal summation of "outrage" and "hazard". On one hand, Sandman suggests that risk communicators must implement more "outrage" into their communication of serious "hazards". In contrast, Sandman suggests for modest "hazards" communicators should implement less "outrage" in their strategies. Sandman suggests implementing different degrees of outrage into risk communications because the public responds more to “outrage”.

Crisis Communication Approach

According to Lundgren, the crisis communication approach requires an organization to adopt a powerful image in the eyes of the public (Lundgren, 1994, p.13). In this type of risk communication the audience seeks the communicator’s expertise on the perceived risk (Lundgren, 1994, p.13). This approach uses communication to move the audience to appreciate the action or actions that the communicator has performed. According to Lundgren, in an effective crisis communication approach the communicator convinces the audience that they know the proper strategies needed to evaluate and manage the perceived risk. A firm, “we know what is best” (Lundgren, 1994, p.13) mentality is used by the communicator using this approach.

Although Marion Pinsdorf (1999, p.79) agrees that communicators should be firm in crisis communications, he adds, that there are more strategies that should be followed. First, he advises organizations to expect the unexpected. According to Pinsdorf, companies should plan for defeats, not just successes. Secondly, he advises organizations to be willing to spend a substantial amount of money to fix the crisis, not just cover it up. Pinsdorf gives the example of the Tylenol crisis in the 1980s, in which he says, the crisis was handled successfully because Johnson & Johnson, the company that owns Tylenol, was willing to spend millions of dollars to fix the problem by recalling all of its capsules. Lastly, Pinsdorf (1999, p.279) advises organizations to communicate to the public through one speaker. According to Pinsdorf communicating through one speaker will reduce the possibility of an organization contradicting itself and reduce rumors in the media.

The Three-Challenge Approach

According to Lundgren, the three-challenge approach uses a set of challenges that must be overcome to effectively communicate risk (Lundgren, 1994, p.14). The three challenges are the knowledge challenge, the process challenge, and the communications skills challenge (see Glossary). In order to overcome the knowledge challenge the audience needs to be able to understand the technical information surrounding the risk assessment. To overcome the second challenge, the process challenge, an audience needs to feel involved in the risk management process. They must feel that their suggestions about controlling the risk are valid and warranted by the communicator. A system in which the audience is able to communicate these ideas to the organization is important to establish immediately. According to Lundgren, to overcome the third challenge, the communications skills challenge, the audience of the perceived risk and those who are communicating the risk need to be able to communicate effectively and clearly. If miscommunications occur, even at a minimal occurrence, problems can ensue.

The table below (Table 1) is a final tabulation of each approach to risk communication according to Lundgren. It rates the applicability of each of the six approaches to the three categories of risk communication created by Lundgren (Lundgren, 1994, p.18). The scale is set with 0 being non-applicable and 5 being the most applicable.

Approaches	Care	Consensus	Crisis
National Research Council's Method	3	5	2
Mental Models Approach	4	4	2
Convergence Communication Approach	3	5	1
Hazard Plus Outrage Approach	4	5	5
Crisis Communication Approach	0	0	4
Three Challenge Approach	5	5	5

Table 1: The applicability of approaches to risk communication
Source: Lundgren, 1994, p. 18

Brian Delaney, Senior Vice President of Clarke & Company Public Relations, explains his own approach to risk communication, which presents some different ideas from Lundgren's selections. His approach to risk communication is based on several themes of risk and public opinion (Delaney, 1991, p.10). Delaney states that bad news sells, and it attracts viewers and readers. Secondly, those who are first to communicate have a greater chance of casting an event to suit their particular needs or goals. When an organization communicates first it forces the organization's opposition to react and defend itself, rather than lead. Lastly, according to Delaney, success in risk communication is reached when the public no longer remembers or considers the risk.

2.1.3 Where Risk Communications Usually Stumble

Lawrence Susskind, the director of MIT-Harvard Public Disputes Program, and Patrick Field describe elements that make communicating risk so difficult (Susskind & Field, 1996, p.108). Besides risk being so diverse, Susskind and Field believe the feeling of *anger* that comes with the public's perception of risk also makes risk communication difficult. Susskind and Field believe that in most cases an organization is in such haste to insure that a risk is negligible that it loses focus on the anger that the public is feeling. They believe that this anger is created through the public's uncertainty, its fear of the unknown. If the communicator does not address the public's fear, anger begins to grow.

According to Susskind and Field, lack of credibility affects risk communication (Susskind & Field, 1996, p.116). The National Research Council (NRC) has presented several ideas that communicators should take into consideration when creating or stabilizing credibility with their public (NRC, 1989, p.7). First, the risk communicators must not be seen as advocating. They must release *all* pertinent information known at that time. Secondly, risk communicators must avoid deceit or misrepresentation. Failure to effectively do so will result in the public's uncertainty of the communicator and their sources. Lastly according to the NRC, risk communicators cannot contradict themselves. The public will lose trust and its patience if it is given contradictory statements.

Confusing language will also complicate risk communication. Information must be presented in the simplest of terms (Susskind & Field, 1996, p. 116). Risk communicators cannot use language that is beyond their audience's understanding. Susskind and Field also feel a condescending tone of risk communication must be avoided as well.

The lack of accessible information for the public, according to Susskind and Field (1996, p.116), will have a negative effect on a risk communications campaign. Closed-door meetings between management and researchers, for example, they say, must be cut down to a minimum or be completely dismissed because if the public believes information is being kept from them, they tend to assume the worst.

Regina Lundgren (1994, p.29) adds one more aspect in which risk communication has the possibility of failure. Lundgren feels that organizational constraints can make risk communication difficult for the communicator. For example, the organization that the communicator works for can sometimes complicate the procedures of the risk communicator by not providing adequate resources. These resources may be funding, staff, equipment, or space for the job at hand. Lundgren also believes that many companies put an over abundance of resources into the analysis of a risk (Lundgren, 1994, p.30). For example, Lundgren says that when it comes time to communicate the final analysis of a risk an organization often realizes its resources are at a minimum. The organization is then forced to cut back on articulating its findings in an effective manner. The NRC agrees with Lundgren's statement (NRC, 1989, p.3) about resources available to a risk communicator.

Lundgren also states, that risk communicators are sometimes plagued with insufficient information from the organization to adequately plan and set schedules (Lundgren, 1994, p. 32). The communicator's plan must be finalized as soon as possible so there is no delay in the release of the information. A communicator's plan must be flexible and realistic and above all it should take into consideration any possible delays. Lundgren believes if the plan is delayed the public may lose trust in the organization's message and become suspicious as to why the information was released later than expected. Lundgren suggests that to ensure a prompt release time a risk communicator should research legal requirements, organizational requirements, scientific processes, ongoing activities within the organization, and audience needs.

Lundgren's last reason how organizational constraints can make risk communications difficult for the communicator is conflicting organizational requirements (Lundgren, 1994, p.31). If an organization has policies that conflict with the goals of the risk communicator, then the risk communication process may fail. Lundgren provides the example of the relationship between the risk communicator and an organization's public relations department. According to Lundgren, many organizations do not allow information to be released to the public without sending the information through their public affairs department. The organization's public affairs department then reviews the information presented by the risk communicator and allows only biased information, which supports the organization, to reach the pubic. The National Research Council (NRC) agrees with Lundgren's claim that sometimes an organization's requirements conflict with the risk communicator. The Council adds that conflict with an organization's expectations of a risk communications campaign creates conflict as well (NRC, 1989, p.3). The NRC believes too many organizations expect risk communications always to reduce conflicts surrounding a risk. According to the NRC, all people have different agendas and beliefs. Because of this diversity conflicts are unavoidable and difficult to reduce. There is no guarantee that risk communication always can reduce conflicts; however, organizations continue to expect risk communication to do so according to the NRC.

In conclusion, risk communications is a very diverse practice because there exists a discrepancy between experts about the goal of risk communications. This discrepancy is based on whether to persuade the public or inform the public about a given risk. It seems, in order to persuade the public a communicator must release certain information, not all of it. In order to inform the public, it seems a communicator must release all pertinent information. No biases and manipulation can exist if the goal of risk communication is to inform the public. The debate over the goal of risk communications has become more than a debate. It has become a question of ethics, which will be discussed later in my literature review.

2.2 Public Relations

Similar to risk communications, there are different strategies in exercising public relations. This section of my literature review will examine those different strategies and will conclude with the discrepancies, if any, among them.

2.2.1 Grunig's Strategies of Public Relations

According to Grunig (Grunig, 1994, p. 4), there are four kinds of public relation strategies. Deciding on the proper method depends on the desired effect of the campaign and the intended audience. The first strategy is known as *press agentr*y. This is Grunig's most basic and cost-efficient public relations strategy. Its main objective is to accrue positive publicity for a cause or organization through mass media. This is

Grunig's most aggressive and one-sided method of public relations because it does not take into consideration the type of public for which it is intended. Grunig believes this method is used simply to get the organization's name out into the public. An example presented by Grunig of this strategy is a company-sponsored event. The company with such an event does not release any information to the public. The public becomes familiarized with the organization in name alone, according to Grunig. Those who attend the event see the organization's name and nothing else. *Press agentry*, according to Grunig, is a visual display aimed at attracting the public's attention.

Grunig's second strategy also functions as a one-sided method of public relations. This strategy is referred to as *public information* (Grunig, 1994, p.4). Its objective is the same as *press agentry*, but it goes about reaching its goal in a different manner. This method looks to accrue positive publicity through mass media by using the release of selective information about the issue or organization. Grunig gives a TV commercial as an example of public information. The use of a commercial draws the public's attention to the existence of an organization and it releases given information about that organization. Grunig points out that these first two strategies do not change the organization. These strategies make it look better in the eyes of the public.

The third public relations strategy is called *two-way asymmetric* according to Grunig (1994, p.5). In this method, the company markets its ideas to a specific demographic. The company needs to research the strategies to which an audience will respond and what means of communication will effectively reach the given audience. For instance, fluoridation campaign for Wayland citizens may not be the same for the citizens of Worcester because they are two different cultures. With this strategy the company is taking the audience into consideration and altering its public relations campaign.

Grunig's fourth strategy of public relations is known as *two-way symmetric* (Grunig, 1994, p.5). This method is used when a conflict has arisen, and calls for negotiations and compromise between the organization and its opposition. This strategy suggests that the organization learn more about its audience and communicate directly with the audience. This strategy, according to Grunig, calls for the information gathered by the company from the public to be a basis for change within the company. Grunig believes major changes should occur in the daily management of an organization as a result from this type of public relations strategy. Grunig points out that the two latter strategies are the exact opposite of the first two. In the latter two strategies the structure of the organization and its actions are altered. These alterations are based on the organization's audience and what it learns from that audience.

2.2.2 The Mutual Gains Approach

Besides evaluating issues that cripple risk communications, Lawrence Susskind and Patrick Field also (1996, p.9) believe there are flaws in current public relations techniques. They argue that companies practice six non-productive public relations strategies. These strategies are as follow: *stonewalling*, *whitewashing*, *smoke screening*, *presenting a false front*, *blocking and blaming*, and *slash and burn* (see Glossary). All of these ideas, according to Susskind and Field, relate to the corporation refusing responsibility for its actions. The corporation attempts to deflect blame and lessen the severity of its wrong doings, or actions that the public perceives as wrong doings.

Susskind and Field (1996, p.13) created a strategy for improving public relations campaigns, which they named the Mutual Gains Approach. The approach suggests six objectives that public relations campaigns should follow:

1) Acknowledge the concerns of the other side.
2) Encourage joint fact-finding.
3) Offer contingent commitments to minimize impacts if they do occur, and promise to compensate knowable but unintended impacts.
4) Accept responsibility, admit mistakes, and share power.
5) Act in a trustworthy fashion at all times.
6) Focus on building long-term relationships.

Source: (Susskind & Field, 1996, p.13)

Susskind and Field's (1996, p.76) theory seems to mirror the Convergence Communication Approach of risk communications. Both theories suggest opponents work together to reach a goal, which can be agreed upon by both sides. The Mutual Gains Approach is also a trust building, all-inclusive strategy of public relations, which places communication with the general public as the utmost priority. The Mutual Gains Approach seems to be categorized as a *two-way symmetric* strategy, based on Grunig's theory of public relations.

2.2.3 Dr. Lerbinger's Role of the General Public

Dr. Otto Lerbinger (2001, p.8) has his own strategy for persuading public opinion. He claims that public relations is an entity within a larger concept, public affairs. According to Lerbinger, the goal of public affairs is, "to achieve enough power over others in society to enable an organization to forge and maintain a favorable socio-political environment" (Lerbinger, 2001, p.3). Lerbinger's theory applies to any organization, whether it be a corporation, small business, or interest group. According to Lerbinger, it is essential that in order for an organization to sway public opinion the organization must first influence those who influence public opinion (Lerbinger, 2001, p.1). The *foundation for public opinion,* according to Lerbinger, consists of three major groups: interest groups, news media, and government. Participation with these groups is vital to enabling the organization to function at an optimal level. Lerbinger believes if the organization can persuade these three cells of public opinion, the cells can in turn persuade the general public. Therefore, according to Lerbinger, public relations is the responsibility of the three cells of public opinion, not the organization. Research is still a major asset to the effectiveness of Lerbinger's strategy, but the theme of the research differs from that of the Mutual Gains Approach. The Mutual Gains Approach's research answers the question: "Who is the public?" Lerbinger (2001, p.9) suggests asking the question: "Who should know what, and when should they know it?" It is easy to see that Lerbinger's strategy significantly reduces the importance of an organization's directly addressing the general public.

Similarly to the three foundations of public opinion, Lerbinger (2001, p.8) believes that stakeholders should be addressed directly by the organization. Lerbinger defines stakeholders as those individuals who can either help or hurt an organization. Lerbinger believes when researching stakeholders it is important to review each one individually based on the following criteria:

1. Basis of relationship- Who are they and how are they involved in the issue?
2. Attitude towards the organization- Regardless of the stand on the issue, do they respect the organization?
3. Important issues of stakeholders- What other issues do they bring to the debate?
4. Stand on the issue- Will they prove to be an ally or an opponent?
5. Amount of power- How well and to what extent will each stakeholder affect public opinion?

So how does an organization get the three foundations of public opinion to support their ideas? Lerbinger suggests exceeding previous government standards. The Trojan Nuclear Plant of Portland General Electric and The Chemical Manufacturers Association (CMA) are two examples of corporations that exceeded governmental requirements to gain the favor of the three foundations of public opinion (Lerbinger, 2001, p.9). By exceeding previous regulations the Trojan Nuclear Plant and the CMA were seen as caring, responsible, and hardworking by "going the extra mile" (Lerbinger, 2001, p.10). This image was then transmitted through the media to the general public and an effective bond of trust was created with the general public and the corporations. The bond of trust was established without either corporation directly communicating with the general public.

Another strategy Lerbinger suggests in corporate operations is converting economic resources into political power. Lerbinger gives the example of a corporation gaining political support from a community by informing the local government officials about the extent to which the corporation aids the local economy.

Dr. Lerbinger's theory stresses the importance of using the government, media, and interest groups, but he does not completely dismiss the need of an organization to directly interact with the general public (Lerbinger, 2001, p.8). His conclusion is based on a 1999-2000 survey of 1087 public relations firms within the Foundation for Public Affairs. This survey gives the percentage of the firms that focus on one function within their public affairs operations. For example, the first function on the survey reads "Federal government relations (87%)"; this means that 87 percent of the 1087 public affairs firms that were surveyed have a department within their organization that specifically deals with the function of Federal government relations. The results suggest that Dr. Lerbinger's theory may be valid. The list of twenty-five functions can be reduced to four major functions dealing with government relations, media relations, interest group relations and lastly public relations (Lerbinger, 2001, p. 9). The highest eight functions coincide with government, media, and interest group relations, not public relations.

In conclusion, Lerbinger's strategy states that public relations activities are an integral part of public affairs but not nearly as important as activities pertaining to the three foundations of public opinion. It seems to follow Grunig's *two-way asymmetric* strategy of public relations because it takes the general public into consideration;

however, it does not directly interact with the general public like the *two-way symmetric strategy*.

2.2.4 The Survey in Public Relations

Kathleen O'Neil (2000, p.63) presents a strategy of how an organization can gain the trust of the general public through the three foundations of public opinion. She suggests using a survey. According to O'Neil, most organizations will conduct a survey of the public to better understand its opinion about a product or change in policy after the work has transpired. O'Neil suggests using the survey as an initial step in the public relations process.

She begins by fully explaining the profound effect that a publicly released survey can have on the general public.

> Because survey research provides information that is both new and newsworthy, it can attract the attention of journalists, policy makers, and other key opinion leaders. Such studies can also be very helpful in attaining specific marketing objectives, such as introducing new products or repositioning products and services. Properly done, a publicly released study (PRS) can be a powerful addition to the repertoire of the public affairs and public relations professional (O'Neil, 2000, p.63).

According to O'Neil, the publicly released survey is sometimes "the star of the show" (O'Neil, 2000, p.71), the centerpiece of a news conference or media event. However, O'Neil (O'Neil, 2000, p.72) suggests gaining public consensus using the survey at the beginning of an organization's research. This way, the organization will be able to find out exactly what the consumer wants most from the product. The product can then be shaped around the public's expectations. O'Neil believes by using the publicly released survey at the beginning of their project, an organization will be sending a very specific message to the public. It will position itself as caring, responsive organization and will convey an impression of being a leader.

O'Neil believes that conducting a publicly release survey will allow an organization to better understand exactly what the public wants (O'Neil, 2000, p.72). According to O'Neil's belief, it seems logical that the National Research Council (NRC) would possibly approve of O'Neil's strategy as a risk communication strategy (NRC, 1989, p.7). The NRC believes that audiences of risk communications have difficulty choosing what risk they should focus on after receiving an abundance of information from a risk communicator. The NRC concluded that a possible reason for the audience's confusion is because the communicator does not fully understand exactly what the audience considers relevant information or what the audience perceives as a risk. It seems logical that O'Neil's public released survey strategy would enable risk communicators to learn more about their audience prior to releasing information.

In conclusion, the public relations section of my literature review examined the differences between risk communication and public relations. Public relations is defined as:

> The management function, which evaluates public attitudes, identifies the policies and procedures of an individual or an organization with the public interest, and plans and executes a program of action to earn public understanding and acceptance (Cutlip, 1994, p.3).

This is most certainly not the only definition for public relations. However, each definition I researched has one aspect in common, the goal of public relations. In my review of public relations literature, I was able to conclude that unlike discrepancies that exist between experts regarding the goals of risk communications, there are no discrepancies about the goal of public relations. Public relations exist to persuade public opinion. Discrepancies among experts arise when the question of *how* public relations achieves its goals and *to whom* public relations strategies should be targeted.

I analyzed my case studies to see if my conclusion, based on the literature regarding risk communications and public relations, would be applicable in a real life situation.

2.3 Ethical Considerations

Does an organization have ethical and social responsibilities to the general public in public relations or risk communications? Is Lerbinger's theory of public affairs unethical? Do the public and the opposing side of a risk need to be addressed in order for a campaign to be deemed ethical? These questions have arisen in the review of the literature. The following sections attempt to address these ethical questions.

2.3.1 Ethics Based on Standard

According to D.T. Armentano (1991, p.102), the ethical process begins by determining an ethical principle as "right" or "wrong," "moral" or "immoral." Once the principle is defined and accepted, it becomes a standard, against which actions are then measured to determine if they are ethical. He presents the ethical principle of selflessness as such an example. People have come to accept selflessness as an ethical principle, so therefore any action not consistent with selflessness is deemed unethical, or wrong.

According to Armentano (1991, p.103), whether the question of strategies dealing with opponents and the general public are ethical depends on the standard to which they are compared. Armentano believes an organization's ethics are governed by two standards. They are utilitarianism and the rights-based theory. Utilitarianisms states that an action is morally correct if it generates the greatest good for the greatest number of people (Armentano, 1991, p.103). It is an action that generates more "net utility" for an entire society than any other possible action. The rights-based theory states that individuals are given certain rights by the United States government (Armentano, 1991, p.107). They include the right to choose and the right to speak freely. These rights should not be violated by organizations. This theory suggests creating policies that will protect individual ethical rights from possible violations by organizations.

2.3.2 Ethics Based on Mandatory Obligations

George C.S. Benson (1991, p.115) also believes that organizational ethics is based on a standard, a standard of obligation. According to Benson, a common misconception is that an organization's stakeholders are the obligation. However, Benson feels there should be more obligations for an organization than just its stakeholders' interests. He claims the organization has an obligation to its reputation, to financial solvency, to shareholders, to its customers, to its employees, to its management, to its community, to making a reliability product, to its ethnic groups, to its staff, its research and development, to its relationship with foreign countries, and to education.

Obligations and organizational ethics have a direct relationship (Benson, 1991, p.134). The more obligations that are met by the organization, the more ethical an organization becomes. Benson realizes meeting the entire list of obligations is extremely difficult and is greatly dependant upon an organization's economic state. However, he argues that certain obligations must be met at all times to be considered ethical. These mandatory obligations, according to Benson, are the organization's reputation, its activities essential to financial solvency, its employees, and its public (Benson, 1991, p.122). Obligations to the public include abiding by regulatory laws and implementing honest advertising and public relations. In conclusion, Benson believes for an organization to be ethical it must address the public with all the facts.

2.3.3 Ethics Based on Contract

Ethics today is based on two theories according to Den Uyl (1991, p.140). The first of the two theories is the social permission theory. This theory states that an organization acts as a servant to society. Society only supports the organization so that it can continue operations if it acts in the society's interests. According to Den Uyl, organizations must take into consideration the entire society with the social permission theory, not just certain populations of the society. Den Uyl believes that this theory is dominant in today's business world.

The second theory being used by organizations today, according to Den Uyl, is the individual agreement theory (Den Uyl, 1991, p.144). This theory differs drastically from the social permission theory. It states the responsibilities of an organization's owners and managers is as follows:

> -Managers have legal relationships with owners and stockholders.
>
> -Owners have only one interest and reason for hiring managers, maximize profits.
>
> -Therefore, managers would violate their legal relationships by prioritizing actions that are unrelated to profit maximization.
> (Den Uyl, 1991, p.144)

This theory instructs managers to engage in socially responsible activities after their responsibilities to the organization have been fulfilled (Den Uyl, 1991, p. 146). According to Den Uyl, the individual agreement theory is clear-cut and takes a higher degree of responsibility, which he believes is an important ethical standard. It is also a true contract, which deals with legally binding agreements between individuals. There is little vague language and abstract thought in the theory unlike the social permissions theory, according to Den Uyl. The individual agreement theory is also ethical, according to Den Uyl, because it states that the act of maximizing profits is an ethical obligation that is legally binding between managers and owners. Den Uyl urges the reader that he is not trying to create a rational for avoiding socially ethical matters (Den Uyl, 1991, p.146). He is attempting to explain that maximizing profits and ethics can and should go together. However, maximizing profits is the priority because it is part of a legal agreement between owners and managers. Keeping one's responsibility to a legal agreement, according to Den Uyl, is ethical, more ethical than socially ethical matters.

2.3.4 Ethical Questions in Risk Communications

Should risk communication merely inform the public or should it persuade public opinion? According to Professors Morgan, Fischhoff, Bostrom Lave, and Atman critics consider risk communication a designed manipulation of the truth (Morgan et al, 1992, p. 2055). The professors believe using risk communication to manipulate the truth is unethical. According to them, risk communication should present all information the public needs to assist them in making a decision about a perceived risk. Not only is persuasion unethical but also in a risk communication setting it leads to conflict and public ignorance.

The National Research Council (NRC) agrees with Morgan and his colleagues to a certain extent (NRC, 1989, p.9). Similarly to Morgan and his colleagues, the Council believes suppression of information in order to persuade is highly unethical and defeats the purpose of risk communication. However, the NRC acknowledges in some cases extreme persuasion can have an ethical foundation. They present the example of persuading the public to quit smoking.

Even though Peter Sandman does not make any explicit statements about ethics in this theory, he seems to imply a certain degree of manipulation is necessary in all forms of risk communications (Sandman, 1987, p.22). He suggests that risk communicators must work to make serious "hazards" more "outrageous," and modest "hazards" less "outrageous." He implies the communicator should alter the presentation in order to accomplish a desired degree of "outrage" from the public. Sandman sees this manipulation necessary because "the public responds more to 'outrage' than to 'hazard' " (Sandman, 1987, p. 22).

Chapter 3 - Methodology

The research method implemented in this project was the analysis of case studies to determine successful and unsuccessful strategies of risk communication and public relations. According to Robert K. Yin (1984, p.17), the case study answers the questions "how" and "why". The goal for this project was to determine effective public relations strategies that can be used to persuade the general public to accept a perceived risk. In order to identify these possible strategies I chose to analyze two specific campaigns. The first was the referendum issue of fluoridation in the Worcester public water supply. The second case was the referendum issue of fluoridation in the Wayland public water supply. Both cases deal with the same issue but had different results, which I felt might lead to an in-depth, concrete analysis of public relations and risk communications strategies. Analyzing these two cases also gave me the opportunity to explore other variables that possibly affect a public relations and risk communications campaign. I analyzed these case studies asking myself: How have these organizations shaped their campaigns and why did they either fail or succeed? Case studies, according to Robert K. Yin, focus on contemporary events and do not require control over behavioral events. This project fulfilled the criteria for which a case study is implemented. I had no control over the events that transpired in each case. I could observe the strategies only, not manipulate them. Also, each case that I analyzed occurred in modern times.

According to Susan Merriam, the first procedure of a case study is collecting data (Merriam, 1988, p.67). Earl Babbie believes that sampling should be implemented when a researcher is collecting data (Babbie, 1989, p.163). Sampling is the decision made by the researcher regarding who or what should be observed. Babbie realizes that observing everything involved in a situation is not possible, so he suggests that the researcher chooses a particular type of sampling. For my project I chose to use snowball sampling (Babbie, 1989, p.289), which requires the researcher to create an ever-increasing number of data collections. These data collections stem from a previous piece of data. For example, in the Worcester case study I met and interviewed Janice Yost, who is the chair of the Health Foundation of Central Massachusetts. From this interview I was able to obtain contact information for my next interview, Debra Moore. Debra Moore was a very active and vocal opponent of fluoridation in Worcester. My method of snowball sampling was complete when I had run out of time. Unfortunately, this is not the proper way to end snowball sampling. Susan Merriam (1988, p.125) suggests researchers conclude their sampling when documents and interviewees became scarce. When the effort to continue searching for new documents is not justified by the amount of new information each new document contained Merriam suggests ending data collection.

Susan Merriam believes that collecting data is done through three processes (Merriam, 1988, p.123). These three processes are interviews, observations, and the analysis of documents. I used two of these methods in my project. The first was interviews. My interviews were conducted either in person or on the telephone and were open-ended (See Appendix A). The interviews allowed me to collect first-hand documents used to persuade public opinion and identify other people involved in each case. An interview with Kathy Syracusa and Steven Calichman, who work in the Wayland Department of Health and were active in the fluoridation debate, is an example of one of my open-ended interviews. Through Kathy Syracusa and Steven Calichman, I was able to obtain the town's time line of major events in the debate about fluoridation. From this time line I learned that efforts were made prior to the Board of Health's order of fluoridation to educate the public about fluoride in their water supply. With that piece of information, I then had a time range of documents I needed to collect. In my interview I also asked specific questions that I had previously formulated (See Appendix A).

My second method used to collect data was the analysis of documents. The analysis of Worcester documents pertaining to fluoridation was much more complex because it had a longer history than the Wayland case. Due to time constraints I collected, according to the opponents and proponents of fluoridation in Worcester, the most popular pamphlet, as defined by the Health Foundation of Central Massachusetts and Citizens for Total Health, used by each side. I analyzed each pamphlet in order to form patterns in their scientific information citations. I wanted to see what year the information was written. Sorting the age of the information allowed me to conclude how many times Worcester citizens were exposed to the same information during the three attempts of fluoridation in 1963, 1996, and 2001. The results of each year's election was sorted, analyzed, and compared in order to conclude if the history of the issue was being affected by the multiple efforts to pass fluoridation. City Council recorders, which included the Council's orders and calendars, were also sorted so that I could analyze any changes in the council's position on fluoridation.

According to Babbie, content analysis is the analysis of any form of communication (Babbie, 1989, p.298). Babbie believes that all communications are classified. An example of a classification is a newspaper editorial being either liberal or conservative. Content analysis codes these classifications, according to Babbie, in two ways (Babbie, 1989, p.298). The first way is coding the *manifest content*, which is visible surface content. The second way is coding the *latent content*, which is content dealing with meanings and themes. For my project I used both types of content analysis. Susan Merriam believes that analyzing language also can be used to derive meaning of a document (Merriam, 1988, p.147). She suggests counting the number of times a word is used, analyzing how certain words are clustered, and recognizing dramatic language and which facts are presented by the author. Babbie concurs with Merriam and adds his suggestion that the researcher create an *observation base* (Babbie, 1989, p.301). He gives the example of a researcher trying to classify a particular novel as a love novel by counting the amount of times the word "love" is printed. According to Babbie, if the word "love" appears eighty-seven times the researcher also needs to know how many total words were in the novel. The total number of words in the novel is the *observation base* in this situation.

An example of these types of content analysis and creating an observation base in my project was the evaluation of newspaper articles. When I analyzed the *Telegram & Gazette,* which is the major periodical in the city of Worcester, I counted how many articles were presented to the public about fluoridation between May 31, 2001 and November 6, 2001. May 31, 2001 is significant because that was the day the Health Foundation announced its efforts to improve oral health in the city of Worcester with their million-dollar grant. November 6, 2001 is significant because it was the day of the election. Each article was categorized as supporting or denouncing fluoridation. I compared the number of supporting articles to the number of denouncing articles so that I could evaluate the message the public was receiving. For general news articles I used content analysis to identify any biases and what side of the debate those biases supported based on the information given by the author. I also counted the number of articles that publicized the Health Foundation of Central Massachusetts' efforts to improve oral health to conclude if the citizens of Worcester were being informed of the positive activities the foundation was conducting prior to the fluoridation debate.

This systematic evaluation of articles was also conducted on the Wayland's *Town Crier* articles. The articles I analyzed from the *Town Crier* spanned from April 14, 1998 to November 3, 1998. April 14, 1998 was the day when the Wayland Board of Health held a public forum to educate the public about fluoridation and November 3, 1998 was the day of the election. I analyzed these articles in order to make a conclusion about what was being presented to the public about fluoridation and the paper's portrayal of the efforts of the Wayland Board of Health's effort to educate the public.

There were other forms of media that presented fluoridation to the public. There are other newspapers in Wayland and Worcester; however, the *Telegram & Gazette* and *Town Crier* are the most popular in each place. Television was also used in both campaigns, but I lacked the time and resources to conduct an in-depth evaluation of their effects on the publics' opinions of fluoridation.

Chapter 4 – Analysis of Case Studies

The case studies that I have chosen to analyze in-depth were two cases of referenda on the fluoridation of the public water supply one from Worcester, Massachusetts, and the other from Wayland, Massachusetts. The referendum on whether to fluoridate the Worcester public water supply was voted down by the public in the 2001 fall elections. By contrast, three years earlier the Wayland referendum on whether to fluoridate the public water supply was passed by 58.4 percent of the voters who expressed an opinion on the issue. I analyzed these cases asking myself how this could have happened, especially considering that the voting took place just a few years apart in the same state? Were the differing results of the two referenda due to differences in strategies, or because of the different demographics in Worcester and Wayland, or due to some other events simultaneous occurring outside of the two areas? Was there any aspect of the Health Foundation of Central Massachusetts' campaign that was successful in the Worcester referendum? In attempt to answer my questions I focused on three aspects of my analysis. I analyzed the histories of the referenda in both areas, analyzed the portrayal in the local newspapers of the proponents of fluoridation in both areas, and analyzed the degree to which the proponents knew their audiences.

4.1 Persistence in Public Relations and Risk Communications

Based on my analysis of the history of the fluoridation issue in Worcester it can be concluded that persistence can be an effective strategy for public relations and risk communications. With persistence, organizations, both private and public, that have supported fluoridation in Worcester have persuaded public opinion significantly. Persistence has not allowed proponents of fluoridation to completely achieve their goals of fluoridating Worcester water, but they are certainly gaining more support with each attempt.

In my interview with Janice Yost, who is the president of the Heath Foundation of Central Massachusetts, she voiced her opinion that citizens of Worcester are stubbornly opposed to fluoridation based on previous elections in which fluoridation was voted down. The editorial staff of the Telegram & Gazette took the idea of stubbornness affecting the fluoridation debate one step further. They claimed in an October 1, 2001 article that the City Council had been opposing fluoridation for years. The outcomes of Worcester's fluoridation elections in past years certainly support Janice Yost's claims. The actions of the City Council from 1955-1996 support the Telegram & Gazette's editorial staff's claims as well.

According to the City Clerk's office, in 1955 and 1956, the issue of fluoridation was officially voted on in the City Council and was turned down. In 1963 and 1969, the issue of fluoridation was again officially voted on by the City Council and turned down. In 1971 and 1978, the Worcester Board of Health ordered fluoridation and presented it to the City Council in hopes of gaining financial support, but the City Council refused funding. Until 1996, the claims of the editorial staff at the Telegram & Gazette held true; the City Council did not support fluoridation. The fact that fluoridation had been voted down three previous times as a referendum in Worcester city elections supports Janice Yost's claim. Before 1963, the issue had never been presented as a vote for the citizens. In 1963 when the public finally voted on fluoridation, it lost by a large margin. The public yet again voted against fluoridation in 1996 and again in 2001 despite the $400,000 campaign launched by the Health Foundation of Central Massachusetts.

In my interview with Debra Moore, she commented on the past debates about fluoridation in the city of Worcester. She believes that the continuing push for fluoridation is the proponent's overwhelming persistence to get fluoridation passed. Moore admits that the legal right of the Board of Health to order fluoridation every two years is frustrating. She added that the Board of Health's prevailing is a possibility; however, she stressed that outspoken opponents of fluoridation are growing yearly and will continue to work hard. The possibility that the Board of Health will eventually achieve their goal of fluoridation is supported by the statistics of previous fluoridation votes. As stated before, prior to 1963, the issue had never been presented as a public referendum. When fluoridation had been voted on in the 1963 elections, it lost by a large margin. The referendum was turned down four to one by Worcester citizens; however, in 1996, the efforts to fluoridate Worcester water lost by a margin of only two to one. In 2001 fluoridation lost again. However, this time there were 12,906 votes against fluoridation and 9,980 votes for fluoridation. This ratio is less than the two to one margin, which resulted in the 1996 election. Based on these results it seems that Debra Moore's claim is not entirely correct. The proponent's efforts to continue to push fluoridation seem to consistently lessen the margin between those citizens that support fluoridation and those citizens that do not. There may be a growing number of those who are against fluoridation, but the numbers of fluoridation supporters, based on election results, is slowing catching up.

In 1996, the Worcester City Council's opinion of fluoridation began to reverse as well. In 1956, the council officially voted against fluoridation by a margin of five to two. According to the City Clerk's office, in 1996, the council, with a margin of seven to four, supported the city manager's "appropriate action to fluoridate the water supply of the City of Worcester". In 2001, the council made an *unofficial* vote regarding fluoridation, which resulted in a margin of ten to one supporting the action. Because this vote was unofficial by law the council did not have to publicly release the results. However, an official vote did take place after the Worcester mayor requested the council's endorsement for a fluoride referendum in the November sixth election. The council supported the fluoride referendum with a margin of nine to two. The City Council's decision in 2001 to remain private about their preference for fluoridation was evident by their unofficial vote and the council's endorsement of a public election on the matter. This seems to be a result of the council's belief that "the decision of whether or not to add fluoride to Worcester's water supply should rest with the citizens of Worcester" (Clerk Office, October 9, 2001).

The constant repetition of information seems to have been an element in the strategy of persistence for Worcester supporters of fluoridation. Citations in the information pamphlets that the public received support my claim. I was given the Health Foundation of Central Massachusetts' most frequently used information pamphlet regarding fluoridation. It is named *A Fluoride Fact Book* and is seven pages long. All the information given in the pamphlet is cited on the third to last page. I analyzed all cited information that expressed scientific knowledge about fluoride. Thirty-two percent of the information cited is from the 1950s, 1970s, and 1980s. The other 68 percent of the information is cited from the 1990s. However, 82 percent of that information cited in the 1990s was cited prior to 1996, which was the year of the most recent fluoridation referendum prior to the 2001 referendum. It can be concluded with these statistics that the citizens of Worcester were being given a repetition of information that the citizens had already been presented with in previous debates about fluoridation. There was only 8 percent of newly cited information released to Worcester citizens supporting fluoridation during the 2001 debate. In comparison 26 percent of the information that the opponents of fluoridation, the Worcester Citizens for Total Health, cited after 1996 was new and only one piece of information was cited prior to 1984.

Both Janice Yost and Debra Moore stated in their interviews that citizens of Worcester have a reputation to be set in their ways. They both expressed the difficulty in persuading the citizens of Worcester to accept information that is contrary to information communicated to them at an early age. By proponents of fluoridation persistently releasing the same information over the course of twenty years, in some cases thirty years, it became the standard information communicated to new generations of Worcester citizens. As those citizens reach the age at which they are allowed to vote legally, they base their vote on the presumption that fluoridation is beneficial to them because they have been told during their entire lives that fluoridation is beneficial. This strategy requires many years, even decades, to convince the majority of a new phenomena but as the fluoridation election results in Worcester may have shown in the past referendums, it may have work.

Debra Moore, in my interview and in an interview with the Telegram & Gazette on November 7, 2001, predicted that the proponents of fluoridation would try to pass it again in the future. In the same Telegram & Gazette article, Wayne Glazier, who is the Chairman of the Board for the Health Foundation of Central Massachusetts, stated that he doubted there would be another attempt to put the issue of fluoridation to referendum. It is uncertain whether fluoridation will be brought to a vote again, but based on the history of the issue perhaps it should. Based on the strategy of persistency if the referendum is presented once again it will either be passed or the margin will be further reduced between those that support fluoridation and those that do not.

4.2 Involving the Public Early

In some cases persistence is not necessary for success in public relations and risk communications. The 1998 fluoridation referendum in Wayland is such a case. The Wayland Board of Health was able to gain the support of Wayland citizens to fluoridate the public water supply with one referendum by a 58.4 percent victory. Their successful results seemed to have been accomplished by their efforts to involve the public early in the debate, a strategy seemingly not incorporated by the Health Foundation of Central Massachusetts.

In my interview with Steven Calichman, who is the Director of Public Health in Wayland, he stated that he believed the Department of Health was successful because they presented it as a "totally open process" to the Wayland citizens who are "intelligent people". The message that the debate of fluoridation as an "open process" was conveyed to the Wayland public even before the Board of Health ordered fluoridation. Prior to the order of Wayland fluoridation the Board of Health conducted a public information session. The Health Foundation of Central Massachusetts also held forums; however the forums were not conducted at such an early junction in the debate. Following the order Andrew Wheelock, who is the Chairman of the Board of Health, through an interview in the *Town Crier* encouraged the town to make the issue a referendum. It seems the Board of Health was following the same principles in Brian Delaney's risk communications theory, which states that those that who communicate first have a greater chance of casting an event to suit their particular needs or goals. It also seems as if the Wayland Board of Health had taken into consideration the theory of Susskind and Field who believe a successful campaign is based on an organization's ability to interact with its public directly.

The results of the referendum in Wayland seem to prove that immediate interaction with the public leads to a successful campaign and encourages the public to get involved. The election had a 75 percent voter turnout, which was much higher than Worcester's 25 percent turn out. It can be argued that Worcester had such a low turnout because the referendum took place on an off year. However, with an analysis of

Worcester's voting turnout over the past two decades it is clear that was not the only reason for the low turnout. In the 1980s, the average voter turnout in Worcester was 45 percent of the registered voters. That number dropped to 35 percent, in the 1990s, including a 30 percent turnout of registered voters in 1999. There may be alternative explanations for the low voter turnout. One possible explanation is the age of the city's population. Since 1995, the number of elderly in the city has been decreasing while the number of children under eighteen years of age, the legal voting age, has increased. Nevertheless, the city of Worcester is losing voters every year.

4.3 The Two Organizations' Portrayals in the Local Newspapers

Based on my analysis of the Worcester *Telegram & Gazette's* portrayal of the Health Foundation of Central Massachusetts, which led the debate for fluoridation in the city, it can be concluded that in order to have a successful public relations or risk communications campaign an organization should have the support of the local newspaper. The *Telegram & Gazette* is the largest newspaper in Worcester County, which consists of several towns surrounding Worcester and Worcester itself. Worcester County, according to the 2001 federal census has a population of 750,963. Of those 750,963 people who live in Worcester County it is estimated that the *Telegram & Gazette* reaches 300,000 of them weekly. It is clear to see the popularity of the *Telegram & Gazette* and the possible impact the newspaper would have on its readers, especially in a controversial issue like fluoridation.

Yost voiced her opinion during my interview that the *Telegram & Gazette* was biased towards the foundation. The *Telegram & Gazette* seemed to supported fluoridation in the city of Worcester. In the opinion section of the newspaper, the

Telegram & Gazette's editorial staff as a whole wrote two articles publicizing the their support for fluoridation under the heading "In Our Opinion". One article was in the August 24 2001 issue and the second was in the October 1, 2001 issue. The October 1, 2001 article supported fluoridation and pleaded with the City Council to support fluoridation when they were scheduled to meet on October 9, 2001. Neither article gave an opinion regarding the Health Foundation of Central Massachusetts.

The *Telegram & Gazette* seemed to support fluoridation strongly based on the two articles placed in the opinion section, but did they support the Health Foundation of Central Massachusetts? My analysis of the paper leads me to believe that the newspaper did not support the foundation. A leading front-page article was placed in the May 31st issue of the *Telegram & Gazette* highlighting the foundation's million-dollar grant, which the foundation declared would be used to improve oral health in the Worcester area. The foundation would accomplish their goal, according to the article, through several programs including "a fluoride education campaign, the recruitment of dentists to the area, school-based prevention and screening programs, greater application of dental sealants, and regulatory changes that encourage more dentists to participate in state-sponsored dental insurance programs". The major component of the program, according to the article was the "recruiting of about 100 dentists and hygienists to volunteer at the renovated dental clinic at QCC [Quinsigamond Community College]".

From the leading front-page news in the May 31, 2001 issue until the November 6, 2001 issue, the day of the election, only two articles were presented to the public about the efforts of the Health Foundation of Central Massachusetts. One of those was not technically an article. It was a picture of a child receiving dental care at the

Quinsigamond Community College dental clinic. Under the photo, which was placed within the local section, not the leading front-page like the May 31, 2001 article, was a caption describing the scene. In that caption there was no mention of the Health Foundation of Central Massachusetts. The second article was in the opinion section of the *Telegram & Gazette* commending the foundation on its work to improve oral health in the Worcester area. It was six paragraphs long with no pictures, again presumably not the same stature given to the May 31, 2001 article; however, the article did express the author's concern that the "issue certainly deserves far greater attention than it has received." Analyzing the number of articles presented to the public about the Health Foundation of Central Massachusetts is an example of manifest content analysis.

After analyzing the paper for its content I interviewed Jay Wahearley, who is the editor for the *Telegram & Gazette's* city reporters. His claim was that the newspaper had tried to have an equal number of articles for both sides of the fluoridation debate. After my interview with Jay Wahearley I counted the number of articles in the *Telegram & Gazette* that seemed to support the opponents of fluoridation during the same time span, May 31, 2001 to November 6, 2001, based on the information given in the articles by the authors. My analysis did not support Jay Wahearley's claim.

First, there were three articles written in the May 31, 2001, June 5, 2001, and June 6, 2001 issues by John J. Monahan, which seemed to be biased and an attempt to discredit the Health Foundation of Central Massachusetts. These articles, also, seemed to be placed in areas of the newspaper where they would be hard to miss by the readers. Two of the articles were placed in the "Local" section of the *Telegram & Gazette*, one of which was on the front-page of the "Local" section. The June 5, 2001 article was placed on the leading front-page of the *Telegram & Gazette*. An example of the biases towards the Foundation deals with campaign funding. In every article written by John J. Monahan there was a mention of the Foundation's million-dollar grant; however there was never any mention of the amount of funding that the opponents of fluoridation used in their campaign. It was unanimously agreed upon by both sides during interviews that the Worcester citizens dislike big government. It seems that Monahan continually mentioned the grant in order to portray the Foundation as a big government or big business type of organization. The analysis of Monahan's articles is an example of latent content analysis.

Secondly, in the October 15, 2001 and 16, 2001 issues of the *Telegram & Gazette's* "Local" section there were two advertisements placed by the Health Foundation of Central Massachusetts. Both advertisements were identical and were used to inform Worcester citizens of a fluoride educational forum, which would take place on October 16, 2001 and sponsored by the Foundation. The *Telegram & Gazette* after the forum on October 16, 2001 did not place a specific article in the paper about the forum. There was mention of the forum in an October 17, 2001 article written by John J. Monahan. The title of the article made no mention of the foundation's forum; it read, "Fluoridation debate agenda remains debatable". The article spanned the entire width of the third page of the "Local" section and was divided into six columns. Three of those columns described the forum. The other three columns were used to announce a debate that the opponents of fluoridation would be sponsoring on October 20, 2001. The article also discussed the invitation to the debate that was given by opponents of fluoridation to the Health Foundation of Central Massachusetts. In the article, Janice Yost claimed that it would be difficult to find speakers supporting fluoridation because she had received the invitation only a week before. Debra Moore, the leader of the opponents of fluoridation, claimed the foundation had known about the debate months ago.

In the end the opponents held their debate; however, the foundation was not present. In an October 22, 2001 article by Richard Nangle, The *Telegram & Gazette* reported the debate. The article made the front-page of the "Local" section and included a picture. The title read, "Fluoride opponents debate videotape" with a subtitle reading, "Proponents absent at forum". The videotape that the opponents of fluoridation debated was that of the Health Foundation of Central Massachusetts' forum on October 16, 2001. It seems the *Telegram & Gazette,* through their portrayal of the two sides' forums, aimed to discredit the Health Foundation of Central Massachusetts.

In the Wayland referendum to fluoridate the town's water supply, the Board of Health seemed to have the support of the *Town Crier.* The newspaper, which is released weekly to the public, highlighted the Board of Health's efforts to get the public involved early in a July 9, 1998 article. Throughout the fluoridation debate, the paper continually mentioned the Board of Health's information session prior to the board's order for fluoridation. Unlike in Worcester, Wayland's local newspaper reported on the positive actions of the fluoridation proponents.

In terms of the fluoridation debate itself, the Wayland Town Crier seemed to remain neutral. The paper had received such an abundance of letters to the editor that the paper had to issue a statement. The statement was in the September 17, 1998 issue (Town Crier, 1998, p.9). It announced a change in the *Town Crier's* policy about letters to the editor. There was such a large number of letters being submitted to the paper that the *Town Crier* asked the people of Wayland to submit letters of five hundred words, or less, and to understand that some letters would not be published. Even though there was such an abundance of letters to choose from for each edition, the number of letters that supported fluoridation almost equaled the number of letters that did not support fluoridation, twenty-three letters not supporting fluoridation to twenty-one letters for fluoridation.

In my analysis of the *Telegram & Gazette* and the *Town Crier's* portrayal of the proponents of fluoridation, it seems that in order to have a successful public relations or risk communications campaign, an organization should have the support of the popular media. The media should support the organization's cause and portray the organization itself in a positive light.

4.4 Knowing the Audience

A key component to a successful public relations or risk communications campaign is that an organization should know their audience. Many public relations and risk communications experts suggest this strategy, such as the National Research Council (1989, p.9), Peter Sandman (1987, p.22), and Susskind and Field (1996, p.116). Knowing the audience was a difficult task for the proponents of fluoridation in Worcester and Wayland. However, it was easier for the proponents of Wayland. I make this claim based on two variables, voter turnout and diversity of the population.

In Wayland, according to the Town Clerk, the 1998 election had a 73 percent voter turnout of registered voters, which consists of 62 percent of their total population. In all there were 5,993 votes placed in the 1998 election on the fluoridation referendum. Of those 5,993 votes, there were only 239 blank votes (4 percent), according to the Town

Clerk. The proponents of fluoridation in Wayland had a very good idea who to target with their campaign seeing the town is not very diversified. The town of Wayland, according to the 2000 federal government census, has a population composed of 94 percent white citizens. Eighty-three percent of the Wayland population is composed of white-collar workers.

In Worcester there seemed to be a completely different situation. Janice Yost had stated in her interview that Worcester has one of the highest percentages of Hispanics and elderly citizens of the surrounding cities. According to the 2000 federal government census, 15.1 percent of Worcester's population is Hispanic and 38.8 percent is older than sixty years old. The 2001 election marked the first year in which the ballot would be in English as well as in Spanish. It seems as if the Health Foundation of Central Massachusetts' campaign was mostly targeted to Hispanics and the elderly based on these statistics. It seems the city of Worcester was also targeting Hispanics.

My analysis of the Foundation's advertisements in the *Telegram & Gazette* and the Foundation's pamphlets led me to the conclusion that the Foundation's campaign was targeted towards Hispanics and the elderly. In the *Telegram & Gazette* between May 31, 2001 and the day of the election the Health Foundation of Central Massachusetts placed thirteen advertisements. Of those advertisements seven were directed towards the elderly with the slogan, "Fluoride Isn't Just for Kids", above a picture of an elderly couple. Four of the seven advertisements directed towards the elderly spanned the entire page. It seems, based on the advertisements the Health Foundation of Central Massachusetts placed in the *Telegram & Gazette*, the Foundation was targeting the elderly, probably under the assumption they would be more likely to vote and because they were 38.8

percent of the population. I attempted to contact the American Association of Retired Persons (AARP) to discover if the Association had made an attempt to target its audience about the fluoridation referendum. I did not hear back from the organization. If the organization had made an attempt to inform the elderly of the referendum in Worcester, then it would seem that the Foundation's attempts to target the elderly was well supported.

Unfortunately, I was unable to tabulate the percentage of elders that voted in the 2001 election to analyze if the Foundation's assumptions were correct. In order to obtain the percentage I would need to file through each of the fifty voting precincts of the city of Worcester taking note of each person who had voted in the 2001 election. Then I would have had to take the list of those who had voted and find their age in the two-volume Worcester residence census. This process would have been a seven-week project within itself. However, it would have been interesting to know if the efforts of the Health Foundation of Central Massachusetts to target the elderly were effective.

The Health Foundation of Central Massachusetts also seemed to assume the Hispanic population of Worcester would have a strong turnout in the election. Of the three pamphlets I collected from the Foundation about fluoridation one was double sided. On one side was English; on the other side was the same message except in Spanish. Unfortunately, to calculate the percentage of Hispanics that voted in the 2001 election I would need to follow the same lengthy procedure as to calculate the percentage of elderly that voted in the election.

It seems voter turnout and diversity were the major elements that separated the two campaigns in Worcester and Wayland. The Wayland Board of Health had a better understanding of its audience because of the town's lack of diversity and its high voter turnout. By comparison, the Health Foundation of Central Massachusetts had a greater degree of difficulty knowing their audience. The Foundation was far less certain who would be voting because of Worcester's low voter turnout and high level of diversity.

A major intangible that affected the referendum in Worcester and not Wayland was the events of September 11, 2001 and the release of anthrax in the country. Both Janice Yost and Debra Moore believed the terrorist attacks of September 11, 2001 had an effect on the fluoridation referendum. Janice Yost felt it had a large impact on people's mindset about chemicals. She explained that the attacks and the release of anthrax discouraged Worcester citizens from supporting fluoridation out of fear. Debra Moore agreed with Yost's claim, but added that the events aided the opponents of fluoridation only slightly.

4.5 Relating Findings to the Theories

Based on Regina's Lundgren's three categories of risk communications, fluoridation should be communicated through *care communications* because the issue deals with a health and safety risk. Also, the issue is well supported by both sides of the debate, the proponents and opponents, with scientific evidence. According to Lundgren's assessment of the applicability of popular risk communications strategies (Table 1), the Three Challenge Approach should have been the most successful strategy to persuade the public to support fluoridation.

Lundgren's assumption based on her tabulation of the applicability of popular risk communication strategies is correct based on my case study. The Wayland Board of Health was able to accomplish two of those challenges. They overcame the "information challenge" by sending letters to parents and residents and holding informational forums and debates educating the people of Wayland about the benefits of fluoridation. They overcame the "process challenge" by getting the people of Wayland involved. They allowed citizens to voice their concerns at their two forums and the Board of Health was present at all debates. The high voter turnout and minimum amount of blank votes on the issue reflect the citizens' involvement. I cannot be certain if the Wayland Board of Health had communicated effectively and clearly, the third challenge of the Three Challenge Approach to risk communications, because of limited time to conduct meaningful focus groups in Wayland to analyze the public's opinion of the Board's campaign.

Brian Delaney's theory of risk communication is valid in real life situations. When an organization communicates first they can cast an event to suit their particular needs or goals. The Wayland Board of Health created a communication link with the public even before the debate of fluoridation began and before they officially ordered fluoride to be added to the town's water supply. Communicating early seems to display the organization's confidence in their beliefs.

Of Grunig's four strategies of public relations, the *two-way symmetric* strategy is most effective in this situation. The Wayland Board of Health was able to communicate directly with the citizens in order to educate them about fluoridation. Also, the Board knew their audience very well. They had a much better idea of who would be voting and their background because of the town's high voter turnout and its lack of diversity. By comparison, the Health Foundation of Central Massachusetts was unable to definitively identify its audience: voting citizens, because of Worcester's high level of diversity and low voter turnout.

Dr. Otto Lerbinger's theory of communicating to the public through the three foundations of public opinion is an effective way of persuasion. For Lerbinger's theory to be effective, it is important that the organization is seen in a positive light. It is certainly helpful if the organization's cause is portrayed positively to the public, but not essential. The Health Foundation of Central Massachusetts had the support of the *Telegram & Gazette* on the issue of fluoridation, but the paper did not support the foundation itself. The Wayland Town Crier was neutral in the debate of fluoridation but they highlighted the efforts of the Board of Health to educate and involve the citizens of Wayland.

Susskind and Field's suggestion to avoid s*tonewalling*, *whitewashing*, *smoke screening*, *presenting a false front*, *blocking and blaming*, and *slash and burning* are valid. The Wayland Board of Health did not prioritize themselves with the opponents of fluoridation. They acknowledged the concerns of the opponents and addressed each one, as the Mutual Gains Approach suggests. Beside that interaction with the opposition, the Board focused on informing the public.

In terms of ethics, the Wayland board of Health addressed the citizens concerns of their individual rights by releasing information about filtration systems. There efforts support the effectiveness of the rights based theory. In Worcester, the Health Foundation focused on the utilitarianism theory of ethics, which states an action is morally correct if it generates the greatest good for the greatest number of people.

Lastly, in some cases intangibles make it almost impossible to persuade public opinion. This was evident in the Worcester campaign for fluoridation. The city had such a long history of opposing fluoridation and an overwhelming mentality to oppose big government, based on my interviews with the campaigns' leaders, it was clear from the beginning the Health Foundation of Central Massachusetts would most likely fail. The terrorist attacks on September 11, 2001 also affected the Health Foundation's campaign.

Chapter 5 -Conclusions

Based on my review on the literature and analysis of real life situations I make the following conclusions. First, as seen in the history of the fluoridation referendum in Worcester, persistence is an effective strategy to gain public support. It is effective because it can recreate, over time, a new public mental model.

Secondly, for an effective campaign to persuade public opinion, the organization attempting the persuasion needs to be portrayed positively by the local newspapers. It is not essential that the newspaper supports the organization's stance, but it must support the organization itself.

Lastly, as recommended by many public relations and risk communications experts, the organization attempted to persuade the public to accept a perceived risk must know its audience.

Glossary

Autonomous object: a mental object with an explicit representation of state.

"Hazard": The degree of a risk based on expert analysis of scientific data.

"Outrage": The degree of a risk based on public sentiment.

Knowledge challenge: The difficulty of correctly informing the public about a perceived risk.

Process challenge: The challenge of involving the public in the risk management process.

Communications skills challenge: The challenge of effectively and clearly communicating to the public the results of the analysis of a perceived risk.

Stonewalling: The legal precaution of keeping quiet in order to avoid incriminating oneself.

Whitewashing: An attempt to minimize the effects of one's actions or to downplay an opponent's worries.

Smoke screening: The act of creating a diversion or a mediocre effort to either hide or manage a risk.

False fronting: An organization's attempt to take part in a conflict while under a false claim.

Block and blame: The act of distancing oneself from a problem and blaming someone else.

Slash and burn: An aggressive attack on one's opponent or critics.

Appendix A

For my analysis I interviewed the following people:

- Janice Yost: President of the Health Foundation of Central Massachusetts.
- Debra Moore: Leader of the fluoridation opponent group in Worcester known as the Citizens for Total Health.
- Jay Wahearley: *Telegram & Gazette* editor for the Worcester city reporters.
- Susan Mullronney: *Telegram & Gazette* head of letters to the editor.
- Steven Calichman: Director of Public Health in Wayland.
- Kathy Syracusa: Employee of Wayland's Department of Health.

I began each interview with the following questions:

1. Why do you feel fluoridation was either voted for or against in your area?
2. What do you feel the proponents did well in their campaign? What do you feel the opponents did well?
3. Do you feel any intangibles were involved in your campaign? If so what were they?

Appendix B

An Interactive Qualifying Project (IQP) is defined as a project that "challenges students to identify, investigate, and report on a self-selected topic examining how science or technology interacts with societal structures and values." (WPI Undergraduate Catalogue, 2001, p.37). My project fulfills the requirements for an IQP. I identified my case study, the comparison between the Worcester and Wayland fluoridation referenda, and investigated it. This topic was self-selected and required me to research the scientific debate surrounding fluoridation and the structures used to persuade public opinion. My project also includes a discussion of ethical considerations involved in public relations and risk communications.

In completing this project and my ID 2050 course I have a better understanding of social science. I have learned how to conduct interviews, how to collect data, how to relate material to form an argument, and how to condense my findings into clear conclusions. I have a better understanding of how to be precise in my writings and ultimately a better understanding of myself.

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